TONGAN VOS: COORDINATION PLUS ELLIPSIS?*

Maria Polinsky   Eric Potsdam
University of Maryland   University of Florida
polinsky@umd.edu   potsdam@ufl.edu

The Polynesian language Tongan has basic VSO word order but also allows VOS. This paper explores a specifying coordination plus ellipsis derivation (Ott & de Vries 2016) of this word order in contrast to a rightward subject movement analysis. Both analyses have theoretical and empirical challenges, but we suggest that the more sophisticated biclausal ellipsis analysis is relatively successful in accounting for morphosyntactic characteristics of VOS in a more explanatory manner. We conclude with discussion of remaining challenges.

1.   Introduction

The Polynesian language Tongan has basic VSX word order (Churchward 1953, Custis 2004, Otsuka 2000, 2005c, Ball 2008, others), but VXS is permitted in many situations. The alternation is shown in (1, 2), where X is a direct object DP in (1) and a PP in (2).[1]

(1) a. Na'e fili   'e   Sione   'a   Pila.   **VSO**
       PST choose ERG   Sione   ABS   Pila
    b. Na'e fili   'a   Pila   'e   Sione.   **VOS**
       PST choose ABS   Pila   ERG   Sione
       'Sione chose Pila.'   (Otsuka 2005c:246)

(2) a. Na'e 'alu 'a   Mele   ki   'apiako   **VSPP**
       PST   go   ABS Mele   to   school
    b. Na'e 'alu ki   'apiako   'a   Mele   **VPPS**
       PST   go   to   school   ABS   Mele
       'Mele went to school.'

The question we address is: Assuming that VSO is the basic word order, how is VOS derived? The paper is structured as follows. Section 2 presents a brief overview of Tongan morphosyntax as it is relevant to this paper and section 3 briefly presents two hypotheses for deriving VXS from VSX: leftward movement of X or rightward displacement of S. We adopt the position argued for in Polinsky & Potsdam 2021 that exceptional rightward positioning of the subject is superior. Section 4 lays out two analyses for how the subject gets on the right: a rightward movement analysis and a biclausal coordination plus ellipsis analysis (Ott & de Vries 2016). Section 5 explores theoretical and empirical domains that differentiate the two hypotheses.
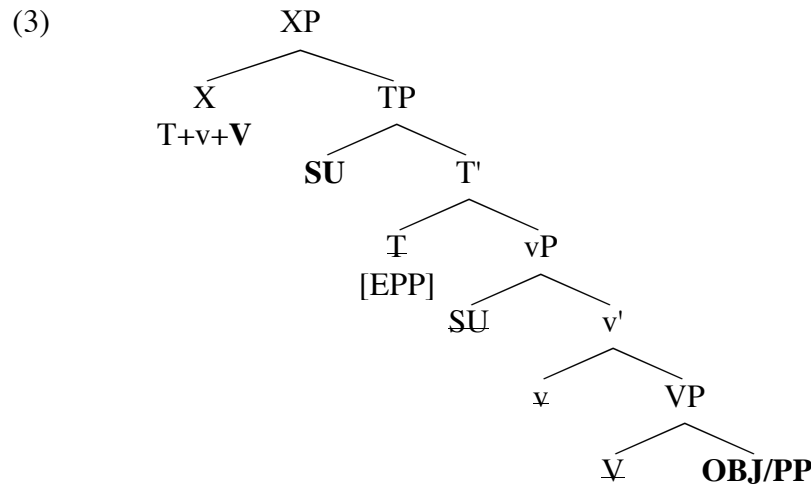
---

[1] Here and below, we underline the subject.

2.   Tongan Morphosyntax

Tongan is a Polynesian language of the Tongic subgroup spoken by approximately 200,000 people residing largely in Tonga and New Zealand. Its basic word order is VSO, and case marking on core arguments follows an ergative–absolutive case pattern, as seen in (1) above. It is morphologically isolating. As expected with a VSO language, it is strongly head-initial. The language allows both subject and object *pro*-drop (Tchekhoff 1981, Custis 2004, Otsuka 2000).

