Tripartite/inactive case in Samoan nominalizations: On ergativity and unaccusativity[*]

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1.   Introduction

In verbal clauses, Samoan (Polynesian, Oceanic, Austronesian) shows an ergative case alignment, in which transitive subjects are marked by ergative case, while intransitive subjects and objects are marked by absolutive case (Mosel and Hovdhaugen 1992). In a particular type of nominalization, however, namely *zero* nominalization, subjects display a three-way case-marking split: Unergative subjects receive alienable possessive *a*-case (1a) and unaccusative subjects pattern with objects being marked by inalienable possessive *o*-case (1b), whereas ergative subjects maintain their ergative case marking (1c) (Mosel and Hovdhaugen 1992, Mosel 1992, Chung 1973).

(1) a. *Unaccusative*
        le   pa'ū   *o*   le   tama
        ART fall   POSS.INAL ART boy
        'the falling of the boy'

    b. *Unergative*
        le   galue   *a*   le   tama
        ART work   POSS.AL   ART boy
        'the work(ing) of the boy'

    c. *Transitive*
        le   si'i(=ina) *e*   le   tama *o*   le   matatao
        ART lift(=INA)   ERG ART boy   POSS.INAL ART spear
        'the lifting of the spear by the boy'

As a result, Samoan *zero* nominalizations exhibit a cross-linguistically relatively rare pattern of tripartite/inactive alignment that distinguishes three types of subjects, i.e., transitive, unergative, and unaccusative (cf. Comrie 2013).

In this paper, we demonstrate that this exceptional case pattern follows from four independent syntactic factors that combine in Samoan nominalizations: (i) (in)alienable case marking that is tied to the syntactic position of possessors (Myler 2016, Alexiadou 2003), (ii) split-intransitivity where agentive and patientive subjects are merged in designated syntactic positions, (iii) syntactic ergativity that arises from the prepositional nature of transitive subjects and structural absolutive case (Hopperdietzel 2020, Polinsky 2016; cf. Alexiadou 2001 for nominalizations), and (iv) selectional restrictions of the nominalizer *n* which only embeds verbal projections that lack an external DP argument (Alexiadou 2020, 2001, Imanishi 2020, Bruening 2013). In particular, we argue that due to the unaccusative restriction on Voice under *n*, unergative DP-subjects must be introduced in the nominal domain in a position where alienable *a*-case is assigned. *v*P-internal unaccusative subjects and objects of transitive verbs are instead merged in the verbal domain and receive inalienable *o*-case, the default case within the DP (cf. Baker 2015). Ergative PP-subjects of transitive verbs however are not affected by the unaccusativity requirement, since they are analogous to *by*-phrases in e.g., English, Romance and Greek nominalizations (Alexiadou 2001). Our analysis thus has further cross-linguistic implications for theories of syntactic ergativity (Polinsky 2016, Coon et al. 2014) and selectional restrictions in nominalizations (Burukina 2021, Imanishi 2020, Alexiadou 2001).

2. Samoan case

In the following, we provide a brief overview of the case pattern found in the verbal and nominal domain in Samoan: (i) ergative-absolutive in verbal clauses, and (ii) alienable-inalienable possessive in the DP. In *zero* nominalizations, the combination of both types of case alignment gives rise to the observed tripartite/inactive case pattern, in which all three types of subjects are distinctly marked.

2.1 Ergative case alignment in verbal clauses

In the verbal domain, Samoan primarily exhibits an VSO word order with an ergative-absolutive case alignment: Intransitive subjects of both unaccusative and unergative verbs as well as direct objects receive tonal absolutive case, marked by a high tone on the preceding syllable (2a-b) (Yu 2021), while subjects of transitive verbs are marked by the ergative case marker *e* (2c) (Tollan 2018, Collins 2014, Mosel and Hovdhaugen 1992).

