High and Low Applicatives of Unaccusatives: Dependent Case and the Phase

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The principal objective of this article is to establish a direct relationship between the structural height of the base position of the applied argument and the case and promotion-to-subject patterns observed in applicative constructions, with particular reference to applicatives of unaccusatives. The article achieves this through an approach exploiting dependent case, with the domains relevant for dependent case assignment being identified as phases, defined as (a) complete predicate-argument structures and (b) propositions. By making argument structure a defining ingredient of the delineation of phases, the article distills precise and accurate predictions about the interaction between the base-generation site of the applied object and the case patterns of unaccusative constructions featuring such an object, improving on the efficacy of previous accounts. In the process, the article reexamines the syntactic status of constituents located on the edge of a phase.

Keywords: applicative, unaccusative, dependent case, phase, edge

1 Introduction

1.1 Applicatives and Transitivity

The applicative construction has a wide range of applications, both with regard to the kinds of arguments that can be applied objects (bene/malefactive, locative, instrumental, comitative, associative) and in terms of the transitivity of the verb. Applicativization can take a transitive verb as its input and deliver a ditransitive output, but in many languages it can also be based on intransitive verbs.

While transitive and unergative verbs participate readily in the syntax of applicatives, applicatives based on unaccusative verbs are more sparsely represented. Indeed, Baker (1988), who treats applicative formation in terms of preposition incorporation, postulates his Case Frame Preservation Principle (1) in part to expressly rule out the formation of applicatives based on unaccusative verbs: P-incorporation cannot provide the base verb with the capacity to assign case to the applied object if the verb's case frame is such that it cannot assign case on its own (as is true of an unaccusative verb).

(1) *Case Frame Preservation Principle*
A complex X^0 of category A in a given language can have at most the maximal Case-assigning properties allowed to a morphologically simple item of category A in that language. (Baker 1988:122)

However, applicatives of unaccusatives do exist. Baker (2012, 2014) presents relevant facts from Amharic (a Semitic language with nominative-accusative alignment) and Shipibo (a Panoan canonical ergative language), and Deal (2019) the ones for Nez Perce (a Sahaptian tripartite system with ergative, nominative, and accusative case and nominative-accusative agreement). Other languages reported to allow applicatives of unaccusatives include Haka Lai (Tibeto-Burman; Peterson 1999), Halkomelem (Salish; Gerdts 1988), Niuean (Austronesian; Massam 2006) (though its use of causative morphology in applicatives of unaccusatives makes Niuean a controversial case; see Deal 2019:410), and Sesotho (Bantu; Machobane 1989, see footnote 6 below).

The principal objective of this article is to show that it is advantageous to streamline and simplify the extant approaches to applicatives of unaccusatives (in particular, those presented by Baker (2014) and Deal (2019)) by establishing a direct relation between the structural height of the base position of the applied object and the morphosyntax of case and promotion to subject.

1.2 High and Low Applicatives

In influential work on the syntax of applicatives, Pylkkänen (2008) proposes that when the applied object and the original theme are understood to be in a semantic (typically possessive) relationship (as in *John gave Mary a book*, where Mary comes to have a book), the two objects are directly related by the functional head Appl, which in this case is merged low, inside the VP (see (2a)). By contrast, applicatives involving unergative verbs (which have no original theme to which the applied object can be linked by a low Appl head), as well as transitive-based applicatives in which there is no semantic relation between the two objects, have a syntax in which the Appl head is merged high, outside VP (2b), and relates the applied object to a projection of the verb (in the applicative equivalent of English sentences of the type *John sang (a song)/ran (a marathon)/ cried (a river) for Mary*).

(2) a. Low applicative: [$_{VP}$ V [$_{ApplP}$ APPLIED OBJECT [$_{Appl'}$ Appl [THEME]]]]
    b. High applicative: [$_{ApplP}$ APPLIED OBJECT [$_{Appl'}$ Appl [$_{VP}$ V (THEME)]]]

Pylkkänen's (2008) distinction between low and high ApplP has met with criticism in the literature, especially in Georgala, Paul, and Whitman 2008 and Georgala 2012:chap. 2, where it is argued that the projection involved in the licensing of an applied argument is uniformly above VP. Whereas in high applicatives the applied object originates in the specifier of this ApplP directly, Georgala, Paul, and Whitman (2008) and Georgala (2012) postulate a syntactic derivation for low applicatives wherein the applied object starts out within the VP and raises to the athematic specifier position of the VP-external ApplP for licensing purposes. For the discussion in this article, it will turn out not to matter whether the applied object, in low applicatives, is base-generated in the specifier of an ApplP inside VP (as in Pylkkänen 2008) or is raised from a VP-

internal position into the specifier of an ApplP located outside VP (as in Georgala 2012); what matters for present purposes is that only in high applicative constructions is the applied object externally merged in a position external to the VP. It is in this sense that the high vs. low applicative distinction should be understood in the context of this article. In the trees presented later on, I will adopt Pylkkänen's analysis for presentational simplicity; but the analysis can readily be recast in "raising Appl" terms.

While unergatives (lacking a theme argument) are only able to partake in high applicative constructions, unaccusative verbs should in principle be amenable to high as well as low applicatives. This is indeed the case. But the syntactic derivations and case patterns of applicatives of unaccusatives are not uniform. The literature to date has not related these syntactic/case differences directly to the height of the base position of the applied object. I argue here that doing so opens up an explanatory window on the syntax and case patterns observed in applicatives of unaccusatives.

1.3 The Structure of the Article

Section 2 reviews two prominent previous analyses of applicatives of unaccusatives (Baker 2014, Deal 2019) and arrives at the novel generalization that the structural height of the base position of the applied object directly influences the availability and syntactic behavior of applicativization based on unaccusative verbs. Section 3 develops the definition of the phase and the perspective on phasal Spell-Out and case that section 4 subsequently applies to the facts of applicatives of unaccusatives documented earlier in the article. In closing, section 5 places the article's main findings in the wider context of language variation under applicativization.

2 Two Previous Analyses of Applicatives of Unaccusatives

2.1 Baker (2014) on Shipibo

The central focus of Baker's (2014) analysis of applicatives of unaccusatives is on the facts of Shipibo (also called Shipibo-Konibo), a Panoan ergative-absolutive language spoken in Peru. Shipibo has morphologically explicit applicative constructions, marked by *-xon* (affective—usually benefactive but sometimes malefactive), *-(V)naan/-(V)n* (malefactive), and *-kin(i)n* (associative). With the exception of the dedicated malefactive marker *-(V)naan/-(V)n*, these applicative morphemes are not picky with respect to the transitivity of their host. Applicatives of both unergatives and unaccusatives are possible. The latter come in two different types.

The examples in (3) illustrate one type of applicative of unaccusatives in Shipibo, featuring the applicative marker *-xon.*[1]

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[1] Regarding examples with *-kin* and *-(V)naan/-(V)n*, Valenzuela (2010:sec. 3.1) notes that the latter (i.e., the dedicated malefactive applicative marker) is unable to combine with intransitive verbs of any kind (unergative and unaccusative alike). Since I focus here on applicatives of unaccusatives, I will not take up the malefactive applicative marker *-(V)naan/-(V)n*. Like Baker (2014), I will confine my exemplification to *-xon.*

(3) a. Bimi-n-ra   Rosa   joshin-xon-ke.
        fruit-ERG-PRT Rosa(ABS) ripen-APPL-PRF
        'The fruit ripened for Rosa.'

    b. Nato yapa-n-ra   Maria   payo-xon-ke.
        this fish-ERG-PRT Maria(ABS) spoil-APPL-PRF
        'This fish spoiled on Maria.'
        (Baker 2014:346, (9b); 366, (45b))

Shipibo also has a class of verbs (including *keen* 'want' and *shinan* 'forget' in (4)[2]), which are intrinsically "dyadic unaccusatives" of Belletti and Rizzi's (1988) type: verbs that have two θ-roles, neither of which is an external one (agent/cause). These inherently unaccusative applicatives do not feature applicative morphology: Baker assumes that they host a silent applicative morpheme.

