Proceedings of the Sixteenth Meeting of the Austronesian Formal Linguistics Association (AFLA)

University of California, Santa Cruz

May 1 - 3, 2009

edited by Sandy Chung, Daniel Finer, Ileana Paul, and Eric Potsdam

Table of Contents

photos courtesy of
Sandy Chung and
Justin Nuger

PREFACE

Although the Austronesian Formal Linguistics Association (AFLA) has been holding annual meetings since 1994, until now it has had no consistent approach to the publication of its *Proceedings*. Papers from AFLA 2 and AFLA 14 were published as edited volumes; in other years the local organizers published the *Proceedings* in their Department's Working Papers series; in still other years no *Proceedings* was published. The 16th annual meeting of AFLA was held May 1-3, 2009, at the University of California, Santa Cruz. During the business meeting, the idea was floated that the *Proceedings* henceforth be published electronically, in a consistent format, at the AFLA website (http://ling.uwo.ca/afla/), which is generously hosted by the University of Western Ontario. The initial result is this volume, which has emerged very quickly indeed—less than six months after AFLA 16 was held. Our hope is that on-line publication of this and future volumes of the *Proceedings of AFLA* will enable research on the formal linguistics of Austronesian languages to reach as wide a readership as possible.

We want to thank UCSC's Linguistics Department and its Linguistics Research Center for hosting AFLA 16, the authors for submitting their papers so efficiently, and the University of Western Ontario for hosting the website at which this volume is posted. We also wish to acknowledge the precedent set by the *Proceedings of AFLA 12*, which was published on-line as *UCLA Working Papers in Linguistics* No. 12, and whose stylesheet heavily influenced the stylesheet we constructed for the *Proceedings of AFLA*.

Sandra Chung
Daniel Finer
Ileana Paul
Eric Potsdam

BACKWARD CONTROL IN SAMOAN

Vincent Homer

University of California, Los Angeles/École normale supérieure, Paris

vincenthomer@gmail.com

Samoan allows subjectless sentences where a Possessor-DP modifying the Absolutive Theme/Patient argument of a verb can be interpreted as the Agent of that verb (similarly ditransitive constructions are possible where the Absolutive-internal Possessor-DP can be interpreted as the Goal in the absence of an overt Goal-DP). I argue that this phenomenon involves the co-occurrence of two coreferential DPs (one silent and one overt), and that the silent one c-commands the overt one without inducing a Condition C violation, because the two DP occurrences are copies of the same syntactic object, which bears two θ-roles. This paper adopts the theory of control as movement and proposes that the phenomenon is an instance of Backward Control.

1.   Introduction

Samoan is a Polynesian VSO language, with Ergative-Absolutive Case-marking (Chung 1978, Ochs 1982, Mosel and Hovdhaugen 1992, Koopman 2009). Alongside (1a), where the Ergative subject may corefer with the pronominal Possessor-DP, Samoan allows subjectless sentences in which an overt Possessor-DP embedded in the Absolutive object is interpreted as the Agent (1b); similarly, in a ditransitive construction with no overt Goal, the Absolutive-internal Possessor-DP can be interpreted as the Goal (2b).

(1) a. Na sasa e   Seu ∅ l-a-na   maile.[1]
         PST beat ERG Seu ABS DET.SG-POSS-3SG dog
         'Seu$_i$ beat his$_{i,j}$ dog.'
     b. Na sasa ∅   le   maile a   Seu.
         PST beat ABS DET.SG dog   POSS Seu
         'Seu's dog was beaten.' Or: 'S/he$_i$ beat Seu$_j$'s dog.'
         Or: 'Seu beat his own dog.' PAGO
     c. *Na sasa e   Seu$_i$/ia$_i$ ∅ le   maile a   Seu$_i$.
         PST beat ERG Seu/3SG ABS DET.SG dog   POSS Seu
         Intended: 'Seu$_i$/He$_i$ beat Seu$_i$'s dog.'

(2) a. Na 'aumai e   Sina ∅ l-a/o-na   ata   ia Seu.
         PST bring ERG Sina ABS DET.SG-POSS-3SG pictures OBL Seu
         'Sina brought his$_{i,j}$ picture to Seu$_i$.'
     b. Na 'aumai e   Sina ∅ nai ata   a/o Seu.
         PST bring ERG Sina ABS some pictures POSS Seu

'Sina brought pictures of Seu/Seu's.'

Or: 'Sina brought pictures of Seu_i/Seu_i's to him_i.' PAGO

Not: 'Sina brought pictures of Seu_i/Seu_i's to him/her_j.'