(2) a. *Unaccusative*
    Sā pa'ū   le   tama.
    PST fall=ABS ART boy
    'The boy fell.'

   b. *Unergative*
    Sā galue   le   tama.
    PST work=ABS ART boy
    'The boy worked.'

   c. *Transitive*
      Sā si'i *e* le tama le matatao.
      PST lift ERG ART boy=ABS ART spear
      'The boy lifts the spear.'

Samoan thus shows a classical ergative case alignment in which only subjects of fully transitive clauses are distinctly marked by ergative case.

2.2   (In)alienable possession

In the nominal domain, possessor marking is sensitive to the possessive relationship between the possessor and the possessee, as is typical for Polynesian languages (Chung 1973). In particular, alienable possessors are marked by alienable possessive *a* case (3a), whereas inalienable possessors are marked by inalienable possessive *o* case (3b) (Mosel and Hovdhaugen 1992, Mosel 1992).

(3) a. *Alienable possession*   b. *Inalienable possession*
     le naifi *a*   le tama   le ulu *o*   le tama
     ART knife POSS.AL   ART boy   ART head POSS.INAL   ART boy
     'the knife of the boy'   'the head of the boy'

Notably, both alienable and inalienable possessor marking can co-occur, as illustrated in (4), where the pre-nominal possessive clitic pronoun *na* is marked by alienable *a* case, and the inalienable possessor *le musika* by inalienable *o* case.

(4) l=*a*=na   tāleni *o*   le mūsika
    ART=POSS.AL=3CL talent POSS.INAL   ART music
    'his musical talent' (*Samoan Times*)

In contrast to e.g., English, where alienable and inalienable possessors do not bear distinct markings, this distinction is marked morphologically by two types of possessive case on the possessor arguments in Samoan.

2.3   Tripartite/inactive case alignment in nominalized clauses

One way in which verbal clauses are nominalized in Samoan is without overt morphology (Mosel and Hovdhaugen 1992, Mosel 1992; cf. Chung 1973 for a Polynesian overview). Instead, tense/aspect markers are replaced by an article or demonstrative. In such *zero* nominalizations, the verbal and nominal case pattern combine in a way where all types of subjects are distinctly marked: (i) unaccusative subjects and objects are marked by inalienable *o* case (5a), (ii) unergative subjects are marked by alienable *a* case (5b), and (iii) transitive subjects maintain their ergative case marking (5c) (Collins 2014, Mosel 1992).

(5) a. *Unaccusative*
     le pa'ū *o*   le tama
     ART fall   POSS.INAL ART boy
     'the falling of the boy'

    b. *Unergative*[1]

      le   galue   *a*   le   tama
      ART work   POSS.AL ART boy
      'the work(ing) of the boy'

    c. *Transitive*[2]

      le   si'i(=ina) *e*   le   tama *o*   le   matatoa
      ART lift(=INA) ERG ART boy POSS.INAL   ART spear
      'the lifting of the spear by the boy'

In the absence of absolutive case, the distribution of alienable and inalienable possessive case reveals the non-agentive status of unaccusative subjects that receive the same inalienable *o* case marking as objects, contrasting with agentive unergative subjects which are marked by alienable *a* case. However, ergative marked transitive agentive subjects are not affected by the reorganization of the case pattern in *zero* nominalizations, resulting in an exceptional tripartite/inactive case alignment (one not mentioned by Comrie 2013).

2.4   Summary

To summarize, the case alignment in Samoan *zero* nominalizations significantly differs from that in clauses in that only transitive subjects maintain their ergative case marking, whereas intransitive subjects are marked by either alienable *a* or inalienable *o* case, which aligns with their underlying semantic type of agent vs. patient (see Table 1).