(4) a. Jose-ra   yapa   keen-ai.
        José-PRT(ABS) fish(ABS) want-IMPF
        'José wants some fish.'

    b. Jose-ra   nokon bake   shinan-beno-ke.
        José-PRT(ABS) my.GEN child(ABS) think-forget-PRF
        'José forgot my child.'
        (Baker 2014:347, (11); 361, (34b))

    The applicatives of the unaccusatives in (3) are different from the ones in (4) when it comes to (a) the question of which argument is picked to become the subject of the clause and (b) the assignment of case. While (3) involves promotion of the internal argument (the theme) to subject and an ergative-absolutive case pattern, (4) evinces promotion of the applied argument (the recipient or experiencer) to subject and a double absolutive case pattern.[3]

    Baker (2014) presents an analysis of the Shipibo facts in (3)–(4) couched in a phase-based dependent case approach. At the heart of it is the hypothesis (originally due to Marantz 1991) that case is not assigned by designated heads in the syntactic structure but distributed dependent on the number of case-needy noun phrases in a particular local domain, on the basis of their hierarchical relations. For nominative-accusative languages, Baker posits (5a) (cf. Baker and Vinokurova 2010); for ergative-absolutive systems, he proposes (5b).

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[2] In connection with (4b), note Dutch (i), a periphrastic perfect of *vergeten* 'forget' featuring selection of the auxiliary *zijn* 'be', typical of unaccusative constructions, rather than the auxiliary *hebben* 'have' of transitives.

  (i) Jan is mijn naam vergeten.
    Jan is my   name forgotten
    'Jan has forgotten my name.'

[3] Baker (2014:347) notes that "Shipibo also has a desiderative construction in which the verb bears the suffix *-kas* 'want', and the subject of a transitive verb is described as being optionally absolutive or ergative"; see (i). Baker plausibly analyzes this mix of (3) and (4) with an appeal to "restructuring." (i) will not be relevant in this article.

  (i) E-a-ra/E-n-ra   yapa   pi-kas-ai.
    I-ABS-PRT/I-ERG-PRT fish(ABS) eat-want-IMPF
    'I want to eat fish.'

(5) a. If there are two distinct argumental NPs in the same phase such that NP_1 c-commands NP_2, then value the case feature of NP_2 as accusative unless NP_1 has already been marked for case.
(Baker and Vinokurova 2010:595, via Baker 2014:343, (4))

   b. If there are two distinct argumental NPs in the same phase such that NP_1 c-commands NP_2, then value the case feature of NP_1 as ergative unless NP_2 has already been marked for case.
(Baker 2014:343, (5))

The dependent case rules in (5) operate at Spell-Out, and Spell-Out is cyclic, phase by phase. So at each phase level, (5) is consulted to see if it is operative. Baker (2014:356–357) assumes that "ergative and accusative are keyed to the Spell-Out of TP only." This is tantamount to saying that dependent case is not assigned in the lower phase of the clause, which means that (5) kicks in only in the TP/CP portion of the clause (the higher phase). For Shipibo, an ergative language, we need (5b).

In (4), the applied object is promoted to subject. This does not establish a new c-command relation between the applied object and the theme: in the higher phase of the clause, the applied object still asymmetrically c-commands the theme, just as it did in the lower phase. Baker (2014: 355) assumes that for the purposes of the dependent case rules in (5) "only new c-command relations are considered at later Spell-Outs": whenever the c-command relation between the applied object and the theme remains unaltered, no dependent case is assigned in the higher phase. Both NPs in the structure then get the unmarked case (ABS in ergative systems), which is indeed what we find in (4).[4]

In (3), it is the theme that is promoted to subject, not the applied object. In the lower phase, the theme is c-commanded by the applied object. But after it has raised into the higher phase, a new c-command relation is created between the applied object and the theme. Even though the lower phase (the one in which the applied object c-commands the theme in its base position) has already been spelled out, Baker assumes that the contents of the lower phase (including the applied object) remain visible to material in the higher phase in Shipibo: the lower phase of the Shipibo clause is what Baker (2014:355) calls a "soft" phase. In the higher phase, the new c-command relation established between the raised theme and the applied object is taken into consideration by the dependent case rule in (5b), which concludes that the theme (the c-commander in the higher phase) is to be assigned the dependent case (ergative) (with the applied object getting unmarked absolutive case).[5]

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[4] When experiencer verb constructions of the type in (4) are applicativized (so that there are now three arguments: a high applied object, an experiencer, and a theme), the experiencer is assigned dependent ergative case (Baker 2014: 368).

[5] Baker (2014:367n22) is cognizant of the fact that movement of the theme out of the lower phase (vP for him) should obey the Phase Impenetrability Condition and should hence proceed via the edge of the lower phase. With the theme adjoined to vP, the theme comes to c-command the applied object within the lower phase. This does not, however, lead to activation of (5) at the point where the lower phase is spelled out: the vP-adjoined theme is not spelled out with the rest of the phase. It is only in the higher phase that (5) kicks into action.

Why is it the theme that is promoted to subject in (3) whereas in (4) the higher of the two NPs in the lower phase (the applied argument) gets this treatment? According to Baker, this is because the applied object in (3) is contained in a PP, whereas in (4) it is an NP. By hypothesis, PPs cannot satisfy the EPP (see Landau 2007); and as Shipibo is not a P-stranding language, extraction of the applied object from the PP in Spec,ApplP is impossible as well. The theme *is* eligible for promotion to subject: moving the theme past the applied object in Spec,ApplP is possible given the hypothesis that the two are categorially distinct (NP vs. PP) and do not interfere with one another.

Baker (2014) borrows the PP hypothesis from his own (2012) analysis of Amharic, a Semitic nominative-accusative language that has applicatives of unaccusatives with promotion of the theme, as shown in (6) (Amharic features no explicit applicative morphology).

(6) a. Aster-in   zəməd   mot-at.
       Aster-ACC relative(NOM) die.3MS-3FO
       'Aster's relative died on her.'
    b. Ləmma-n gənzəb   t'əff-a-w.
       Lemma-ACC money(NOM) lose-3MS-3MO
       'Lemma lost money.'
       (Baker 2012:266, (25); 269, (31))

But for the idea that the applied object is contained in a PP, no clear independent support is forthcoming in Amharic: the applied object in (6) is assigned structural accusative case and controls object agreement with the verb, thus behaving in all respects like a regular object NP. In Shipibo, for which Baker also has to make the P-head supposedly introducing the applied object inert to the case system, there is likewise "a curious shortage of independent evidence for the proposed PP structure" (as Deal (2019:401) puts it). And for Nez Perce, which has applicatives of unaccusatives with theme promotion as well, Deal (2019:405–407) argues that her analysis of the facts of possessor raising militates on syntactic grounds against postulating a PP enveloping the applied object.[6]

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[6] Sesotho, a Bantu language spoken in southern Africa (not featured in Baker 2014 or Deal 2019), partially comes to Baker's (2012, 2014) rescue in providing morphological support for the PP status of the applied object. For Sesotho *locative* applicatives of unaccusatives, illustrated in (i), Machobane (1989:50n1) argues explicitly, on the basis of their formal properties, that their locative-marked applied arguments are PPs. As expected, it is the theme, not the applied object, that undergoes promotion to subject in these sentences. But Sesotho *benefactive* applicatives of unaccusatives are usually ungrammatical unless rescued by passivization, with promotion of the beneficiary to subject and demotion of the theme, or by object cliticization of the beneficiary, with the theme as the subject (see Machobane 1989:65, 81). So in benefactive applicatives, the applied object, exhibiting explicitly NP-like behavior, is clearly not PP-contained.