Following other researchers (Otsuka 2000, 2005a,c, Custis 2004, others), we derive the VSO word order by head movement of the verb from its base position to a head position above the surface subject position in spec,TP. We call the landing site of the verb X° and remain agnostic about its identity. The subject originates in spec,vP. A derivation is shown in (3).
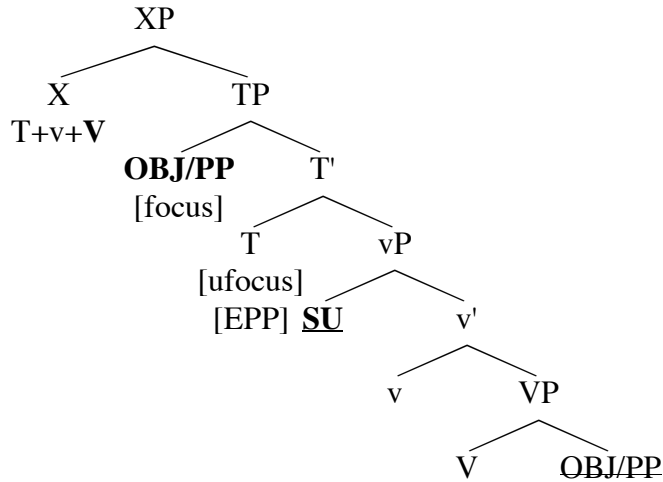
(3)

```
                    XP
              ┌──────┴──────┐
              X             TP
           T+v+V       ┌────┴────┐
                       SU        T'
                             ┌───┴───┐
                             T̶       vP
                           [EPP]  ┌───┴───┐
                                  S̶U̶      v'
                                     ┌────┴────┐
                                     v̶        VP
                                          ┌────┴────┐
                                          V̶      OBJ/PP
```

With this much as background, we turn to possible derivations of VOS.

3.   Two Hypotheses for VXS

Assuming VSX as a basic structure roughly as in (3), VXS can be derived in at least two ways. Under a leftward object analysis, the object or PP displaces leftward over the subject. Under a rightward subject analysis, the subject displaces rightward, with the object/PP in its base position.
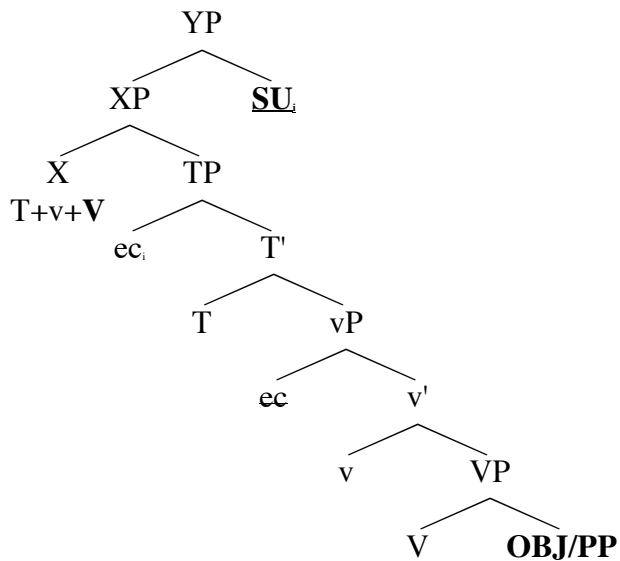
The leftward object analysis has been proposed for Tongan (Custis 2004, Otsuka 2000, 2005a,b,c,d) and a handful of other languages (Miyagawa 2001, 2003 for Japanese, Bossi & Diercks 2019 for Kipsigis). Otsuka's analysis is shown in (4). The object raises to spec,TP, while the subject remains in situ in spec,vP. Spec,TP functions as an EPP and focus position. Movement of the object is driven by an EPP feature on T° and a focus feature on the moving object.

(4)

```
                    XP
              ┌──────┴──────┐
              X             TP
           T+v+V       ┌────┴────┐
                     OBJ/PP      T'
                     [focus]  ┌───┴───┐
                              T       vP
                           [ufocus] ┌──┴──┐
                           [EPP] SU      v'
                                      ┌───┴───┐
                                      v       VP
                                           ┌──┴──┐
                                           V   OBJ/PP
```

We instantiate the rightward displacement analysis as in (5).[2] The subject in spec,TP displaces from this position to a rightward position in the clause. For now we remain agnostic on three features of the derivation: i) how the subject gets to this position, ii) the nature of the empty category in spec,TP, and iii) the exact structural relationship between the main clause XP and the rightward subject.

(5)

```
                      YP
               ┌───────┴───────┐
              XP              SU_i
          ┌────┴────┐
          X         TP
       T+v+V    ┌────┴────┐
               ec_i       T'
                     ┌─────┴─────┐
                     T           vP
                              ┌───┴───┐
                             ec       v'
                                   ┌───┴───┐
                                   v       VP
                                        ┌──┴──┐
                                        V   OBJ/PP
```

[2] We use the term *displacement* in a non-technical sense to simply mean alternative positioning.

Polinsky 2016 and Polinsky & Potsdam 2021 provide arguments in favor of the rightward subject analysis and against a leftward object analysis. The arguments come from i) the discourse status of core arguments, ii) the distribution of reflexives in VSX and VXS orders, and iii) word order possibilities with a peripheral PP, VSOPP. Because we have nothing to add beyond what is present there, we do not repeat the arguments; the interested reader is referred to the above works. We will adopt the conclusion that the rightward subject analysis is superior. Thus, VXS is derived from rightward displacement of the subject, not leftward movement of the OBJ/PP. We now turn to the main goal of the paper, namely, exploring possible instantiations of the rightward subject proposal.