Explaining the readings in (1b) and (2b) where an overt Possessor-DP bears an Agent (Goal resp.) θ-role (henceforth PAGO readings, short for Possessor-Agent-Goal[2]) is the goal of this paper.[3] PAGO sentences of the (1b) type pose the following problem: it looks like the Possessor-DP corefers with a silent DP that c-commands it, leading one to expect ungrammaticality due to a Condition C violation when the Possessor-DP is an R-expression. There are two main avenues to solve the problem: either (i.) coreference is only apparent, i.e. a single DP denoting Seu is merged in one θ-position and is interpreted as having two θ-roles (Possessor-and-Agent); or (ii.) there are two mergers of DPs denoting Seu but they are such that they don't create a Condition C effect. I show that the first option is untenable because of evidence of the presence in the syntax of a silent Agent-DP distinct from the Possessor-DP (section 3). The second option splits into two (section 4): the silent DP is either a coreferential *pro* or a copy of the Possessor-DP. I argue in favor of the latter (two DP-mergers but a single syntactic object) as it is the only viable way to account for the lack of Condition C effect in (1b); and also the only way, given that the silent copy is, in the proposal advanced here, a *controlled* one, to capture the fact that a silent Goal-DP taking up a discourse referent can only remain silent if it corefers with an Absolutive-internal Possessor-DP, that is if it occurs in a PAGO sentence of the (2b) type (in other words, Oblique pronouns cannot be pro-dropped outside of PAGO).

2.   The Proposal: Backward Control

A key element of my proposal is that the Possessor-DP—let us call it β—in PAGO sentences corefers with an Agent or Goal-DP—let us call it α—which is syntactically represented, but is left unpronounced (in other words, it gets deleted at PF). The challenge is to explain the co-occurrence in core syntax of two coreferential DPs, one of which c-commands the other and remains silent, without inducing a Condition C effect (1b). I argue that α and β are in fact two copies of the same DP, with α the head of an A-chain whose tail is β. The theory of control as movement (Hornstein 1999) provides the tools that we need: it explains why one of the coreferential DPs remains silent, and it accounts for the obviation of Condition C.

Let us see how. The main tenet of Hornstein's theory of control is that the Principles-and-Parameters formulation of the θ-Criterion and of the Projection Principle is obsolete in the Min-

---

imalist Program: absent D-Structure, two assumptions of P&P can be abandoned, namely the biuniqueness between arguments and θ-roles, and the ban on movement into θ-positions. In Hornstein's theory, θ-roles are features of verbs, and a given DP bears a θ-role by checking the θ-role feature of a verb that it merges with (there is no upper bound on the number of θ-role features a DP can check).

In PAGO sentences, an A-chain is formed by movement of the Possessor-DP out of the Absolutive into a c-commanding θ-position (Agent or Goal, given the order of merger Agent>Goal>Theme). This movement, I claim, is Possessor-raising, and I follow Landau (1999) in characterizing Possessor-raising as A-movement.[4] The silent coreferential DP should be conceived of as a *covert* copy of the Possessor-DP; the covert copy c-commands the overt one; no Condition C effect is to be expected from the interaction of copies of the same DP. What is so peculiar about Samoan is the fact that it is the higher copy that gets deleted at PF: in other words, Samoan offers an example of Backward Control, where an overt copy controls a structurally higher one, a phenomenon documented in Tsez, Japanese, Brazilian Portuguese and Malagasy a.o. (Polinsky and Potsdam 2002a, 2002b, 2006, Fukuda 2008). The following simplified tree summarizes my proposal.

(3)
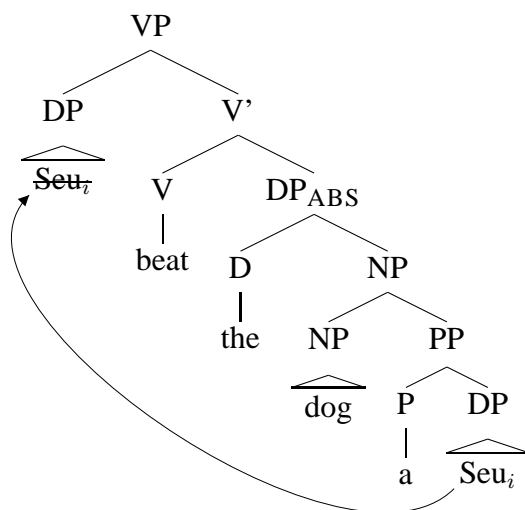
3.   Against Reductionist Accounts

3.1.   Against Genitive Subjects

My proposal crucially assumes the co-occurrence of two DPs; in defending it, I will argue against what I call reductionist accounts, which hold that only one DP occurrence is necessary for the PAGO reading to emerge (in this sense, my account, which posits two copies one of which is silent, is not reductionist). One such possible reductionist account (henceforth the Genitive Subject Hypothesis) can be ruled out right off the bat: it holds that Seu in (1b) is in fact the Genitive-marked

---

[4] I use the term Possessor-raising, an equivalent of External Possession, but it should be clear that I do not assume that this movement is restricted to Possessors. It can actually target the Theme or the Agent argument of a Noun, which is also the case e.g. in Korean, cf. Vermeulen (2005). The possessive markers are used to denote Possession in the strict sense, as well as more abstract Possessive relations, such as the Noun-Theme relation in the case of *o*.

subject of the sentence (assuming that the Genitive Case can alternate with the Ergative Case). I see at least three reasons to reject this view:

   1. If what I describe as a Possessor-DP is in fact a subject in (4) when the PAGO reading obtains, why can (and in fact must) it be interpreted as a Possessor? Notice that overt Ergative subjects are not, in and of themselves, interpretable as Possessors (5), whereas in (4), the possessive reading is possible and in fact mandatory when Seu is interpreted as the Agent.

