

Unaccusative Applicatives, Nominal Licensing, and a Hybrid Theory of Case

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Abstract

In applicatives of unaccusatives, the verb's object always becomes the surface subject. We argue that the applicative head, Appl, licenses the argument it introduces, resulting in the verb's object being unlicensed, forcing it to always surface as the subject. Conversely, in passives the licensing ability of either Appl or Voice is suppressed depending on the language and applicative type, generating variability. We also propose a hybrid theory of case assignment, where particular heads assign case but may be specified to require a case competitor to assign a particular case. This theory captures all observed patterns in unaccusative and passive applicatives.

Keywords: unaccusative applicative, passive applicative, nominal licensing, case, extraction

1 Introduction

One of the most discussed topics in the theoretical literature on applicatives is which of the two objects of an applicativized transitive verb has what object properties, naturally extending to the question of which object becomes the subject in passives and in unaccusatives.

In “symmetrical” languages and constructions, either object can become the subject of the passive. In “asymmetrical” languages and constructions, either only the applied object may become the subject, or only the verb’s base object may become the subject. When it comes to unaccusatives, prior accounts have claimed that they behave similarly to passives, where in some cases it is the verb’s base object that becomes the surface subject, while in other cases, it is the applied object that becomes the surface subject (Baker 2014, Deal 2019, den Dikken 2023). We show this to be incorrect. It is always the verb’s base object that becomes the surface subject of an applicativized unaccusative. The cases where it has been claimed that the applied object becomes the surface subject are not best analyzed as applicatives. This uniformity in unaccusative applicatives raises a theoretical problem. Since most analyses of applicatives merge the applied NP in a position higher than the base position of the verb’s object, locality predicts that the applied NP would always be preferred for movement to subject position. Furthermore, unaccusatives behave differently from passives despite the two constructions being thought to be very similar, at least as far as movement to subject position is concerned.

We propose that the head Appl(icative) combines with a projection of Voice, introduces the applied argument, and licenses it (contra Nie 2024). In an unaccusative, the applied argument is always licensed, while the verb’s object is not. The verb’s object must therefore become the surface subject, for the same reason that it must without an applicative. In the passive, in contrast, the head Pass(ive) suppresses the licensing ability of either Appl or Voice (the head that licenses the base object), depending on the applicative. Thus, we see variability in the passive, but complete uniformity with unaccusatives. Moreover, we find that extraction of the applied object in an unaccusative is always allowed, even when the same language does not allow extraction of the applied object when the verb’s object becomes the subject in the passive (Holmberg et al. 2019). This fact is problematic for most analyses of the extraction restriction in the passive (Holmberg et al. 2019, Newman

2024) but is compatible with a processing-based approach along the lines of Tollan & Clemens (2022). We further propose a hybrid theory of case, where case is assigned by designated heads, but those heads can refer to case competitors in determining what case to assign. This accounts for all the patterns of nominative-accusative, ergative-absolutive, and tripartite case systems that have been identified.

Section 2 starts with the data. We show that unaccusatives differ from passives and demonstrate complete uniformity across languages. Section 3 shows how previous proposals are inadequate. Our proposal is presented in section 4. We start by showing that the “low-high” applicative dichotomy proposed by Pylkkänen (2008) is unfounded and propose our own structure for applicatives. We show how this proposal accounts for uniformity in unaccusatives but variability in passives. In this section we also address apparent interactions between A-movement in the passive and A-bar movement (Holmberg et al. 2019, Newman 2024). Lastly, we propose a hybrid theory of case to account for all of the case patterns that exist. Section 5 concludes.

2 The Data

This section presents our cross-linguistic survey of applicatives of unaccusatives. We start with passives, as a comparison case.

2.1 Passives: Three Possibilities

Recall that the question we are interested in is which NP becomes the surface subject. With a passive of an applicative of a transitive verb, three different patterns are attested, depending on the language and the type of applicative. In Tswana (Bantu, Botswana, and South Africa) benefactive applicatives, either object can become the subject of the passive:¹

¹We boldface the applicative morpheme in all examples. In order to avoid imposing our own interpretation on the data, we reproduce examples exactly as they were provided in the cited source (except that we have

- (1) Tswana (Creissels 2024: (10c,d))
- a. $\text{dìmp}^{\text{h}}\text{ó} \quad \text{!ó-tlǎà-rók-él-w-á} \quad \text{mòsì:sì.}$
 Dimpho(1) sI:cl1-Fut-sew-Appl-Pass-FV dress(3)
 Lit. ‘Dimpho will be sewn.for a dress.’
- b. $\text{mòsísí} \quad \text{!ó-tlǎà-rók-él-w-á} \quad \text{díṃ:p}^{\text{h}}\text{ó.}$
 dress(3) sI:cl3-Fut-sew-Appl-Pass-FV Dimpho(1)
 Lit. ‘The dress will be sewn.for Dimpho.’

In contrast, only the applied object can become the subject of the passive in Yaqui (Uto-Aztecan, Mexico):

- (2) Yaqui (Álvarez González & Estrada-Fernández 2024: (85a–b))
- a. $\text{María-}\emptyset \quad \text{u-ka} \quad \text{toto'i-ta} \quad \text{jínu-ria-wa-k.}$
 Mary-Nom Det-Acc hen-Acc buy-Appl-Pass-Pfv
 ‘Mary was bought the hen.’
- b. * $\text{U} \quad \text{toto'i-}\emptyset \quad \text{María-ta} \quad \text{jínu-ria-wa-k.}$
 Det hen-Nom Mary-Acc buy-Appl-Pass-Pfv
 ‘The hen was bought for Mary.’

In Bukusu (Bantu, Kenya) instrumental applicatives, only the selected object of the verb may become the subject of the passive:²

- (3) $\text{sii-tabu} \quad \text{sy-a-fuum-il-w-a} \quad \text{lu-karatasi} \quad \text{nee-wanjala}$
 C17-book C17-Tense-cover-Appl-Pass-FV C111-paper by-Wanjala
 ‘The book was covered with the paper by Wanjala.’
 *‘The book was used to cover the paper by Wanjala.’ (Bukusu; Peterson 2007: 11, (15a))

A fourth logical possibility is that neither object can become the subject of the passive, but we are not aware of a case like that. Assuming that *some* NP must become the subject, all logical possibilities are attested.

fixed the occasional obvious typo). We will provide explanations of non-standard glossing in footnotes. For Tswana, sI = subject index, cl = (noun) class, FV = final vowel; numbers in parentheses after a noun are the class of that noun.

²Cl = noun class.

Most of the theoretical literature has started from the assumption that the applied object is higher than the verb's selected object (which is what tests like binding show, e.g. Marantz 1993), and so general locality conditions will always favor the applied object over the verb's selected object for operations like agreement and movement to the subject position in the passive. The situation in Yaqui is therefore the expected one. Cases where either object can become the subject, or where only the verb's selected object can, are in need of special explanation. Many analyses have been proposed, including base-generating two different structures (Marantz 1993, Miyagawa & Tsujioka 2004, Doggett 2004), allowing the lower object to move across the higher in certain circumstances (Ura 1996, McGinnis 1998, 2002, Anagnostopoulou 2003, Jeong 2007, Legate 2014), allowing variation in which head licenses which object (Haddican & Holmberg 2012, 2019, van der Wal 2017, 2022, Holmberg et al. 2019, Nie 2024), and smuggling the lower object past the higher in a moving VP (Newman 2024). We will propose our own explanation in section 4.5 since none of these extend straightforwardly to unaccusatives.

2.2 *Applicatives of Unaccusatives: Previously Known Data*

Applicativized unaccusatives came to attention regarding debates over the nature of ergative case. What was observed is that, in an applicative of an unaccusative verb, the underlying object of the verb receives ergative case, while the applied argument is absolutive (or accusative in Nez Perce, which has a tripartite case system):³

- (4) a. Bimi-n-ra Rosa joshin-**xon**-ke.
fruit-Erg-Prt Rosa.Abs ripen-Appl-Prf
'The fruit ripened for Rosa.' (Shipibo; Baker 2014: (9b))
- b. Ha-'aayat-om nuun-e hi-pa-naas-pay-**noo**-yo'-kom.
Pl-woman-Erg 1Pl-Acc 3Subj-S.Pl-O.Pl-come-Appl-Fut-Cis
'The women will come to us.' (Nez Perce; Deal 2019: (4))

³Shipibo Prt = second position particle (an evidential); Nez Perce Cis = cislocative.

Case indicates that the object of the verb is the surface subject, while the applied argument is an object. This is incompatible with views of ergative case treating it as an inherent case assigned to an external argument with the thematic role of agent (Mahajan 1990, 2012, Butt 1995, Woolford 1997, 2006, Anand & Nevins 2006, Legate 2008, 2012). The NP marked with ergative in these examples is not an external argument and does not have the thematic role of agent. The facts are compatible with approaches that treat ergative case as a structural case, akin to accusative (Bobaljik 1993, Bittner 1994, Bejar & Massam 1999, Davison 1999, 2004, Phillips 1993, 1995). The facts have more particularly been taken to support views of structural case which treat accusative and ergative as being assigned in opposition to some other NP (“dependent case” theories, e.g., Marantz 1991, Bittner & Hale 1996, Baker & Vinokurova 2010, Baker 2014, 2015, Baker & Bobaljik 2017). In an unaccusative, the underlying object of the verb becomes the surface subject. When there is no other argument, it gets the default nominative or absolutive. In an applicative, there is another NP present (the applied object), and so ergative case is assigned in an ergative language.

Several things about this are surprising. First, as mentioned above, the expected situation is for the higher of the two objects, namely the applied object, to be preferred for syntactic operations. Second, unaccusatives contrast with passives, which are otherwise thought to be analogous. Even within a language there can be variation in which object becomes the subject of the passive (e.g., Bukusu benefactive applicatives permit either object to become subject of the passive, in contrast with instrumentals; Peterson 2007: 8). Languages do not differ on which object becomes the subject of an applicativized unaccusative, as we will now establish with further data.

2.3 Further Data: Overt Applicative Morphemes

We have been able to find a number of examples, from a range of languages, which appear to be applicatives of unaccusatives. Of course, without language-particular diagnostics, we cannot say for certain that these are unaccusatives; however, given the apparent semantics of the verb, it is likely that many of these are indeed unaccusatives. In every example, it is the selected argument of the verb that becomes the surface subject, while the applied argument remains an object. In this subsection we present languages that have overt applicative morphemes (boldfaced in the examples). We start with three ergative languages. Yuan (2018) presents a number of examples from Inuit, we show one of her examples here:

- (5) niuvirvi-up matui-sarai-**gutigi**-janga Miali
store-Erg open-early-Appl-3sS/3sO Miali.Abs
'The store opened early for Miali.' (Inuit; Yuan 2018: 118, (32b))

Case morphology indicates that the applied argument is the object, and the verb's selected argument is the subject. Yuan (2018) discusses diagnostics for unaccusativity, so we can be fairly certain that her examples are unaccusatives. Kopar and Yimas (both Lower Sepik-Ramu, New Guinea) have no case morphology on arguments; there is instead ergative-absolutive agreement morphology on the verb:⁴

- (6) mayndəpak mbu-**t-ra**-(a)r-oro-k-ududu
husband.PL 3Erg-Appl_{com}-stay-Prog-Ext-Rem.Past-3PC
'they (PC) remained with the husbands for a while' (Kopar; Foley 2024: (45b))
- (7) impa-n-**taŋ**-kwalca-t
3DI.O-3Sg.A-Com-rise-Perf
'He got up with them both.' (Yimas; Foley 1991: 303, (6-54b))

Turning to nominative-accusative languages, Maasai (Eastern Nilotic, Kenya and Tanzania) marks case on arguments with tones. The underlying object of the verb is nomina-

⁴Kopar Ext = extended aspect, PC = paucal. Yimas A = subject of transitive verb (ergative agreement), O = object of transitive verb (absolutive agreement).

tive, and the applied argument accusative (the applicative morpheme glossed ‘Dat’ adds a benefactive in some cases but a goal in others):⁵

- (8) ε-ta-báya-**kí**-a o-reyíét
 3-PF-arrive.there-Dat-PF MSg-river.Acc
 ‘He reached the river.’ (Maasai; Lamoureaux 2004: 53, (78d))

Amharic (Semitic, Ethiopia) is also a nominative-accusative language that allows applicatives of unaccusatives. The applied argument is marked accusative (optionally) and agrees on the verb as an object, while the underlying object of the verb gets (unmarked) nominative case and agrees as the subject:⁶

- (9) aster-(in) gənzəb t’əffa-**bb**-at
 Aster-(Acc) money disappear\ Pfv.Sbj.3Sg.M-Appl-Obj.3Sg.F
 ‘Aster lost some money.’ (Lit. ‘Some money disappeared against Aster.’) (Amharic; Amberber 2024: (58b))

In the following languages, which NP is subject and which object is determined by the pattern of agreement, word order, or other factors:⁷

- (10) Idu chimin-**i**-tu-llun.
 Eleuterio die-Affect-VM-NFut.3Sg>1Sg
 ‘Eleuterio died to my detriment.’ (Shiwilu, Kawapangan, Peru; Valenzuela 2016: (35b))
- (11) ?a-ka-ʈhan-**piak**
 3sS-1sO-grow.up₂-Ben
 ‘He grew up for me.’ (Hakha Lai, Tibeto-Burman, Burma; Peterson 2007: 62, (43a))

⁵PF = perfective.