Table 1: *Case alignment in the verbal and nominal domain.*

	verbal domain	nominal domain
S_{UNACC}	H_{ABS}	o_{INAL}
S_{UNERG}	H_{ABS}	a_{AL}
A	e_{ERG}	e_{ERG}
O	H_{ABS}	o_{INAL}

3.   The nominal domain

To account for the exceptional tripartite/inactive case pattern, we adopt the view that deverbal nominalizations like Samoan *zero* nominalizations are mixed projections that are derived from a verbal core (e.g., Alexiadou 2020, 2001, Iordăchioaia 2020 *inter alia*). In this section, we first address the properties of the nominal domain regarding (i) the source
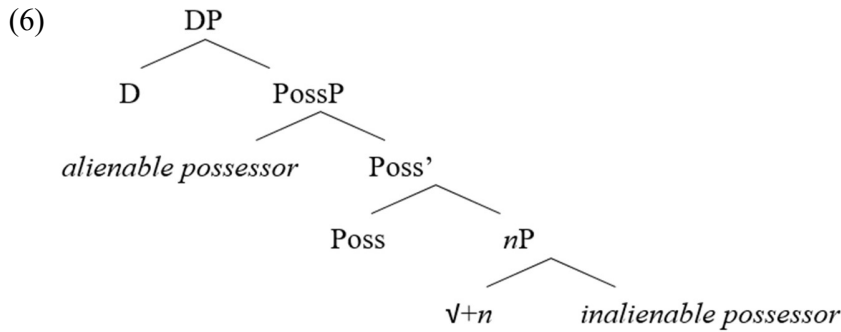
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[1] There is some variation among speakers regarding unergative verbs, as already noted by Mosel (1992), with some speakers preferring inalienable *o* case in the context of certain unergative verbs. While this kind of variation requires a more detailed investigation (cf. Tollan 2018 on the status unergative subjects in Samoan), we focus on the strong tendency described by Mosel (1992) and Collins (2014) that unergative subjects, i.e., agentive subjects of unergative verbs, are marked by *a* case.

[2] In the context of transitive nominalizations, resumptive *=ina* optionally attaches to the nominalized verbal predicate (Mosel 1992; also Yu 2021). Our consultant prefers the variant in which *=ina* is present. As the presence or absence of *=ina* does not seem to affect the grammaticality of *zero* nominalizations, we do not go into detail here; especially since the general properties of *=ina* require further investigation.

of (in)alienability, (ii) the type of nominalization (*n* vs. D), and (iii) cross-linguistic restriction on external arguments on *n* nominalizations, before turning to the verbal domain in the following section.

3.1 (In)alienability

Following Myler (2016) and Alexiadou (2001), we assume that alienable and inalienable possessors are merged in different syntactic positions: Inalienable possessors are merged as complements of the nominalizer *n* in the context of relational nouns. In contrast, alienable possessors require an additional functional projection Poss which introduces and thematically licenses a possessor argument.

(6)

```
              DP
          ╱        ╲
        D           PossP
                ╱         ╲
   alienable possessor     Poss'
                        ╱        ╲
                     Poss          nP
                               ╱        ╲
                            √+n      inalienable possessor
```

In contrast to other languages that have a single possessive case, both types of possessors are marked by designated case morphology in Samoan: *a*-case is inherently assigned by Poss to the DP in its specifier, the position where alienable possessors are merged (cf. Tyler 2021 on Choctaw). Inalienable possessor instead receive *o*-case, the default case in the nominal domain in Samoan (cf. Baker 2015), as indicated by the availability of double inalienable but not double alienable case in the context of possessive clitics (Mosel 1992).

(7) l=*o*=na   solo=ina *o*   le   laulau
     ART=POSS.INAL=CL.3SG   wipe=INA POSS.INAL ART table
     'his wiping of the table'

3.2 Voice under *n*

Mixed projections like deverbal nominalizations have been shown to vary according to (i) morphosyntactic size of the nominalized verb and (ii) the morphosyntactic type of the nominalizer (Alexiadou 2020, 2001, Iordăchioaia 2020 *inter alia*). Samoan *zero* nominalizations embed verbal structure minimally of VoiceP, as indicated by the presence of Voice-related morphology, such as the ergativizing suffix *-(C)ia* that derives ergative from non-ergative verbs (8a) and the causativizing prefix *faʻa-* that derives agent-introducing causatives (8b) (cf. Hopperdietzel 2021, 2020, Tollan 2018).