(i) a. Baeti   ba-fihl-ets-e   moreneng.
       visitors AGR-arrive-APPL chief.LOC
       'The visitors have arrived at the chief's place.'
    b. Lintja li-hol-el-a   serobeng.
       dogs   AGR-grow-APPL barn.LOC
       'The dogs are growing up in the barn.'
       (Machobane 1989:60, 77)

2.2 Deal (2019) on Nez Perce

Like Shipibo, Nez Perce (a Sahaptian language with a tripartite case system and a nominative-accusative agreement pattern) has applicatives of unaccusatives in which the theme is promoted to subject, across the applied object. As in the Shipibo examples in (3), the theme of Nez Perce applicatives of unaccusatives gets ergative case. The fact that in (7a–b) the pronominal applied object can be coreferential with the possessor of the ergative theme is proof that the latter, even when it occurs in clause-final position (as in (7a)), raises to an A-position that asymmetrically c-commands the applied object. In an interesting twist not seen in Shipibo, the Nez Perce example in (7c) shows that the possessor of the applied object can be raised to accusative object status, with the possessum (the applied object whose possessor was advanced to object) then taking (unmarked) nominative case.[7]

(7) a. 'ip-ne   pa-pay-noo-ya   [Angel-nim sik'em-nim].
3SG-ACC 3/3-come-APPL-REM.PST Angel-GEN horse-ERG
'Angel's horse came to her.'

b. [Harold-nim k'olalk'olal-nim] pee-'leese-nuu-ye   *pro*.
Harold-GEN bell-ERG   3/3-make.noise-APPL-REM.PAST 3SG
'Harold's bell made noise at him.'
[TP Spec [T′ T [vP Spec [ApplP APPLIED OBJECT [Appl′ Appl [VP V THEME]]]]]]

c. Ko-nim ha-'ayato-na   hi-nees-'ileese-nuu-ey'-se   pi'amkin.
DEM-ERG PL-woman-ACC 3SUBJ-O.PL-make.noise-APPL-μ-IMPF meeting.NOM
'That person is making noise at the ladies' meeting.'
[TP Spec [T′ T [vP Spec [μP POSS [μ′ μ [ApplP APPLIED OBJECT [Appl′ Appl [VP V THEME]]]]]]]]

(Deal 2019:401, 406)

Examples of the type in (7c) show not only that possessor raising is possible from the applied object but also that promotion of the theme (*ko-nim*) to ergative subject can cross two noun phrases, the applied object and the raised possessor. The former is problematic for Baker's (2014) PP hypothesis, in view of the fact that Nez Perce allows no subextraction from PPs; the latter indicates that an analysis of the theme promotion facts in "interventionist" terms (with an appeal to some form of Relativized Minimality) is unlikely to pay off.

Deal's (2019) analysis eschews both the postulation of a silent P and (defective) intervention (on this, see p. 409), and instead capitalizes on the idea that links of a movement chain must not

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[7] Two small notes on the Nez Perce examples: (a) the verb glossed as 'make.noise' is demonstrably unaccusative in the language (see Deal 2019 and references cited there); (b) the morpheme -*ey'* in (7c) is the spell-out of the functional head (labeled μ by Deal) whose specifier position is occupied by the raised possessor. Deal explicitly analyzes Nez Perce possessor raising as a case of movement. This will be important in her discussion of (7c), summarized below.

be too short ("antilocality"; e.g., Abels 2003, Bošković 2015, 2016, Erlewine 2016)—in particular, the hypothesis that movement of a phrase from the specifier position of XP must cross a maximal projection other than XP. This idea is put to work in a syntax of verbal constructs in which v is always present and always defines a phase (see Legate 2003), which requires that movement to the structural subject position (Spec,TP) always proceed via an intermediate stopover on the edge of vP, even in unaccusatives. For applicatives of unaccusatives, this entails that promotion of the theme is grammatical because one or more maximal projections are crossed by the theme on its way to the edge of vP: ApplP in the structures for (7a–b), and in the derivation of (7c) both ApplP and μP, whose specifier is taken to host the raised possessor. Moving the raised possessor from Spec,μP to Spec,vP in (7c) would only cross μP, making it illicit. And moving the applied object to the edge of vP is always illegal as well: in the absence of possessor raising, such movement would only cross ApplP (assuming that v immediately embeds ApplP, as in the structure below (7b)); and when the possessor of the applied object is raised and becomes the accusative object (located in Spec,μP), so that there are now two maximal projections (ApplP and μP) between the applied possessum and the vP edge, promotion of the applied possessum (the remnant of possessor raising) remains ungrammatical due to a constraint on remnant movement that Deal (2019:408) adopts from Müller 1996. So in all of (7a–c), the only grammatical derivation is one in which the theme is promoted to subject.

Its apparent success at narrowing down the derivational options to theme promotion dampens the prospects of Deal's analysis of applicatives of unaccusatives beyond the facts of Nez Perce. Because it does not leave a window for the formation of applicatives of unaccusatives featuring promotion of the applied object, it does not cover examples of the type in (4), which answer precisely to this description. Deal (2019:409n28) floats two ideas toward accommodating these kinds of examples: postulating an inner-aspect projection between ApplP and vP (in the spirit of Travis 2010), or assuming that experiencer applied objects originate in Spec,vP (Kratzer 1996). Of these possibilities, an appeal to AspP is not in any obvious sense justified, considering that inner aspect is about telicity and the experiencer constructions in (4) are atelic; and base-generating experiencers in Spec,vP certainly cannot generally be correct, in light of constructions in which the experiencer is introduced in a VP-internal PP (*This appeals to me*; cf. also the alternation between *This appears to me false* and *This strikes me as false*: see Den Dikken 1995 for several arguments supporting the conclusion that "dative alternation" constructions involve low base-generation of the indirect object).

2.3 Taking Stock

Apart from not carrying over straightforwardly to applicatives of unaccusatives in which the applied object is promoted to subject (not found in Nez Perce but attested in Shipibo), Deal's (2019) analysis has several theoretical ingredients that can each be questioned individually:

- "[A]ll verbal projections contain a phasal vP layer." (Deal 2019:400)
- Generalized Spec-to-Spec Antilocality: "Movement of a phrase from the Spec,XP must cross a maximal projection other than XP." (Deal 2019:408)

- A constraint on remnant movement, called Unambiguous Domination (Müller 1996: 376): "In a structure . . . [$_A$ . . . [$_B$ . . .] . . .] . . . , A and B may not undergo the same kind of movement."
- Possessor raising as movement to the specifier of a μP serving as v's complement (Deal 2013).

Arguments given in the literature for the phasehood of unaccusative vP (see especially Legate 2003) are weak (as Deal (2019:400n20) acknowledges). Some sort of antilocality constraint is certainly a part of the Minimalist toolkit and arguably plays a key role in explaining promotion to subject in applicatives of unaccusatives (see the end of section 3.4, below). But singling out Spec-to-Spec movements that cross just one maximal projection is not only arbitrary (especially if movements crossing no maximal projection at all are legitimate; see Kayne 1994 on deriving complementizer-final word order by moving TP into the local Spec,CP) but also not obviously correct (e.g., *I wonder who the hell did this* is standardly taken to involve movement of *who the hell*, which cannot be in situ, from Spec,TP to Spec,CP, crossing only TP). Deal (2019:408n27) recognizes the inherent "fragility" of Spec-to-Spec antilocality (one might, after all, discover additional functional projections between the two specifier positions), but embraces this as a virtue. However, as a general rule, a Minimalist theory of syntactic derivations should impose no conditions on movement other than the need for convergence: if a local application of movement serves a grammatical purpose, it can only be excluded by brute force. Finally, Deal's (2019) analysis of the ban on promotion of both the applied object and the external possessor in the possessor-raising case in (7c) relies on three specific assumptions: (a) movement of the possessor (rather than external base-generation, as in Guéron 1985, Authier 1991, Vergnaud and Zubizarreta 1992); (b) postulation of μP, whose custom-made nature makes it difficult to verify on independent grounds that it is, as assumed, the immediate complement of v; and (c) a constraint on remnant movement that, as stated, both over- and undergenerates (wrongly ruling out ?*Who do you wonder how many pictures of John bought?* (cf. Lasnik and Saito 1992) but failing to block **How likely to be a riot is there?*, involving two different kinds of movement).

Baker's (2014) analysis of the Shipibo facts, for its part, relies on a cluster of less-than-innocuous assumptions about the distribution of dependent case:

- "[E]rgative and accusative are keyed to the Spell-Out of TP only." (Baker 2014:356–357)
- "[O]nly new c-command relations are considered at later Spell-Outs" (Baker 2014:355) for the purposes of the dependent case rules.
- The lower phase of the Shipibo clause is a "soft" phase (Baker 2014:355): after Spell-Out, all of its contents (including the applied object) remain visible to the higher phase.
- The applied object in Shipibo (3) and Amharic (6) is invisibly contained in a PP.

