

Multiple case assignment in Amis: evidence from case-stacking*

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1. Introduction

Classic theories of the computation of morphological case (Chomsky 2000, 2001, a.o.) argued that a nominal may only receive case once. Several recent accounts (Baker & Vinokurova 2010, Richards 2013, Pesetsky 2014, Levin 2017) proposed instead that case assignment may apply to a single nominal more than once. In this paper, I argue that case-stacking in Amis¹ is overt realisation of multiple case assignment. Moreover, movement of a nominal out of the domain of the local phase is not a necessary prerequisite for multiple case assignment (contra Baker & Vinokurova 2010, Levin 2017).

I illustrate the puzzle this paper tries to solve with (1)-(3)² below. In an imperfective clause, as in (1), the subject receives nominative case. In (2), the bracketed part is what I will refer to as a *bare root DP*, a DP headed by an affixless root. Here, the subject receives genitive case instead. Interestingly, when the subject of an imperfective clause is a contrastive topic, as in (3), it surfaces with nominative case stacked on top of genitive case.

- (1) Mi-tefing **ko** **wawa** to siri i matini.
IPFV.AV-touch NOM child ACC goat P now
'The child is touching (a) goat(s) now.' *Imperfective clauses*
- (2) [O tefing **no** **wawa** to siri] ko sa-ka-faheka ako.
O touch GEN child ACC goat NOM IV-STA-surprised GEN.1SG
'For the child to touch (a) goat(s) is why I am surprised.' *Bare root DP*

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¹Amis is a VSO Formosan (Austronesian) language spoken in eastern Taiwan. The dialect reported in this paper is the Central dialect. All native speaker consultants come from Fuli Township, Hualien County.

²Abbreviations not included in the Leipzig Glossing Rules: ASP=aspectual marker, AV=actor voice, CT=contrastive topic, IV=instrumental voice, LNK=linker, LV=locative voice, P=preposition, REDUP=reduplicant, STA=stative, TOP=topic marker.

- (3) Mi-tefing **ko-no** **wawa** to siri i matini.
 IPFV.AV-touch NOM-GEN child ACC goat P now
 ‘[The child]_{CT} is touching (a) goat(s) now.’ *Case-stacking*

I propose that the bare root DP in (2) instantiates a lower level of case assignment that also takes place in finite clauses, such as (1). That is, the subject in (1) receives genitive case initially. The nominative case that we see on the surface is a result of another instance of case assignment overwriting the first one. We observe the two cases assigned to the subject only when it is a contrastive topic. This model of multiple case assignment is corroborated by a variety of examples containing case-stacking, including accusative-accusative on objects, genitive-genitive on subjects of gerunds, and triple case-stacking on raised subjects.

The paper is organised as follows: §2 motivates a lower level of case assignment that underlies finite clauses and proposes a multiple case assignment system. §3 examines the context where case-stacking is licensed and illustrates how this model captures a range of data with case-stacking.

2. Multiple case assignment

This section starts with motivating a lower level of case assignment that underlies finite clauses. In this assignment, the unmarked case is realised as genitive case. I attribute this to the nominal properties of roots in Amis. Next, I propose a multiple case assignment system, adopting the dependent case model (Marantz 1991). I illustrate how this system derives the case patterns of bare root DPs and imperfective clauses, but the most direct evidence for multiple case assignment will come from case-stacking. This will be the topic of §3.

2.1 Nominal properties of roots in Amis

Entity roots and event roots in Amis exhibit parallel behaviour with respect to morphological selection and case marking. This differs from the cross-linguistically more common pattern by which entity and event roots are separated into two groups: nouns and verbs. I discuss these properties briefly below. More discussion can be found in Chen (to appear).

First, a variety of affixes attach directly to either type of root. For example, applying plural reduplication to *tefos* ‘sugarcane’ and *cefos* ‘spray’ gives *tefo<tefo>s* ‘sugarcanes’ and *cefo<cefo>s* ‘spray repeatedly.’ Attaching the stative prefix *ka-* to these two roots returns *ka-tefos* ‘sugarcanes harvested’ and *ka-cefos* ‘sprayed.’

Second, case patterns of nominals in bare root DPs are identical regardless of the root type. In a possessive DP, such as (4), the possessor receives genitive case, and if the entity root can take a complement, such as ‘father’ in (4), the complement receives accusative case.³ This pattern is identical to the bare root DP we saw above in (2), where the root is an event root. There, the agent receives genitive case and the patient receives accusative case.