(4) Na sasa ∅   le   maile a   Seu.
     PST beat ABS DET.SG dog   POSS Seu
     'Seu's dog was beaten.' Or: 'S/he$_i$ beat Seu$_j$'s dog.'
     Or: 'Seu beat his own dog.' PAGO
     Not: 'Seu beat a dog.'

(5) Na sasa e   Seu ∅   le   maile.
     PST beat ERG Seu ABS DET.SG dog
     'Seu beat a dog.' Not: 'Seu beat his own dog.'

   2. Why is coreference possible with a silent Goal (2b)?
   3. Finally, PAGO Possessors surface where regular Possessor-DPs appear (post-nominally for lexical DPs (4) and pre-nominally for pronouns (6b)), and, unlike subjects, they form a surface constituent with the Absolutive argument (witness topicalization and *wh*-movement in (7)).[5]

(6) a. *Na sasa a   Seu ∅   le   maile.
         PST beat POSS Seu ABS DET.SG dog
     b. Na sasa ∅   l-a-'u   maile.
         PST beat ABS DET.SG-POSS-1SG dog
         'My dog was beaten.' Or: 'S/he beat my dog.'
         Or: 'I beat my own dog.' PAGO

(7) a. 'O le   maile a/*e   Seu na sasa.
         TOP DET.SG dog   POSS/ERG Seu PST beat
         'It is Seu$_i$'s dog that was beaten/that s/he$_j$ beat.'
         Or: 'It is his own dog that Seu beat.' PAGO
     b. 'O lea le   ata   o/*e   Seu na 'oti?
         TOP thing DET.SG picture POSS/ERG Seu PST cut
         'Which picture of Seu$_i$ was cut?/did s/he$_j$ cut?'
         Or: 'Which picture of himself did Seu cut?' PAGO

---

[5] The fact that the Possessor-DP forms with the Absolutive a surface constituent which can be Ā-moved suggests that PAGO subsumes what the literature on Polynesian labels Genitive-relative constructions (Herd et al. 2005), i.e. relative clauses whose head noun is modified by a Possessor-DP coreferential with the silent embedded subject. I leave for future research the execution of the envisioned reduction.

3.2.   Presence of the Coreferential DP

I claim that in PAGO sentences, there are two representations of the same syntactic object (one
is overt, and the other is covert). Yet in the presence of a sentence that lacks an overt subject,
and given that Samoan does not have overt voice morphology (8), it is tempting to analyze PAGO
sentences as short passives:[6] it is this alternative hypothesis that I will refute in this section.

(8)   Na 'ai ∅   le   teine.
        PST eat ABS DET.SG girl
        'The girl ate.' Or: 'The girl was eaten.'

My claim that the coreferential DP is syntactically present in PAGO sentences rests on four pieces
of evidence: (i.) PAGO sentences are more informative than short passives (the identity between
the Agent (or Goal) and the Possessor is part of the *assertive content* of the sentence); (ii.) verbs
can agree in number with the silent DP; (iii.) a floated quantifier (*'uma* 'all') can be associated with
the silent DP; (iv.) the Agent (or Goal) can be pronominal-bound in PAGO sentences containing a
quantified Possessor-DP.[7]

3.2.1.   Informativeness

Observe (1b), repeated as (9) below:

(9)   Na sasa ∅   le   maile a   Seu.
        PST beat ABS DET.SG dog   POSS Seu
        'S/he$_i$ beat Seu$_j$'s dog.' Or: 'Seu's dog was beaten.'
        Or: 'Seu beat his own dog.' PAGO

Samoan is pro-drop for 3rd person (subject and DO); one reading of (9) clearly involves a dropped
subject pronoun ('*S/he$_i$ beat Seu$_j$'s dog.*'). Now suppose that the other two interpretations are ones
of a short passive sentence which thus literally says '*Seu's dog was beaten*'. Then there is no such
thing as a special PAGO reading, and the sentence does not assert that Seu is guilty of beating his
own dog; but it can be true in a situation where he is indeed guilty; yet, true though it may be, the
sentence will not be informative enough as an answer to the question '*What did Seu do?*'. As a
matter of fact, the following discourse turns out to be felicitous, so it must be the case that the fact
that Seu is the beater is part of the assertive content of the sentence:

(10)   *(Context: Seu was walking his dog; the dog saw a horse, panicked and bit Seu.)*
        Q: So what did Seu do?
        A: Na sasa ∅   le   maile a   Seu.
            PST beat ABS DET.SG dog   POSS Seu

---

[6] This is not to say that short passive sentences do not have a syntactically represented subject; in fact they do, but their
subject is most likely a PRO$_{arb}$: PRO$_{arb}$ is not the kind of object whose properties can explain the facts discussed in
this section, namely informativeness, agreement, licensing of floated quantifiers and pronominal binding.
[7] (iv.) is just a neutral description at this point: later in this paper I argue that it is the silent copy, the controllee, that
binds the overt copy interpreted as a variable.

'Seu$_i$ beat his$_i$ dog.' PAGO

3.2.2. Agreement

A relatively small number of verbs (e.g. *tuli* 'chase', *pese* 'sing') exhibit overt plural agreement morphology, which consists in partial reduplication (a mechanism that applies to certain adjectives, e.g. *loa* 'old' as in *tamāloa* sg., *tamāloloa* pl., 'man'). The verbs that do show agreement need not do so (11); verbs agree with their external arguments, be they Absolutive or Ergative, not with their internal arguments (12).