4. Deriving the Rightward Subject

This section addresses the question of how the subject obtains its rightward position in the VXS order. We again consider two derivations. Under a traditional MOVEMENT analysis, the rightward subject moves from spec,TP to a rightward position, which we show as an adjoined position at the top of the clause. The empty category left behind in spec,TP is a trace/copy of the moved subject. This movement is akin to rightward scrambling (see Kural 1997 on Turkish, and Manetta 2012 on Hindi) or rightward topicalization (Clemens & Coon 2018 on Mayan languages).

(6)
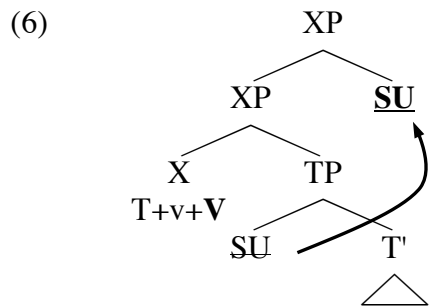
The alternative that we contrast this with is a coordination plus ELLIPSIS analysis from Ott & de Vries 2016 (see also de Vries 2007, 2009, 2011). (7) exemplifies a Dutch right dislocation construction that Ott & de Vries call "backgrounding," to reflect the interpretive properties of that construction.[3]

(7) Tasman heeft ze   gezien, die   Maori's
     Tasman has   them seen   those Maoris
   'Tasman saw them, those Maoris.'   (Ott & de Vries 2016:(3))

The core analytical idea is that right dislocation results from the coordination of two clauses in which the second clause specifies the first one and contains the right dislocated element, the DISLOCATE. The dislocate is cataphorically related to a pronominal correlate in the first clause via coindexation. The second clause contains clause-internal movement of the dislocate followed by ellipsis:

(8) $[_{CP_1} \ldots \text{correlate}_i \ldots]$ $[_{CP_2} \text{dislocate}_i \; [\ldots t_i \ldots]]$

---

[3] The analysis is proposed for right dislocation constructions in Germanic, but it is implied that it should be suitable for dislocation constructions in other languages (see Fernández-Sánchez 2020 for its application to Romance).

Extending this analysis to Tongan, VXS is analyzed as a dislocation construction, with S being the dislocate in the second clause. An instantiation of this analysis for VOS is shown in (9b) and schematized in the structure in (10).

(9) a. Na'e   tuku   'a   e   pa'anga   'e   Siale   **VOS**
        PST   leave   ABS DET money   ERG Siale
        'Siale left the money.'

    b. [CP1   Na'e   tuku   *pro*ᵢ 'a   e   pa'anga]
              PST   leave   ABS   DET   money
        [CP2   'e   Siale   [~~XP na'e   tuku   [~~TP tᵢ   'a e pa'anga]~~]]
              ERG   Siale   PST   leave   the.money
        'He left the money, Siale, ~~left the money~~.'

(10)
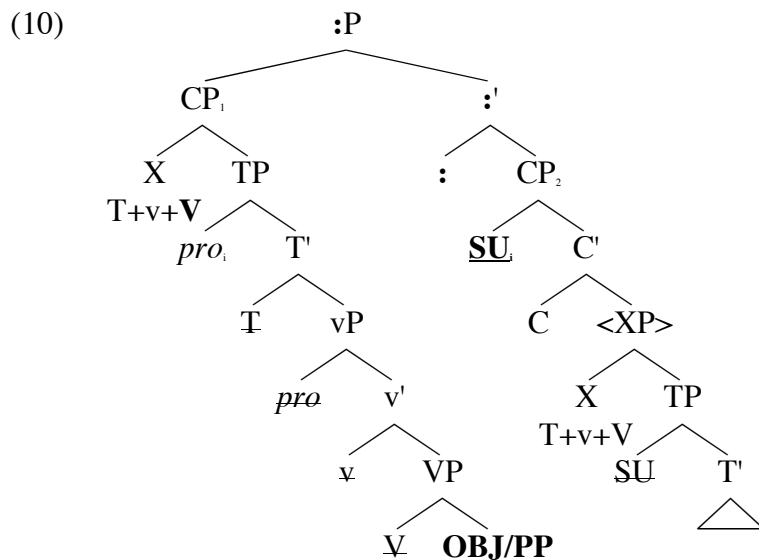
Focusing on the structure in (10), the main clause CP₁ is a VSO clause whose subject is a null pronoun (recall that Tongan is a subject *pro*-drop language). The second clause CP₂ is conjoined to the first clause via SPECIFYING COORDINATION (Koster 2000, de Vries 2009, Ott & de Vries 2016), realized syntactically as a colon phrase, **:P**. In semantic/pragmatic terms, specifying coordination is not the same as syndetic coordination with *and*/*or*. We define specifying coordination as follows: For all individuals, events, etc. introduced in the second conjunct, the specifying operator **:** presupposes that there are identical individuals, events, etc. in the first conjunct. The second clause introduces no new discourse entities or events. It can only identify or particularize material in the first clause. We explore further consequences of specifying coordination below.

