Chapter 13

Another way around causatives in Chamorro

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In Anderson's (1992) theory of a-morphous morphology, the traditional observation that inflection occurs "outside of" derivation follows from the assumption that only lexically complete stems can instantiate morphosyntactic representations. Anderson discusses an apparent counterexample to the traditional observation that involves causative verbs and number agreement in the Austronesian language Chamorro. Anderson defuses the apparent counterexample by proposing, following Durie 1986, that Chamorro number agreement is a derivational, rather than inflectional, process. I show that there is a different way of finessing the issue that preserves the intuition that Chamorro number agreement is inflectional. This alternative takes the causative 'prefix' to be a prosodically deficient verb, in the overall spirit of Anderson 2005.

1 Introduction

In Anderson's theory of a-morphous morphology, the traditional observation that inflection occurs "outside of" derivation follows from the assumption that only lexically complete stems can instantiate morphosyntactic representations. Anderson (1992: 127–128) discusses an apparent counterexample to the traditional observation from Chamorro, an Austronesian language of the Mariana Islands. Chamorro has causative verbs which, according to previous accounts, are formed by attaching the prefix *na'*- to a verb or adjective (see e.g. Baker 1985; Gibson 1980, Safford 1904: 108, and Topping & Dungca 1973: 247–249). The point of interest is that *na'*- can attach to a verb or adjective that already shows number agreement. Assuming that *na'*- is derivational but number agreement is inflectional, the fact that *na*'- can occur "outside of" number agreement is problematic. Anderson defuses the apparent counterexample by proposing, following Durie (1986: 364–365), that Chamorro number agreement is a derivational, rather than inflectional, process.

Here I explore a different way of finessing the issue, one that preserves the intuition that Chamorro number agreement is inflectional. The key to this alternative is to take

Sandra Chung. 2017. Another way around causatives in Chamorro. In Claire Bowern, Laurence Horn & Raffaella Zanuttini (eds.), *On looking into words (and beyond)*, 263–288. Berlin: Language Science Press. DOI:10.5281/zenodo.495450

the causative "prefix" to be a prosodically deficient verb, in the spirit of Anderson's 2005 approach to clitics as phrasal affixes. Chamorro has a small class of prosodically deficient verbs that are instances of Zwicky's 1977 bound words. These forms have the morphosyntax of verbs, but cannot serve as phonological words on their own. Instead, they must remedy their prosodic deficiency by undergoing stray adjunction to the phonological word to their immediate right, which is always the first phonological word of their complement.

I show that much of the distinctive profile of Chamorro causatives is accounted for if the causative *na'* is treated as a prosodically deficient verb that selects a vP complement. Moreover, once this route is taken, Chamorro causatives no longer pose a threat to the "outside-inside" order of inflection and derivation, even if number agreement is inflectional. This is because the causative *na'* that can appear "outside of" number agreement is not, in fact, derivational morphology, but rather the prosodically deficient content of a syntactic verb.

§2 of this paper gives a mini-introduction to the morphosyntax of Chamorro clauses. §3 presents the basics of causatives and their interaction with the language's two types of subject-verb agreement. §4 looks closely at Durie's 1986 evidence that Chamorro number agreement is derivational and concludes that it is not decisive. Then, §5 gives an overview of Chamorro's prosodically deficient verbs. §6 proposes that the causative *na'* is a prosodically deficient verb and explores some positive consequences of this proposal. §7 handles some challenges, and §8 concludes.

2 Chamorro Morphosyntax in Brief

Chamorro is a head-initial language that allows predicates of all major category types and a range of null arguments. When the predicate is a verb or adjective, the default word order of the clause is Predicate Subject Object Other, but the order of arguments and adjuncts after the predicate is flexible (see Chung 1998 and the references cited there).[1]

(1) a. Ha baba si Antonio i petta.
P.AGR open UNM Antonio the door.
'Antonio opened the door.'

b. K*um*åti i neni sa' ma'å'ñao ni sanye'yi'.
N.AGR.cry the baby because N.AGR.afraid OBL spider
'The child cried because she's afraid of the spider.' (CD, entry for *sanye'yi'*)

DPs are case-marked with a proclitic that occurs to their immediate left. There are three morphological cases: unmarked, local, and oblique. Subjects, direct objects, possessors, predicate nominals, the objects of most overt prepositions, and DPs that occupy

[1] Most of the Chamorro examples cited here are from the CD database, which consists of some 30,000 sentences constructed by Chamorros in the CNMI as illustrative examples for the revised Chamorro-English dictionary. Other examples are from published sources listed in the references; unattributed examples are from my fieldwork.

topic or focus position occur in the unmarked case, which is overtly realized only when the DP is a proper name. Otherwise, DPs that denote locations or goals occur in the local case; most other types of DPs occur in the oblique case.

(2) Ma rikuknisa si Esthera ni finatton-ña gi hunta.
P.AGR recognize UNM Esther OBL arrival-POSS LOC meeting
'They acknowledged Esther for her coming to the meeting.' (CD, entry for *rikuknisa*)

Predicates that are verbs or adjectives show subject-verb agreement via forms that also indicate mood (realis vs. irrealis) and are sensitive to transitivity. There are two types of subject-verb agreement. *Person-and-number agreement* (glossed P.AGR in the examples) is realized via forms that could be analyzed as proclitics or prefixes, but are written as separate words in the Chamorro orthography; see the paradigm in (3).[2] In the realis mood, this type of agreement is found only on transitive verbs; in the irrealis mood, it is found on all verbs and adjectives.

(3) Person-and-Number Agreement

	Realis	Irrealis
1SG	hu	(bai) hu / bai
2SG	un	un
3SG	ha	u
1INCL.DU/PL	ta	(u)ta
1EXCL.DU/PL	in	(bai) in
2DU/PL	en	en
3DU/PL	ma	u (INTR) / uma (TR)

Number agreement (glossed N.AGR) is realized via a prefix or infix; see the paradigm in (4). This type of agreement is found only on intransitive verbs and adjectives.[3]

(4) Number Agreement

	Realis	Irrealis
SG/DU	-um- / —	—
PL	man-	fan-

[2] Chamorro has various standard and nonstandard orthographies (see Chung 1998: Appendix A). The orthography used here, which was officially adopted by the CNMI legislature in 2010, differs in small ways from the transcription used in Chung 1998, and more substantially from earlier spelling systems, including the official orthography on Guam.

[3] The choice between the two realizations of realis singular number agreement is determined lexically. Generally, *-um-* is used for event predicates, as well as for state predicates in the inchoative aspect; otherwise, the agreement is generally unrealized for state predicates. But there are exceptions. The realizations of plural number agreement have a final /n/ that undergoes the alternation known as nasal substitution.

Notice that dual is aligned with plural for the purposes of person-and-number agreement, but with singular for the purposes of number agreement. This will become important later.

Both types of agreement are the default realizations of subject-verb agreement for predicates of the relevant type, and fully productive; e.g. they can be added to recently borrowed words (as in 5a), even when the borrowings are creative or innovative (as in 5b).