³That entity roots can mark accusative case is rare across languages (Baker 2015). This is possible with very few entity roots in Amis and judgments on these examples varied. In addition, bare root DPs, such as (2), often have an additional modality reading. That a phrase with an unmarked/infinitival verb contains covert

- (4) [O codad ni Lekal ci mama-an] ko-ra-an.
 O book GEN PN ACC father-ACC NOM-that-AN
 ‘That is Lekal’s book about fathers.’ Possessive DP

The discussion above shows that entity and event roots in Amis are treated as one group morphologically and syntactically. Based on this, I will assume in this paper that Amis roots uniformly lack category in the lexicon. When a root is saturated with arguments, it is nominalised first by n^0 , as in (5). The projected nP may be further verbalised if voice morphology, such as *pi-* ‘actor voice,’ is merged in v^0 .⁴

- (5) [_{VP} [_{v⁰} **pi-**] [_{nP} [_{n⁰} \emptyset] [_{VoiceP} AGENT ... [_{RootP} \sqrt{cefos} ‘spray’ PATIENT]]]]

2.2 Case assignment rules

I propose that Amis assigns case by the ordered rules in (6). Each time a phase head (D^0 , v^0 , C^0 by assumption) is merged, the rules apply to the domain of the phase head (*Spell-Out domain*). Furthermore, I define a *nominal domain* as a domain where n^0 is the highest category head and a *verbal domain* as a domain where v^0 is the highest category head.

- (6) *Amis case assignment rules*
- a. If there are two distinct DPs in the same phase such that DP_1 c-commands DP_2 , and if DP_1 is unmarked for case, assign accusative case to DP_2 .
 - b. If a DP does not receive dependent case, it is realised as genitive case in a nominal domain and nominative case in a verbal domain.

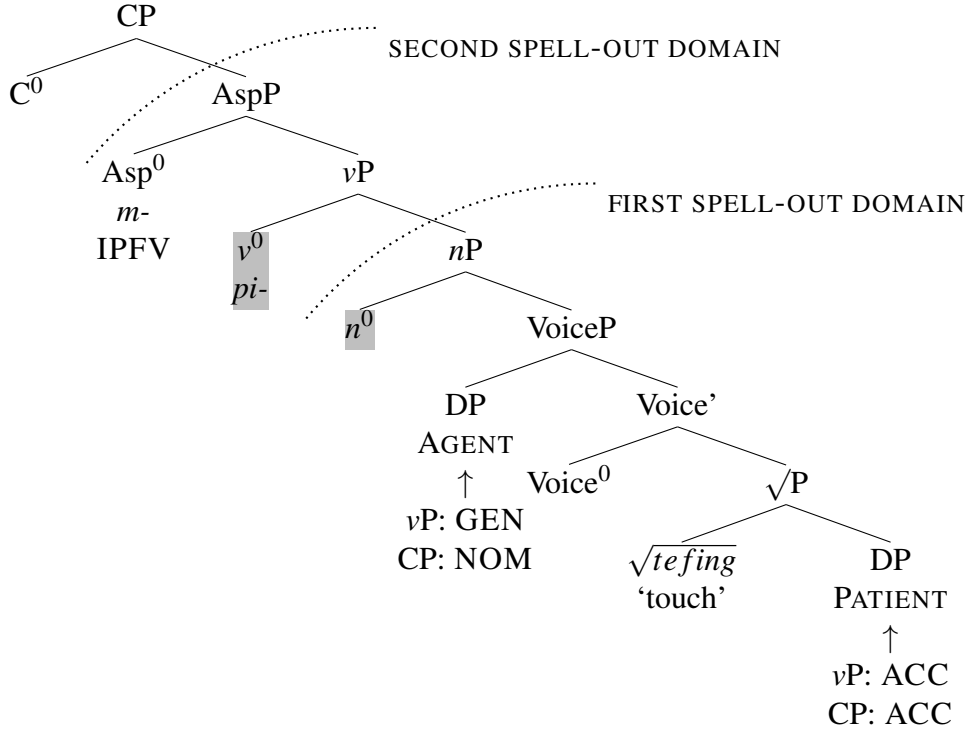
I illustrate the rules first with transitive bare root DPs, such as (2). In (2), the rules apply when D^0 is merged. The patient receives accusative case by (6a) and the agent receives genitive case by (6b), given that n^0 is the highest (and the only) category head in the domain. This derives the case pattern in (2).