(8) a. *Ergativizing suffix*
        le   manaʻo-*mia*   e   le   tama o   se   fesoasoani
        ART   want-ES   ERG ART   boy   POSS.INAL ART.UNSEC help
        'the needing of help by the boy'

    b. *Causativizing prefix*
le   *faʻa*-mā-tala(=ina)   e   le tama o   le faitotoʻa
ART CAUS-STAT-open(=INA) ERG ART boy   POSS.INAL   ART door
'the opening of the door by the boy'

In contrast, tense/aspect morphology (9a) and higher sentential adverbs such as *ʻailoga* 'doubtful' (9b) are ungrammatical (Collins 2014). This suggests that the nominalized structure is smaller than TP, also accounting for the general absence of absolutive case.[3]

(9)   a. *Tense/Aspect marker*
        *le   *sā* paʻū o   le tama
         ART PST fall POSS.INAL   ART boy

    b. *High modal adverbs*
        *le   *ʻailoga* solo(=ina) e le tama o   le laulau
         ART doubtful wipe(=INA) ERG ART boy POSS.INAL   ART table

To distinguish between D- and *n*-based nominalizations, it has been argued that only *n*-based nominalizations combine with all kinds of determiners (see Alexiadou 2020 and Iordăchioaia 2020 for additional diagnostics). In Samoan, *zero* nominalizations combine with various determiners, including the specific article *le* (8), the diminutive article *si* (10a), and the unspecific article *se* (10b) (also Mosel and Hovdhaugen 1992).

(10) a. *Diminutive article*
        si   solo~solo(=ina) e le tama   o   le laulau
        ART.DIM RED~wipe=INA ERG ART boy   POSS.INAL   ART table
        'the little wiping of the table by the boy'

    b. *Unspecific article*
        se   fasi e se   tagata (o   se   maile)
        ART.UNSPEC hit   ERG ART.UNSPEC person POSS.INAL ART.UNSPEC dog
        'a hitting (of a dog) by somebody' (Mosel and Hovdhaugen 1992:538)

Samoan *zero* nominalizations therefore classify as VoiceP-selecting *n*-nominalizations.

3.3   Unaccusative requirement of *n*

Cross-linguistically, *n*-based nominalizations have been observed to be subject to an unaccusative requirement in that Voice under *n* is not able to introduce an external argument DP, i.e., unergative and transitive subjects which are introduced *v*P-externally by a Voice projection (Imanishi 2020, Bruening 2013, Alexiadou 2001; but see Burukina 2021 for a critical discussion of the Mayan data).

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[3] Mosel (1992) observes that objects of transitive verbs but not subjects of intransitive verbs in *zero* nominalizations may also occur in absolutive case instead of inalienable *o* case (also Yu 2021). See Collins (2014) for a potential analysis which treats absolutive case in Samoan as the default case in the VoiceP domain which is entailed by VoiceP-embedding *zero* nominalizations and does not necessarily indicate the presence of a TP projection (cf. Baker 2015). Note however that there is apparent variation among speakers, as our consultant generally rejects absolutive case in nominalizations.

(11) **THE UNACCUSATIVITY RESTRICTION ON NOMINALIZATION** (Imanishi 2020:175)
Nominalized verbs must lack a syntactically projected external argument.

Consequently, external arguments must be introduced by other means, as illustrated by Greek below (from Alexiadou 2001). On the one hand, transitive subjects are introduced by prepositional passive *apo* 'by'-phrases and cannot be realized as genitive arguments.

(12) i katastrofi tis polis *apo tus varvarus*
ART destruction ART city.GEN by ART barbarians
'the destruction of the city by the barbarians' (Alexiadou 2001:76)

On the other hand, unergative subjects are introduced in the nominal domain where they are interpreted as possessors in the absence of an agentive Voice, as indicated by the ungrammaticality of agent-oriented modifiers like *siniditi* 'conscious'.