(5) a. Man-meeting ham gi Lunis.
N.AGR-have.meeting we LOC Monday
'We had a meeting on Monday.' (CNMI Senate session SJ 17–22: 20)

b. Bai hu "love-mark" i kurason-mu.
P.AGR love-mark the heart-POSS
'I will "love-mark" your heart.' (EM 60)

Finally, the two types of agreement have overlapping distributions. Transitive verbs show only person-and-number agreement (see 1a, 2, 5b and 6a); intransitive predicates in the realis mood show only number agreement (see 1b, 5a, and 6b); but intransitive predicates in the irrealis mood show both. Note that when the two types of agreement co-occur, person-and-number agreement occurs "outside of" – i.e. to the left of – number agreement (see 6c).

(6) a. Hu afuetsas gui' para u atan yu'.
P.AGR compel her FUT P.AGR look.at me
'I compelled her to (lit. that she would) look at me.' (CD, entry for *afuetsas*)

b. Durånti-n i tinaitai, bula mang-åti.
during-L the prayer many N.AGR-cry.
'During the prayer, many cried.' (CD, entry for *durånti*)

c. Ti para u fang-åti i famalåo'an.
not FUT P.AGR N.AGR-cry the women
'The women are not going to cry.'

With this much in place, let us now zero in on causatives.

3 Causatives

Previous accounts describe Chamorro causatives as formed by adding the prefix *na'-* to a verb or adjective (see e.g. Baker 1985; Gibson 1980; Safford 1904; Topping & Dungca 1973). This process creates a derived transitive verb with an additional argument, which denotes the causer. The causer argument is realized as the subject of the causative; the subject of the original predicate (henceforth the *inner* predicate) is realized as the direct object of the causative; and the direct object of the inner predicate, if any, is realized as

an oblique (see Gibson 1980). To illustrate, the causatives *na'baba* 'make open', *na'kåti* 'make cry', and *na'ma'å'ñao* 'make afraid, frighten' are derived, respectively, from the transitive verb *baba* 'open' (cf. 1a), the intransitive verb *kåti* 'cry' (cf. the first clause of 1b), and the adjective *ma'å'ñao* 'afraid' (cf. the second clause of 1b).

(7) a. In na'-baba si Antonio ni petta.
P.AGR CAUS-open UNM Antonio OBL door
'We made Antonio open the door.'

b. Ha na'-kåti si Gene i lahi-ña anai ha lalåtdi.
P.AGR CAUS-cry UNM Gene the son-POSS when P.AGR scold
'Gene made his son cry when he scolded him.' (CD, entry for *kåti*)

c. Un na'-ma'å'ñao yu' ni taklalo'-mu.
P.AGR CAUS-afraid me OBL great.anger-POSS
'You made me afraid with your great anger.'

Gibson's 1980 investigation of the syntax of Chamorro causatives established three points that will be in the spotlight here. First, causatives have the morphosyntax of the language's transitive verbs (Gibson 1980: 86–91). Like other transitive verbs, they can occur in the passive.[4]

(8) a. Ma-na'-gimin i patgun åmut ni ti dinanchi.
N.AGR.PASS-CAUS-drink the child medicine COMP not N.AGR.right
'The child was made to drink medicine that was not right.' (CD, entry for *tumaiguihi*)

b. Kulan n*in*a'-ma'å'ñao i biha nu esti na klåsi-n tinanum.
sort.of N.AGR.PASS.CAUS-afraid the old.lady OBL this L type-L plant
'The old lady was kind of made afraid by this type of plant.' (MAK 2)

They can also occur in the antipassive.[5]

(9) Mu-nana'-gupu papaloti si Juanito gi kantu-n tåsi.
N.AGR-AP.CAUS-fly.PROG kite UNM Juanito LOC edge-L ocean
'Juanito is flying a kite (lit. making a kite fly) by the seashore.' (CD, entry for *na'gupu*)

And they can be used to create reciprocals – derived intransitive verbs, formed with the stressed prefix *á-*, which are Chamorro's primary means of expressing reciprocal meaning.

[4] Passive verbs are formed with the infix *-in-* or the prefix *ma-*. The choice between *-in-* and *ma-* is determined primarily by the number of the passive agent: *-in-* appears when the agent is singular, *ma-* when the agent is dual/plural or implicit (see Chung 1998: 38, note 8).

[5] Antipassive verbs are usually formed with the prefix *man-/fan-*. However, some transitive verbs have suppletive antipassive forms (e.g. the antipassive of *kånnu'* 'eat' is *chotchu*); others have antipassive forms identical to their transitive forms (e.g. *gimin* 'drink'). The antipassive of a causative is formed by shifting primary stress to the causative prefix.

(10) Kao um-á-na'-patcha hamyu ni feggun?
Q N.AGR-RECIP-CAUS-touch you.PL OBL stove
'Did you two make each other touch the stove?'

Second, causatives can be derived from verbs that are morphologically complex (see Gibson 1980: 114–121). The causatives in the examples in (11) are derived from verbs – surrounded by brackets – that are passive (11a–11b), antipassive (11c), and reciprocal (11d).

(11) a. In na'-[ma-baba] as Antonio.
P.AGR CAUS-PASS-open OBL Antonio
'We made it be opened by Antonio.'

b. Bai na'-[s*in*aolak] hao nu i ma'estra.
P.AGR CAUS-PASS.spank you OBL the teacher
'I will let you be spanked by the teacher.' (CD, entry for *sinaolak*)

c. I bakulu-hu ha-na'-[fang-gånna] yu'.
the shooter.marble-POSS P.AGR-CAUS-AP-win me
'My shooter marble made me win.' (CD, entry for *båkulu*)

d. Ma na'-[á-dispatta] i dos tåotao ni mumu.
P.AGR CAUS-RECIP-separate the two person COMP N.AGR.fight
'They separated (lit. caused to separate from each other) the two people who were fighting.' (CD, entry for *na'ádispatta*)

As these observations might lead one to expect, causatives derived from morphologically complex verbs can themselves occur in the passive, antipassive, or reciprocal.[6] The verbs in boldface in (12) are the passive of a causative derived from a passive verb (in 12a) and the passive of a causative derived from an antipassive verb (in 12b).

(12) a. … yan maseha håyi malago'-ña i Lahi-ña para u
and ever who WH.want-POSS the son-POSS FUT P.AGR
n*in*a'-[ma-tungu'] Gui'.
PASS.CAUS-PASS-know he
'…and whoever his Son wants to cause Him (lit. that He be caused) to be known by.' (NT 124)

b. **N*in*a'-[fañ-otsut]** anai ma-nå'i måolik na kunseha.
N.AGR.PASS.CAUS-AP-repent when N.AGR.PASS-give good L advice
'She repented (lit. was caused to repent) when she was given good advice.' (CD, entry for *na'fañotsut*)

[6] Although it is possible in principle for causatives formed from a verb in any voice to occur in any voice, the naturally occurring data suggest that some combinations are more frequent than others. When the causative is active transitive or passive, the inner predicate can be active (transitive or intransitive), passive, antipassive, or reciprocal. When the causative is antipassive or reciprocal, the inner predicate is most often active (transitive or intransitive).