In a structure that contains more than one phase head, such as a finite clause, the rules apply more than once. Take the imperfective clause in (1) (and (7) below schematically) as an example. The rules apply first when v^0 is merged. The patient receives accusative case by (6a) and the agent receives genitive case by (6b), given that n^0 is the highest category head in this domain. The rules apply again when C^0 is merged. The patient receives another accusative case by (6a), but this time, the agent receives nominative case instead by (6b), since v^0 is the highest category head in this domain.

modality is not uncommon (Bhatt 1999). However, at the moment, I have not been able to locate the most appropriate context for these DPs. This might be the reason why judgments on bare root DPs also varied. Nevertheless, the data reported in this paper have all been accepted more than once by at least two speakers.

⁴Category-neutral roots and overt category-defining heads are not indispensable ingredients of the current proposal. Alternatives where realisation of unmarked case is sensitive to category and where all arguments are present in the first case assignment would be sufficient.

(7) *Case derivation: imperfective clauses*



To account for the observation that in a neutral context, only the cases assigned in the final cycle are pronounced, I posit the *One Case Constraint* in (8) (cf. *One Suffix Rule* in Pesetsky (2014)). As a result of (8), the agent of imperfective clauses surfaces with nominative case and the patient with accusative case.

(8) *One Case Constraint*: Delete all cases but the outermost one.

3. Case-stacking is overt realisation of multiple case assignment

Multiple case assignment seems superfluous up to this point, since only the cases assigned in the final cycle surface. In this section, I argue that case-stacking is overt instantiation of multiple case assignment. I start with examining the context where case-stacking is licensed in Amis and show that case-stacked nominals must be contrastive topics. Next, I discuss case-stacking on nominals in simplex imperfective clauses and gerunds, and on subjects that are raised out of an embedded finite clause or gerund. Finally, I discuss objects with accusative case stacked on top of genitive case. This is unexpected given the current proposal. I account for this by a separate case impoverishment rule.

3.1 Case-stacking is licensed on contrastive topic nominals

Case-stacked nominals in Amis exhibit properties characteristic of contrastive topics. I follow previous works on contrastive topics (Büring 2003, Constant 2014, a.o.) and take use of contrastive topics as indicating a discourse strategy the speaker adopts to address the

main question under discussion (Roberts 1996). A discourse strategy formed by contrastive topics consists of a set of contrasting questions that vary by the contrastive topic-marked element (e.g. *What did [Annie]_{CT} sing? What did [Clark]_{CT} sing ? ...*).

Contrastive topics across languages have several properties in common: (i.) they are incompatible with thoroughly exhaustive answers or maximal answers to the main question under discussion; (ii.) they are incompatible with downward entailing quantifiers when the speaker is contrasting pluralities of individuals; (iii.) in many languages, contrastive topics can undergo overt topicalisation. Below I illustrate with case-stacked subjects of imperfective clauses and show that (i.)-(iii.) also apply to case-stacked nominals in Amis.

Before we start, a note on methodology. For all of the case-stacking data in this paper, in order to set up a context that facilitates a contrastive topic reading, a question targeting either an answer containing just one contrastive topic (e.g. *Did [·]_{CT} sing?*) or an answer containing an exhaustive focus (to be notated as [·]_{EXH}) and a contrastive topic (e.g. *What did [·]_{CT} sing?*) was presented in Amis before the target answer. The consultants were asked to judge whether a question-answer pair was acceptable. I include these questions in English in (9)-(11), but will omit them elsewhere for reasons of space.

First, in (9), assuming that Lekal is the only person sleeping now, (9b) shows that an exhaustive answer can only appear with the outer nominative case. Case-stacking in this context is infelicitous.

(9) *Case-stacking is infelicitous on thoroughly exhaustive answers*

- a. **Q:** ‘Who is sleeping now?’
- b. Ma-foti’ **ci/#ko-ni** **Lekal.**
 IPFV.STA-sleep NOM/#NOM-GEN PN
 ‘Lekal/#[Lekal]_{CT} is sleeping.’ (assuming Lekal is the only person sleeping)

Similarly, (10b) shows that a maximal answer (an answer that asymmetrically entails all the other alternatives) can only appear with nominative case. Case-stacking in this context is also ruled out.

(10) *Case-stacking is infelicitous on maximal answers*

- a. **Q:** ‘Which children are sleeping now?’
- b. Ma-foti’ **ko/#ko-no** **’emin a wawa.**
 IPFV.AV-sleep NOM/#NOM-GEN all LNK child
 ‘All of the children/#[All]_{CT} of the children are sleeping.’