In specifying coordination, "the two clauses are grammatically equipotent, but stand in an asymmetrical semantic relationship, the linearly second clause, specifying the first by adding relevant information to it" (Ott & de Vries 2016: 648). In CP₂, the overt subject has undergone fronting to a left peripheral position. All but this peripheral subject is then elided, indicated by <XP>. We assume that ellipsis requires identity/recoverability and that whatever the correct formulation of the identity requirement is, it is satisfied here (for discussion of identity, see

Merchant 2001, Potsdam 2007, Chung 2013, Barros & Kotek 2019, among others). This yields VXS word order, although the VX and S are in fact in separate clauses.

Initial support for this analysis for Tongan comes from the observation that such juxtaposed clauses are in fact possible, although failing to elide is disfavored because of the redundancy.

(11) Na'e   ui'i   {'e   ha   takotaha,*pro*} 'a   e   faiako,
      PST   call   ERG DET someone   ABS   DET teacher
      na'e   ui'i   'e   Sione   ('a   ia)
      PST   call   ERG Sione   ABS 3SG
      'Someone called the teacher, Sione called him.'

The following section presents a number of considerations in deciding between the MOVEMENT and ELLIPSIS approaches.

5.   Evaluating the Hypotheses

The main goal of this section is to critically evaluate the two analyses of Tongan VXS. We discuss a number of issues, both theoretical and empirical, which bear on the choice between the analyses.

5.1.   Discourse Status of the Subject

A major desideratum for any analysis of Tongan VOS is to account for the discourse status of the core arguments in VSO versus VOS, as they are not the same. The leftward object analysis rejected above was motivated by the apparent observation that the immediately post-verbal constituent in a Tongan clause is focused or new information (Otsuka 2005c,d). This claim is based on the (in)felicity of particular word orders in answers to *wh*-questions.[4]

(12) What did Siale leave?
    a. Na'e tuku   'a   e   pa'anga   'e   Siale   **VO**focus**S**
       PST   leave ABS   DET   money   ERG Siale
    b. #Na'e tuku   'e   Siale 'a   e   pa'anga   **#VSO**focus
        PST leave ERG Siale ABS   DET   money
    'Siale left the money.'

(13) Who left the money?
    a. Na'e tuku   'e   Siale 'a   e   pa'anga   **VS**focus**O**
       PST   leave ERG Siale ABS   DET   money
    b. #Na'e tuku   'a   e   pa'anga   'e   Siale   **#VOS**focus
        PST leave ABS   DET money   ERG Siale
    'Siale left the money.'

In response to an object question, (12), only VOS order is felicitous. In response to a subject question, (13), only VSO order is felicitous. These data support the claim that the post-verbal position is a focus position.

---

[4] The data in (12) and (13) come from our consultants but replicate judgments in Otsuka 2005d:124.
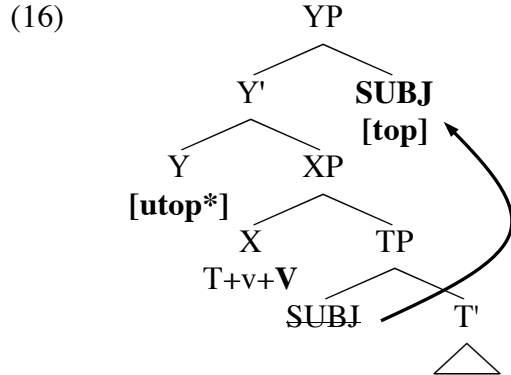
Despite the apparent implications of the above data, the claim is not compatible with findings in Custis 2004, a corpus-based study of the pragmatics of word order variation. Custis 2004 shows that the post-verbal element can be a topic as well:

(14)   What did Mele do?
      Na'e   kaiha'asi   <u>'e   Mele</u>   'a   e   ika   **VS$_{topic}$O**
      PST   steal   ERG Mele   ABS DET fish
      'Mele stole the fish.'

(15)   What happened to the fish?
      Na'e   kaiha'asi 'a   e   ika   <u>'e   Mele</u>   **VO$_{topic}$S**
      PST   steal   ABS DET fish   ERG Mele
      'Mele stole the fish.'

Custis (2004:36) ultimately concludes that "Almost any word order can occur with any relative status of topic and non-topic DPs." In particular, "putting any sentence in VSO order was judged to be acceptable to the speaker; this is most likely due to the fact that VSO is the pragmatically-neutral word order" (Custis 2004:39). The explanation that she offers for the infelicity of (12b) is that VSO is not possible when the subject is of a lower cognitive status than the object on the Givenness Hierarchy she proposes, following Gundel 1988 and Gundel et al. 1993. The cognitive status of a referent is associated with its identifiability and activation. In (12b), the subject is familiar and activated but the object is in focus, a higher cognitive status on the Givenness Hierarchy, which precludes the use of the VSO order. The infelicity of (13b) is not addressed. Polinsky 2016 argues that it is a result of the restriction that clause-final subjects not be in focus, not a restriction on post-verbal constituents. In other words, it is not that the post-verbal position is a focus position; rather, the clause-final subject position is old or given information, either topical or backgrounded.