A causative can even be derived from the passive of a causative, as (13) shows.

(13) Si Josephine ha **na'-[ma-na'-[suha]]** i atgoya gi gui'eng-ña.
UNM Josephine P.AGR CAUS-PASS-CAUS-go.away the nose.ring LOC nose-POSS
'Josephine had her nose ring removed (lit. caused the nose ring to be caused to go away).' (CD, entry for *atgoya*)

Third, the inner predicate – the verb or adjective from which a causative is derived – does not show person-number agreement. But, surprisingly, the inner predicate *does* show number agreement (see Gibson 1980: 112–114). Inner predicates that are intransitive agree with the DP that would have been their subject via irrealis number agreement, which is unrealized in the singular/dual, but spelled out as the prefix *fan-* in the plural. This number agreement is not realized on the inner predicates in (11–13), because the DPs that would have been their subjects are singular/dual (e.g. the null pronoun 'it' in (11a), *hao* 'you (sg.)' in (11b), *yu'* 'me' in (11c)), but it is overt on the inner predicates in (14), because the DPs that would have been their subjects are plural. (Note that the inner predicates in (14) are clearly not agreeing with the subject of the causative, which is singular.)

(14) a. Hu na'-[fang-gupu] i petbus.
P.AGR CAUS-N.AGR-fly the dust
'I made the (particles of) dust fly around.' (CD, entry for *na'gupu*)

b. Ha na'-[fan-luhan] ham.
P.AGR CAUS-N.AGR-afraid us
'[The wind] scared us (lit. made us afraid).' (CD, entry for *diripenti*)

c. Ha na'-[fan-ma-kotti] i guåtdia, ya ha na'-[fan-ma-punu'].
P.AGR CAUS-N.AGR-PASS-try the guard and P.AGR CAUS-N.AGR-PASS-kill
'He had the guards brought to trial, and had them killed.' (NT 235)

d. I abisu ha na'-[fan-man-ununguʼ] i taotao na …
the alarm P.AGR CAUS-N.AGR-AP-know.PROG the person that
'The alarm is letting the people know that…[the typhoon is close]. (CD, entry for *abisu*)

Baker (1985) used the relative order of the plural *fan-* with respect to the causative and passive affixes to argue for the Mirror Principle. As he observed, "clear examples of agreement morphemes that can appear intermixed with GF-rule morphemes seem quite unusual" (Baker 1985: 386). What matters here is that the plural *fan-* in the examples in (14) occurs "inside of" – i.e. to the right of – the causative *na'-*. Assuming that *fan-* is inflectional but *na'-* is derivational, this ordering appears to counterexemplify the traditional claim that inflection always occurs "outside of" derivation.

4 Number agreement revisited

A natural question to raise at this point is whether Chamorro number agreement might be derivational as well.

4.1 Is it derivational?

As Anderson (1992: 127–128) observes, this question is answered in the affirmative by Durie (1986), who contends that across languages, verbal number – whether realized by stem suppletion or productive affixation – is "selectional concord" (i.e. derivational) as opposed to "agreement". Durie's evidence for this claim comes from various languages, including Chamorro. In the suppletion cases he examines (in e.g. Huichol), verbal number is sensitive to semantic roles like patient or affected participant, not to syntactic relations like subject. Chamorro number agreement does not conform to this pattern, but instead cross-references the (surface) subject regardless of semantic role; this is one way that it behaves like a paradigmatic case of agreement. Still, Durie argues that number agreement in Chamorro is "inherent verbal Number morphology" (Durie 1986: 364) whereas person-and-number agreement is inflectional, on the basis of the following:

- Number agreement distinguishes plural from nonplural (i.e. plural from singular/dual), but the number feature on nouns and pronouns distinguishes singular from nonsingular (i.e. singular from dual/plural), so "[t]here is no [±plural] feature for the verb to agree with" (Durie 1986: 364).
- Number agreement can have an overt pronoun as antecedent, whereas person-and-number agreement cannot.
- Number agreement appears in infinitives, imperatives, and attributive modifiers, whereas person-and-number agreement does not.
- Number agreement is preserved in lexical derivations, such as causatives (see above), whereas person-and-number agreement is not.

These may look like good reasons for classifying number agreement as derivational – a move that would make it unsurprising in the extreme that the plural *fan-* can occur "inside of" the causative *na'-*. But further examination suggests a more equivocal picture.

4.2 A second look

Consider, to begin with, the claim that Chamorro nouns and pronouns have a different number feature than what is registered by number agreement. The specific claim is that nouns and pronouns employ the feature [±singular] – they distinguish singular from dual/plural – whereas number agreement employs the feature [±plural] – it distinguishes singular/dual from plural (see the paradigm in (4)). Assuming that inflectional morphology is the spell-out of syntactic features, the disconnect between these features

might seem to pose an insuperable problem for the view that number agreement is inflectional (but see below).

Overt pronouns in Chamorro do indeed employ the feature [±singular] – they distinguish singular from dual/plural, as observed explicitly by e.g. Safford (1903: 308). The second person independent pronouns *hågu* and *hamyu*, for instance, differ in that *hågu* refers to just one addressee, while *hamyu* refers to two or more addressees. The other overt pronouns are similar. It is less obvious how number is handled in nouns, because most Chamorro nouns do not show obligatory number inflection. Just a handful of nouns, listed in (15), are inflected obligatorily, and somewhat irregularly, for number.

(15) a.

Singular	Dual	Plural	
che'lu	chume'lu	mañe'lu	'sibling'

b.

låhi	lalåhi	'man, son'
palåo'an	famalåo'an	'woman'
påli'	mamåli'	'priest'
påtgun	famagu'un	'child'
saina	mañaina	'parent'

The noun *che'lu* has separate forms for singular, dual, and plural. The other nouns have forms which are usually termed "singular" and "plural" (e.g. Safford 1903: 302–304, Topping & Dungca 1973: 325), but actually distinguish singular/dual from plural. That is, they employ the feature [±plural]. The examples in (16) reveal that when these nouns refer to just two individuals, they are realized in the singular/dual form, not the plural form.

(16) a. Um-iskuekuela i dos påtgun sanlagu.
N.AGR-attend.school.PROG the two child continental.US
'The two children are attending school in the continental U.S.' (CD, entry for *sanlagu*)

b. Dos na palåo'an u fang-gugulik trigu.
two L woman P.AGR N.AGR.AP-grind.PROG grain
'Two women will be grinding grain.' (NT 48)

The claim that the nouns in (15b) align dual with singular is supported by naturally occurring data.[7] There are 30 instances in the CD database, and 23 instances in the first 150 pages of the Chamorro New Testament (NT), of these nouns occurring in explicitly dual DPs – DPs whose noun is preceded by the numeral *dos* 'two'. In 51 out of the combined 53 instances, the noun occurs in the singular/dual form.