Second, the contrast between (11b) and (11c) shows that case-stacking is incompatible with downward entailing quantifiers when the speaker is contrasting pluralities of individuals⁵. Note that the contrast (9)-(11) illustrate also applies to English, as the translation suggests.

⁵This diagnostic does not apply when the speaker is contrasting proportions.

(11) *Case-stacking is infelicitous on downward entailing quantifiers*

- a. **Q:** Have the doctors and the teachers arrived?
- b. Tahira-to 'emin **ko-no** **ising**.
arrive-ASP all NOM-GEN doctor
'[All]_{CT} of the doctors have arrived.'
- c. #Kirami tahira-to **ko-no** **mamang a** **singsi**.
but arrive-ASP NOM-GEN few LNK teacher
'#But [few]_{CT} of the teachers have arrived.'

Last, case-stacked nominals in Amis can undergo overt topicalisation, as in (12). When this happens, a resumptive pronoun with matching stacked cases is optional.

- (12) **Ko-no** **wawa** i, mi-tefing (**ko-no** **nira**)⁶ to siri.
NOM-GEN child TOP IPFV.AV-touch (NOM-GEN GEN.3SG) ACC goat
'[The child]_{CT}, (s/he) is touching [(a) goat(s)]_{EXH}.' *Overt topicalisation (cf. (3))*

A note on another property of case-stacked nominals in Amis. Case-stacked nominals are most natural on non-initial alternative clauses.⁷ All of the case-stacking examples in the following sections were taken from the second or third alternative clause.

To sum up, the discussion above demonstrates that case-stacked nominals in Amis exhibit semantic and syntactic properties typical of contrastive topics.⁸ Based on this, I posit the *CT Case Preservation Constraint* in (13) (cf. *Korean Case Preservation Constraint* in Levin (2017)).⁹ Adopting an Optimality Theoretic model of morphology (McCarthy 2006), I posit that this constraint competes with and is ranked higher than the *One Case Constraint* in (8). As a result, a contrastive topic nominal will surface with all the cases assigned to it.

⁶Amis pronouns have two genitive forms, one of which is traditionally referred to as the possessive. The two forms are interchangeable in most constructions. They also have identical realisation except for 1SG, 1PL inclusive, and 2SG pronouns. For the other persons, the two forms can only be distinguished by the extra genitive case *no* on the possessive form. e.g. *no nira* for the 3SG pronoun. For the resumptive pronoun in (12), the possessive form is preferred. Dropping *no* is acceptable but degraded. I do not have an explanation for this.

⁷Case-stacking on initial alternatives improved when the consultants were asked to imagine a situation where they had to retrieve information keyed to each contrastive topic one by one. This non-initiality preference is not uncommon for contrastive topics. For example, this also applies to Mandarin *ne*, which Constant (2014) treats as a contrastive topic marker. However, this is a potential confounding factor for the semantic diagnostics we applied in (9)-(10). Nevertheless, the claim that case-stacked nominals in Amis are contrastive topics is supported by other evidence, as discussed above.

⁸Case-stacked nominals have another property typical of contrastive topics. Consultants sometimes translated case-stacked nominals, such as *kono wawa* in (12), as 'only the child.' This extra 'only' is an implicature. It can be cancelled easily by following (12) with, e.g. 'Panay is also touching (a) goat(s).' This is reminiscent of what Büring (1997) calls the *reverse polarity implicature* (see also Tomioka (2010), Yabushita (2017)).

⁹Korean case-stacking has been argued to be licensed only on focused nominals (Gerds & Youn 1988, Schütze 2001, Chung 2003, a.o.). The data reported in these works seem inconclusive as to whether case-stacked nominals in Korean can in fact be treated as contrastive topics, which I take to be formally focused elements that undergo an additional operation (Wagner 2012, Constant 2014), but the similarity between Amis and Korean, two unrelated languages, might suggest a closer connection between case and focus.

- (13) *CT Case Preservation Constraint*: Realise all cases attached to a contrastive topic-marked nominal.

3.2 Subjects and objects of imperfective clauses

In the remainder of §3, I examine case-stacking on nominals in simplex imperfective clauses and gerunds, and on subjects raised out of an embedded clause or gerund. I start with an issue that has been set aside until now. The examples discussed above in fact include two forms for each of nominative, genitive, and accusative case.¹⁰ This is captured by the contextual allomorphy in (14). For example, when attached to a personal name or kinship term, nominative case is realised as *ci*, as in (14a). Elsewhere, nominative case is *ko*, as in (14b). Genitive and accusative case show the same variation, as in (14c)-(14d).