(13) i **(siniditi)* ergasia tu ipaluli
ART conscious work ART employees.GEN
'the *(conscious) work of the employees' (Alexiadou 2001:76)

While languages may differ in whether a Voice projection is present in *n*-nominalization, the crucial observation is that Voice under *n* does not introduce an external argument.

3.4 Summary

To summarize, we have classified Samoan *zero* nominalizations as *n*-nominalizations which embed a VoiceP, and are thus expected to obey the unaccusativity restriction on nominalizations. Further, we have analyzed inalienable *a* case as an inherent possessive case that is assigned to the argument in the specifier of the functional projection Poss.
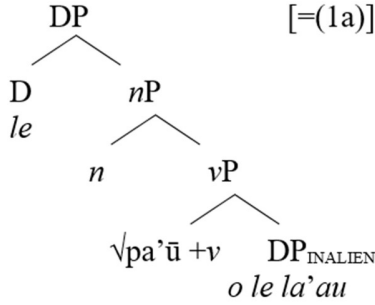
4. The verbal domain

Having established the properties of the nominal domain, we now turn to the verbal domain, demonstrating how the morphosyntactic status of different types of subjects in Samoan gives rise to the observed tripartite/inactive case alignment in *zero* nominalizations.
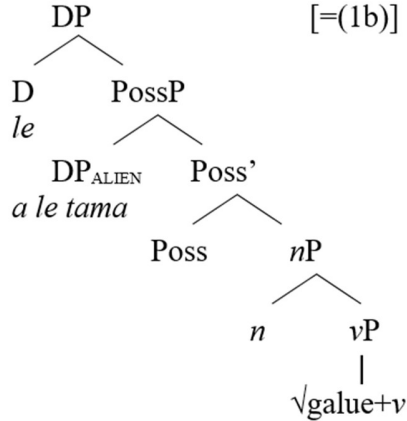
4.1. Split-intransitivity

It is standardly assumed that agentive/unergative and patientive/unaccusative subjects occupy different syntactic positions in the elaborated verb phrase: While unergative/agentive (and transitive) subjects are introduced *v*P-externally by a designated functional head, Voice, unaccusative/patientive subjects (and objects) occupy a *v*P-internal position. As such, only the latter survive the unaccusativity restriction on Voice in Samoan *zero* nominalizations, and receive default inalienable *o* case in the absence of absolutive case. As Voice is unable to introduce a DP argument, unergative subjects must instead be introduced outside of the verbal domain; specifically, they are introduced in Spec, PossP in the nominal domain, where they are assigned inherent alienable *a* case.

(14) a. *Unaccusative nominalizations*

```
              DP                    [=(1a)]
             /  \
           D      nP
           le    /  \
                n      vP
                      /  \
              √pa'ū +v    DP_INALIEN
                          o le la'au
```

b. *Unergative nominalizations*

```
              DP                    [=(1b)]
             /  \
           D      PossP
           le    /    \
          DP_ALIEN    Poss'
          a le tama   /   \
                    Poss    nP
                           /  \
                          n     vP
                                |
                            √galue+v
```

The observed (in)alienability split in subjects of nominalized intransitive verbs therefore follows naturally from the distinct syntactic positions of unaccusative and unergative subjects within the elaborated structure in the verbal domain in combination with the language specific inherent case marking of alienable possessors.

4.2. Syntactic ergativity

As transitive subjects are also introduced in Spec, VoiceP, we expect them to be merged in Spec, PossP in *zero* nominalizations (parallel to the unergative subject in 14b) in order to obey the unaccusative requirement. Thus, we would predict an active/ inactive alignment with unergative and transitive subjects marked by alienable *a* and unaccusative subject and objects marked by inalienable *o*-case, contrary to fact. However, Samoan shows a pattern of syntactic ergativity in which ergative subjects generally differ from absolutive subjects in being restricted in their distribution, e.g., they require the presence of resumptive *=ina* when a dislocated subject appears in a clause-initial A'-position (15a) (Hopperdietzel 2020, Muāgututi'a 2018, Mosel & Hovdhaugen 1992; cf. Polinsky 2016).