It is now clear that Chamorro pronouns employ the feature [±singular], but obligatorily inflected nouns employ the feature [±plural] or – in the case of *che'lu* – both features.

[7] Native speakers' judgements trend in the same direction, but are more forgiving. For instance, when asked which of the following two forms she would use to refer to two children, one speaker commented that *i dos påtgun* 'the two children' (with the singular/dual form of the noun) was better for her, but that *i dos famagu'un* (with the plural form of the noun) "will be understood in most circumstances".

This makes it reasonable to suppose that Chamorro DPs are specified for [±singular] *and* [±plural], even though in the vast majority of cases, these features have no DP-internal realization. But then the way that number is handled by the agreement system is compatible with the idea that both types of agreement are inflectional. Person-and-number agreement simply registers one of the number features (namely, [±singular]), while number agreement registers the other ([±plural])

I now turn to Durie's other evidence that number agreement is derivational. It consists of the following:

- Number agreement can have an overt pronoun as antecedent, but person-and-number agreement cannot. (The only pronouns that can antecede person-and-number agreement are null pronouns; see also Chung 1998: 30–31.) Durie takes these facts, which are illustrated in (17), to show that person-and-number agreement is "anaphoric", but number agreement is not.

(17) a. Yayas (gui').
N.AGR.tired s/he
'S/he is tired.'

b. Ha fåhan (*gui') i lepblu.
P.AGR buy s/he the book
'S/he bought the book.'

Now, the contrast in (17) *could* ultimately reflect a difference between derivation and inflection. But it is equally likely that it flows from some linguistic notion of "efficiency" or "brevity" (cf. Grice) plus the featural content of the two types of agreement. Person-and-number agreement encodes exactly the same features as Chamorro pronouns – namely, person features and [±singular] – so a ban that prevents this type of agreement from being anteceded by an overt pronoun contributes to the goal of minimizing redundancy. A comparable ban on number agreement would have no rationale, because number agreement encodes a different feature – [±plural].

- Number agreement appears in infinitives, imperatives, and attributive modifiers, but person-and-number agreement does not. Consider the imperative in (18).

(18) (*En) Fan-man-hokka' sa' bula pineddung mångga gi egga'an.
P.AGR N.AGR-AP-pick because N.AGR.many fallen.L mango LOC morning
'Go and do some picking, because there were many fallen mangos in the morning.' (CD, entry for *poddung*)

To the extent that this observation is valid,[8] it *could* bear on the contrast between derivation and inflection, but other explanations are possible. Suppose, for instance, that number agreement realizes a feature of small v, whereas person-and-number agreement

[8] In conjoined imperatives, the leftmost imperative verb does not show person-and-number agreement, but verbs in subsequent conjuncts generally show irrealis person-and-number agreement as well as number agreement (if applicable). The embedded "clause" in restructuring constructions can either be inflected like an infinitive or show realis person-and-number agreement; see 6.2.

realizes features of T. Then number agreement would be expected to appear in infinitives and imperatives, because these constructions are at least vPs; there might be no similar expectations for person-and-number agreement. I will adopt a version of this approach below. As for attributive modifiers, it should be noted that Chamorro allows relative clauses to precede or follow the head NP; it also allows relative clauses whose head NP is null (see Borja, Chung & Wagers 2015). The attributive modifiers that show number agreement can straightforwardly be analyzed as predicates of one or another of these relative clause types.

- Finally, number agreement is claimed to be preserved in lexical derivations, such as causatives and what Durie calls "nominal derivatives". Causatives are, of course, the focus of investigation here. The "nominal derivatives" are not, in fact, derived nouns but rather relative clauses whose head NP is null. Two of Durie's examples are given below, with the spelling normalized. In these constructions, the word that shows number agreement is the verb of the relative clause, which happens to be intransitive.

(19) a. i h*um*ånao
the N.AGR.go
'the (one) who went' (translated by Durie as 'the goer')

b. i man-hånao
i N.AGR-go
'the (ones) who went' (translated by Durie as 'the goers (> 2)')

Notice that when the verb of the relative clause is transitive, it can show person-and-number agreement; see the relative clauses in brackets below.[9] This too is expected if these constructions are relative clauses.

(20) a. Abånsa [i un chochogui].
advance the P.AGR do.PROG
'Go forward with the (thing) which you are doing.' (CD, entry for *abånsa*)

b. Hu angokku na para un cho'gui [i hu faisin hao].
P.AGR trust COMP FUT P.AGR do the P.AGR ask you
'I trust that you will do the (thing) which I ask you.' (CD, entry for *angokku*)

In the end, the evidence cited by Durie provides no firm basis for classifying number agreement as derivational *or* inflectional. But then we are back to the original conundrum: why can the plural *fan-* occur "inside of" the causative *na'*-? I propose to answer this question by analyzing the causative *na'* not as a derivational prefix, but as a prosodically deficient verb.

5 Prosodically deficient verbs

The proposal to analyze the causative *na'* as a prosodically deficient verb assimilates it to a very small class of frequently used Chamorro verbs. This class contains the intransitive

[9] The verb of the relative clause can also show wh-agreement, but that is irrelevant here.

verb *malak/falak* 'go to, head to, depart for' and the transitive verb *fa'* 'pretend'.[10] Both verbs are clearly the content of lexical categories; they are not derivational prefixes. Like other verbs, they serve as the predicates of clauses, show subject-verb agreement, are inflected for mood and aspect, and so on. More significantly for our purposes, they select a functional projection as their complement.

Malak/falak 'go to' selects a DP that is linked to its goal argument. This DP, which is bracketed in (21), can include determiners (see 21a) and modifiers (21a–21b); it can also consist of a place name (21c) or an interrogative pronoun (21d). This range of expansions reveals that syntactic incorporation, however analyzed, is not involved.

(21) a. Man-malak [i Pala na kasinu] ham.
N.AGR-go.to the Pala L casino we
'We went to the Pala casino.' (CD, entry for *kasinu*)

b. Ti ya-hu malak [ottru tånu'].
not like-POSS N.AGR.INFIN.go.to other land
'I don't like to go to other places.' (CD, entry for *gåstu*)

c. Yanggin gaigi hao Saipan ya para un falak [Tinian], siempri
if N.AGR.be.at you Saipan and FUT P.AGR N.AGR.go.to Tinian indeed
h*um*ånao hao luchan.
N.AGR.go you south
'If you are on Saipan and traveling to Tinian, you will have to go south.' (CD, entry for *luchan*)

d. Malak [månu] hao nigap?
N.AGR.go.to where? you yesterday
'Where did you go yesterday?' (CD, entry for *malak*)

Fa' 'pretend' selects a finite realis TP complement. This embedded TP can have a predicate of any major category type, and when the predicate is a verb or adjective, it shows subject-verb agreement, as expected.