(11) Na (pe~)pese e   ∅   tamā-lo~loa ∅ le   pese.
      PST (PL~)sing ERG DET.PL boy-PL~old ABS DET.SG song
      'The men sang a song.'

(12) Na (*pe~)pese e   le   tamā-loa ∅   ∅   pese.
      PST (PL~)sing ERG DET.SG boy-old ABS DET.PL song
      'The man sang songs.'

Moreover, verbs do not agree with Absolutive-internal Possessors: in (13), the Possessor of the Absolutive argument is plural (*Ioane ma Sina*), but, unsurprisingly, the verb *pese* 'sing' cannot inflect for number, since its subject *Seu* is singular.

(13) Na (*pe~)pese e   Seu ∅ le   pese a   Ioane ma Sina.
      PST (PL~)sing ERG Seu ABS DET.SG song POSS John and Sina
      'Seu sang John and Sina's song.'

The comparison between (13) and (14) is instructive: both contain a plural Possessor, but only in the latter, which is a PAGO sentence (it contains no overt subject), is verbal agreement possible.

(14) Na (pe~)pese ∅ le   pese a   Ioane ma Sina.
      PST (PL~)sing ABS DET.SG song POSS John and Sina

      'John and Sina sang their common song.' PAGO

Plural marking on the verb is thus a diagnostic for the presence of a silent subject in PAGO constructions such as (14): in (14), the verb *pese* 'sing' can reduplicate for number agreement under the coreferential interpretation, even though there is no overt subject. The trigger of agreement is not the plural Possessor-DP *Ioane ma Sina*, but rather the DP subject coreferential with it. The fact that agreement is optional under the coreferential interpretation is not surprising since plural agreement is optional with overt subjects.

3.2.3. Floated Quantifiers

The postnominal plural universal quantifier *'uma* 'all' (15a) can float from various DPs, e.g. Ergative ones (15b).

(15) a. Na tūlei ese e ∅   tamaiti ‘uma ∅   le   tusi e tasi.
          PST push away ERG DET.PL children all ABS DET.SG book E one
          'All the children pushed away one book.'

      b. Na tūlei ese ‘uma e ∅   tamaiti ∅   le   tusi e tasi.
          PST push away all ERG DET.PL children ABS DET.SG book E one
          'The children all pushed away one book.'

The important contrast is the following: whereas *‘uma* is grammatical when associated with the distant Possessor-DP in the PAGO sentence (16), it is illicit in (17), which differs from the former by the presence of an overt subject *e Ioane* (being singular, the latter is not eligible for association with *‘uma*).

(16) Na pe~pese ‘uma ∅   le   pese a   ∅   tamā-lo~loa.
      PST PL~sing all ABS DET.SG song POSS DET.PL boy-PL~old
      'All the men$_i$ sang their$_i$ song.' PAGO

(17) Na pese (*‘uma) e Ioane (*‘uma) ∅   le   pese a   ∅   tamā-lo~loa.
      PST sing all   ERG John all   ABS DET.SG song POSS DET.PL boy-PL~old
      'John sang the song of all the men.'

It thus appears that *‘uma* (i.) can be associated with a DP denoting the singers in (16), (ii.) can be associated with an Ergative subject (15b), but (iii.) cannot float from a Possessor-DP contained in the Absolutive object of a transitive verb (17). It follows that the associate of *‘uma* in (16) is not in fact the Possessor-DP itself but a (silent) subject coreferential with it. Association with *‘uma* is therefore a sign that a subject is syntactically represented in the PAGO sentence (16). The fact that the verb of this sentence is inflected for number, given the impossibility for Absolutive-internal DPs to trigger agreement discussed in 3.2.2, corroborates this conclusion.

3.2.4. Pronominal Binding

Observe (18) below: it has one reading in which the owners of the dogs are the beaters, and for that reason this reading is a PAGO one ((19) makes the same point).

(18) Na sasa ∅   le   maile a   ∅   tamā-lo~loa ta‘itasi.
      PST beat ABS DET.SG dog   POSS DET.PL boy-PL~old each
      'The dog that belongs to all the men was beaten.'
      Or: 'S/he beat the dog that belongs to all the men.'
      Or: 'Each man beat his own dog.' PAGO

(19) E   usu ā   ∅   le   pese a   le   tagata ia.
      GENR sing EMPH ABS DET.SG song POSS DET.SG person INT
      'Each person should sing their own song.' PAGO (Duranti and Ochs 1996, ex. 7)

Let us focus on this PAGO reading.[8] Importantly, a bound reading obtains, therefore the universal quantifier over individuals that the Possessor-DP contains binds some variable: sentence (18) says that each man x is such that x beat x's dog. Explaining how this bound reading arises is not a trivial matter (see next section), but at this point it is safe to say that the explanatory options boil down to the following two:

- Option A: The subject is a *pro* which acts as a bound variable. There are several ways to implement this idea. Here is one, for the sake of concreteness (I will propose a slightly different scenario in 4.1.1, cf. (25)): the Q-DP [*tamāloloa ta'itasi*] is not interpreted in its surface position but is at LF in an A-position from which it binds two variables, one in subject position, and one in the Possessor position (its base position). I follow Reinhart's generalization: pronominal binding can only take place from a c-commanding A-position (Reinhart 1983, Büring 2004).