Focusing of the post-verbal object is a side effect of the need for some constituent to be new information when the clause-final material is old. Polinsky 2016 presents a number of additional observations in support of this generalization. In particular, *wh*-phrases, indefinites, and focused DPs are all excluded from serving as the subject in VOS. These restrictions follow if none of these elements can be old information.

Returning to the two analyses of VOS under consideration, the question is the extent to which either proposal can account for this generalization. Looking at the MOVEMENT analysis first, it seems to us that it does not offer a great deal of insight into why this restriction exists. Mechanically, one can encode it in the syntactic derivation by making rightward movement sensitive to some discourse feature such as [topic/background], as shown in (16). This is necessary if movement is feature-driven (Chomsky 1995). At the same time, such a move is not explanatory. It does not tell us anything substantive about the information structure role of the subject, as this is represented by an ad hoc feature, whose content is stipulated. The feature could just have easily been [FOCUS]. Manetta 2012 calls the feature triggering rightward scrambling in Hindi EPP-R, highlighting its arbitrary nature.

(16)

```
                        YP
                 ┌───────┴───────┐
                Y'              SUBJ
           ┌─────┴─────┐       [top]
          Y           XP
       [utop*]    ┌────┴────┐
                  X         TP
                T+v+V   ┌────┴────┐
                       SUBJ      T'
                                 △
```

The ELLIPSIS analysis fares better in accounting for subject backgrounding. In that derivation, the subject in the first clause is a null pronoun, which is specified through coindexation with an overt DP in the second clause. The information structure status of the S in VOS will be determined by at least two considerations: 1) the discourse status that *pro* can/cannot take on in Tongan, and 2) the types of DPs that can be coreferential/cataphoric with *pro*. Regarding the former, pronouns are generally topics or old information (Gundel et al. 1993), and Otsuka 2005d in fact analyzes some instance of null subjects as a topic variable, so the analysis would seem to take us in the right direction. Regarding the second expectation, certain types of DPs, such as *wh*-phrases, indefinites, focused elements, and idiom chunks will not participate in cataphoric relationships with pronouns. The analysis thus correctly accounts for the data that motivated the backgrounding of subjects without actually having to stipulate it. The claim largely falls out from the architecture of the analysis and the semantics of specifying coordination. Further, unlike MOVEMENT, ELLIPSIS is compatible with the claim that information structure notions such as topic or background are not directly encoded in the syntax (Chomsky 2008, Fanselow and Lenertová 2011). We leave for future work a more fine-grained exploration of the predictions. While they might turn out to be incorrect, the ELLIPSIS analysis is superior to MOVEMENT in this domain.

5.2.   Rightward Movement

A theory-internal consideration that distinguishes the two analyses is the use of rightward movement. It is required under MOVEMENT but not ELLIPSIS. Rightward movement has an uncomfortable position in generative syntax. It has properties distinct from better exemplified leftward movement, and there have been several attempts to eliminate it from the grammar (e.g., Kayne 1994). On the other hand, several recent works have argued for the necessity of keeping rightward movement and have attempted to explain its apparently exceptional behavior (Ko 2008, Ko & Choi 2009, Manetta 2012, Overfelt 2015, among others). One's theoretical biases in this domain might lead one to prefer one analysis over another; however, we do not find either side compelling enough to eliminate either hypothesis based on this consideration alone.

5.3.   Independent Motivation for Movement

Both analyses posit movement and thus could be criticized to the extent that the movement is not independently motivated. We have already discussed the movement required in the MOVEMENT analysis and argued that it is not explanatory and not compatible with theories that eschew rightward movement. It is motivated only to the extent that it is necessary to get the correct word order in VOS. Other rightward movements have not been proposed for Tongan to our knowledge.

With respect to the ELLIPSIS analysis, Ott & de Vries (2016) argue for the superiority of the analysis for Germanic in part based on the claim that the construction can be fully accounted for with independently motivated computations. In particular, Germanic can be clearly shown to have the desired leftward movement operation that is part of the derivation in the second conjunct, what Ott & de Vries (2016:651) call A'-movement to the prefield and is more widely called Topicalization in the Germanic V2 literature. It can be seen in the unreduced version of the Dutch example from (7) (repeated as (17a)), in (17b).