(22) a. In fa' [in tingu' i ti un tungu'].
P.AGR pretend P.AGR know the not P.AGR know
'We (excl.) pretend we know what you don't know.' (from a conference speech)

[10] I represent these verbs without dashes in order to highlight the fact that they are not prefixes. Note that *malak/falak* is an *m/f* verb; its initial consonant is realized as /m/ in the realis mood or when preceded by plural number agreement, but as /f/ otherwise. *Fa'* is, confusingly, homophonous with a prefix *fa'-* that creates derived verbs meaning 'make (into, with)'. This prefix attaches productively to nouns (e.g. *fa'hånum* 'liquefy', from *hånum* 'water, liquid'; *fa'denni'* 'prepare with hot sauce', from *donni'* 'hot pepper'), and less productively to adjectives (e.g. *fa'baba* 'deceive', from *båba* 'bad'; *fa'tinas* 'make', from *tunas* 'straight'). The verb *fa'* 'pretend' and the derivational prefix *fa'-* are treated as the same affix by Topping & Dungca (1973: 176–77).

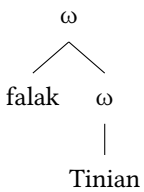
b. Ma tutuhun ma fa' [man-kubåtdi siha].
P.AGR begin P.AGR pretend N.AGR-cowardly they
'They began to pretend that they were afraid.' (NT 343)

c. Ha fa' [sen-metgut gui'].
P.AGR pretend N.AGR.extremely-strong he
'He pretended to be extremely strong.'

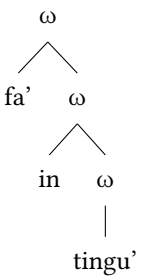
d. Ha fa' [i anghit gui'] si Juan sa' gaigi i
P.AGR pretend the angel he UNM Juan because N.AGR.be.at the
nobiå-ña.
girlfriend-POSS
John is acting like an angel (lit. pretending he is the angel) because his girlfriend is here' (CD, entry for *ånghit*)

The distinctive property of these verbs is that they are prosodically deficient; they are not phonological words and cannot bear primary stress. They remedy this deficiency by undergoing stray adjunction to the phonological word to their immediate right, which (in Chamorro) is always the first phonological word of their complement.[11] In (21c), for instance, stray adjunction attaches *falak* to the phonological word *Tinian* (as shown in (23a)); in (22a), it attaches *fa'* to the phonological word *in tingu'*, which itself consists of an agreement proclitic adjoined to the phonological word *tingu'* 'know' (as shown in (23b)).

(23) a.



b.



Morphophonological processes which affect verbs, but whose domain is the phonological word, cannot affect a prosodically deficient verb directly. Instead, they must target the phonological word that immediately dominates it. In Chamorro, for instance, the progressive aspect is realized via reduplication of the primarily stressed CV of the predicate. When *malak/falak* or *fa'* occurs in the progressive, the CV that is reduplicated is the primarily stressed CV of the phonological word that immediately dominates them

[11] In prosodic theory, stray adjunction is the operation that incorporates elements that are not parsed as prosodic units at a given level of prosodic structure into an adjacent prosodic unit at that level; see e.g. Anderson 2005: 13. The text assumes that in the cases under discussion, stray adjunction literally produces an adjunction structure. As Nick Kalivoda observes, another possibility is that a prosodically deficient verb simply becomes a daughter of the phonological word to its immediate right.

(which is also the primarily stressed CV of the phonological word to which they are adjoined). See (24).

(24) a. Siempri [malak i tetenda] yu'.
indeed N.AGR.go.to the store.PROG I
'I will definitely be going to the store.'
b. Ha [fa' mudodoru] ha' gui'.
P.AGR pretend N.AGR.stupid.PROG EMP he
'He is just pretending that he is stupid.' (CD, entry for *mudoru*)

The same holds true for other processes that are sensitive to prosodic structure. Among the overt pronouns of Chamorro are a set of weak pronouns which are second position clitics (e.g. *yu*' 'I', *hao* 'you (sg.)'). These weak pronouns occur right after the first phonological phrase of the intonational phrase corresponding to their clause (see Chung 2003). Because most Chamorro clauses have predicates that are verbs or adjectives, and most verbs or adjectives are phonological words that project a phonological phrase of their own, a weak pronoun is usually positioned right after them (see e.g. 21c). But when the verb is prosodically deficient, a weak pronoun is – as expected – positioned right after the phonological word (and phonological phrase) dominating it. The relevant phonological word is enclosed in brackets below.

(25) a. Tåtnai [malak Luta] yu'.
never N.AGR.go.to Luta I
'I've never been to Rota.' (CD, entry for *tåtnai*)
b. [Ha fa' gof-maolik] gui' na tåotao.
P.AGR pretend N.AGR.very-good he L person
'He pretended to be a very good person.' (CD, entry for *fa'*)

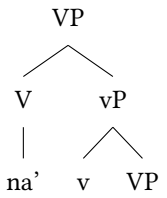
6 Causative na' as a prosodically deficient verb

The preceding should be enough to suggest why it would be helpful to reanalyze the causative *na'-* as a prosodically deficient verb. Then the exuberance of its interplay with voice, agreement, and the like can be attributed to the fact that it combines morphosyntactically with the material on its left, but merely prosodically with the material on its right.

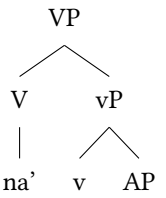
6.1 Proposal

I propose to flesh out the details of this reanalysis as follows. Suppose that instead of a causative prefix *na'-*, Chamorro has a prosodically deficient verb *na'* 'make, let, cause', which selects a small clause complement – specifically, a vP complement. In Chamorro, small v selects a complement that is VP or AP, so the verb *na'* will occur in syntactic structures of the type shown in (26) (with specifiers omitted for convenience).

(26) a.



b.



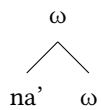
The V or A that heads the embedded VP or AP in (26) corresponds to what was referred to earlier as the inner predicate. Because the inner predicate has small v in its functional layer, and small v is responsible for voice, the inner predicate can be a verb that is passive, antipassive, or reciprocal. At the same time, when the verb *na'* occurs as the predicate of a finite clause, it will project its own small v (not represented in (26)), so it can independently be passive, antipassive, or reciprocal. This will account for much of the exuberant interplay that causatives exhibit.

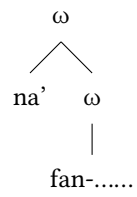
What about subject-verb agreement? In Chamorro, person-and-number agreement is always realized to the left of number agreement. This makes it reasonable to suppose that the two types of agreement spell out features of different functional heads, where the head whose features are spelled out by person-and-number agreement is the higher of the two. Now, word order aside, finite clauses in Chamorro have a familiar architecture in which the functional layer of the clause contains (at least) T and small v (see Chung 1998; 2004). Let us assume, then, that T is specified for finiteness, mood, aspect, and the person and number of the DP in its specifier (= the subject). The relevant number feature here is, of course, [±singular]. These features of T are spelled out by person-and-number agreement when the predicate is transitive or the mood is irrealis; see (3). Let us make the further, more interesting assumption that small v is specified for the number of the DP in *its* specifier via the feature [±plural]. This feature of v is spelled out by number agreement when the predicate is intransitive; see (4).[12] In the finite clauses of interest here, T has a vP complement, the DP in vP's specifier raises to the specifier of T, and number agreement spells out some features of T (finiteness and mood) as well as the number feature of small v. The mechanisms responsible for the multiple exponence of finiteness and mood are irrelevant here. What matters is that in structures in which vP is the complement of the verb *na'*, number agreement is spelled out with "irrealis" forms: as the prefix *fan-* when the DP in small v's specifier is [+plural], and with no realization otherwise.