- Option B: The subject of the sentence is a full DP: it is a copy of the Q-DP [*tamāloloa ta'itasi*]. At LF, the copy in the Possessor position acts as a variable bound by the subject. Given that Possessor-DPs in PAGO sentences are not Genitive subjects—in addition to its aforementioned flaws, the Genitive Subject Hypothesis leaves unexplained the bound reading—one has to imagine that there are two occurrences of the Q-DP, one in subject position and another one in Possessor position, only one of which gets interpreted as a quantifier, while the other is interpreted as a variable. This option is the one I will argue for in the remainder of this paper. In Hornstein's theory of control as movement, quantified controllers bind lower copies which are interpreted as variables. Samoan shows that Backward Control with quantified DPs (the quantified controllee is the binder) is possible, *pace* Cormack and Smith (2004).

Bound readings are also possible with silent Goals in PAGO sentences, and the two options A and B are *mutatis mutandis* adequate here. Let us consider (20): imagine that the speaker is a wedding photographer, who asks her assistant to bring each man who was present at the ceremony some pictures of himself.

(20) 'Aumai ∅   nai   ata   o   ∅   tamā-lo~loa ta'itasi.
      Bring   ABS some pictures POSS DET.PL boy-PL~old each
      'Bring [each man]$_i$ some pictures of himself$_i$.' PAGO

Before we decide which of the two options is correct, it is important to notice for the time being that they have one important feature in common, namely they require that an Agent (or a Goal) be represented in the sentence: Option A says that the subject (the indirect object resp.) acts as a bound variable, therefore is a *pro*-form, while Option B holds that there are two coreferential DPs in the syntax, only one of them, *viz* the subject (the IO resp.), is interpreted as a quantifier.

---

[8] There is actually a fourth reading, also a PAGO one, such that there is a single dog beaten by all his owners.

4. Against the *pro* Hypothesis

At the end of the last section, we reached an interim conclusion (there must be a coreferential silent DP in PAGO sentences), but we were left with a question: what is the exact nature of this DP? The discussion of the bound reading of (18) suggested that it might be a *pro*. In this section, I argue that this hypothesis cannot capture the range of the PAGO data and should thus be rejected.

4.1. Genitive Binding: A Seemingly Attractive Hypothesis

4.1.1. Genitive Binding

First of all, let us reexamine the properties of (18) repeated as (21) below:

(21)   Na sasa ∅   le   maile a   ∅   tamā-lo~loa taʻitasi.
       PST beat ABS DET.SG dog   POSS DET.PL boy-PL~old each
       'The dog that belongs to all the men was beaten.'
       Or: 'S/he beat the dog that belongs to all the men.'
       Or: 'Each man beat his own dog.' PAGO

In Samoan, a Q-DP embedded in the Absolutive argument of a verb can be interpreted as the Agent (or Goal) argument of that same verb. I have described this phenomenon as an instance of PAGO, whereby a DP which surfaces as the argument of the possessive marker *a/o* gets interpreted as the Agent (or Goal) of the verb. But the fact that the embedded Q-DP can give rise to a bound reading, which I have presented as a sign of the presence of a silent argument, is reminiscent of a crosslinguistically well attested phenomenon, namely Genitive Binding.

(22)   [[Every child]$_i$'s mother]$_k$ thinks that he$_{i,j}$ is clever.

(22) has a reading in which the pronoun *he* is bound by the generalized quantifier *every child*. Genitive Binding is a kind of pronominal binding in which Reinhart's generalization, i.e. c-command of the pronoun from an A-position, is not obviously met, since the quantifier is embedded in the subject; but the condition is in fact met if binding is done by the entire DP *every child's mother* (I refer the reader to Büring 2004 for an E-type analysis of the phenomenon which is consistent with Reinhart's generalization). If Genitive Binding is what is happening in (21), then a *pro* is in order. As a matter of fact, Genitive Binding with an overt pronoun is possible in Samoan, witness (23):

(23)   Na sasa e   le   matai a   ∅   maile taʻitasi ia.
       PST beat ERG DET.SG owner POSS DET.PL dog   each   3SG
       'The owner of [each dog]$_i$ beat it$_i$.'

So it is tempting to analyze (21) as being an instance of Genitive Binding: under this hypothesis, the subject of (21) is a silent pronoun (nothing precludes this, since Samoan is pro-drop for 3$^{\text{rd}}$ person), and it is bound by the Q-DP-containing object. The condition on c-command from an A-position can be met in (21) if scrambling has taken place (25): in effect, scrambled Absolutive

arguments can A-bind Ergative ones (and Ergatives can A-bind scrambled Absolutives; but A-binding of the Ergative by the Absolutive is impossible in the canonical VSO order):

(24) Na tuli ∅   ∅   tama 'uma e   l-o-na   tinā.
      PST chase ABS DET.PL boys all   ERG DET.SG-POSS-3SG mother
      '[Each boy]$_i$ was chased by his$_i$ mother.'