- (14) *Contextual allomorphy of nominative, genitive, and accusative case*
- a. NOM \leftrightarrow *ci*/ ___ {personal name, kinship term}, e.g. *ci Lekal*
 - b. NOM \leftrightarrow *ko* (elsewhere), e.g. *ko wawa* ‘NOM child’
 - c. GEN \leftrightarrow *ni* or *no* (elsewhere), e.g. *ni Lekal*, *no wawa*
 - d. ACC \leftrightarrow *ci* ... -*an* or *to* (elsewhere), e.g. *ci Lekalan*, *to wawa*

In imperfective clauses, when the subject is a contrastive topic, we see stacked nominative-genitive case on the subject, as in (15). In the current proposal, the two cases are results of two case assignments, which take place when v^0 and C^0 are merged. Given the *CT Case Preservation Constraint* in (13), both cases are pronounced. In addition, observe that when the subject is a personal name, such as *Lekal* in (15), only *ko-ni Lekal* is possible, instead of *ci-ni Lekal*. That is, only the inner (genitive) case is sensitive to the allomorphy in (14). We will see later that this applies to all instances of case-stacking: only the innermost case is sensitive to the allomorphy. I propose that this is due to morphological locality. The allomorphy in (14) applies only when a case attaches directly to a nominal.

- (15) Mi-tefing **ko-no** **wawa/ ko-ni** **Lekal** to siri.
 IPFV.AV-touch NOM-GEN child/ NOM-GEN PN ACC goat
 ‘[The child/Lekal]_{CT} is touching [(a) goat(s)]_{EXH}.’

Next, in the current proposal, objects of imperfective (transitive) clauses receive two accusative cases, one when v^0 is merged and the other when C^0 is merged. We predict that when an object is a contrastive topic, we should be able to stack two accusative cases. This is what we find in (16).¹¹ Stacking two accusative cases on a common noun (*to-to*) is degraded, however.¹² This can be attributed to a phonological haplology rule: when two identical CV syllables are adjacent and the two syllables belong to separate functional morphemes, delete one of the two syllables. This applies whenever the environment is met and

¹⁰There is a third form for plural associates. I put this aside in this paper.

¹¹This account predicts that case-stacking should not be possible on nominals in bare root DPs, as these DPs only contain one phase head. Initial data suggest that this is true, but more data are needed to be certain.

is not limited to stacked cases, as (17) illustrates. This haplology also applies when we stack two genitive cases on a common noun, as we will see in gerunds in the next section.

- (16) Mi-tefing ci Lekal ?to-to-ya siri/ to-ci akong-an
 IPFV.AV-touch NOM PN ?ACC-ACC-that goat/ ACC-ACC grandfather-ACC
 i loma'.
 P home
 'Lekal is touching [that goat/Grandfather]_{CT} [at home]_{EXH}.'

(17) *Phonological haplology*

- a. Ma-olah kako to posi **ato to** waco.
 IPFV.STA-like NOM.1SG ACC cat and ACC dog
 'I like cats and dogs.' *ato to* → *ato*
- b. **Ano no** ising i, o maa<maa>n ko mi-nanom-an i,...
 if GEN doctor TOP O <REDUP>what NOM IPFV.AV-water-LV TOP
 'The doctor, whatever (s/he) drinks, ...' *ano no* → *ano*

3.3 Subjects of gerunds

Gerunds in Amis have the external syntax of DP. They are marked for case and a demonstrative can be added to a gerund, as in (18).

- (18) Faheka kako [to(-ya) pi-tefing **no wawa** to siri].
 surprised NOM.1SG ACC(-that) AV-touch GEN child ACC goat
 'I am surprised at the child's touching (a) goat(s).'