⁶In some cases, like this one, the applicative morpheme is optional. Examples of applicatives of unaccusatives without the applicative morpheme are given in Baker 2012, examples (25) and (31). Both versions of those same examples are given in (57) and (58) in Amberber 2024.

⁷Shiwilu VM = valency modifier. Hakha Lai subscript numerals indicate the ablaut grade of the root. Upper Necaxa Totonac Intns = intensive, Po = possessive. Javanese N = nasal prefix (possibly active voice), I = suffix that marks (locative) applicative (can also mark causative and repetitive).

Sibanda (2016) states that applicatives attached to unaccusatives⁸ cannot have a benefactive interpretation in Ndebele, but they can be interpreted as a locative or a reason:

- (20) Isi-hlahla si-khul-**el**-a ko-makhelwane.
 7-tree 7-Tns-grow-Appl-A Loc-neighbor
 ‘The tree is growing at the neighbors.’ (Ndebele; Sibanda 2016: (13c))

In addition, Pacchiarotti (2020) gives examples of locative applicatives with the verb root meaning ‘fall’ in Lunda (128, (156)), Shona (128, (157)), and Haya (129, (159)).

Hyman (2003a) gives another possible example in Basaá (Bantu, Cameroon), but only a citation form is given: The verb *ɓɔl* is listed as ‘rot’, and the applicative is given as *ɓólól*. All the examples of applicatives that are full sentences have the applied argument as the object, and this verb is listed in the same format as several transitive verbs, so we assume that the applied argument is the object. Kula (1999: (5)) similarly gives a citation form *-fika* ‘arrive’, *-fikila* ‘arrive for’ in Bemba (Bantu, Zambia). It is also listed alongside transitive verbs that have the applied argument as an object, so again we assume that the applied argument is the object. Additionally, Sesotho allows locative applicatives with unaccusative verbs, but not benefactive applicatives, according to Machobane (1989), unless the applied object is a pronoun (“OP”):⁹

- (21) Sesotho (Machobane 1989: 44, (60b–c); 65, (13b))
- a. Metsi a-bel-**el**-a ifo
 water Agr-boil-Appl fireplace
 ‘The water is boiling by the fireplace.’
 - b. *Metsi a-bel-**el**-a ntate
 water Agr-boil-Appl father
 ‘The water is boiling for my father.’
 - c. Letebele leo le-re-hol-**el**-e
 Letebele that Agr-OP-grow-Appl
 ‘May that Letebele (clan name) grow for us.’

⁸Termed “verbs of involuntary processes” in Sibanda (2016).

⁹Machobane (1989) leaves the final vowel of the verb un glossed. OP = object pronoun.

Thanks to Jenneke van der Wal, we were also able to find a number of examples from other Bantu languages. The following illustrate a benefactive and a locative applicative from Kihehe:¹⁰

- (22) Kihehe (Simon Msovela, p.c.)
- a. Ku-fw-**il**-a
Inf-die-AppI-FV
'to die for someone or on behalf of someone'
 - b. I-mene yi-gw-**il**-ile mu-likoombo.
Aug-CL9.goat SM9-fall-AppI-Perf CL3-pit
'The goat fell into the pit.'

Section 3 also gives examples from Kinyakyusa and Rukiga. In every case it is the underlying argument of the verb that is the subject, while the applied argument is the object.¹¹

Turning away from Bantu, Álvarez González & Estrada-Fernández (2024: (57)) list two applicativized verbs in Norogachi Tarahumara (Uto-Aztecan, Mexico) that might also be unaccusative, *ripl-i* 'be left for someone' (the base verb means 'be left, remain') and *nawí-i* 'arrive for someone'. No example sentences are given, but they are listed in the same format as transitive verbs where the applied argument is the object.

The following example from Halkomelem may or may not be another case. It is also not a complete sentence, so it is not clear whether the subject will be a lexical NP, or if this is a weather-type predicate and there is no subject. If there is no subject, then it is even

¹⁰Glosses for Kihehe were constructed following Ngwasi (2016) and Ngwasi (2021). SM = Subject Marker.

¹¹Bantu languages do allow locative inversion (Bresnan 1994, Diercks 2017), so with locative applicatives it is possible to find the applied object as the subject:

- (i) M-chi-tsîme mw-a-gw-**er**-a mbûzi.
18-7-well 18SB-Perf-fall-AppI-Ind 9goat
'Into the well fell a goat.' (Chichewâ; Bresnan & Moshi 1990: (80b))

However, this is an independent phenomenon, and so we leave it aside.

more striking that the applied NP does not become the subject:

- (23) $\theta e\eta c$ -**me?**-t
 get.dark-Appl-Tr
 ‘get dark on him/her’ (Halkomelem; Gerdts & Kiyosawa 2005: (6d))

It is clear that the applied NP is realized as an object, as this example is presented in an analogous way to other examples in Gerdts & Kiyosawa (2005) where the applied NP surfaces as an object. The examples is also juxtaposed with passives where the applied NP is the subject.

Halkomelem also has applicatives of psych verbs and verbs of motion that are plausibly unaccusative; see examples in (41–42) below. If we were to include applicatives of these types, then there would be many more examples. Applicatives used with psych verbs are quite common, and directional applicatives are common with motion verbs. Here are two examples of psych verbs where the applied argument surfaces as an object:¹²

- (24) Mapudungun (Araucanian, Chile; Zúñiga & Creissels 2024: (39))
- a. Illku-n (ñi chaw mew).
 get.angry-1Sg.Ind (1Sg.Psr father PostP)
 ‘I got angry (with my father).’
 - b. Illku-**tu**-fí-n ñi chaw.
 get.angry-Appl-3Obj-1Sg.Ind 1Sg.Psr father
 ‘I got angry with my father.’
- (25) Sasak (Austronesian, Indonesia; McDonnell & Truong 2024: (39))
- a. Ie taku.
 3Sg afraid
 ‘(S)he is afraid.’
 - b. Ie takut-**an** berarak.
 3Sg afraid-Appl spider
 ‘(S)he is afraid of spiders.’

It is plausible that the base verb is unaccusative in cases like these, with the experiencer as an internal argument. If so, then psych verbs constitute another case of applicative

¹²Mapudungun Psr = possessor.

unaccusatives. Examples like these are widespread, with the experiencer as the underlying argument of the verb, and the stimulus added by the applicative morpheme.¹³

In some languages the applied object is assigned dative case. It is perhaps not surprising that a dative applied object does not become the subject in an applicativized unaccusative, because dative objects generally do not become subjects. Nevertheless, these facts still provide an instance of the same pattern recurring across languages:¹⁴

- (26) mananay bal-ar-s x-a-bōd-n-i
dew.Nom leaf-Pl-Dat O3-Prv-pour-Intr-SM
'Dew falls on the leaves.' (Svan, Kartvelian; Tuite 2024: (15b))
- (27) bič'i-s xorci d-Ø-a-čod-u
boy-Dat meat.Nom Pvb-O3-Prv-end-Aor.S3Sg
'The meat ended for the boy (i.e., the boy had no more meat).'

Additionally, depending on one's theory of dative case, these facts could be surprising. Stated in derivational terms, if movement is thought to precede case assignment, then one might expect the applied argument to become the nominative subject in such examples.

To summarize our investigation so far, in 100% of the examples we have found that are plausibly applicativized unaccusatives which have an overt applicative morpheme, it is the verb's underlying object that becomes the surface subject. We have not found a single case where the applied object is the surface subject.

¹³Note that there is no case where the experiencer role is added by an overt applicative morpheme, it is always the stimulus that is added. We take this to indicate that it is not correct to introduce experiencers in the specifier of an Appl projection, contra McGinnis (1998, 2001), Cuervo (2003), Kim (2012), den Dikken (2023), among others.

¹⁴Prv = preradical vowel (the applicative morpheme), SM = series marker.

2.4 Further Data: No Overt Applicative Morpheme

There are many cases in the literature that have been analyzed as applicatives without an overt applicative morpheme. Marantz (1993), in proposing an Appl(icative)P(hrase) analysis, proposed ApplP was there in many languages without overt applicative morphemes, like Albanian and German. Bruening (2001) adapted Marantz’s proposal to English double object constructions, which uniformly have a caused possession semantics but no overt applicative morpheme. Other than English, most of these have dative case on the applied argument. Non-argument datives (especially malefactive) very commonly occur with unaccusatives, especially ‘die’. Here is an example from Albanian, but such examples are widespread in European languages:

- (28) **Dritani-t** nuk i vdiq Besa.
Dritan-Dat Neg 3S.Dat died Besa.Nom
‘Besa didn’t die on Dritan.’ (Albanian; Bosse et al. 2012: (30b))

The German “dative of inaction” (Abraham 1973, Hens 1997) can occur with unaccusatives (the interpretation being the dative could or should have stopped the event but did not):

- (29) Der Baum ist **mir** verrottet.
the.Nom tree is me.Dat rotten
‘The tree rotted on my watch.’ (German; Bosse 2015: 180, (363a))

Again, datives are expected not to become subjects, but we include the data since it may depend on one’s analysis. In derivational terms, if dative case assignment precedes movement to subject, then we do not expect a dative to ever become subject. However, one could also imagine a theory where dative is assigned configurationally, after A-movement (or Agree), and then the fact that the applied argument never becomes the surface subject would need an explanation.

We have found it difficult to find non-dative instances of plausible non-overt applicatives that can occur with an unaccusative. English-type caused possession applicatives do

not, for instance. While it is possible to add an intended recipient to the transitive versions of alternating verbs like *melt*, *freeze*, and *break off*, it is not possible to add one to the intransitive version:

- (30) a. She melted me some ice cream. *Some ice cream melted me. *I melted some ice cream. (* on caused possession interpretation)
 b. She froze me a popsicle. *A popsicle froze me. *I froze a popsicle. (* on caused possession interpretation)
 c. She broke me off a piece. *A piece broke off me. *I broke off a piece. (* on caused possession interpretation)

It should be noted that most analyses of caused possession applicatives predict that they should occur with unaccusatives (e.g., that in Pylkkänen 2008), but they appear not to (see section 4.3 for a proposed explanation).