(25)
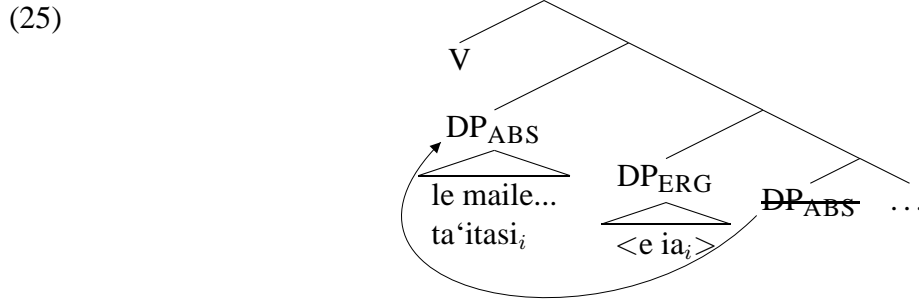
Regarding (20), Absolutive arguments can A-bind Oblique ones (and *vice versa*, suggesting that IOs are generated higher than DOs) in ditransitive VSO constructions:

(26) Na fā'ali e   Sina ∅   ∅   tama 'uma i l-o-na   tinā.
      PST show ERG Sina ABS DET.PL boys all   to DET.SG-POSS-3SG mother
      'Sina showed [each child]$_i$ to his$_{i,j}$ mother.'

Furthermore, an overt *postposed* Ergative pronoun can be A-bound by an Absolutive-internal possessive Q-DP:

(27) Na sasa ∅ le   maile a   ∅   tamā-lo~loa ta'itasi e   ia.
      PST beat ABS DET.SG dog   POSS DET.PL boy-PL~old each   ERG 3SG
      '[Each man]$_i$ beat his$_{i,j}$ dog.'

This result is expected, given what we now know about binding in the scrambled word order. It looks like this sentence only differs from (21) by the fact that the subject pronoun is overt in one and covert in the other. And if Genitive Binding obtains in (27), it is a priori reasonable to think it should also obtain in (21). Therefore Option A (the *pro* Hypothesis) seems tenable so far.

4.1.2. A Problem

Appealing though the Genitive Binding Hypothesis might seem, it hits a snag: it capitalizes on the fact that overt pronouns can be bound from within a c-commanding DP, and proposes to generalize to null pronouns; but this step is not warranted. In effect, substituting a null pronoun for the overt one in (23) leads to a loss of the bound reading.

(28) Na sasa e   le   matai a   ∅   maile ta'itasi.
      PST beat ERG DET.SG owner POSS DET.PL dog   each
      'The owner of [each dog]$_i$ beat it$_{*i,j}$.'

The following sentence confirms that Absolutive pronouns can be dropped:

(29)   Q: What did John do to his dog?
        A: Na sasa e   Ioane.
           PST beat ERG John
           'John beat it.'

Let us take stock: it is possible that the two sentences which contain overt pronouns (23) and (27) are indeed instances of standard Genitive Binding; but since (28), which lacks an overt (Absolutive) argument, is not an instance thereof, it is unclear why (21), which lacks an overt (Ergative) argument, should be. Granted, silent Ergative and silent Absolutive pronouns may have different properties w.r.t. binding, but in order to establish this difference, further research is necessary. Pending the results of this investigation, (28) might not be fatal to the *pro* Hypothesis, but it certainly makes it less attractive.

4.2.   Condition C Violation

As we have seen, the *pro* Hypothesis (in other words Option A) does not meet with unqualified success; and there are reasons to find it downright insufficient. First, the most serious challenge posed by PAGO constructions is the fact that they seem to defy Condition C. The Backward Control Hypothesis (Option B) has a ready answer: the coreferential DPs are links of a chain. The *pro* Hypothesis (Option A) doesn't seem very promising, for it posits a pronoun in an offending position relative to an R-expression.

    Let us see how it can deal with the problem. In a canonical PAGO sentence such as (1b), the R-expression is adjoined to the Theme NP, or it is an argument of a transitive noun; we also know that arguments can be scrambled in the postverbal domain. This situation is reminiscent of Condition C obviation through movement exemplified in (30): all A-movements, and Ā-movements with certain provisos (as the contrast between (30c) and (30d) indicates, the adjunct/argument distinction matters for Ā-movement) have been claimed to bleed Condition C (Lebeaux 1988, Fox 1999).

(30)   a.   Every argument that John$_i$ is a genius seems to him$_i$ to be flawless.
        b.   The claim that John$_i$ made seems to him$_i$ to be correct.
        c.   *Which claim that John$_i$ was asleep did he$_i$ dispute?
        d.   Which claim that John$_i$ made did he$_i$ defend?

At first sight, and assuming the generalization about A-movement is correct, it is conceivable that A-movement is the mechanism that circumvents Condition C in PAGO sentences: we know that the Absolutive DP can scramble past the Ergative and bind into it from this position (this is a hallmark of an A-position), and provided that A-movement does not reconstruct, the R-expression is not in the c-command domain of the postposed Ergative pronoun at LF. If this is on the right track, the adjunct/argument distinction should be irrelevant (whereas it would matter if the movement at play were Ā, witness the contrast between (30c) and (30d)); this is actually correct, as illustrated in (31), in which the possessive marker, viz *o,* denotes the relation between a transitive noun and

its theme (recall that *o* has two usages, inalienable possession and Noun-Theme relation, while *a* marks alienable possession), without there being a Condition C effect:

(31)   Na sasae ∅   le   ata   o   Ioane.
       PST tear   ABS DET.SG picture POSS John
       'S/he$_j$ tore a picture of John$_i$.' Or: 'John tore a picture of himself.' ⬚PAGO⬚

Upon closer inspection however, the idea faces a number of problems.