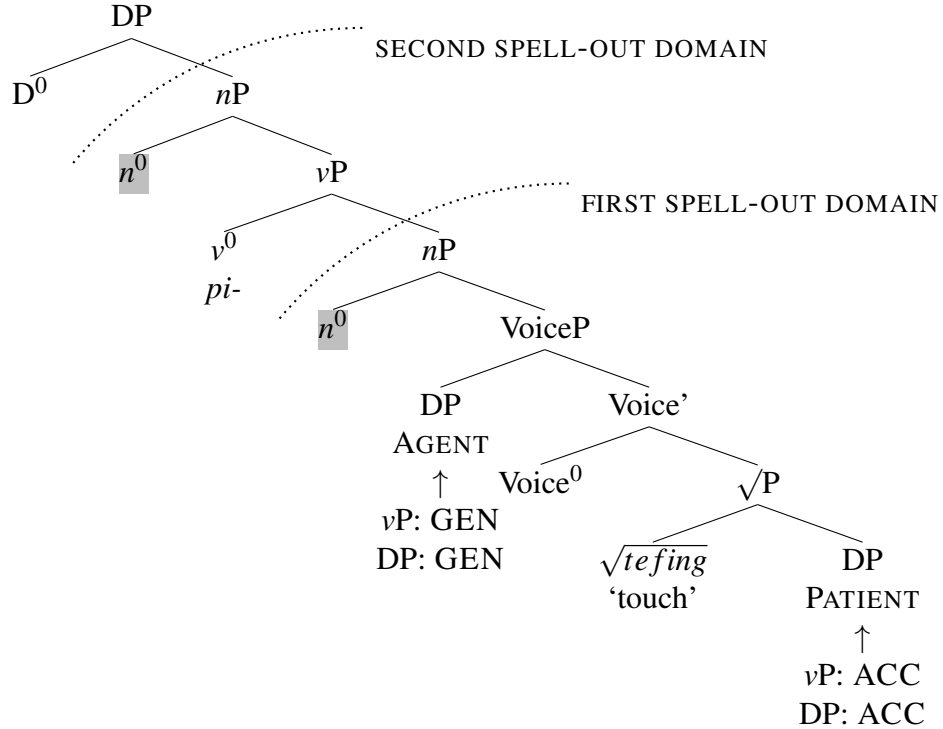
I posit that gerunds are derived by nominalising the *v*P in (20) with a second n^0 . This is further embedded under D^0 . In (20), the case assignment rules in (6) first apply when v^0 is merged. The patient receives accusative case by (6a) and the agent receives genitive case by (6b), given that n^0 is the highest category head in the domain. The rules apply again when D^0 is merged. The results are identical to the first assignment, as n^0 (the higher one) is still the highest category head in the domain.

Based on (20), we predict that when the subject of a gerund is a contrastive topic, we should be able to stack two genitive cases on the subject. This is what (19) shows.

- (19) Faheka kako [to pi-tefing ?no-no-ya wawa/ no-ni Lekal
 surprised NOM.1SG ACC AV-touch ?GEN-GEN-that child/ GEN-GEN PN
 to siri].
 ACC goat
 'I am surprised at [the child's/Lekal's]_{CT} touching [(a) goat(s)]_{EXH}.'

¹²Having a brief pause between the two accusative cases in (16) and/or adding a demonstrative improves these examples. I do not have an explanation for this, but this is not limited to stacked accusative cases. In many examples, stacked cases are not pronounced together. This might reflect the metric properties of Amis.

(20) Case derivation: gerunds



As discussed before, the contextual allomorphy in (14) applies strictly locally. Therefore, only the inner genitive case changes when it attaches to a personal name. Moreover, similar to the example with case-stacked objects that we saw in (16) above, stacking two genitive cases on a common noun is degraded. This is attributed to the same phonological haplology.

In addition, (21) shows that the case-stacked gerund subject can undergo overt topicalisation to the edge of the gerund.¹³ A resumptive pronoun with matching stacked cases is optional. The star on the second genitive case on the resumptive pronoun indicates that the phonological haplology cannot be avoided here and deletion applies (cf. footnote 12).

- (21) Faheka kako [to **no-ni** **Lekal** a pi-tefing (no-(*no)
 surprised NOM.1SG ACC GEN-GEN PN LNK AV-touch (GEN-(*GEN)
 nira) to siri.]
 GEN.3SG) ACC goat
 ‘I am surprised at [Lekal’s]_{CT} touching [(a) goat(s)]_{EXH}.’

3.4 Triple case-stacking

Up until this point, we have been looking at case-stacked nominals which either remain in situ or have topicalised to the left periphery of the local CP or DP. In this section, we turn to examples where a case-stacked nominal is raised out of an embedded CP or DP. The

¹³The topicalised gerund subject is followed by the linker *a* instead of the topic marker *i* that we saw in (12), although one consultant did accept having *i* in (21).

generalisation will be that raising out of a CP or DP does not by itself license case-stacking. Overt case-stacking is licensed only when the raised nominal is a contrastive topic.

First, subjects of embedded imperfective clauses can freely raise into the matrix clause¹⁴, as (22a)-(22b) illustrate. This is independent of whether or not the subject is a contrastive topic. In (22b), the raised subject receives accusative case from the matrix verb.