Let us now turn to the prosody. The verb *na'* is prosodically deficient, so in the prosodic structure corresponding to (26) it will undergo stray adjunction to the phonological word to its immediate right, which is always the first phonological word of its complement. Assuming – crucially – that the word order of the small clause complement has already been determined, this phonological word will be the content of a verb or adjective. The verb or adjective may be morphologically complex and may begin with the

[12] A reviewer asks how transitivity is folded into the picture. I assume that T's features are spelled out as person-and-number agreement when T shares features with transitive small v – a small v that assigns abstract Case. Small v's number feature is spelled out as number agreement when small v does not assign abstract Case. See 7.2.

plural *fan-*. In other words, stray adjunction will lead to one of the outcomes schematized in (27).

(27) a. 

b. 

Overall, this proposal gives a remarkably successful account of the morphosyntactic profile of Chamorro causatives presented in §3. Causatives have the morphosyntax of transitive verbs (see (8–10)) because *na'* is, in fact, a transitive verb. The prosodic deficiency of this verb makes it appear to be a prefix – and therefore derivational morphology – but the appearance is illusory. Like other prosodically deficient verbs, the verb *na'* selects a complement that is a functional projection – namely, vP – and undergoes stray adjunction to the phonological word to its immediate right, which is always the first phonological word of its complement. For independent reasons, this word is always the content of a verb or adjective (see (7)). The verb or adjective projects a vP in the syntax, so it is inflected for number agreement (see (14)) and can be morphologically complex (see (11–12)). Moreover, the claim that *na'* is a verb, as opposed to derivational morphology, makes it unsurprising that it can be the content of both the main verb and an embedded verb in recursive structures like (13).

Note, finally, that the proposal is consistent with the way that *na'* interacts with morphophonological processes whose domain is the phonological word or phonological phrase. When *na*' occurs in the progressive aspect, the CV that is reduplicated is the primarily stressed CV of the phonological word that immediately dominates it (see Gibson 1980: 79–81).[13] (For consistency, I continue to use the parsing and glossing conventions adopted earlier for causatives, even though *na'* is now analyzed as a prosodically deficient verb.)

(28) a. Esta [n*in*a'-chachatkuentus] ni malangu-ña.
already N.AGR.PASS.CAUS-speak.incoherently.PROG OBL sickness-POSS
'Her sickness is making her speak incoherently.' (CD, entry for *chátkuentus*)

b. Hu ripåra na un [na'-malilisia] mampus i palabråk-ku.
P.AGR notice COMP P.AGR CAUS-malicious.PROG too.much the word-POSS
'I noticed that you really are making my words malicious.' (CD, entry for *malisia*)

Further, weak pronouns are positioned not immediately after *na'*, but right after the phonological word (and phonological phrase) that dominates it.

[13] The progressive aspect in these examples must be interpreted as affecting the causative *na'*; it cannot be interpreted as affecting the inner predicate of the causative. See especially (28b).

(29) [Man-na'-hanao] ham åbiu para i man-disgrasiåo.
N.AGR-AP.CAUS-go we support for the N.AGR-in.accident
'We sent help for those involved in that accident.' (CD, entry for *åbiu*)

This is what we expect from a prosodically deficient verb; see §4.

6.2 Consequences

If this new approach turns out to be correct, Chamorro causatives no longer provide a counterexample to the traditional observation that inflection is "outside of" derivation. Instead, the causative *na'* is a prosodically deficient verb, and its relative order with respect to morphology which it happens to be prosodically attached to, but which belongs morphosyntactically with a different predicate, is immaterial. The result stands even if Chamorro number agreement is taken to be inflectional, as in 6.1. This is why we embarked on the investigation in the first place.

Further, and interestingly, the small clause complement of the verb *na'* turns out to fill a gap in the paradigm of Chamorro complementation. As might be expected, the language has various types of clausal complements, including finite clauses, infinitive clauses, and the embedded "clause" of restructuring constructions. Finite clauses and infinitive clauses are clearly TPs. They differ in that finite clauses are specified for mood and can have an overt subject, whereas infinitive clauses are mood-invariant and cannot have an overt subject (see Chung 1998: 64–68). Embedded "clauses" of restructuring constructions are similar to infinitive clauses in these respects, but smaller (see Chung 2004). Given the claim in 6.1 that person-and-number agreement realizes features of T, these embedded "clauses" are best analyzed as defective TPs, as proposed by Bhatt 2005 for Hindi-Urdu – TPs whose head is parasitic on the T of the clause under which they are embedded.

The three types of clausal complements just described show number agreement and *some* person-and-number agreement. Finite clauses make full use of the agreement paradigms in (3–4). Infinitive clauses show realis number agreement when their predicate is intransitive and the invariant infix *-um-* when it is transitive. Embedded "clauses" of restructuring constructions show realis number agreement when their predicate is intransitive and either realis person-and-number agreement, or the infix *-um-*, when it is transitive.

If *na'* truly is a verb, then its small clause complement differs from the other types of clausal complements just mentioned along all of these dimensions. The small clause complement of the verb *na*' is merely a vP – even smaller than the embedded "clause" of restructuring constructions – but it can have an overt subject. And, because it is merely a vP, it shows (irrealis) number agreement but no person-and-number agreement at all.[14]

[14] Interestingly, Chamorro has at least one other verb that can select a vP complement: the imperative verb *cha'-* 'don't, shouldn't, better not'. As expected, the vP complement of *cha'-* (a) does not show person-and-number agreement, but (b) when intransitive, does show irrealis number agreement. Less expectedly, the specifier of this vP is always controlled PRO, and the verb or adjective from which vP is projected must be inflected for progressive aspect. Thanks to Pranav Anand for questions that uncovered this.

None of this language-particular fine detail is theoretically necessary or even expected, of course. But it is reassuring that the vP complement posited by our alternative approach to causatives can be integrated smoothly into the overall picture of complementation in Chamorro.

7 Other aspects of the morphosyntax of causatives

Other aspects of the profile of causatives present more of a challenge to the proposal just outlined. I discuss two such aspects below, with the aim of showing that they can be handled relatively straightforwardly once the right infrastructure is installed. One set of facts involves wh-agreement; the other involves morphological case.