(17) a. Tasman heeft ze gezien, die Maori's
      Tasman has them seen those Maoris
      'Tasman saw them, those Maoris.'   (Ott & de Vries 2016:(3))
   b. Tasman heeft ze gezien, die Maori's$_i$ heeft hij t$_i$ gezien
      Tasman has them seen those Maoris has he seen
      'Tasman saw them, he saw those Maoris.'   (Ott & de Vries 2016:(14a))

If Tongan can be shown to independently have a similar leftward movement, that would be an advantage for the ELLIPSIS analysis. There are two candidate fronting operations in Tongan: *KO* FRONTING and FRAGMENT ANSWER FRONTING. We look at these in turn.

Ko Fronting is an operation in Tongan that fronts a constituent, preceding it with the morpheme *ko*. It is widely recognized that *Ko* Fronting has a range of functions: topicalization, predicate nominal marker, focus marking, and *wh*-question and relative clause formation, among others (Churchward 1953, Tchekhoff 1981, Otsuka 2000, Custis 2004).

(18) a. Ko (*'e) Mele na'a ne kaiha'asi 'a e ika
      KO ERG Mele PST 3SG.CL steal ABS DET fish
      'Mele stole the fish.'   (Custis 2004:126)
   b. Ko (*'a) Pita na'e 'alu ki Nu'u Sila
      KO ABS Pita PST go to New Zealand
      'Pita went to New Zealand.'   (Custis 2004:153)

Given its numerous uses, *Ko* Fronting is a reasonable candidate for the movement that takes place in the ELLIPSIS analysis. Unfortunately, it has the wrong morphosyntactic characteristics. First, *ko* does not appear on the rightward subject in VOS and, second, the XP following *ko* is not case-marked, unlike in VOS. The first observation is illustrated in (19). The clause-final subject in VOS cannot be preceded by *ko*. If *Ko* Fronting were involved in the coordination plus ellipsis derivation, the appearance of *ko* would be expected, as shown in the putative derivation in (19b).

(19) a. Na'e tuku 'a e pa'anga (*ko) 'e Siale **VOS**
      PST leave ABS DET money KO ERG Siale
      'Siale left the money.'
   b. [$_{CP1}$ Na'e tuku *pro*$_i$ 'a e pa'anga]
      PST leave ABS DET money
      [$_{CP2}$ ko Siale$_i$ ~~[$_{XP}$ na'a ne tuku [$_{TP}$ t$_i$ 'a e pa'anga]]~~]
      KO Siale PST 3SG.CL leave ABS DET money

The second observation is that a *Ko* Fronted XP lacks a case particle, as seen in (18). The transitive subject in (18a) is not marked ergative and the intransitive subject in (18b) is not marked

absolutive. Such case marking would be ungrammatical, as shown above. Thus, even ignoring the presence of *ko*, the analysis incorrectly predicts that the clause-final subject in VOS should lose its case marker, contrary to fact (see (1b, 2b) above).

A more promising candidate for the fronting operation is the movement that derives fragment answers. We follow Merchant 2004 in hypothesizing that fragment answers are derived by fronting the answer from within a full clause and then deleting the redundant material under identity with material in the question:

(20) Q: Who is laughing?
     A: [~FP~ Mary~i~ F° [~TP~ t~i~ is laughing]]

This Fragment Fronting operation is apparently available in Tongan question/answer pairs:[5]

(21) Q: Ko   hai   te   ne   fai   ʻa   e   ngāue?
        KO   who NPST 3SG.CL   do   ABS   DET   work
        'Who will do the work?'
     A: *(ʻe)   he   faiako
         ERG   DET   teacher
        'the teacher'

(22) Q: Ko   hai   ʻoku   kata?
        KO   who PRS   laugh
        'Who is laughing?'
     A: *(ʻa)   e   leka   ni
         ABS   DET child that
        'that child'

The two problems above are solved in that *ko* is not present and case connectivity is preserved. The answers show the case appropriate for the questioned element, ergative in the case of the transitive verb in (21) and absolutive in the case of the intransitive verb in (22). Note that the MOVEMENT analysis also straightforwardly accounts for the case connectivity facts.

In the conference presentation of this work, we suggested that while Fragment Fronting achieves the right result syntactically, it is at odds with the information structure of VOS. Fragment answers are new information; however, rightward subjects are old information, topics, or background. Ott & de Vries (2016:654) consider this issue, noting that, although the dislocate is backgrounded, it is nonetheless the case that it necessarily provides additional information about the referent of the correlate. It thus provides new, specifying information with respect to *pro* in the

---

[5] Yuko Otsuka (personal communication) points out to us that the more usual answer strategy is to use *Ko* Fronting in parallel with the syntactic structure of the question, (i). While this is true, the bare fronting shown above is also possible, particularly when the question strategy is *wh*-in-situ.

(i) Q: Ko hai   te   ne   fai   ʻa   e   ngāue?
        KO who NPST 3SG   do   ABS   DET work
        'Who will do the work?'
     A: ʻe   he   faiako
        ERG   DET   teacher
        'The teacher.'

first clause. Thus, within the context of the two coordinated clauses, the subject is, or contains, new information, even if it does not introduce a new referent in the larger discourse. The explanation mitigates our initial concerns.