(22) *Subject raising out of an embedded finite clause*

- a. Ma-fana' kako [mi-tefing **ko-ya** **wawa** to siri].
 IPFV.STA-know NOM.1SG IPFV.AV-touch NOM-that child ACC goat
 'I know that that child is touching (a) goat(s).'
- b. Ma-fana' kako **to-ya** **wawa** [mi-tefing t_{DP} to siri].
 IPFV.STA-know NOM.1SG ACC-that child IPFV.AV-touch ACC goat
 'I know that that child is touching (a) goat(s).'

When the raised subject is a contrastive topic, as in (23), the subject appears with three cases: accusative-nominative-genitive. This is accounted for by the current proposal. The inner nominative and genitive case on the raised subject result from the two case assignments that take place in the embedded clause. The subject, once raised into the matrix clause, becomes visible when case assignment applies in the matrix clause, and receives another accusative case.¹⁵

- (23) Ma-fana' kako **to-ko-no-ya** **wawa** [mi-tefing t_{DP}
 IPFV.STA-know NOM.1SG ACC-NOM-GEN-that child IPFV.AV-touch
 to siri].
 ACC goat
 'I know that [that child]_{CT} is touching [(a) goat(s)]_{EXH}.'

Raising out of an embedded gerund is also possible. In (24a)-(24b), the embedded gerund subject can freely raise to the matrix clause. This is possible regardless of whether or not the subject is a contrastive topic. In (24b), the raised gerund subject receives accusative case from the matrix verb.

¹⁴V. Chen (2017), studying Amis and related languages, suggests that either a movement or a base generation analysis of subject-to-object raising is in principle possible. In a base generation analysis, the raised subject is a proleptic object that is co-indexed with an (unpronounced) pronoun in the embedded clause (e.g. 'I know of the child that (s/he) is touching (a) goat(s).' for (22b)). This issue also arises in (24) with the raised gerund subject. However, the case-stacking data in (23) and (25) and my initial data on NPI reconstruction (specifically, whether raised subjects that are NPIs can be interpreted under the scope of the embedded negation) both support direct connectivity and suggest that the movement analysis should be considered at least a derivational option for (22b) and (24b).

¹⁵Depending on how subject-to-object raising should be analysed, the model I proposed might predict that the raised subject should receive two accusative cases in the matrix clause. I do not have the relevant data at this point, unfortunately. However, given the phonological haplology described before, I expect these to also be degraded at best. This issue also applies to the raised gerund subject in (25).

(24) *Subject raising out of an embedded gerund*

- a. Faheka kako [to pi-tefing **ni Lekal** to siri.].
 surprised NOM.1SG ACC AV-touch GEN PN ACC goat
 ‘I am surprised at Lekal’s touching (a) goat(s).’
- b. Faheka kako **ci Lekal-an** [to pi-tefing t_{DP} to siri].
 surprised NOM.1SG ACC PN-ACC ACC AV-touch ACC goat
 ‘I am surprised at Lekal’s touching (a) goat(s).’

When the raised gerund subject is a contrastive topic, as in (25), it surfaces with three cases: accusative-genitive-genitive. This is accounted for in the same way as the raised subject in (23) above. The two genitive cases are assigned in the embedded clause. Once raised, the gerund subject becomes accessible to the case assignment in the matrix clause, and receives an additional accusative case.

- (25) Faheka kako **to-no-ni Lekal** [to pi-tefing t_{DP} to siri].
 surprised NOM.1SG ACC-GEN-GEN PN ACC AV-touch ACC goat
 ‘I am surprised at [Lekal’s]_{CT} touching [(a) goat(s)]_{EXH}.’

The data we have seen so far are consistent with this generalisation: multiple case assignment “stops” upon completion of CP or DP, unless a nominal moves out of CP or DP. That is, case assignment in a matrix clause does not “penetrate into” its embedded clause.

Baker & Vinokurova (2010) and Levin (2017) argued that a nominal can receive an additional case only when it moves out of the local phase domain (either to the phase edge or into a higher phase). The raising examples we just saw also seem to suggest extra case assignment is associated with movement. What is harder to detect is whether movement is necessary for an extra assignment in simplex clauses or gerunds, as in the data we saw in previous sections (in particular for examples where case-stacked nominals stay in situ).