The idea that the dependent cases are tied to particular ph(r)ases is tantamount to saying that dependent case is not assigned in the lower phase of the clause: (5) kicks in only in the higher phase (CP/TP). This raises the specter of the alternative theory of case, linking assignment of accusative and ergative case to designated functional heads. The hypothesis that only new c-

command relations count complicates the c-command-based theory of dependent case in (5). The (possibly language-specific) appeal to "soft" vP phases further burdens Minimalism's attributions of incapacity to (certain incarnations of) vP and TP. And in lieu of the claim that some applied objects are PPs and others are NPs (which, as we have seen, is morphosyntactically elusive), what determines the selection of the theme or the applied argument for promotion to subject in an applicative of an unaccusative should ideally be some property that is independently supported.

2.4 The Height of the Applied Argument

The property that comes naturally to mind is the height of the applied argument in the structure. Deal (2019:396) makes it explicit that Nez Perce applicatives with -*uu* are HIGH applicatives in the sense of Pylkkänen's (2008) work. A sure sign of this is the fact that -*uu* can applicativize unergative verbs.

The Shipibo examples in (3) likewise involve high applicatives: there is no possessive relationship between the theme and the applied object; rather, the applied object is affected by the event expressed by the VP. But the experiencer verbs in (4) build LOW applicative constructions just like ditransitive verbs. It emerges that in high applicatives of unaccusatives the theme is promoted, while in low applicatives of unaccusatives it is the applied argument that becomes the subject of the clause.

I show in section 4 that the case and subjecthood dichotomy between (3) and (7), on the one hand, and (4), on the other, can be connected to the dichotomy between high and low applicatives in an explanatory way, and that making this connection allows us to simplify and enhance the dependent case approach to applicatives of unaccusatives. The central active ingredient in the analysis is a hypothesis regarding the demarcation of the lower phase of applicative constructions. This hypothesis is spelled out in section 3.

3 The Phase and Case

3.1 The Definition of a Phase

Following the proposal in Den Dikken 2006, 2007, phases are defined here as in (8).

> (8) A phase is either
>   a. a complete predicate-argument structure (PAS)   *the lower phase*
>   or
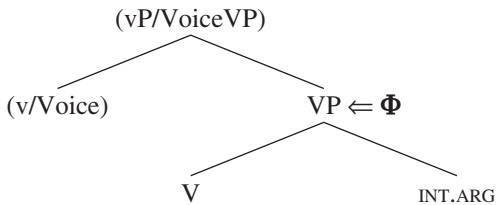>   b. a complete proposition.   *the higher phase*

This definition follows closely in the footsteps of Chomsky's (2001) original, but unlike Chomsky's proposal and work in its wake, it does not put specific labels (like vP or CP) on the phasal categories. Whichever category (regardless of its label) represents the complete PAS of a proposition is declared the lower phase of this proposition; and whichever category (regardless of its label) represents the complete proposition is singled out as the higher phase. The definition

of the phase in (8) has beneficial consequences for the analysis of low and high applicative constructions regarding the demarcation of the lower phase, as we will see.[8] But first, let me apply (8) to simple transitives and intransitives.
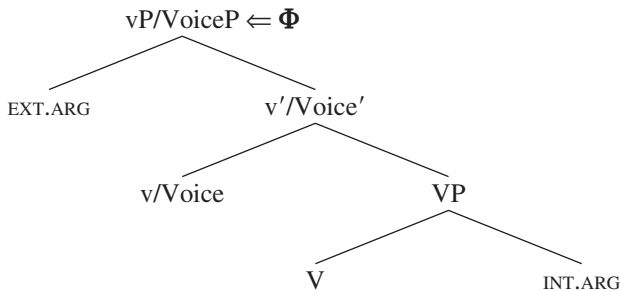
3.2 The Lower Phase of Unaccusative, Unergative, and Transitive Constructions

For a transitive or unergative clause, the lower phase, representing the complete PAS, is the familiar vP (Chomsky 1995:chap. 4) or VoiceP (Kratzer 1996), with v/Voice introducing the external argument and capping off the verb's PAS. For clauses not featuring a verb that takes an external argument (an ergative or unaccusative verb), the node dominating the complete PAS is just the VP (except in high applicatives; see section 3.3.1). Even if v is present in the syntax of unaccusative constructions (as in Distributed Morphology–based approaches on which v combines with every verb, regardless of its adicity, in order to categorize it), its vP will not constitute the lower phase (contra Legate 2003 but in tune with McGinnis 2001): v (if present) does not add anything to the PAS of the unaccusative clause; the verb's full PAS is dominated by VP. The representations in (9) (for unaccusatives) and (10) (for transitives and unergatives) summarize this picture. (Here and in what follows, Φ represents a phase, and *EXT.ARG* and *INT.ARG* stand for *external argument* and *internal argument*, respectively.)

(9) *Unaccusatives*

```
            (vP/VoiceVP)
             /        \
        (v/Voice)    VP ⇐ Φ
                     /     \
                    V     INT.ARG
```

(10) *Transitives/Unergatives*

```
           vP/VoiceP ⇐ Φ
            /        \
      EXT.ARG      v′/Voice′
                   /       \
               v/Voice      VP
                           /   \
                          V   INT.ARG
```
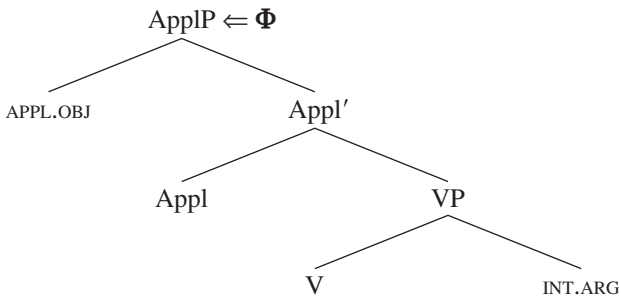
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[8] Though I will not consider the delineation of the higher phase here, note that (8b) gives us the freedom to have higher phases that are smaller than CP, which is a welcome result. A clause no larger than TP will do perfectly well as the higher phase, containing tense and (for lack of a marked illocutionary force, such as interrogativity) getting default declarative illocutionary force.
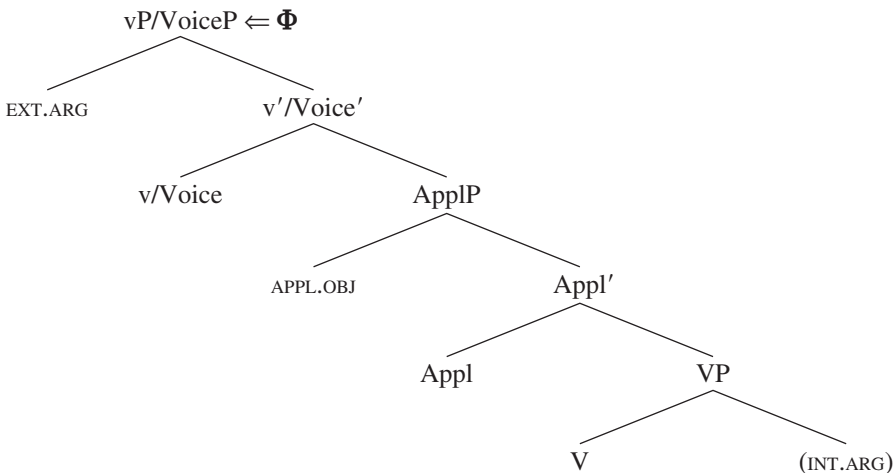
3.3 The Lower Phase of Applicative Constructions