    1. First, Condition C obviation through movement is unable to explain why PAGO readings are unavailable whenever the Possessor-DP is embedded in an Oblique DP, as illustrated in (32b):

(32)   a.   E   alofa ∅   Ioane i   l-a-na   maile.
            PRS like ABS John OBL DET.SG-POSS-3SG dog
            'John likes his dog.'
       b.   E   alofa i   le   maile a   Ioane.
            PRS like OBL DET.SG dog   POSS John
            'S/he$_i$ likes John$_j$'s dog.'
            Not: 'John likes his own dog.' ⬚*PAGO⬚

This fact is all the more surprising under the movement hypothesis because the Oblique DP can scramble past the Absolutive one, as shown in (33):

(33)   E   alofa i   le   teine ∅   Ioane.
       PRS like OBL DET.SG girl ABS John
       'John likes the girl.'

The *pro* Hypothesis is hard-pressed to explain why Condition C violations can be circumvented when the potential offender is an Ergative *pro,* not when it is an Absolutive one. The Backward Control Hypothesis explains the lack of PAGO reading in (32b) by the fact that Obliques are opaque to A-movement, therefore to Possessor-raising.

    Overt postposed pronouns circumvent Condition C effects, whether they are Ergative or (and this is crucial given the lack of PAGO reading of (32b)) Absolutive:

(34)   Na sasa ∅   le   maile a   Seu e   ia.
       PST beat ABS DET.SG dog   POSS Seu ERG 3SG
       'S/he$_{i,j}$ beat Seu$_i$'s dog.'

(35)   Na va'ai i   le   maile a   Seu ananafi ∅   ia.
       PST see   OBL DET.SG dog   POSS Seu yesterday ABS 3SG
       'S/he$_{i,j}$ saw Seu$_i$'s dog yesterday.'

The contrast between (1b) and (32b) is puzzling in light of the strict parallel between (34) and (35): if it is *pro* that gives rise to PAGO readings, why does an Ergative *pro* behave differently from an Absolutive one?[9]

---

[9] I do not fully understand why postposed overt pronouns obviate Condition C; it might be that they are emphatic,

2. Second, the fact that only the outermost possessor[10] can be interpreted as the Agent in (36) falls out from the Backward Control Hypothesis (the raising of the Possessor is subject to Minimality effects), but is unexpected under the *pro* Hypothesis (if *pro* can corefer with the outermost Possessor-DP without violating Condition C, why not with the innermost one?).

(36)   Na 'oti ∅   le   ata   o   Ioane a   Sina.
       PST cut ABS DET.SG picture POSS John POSS Sina

       'Sina cut her own picture of John.' PAGO
       Not: 'John cut the picture of himself that belongs to Sina.'

3. Third, not all transitive predicates participate in PAGO, witness the transitive verb *iloa* 'know' (which is one of the rare verbs whose subject is Ergative-marked although the object is not affected, cf. Koopman 2009). I submit that Possessor-raising requires that the Possessee be affected.

(37)   E   iloa ∅   le   tinā   o   le   pepe.
       GENR know ABS DET.SG mother POSS DET.SG baby
       'He$_i$ knows the baby$_j$'s mother.'
       Not: 'The baby knows his own mother.' *PAGO

Furthermore, I have observed some speaker variation: although my three consultants access PAGO readings with body part-denoting Absolutive DPs, one rejects PAGO readings of sentences where the possession is of the alienable kind, e.g. (1b), another one only accepts a small number of these, and the third one (whose judgments are given in this paper) is more liberal. These niceties appear to be out of the reach of a movement-based approach such as the *pro* Hypothesis, unless there are structural differences underlying this typology, to which the obviation mechanism is sensitive.

4.3.   Non Droppable Pronouns

The *pro* Hypothesis predicts that PAGO readings should not be available with 1st and 2nd person Possessors, since Samoan is not pro-drop for these persons, as shown in (38):

(38)   Q: Did you go to Apia?
       A: I,   na *(ou) alu i   Apia.
          Yes PST 1SG.CL go OBL Apia
          'Yes, I went to Apia.'

The prediction is not borne out, as (39) shows (notice that in this context the sentence is unlikely to be a short passive, and we can thus confidently label it PAGO):

(39)   *(Context: the addressee was bitten by his own dog.)*
       Q: So what did you do?

---

perhaps reflexive, pronouns, cf. Mosel 1991; or reconstruction of the preposed DP is simply optional. In any event, the different behavior of putative Erg and Abs *pros* in PAGO sentences remains a mystery under the *pro* Hypothesis.
[10]Rigorously, *Ioane* is a Theme-DP of a relational Noun in (36).