One argument these studies discuss is that an nominal receiving an extra case must be interpreted as specific or taking wide scope. It is true that in Amis, case-stacked nominals tend to take wide scope (data omitted for reasons of space). However, this can be independently attributed to their contrastive topic status (Constant 2014). Moreover, in Korean, a case-stacked nominal can appear with just the outer or the inner case. When it occurs with just the outer case, it also must be specific or take wide scope, in accordance with its stacked counterpart. However, in Amis, nominals with just the outer case are scopally ambiguous. This suggests that the wide scope reading of case-stacked nominals has to do with their contrastive topic status. Besides this, there is no robust separate evidence supporting that stacked nominals in simplex clauses or gerunds must have moved.¹⁶ Therefore, I will maintain the generalisation stated before, and based on the Amis data, make a less restricted claim: movement is not a necessary prerequisite for multiple case assignment.

¹⁶Results of other dependency diagnostics, such as syntactic islands, are inconsistent at the moment.

3.5 Dependent case impoverishment

In §3.2, I showed that objects of imperfective clauses that are contrastive topics surface with two accusative cases. In the same context, objects can in fact also appear with stacked accusative and genitive case. (26) illustrates these two options.

- (26) Mi-tefing ci Lekal **to-ci** **akong-an/** **to-ni** **akong**
 IPFV.AV-touch NOM child ACC-ACC grandfather-ACC/ ACC-GEN grandfather
 i loma'.
 P home
 'Lekal is touching [Grandfather]_{CT} [at home]_{EXH}.'

Stacking accusative and genitive case on objects is unexpected because (transitive) objects never receive genitive case throughout the derivation. I propose that this is a result of *Dependent Case Impoverishment*, as described in (27). This is a repair for a markedness constraint that bars nominals containing two valued case features.

- (27) *Dependent Case Impoverishment Rule*: When a nominal contains two valued case features, delete the value of the inner case feature.

This is implemented in a more fine-grained case valuation model: at each Spell-Out, a case feature on a nominal is either valued as [K: DEP] or remains unvalued, to be written as [K: ____] (Preminger 2011). [K: DEP] is realised as accusative case at Vocabulary Insertion and an unvalued case feature is realised as either genitive or nominative case. Moreover, following Levin (2017), I assume that each time a nominal remains caseless at the end of a Spell-Out, the absence of valuation is recorded. In addition, Vocabulary Insertion takes place only upon completion of CP or DP. (28) illustrates how we derive the accusative-genitive object in (26). The object is valued as [K: DEP] twice, the first time when v^0 is merged and the second time when C^0 is merged. Given that the object is a contrastive topic, both case features are retained. (27) applies and deletes the value of the inner case feature. This is realised as accusative-genitive at Vocabulary Insertion. Finally, I posit that the *One Case Constraint* and the markedness constraint that motivates (27) are equally ranked, yielding optionality between stacking two accusative cases, as in (16), and stacking accusative and genitive case, as in (26).

- (28) *Case derivation: objects of imperfective clauses*

DERIVATION	CASE VALUE
vP SPELL-OUT	[K: DEP]
CP SPELL-OUT	[K: DEP] [K: DEP]
DEP. CASE IMPOVERISHMENT	[K: DEP] [K: ____]
VI	ACC-GEN

Claiming that Vocabulary Insertion occurs upon completion of CP or DP is not conventional (cf. Marantz 2007, a.o.). This is motivated by three observations in this paper. First,

it allows the inner case feature in (28) to remain visible when C^0 is merged and creates an environment where dependent case impoverishment applies. Second, this also allows the case contextual allomorphy in (14) to apply properly. As discussed before, this allomorphy applies strictly locally. As a result, only the inner case of stacked cases is affected by the allomorphy. However, in finite clauses and gerunds in a neutral context where case-stacking is not licensed, even though more than one case assignment occurs, nominals surface with only the outermost case and this outermost case is sensitive to the allomorphy. For the outermost case to attach to a nominal directly, the inner case(s) has(have) to be deleted. This is possible given the *One Case Constraint*, but this requires the outermost case and at least one inner case to be present at the same time. Last, the claim about the timing of Vocabulary Insertion is also consistent with the generalisation stated in the end of §3.4, according to which multiple case assignment stops upon completion of CP or DP.

4. Conclusion and implications

This paper argued that a nominal may receive case more than once. Case-stacking in Amis is overt realisation of multiple case assignment. Moreover, movement out of the domain of the local phase is not a necessary prerequisite for a nominal to undergo an additional case assignment. Furthermore, case-stacking in Amis is subject to morphosyntactic and pragmatic constraints and thus, should not be treated as a purely post-syntactic phenomenon (contra McFadden 2004, Bobaljik 2008).

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