3.3.1 High Applicatives   When an unaccusative verb undergoes high applicativization, Appl merges with VP. The applied argument is part of the complete PAS of the clause. This entails that in the presence of a high applied object, the lower phase in a high applicative of an unaccusative is not the "bare" VP but ApplP (see also McGinnis 2001), as shown in (11). But in transitive- or unergative-based high applicatives, the high ApplP, merged above VP but below v/Voice, does not serve as the lower phase of the clause: v/Voice adds the external argument and completes the lower phase in (12), just as in (10).
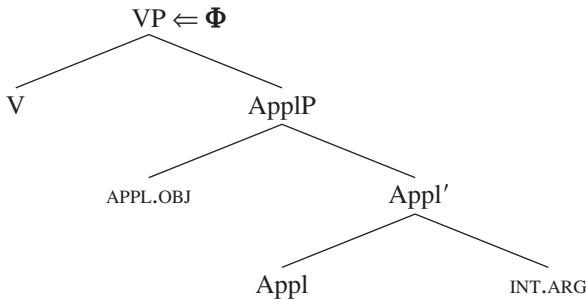
(11) *High applicative of unaccusative*

$$\text{ApplP} \Leftarrow \boldsymbol{\Phi}$$

APPL.OBJ   Appl′

            Appl   VP

                    V   INT.ARG

(12) *High applicative of transitive/unergative*

$$\text{vP/VoiceP} \Leftarrow \boldsymbol{\Phi}$$

EXT.ARG   v′/Voice′

            v/Voice   ApplP

                    APPL.OBJ   Appl′

                            Appl   VP

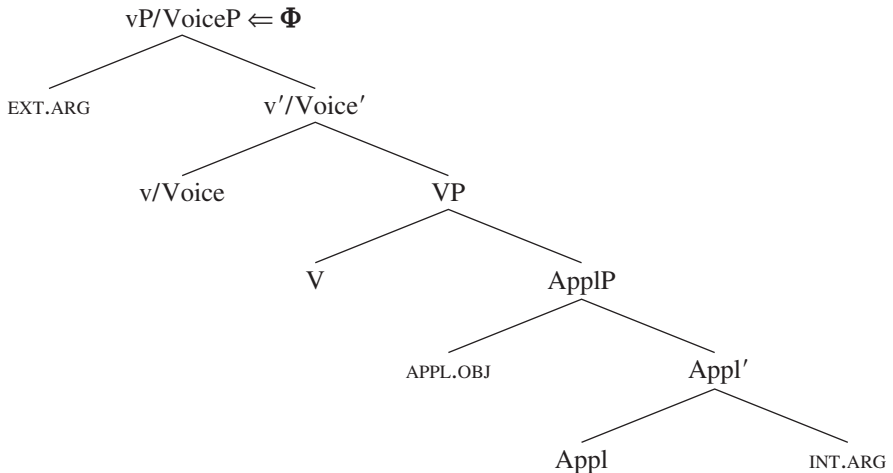   V   (INT.ARG)

3.3.2 Low Applicatives   Whereas adding a high applied object has consequences for the demarcation of the lower phase in the syntax of unaccusative constructions, as we saw in (11), adding a low applied object never affects the locus of the lower phase boundary, for any lexical verb. This is true regardless of which of the two prevalent approaches to the syntax of low applicativization we take: the one in Pylkkänen 2008 or the alternative in Georgala, Paul, and Whitman 2008 and Georgala 2012.

If we follow Pylkkänen (2008), low applicatives are characterized by the merger of the ApplP within VP, in the complement of the verb. On this approach to low applicatives, it is immediately apparent that the presence of a low applied object does nothing to the demarcation of the lower phase in the structure of the clause: VP will continue to represent the complete PAS of an unaccusative construction (13), and vP/VoiceP will remain the locus of the lower phase for transitives, as in (14).

(13) *Low applicative of unaccusative à la Pylkkänen*

```
              VP ⇐ Φ
             /      \
            V       ApplP
                   /      \
              APPL.OBJ    Appl'
                         /      \
                      Appl     INT.ARG
```

(14) *Low applicative of transitive à la Pylkkänen*

```
              vP/VoiceP ⇐ Φ
             /            \
        EXT.ARG         v'/Voice'
                       /         \
                   v/Voice        VP
                                 /    \
                                V     ApplP
                                     /      \
                                APPL.OBJ    Appl'
                                           /      \
                                        Appl     INT.ARG
```

On Georgala's (2012) (and Georgala, Paul, and Whitman's (2008)) approach to applicatives, ApplP is systematically located outside VP, and low applicatives differ from their high counterparts in being raised out of VP into Spec,ApplP rather than being base-generated in this position. The outcome as regards the locus of the lower phase boundary is the same on this approach as on that of the one pursued by Pylkkänen (2008), under the definition of the phase in (2a)/(8). A high ApplP into whose specifier position a low applied object is raised is present to license the applied object, not to introduce it into the PAS of the clause. Being thematically inert, a "raising ApplP" plays no role in the demarcation of the lower phase.

Regardless, therefore, of whether we adopt Pylkkänen's approach to low applicatives or the "raising applicative" analysis advocated by Georgala, the complete PAS of low applicatives will be the VP in the case of low applicatives of unaccusatives, and vP/VoiceP in low applicatives of transitives. Since it is the complete PAS that determines the locus of the lower phase, and since a Georgala-style high ApplP that attracts a low applied object into its specifier is not involved in the projection of PAS, it follows that, on both approaches to low applicatives, the PAS-based lower phase of these constructions will never be situated at ApplP. In what follows, I will be couching the analysis in terms of Pylkkänen's (2008) analysis of high and low applicatives, which is easier to represent and talk about than Georgala's. Transposing the analysis to the "raising applicative" approach to low applicatives is straightforward and will not affect any of the conclusions drawn.

3.4 Phasal Spell-Out and the Phase Edge

The analysis proposed in this article for applicatives of unaccusatives brings the definition of the phase and the syntactic status of constituents located on the edge of a phase more sharply into focus. Phases are the points in the derivation at which Spell-Out is triggered. Assumptions vary in the Minimalist literature regarding the portion of the phase that is sent off to the interpretive components at Spell-Out. Apart from his "soft" phase innovation, Baker (2014) generally follows Chomsky's (2001) approach, reserving the complement domain of the phase head for transfer to PF but leaving material on the edge of the phase unaffected by Spell-Out. But Fox and Pesetsky (2005) take the contents of the entire constituent identified as a phase to be subjected to Spell-Out (for linearization purposes), including everything on the phase edge.

My proposal, spelled out in (15a–c), takes a middle ground between these positions. With Fox and Pesetsky (2005), I assume that at Spell-Out, all (chains of) constituents contained in a phase are sent to PF for linearization, case assignment, and so on. But although constituents on the edge of a phase are always spelled out with the phase, there is a difference between material born on the phase edge and material moved there with respect to how Spell-Out affects the phase edge.

(15) a. At Spell-Out, all (chains of) material contained in a phase must be sent to PF.
    b. Chains of constituents moved to the edge of a phase are spelled out at the lower copy of the moved constituent by silencing, due to being phase-internally c-commanded by the higher copy; the higher copy is affected by Spell-Out only if it is in a "criterial position" (Rizzi 1997, 2004), where Spell-Out is always triggered.
    c. The first spelled-out element of a phase is visible at PF to material outside its phase.

For constituents that occur just once in a given phase (i.e., single copies), Spell-Out targets the unique copy. It does so regardless of whether the constituent in question is in the complement domain of the phase head or on the phase edge. Constituents born on the edge of a phase and spelled out with it are ineligible for movement out of the phase. Direct movement is impossible. Moreover, "escape-hatching" movement via an adjunction position to the phase is not allowed

for material born on the edge of the phase because it is too local: the general logic of Minimalism's derivational economy bars a constituent from being on the edge of the same ph(r)ase twice.[9]

For constituents that occur twice in a given phase, one copy finds itself in the complement domain of the phase head and the other is on the edge of the phase. Spell-Out must target this pair of copies because all phase-internal constituents and their chains are subject to Spell-Out. Spell-Out assigns a PF matrix to the higher copy, on the phase edge, *only* if this copy is in a criterial position in Rizzi's (1997, 2004) sense: such positions carry with them spell-out instructions of their own, both on the PF side (vocabulary insertion) and on the LF side (e.g., scope). Terminal movement to a criterial position aside, however, Spell-Out leaves the copy on the edge of the phase untouched. Instead, it is the lower copy of the moved constituent that is spelled out—by being silenced (or denied vocabulary insertion). Silencing does not result in a linearization instruction that would potentially conflict with one emerging from spell-out of a higher phase, and it also does not run the risk of accidentally activating the dependent case rules in (5) at too early a point in the derivation, as we will see in section 3.5.

3.5 Phase-Based Case

Spell-Out proceeds phase by phase (Chomsky 2001) and targets the entire phase (15a), linearizing its contents (Fox and Pesetsky 2005) and examining whether the case rules in (5) are applicable to it. Material on the edge of the phase is spelled out with the rest of the phase unless it arrived there via nonterminal movement (15b).