The one case that we have found comes from Gumer (South Ethiosemitic). Rather than an applicative morpheme, this language has special agreement paradigms for applied arguments (Völlmin 2010). One indicates benefactives, the other malefactives, locatives, and instrumentals. These agreement markers can attach to any verb, including unaccusatives, and unambiguously indicate that the applied argument is the object and the underlying object of the verb is the subject:¹⁵

- (31) Tikə-na fəzəz-ə-**ni**-m.
 child-1Sg.Poss become.better.Pfv-3SgMSubj-Ben:1Sg-Aff
 ‘My child got better (recovered from illness)’. (Gumer; Völlmin 2010: (6))

The data in this subsection are limited, but they point in the same direction as the overt applicatives we discussed above. We conclude that the verb’s underlying argument always surfaces as the subject when a covert applicative can plausibly combine with an unaccusative verb, whereas the applied argument always behaves as an object.

¹⁵Aff = affirmative marker.

2.5 External Possession

Another type of potential covert applicative regularly occurring with unaccusatives is an external possession construction. Overt applicatives in many languages can have an external possession interpretation, for instance those of Classical Nahuatl (Uto-Aztecan, Mexico):

- (32) Ni-mitz-machi-**lia** in mo-tlàtlacōl.
1Sg.Sbj-2Sg.Obj-know-AppI Def 2Sg-sin
'I know your sins (regarding you).' (Classical Nahuatl; Launey 2011: 206; gloss from Zúñiga & Creissels 2024: (64b))

It is therefore plausible that external possessor constructions without an overt applicative morpheme should be analyzed as an applicative (as in, e.g., Tyler 2021).

What we find is that external possession constructions are split. First, those that have an overt applicative morpheme always act in the same way: The verb's base object becomes the surface subject. One example appeared in (12), another appears below. Evans (2003) glosses the applicative morpheme as "Ben" even though it has uses other than the benefactive, for instance as a malefactive and as external possession. This example appears in a discussion of external possession and appears to be ambiguous between a benefactive/malefactive and an external possession interpretation (the absolutive argument, the surface subject, is incorporated):¹⁶

- (33) An-**marne**-djak-dowe-ng.
3/1-Ben-pain-die-PP
'The pain's subsiding on me; my pain is subsiding.' (Gun-djeihmi, Gunwinyguan, Australia; Evans 2003: 428, (10.130))

A third example is rather complicated. In the following Nez Perce example, there are two applicatives, a locative (the applied NP is 'the ladies' meeting'), and an external possessor applicative, where the applied argument is 'the ladies'. The NP that surfaces with erga-

¹⁶PP = past perfective.

tive case (the surface subject) is the underlying object of the verb, ‘that person’ (simply a demonstrative in Nez Perce). This NP apparently crosses over two applied NPs in becoming subject:¹⁷

- (34) 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.’ (Nez Perce; Deal 2019: (55))

In many languages, applicatives can only attach to transitive verbs, so these are the only clear examples we have been able to find. Notably, all of them have the applied argument (the external possessor) as an object, not the subject.

Turning to external possession constructions without an overt applicative morpheme, we find a split, as mentioned. In some languages, the verb’s underlying object is the surface subject. We give examples from Chimwiini (Bantu) and Southern Tiwa (Tanoan, New Mexico). In Southern Tiwa, absolutive NPs must incorporate in the presence of a certain kind of object, which is the external possessor in this instance (also agreeing as an object):¹⁸

- (35) Kuulu i-m-vund-ish-ile maana.
 9leg 9Agr-3Sg.Obj-break-Stat-Pst 1child
 ‘The child’s leg is broken.’ (Chimwiini; Henderson 2014: (13))
- (36) Ki-khwian-pyo-ban.
 A::1stPl-dog-die-Past
 ‘Our dog died.’ (Southern Tiwa; Rosen 1990: (86e))

Other languages where the underlying object of the verb becomes the surface subject include Maasai (Payne & Barshi 1999), Tz’utujil (Aissen 1999), Creek (Martin 1999), and one pattern in Choctaw (Tyler 2021).

In languages where the external possessor is marked dative, the underlying object of the

¹⁷Deal (2019) glosses the applicative morpheme for external possession “ μ ,” so there are two applicative morphemes in this example.

¹⁸Southern Tiwa A = inflectional category A (there are 3: A, B, and C); ‘dog’ belongs to category A.

verb is always the surface subject (again, this may or may not be expected). We illustrate with Hebrew:

- (37) ha-maftexot naflu li
the-keys fell Dat.me
'my keys fell' (Hebrew; Borer & Grodzinsky 1986: (21a))

In other languages, however, it appears to be the external possessor that is the surface subject with an unaccusative verb. A second pattern in Choctaw illustrates:¹⁹

- (38) John-at piláashaash ófi im-illi-h.
John-Nom yesterday dog III-die-Tns
'John's dog died yesterday.' (Choctaw; Tyler 2021: (11c))

The external possessor has nominative case and controls the plural morpheme, which is a subject property in the language.²⁰ Other languages where the external possessor is the subject include Sinitic (Chappell 1999), Chickasaw (Munro 1999), *Tukang Besi* (Donohue 1999), Sahaptin and Nez Perce (in a pattern without an overt applicative morpheme; Rude 1999), and Nyulnyulan languages (McGregor 1999).

We suggest that external possession constructions are not uniform and should not all be analyzed the same. As comparison of any two publications on the topic will show, there are significant differences from language to language in how external possession behaves. Even within a language, external possession constructions vary. For instance, one pattern in Nez Perce has an applicative morpheme, another does not, see Rude 1999, Deal 2013; the two patterns in Choctaw differ in which NP is the subject. Although there is very little data, we believe it is significant that those external possession constructions that have an overt applicative morpheme all behave the same as all overt applicatives, and the underlying

¹⁹III = class III clitic.

²⁰There is another construction with nominative case on the possessor, but the morpheme glossed "III" appears on the possessee rather than the verb. In this case, control of the plural morpheme shows that the possessee is the subject, not the nominative-marked possessor.

object of the verb is the surface subject. We conclude from this that only those external possession constructions that have an underlying object of the verb as the surface subject of an unaccusative could be analyzed as applicatives. Cases where the external possessor is the surface subject must have some other derivation.²¹

2.6 *Cases Where Applied Object Becomes Subject?*

There are two cases in Shipibo that have been analyzed as applicativized unaccusatives where it is the applied object that becomes the surface subject. One is the reciprocal of a ditransitive, including ones with an overt applicative morpheme. In Baker’s (2014) analysis, the reciprocal suppresses the external argument, so that the two overt NPs are both base-generated as objects (in his analysis, the higher NP—the applied object—moves to the thematic subject position and then to the surface subject position). Here is an example:

- (39) Ja-bo-ra/?*Ja-baon-ra kokoti-bo be-**xon**-an-ai.
 they-Pl-Prt/?*they-Pl.Erg-Prt fruit-Pl bring-Appl-Recip-Impf
 ‘They brought fruit for each other.’ (Shipibo; Baker 2014: (32b))

This example has an overt applicative morpheme, so if one adopts Baker’s view where the external argument is suppressed the applied NP does appear to surface as the subject.

The other case involves a certain class of verbs. With this class of verb, there is no overt applicative morpheme:

- (40) Shipibo (Baker 2014: (11), (34b))
 a. Jose-ra yapa keen-ai.
 José.Abs-Prt fish.Abs want-Impf
 ‘José wants some fish.’

²¹Tyler (2021) analyzes the pattern in (38) as having an Appl head, while the other one involves possessor raising. However, given how uniformly applicativized unaccusatives act across languages, we conclude that the opposite must be true, and the type in (38) involves possessor raising (or some other derivation) while it is the other pattern that involves an Appl head.

- b. Jose-ra nokon bake shinan-beno-ke.
José.Abs-Prt my.Gen child.Abs think-forget-Prf
'José forgot my child.'

Baker (2014) proposes that the two NPs are both generated inside the lexical VP, as objects to V. This analysis is modified in den Dikken (2023), wherein the surface subject is base-generated in the specifier of an ApplP. On this latter analysis, these verbs also have the applied object become the surface subject.

The reason that Baker (2014) analyzes all of these examples as unaccusatives (i.e., lacking an external argument) is the absolutive-absolutive case array. Typical transitive verbs in the language have an ergative-absolutive pattern. However, we have now seen a very good reason *not* to analyze these cases as applicatives of unaccusatives: In every clear case of an applicativized unaccusative, the applied object does *not* become the surface subject. Since these double-absolutive cases apparently have the underlyingly higher NP as the surface subject, they must have a different analysis. We will suggest one in section 4.7. Note that neither Baker 2014 nor den Dikken (2023) gives any independent reason to think that these are unaccusative applicatives. We therefore exclude these constructions in Shipibo, and conclude that in *all* applicativized unaccusatives the selected argument of the verb is the surface subject, and the applied argument never is.

2.7 Summary: Data

We find striking uniformity: In all cases with an overt applicative morpheme, it is the underlying object of the verb that is the surface subject of an applicativized unaccusative. There are cases of external possession where the external possessor is the surface subject, but none of these have an overt applicative morpheme, so we suggest they must be analyzed differently. We conclude that in applicativized unaccusatives, it is always the underlying object of the verb that becomes the surface subject; the applied argument never does. This

is surprising, for two reasons. First, the applied NP should be the higher of the two, and should be preferred for movement to subject position; and second, unaccusatives contrast with passives, where we see variation in which NP becomes the surface subject.

3 Previous Accounts

We are aware of three previous accounts of applicativized unaccusatives. In the first, Baker (2012, 2014) suggests that the applied argument in Amharic and Shipibo is actually a PP, and that makes it ineligible for movement to subject position. The underlying object of the verb is therefore the only NP that can become the surface subject. This account has been heavily criticized (Deal 2019, den Dikken 2023), and it is obviously problematic: There is no evidence that the applied NP is a PP, and it seems to count as a case competitor for the assignment of ergative case, something that PPs never do. This account also cannot be extended to passives, where the applied argument *can* become the subject (and note that many of our languages have both passives and unaccusatives, like Tswana).

Deal (2019) suggests instead that a ban on movement being “too short” (Bošković 1997, Abels 2003, Grohmann 2003, Erlewine 2016) blocks the applied argument from becoming the subject. In a passive, there is additional structure between the phase edge and the ApplP where the applied NP is introduced, and so the applied NP can move to the phase edge and then become subject. In an unaccusative, however, there is no additional structure between ApplP and the phase edge (vP for Deal), and so the applied NP cannot move. Only the underlying object of the verb can. This predicts that, if there are multiple applicatives, a lower applied NP should be able to become the surface subject. In the one known instance of this, in (34), the prediction is incorrect: The underlying object of the verb still becomes the surface subject. Deal (2019) argues that there is another constraint against remnant movement that bans a possessee from moving in an external possession

applicative. However, as we have seen, there can be no such constraint generally, as there are languages where the possessee becomes the surface subject (in fact, all the ones with an overt applicative morpheme).

Den Dikken (2023) presents a rather complicated account of applicativized unaccusatives. We give only the barest outline here. First, the phase is defined as a complete predicate argument structure. This makes the phase in an applicativized unaccusative ApplP, while the phase in a passive is arguably higher, since a passive includes at least the semantics of an external argument. Second, an NP generated at the phase edge cannot move. This means that the applied NP in an unaccusative cannot move, and so the verb's object does and becomes subject.