7.1 Wh-agreement

When a constituent undergoes wh-movement in Chamorro, the verb or adjective on which it depends shows a special morphological agreement called wh-agreement (see Chung 1998 and the references cited there). This special agreement, which supersedes the normal forms of normal subject-verb agreement, signals the grammatical relation of the wh-trace – whether it is a subject, direct object, or oblique. For instance, when the wh-trace is a direct object, wh-agreement is realized by the infix *-in-* and nominalization of the verb. Nominalization is indicated, among other things, by the fact that the subject is cross-referenced by (suffixal) possessor agreement (glossed POSS) rather than subject-verb agreement. Compare the sentence in (30a), in which the verb shows person-and-number agreement, with the constituent question in (30b), in which the verb shows wh-agreement.

(30) a. Hu kåkannu' i gollai.
P.AGR eat.PROG the vegetable
'I'm eating vegetables.' (CD, entry for *nos*)

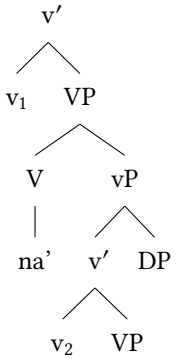
b. Håfa k*in*annono'-mu?
what? WH.eat-POSS.PROG
'What have you been eating?' (from a tape-recorded narrative)

In earlier work I analyzed wh-agreement as the result of feature sharing in abstract Case between a wh-trace and the T that most immediately commands it. The shared Case feature is then spelled out on the verb or adjective that projects T's complement. I will adopt this analysis here, noting that in minimalist syntax, abstract Case is often reconfigured in terms of the syntactic head that licenses the relevant DP via Agree.

Let us now turn to causative sentences and consider the DP described at the beginning of §3 as the subject of the inner predicate. The proposal we are exploring treats this DP as the subject of the small clause complement of *na'* – in other words, as the specifier of the embedded vP in the schematic diagram below. (This specifier is represented to the

right for convenience; see Chung 1998 on the derivation of predicate-first word order in Chamorro.)

(31)



The small clause subject is in an ECM configuration, so it is licensed by Agree with the small v that immediately commands *na'* (= v_1 in the diagram in (31)) in essentially the same way as if it were the direct object of *na'*. This licensing is confirmed by wh-agreement: when the small clause subject undergoes wh-movement, wh-agreement signals that the wh-trace is a direct object (see Gibson 1980: 82, 164).[15]

(32) a. Håyi na pilotu n*in*a'-baståm-mu?
who? L pilot WH.CAUS-quit-POSS
'Which pilot did you fire (lit. make quit)?'

b. Ha na'-moderåtu si Lillian i [n*in*a'-maipen-ña] hånum.
P.AGR CAUS-moderate UNM Lillian the WH.CAUS-hot-POSS water
'Lillian moderated (the temperature of) the water that she was making hot.' (CD, entry for *moderåtu*)

Next, consider structures in which the inner predicate is transitive and so the small clause complement of *na'* contains a direct object. This embedded direct object is licensed by Agree with the small v that immediately commands the inner predicate (= v_2 in (31)). Therefore, when it undergoes wh-movement, wh-agreement signals that the wh-trace is a direct object (see Gibson 1980: 197).

(33) Håfa n*in*a'-li'e'-ña si Maria nu hågu?
what? WH.CAUS-see-POSS UNM Maria OBL you
'What did Maria show you (lit. cause you to see)?'

Not only does wh-agreement register the same Case feature for both types of wh-traces, but in both constructions the verb on which the agreement is realized is the

[15] In (32b), the construction of interest is a prenominal relative clause (in brackets), and what has undergone wh-movement is – depending on one's assumptions – either a null relative operator or else the head NP *hånum* 'water'.

higher verb, namely, the causative *na'*. It is this verb that is infixed with *-in-* and undergoes nominalization, as can be seen from the fact that its subject (the causer) is the DP cross-referenced by possessor agreement. It may seem surprising that wh-agreement is realized on the higher verb, given that the wh-traces in (32) and (33) are arguments of the inner predicate. But the pattern follows from the syntactic structure proposed for causatives in §6.1, plus the independently motivated assumption that wh-agreement involves feature sharing between the wh-trace and T. Because small clauses do not contain T, a wh-trace in the small clause complement of a causative must share its abstract Case feature with the matrix T. As usual, the shared Case feature is spelled out on the verb or adjective that projects T's complement, which in this case is the causative *na'*.

It may seem even more surprising that the possessor agreement that ought to be realized on the nominalized verb is spelled out on what is apparently the inner predicate. I contend that what lies behind this unusual spell-out is the prosodic deficiency of *na'*. In Chamorro, affixes must attach to phonological words. This point emerges most clearly for suffixes, perhaps because suffixation invariably causes primary stress to shift to the penultimate syllable of the suffixed word. Since *na'* is not a phonological word, but rather prosodically deficient, the suffix that realizes possessor agreement must attach instead to the phonological word immediately dominating it – the phonological word formed by stray adjunction of *na'* to the inner predicate. This, I claim, is responsible for the unusual location of possessor agreement in (32–33).[16]

One might wonder how the same facts would be handled by a more traditional analysis of Chamorro causatives that treats *na'-* as a derivational prefix. Such an analysis could deal straightforwardly with the spell-out facts just described, because it takes the combination of *na'-* plus the inner predicate to be a complex word (and therefore a phonological word). It would, however, have more trouble with the evidence provided by wh-agreement that both the subject and direct object of the inner predicate are licensed by (different instances of) small v. This is because the more traditional analysis assumes that there is just one verb, and therefore just one small v, in the structure.

It should be noted that Chamorro has no double object verbs – no verbs whose small v licenses more than one DP as a direct object. Verbs of transfer, for instance, have just one DP that activates the object form of wh-agreement when it undergoes wh-movement – namely, the DP that realizes the theme (not the DP that realizes the goal; see Gibson 1980: 161–163). What this means is that a more traditional analysis of Chamorro causatives will have to stipulate that the derived causative verb, exceptionally, has *two* arguments that activate this form of wh-agreement. But no such stipulation is needed in the small clause analysis of this construction, as we have just seen.

[16] A reviewer asks if *-in-* infixation might target the phonological word containing the relevant verb. It might indeed. However, what matters here is that infixation does not target the phonological word consisting only of the inner predicate (which, recall, is distinct from the phonological word consisting of the inner predicate plus *na'*). This can be seen from the ill-formedness of **na'-l**in**i'e'-ña* as opposed to *ni**n**a'-li'e'-ña* 'she caused to see'. More generally, it is hard to locate Chamorro evidence that prefixes and infixes must attach specifically to phonological words (as opposed to just any phonological material).

7.2 Morphological case

I mentioned in §2 that Chamorro has three morphological cases – unmarked, oblique, and local – and that subjects and direct objects occur in the unmarked case. We must now confront the fact that a causative sentence has just two DPs in the unmarked case: the subject of *na'* and the subject of the inner predicate. The direct object of the inner predicate, if there is one, occurs in the oblique case. See the examples below.