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[9] This "antilocality" constraint is more naturally at home in the Minimalist toolkit than the one adopted by Deal (2019), mentioned in section 2.2 above. How does it fare with regard to the standard assumption that the external argument of transitive and unergative verbs originates in Spec,vP and raises to Spec,TP? There is arguably no local movement from Spec,vP to Spec,TP. (Deal's (2019) antilocality hypothesis would lead to the same conclusion if/when there are no functional projections between vP and T.) The subject of transitive and unergative clauses is base-generated in Spec,TP, related to the verbal predicate by T (a RELATOR; Den Dikken 2006). In situations in which the subject of transitive and unergative clauses does originate within the complement of T, it is necessarily spelled out there, and Spec,TP is either not projected or filled by an expletive. In unaccusative constructions, the verb's PAS is saturated in VP, so the theme cannot be directly projected onto Spec,TP; whenever it is the structural subject, the theme must be promoted to subject via movement. Applied objects cannot be directly projected onto Spec,TP either: T ≠ Appl; only Appl can serve as the RELATOR of applied objects to their mates. Hence, whenever an applied object serves as the structural subject, it must also be promoted to subject via movement. The external argument of transitive and unergative clauses is the one argument that can be base-generated directly in Spec,TP, with T as the RELATOR.

The hypothesis that the subject of transitive and unergative clauses is base-generated in Spec,TP does not entail that v is absent from these clauses: if v has a role to play independently of introducing the subject (e.g., categorization of the root), it will be present in all verbal constructs; the requisite theory of predication will then identify vP (the projection representing the categorized predicate), rather than VP, as the predicate for the external argument, base-generated in Spec,TP. (It is not impossible for VP to serve as a predicate, but it may be that VP can only be predicated of a theme, not of the external argument—for reasons that remain to be made more precise.) Thus, morphological arguments for the presence of v in transitive and unergative constructions are in principle left untouched by this proposal. But syntactic arguments for base-generation of the external argument of the verb in Spec,vP do need to be reconsidered—including the arguments based on coordination of transitive and unaccusative/passive VPs (Burton and Grimshaw 1992, McNally 1992), floating quantifiers (Koopman and Sportiche 1991), and binding (Huang 1993). Of these three arguments, the first is intrinsically weak since too little is understood about extraction from coordinate structures. The second is strong only if floating quantifiers are taken to be stranded by movement (Sportiche 1988), which is problematic (see Bobaljik 2003). And the third argument has no merit (see Heycock 1995, Den Dikken 2006:19). I do not have the space here to engage in a more detailed discussion of the syntactic arguments for and against local movement of the external argument from Spec,vP to Spec,TP.

In the case of movement of a constituent to the edge of a phase, crossing over a nonmoved constituent in the same phase, a structural configuration is created in which the higher copy of the moved constituent c-commands the nonmoved phasemate. If this c-command relation "counted" for the case rules in (5), we would expect early assignment of dependent case, at the completion of the smallest phase containing two or more case-needy NPs. But except in cases of terminal movement, the c-command relation between the higher copy of a moved constituent and a phasemate does not count for (5). The higher copy is spelled out only if it is in a criterial position;[10] in derivations involving successive-cyclic movement via the phase edge, the lower copy of the chain of a moved constituent is targeted by phasal Spell-Out (and silenced), with the copy on the edge being left unaffected by Spell-Out at the phase and therefore not competing for case with an NP that it c-commands.

Not only is the intermediate phase-edge copy of a moved NP not a player in the dependent case game, the phase-internal copy of the NP is not a case competitor either. Although it undergoes Spell-Out at the completion of the phase, PF silences the lower copy. Silent copies are not visible to the dependent case rules in (5): these rules decide on the distribution of cases to two or more phonologically overt NPs within a phase.[11] So in cases of NP-movement out of a phase via the edge of a phase, crossing one other NP, the dependent case rules in (5) are not activated at the lower phase. And even though it is spelled out with the rest of the phase, the first element of a phase continues to be visible outside the phase at PF, for the purpose of linearization relative to material in the next-higher phase (15c).

4 Applying the Proposal to Applicatives of Unaccusatives

4.1 Low Applicatives of Unaccusatives

Consider again the structure of low applicatives of unaccusative verbs, repeated in (16) (the bracketed version of (13)).

(16) [$_{VP=\Phi}$ V [$_{ApplP}$ APPL.OBJ [$_{Appl'}$ Appl INT.ARG]]]

Here, ApplP is merged within VP, so VP represents the complete PAS and hence constitutes the lower phase. Since neither is born on the edge of the phase, both the applied object and the theme are eligible in principle for movement within the phase onto its edge. But since the applied object is the higher of the two objects, it gets first dibs on moving, so the theme stays put.

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[10] Because criterial positions have LF properties, these properties can in principle play a role in deciding whether the dependent case rules in (5) should count a constituent in a criterial position as a case competitor. In English-type languages, an NP occupying an Ā-position does not compete for case with another NP in the same phase. So in *Which city did he die in?*, we do not get dependent accusative case assigned to the subject even in the higher phase (CP): at the level of the higher phase, the Ā-status of the *wh*-NP causes it not to compete for case with the subject; in the higher phase there is only one NP (the subject) that is case-needy, so dependent case is never activated and the subject gets nominative case.

[11] Variables left behind by Ā-movement of a nominal category do count for the dependent case rules in (5). Though not pronounced, variables are visible to PF (cf. *wanna*-contraction). Exactly how this comes to pass is something I cannot address here. This is a general problem, not one that is specific to anything I am proposing in this article.

When the applied object has moved to the edge of the lower phase and Spell-Out applies to VP, the lower copy of the applied object is silenced. A silent copy is not a case competitor, so it plays no role in connection with the dependent case rules in (5). Spell-Out of the silenced copy of the applied object also does not give rise to a linearization statement involving this object, precisely because the lower copy is silent. The higher copy of the applied object on the edge of the lower phase is not in a criterial position, hence remains unaffected when the lower phase is spelled out. The fact that the applied object c-commands the theme is registered at the level of the lower phase but does not have any consequences there.

Once the applied object has moved to Spec,TP, it is targeted by Spell-Out in the higher phase, CP: (17). It is at this point that inspection of the dependent case rules in (5) becomes relevant.

(17) $[_{CP=\Phi}$ C $[_{TP}$ APPL.OBJ $[_{T'}$ T (. . .) $[_{VP=\Phi}$ ~~APPL.OBJ~~ $[_{VP}$ V $[_{ApplP}$ ~~APPL.OBJ~~ $[_{Appl'}$ Appl INT.ARG$]]]]]]]$

In languages with the dependent case rule in (5a), the theme, although c-commanded by the spelled-out applied object, is not assigned dependent accusative case because there is no phase-internal competition between the applied object in Spec,TP and the theme in VP, the latter invisible after the lower phase is spelled out. Similarly, in languages abiding by (5b), the applied object in Spec,TP does not get assigned dependent ergative case. Neither NP competes with any active phasemate, so dependent case is never accessed in low applicatives with an unaccusative or detransitivized verb. We thus expect never to find an ergative or accusative NP in low applicatives of unaccusatives.[12]

---

[12] Constructions with (equivalents of) the verb *get* are sometimes analyzed as low applicatives of an unaccusative verb (cf. Haegeman 1985, Pesetsky 1995:124, Sigurðsson and Wood 2012). Similarly, possessive *have* sentences have been analyzed as raising constructions featuring promotion of a low applied object and assignment of accusative case to the possessum (see Myler 2016 for a critical survey of the various approaches to possessive *have* taken in the literature). These analyses are either untenable or in need of major modification if the text approach to low applicatives of unaccusatives is correct. Let me mention the case of German (i) as an example.

(i) Er hat einen Brief bekommen.
    he has a.ACC letter BE.come
    'He got/received a letter.'

This *get* construction features a complex verb consisting of the motion verb *kommen* 'come' and the prefix *be-* (a cognate of the English preposition *by*; on the relation between *be-* and applicative morphology, see Den Dikken 1995:chap. 5), an apparent case of a low applicative of a lexical unaccusative verb. Hoekstra and Mulder (1990) argue in detail that positional verbs as well as the dynamic counterparts thereof (i.e., verbs of motion) can be used as copular verbs. (Indeed, English *be-come* is indisputably a copula, though not usable in the way *be-kommen* is in (i).) This provides an immediate way out for (i): with *kommen* used as a copula, we are dealing in (i) not with a structure based on (13) but with one in which the copula (*kommen*) mediates a direct predication relation between the possessor and the theme. (Interestingly, German *bekommen* can also be used in an experiential high applicative construction, as illustrated in (ii). In (ii), *kommen* is used noncopularly, as a garden-variety unaccusative motion verb (cf. English *go down*), and takes the theme *das Essen* 'the food' inside its VP. This VP is subsequently related to an experiencer (dative *ihm* 'him') by a high Appl head merging with the VP.)