A: Na sasa ∅   l-a-'u   maile.
   PST beat ABS DET.SG-POSS-1SG dog
   'I beat my dog.' PAGO

4.4. Floated Quantifiers

Remember that the universal quantifier *'uma* can float from the DP coreferential with the Possessor-DP in PAGO sentences. But *'uma* is unable to float from a *pro:* the following sentence is only grammatical if the quantifier is interpreted as an adverb modifying the main verb (and placing it at the end of the sentence makes this interpretive option unavailable):

(40)   Na sasae ('uma) ∅   le   ata   (*'uma).
      PST tear all   ABS DET.SG picture all
      'They tore the picture completely.'
      Not: 'They all tore the picture.'

Summarizing, all these reasons lead me to reject the *pro* Hypothesis in favor of the Backward Control Hypothesis (Potsdam 2006 makes a similar move about Malagasy).

5. Outstanding Problems

Although I believe that the Backward Control Hypothesis is on the right track, and fares better than the competitors I have been able to imagine, I don't have yet a satisfactory answer to:

1. What motivates the PF deletion of the higher copy? Nunes's 2004 Chain Reduction Principle (CRP) holds that the pronounced copy is the one that has the fewest unchecked features: let me suggest that the higher copy is not in fact Case-marked (see Koopman 2009 about the intricate mechanisms of Ergative-marking) and can thus be deleted.

2. Why isn't there forward PAGO control (5)? Maybe because the lower copy has to be Case-marked, therefore the CRP doesn't apply to it (and only one copy can be pronounced).

6. Conclusion

Samoan offers a new example of Backward Control. An analysis within the theory of control as movement appears to be the only viable one: the null controllee is a copy of the overt controller, and it is not a *pro;* it can pronominal-bind the overt controller which acts as a variable.

References

Avelino, Heriberto, John Foreman, Pam Munro, and Aaron Sonnenschein. 2004. Covert subjects in Zapotecan. Paper presented at the 2004 Annual Meeting of the Society for the Study of the Indigenous Languages of the Americas (SSILA). Boston, MA, January 2004.
Black, Cheryl. 1996. A backwards binding construction in Zapotec. *Work Papers of the Summer Institute of Linguistics* 40:75–87.

Büring, Daniel. 2004. Crossover situations. *Natural Language Semantics* 12:23–62.

Chung, Sandra. 1978. *Case marking and grammatical relations in Polynesian.* Austin: University of Texas Press.

Cormack, Annabel, and Neil Smith. 2004. Backward control in Korean and Japanese. In *UCL Working Papers in Linguistics*, volume 16, 57–83. University College London.

Duranti, Alessandro, and Elinor Ochs. 1996. Use and acquisition of genitive constructions in Samoan. In *Social interaction, social context, and language*, ed. D. Slobin, J. Gerhardt, A. Kyratzis, and J. Guo, 175–189. Mahwah, New Jersey: LEA.

Foreman, John. 2006. The morphosyntax of subjects in Macuiltianguis Zapotec. Doctoral dissertation, UCLA.

Fox, Danny. 1999. Reconstruction, binding theory, and the interpretation of chains. *Linguistic Inquiry* 30:157–196.

Fukuda, Shin. 2008. Backward control. *Language and Linguistics Compass* 2:168–195.

Herd, Jonathon, Catherine MacDonald, and Diane Massam. 2005. Genitive-relative constructions in Polynesian. In *Proceedings of the 2004 Canadian Linguistics Association Annual Conference*, ed. Marie-Odile Junker, Martha McGinnis, and Yves Roberge. University of Manitoba, Winnipeg.

Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30:69–96.

Koopman, Hilda. 2009. Samoan ergativity as double passives. In *Festschrift for G. Cinque*, ed. A. Cardinaletti, G. Giusti, and A. Munaro. Oxford: Oxford University Press.

Landau, Idan. 1999. Possessor raising and the structure of VP. *Lingua* 107:1–37.

Lebeaux, David. 1988. Language acquisition and the form of grammar. Doctoral dissertation, University of Massachusetts at Amherst.

Mosel, Ulrike. 1991. Transitivity and reflexivity in Samoan. *Australian Journal of Linguistics* 11:175–194.

Mosel, Ulrike, and Even Hovdhaugen. 1992. *Samoan reference grammar*. Oslo: Scandinavian University Press.

Nunes, Jairo. 2004. *Linearization of chains and sideward movement*. Cambridge, MA: The MIT Press.

Ochs, Elinor. 1982. Ergativity and word order in Samoan child language. *Language* 58:646–671.

Polinsky, Maria, and Eric Potsdam. 2002a. Backward control. *Linguistic Inquiry* 33:245–282.

Polinsky, Maria, and Eric Potsdam. 2002b. Backward control: Evidence from Malagasy. *MIT Working Papers in Linguistics* 44:257–272.

Polinsky, Maria, and Eric Potsdam. 2006. Expanding the scope of control and raising. *Syntax* 9:171–192.

Potsdam, Eric. 2006. Backward object control in Malagasy: Against an empty category analysis. In *Proceedings of the 25th West Coast Conference on Formal Linguistics*, ed. D. Baumer, D. Montero, and M. Scanlon, 328–336. Somerville, MA: Cascadilla Proceedings Project.

Reinhart, Tanya. 1983. *Anaphora and semantic interpretation*. Chicago: The University of Chicago Press.

Vermeulen, Reiko. 2005. External possession in Korean. In *UCL Working Papers in Linguistics*, ed. A. Neeleman and N. Topintzi, volume 17, 175–213. University College London.