There is an empirical argument against both Deal (2019) and den Dikken (2023) that leads us to reject both accounts. Both analyses depend on the applied argument in an applicativized unaccusative being unable to move. This predicts that the applied NP in an applicativized unaccusative cannot be extracted by any movement process. While data are not abundant, what we have been able to find indicates that this prediction is incorrect. Hul'q'umi'num' Salish²² has a directional applicative that regularly attaches to unaccusatives. The following example is possibly an example of an unaccusative verb, and the applied NP can be questioned:

- (41) ʔwet kʷə ni? nəm-nəs-əs kʷθə swiʷləs?
 who Det Aux go-Dir-3Sbj Det boy
 'Who did the boy go up to?' (Hul'q'umi'num' Salish; Gerdts 2024: (46b))

Another possible example comes from psych applicatives in Halkomelem (Gerdts & Kiyosawa 2005). Psych verbs have a transitive version that has the experiencer as object (42a), whereas the version with an applicative morpheme has the experiencer as the subject

²²According to Gerdts (2024), Hul'q'umi'num' is the dialect of the Halkomelem language spoken on Vancouver Island and neighboring islands in British Columbia, Canada.

and the applied (stimulus) NP as the object (42b). This is plausibly an unaccusative, with the experiencer being generated as the object of the verb. With an applicative morpheme, the applied argument is treated as the object but can be extracted (42c):²³

- (42) Halkomelem (Gerds & Kiyosawa 2005: (9a–b), (41))
- a. $\text{t}^{\theta}\text{əy}^{\text{k}^{\text{w}}}\text{-t}$
startle-Tr
'startle him/her'
 - b. $\text{t}^{\theta}\text{əy}^{\text{k}^{\text{w}}}\text{-me}^{\text{?}}\text{-t}$
startle-Rel-Tr
'be startled at him/her'
 - c. $\text{ni}\text{ł} \quad \text{t}^{\theta}\text{əy} \text{ swəy}^{\text{qə}} \text{ ni}^{\text{?}} \quad \text{xi}^{\text{?}}\text{xə}^{\text{?}}\text{-mə-t-əs.}$
3Emph Det man Aux embarrassed-Rel-Tr-3Erg
'That's the man that she was embarrassed of.'

A similar example comes from West Circassian (Northwest Caucasian). The stimulus of a psych verb is an applied argument, and can be extracted:²⁴

- (43) $\text{marə} \text{ [ç'ele-çəq}^{\text{w}}\text{-ew } \emptyset\text{-jane}$
here boy-small-Adv 3Sg.Pr-mother
 $\emptyset\text{-zə-fe-g}^{\text{w}}\text{əb}^{\text{ž}}\text{-zəpətə-re]-r}$
3Abs-WH.IO-Ben-angry-always-Dyn-Abs
'Here is the boy at whom his mother is always angry.' (West Circassian; Ershova 2021: (8b))

If we view psych verbs as unaccusatives with the experiencer as an underlying object, this is also an unaccusative applicative with no restriction on extraction of the applied argument.

Thanks to Jenneke van der Wal again, we were able to get some examples of extraction of the applied argument from Bantu languages. In none of them is there a restriction on extraction of the applied argument:

²³Rel = relational applicative (applied object is the stimulus of a psychological predicate, the source of a verb of motion, the goal of a speech act, the sufferer of an adversative, or the benefactive of an intransitive verb; Gerds & Kiyosawa 2005: 331).

²⁴Adv = adverbial case (borne by head of relative clause), Dyn = present tense on dynamic verbs, Pr = possessor agreement, WH.IO = wh-agreement agreeing with the applied object.

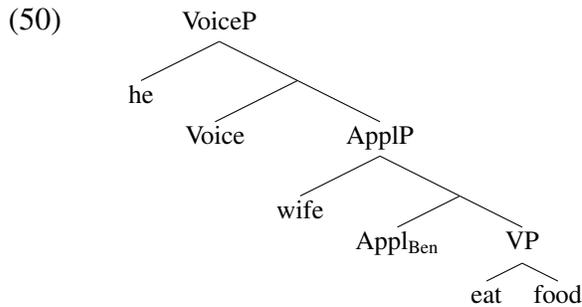
- (44) a-va-nu ve-a-va-fw-**il**-ile Yesu
 Aug-CL2-person Rel2-SM.3Sg-OM2-die-Appl-Pfv Jesus
 ‘the people whom Jesus died for’ (Kihehe; Simon Msovela, p.c.)
- (45) Mu-li-koombo mwe-yi-a-gw-**il**-ile i-mene
 CL18-CL5-pit Rel3-SM9-Pst3-fall-Appl-Pfv Aug-CL9.goat
 ‘the pit into which the goat fell’ (Kihehe; Simon Msovela, p.c.)
- (46) n-ki-ina muno i-mbene si-gw-**il**-ile
 CL18-CL7-hole Dem.Med.CL18 Aug-CL10.goat 10SM-fall-Appl-Pfv
 ‘the pit into which the goat fell’ (Kinyakyusa; Amani Lusekelo, p.c.)
- (47) O-mw-ányá a-hú e-ki-juma ki-ríku-jund-**ir**-a
 Aug-CL3-place Aug-CL16.Rel.Pro Aug-CL7-fruit SM7-Impfv-rot-Appl-FV
 ‘the place where the fruit rots’ (Rukiga; Allen Asiimwe, p.c.)
- (48) A-ba-ntú a-bú Bíshopu
 Aug-CL2-person Aug-CL2.Rel.Pro CL1.bishop
 y-a-iz-**ír**-a
 SM1-NearPast-come-Appl-FV
 ‘the people for whom the Bishop came’ (Rukiga; Allen Asiimwe, p.c.)

If we consider external possession constructions where the underlying object is the surface subject to be possible instances of applicativized unaccusatives, then we may include other examples: Aissen (1999) argues that the possessor is extracted to Spec-CP in Tz’utujil, and Martin (1999) argues that the possessor is topicalized in Creek.

As we have not been able to find any restrictions on extraction of the applied argument in applicativized unaccusatives, we reject any approach that depends on the applied argument being unable to move. This makes the accounts of applicativized unaccusatives in Deal (2019) and den Dikken (2023) unsatisfactory.²⁵

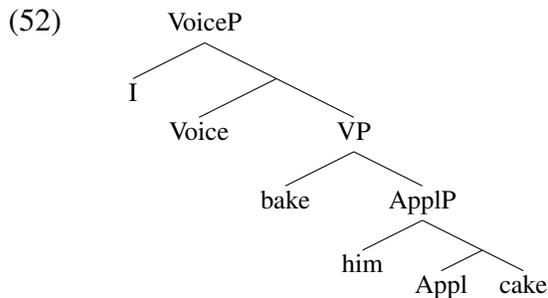
Additionally, analyses proposed for passives will not extend to unaccusatives. All of those accounts are designed to capture optionality in symmetric passives. In languages that

²⁵We should also note that den Dikken (2023) also views the double absolutive examples in Shipibo as instances of applicatives, and so his theory has to allow the applied NP to move in some unaccusatives. We think this is also incorrect, and those examples are not best analyzed as applicativized unaccusatives. We suggest a non-applicative analysis of them in section 4.7.



In contrast, caused possession applicatives in English have an Appl head below the lexical verb:

(51) I baked him a cake. (English; Pylkkänen 2008: 14, (6b))



Pylkkänen (2008) proposed the following as “high” versus “low” applicative diagnostics:

- (53)
- a. Only high applicatives may combine with unergative verbs.
 - b. Only high applicatives may combine with “completely static” verb phrases like ‘hold a bag’. (More generally, caused possession applicatives are only possible where the event denoted by the VP can plausibly result in caused possession.)
 - c. Depictive secondary predicates may only modify high applied arguments and not low applied arguments.
 - d. Resultative secondary predicates may only combine with high applicatives and not with low applicatives.

There are numerous issues with these diagnostics. 53c and 53d do not work even in the data in Pylkkänen (2008), and have generally been ignored in subsequent literature. 53b is mostly contentless: Of course caused possession applicatives are only compatible with caused possession. This diagnostic just identifies the applicative as having the semantics of caused possession, which can be independently determined. This diagnostic only adds the

knowledge that the applicative under investigation is not ambiguous.

Lastly, the unergative diagnostic diagnoses nothing but the existence of a transitivity restriction. It is true that caused possession applicatives of the English type are frequently not compatible with unergatives, but many other applicatives are also incompatible with unergatives (and unaccusatives). In many languages, different types of applicatives are subject to a transitivity restriction. In Mi'kmaq (Algonquian, Eastern Canada), benefactive applicatives, the prototypical “high” applicative, which can combine with a static verb like ‘hold’, cannot attach to intransitive verbs:²⁶

(54) (Mi'kmaq; author's fieldwork)

- a. Keln'm-**u**-it wi'katik'n.
hold-App1-3Subj/1Obj book
'He holds the book for me.' (e.g., could be layaway)
- b. * Pem-tukwi'm-**u**-it.
along-run-App1-3Subj/1Obj
'He's running for me.'

Bosse et al. (2012: note 26) point out that German malefactive datives (which they call “affected experiencers”) cannot combine with unergatives or static verbs, while Albanian ones can. However, German and Albanian pattern together in every other way. So, Bosse et al. (2012) conclude that the restrictions in German are idiosyncratic to that language and should not influence the syntactic or semantic analysis (in their analysis, Albanian and German have the same structure and semantics). Peterson (2007: chapter 3) notes that applicatives in many languages obey a transitivity restriction, even prototypical “high” applicatives like benefactives (e.g., Chichewa, Tzotzil). Transitivity restrictions on applicatives are common enough that they are coded on WALS (<https://wals.info/feature/109A#2/>)

²⁶Mi'kmaq examples come from the variety spoken in Eskasoni, Nova Scotia. The apostrophe after a vowel indicates length; after a consonant, it indicates a schwa. The consonant “q” is a velar fricative. “3Subj/1Obj” means a third person subject with a first-person object (the first object if there are two, as in this case; the second object is only registered in agreement if it is plural or obviative).

23.2/149.2) and on the update to it in Moroz & Polinsky (2024). Since benefactives are the prototypical high applicative according to Pyłkkänen (2008), they are expected to predominantly occur with both transitives and intransitives. However, Moroz & Polinsky (2024) find 24 languages that limit benefactives to transitives, and 32 that allow both intransitives and transitives. In other words, more than 40% of languages with benefactive applicatives limit them to transitives. This is totally unexpected in Pyłkkänen’s dichotomy. Moreover, since “benefactive and other” applicatives presumably include all of Pyłkkänen’s low applicatives, we might expect them to skew toward a transitivity restriction. The data are the opposite: Only five languages limit “benefactive and other” applicatives to transitives, while 68 allow them with both transitives and intransitives. If anything, it is the benefactives that are more commonly limited to transitive bases.

Furthermore, while caused possession applicatives often are incompatible with unergatives, it is not clear that they always are. Classical Nahuatl has examples that seem to have a caused possession semantics, but the underlying verb appears to be unergative:

- (55) (Classical Nahuatl; Launey 2011: 204; gloss from Zúñiga & Creissels 2024: (57))
- a. Ni-tlaxtlāhua.
1Sg.Sbj-pay
'I pay.'
 - b. Ni-mitz-tlaxtlāhu-**ia**.
1Sg.Sbj-2Sg.Obj-pay-App
'I pay you.'

Constable (1989) gives similar examples in Veracruz Huastec, like ‘He taught us’ (p142) and ‘He is cursing you’ (intransitive ‘speak’ plus the applicative; p138). Similarly, some English double object verbs can leave the second object implicit (*They tipped the waiter (\$30)*), in which case they seem to be caused possession applicatives of unergative verbs (see Bruening 2021).