(ii) Das Essen ist ihm   nicht gut bekommen.
     the food   is him.DAT not   well BE.come
     'The food did not go down well with him.'

In languages in which the capacity to license NPs with unmarked case (nominative or absolutive) is not tied to tense or finiteness, low applicatives of unaccusatives will be grammatical with unmarked case for *both* NPs: the applied object in Spec,TP gets the unmarked case in the higher phase, and the theme gets it in the lower one. From the literature on ergative-absolutive systems (see Aldridge 2004, Legate 2008), we are familiar with a split between languages that do and languages that do not link absolutive case to $T_{[+FIN]}$. The double absolutive case pattern in the low applicatives of unaccusatives in (4) reveals that Shipibo belongs to the latter group.[13]

4.2 High Applicatives of Unaccusatives

In high applicatives of unaccusative verbs, ApplP is merged outside VP and we are dealing with the structure in (11), repeated in bracketed form as (18).

(18) $[_{\text{ApplP}=\Phi}$ APPL.OBJ $[_{\text{Appl'}}$ Appl $[_{\text{VP}}$ V INT.ARG$]]]$

Here, ApplP represents the complete PAS and therefore constitutes the lower phase. The applied object, born on the edge of the phase, is spelled out with the phase and is not allowed to move onto the edge of the phase; recall from section 3.4 that constituents born on the edge of a phase cannot move to the edge of the same phase (a general antilocality constraint that is an inherent part of the Minimalist toolkit). Hence, the applied object must be spelled out with the lower phase, ineligible for promotion to subject.

The theme, on the other hand, can be maneuvered onto the edge of the phase and be eligible for promotion. The copy of the theme on the edge of the lower phase is not spelled out. The copy in the theme's base position is, but it is silenced and hence not a competitor for case. So the case rules in (5) are not activated in the lower phase. The only NP that is up for case licensing in the lower phase is the applied object, and it can be licensed only by getting the unmarked case—which is possible only in languages that do not tie unmarked case strictly to finite T.

Shipibo is such a language. In its high applicatives of unaccusatives, illustrated in (3) (repeated here), the derivation is allowed to continue beyond the ApplP phase because the applied object can be case-licensed by unmarked ABS within that phase.

(3) a. Bimi-n-ra   Rosa   joshin-xon-ke.
       fruit-ERG-PRT Rosa(ABS) ripen-APPL-PRF
       'The fruit ripened for Rosa.'
    b. Nato yapa-n-ra   Maria   payo-xon-ke.
       this fish-ERG-PRT Maria(ABS) spoil-APPL-PRF
       'This fish spoiled on Maria.'
       (Baker 2014:346, (9b); 366, (45b))

---

[13] In cases in which the availability of unmarked case is tied strictly to finite T, we expect to find unaccusative low applicatives only if one of the objects has access to inherent or P-assigned case. This is accurate for some psych-verb constructions (in particular, those featuring the experiencer in an oblique PP), and also for the Sesotho locative applicative construction mentioned in footnote 6.

The theme, raising out of the lower phase via its edge, eventually becomes the subject of the clause and establishes an asymmetric c-command relation with the applied object at that point. Importantly, though the applied object has already been spelled out with the lower phase, the fact that it is the first element of the lower phase makes it visible to the higher phase at PF: the material in the higher phase must be linearized to the left of the lower phase, which means that the first element of the lower phase must be visible to the linearization rules applicable in the higher phase, as schematized in (19).

(19) $[_{CP=\Phi}$ C $[_{TP}$ INT.ARG $[_{T'}$ T (. . .) $[_{ApplP=\Phi}$ ~~INT.ARG~~ $[_{ApplP}$ APPL.OBJ $[_{Appl'}$ Appl $[_{VP}$ V ~~INT.ARG~~$]]]]]]]$

Since the first spelled-out element of the lower phase must be visible in the higher phase, and since this first element, in high applicatives of unaccusatives, is the applied object, the case rules in (5), when applied in the higher phase, have access to the applied object.

There are therefore two NPs within the purview of the case rules in (5) when these are consulted in the higher phase of high applicatives of unaccusatives. The next question to address for such applicatives is whether or not the applied object is a competitor to the raised theme for case in the higher phase.

In the lower phase of a high applicative of an unaccusative, the applied object is not the recipient of dependent case (a marked case): if it gets licensed, it does so by unmarked case. Here "unmarked" should be understood in the sense of the Elsewhere Principle—it is the "elsewhere case." The unmarked NP is not the beneficiary of a morphosyntactic case-marking/assignment process: the unmarked NP is case-*licensed* (for LF purposes, by the elsewhere rule) but not case-*marked.*

For the particular case of high applicatives of unaccusatives, this makes the applied object a competitor for the raised theme: the applied object is visible (by virtue of being the first spelled-out element of the lower phase) for the PF rules applying in the higher phase; and the applied object does not yet have a marked case, so it is active for the rules in (5). Thus, in (3) the applied object and the raised theme are the two players when case rule (5b) is applied at the level of the higher phase, as in (19). This rule picks NP_1 (the theme) as the beneficiary of dependent case, once again leaving unmarked absolutive case for NP_2 (the applied object). Thanks to the fact that the dependent case rule in (5b), applied in the higher phase, sees both the raised theme (in Spec,TP) and the high applied object (in Spec,ApplP), it assigns ERG to the theme. Shipibo (3) has exactly this case array.

In Amharic, a nominative-accusative language beholden to (5a), high applicatives of unaccusatives come out as in (6), with accusative case on the applied object and unmarked nominative for the theme. At the point at which the higher phase is spelled out, the applied object (visible at PF because it is the first element of the lower phase) becomes NP_2 in the case competition with NP_1 (the raised internal argument). This causes the dependent case rule in (5a) to identify NP_2 (the applied object) as the assignee of dependent accusative case at the level of the higher phase.

In Nez Perce (7) (of which (7a) and (7c) are repeated here as (20a–b), with new structures reflecting the present article's hypotheses), we find a mix of (3) and (6). The raised theme is the beneficiary of dependent ergative case in the higher phase, as in both Amharic and Shipibo. But the applied object gets unmarked (nominative) case only if possessor raising takes place from it, with the raised possessor taking accusative case, as in (20b), for whose analysis I make the minimal assumption that the applied object and its external possessor are specifiers of the same ApplP.[14] In the absence of possessor raising, the applied object of applicatives of unaccusatives is realized with accusative case (20a).

(20) a. 'ip-ne   pa-pay-noo-ya   [Angel-nim sik'em-nim].
        3SG-ACC 3/3-come-APPL-REM.PST   Angel-GEN horse-ERG
        'Angel's horse came to her.'
        [$_{CP=\Phi}$ C [$_{TP}$ INT.ARG [$_{T'}$ T (. . .) [$_{ApplP=\Phi}$ ~~INT.ARG~~ [$_{ApplP}$ APPL.OBJ [$_{Appl'}$ Appl [$_{VP}$ V ~~INT.ARG~~]]]]]]]

     b. Ko-nim ha-'ayato-na   hi-nees-'ileese-nuu-ey'-se   pi'amkin.
        DEM-ERG PL-woman-ACC 3SUBJ-O.PL-make.noise-APPL-μ-IMPF meeting.NOM
        'That person is making noise at the ladies' meeting.'
        [$_{CP=\Phi}$ C [$_{TP}$ INT.ARG [$_{T'}$ T (. . .) [$_{Appl=\Phi}$ ~~INT.ARG~~ [$_{ApplP}$ POSS$_i$ [$_{ApplP}$ [ec_i APPL.OBJ]
        [$_{Appl'}$ Appl [$_{VP}$ V ~~INT.ARG~~]]]]]]]]

In both (20a) and (20b), the theme moves to the edge of the lower phase as an intermediate step in its escape from this phase. The copy of the theme on the edge of the lower phase is not spelled out and does not activate the dependent case rule in (5b); its lower copy is silenced. Assuming that the unmarked case of Nez Perce, as in Shipibo, is unconnected to T$_{[FIN]}$, we get the applied object licensed with unmarked (nominative) case at the level of the lower phase. For (20b), this is entirely as it should be. But for the accusative case of the applied object in (20a), and of the raised possessor in (20b), something more needs to be said.