(34) a. Hu na'-ayao si Isidro ni kareta.
P.AGR CAUS-borrow UNM Isidro OBL car
'I let Isidro borrow the car.' (CD, entry for *ayao*)

b. Maila' ya bai hu na'-li'i' hao ni cha'ka gi kodu-mu.
come and P.AGR CAUS-see you OBL rat LOC arm.muscle-POSS
'Come and let me show you (lit. I will make you see) the rat in your arm muscle.' (CD, entry for *chå'ka*)

This pattern raises a question. Given the wh-agreement evidence that the subject and direct object of the inner predicate are licensed in the same way (by a small v), why do these DPs occur in different morphological cases?

In minimalist syntax, one way of resolving disconnects between morphological case and morphological agreement is to take case to reflect some mechanism other than licensing by a syntactic head. The mechanism usually invoked is case competition (also known as dependent case assignment; see Marantz 1991 and many others since). The leading idea behind case competition is that if two DPs are in the same local domain, independent of each other, and not already case-marked, the presence of one DP will cause the other DP to be assigned case.

Baker (2015) develops a theory of structural case in which various aspects of case competition are parameterized, including the local domain in which the DPs occur and the specifics of the c-command relation holding between them. In his theory, dependent case can be assigned in two local domains, VP and TP, which are the spell-out domains of phases. Significantly for our purposes, the evidence that VP is a local domain comes, in part, from causative sentences in Chamorro. Baker (2015: 137–139) assumes that Chamorro causatives are morphologically complex verbs, and therefore causative sentences have a single VP that contains the complex verb's direct object (= the subject of the inner predicate) and can contain another DP (= the direct object of the inner predicate). The dependent case assignment that he proposes for Chamorro is essentially as follows.

(35) Baker (2015) on dependent case assignment in Chamorro
a. Suppose DP_1 has not been marked for case. If DP_1 is c-commanded by DP_2 and both are in the VP domain, assign DP_1 oblique case;
b. Otherwise, assign DP_1 unmarked case.

As he observes, this case assignment handles the distribution of oblique versus unmarked case in causative sentences as well as other clause types (e.g. clauses constructed from verbs of transfer).[17]

Obviously, this proposal does not mesh well with the analysis of Chamorro causatives being explored here. The small clause structure I proposed in §6.1 for causatives locates the subject and the direct object of the inner predicate in different VP domains (see (31)); this will prevent dependent case assignment from occurring. However, Baker's theory of case allows structural case to be assigned under Agree or through case competition, and this suggests other options.

Baker takes unmarked case to be the default case in Chamorro. Suppose we take the opposite position and declare oblique case to be the default case. Then the task becomes to assign unmarked case to the various types of Chamorro DPs that exhibit it.[18] Among the DPs that occur in the unmarked case are subjects, possessors, and DPs in topic/focus position. These DPs are the specifiers of the functional heads T, D, and C, which license them via Agree (see Chung 1998). Moreover, each licensing relation gives rise to some type of morphological agreement: person-and-number agreement (for subjects), possessor-noun agreement (for possessors), or operator-C agreement (for DPs in topic/focus position). All this suggests that unmarked case is assigned to these DPs under Agree.

Direct objects also occur in the unmarked case, where the "direct object" of a causative sentence is the inner predicate's subject but not the inner predicate's object. Since direct objects – including the inner predicate's object – are licensed by transitive small v via Agree, the obvious move is to try to get their case to follow from a more limited version of that relation. I claim that unmarked case is assigned to these DPs under Agree, but *only when transitive small v is selected by T*. The italicized extra requirement may look stipulative. But there is evidence from several areas of Chamorro grammar that feature sharing occurs between small v and the T that selects it. Number agreement spells out not only the number feature of small v but the finiteness and mood features of the T that selects it (see §6.1). Further, the morphological operations responsible for person-animacy effects in Chamorro require that this feature sharing extend to person and other features of the DPs licensed by these heads (see Chung 1998; 2014). This feature sharing can be achieved in multiple ways which, frankly, are not of particular interest. What is relevant is that case assignment to direct objects can now be understood as follows: unmarked case is assigned by transitive small v under Agree, but only when it shares features with T.

This achieves the desired outcome. In causative sentences, the subject of the inner predicate will be assigned unmarked case, because it is licensed in an ECM configuration by a small v (= v_1 in (31)) that shares features with T. But the direct object of the inner

[17] The local case does not enter into the picture, because it is not a structural case.

[18] The unmarked case is also used for predicate nominals and the objects of most overt prepositions. The oblique case is also used for various DPs treated in Chung 1998 as objects of null prepositions: passive agents, instruments, and DPs that realize the complements of antipassive verbs, other intransitive predicates, and nominalized verbs. It is unclear whether the proposals for case assignment in the text can, or should, be extended to these other uses.

predicate will *not* be assigned unmarked case, because it is licensed by the embedded small v (= v_2 in (31)), which does not enter into a feature sharing relation with T. This DP will instead be assigned oblique case by default.

The Agree-based case assignment that I have just proposed is summarized below.

(36) Agree-based case assignment in Chamorro
   a. Assign unmarked case to DP if it is licensed by T, D, C, or by a transitive small v that shares features with T;
   b. Otherwise, if DP has not been marked for case, assign oblique case.

This case assignment handles the distribution of unmarked versus oblique case in causative sentences as well as clauses constructed from verbs of transfer and various other clause types. In other words, it has the same empirical coverage as Baker's dependent case assignment for Chamorro, but does not require causatives to be analyzed as complex verbs.[19] A more sustained comparison of the two approaches to Chamorro case assignment is better left for another time. My goal here is merely to show that it is possible to give a coherent description of morphological case in causative sentences within the small clause analysis I propose.

8 Conclusion

Chamorro has many types of inflectional material that could perfectly well be analyzed as affixes or clitics; for instance, the material that realizes person-and-number agreement (and – conceivably – even the material that realizes number agreement). I hope to have shown here that the same freedom of analysis, when extended to material that is apparently derivational, can have thought-provoking theoretical consequences.

Abbreviations

AP	antipassive
CAUS	causative
COMP	complementizer
EMP	emphatic
FUT	future
INFIN	infinitive
LOC	local
N.AGR	number agreement
OBL	oblique
P.AGR	person-and-number agreement
PASS	passive
POSS	possessor agreement
PROG	progressive
Q	question
RECIP	reciprocal
UNM	unmarked
WH	wh-agreement

[19] Mark Baker (personal communication) observes that a dependent case account of Chamorro morphological case can be maintained if the VP embedded under *na'* is what he calls a 'soft phase'. For reasons of space, the details are not spelled out here.

Sources for the Examples:

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EM	Borja, Joaquin F., Manuel F. Borja, and Sandra Chung. 2006. *Estreyas Marianas: Chamorro*. Saipan, CNMI: Estreyas Marianas Publications.
MAK	Marciano, Dolores. n.d. *Månnge' na Alåguan Kalamåsa*. National Dissemination and Assessment Center, CSULA
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Acknowledgements

This paper is for Steve, who for many years has been my teacher, mentor, intellectual role model, and friend.

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