Caused possession applicatives include caused **dis**-possession, where something is taken

away from the applied argument. These are Pylkkänen’s (2008) “low source” applicatives:

- (56) a. They charged **me** (an astronomical sum). (English)
b. Ō-ni-cuī-**ī**-lō-c in no-mīl, in no-tlāl.
Perf-1Sg.Sbj-take-Appl-Pass-Pst Def 1Sg-field Def 1Sg-land
‘I’ve had my fields, my land taken from me.’ (Classical Nahuatl; Launey 2011: 208; gloss from Zúñiga & Creissels 2024: (52))
c. nganam-nhi-**ma**-kut
1SgS.BE(4).NFut-2SgO-Appl-collect
‘I collected (the money) from you.’ (Murrinhpatha, non-Pama-Nyungan, Australia; Nordlinger 2019: (2))

Caused dispossession is just the negation of caused possession; see Bruening (2010: 558) for an analysis of English examples in just such terms. The thing to note here is that the example in (56c) seems to be an applicative of an unergative. So is the example in (56a) if the second object is left out. In other words, both caused possession and caused dispossession applicatives can combine with unergatives, contra Pylkkänen (2008). Therefore, the transitivity diagnostic does not work in either direction. The only thing that it diagnoses is the existence of a transitivity restriction.

Therefore, Pylkkänen’s diagnostics are not particularly useful. The transitivity diagnostic only diagnoses the existence of a transitivity restriction, and the more semantic diagnostic adds nothing once an applicative is identified as a caused possession applicative.

Turning from the diagnostics to the proposed structural analysis, Pylkkänen’s low applicative structure has been shown not to exist. It has been argued multiple times to be incorrect for English (Bruening 2010, 2020, 2021, Asami & Bruening to appear). These arguments all show that in English double object constructions, the verb and the second object must form a constituent together, excluding the applied argument. This means that something closer to Pylkkänen’s high structure must be correct for English. Georgala et al. (2008), Georgala (2012) argue that the low applicative structure is not correct for any applicative in any language. Among other things, it makes exactly the wrong predictions

for the order of morphemes on the verb. Whenever a language has an overt applicative morpheme with a caused possession semantics, the position of the morpheme is only compatible with the Appl head being higher than VP. Kinyarwanda (Bantu) has both caused possession applicatives and benefactive applicatives, both shown below (the benefactive attaching to an unergative verb):²⁷

- (57) a. Kamaali y-ooher-**er**-eje abanyeeshuuri impapuro.
 Kamaali SP-send-AppI-Asp students paper
 ‘Kamaali sent students paper.’ (Kinyarwanda; Ngoboka 2005: 67, (49b))
- b. Abasore ba-kor-**er**-a abasaaza.
 young.men SP-work-AppI-FV old.men
 ‘Young men work for old men.’ (Kinyarwanda; Ngoboka 2005: 41, (2))

The applicative morpheme on the verb is the same morpheme, and it appears in the same location. We see the same facts in Passamaquoddy-Maliseet (Algonquian, Maine, closely related to Mi’kmaq). In this language, the applicative may only attach to transitive verbs, and has three uses: an external possessor construction, a benefactive, and caused possession. However, the morpheme is the same, in the same location, for all three:²⁸

- (58) Passamaquoddy-Maliseet
- a. Susehp ’t-otoli-sapte-hm-**uw**-a-n-ol Piyel-ol
 S. 3-Prog-stab-Tr.Inan-AppI-3Subj/ObvObj-N-Obv P.-Obv
 witapiy-il.
 3.friend-Obv
 ‘Susehp is stabbing Piyel’s friend.’ *external possessor*
 OR ‘Susehp is stabbing his (Susehp’s) friend for Piyel.’ *benefactive*
 (author’s fieldwork)
- b. Wesuwe-ht-**uw**-a-n nahsahqehtakon.
 return-Tr.Inan-AppI-3Subj/ObvObj-N ring
 ‘She gave him back the ring.’ *caused possession*
 (online dictionary <https://pmpportal.org/dictionary/wesuwehtuwan>)

²⁷SP = subject prefix.

²⁸N = morpheme with unclear function (appears in all ditransitives), Obv = obviative.

There are at least two languages where the caused possession applicative morpheme is distinct from other applicative morphemes, like the benefactive. One such language is Halkomelem. However, the caused possession applicative appears in the same location with respect to the verb stem as the benefactive one, and they cannot co-occur:

- (59) a. niʔ ʔa:m-əs-θámš ʔə kʷθə pukʷ.
 Aux give-Goal-Tr:1Obj-3Erg Obl Det book
 ‘He gave me the book.’ (Halkomelem; Gerdts 2000: (37))
- b. niʔ ǵʷəl-əlc-θámš-əs ʔə kʷθə sce:ʔtən.
 Aux bake-Ben-Tr:1Obj-3Erg Obl Det salmon
 ‘He baked the salmon for me.’ (Halkomelem; Gerdts 2000: (38))
- c. *ni ʔam-əs-ɬc-t-əs ʔə sʔéniʔ kʷθə sqʷəméyʔ ʔə kʷθə
 Aux give-Appl-Appl-Tr-3Erg Det woman Det dog Obl Det
 sθ’amʔ.
 bone
 ‘He gave the dog the bone for the woman.’ (Halkomelem; Samkoe 1994: 4,
 (11))

The caused possession Appl head therefore seems to be in the same location in the syntax as the benefactive one. The same is true of the other language, Toba (Guaycuruan, Argentina). Censabella (2010: 189) states that all the applicative morphemes in this language, including the caused possession one, occupy the penultimate slot on the verb, followed by number agreement. They also cannot co-occur (Censabella 2010: 191).

When a caused possession applicative and another applicative can co-occur, the morphemes are identical and occur adjacent to each other. Sierra Popoluca illustrates the co-occurrence of caused possession and a benefactive, and Haustec caused possession and external possession (it can also be interpreted as benefactive + external possession):²⁹

- (60) a-na-nik-aʔy-aʔy-i
 Blex-Cause-go-Appl-Appl-Imp
 ‘Take it to him on my behalf!’ (Sierra Popoluca; Marlett 1986: (42))

²⁹Sierra Popoluca B = set B agreement affixes.

- (61) Tu nuju-**tzi-tzi**-Ø t-a bitziim-al.
 1/2S sell-Dat-Dat-Pfv CL-2sPoss horse-Poss
 ‘I sold you/him your horse.’ or ‘I sold your horse for you/him.’ (Huastec; Con-
 stable 1989: 160, (64))

Pylkkänen’s proposal would lead one to expect that caused possession applicatives would be different from all other applicatives, and would appear in a different location on the verb (probably a prefix, given that head movement is thought to put the lower head to the left of the head it moves to by default). The facts are otherwise, and are exactly what would be expected if caused possession applicatives have the same “high” structure as benefactive applicatives. As Georgala (2012) shows, there is no good candidate in any language for Pylkkänen’s low applicative.

We also reject the “raising applicative” proposal of Georgala et al. (2008) and Georgala (2012). In this proposal, caused possession applied NPs are base-generated in Spec-VP and move to the specifier of a non-thematic ApplP for licensing. This non-thematic, licensing Appl occurs in the same location as all other Appl heads, accounting for the morphological facts above. We reject this for two reasons: (1) We do not see how generating an NP in Spec-VP can capture the complex semantics of caused possession (see Bruening 2010, 2021); and (2) Bruening (2021) shows that the applied argument shares certain properties with the external argument which indicate that they are both introduced by functional heads.

We will therefore propose that all applied arguments are generated in the specifier of a functional head (Appl), but all of these functional heads are high. In fact our proposal puts them even higher than Pylkkänen’s (2008) high applicatives.

4.2 *Applicatives as Licensers*

As stated, the essence of our analysis of unaccusative applicatives is that the head that introduces the applied argument (Appl) licenses that argument. This requires that the Appl head be a licenser, in every language. Nie (2024) argues that this is not correct, and Appl

is only a licenser in languages that allow applicative recursion. Nie's (2024) proposal is that, in all languages, the heads T and Voice are nominal licensers, and V is as well in languages like English that have double object constructions. This allows up to three NPs to be licensed in a clause (the third typically being added by a thematic but non-licensing Appl head). In languages that allow multiple applicatives, Appl is also a licenser. These languages then have no limit on how many applied NPs they can add, since the Appl head that introduces each one can license an additional NP.

This proposal makes the prediction that languages like English will be able to license up to three NPs outside of applicatives, but this is not true. The limit without Appl is actually two. Consider the following triplet. A verb like *drink* optionally takes a direct object (62a). A resultative secondary predicate can license an NP as its semantic subject in (62b), without that NP (*the pub*) being interpreted as the object of the verb (*the pub* is not what is drunk). However, the resultative secondary predicate cannot license a semantic subject at the same time as the verb takes a semantic object (62c):

- (62) a. They drank (beer).
b. They drank the pub dry.
c. *They drank beer the pub dry.

Semantically, there should be no problem with (62c): The NP *the pub* can be interpreted as the subject of *dry*, while *beer* can be interpreted as the object of *drink*. The resultative and the main predicate should be able to combine in the same way as in (62b), with the interpretation that the result of them drinking beer was the pub being dry. (Note that in (62b), the pub being dry is the result of them drinking *something*.) The problem in (62c) must therefore be syntactic, and it is plausible that that problem is licensing: Only one NP can be licensed as an object (see Bruening 2024).

Since English does allow two objects when there is an Appl head, Appl must be a licenser even in languages that do not allow applicative recursion. English certainly does not

allow applicative recursion. In addition to caused possession applicatives, colloquial English varieties have a “subject co-referential pronoun” applicative (Christian 1991, Webelhuth & Dannenberg 2006, Conroy 2007, Horn 2008, Bosse et al. 2012, Bruening 2018):

(63) Davy Crockett killed **him** a bear when he was only three.

The semantics of this pronoun is some kind of extra involvement or success/satisfaction on the part of the subject. In an applicative analysis, this pronoun would be introduced by an Appl head with a different semantics from the caused possession Appl. This gives English two distinct Appl heads. Yet the two absolutely cannot co-occur:

- (64) a. Davy Crockett killed **me** a bear. (caused possession)
b. *Davy Crockett killed {him me / me him} a bear when he was only three.

As far as semantics goes, it should be possible to have the two applied arguments co-occur, each receiving a different interpretation. They cannot, showing that applicative recursion is not allowed in English.

Since Appl must be a licenser in English, but English does not allow applicative recursion, then something other than licensing must be responsible for the ungrammaticality of multiple applicatives, contra Nie (2024). What that is is beyond the scope of this paper. However, we do note that Nie’s (2024) argument against selection being the culprit does not go through: That argument depends on there being a VP projection between high and low applicatives, but we have already argued that low applicatives do not exist. If all Appl heads (or many of them) occur in the same location, above VP (and note that in all of Nie’s examples, all the overt applicative morphemes occur adjacent to each other), then in fact selection *can* explain why only one Appl can appear: In the languages with no applicative recursion, Appl would strictly select some other category and would never select another ApplP. We do not commit to this explanation, however, and leave the matter open.

To summarize, we propose that the head that introduces the applied argument (Appl)

always licenses that argument.

4.3 *The Structure of Applicatives*

We propose a very non-standard structure for applicatives, where the Appl head merges with a projection of Voice, not V. We motivate this by observing that many types of applicatives seem to make reference to the external argument. Comitatives obviously do, for instance, since they add an applied argument that acts in concert with the external argument. Bruening (2013) argues that comitative PPs must adjoin to a projection of Voice, the head that projects the external argument (see Yamada 2010 for an analysis of comitatives in Japanese). We take this to suggest that comitative applicatives must also merge with a projection of Voice. Instrumentals also require reference to the external argument: The external argument of the event denoted by the main verb has to also be the external argument of the “using” event of the instrument. Bruening (2013) argues that instrumental PPs also have to attach to a projection of Voice.³⁰ Subject co-referential pronouns as in (63) also obviously require reference to the external argument.