(15) a. *Restricted A'-movement of transitive subjects*
'o (*e) le tama 'olo'o (ia) si'i*(=ina) le matata'o.
PRED ERG ART boy PROG 3SG.CL lift=INA=ABS ART spear
'It is the boy who is lifting the spear.' (adapted from Muāgututi'a 2018:14)

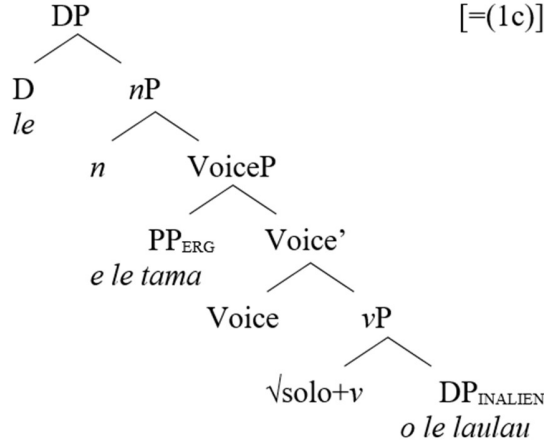b. *Unrestricted A'-movement of intransitive subjects*
'o le teine 'olo'o tamo'e.
PRED ART girl PROG run
'It is the girl who is running.' (Muāgututi'a 2018:13)

Adopting a prepositional account of syntactic ergativity in Samoan (Hopperdietzel 2020, Polinsky 2016), ergative case is inherently assigned by a preposition. Therefore, Samoan ergative PP-subjects have the properties of passive *by*-phrases in languages such as Greek and English and do not violate the unaccusativity requirement on nominalizations. Thus, ergative case marking survives the nominalization of transitive verbs. Like the subject of intransitive unaccusative verbs, the internal argument of transitive verbs receives default inalienable *o*-case from D in the absence of absolutive case in *zero* nominalizations.

(16) *Transitive nominalizations*

```
        DP                              [=(1c)]
       ╱ ╲
      D    nP
      le   ╱ ╲
          n   VoiceP
             ╱    ╲
        PP_ERG    Voice'
        e le tama  ╱  ╲
              Voice    vP
                      ╱  ╲
                 √solo+v   DP_INALIEN
                          o le laulau
```

Consequently, the tripartite/inactive case alignment in Samoan nominalizations follows naturally from independent language specific and cross-linguistic constraints on argument structure and licensing in nominalizations, supporting a prepositional analysis of syntactic ergativity as well as the unaccusativity restriction on nominalizations.

5.   Implications

Our analysis of the tripartite/inactive alignment found in Samoan *zero* nominalizations has further cross-linguistic implications for argument structure constraints in both the nominal and verbal domain: Firstly, the distinct marking of unergative DP subjects provides independent evidence for the unaccusative requirement on nominalizations from the perspective of an unrelated syntactic ergative language, which has been primarily established based on Indo-European languages (Alexiadou 2001), and is currently debated for ergative Mayan languages (Burukina 2021, Imanishi 2020). Future research may therefore shed additional light on this restriction (see e.g, Bruening 2013 on nominalizations and passives).

Secondly, the presence of ergative case in nominalizations supports a prepositional analysis of syntactic ergativity in Samoan and related Polynesian languages, such as Tongan (Polinsky 2016), as a distinct marking of unergative subjects would be unexpected under analyses in which ergative case is inherently or dependently assigned (*pace* Tollan 2018, Collins 2014; cf. Baker 2015). If Imanishi (2020) is correct that ergative subjects in (some) syntactic ergative Mayan languages like Kaqchikel are subject to the unaccusative requirement on nominalizations, syntactic ergativity may not be a uniform cross-linguistic phenomenon, and may thus follow from distinct syntactic properties, e.g., PP-subject vs. high absolutive languages (cf. Polinsky 2016, Coon et al. 2014). The distribution of ergative subjects in nominalizations may therefore provide relevant insights into the morpho-syntactic nature of (syntactic) ergativity in a given language.

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