As Ott & de Vries (2016) point out, this view correctly predicts that the dislocate must be more specific in its descriptive content than the correlate. Pronouns, for example, should be excluded as dislocates (Ott & de Vries 2016:654) and, hence, as subjects in Tongan VOS. This prediction is correct for first and second person pronouns, which obligatorily require a preverbal pronominal clitic instead (boldfaced):

(23) Na'a **ku/ke** foaki ange 'a e pa'anga (*'e au/koe)
    PST 1SG/2SG.CL give DIR ABS DET money ERG 1SG/2SG
    'I/you already gave (him) the money.'

Because the clause-final subject pronoun does not further specify the clitic, which already expresses person and number features, the examples are correctly predicted to be ungrammatical, in violation of the semantic/pragmatic conditions on specifying coordination.

In contrast, third person pronouns are possible in VOS provided that the subject clitic is absent. In this case, the overt pronoun arguably does further specify the null *pro*.

(24) 'Oku kumi ki he mo'oni 'a ia
    PRS seek DAT DET truth ABS 3SG
    'S/he is looking for the truth.'   (Polinsky 2016:213)

If the subject clitic is present, VOS is again ruled out on a par with (23) (but see Polinsky 2016:199, (42)), as the overt pronoun is no more specific in person and number features than the overt subject clitic in the first clause:

(25) Na'a **ne** kaukau he moana (*'a ia)
    PST 3SG.CL swim DET sea ABS 3SG
    'He swam in the ocean.'

In summary, the ELLIPSIS analysis seems to fare better than MOVEMENT in using independently motivated movement operations.

5.4. Epithet Doubling

Turning to more empirical considerations, we look at two cases of subject doubling. The two analyses make different predictions about whether or not a clause-final subject can be doubled by an immediately post-verbal nominal in spec,TP. The MOVEMENT analysis moves the rightward subject from the canonical spec,TP subject position. Consequently, the initial expectation is that the rightward subject cannot be doubled by anything in spec,TP, as copies/traces are generally null and cannot be overwritten. Under ELLIPSIS, in contrast, spec,TP in the first clause contains *pro*, while the clause-final subject is in the second conjunct. Thus, it is possible that *pro* could be replaced by an overt nominal, giving the appearance of doubling.

The first instance of doubling concerns epithets. Most speakers allow an epithet (italicized) in the post-verbal subject position, doubling the clause-final S, as in (26b).

(26) a. Na'e   'alu 'a   Pila   ki   he'ene   pilinisipi   **VSO**
         PST   go   ABS   Pila   DAT   POSS.3SG   principal
         'Pila went to his principal.'

     b. %Na'e   'alu 'a   e   *to'a mo e to'a*ᵢ   ki   he'ene   pilinisipi   'a   Pilaᵢ
         PST   go   ABS DET fellow   DAT   POSS.3SG principal   ABS   Pila
         'The idiot went to his principal, Pila.'   **VEpᵢOSᵢ**

Such doubling is straightforwardly allowed under ELLPSIS. The clause-final subject specifies the epithet in the subject position of the first clause.

The account of this fact under MOVEMENT is less clear. If the epithet and its correlate are two separate DPs, then the doubling should be ungrammatical. There is reasonable evidence, however, that the syntax of epithets is more complex. A plausible analysis of (26b) is available under MOVEMENT if epithets are appositives to the DPs that they modify (Postal 1972, Potts 2005, Patel-Grosz 2015, others). For concreteness, suppose that the epithet and the antecedent form an articulated DP structure, as in (27). Then (26b) could be derived by moving only the DPᵢ portion of this big DP, stranding the epithet in spec,TP. Space considerations prevent us from exploring this idea in more detail.

(27)   [[DP₁ antecedent] [DP₂ *epithet*]]

5.5.   Subject Clitic Doubling

A second instance of doubling, one that is problematic for the ELLIPSIS analysis, involves subject clitics (see Churchward 1953, Chung 1978, Tchekhoff 1981, Otsuka 2000, Custis 2004 for description and analyses). Subject clitics occur pre-verbally and do not occur with a full noun phrase in VSO clauses. They only co-occur with *pro*:

(28) a. Na'a **ne**   kai   *pro*   'a   e   ika   **clV*pro*O**
         PST   **3SG.CL** eat   ABS   DET fish
         'He ate the fish.'   (Otsuka 2000:(6.2b))

     b. *Na'a **ne**   kai   'e   Sione   'a   e   ika   ***clVSO**
         PST   **3SG.CL** eat   ERG   Sione   ABS DET fish
         ('Sione ate the fish.')   (Otsuka 2000:(6.4b))

(29) a. Na'a **ne**   'alu   *pro*   **clV*pro***
         PST   **3SG.CL** go
         'He went.'   (Otsuka 2000:6.2a)

     b. *Na'a **ne**   'alu 'a   Sione   ***clVS**
         PST   **3SG.CL** go   ABS   Sione
         ('Sione went.')   (Otsuka 2000:(6.4a))

Subject clitic doubling is also ungrammatical in VXS with a full noun phrase subject:

(30) a. *Na'a **ne**   kai   'a   e   ika   'e   Sione   ***clVOS**
         PST   **3SG.CL** eat   ABS   DET fish   ERG   Sione
         ('Sione ate the fish.')

b. *Na'a **ne**   'alu ki   'apiako   'a   Mele   ***clVPPS**
   PST **3SG.CL** go   to   school   ABS Mele
   ('Mele went to school.')