The tripartite case system of Nez Perce can be understood if ergative and unmarked (nominative) case are assigned on the basis of the dependent case rule in (5b), whereas accusative case is a morphological reflex of object agreement (Woolford (1997) calls this "objective case"), which in Nez Perce works along the lines of nominative-accusative agreement systems. Agreement-based accusative assignment targets the highest nominal constituent spelled out with the lower phase. In (20a), the verb agrees with the applied object *'ip*; hence, this NP hosts the accusative case marker *-ne* (now properly understood as a marker of object agreement), and the unmarked

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[14] External possession constructions in the world's languages typically have the syntax of applicatives; therefore, Spec,ApplP is a natural home for the external possessor. The external possessor is the higher of the two specifiers of ApplP, binding the object-internal empty category *ec* (which on a movement analysis of possessor raising is a silent copy of the possessor and on base-generation approaches a silent proform; Deal's (2013) locality-based argument for a movement analysis of Nez Perce possessor raising is not unassailable, but I leave the matter open because for my purposes, unlike for Deal's (2019), it probably does not matter which analysis is chosen). In the presence of a raised possessor in its outer specifier, Appl in (20b) is realized as *-nuu+-ey'* (the latter morpheme treated by Deal as the spell-out of her μ; see (7c)).

case does not surface. In (20b), the highest noun phrase spelled out with the lower phase is the raised possessor, which accordingly is the target of object agreement (the agreement prefix *nees*-reflects the fact that there is a plural object) and the bearer of the accusative suffix, leaving unmarked case for the applied object. Neither the applied object nor its external possessor is eligible for promotion to subject in (20b) because both are born on the edge of the lower phase. So the theme becomes the subject of the clause, and in that capacity, when the dependent case rule in (5b) is consulted at the level of the higher phase, the recipient of ergative case.

Dependent case and agreement-based case may thus coexist in a single language. But without a phase-based dependent case system of the type put forward here, the complete picture of case in high and low applicatives of unaccusatives would not be captured.

5 Concluding Remarks

Baker's (1988) analysis of applicativization as complex predicate formation (via P-incorporation) relies on his Case Frame Preservation Principle (1), which rules out applicatives of unaccusatives. But applicatives of unaccusatives exist, and even come in two types: those in which the theme is promoted to subject (as in Shipibo (3), Amharic (6), and Nez Perce (7)) and those in which it is the applied object that becomes the subject (as in Shipibo (4)).

In this article, I have reduced the variation in the realm of applicatives of unaccusatives to three factors:

1. the structural height of the applied object (low vs. high applicatives);
2. the locus of the lower phase in the structure of the clause—a function of the previous factor;
3. the (un)availability of unmarked case in nonfinite structural domains—a case of parametric variation regarding the application of the "elsewhere rule."

These three independently necessary points of language variation interact with the theory of phases and their edges and the phase-based theory of dependent case advanced in section 3.

A salient ingredient of the theory of phases expounded here is that no blanket exemption is made for the phase edge at the point where the phase is spelled out. At Spell-Out, the entire phase is targeted. A constituent born on the edge of a phase is spelled out with the phase and is ineligible for extraction from it—though thanks to being the first spelled-out element of the phase, it is still visible to the next-higher phase for linearization and case assignment purposes. Chains of constituents moved to the edge of a phase are spelled out with the phase in either of two ways: in the case of terminal movement to a criterial position, the copy on the phase edge is targeted by Spell-Out; in cases of intermediate movement, the lower copy of the moved constituent is spelled out, by silencing, and the copy on the edge remains unaffected by Spell-Out at the level of the phase at hand.

The proposal advanced in this article correctly derives that, with the exception of languages allowing multiple unmarked NPs (such as Shipibo), low applicatives of unaccusatives are impossible, and that high applicatives of unaccusatives are grammatical but give rise to variation in the case of the applied object. It derives this without the need for appeals to "soft" phases, invisibly

PP-contained applied objects, TP-tied dependent cases,[15] a difference in the dependent case rules' sensitivity to old and new c-command relations, or any particular constraints on remnant movement or antilocality other than general ("Minimalist") derivational economy ("You cannot be on the edge of the same ph(r)ase twice").

The syntax of applicative constructions presents puzzles beyond the ones addressed here (and in Baker 2014, Deal 2019). A well-known but still less than fully understood quandary is the variation within Bantu (and beyond) with respect to passivization of ditransitive applicative constructions (Holmberg, Sheehan, and Van der Wal 2019). This variation does not seem to align itself with the high vs. low applicative dichotomy of Pylkkänen (2008). Nakamura (1997) notes that while benefactive applicatives in Kinyarwanda and Kichaga alike allow promotion of the theme, locative applicatives allow theme promotion in Kichaga but not in Kinyarwanda, even though Kichaga and Kinyarwanda locative applicatives presumably do not differ with respect to the height of ApplP.[16]

The proposal for applicativization of unaccusatives advanced in this article, while sharing with McGinnis's (2001) proposal its exploitation of the high/low applicative distinction and the role played by the location of phase boundaries, does not predict that passives of ditransitive applicatives should track applicatives of unaccusatives. Although as far as I am aware the conclusion that high applicatives of unaccusatives ban raising of the high applied object to Spec,TP is unassailable, high applied objects can be promoted to subject in the passive (e.g., in Kinyarwanda: Kimenyi 1980; also see footnote 6 above on passive "rescuing" benefactive applicatives of unaccusatives in Sesotho).

That promotion to subject of the applied object of passive applicatives is grammatical does not pose a problem for the analysis of high applicatives of unaccusatives presented here. There are important analytical differences between applicatives of unaccusatives and passives of applicatives. The PAS of a passive sentence contains more than the theme and the applied object: it also includes an agent. The agent is introduced outside the high ApplP, so the locus of the lower phase of passives of high applicatives is not the high ApplP (as it would be in a high applicative of an unaccusative) but a larger structural unit (call it VoiceP). Since the high applied object is not born on the edge of this lower phase, it is able to escape from it and be promoted into the structural subject position.

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[15] The present proposal does tie the availability of *unmarked* case to T—more specifically, to $T_{[FIN]}$—on a language-particular basis. But this is clearly necessary entirely independently of the syntax of applicatives of unaccusatives, for both nominative-accusative and ergative-absolutive case systems. By contrast, Baker's (2014) connecting *dependent* case marking to T does not have a precedent or a source of independent support.

[16] Nakamura's (1997) Bantu-comparative investigation leads to the conclusion that promotion of the theme in an applicative is prohibited only if the applicative is derived by P-incorporation (along the lines of Baker 1988) and there is an analytic equivalent of the applicative containing an independent preposition. Kichaga lacks prepositions altogether (Bresnan and Moshi 1990), so none of its applicative constructions has an analytic counterpart with a PP; in Kinyarwanda, locative applicatives alternate with an analytic construction involving a PP, and locative applicatives involve P-incorporation, whereas benefactive applicatives do not. Judging from Machobane 1989, all Sesotho ditransitive applicatives passivize symmetrically, with either object being a candidate for promotion to subject. I have not investigated how Sesotho fits into Nakamura's typology with regard to P-incorporation and availability of an analytic PP equivalent. Amharic is noteworthy for the fact that its passives of *low* applicatives behave just like *high* applicatives of unaccusatives (Baker 2012).

Thus, my proposal does not predict the same pattern of (a)symmetry in applicatives of unaccusatives and passives of applicatives. It is likely that the high/low applicative distinction plays a role in both; but for each case we need to investigate separately what the facts and analytical expectations are. For applicatives of unaccusatives, I have advanced a precise proposal that makes the right predictions. For passives of applicatives, there are several proposals already available that invoke the services of the phase (e.g., McGinnis 2001, Jeong 2007, Georgala 2012: sec. 2.4). The syntax of ditransitive constructions is a topic with a venerable history of debate in the generative literature. The complexity of this topic is such that I cannot do it justice in this short article.

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