There are hints that other applicatives also make reference to the external argument. Jerro (2023) notes the following contrast, where the external argument does not have to be in the specified location in a construction without a locative applicative, but with the locative applicative the external argument does:

(65) Kinyarwanda (Jerro 2023)

- a. Umu-gabo y-a-bony-e umw-ana mu mu-jyi.
1-man 1S-Pst-see-Prfv 1-child 18 3-town
‘The man saw the child in the town.’ (only the child must be in town)
- b. Umu-gabo y-a-bon-ey-e umw-ana mu mu-jyi.
1-man 1S-Pst-see-Appl-Prfv 1-child 18 3-town

³⁰Buell & Sy (2006) have a “UserP” above “InstrP” for instrumental applicatives in Wolof, and require the user to be bound by a higher argument. This proposal is not sufficiently spelled out, however, and still makes the point that instrumentals make reference to the external argument.

‘The man saw the child in the town.’ (the man and the child must be in town)

In this pair, the locative applicative seems to specifically describe the location of the external argument. Similar facts have been described for other Bantu languages (Pacchiarotti 2020, 2024).

Consider also the Japanese benefactive in (66):

- (66) Yumi-ga Hana-ni sakana-o yaite-**age**-ta.
Yumi-Nom Hana-Dat fish-Acc grill-give-Pst
‘Yumi grilled Hana the fish.’ (Japanese; Tomioka & Kim 2017: (2))

Suppose Yumi grills fish in her backyard, but then goes inside to get something. Hana, a starving fugitive, hops the fence and grabs the fish. According to the Japanese and Korean speakers we have consulted, the sentence in (66) and its Korean counterpart could not describe this situation, although it ought to be fine given the formal semantics proposed in Tomioka & Kim (2017): Hana is the possessor of the fish and she benefits from the fish (it keeps her from starving). The problem, according to our consultants, is the intent of the external argument: The benefactive strongly implies that it is the intent of the external argument that the beneficiary benefit. We have the same judgment regarding English caused possession: *She melted me some ice cream* cannot describe a situation where she just melted some ice cream, and I incidentally came into possession of it (the ice cream melted down under the table where I was hiding, for instance). In other words, intended caused possession involves the intent of the external argument. Benefactives also seem to involve intent on the part of the external argument. This is not universally true, however. It can be possible for a benefactive to have a non-intentional external argument, for instance ‘the sun shone brightly’ in Korean (Tomioka & Kim 2017: (46)), or no external argument at all, as in many of the applicativized unaccusatives that are the topic here. Nevertheless, it seems to be true that, if the external argument could have intent, then benefactives strongly implicate the intent of that external argument. Caused possession applicatives seem to re-

quire intent, and that may be why they cannot attach to unaccusatives: They require a Voice head that selects an external argument.

Given that many applicatives make reference to the external argument, we propose that the Appl head merges not with VP, but with a projection of Voice. We note that there is also morphological evidence to support this hypothesis. In Bantu languages, for instance, the applicative morpheme almost always appears farther from the verb stem than the causative (but inside the passive; see Good 2005):

- (67) aná a-ná-lím-**its-il-idw**-á mákásu
 children 3Pl-Past-cultivate-**Caus-AppI-Pass-FV** hoes
 ‘the children were made to cultivate with hoes’ (Chichewa; Hyman 2003b: 260,
 (23b))

The causative would be expected to follow a suffix that comes between V and Voice, since it should be attaching outside of Voice. One could claim that the causative attaches to a smaller projection, a root or VP (cf. Pytkänen 2008), but the embedded predicate has all the hallmarks of a full VoiceP. The causee can be modified by an instrumental, for instance, as in this example; instrumentals are commonly taken to diagnose the presence of Voice (Bruening 2013) (or an agent: Parsons 1990, Marelj 2004, Reinhart & Siloni 2005).

It is not just Bantu languages where the applicative morpheme comes outside the causative. This is also true of Yimas (Lower Sepik-Ramu, Papua New Guinea) and Uto-Aztecan languages like Cupeño (Hill 2014) and Hiaki (aka Yaqui):³¹

- (68) na-mpu-ŋa-**taŋ-tar**-kwalca-t
 3Sg.Nom-3Pl.Erg-1Sg.Dat-AppI_{com}-Caus-rise-Pfv
 ‘they (Pl) woke him up along with me’ (Yimas; Foley 2024: (22b))
- (69) Nee usi-ta avion-ta ni’i-**tua-ria**-k
 I child-Acc plane-Acc fly-Caus-AppI-Prf

³¹We assume the applied comitative in (68) is acting along with the subject, but that is not clear at all from Foley’s translation. One of the problems with work on applicatives is that the data are presented with ambiguous translations and a general lack of precision concerning meaning.

‘I made the (model) plane fly for the child.’ (Hiaki; Harley 2013: (23))

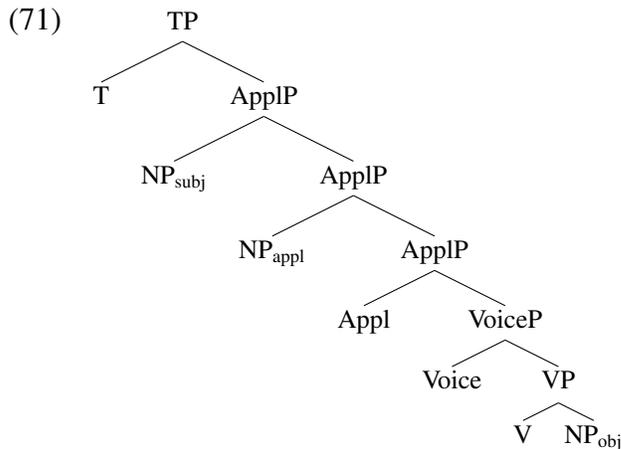
We also observe an applicative prefix coming outside a causative prefix in Paumari (Arauan, Brazil; Chapman & Derbyshire 1991: 304). Applicatives are also frequently syncretic with causatives (see Polinsky 2024 and references there), which is also unexpected if Appl comes between Voice and VP but Caus comes outside of Voice.

In Algonquian languages, the applicative morpheme comes immediately outside of a morpheme that indicates the transitivity of the verb. We repeat an example from Passamaquoddy-Maliseet (58b) below:

- (70) Wesuwe-**ht-uw**-a-n nahsahqehtakon.
 return-Tr.Inan-Appl-3Subj/ObvObj-N ring
 ‘She gave him back the ring.’
 (online dictionary <https://pmpportal.org/dictionary/wesuwehtuwan>)

The morpheme *-ht-* indicates that the verb is transitive and has an inanimate object. It is hard to see how any head in the clause lower than Voice could indicate transitivity, since the verb is not transitive until Voice adds its external argument. We take the set of markers represented by *-ht-* to be Voice in Algonquian languages, and conclude that Appl comes outside of Voice, even when it indicates caused possession.

We propose that the Appl head merges with a projection of Voice, after it has merged with the VP but before it has projected its argument. Appl combines with Voice, projects its own argument, and then projects the argument of Voice in a higher specifier:

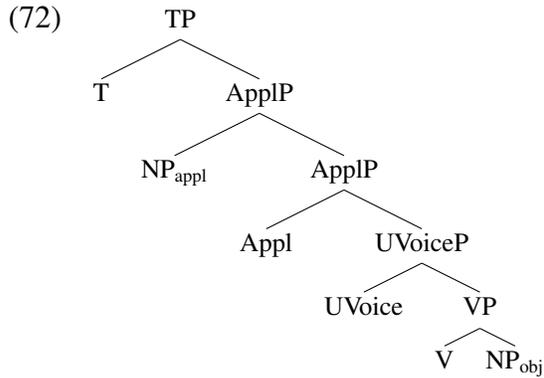


It will be important for our analysis that ApplP and VoiceP are non-distinct categorially. Appl is an argument introducer and argument licenser, just like Voice. It combines with Voice and projects Voice’s argument. What is labeled ApplP in the tree above is also therefore VoiceP; the two are non-distinct. Additionally, it is the maximal ApplP (which is also VoiceP) that is the phase boundary.

As for licensing, we assume (as is standard) that T and (transitive) Voice are the two licensers in the clause. T Agrees (Chomsky 2000) with the closest argument, the external argument, and Voice Agrees with the NP complement of V. Thus, a maximum of two NP arguments can be licensed per clause without Appl. Appl, as stated above, is also a licenser. It licenses its own argument. In a clause with Appl, then, three arguments can be licensed (or more, if the language allows applicative recursion).

4.4 *Unaccusatives*

We adopt the widespread view that unaccusatives have a different version of Voice, U(naccusative)Voice, which is not a licenser (e.g., Embick 2004, Deal 2009, Alexiadou et al. 2015). It also does not take an NP argument. When Appl combines with it, there is no argument of UVoice to project in a second specifier:



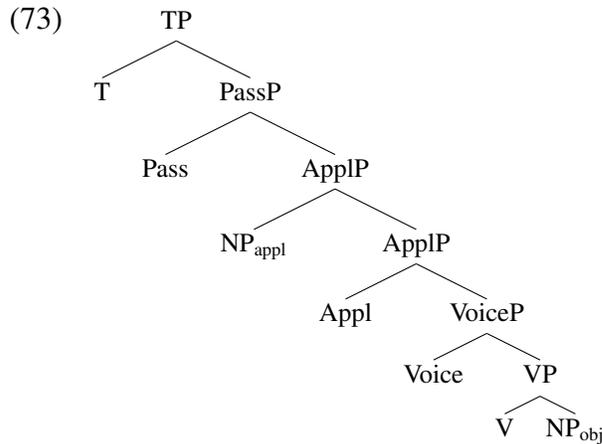
UVoice is not a licenser, but Appl is. Appl licenses its own argument. The only other licenser is T, so T must Agree with the NP complement of V. This NP therefore becomes the surface subject of the clause. Thus, our proposal explains why applicativized unaccusatives always have the underlying object of the verb as the surface subject. The applied argument is always licensed by Appl, while the logical object fails to be licensed within VoiceP in exactly the same way that it does in an unaccusative without an applicative.

It will become important for our account of case in section 4.7 that NP_{obj} must move to the edge of the phase, here a second specifier of ApplP, in order for T to Agree with it. Case assignment will take place after this movement (at the point where T Agrees with NP_{obj}). We assume that when the derivation completes the phase (here, ApplP), an unlicensed NP that is not at the phase edge must move to the edge of the phase (following Bošković 2007, Holmberg et al. 2019).

4.5 *Passives*

We adopt the analysis of passives in Bruening (2013), in which the head Pass merges with an unsaturated projection of Voice and stops it from projecting its argument. Pass existentially quantifies over the unprojected argument, or that argument can be realized as a *by*-phrase. Pass always merges with a projection missing exactly one NP argument. We propose that it can also combine with an ApplP that is missing exactly one argument, since ApplP and VoiceP are non-distinct categorially. The missing argument will be the external

argument of Voice, since that is what is projected in the outermost specifier. This NP is then not projected:



We assume that Appl strictly combines with Voice before Pass merges, so the reverse order never arises.

As for argument licensing in the passive, we adopt the old view that the passive suppresses licensing (Jaeggli 1986, Roberts 1987). There are various ways that this could be spelled out. We will spell it out as follows: The licensing heads Voice, Appl, and T all have a marked, non-licensing version. Being marked, they themselves must be licensed by being checked in the syntax. The Pass head can perform this checking. In a simple transitive, When Pass merges, it probes for Voice, and checks the non-licensing Voice. If Pass does not find non-licensing Voice, or if the non-licensing Voice is not checked (by Pass), the derivation crashes. Non-licensing Voice must therefore always be merged in the passive, and cannot be merged in the active. The result is that Voice always licenses the object in the active but never does in the passive.

Turning to passives of applicatives, in our analysis Appl and Voice are non-distinct. Because of this, Pass may check either non-licensing Voice, or non-licensing Appl, but not both. The ability of the verb's object to become subject seems to depend on the particular applicative. We hypothesize that this is because Appl is the higher of the two heads Appl

and Voice, and is therefore closer to Pass. Pass will generally prefer to check the non-licensing Appl over the non-licensing Voice below it, but the particular choice of Appl can render it transparent to checking by Pass. In asymmetrical languages like Yaqui (2), where only the applied argument can become the subject of the passive, Appl is never transparent to this checking, and only the licensing Voice can be merged. Non-licensing Appl is checked by Pass (and must be), and so only the applied argument can become the subject. In the opposite case, such as with Bukusu instrumental applicatives (3), we hypothesize that there is no non-licensing version of instrumental Appl. Pass must therefore check non-licensing Voice (and instrumental Appl must be transparent to this checking), and only the verb's object becomes subject. In symmetric applicatives, either Appl or Voice may be non-licensing, and the licensing Appl can be transparent for checking of non-licensing Voice. However, Pass can only check one non-licensing head, so one of Appl and Voice must be the licensing version.

As can be seen, unaccusatives and passives differ in our analysis. In an unaccusative, the applied argument is always licensed by Appl, while the object of V is not licensed by UVoice and must be licensed by T. In contrast, the passive head takes away licensing by checking either non-licensing Appl or non-licensing Voice, resulting in variability with respect to whether the applied NP or the verb's object must be licensed by T and promoted

to subject.³²

4.6 Relation to A-Bar Movement

In our analysis, the inability of one NP to become subject in the passive (and the unaccusative) is not tied to an inability to move. We therefore predict that there will be no connection between which NP becomes subject and the other NP being limited in its ex-

³²We are aware of three languages where it is apparently possible to passivize an unaccusative applicative. These languages are Javanese, Tswana, and Sesotho:

- (i) Bocah iku ke-tiba-(a)n (karo) klapa
child Def KE-fall-AN (by) coconut
'The child got fallen on by a coconut (on him)' (Javanese; Sofwan 2001: (48a), (61a))
- (ii) kítsó 'ú-sw-éts-w-ì kí ìràà:χwé.
Kitso(1) sI:cI1-die-Appl.Prf-Pass-FV by his.father(1)
Lit. 'Kitso has been died.Appl by his father.' ('Kitso's father has died.')(Tswana; Creissels 2024: (30))
- (iii) Lineo o-sho-ets-o-e ke-monna.
Lineo Agr-die-Appl-Pass by-husband
'Lineo has been bereaved of the husband' (Sesotho; Machobane 1989: 82, (36b))

This is very unexpected, since unaccusatives generally do not form passives (see Legate et al. 2020 for recent discussion). The head Pass should be limited to taking as its complement a VoiceP with an open individual argument, which rules out UVoice since it does not have an individual argument to leave open. We suggest that examples such as these are not actually passives. In Tswana what appears to be the passive can combine with an unaccusative even without an applicative, and Sesotho patterns with Tswana in this respect Kula & Marten (2023). The Tswana and Sesotho examples could instead be impersonals, which can attach to unaccusatives; see Legate et al. (2020) for an analysis of impersonals. As for Javanese, the morpheme *ke-* is not the regular passive morpheme, rather it is one that forms an "adversity passive." Notably, it only forms the adversity passive when it attaches to unaccusatives with the applicative morpheme *-an*. When this morpheme attaches without the applicative morpheme, *ke-* indicates that the action was unintentional. Additionally, most unergatives in Javanese cannot form these "adversity" passives (Sofwan 2001, Nurhayani 2014). Since this "passive" cannot combine with unergatives but can combine with unaccusatives, we conclude that it is not actually a passive. Since we do not believe any of these examples are truly passives, we do not view them as problematic for our analysis.

traction possibilities. We have already seen that this seems to be true of unaccusatives: The applied argument, though it cannot become the surface subject, can still undergo A-bar movement (examples in section 3). In our analysis, this is because every specifier of the phase head is accessible, not just the highest one. The verb's object moves to an outer specifier of ApplP in an unaccusative, but this does not block the applied object in a lower specifier from undergoing A-bar extraction.

As for passives, it is known that the verb's object can undergo A-bar movement when the applied argument becomes the subject of the passive (e.g., English *What was she given?* and Kihehe example (74a) below). However, the other way around has been claimed to be constrained. Holmberg et al. (2019) show that, in a variety of languages, the applied argument cannot be extracted if the verb's object becomes the subject of the passive. Newman (2024) refines this to languages where the applied argument is capable of becoming the subject; in languages where it cannot become the subject and only the verb's object can (like Greek and German), the applied argument can still be extracted. Additionally, both Holmberg et al. (2019) and Newman (2024) note that there are some languages, like Kinyarwanda, where both objects can become subject in the passive and there are no restrictions on A-bar movement (these languages are all claimed to allow multiple object markers, in contrast with the languages with the extraction restriction which allow only one).

There are several reasons that we do not want to build an interaction with A-bar movement into our account of A-movement in the passive and the unaccusative the way Holmberg et al. (2019) and Newman (2024) do. First, both of those accounts are designed to block the combination of the verb's object becoming subject and the applied argument undergoing A-bar movement. We have already seen, however, that there is no such restriction with unaccusatives. The accounts in Holmberg et al. (2019) and Newman (2024) incorrectly predict that there should be. Second, Holmberg et al. (2019) limit accessibility to only the outermost specifier of a phase, meaning that only one phase could ever un-

constraint in a language. We will remain agnostic on whether the unacceptability indicated by native speakers is due to grammar or to processing. However, the difference between passives and unaccusatives is suggestive of a processing account. As we have seen, there is no problem with A-bar extraction of the applied argument in an unaccusative, but there is in a passive. Unaccusatives should involve crossing paths, just like passives. The difference is that passives have an additional implicit argument, the logical external argument. It is known that intervening discourse referents lead to increased processing loads in long-distance dependencies (Gibson 1998, 2000). In the passive in (74b), A-bar movement of the applied object crosses not only the derived subject, but also the implicit argument of Voice. In an unaccusative, in contrast, there is no such implicit argument. Additionally, passives involve additional morphological complexity, which we assume also increases processing load. Unaccusative verbs are in their canonical forms, whereas passives are non-canonical. These differences are what pushes extraction in the passive over the edge: Not only does extraction of the applied argument lead to crossing paths, but this extraction also crosses an implicit external argument and requires processing a non-canonical construction with additional morphological complexity. Moreover, when the applied argument is not capable of becoming the subject, this is usually because it receives a (visible) distinct case (usually dative). We suggest that this aids processing: Case on the *wh*-filler is visibly distinct from the case of the surface subject, making it easier to process the two overlapping chains. In the end, we think it is not correct to include interactions with A-bar movement in a theory of A-movement in passives and unaccusatives, and so we do not.

4.7 Case

For the sake of completeness, we will also propose a theory of morphological case. We will adopt a hybrid theory of case, where case is assigned by designated heads in the clause, but this assignment can be conditioned by the presence of a case competitor, as in dependent

theories of case.³⁴ We assume that the case assigners are the same as the nominal licensers, so T, Voice, Appl. In a given language, one or more of these heads can be lexically specified with one of the following two conditions:

- (77) a. If H licenses NP1, and H m-commands NP2 such that NP2 c-commands NP1, assign NP1 accusative case.
b. If H licenses NP1, and H m-commands NP2 such that NP1 c-commands NP2, assign NP1 ergative case.

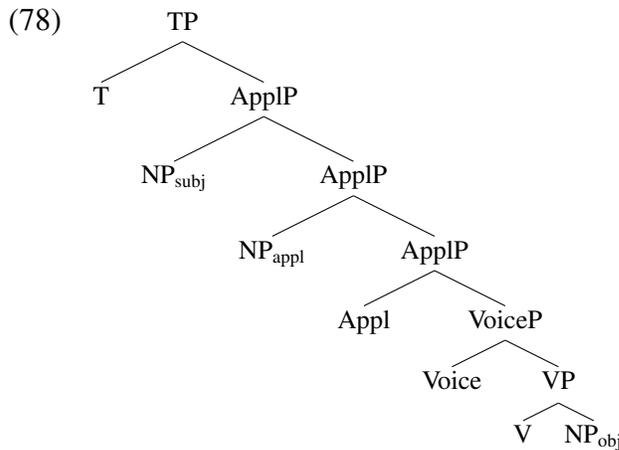
This makes the case rules a lexical specification of particular heads, not extrinsic rules that exist in the grammar independently of any lexical item, as in typical conceptions of dependent case. These conditions are also only specified on a given head as necessary, so that, for instance, only T is ever specified with (77b), and only Voice is ever specified with (77a). However, since Appl and Voice are categorially non-distinct, any specification for Voice will also characterize Appl (unless Appl is specified to assign a lexical dative case). Additionally, default case assignment is nominative/absolutive. If no other case is specified, default case is assigned.

In a simple transitive, the lowest licenser is Voice. It licenses NP_{obj}. If Voice in the language is specified with the accusative rule in (77a), then NP_{obj} will be assigned accusative, because Voice m-commands another NP, NP_{subj}, which c-commands NP_{obj}. If Voice is not specified with the accusative rule in (77a), as in many ergative-absolutive languages, then the default nominative/absolutive will be assigned. This is because Voice is never specified with the ergative rule (and because there is no NP that NP_{obj} c-commands). Moving on to the next licenser, T, it licenses NP_{subj}. If T is not specified with the ergative rule in (77b), then only default nominative/absolutive can be assigned. If T is specified with the ergative rule in (77b), then ergative will be assigned, because NP_{subj} c-commands NP_{obj}. This results

³⁴We credit this hybrid theory of case to an unfinished University of Delaware dissertation by Larson Stromdahl.

in three possible patterns: nominative-accusative (English), ergative-absolutive (Shipibo), ergative-accusative (where Voice is specified with the accusative rule and T is specified with the ergative rule; Nez Perce is an example).³⁵

Consider now our structure for applicatives:



In a nominative-accusative language, starting from the bottom, the first licenser is Voice. It licenses NP_{obj} . Voice is specified with the accusative rule in (77a). Since Appl and Voice are categorially non-distinct, Voice in this structure m-commands both NP_{appl} and NP_{subj} , and both of those c-command NP_{obj} . NP_{obj} is therefore assigned accusative. Moving on to Appl, it licenses NP_{appl} . Appl is categorially non-distinct from Voice, and so it is also specified with the accusative rule in (77a). It m-commands NP_{subj} which c-commands NP_{appl} , so NP_{appl} is also assigned accusative. T licenses NP_{subj} and T is not specified with either rule, so NP_{subj} is assigned the default nominative.

³⁵Logically, there is a fourth possible pattern. If neither T nor Voice is specified with one of the rules, then both the subject and the object will be marked with nominative case. Typically, nominative is unmarked, so this would be the same as a language having no overt case morphology. If nominative were marked in such a situation, we assume that there would be functional pressure against maintaining it (since it serves no purpose), and it would disappear or be reanalyzed over time. There could be a language where subject and object receive the same case (default nominative), but other lexical items like Appl and P assign a distinct case (or many distinct cases).

Now consider an ergative-absolutive language like Shipibo, with the same structure. In Shipibo, T is specified with the ergative rule in (77b), but no other licensers are specified with any condition. Voice will therefore assign absolutive to NP_{obj}, and Appl will also assign absolutive to NP_{appl}. T will assign ergative to NP_{subj}, because there is an NP (actually, two) that NP_{subj} c-commands.

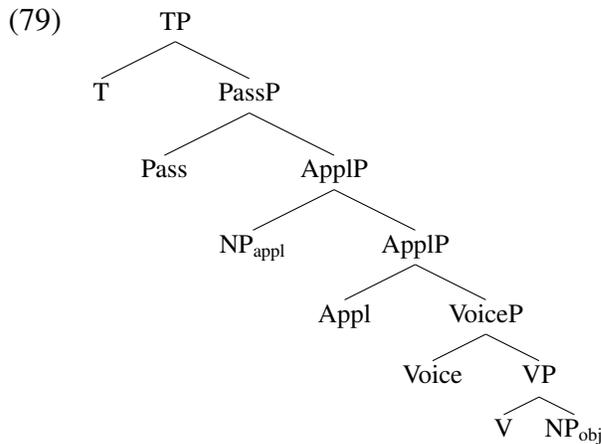
Baker (2014) shows that nominative-accusative and ergative-absolutive languages systematically differ in their double object constructions if they do not have dative case. Nominative-accusative languages systematically have two accusative objects, while ergative-absolutive languages systematically have two absolutive objects. In typical conceptions of dependent case, two accusatives is expected, since both of them are c-commanded by another NP. Two absolutives is not. The applied argument c-commands another NP (the verb's object), and so it ought to be assigned ergative case. Baker (2014) proposes that the reason the applied argument does not get ergative case has to do with phase boundaries, and this leads to a lot of contortions to explain particular cases. In our proposal, the two objects always pattern together because Voice and Appl are categorially non-distinct and any specification on one (or lack thereof) will also be a specification on the other.

As for dative case, we assume that Appl can be lexically specified in a given language to assign dative case. This is typically a non-structural case, which in our analysis means that there is no non-licensing version of the Appl that assigns it. In a passive, Pass can then only check the non-licensing Voice. The NP with dative case cannot become subject and will also not count as a case competitor for other NPs. Case will be assigned as in a simple transitive (and the passive of one, in the passive).

Turning to the passive in languages without dative case, in a simple transitive Pass suppresses the licensing ability of Voice. T is therefore the only licenser, and it will license NP_{obj}. In a nominative-accusative language it will be assigned nominative (because T is not specified with any condition). In an ergative-absolutive language, NP_{obj} will also be as-

signed nominative/absolutive, because there is no NP that it c-commands. (Note that NP_{obj} must move to Spec-VoiceP in order to be visible to T, but this does not change anything in the passive of a simple transitive.)

Now consider the passive of an applicative. We repeat the structure below:



In nominative-accusative languages where Appl is non-licensing, Voice licenses NP_{obj}, assigning accusative. Voice m-commands NP_{appl} and NP_{appl} c-commands NP_{obj}. In ergative-absolutive languages, Voice assigns absolutive. T licenses NP_{appl} and assigns it nominative in a nominative-accusative language and ergative in an ergative-absolutive language.

If Voice is non-licensing, we will get the same case array in a nominative-accusative language, but reversed. This is where movement of NP_{obj} to the phase edge becomes important. Because NP_{obj} cannot be licensed within ApplP, it must move to the edge of ApplP. From there it will be visible to T, which can license it. Prior to that, however, Appl will license NP_{appl}. It will assign that NP accusative case because, at ApplP, there is another NP that Appl m-commands and that c-commands NP_{appl} (the moved NP_{obj}). Subsequently, T will assign NP_{obj} nominative case. In an ergative-absolutive language, after NP_{obj} moves to Spec-AppIP, NP_{appl} will still be assigned absolutive by Appl, but now NP_{obj} will be assigned ergative by T because there is an NP it c-commands, namely, NP_{appl}.³⁶

Coming now to the main topic of this paper, applicativized unaccusatives have NP_{obj}

³⁶We have been unable to find an instance of either of the passive ergative case patterns described here.

move to an outer Spec-AppIP. At that point it will Agree with T. In an ergative language, it will be assigned ergative, because it c-commands NP_{appl}. NP_{appl} is licensed by Appl and will be assigned absolutive in an ergative language but accusative in a nominative-accusative language, because it is c-commanded by NP_{obj} which is m-commanded by Appl.

For completeness, we need to account for the cases in Shipibo above where two absolutives are assigned rather than ergative and absolutive. Since we claim that these are not unaccusative applicatives, we need to provide an alternative analysis. Beginning with the class of verbs in Shipibo represented in (40) that take two absolutive arguments, these are verbs like ‘want’ and ‘forget’. Baker (2014) proposed that the two NPs are generated within the lexical VP. This is consistent with our findings regarding applied NPs, since, on this analysis, there is no AppIP. However, it is not consistent with our case principles. Presumably whichever NP moves to become subject is licensed by T and should therefore be assigned ergative case. We therefore suggest instead that these particular verbs assign lexical absolutive case to their complement NP. Then the object does not count as a case competitor for the subject, since only NPs that need structural case count as case competitors. The subject is therefore assigned absolutive and not ergative. Baker (2014) shows that the object of these verbs is not an oblique (based on patterns of switch reference), but an Passives are rare in ergative languages to begin with, and we need in addition an ergative language that has a passive and two absolutive objects in an active ditransitive. Shipibo has two absolutive objects but does not have a passive according to Baker 2014. Two other languages have two absolutive objects in ditransitives, Enga (Li & Lang 1979: 312) and Ngiyambaa (Donaldson 1980), but neither of these languages has a passive, either. Niuean has applicatives with two absolutive objects (Massam 2006), but it does not have a productive passive (Levin & Massam 1986). Burushaski has two absolutives in some cases and it has a passive (Willson 1996), but Willson (1996) does not show passives of those double absolutive examples, nor do Morin & Tiffou (1988). Diyari is a tripartite language with two accusative-marked objects and an ergative subject (Austin 2021), but we have been unable to find an example of a passive of a ditransitive verb. The case array we describe here is what we predict.

NP with lexical case is also not an oblique. As far as we can see, all the facts are consistent with the objects of these verbs being assigned non-structural case. (It does not matter where the surface subject starts, but for concreteness, we suppose that it is Spec-VoiceP.)

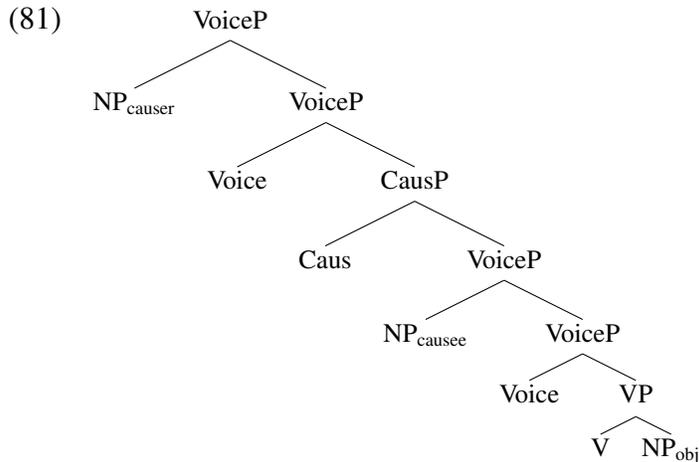
We also need to account for why, in Shipibo, the reciprocal of a transitive applicative has two absolutive cases rather than ergative-absolutive (39). Baker (2014) suggested that the reciprocal suppresses the external argument. We adopt this suggestion here (but we do not need to assume Baker's movement analysis). We also propose that the reciprocal, unlike the passive, does not suppress the licensing ability of either Appl or Voice (i.e., it does not check the non-licensing version of them). Then Appl and Voice license the two objects as absolutives exactly as in an active ditransitive. The head T does not need to license anything, and so it does not. No ergative case is assigned.³⁷

Finally, our analysis can also account for the facts of the tripartite case system of Nez Perce. The basic facts are the following: In an intransitive, the subject is in the unmarked nominative case. This already follows from our analysis (the NP is licensed by T and there is no other NP). In a simple transitive, the subject is ergative and the object accusative (both overtly marked). In our analysis, Voice is specified with the accusative rule (77a) and T is specified with the ergative rule (77b). In a ditransitive, including applicatives, the subject is ergative, the higher object is accusative, and the lower object is unmarked nominative. In contrast, causatives of transitives have two accusative objects and an ergative subject (Deal 2010). To account for this, we amend our account so far to propose that Nez Perce Voice and Appl are specified with a slight variation on the accusative rule:

³⁷Diyari is a tripartite language wherein the verb 'give' takes two accusative objects. When reciprocalized, the subject is ergative and the object accusative (Austin 2021: 120, (182)). Diyari thus contrasts with Shipibo. In Diyari, we suggest the reciprocal suppresses not the external argument, but the highest internal argument, as proposed by Bruening (2004, 2006). Then the external argument will be licensed by T and assigned ergative.

- (80) If H licenses NP1, and H m-commands exactly one NP, NP2, such that NP2 c-commands NP1, assign NP1 accusative case.

This has the result that only the highest object in an active ditransitive can be assigned accusative. Any lower object will be c-commanded by more than one NP, and so case defaults to nominative. In contrast, in a causative, there are two Voice heads:



The lower Voice licenses NP_{obj}. It will assign it accusative, because there is only one other NP that it m-commands, namely, the causee. The higher Voice licenses the causee. It will assign it accusative, too, because there is only one other NP that it m-commands that c-commands the causee, namely, the causer. The difference between a causative and an applicative is that Voice in an applicative m-commands both NP_{appl} and NP_{subj} in addition to NP_{obj}, but the lower Voice in a causative does not m-command the causer.

Finally, in an unaccusative applicative like example (4b), after NP_{obj} moves to Spec-AppIP, Appl m-commands exactly one NP that c-commands the applied object (NP_{obj}), so the applied object is assigned accusative case. In the double applicative example in (34), the lowest object gets nominative again, because there are two NPs that c-command it and are m-commanded by Voice (the two applied NPs).

One other tripartite language is Diyari. In contrast with Nez Perce, it has two accusative objects in a ditransitive (Austin 2021: 120). This follows if it has the typical accusative rule

in (77a): Both Appl and Voice will assign accusative, since there is (at least) one NP that c-commands the NP licensed by each.

4.8 *Summary*

In this section, we have proposed a new analysis of applicatives, which explains why applicatives of unaccusatives behave uniformly, but passive applicatives show variability. Key to our proposal is that Appl always licenses the argument it introduces, except that there is a non-licensing version that must be checked by Pass. Differences in extraction between unaccusatives and passives lead us to conclude that A-movement and A-bar movement do not interact, and extraction restrictions on passives are due to something external, like processing difficulties. We also proposed a hybrid theory of morphological case which accounts for all the facts of case assignment in ergative-absolutive, nominative-accusative, and tripartite languages.

5 **Conclusion**

This paper has shown that applicatives formed from unaccusatives contrast with applicatives that are passivized. Our cross-linguistic survey has found that applicative unaccusatives are completely uniform: The verb's object is always the surface subject, never the applied object. In passives of applicatives, either the applied object or the verb's object can become the surface subject, depending on the language and the type of applicative. Additionally, extraction of the applied argument is possible from an unaccusative, but extraction of the applied object when the object of the verb is the subject of the passive is constrained in some languages. The difference between unaccusatives and passives with respect to extraction of the applied argument is unexpected in many recent proposals (Holmberg et al. 2019, den Dikken 2023, Newman 2024), which predict that extraction in an unaccusative

should be constrained similarly to the passive. We suggest that the processing-based analysis of Tollan & Clemens (2022) is the best account of this difference. This is in line with much recent work which has argued that apparent grammatical constraints on A-bar extraction may be better explained with reference to extragrammatical factors (e.g., Hofmeister & Sag 2010, Hofmeister et al. 2012, 2014, Chaves & Dery 2019, Chaves & King 2019, Abeillé et al. 2020). We also propose that all Appl heads merge above Voice, and have given some reasons for thinking this is true even independently of how the proposal helps to explain the difference between unaccusatives and passives.

Finally, we have also proposed a hybrid theory of case, where designated functional heads assign case but may refer to a case competitor in order to determine what case to assign. This hybrid theory combines the best of the functional head analysis and the dependent case analysis, while overcoming the shortcomings of each. We have not gone into full detail on this hybrid theory, and so future research will need to be carried out to show that it can account for the full range of case systems that exist.

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