Under MOVEMENT, clitic doubling in VOS is bad for the same reason that it is bad with VSO. Movement of the subject rightward does not change the internal structure of the clause. ELLIPSIS, in contrast, does not explain why subject clitic doubling in VOS is impossible. The first clause is independently well-formed and the full noun phrase subject in the second clause further specifies the null subject, regardless of the presence/absence of a subject clitic in the first clause, as shown in the ELLIPSIS analysis of (30a) in (31). Unlike a pronoun such as *'e ia* 'ERG 3SG', a name such as *'e Sione* 'ERG Sione' specifies *pro* and should be a licit clause-final subject. We currently do not see a reason why this should be ungrammatical under the ELLIPSIS analysis.

(31) [Na'a   ne₁   kai *pro*₁'a   e   ika] **:**
      PST   3SG.CL eat   ABS DET fish
      ['e   Sione₁ [na'a ne   kai t₁ 'a   e   ika]]
      ERG   Sione PST   3SG.CL eat   ABS DET fish
      ('He ate the fish, Sione.')

5.6.   Intermediate Summary

This section has explored a number of considerations which might differentiate the MOVEMENT and ELLIPSIS analyses of Tongan VOS. They are summarized in Table 1. Those above the double line are largely theory-internal considerations, while those below the line are empirical in nature.

	MOVEMENT	ELLIPSIS
Discourse status of subject (section 5.1)	✗	✔
No rightward movement (section 5.2)	✗	✔
Independent motivation for movement (section 5.3)	✗	?
Epithet doubling (section 5.4)	?	✔
Impossibility of subject clitic doubling (section 5.5)	✔	✗

Table 1. Considerations in the Analysis of Tongan VXS

Our preliminary conclusion is that the ELLIPSIS analysis is superior in explaining the characteristics of VOS in a non-stipulative manner. Its primary shortcoming is the inability to rule out subject clitic doubling with full noun phrase subjects. A further issue for ELLIPSIS that we have not explored is the extent to which the deletion that must take place in the derivation of VOS is independently motivated. For example, is it the same deletion found in the derivation of fragment answers or sluicing? We leave that for future work. Further still, there are domains which might also differentiate the two analyses that we have not explored. These include the distribution of the definitive accent and the prosody of VSO vs. VOS.

      Finally, both analyses make the prediction that non-subjects should also displace rightward, because neither movement operation proposed is naturally restricted to subjects. In a VSX language, rightward movement of non-subject dependents would be difficult to identify, but we do not have reasons to believe that it is not possible.

6. Conclusion

This paper has considered the derivation of VXS from VSX in the Polynesian language Tongan. We have considered a number of possible analyses, but the focus was on a critical evaluation of applying Ott & de Vries's (2016) coordination plus ellipsis analysis of right dislocation to Tongan VXS. We tentatively believe that the analysis is largely successful in explaining the core properties of the construction, in ways that other analyses are not. In addition, it makes non-trivial predictions about additional characteristics of VXS that we have not fully explored. While a rightward movement analysis that derives VXS from VSX is not conclusively ruled out, it is less interesting from the perspective of theories and analyses that drive us to think deeper about data and the underlying generalizations.

References

Ball, Douglas L. 2008. Clause structure and argument realization in Tongan. Ph.D. dissertation, Stanford University.

Barros, Matthew, and Hadas Kotek. 2019. Ellipsis licensing and redundancy reduction: A focus-based approach. *Glossa* 4(1), 100.

Bossi, Madeline, and Michael Diercks. 2019. V1 in Kipsigis: Head-movement and discourse-based scrambling. *Glossa* 4(1), 65.

Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Ma.: MIT Press.

Chomsky, Noam. 2008. On phases. In Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta (eds.) *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, 133–166. Cambridge, Ma.: MIT Press.

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

Chung, Sandra. 2013. Syntactic identity in sluicing: How much and why. *Linguistic Inquiry* 44:1–44.

Churchward, C. Maxwell. 1953. *Tongan grammar*. Oxford: Oxford University Press.

Clemens, Lauren, and Jessica Coon. 2018. Deriving verb-initial order in Mayan. *Language* 94:237–280.

Custis, Tonya. 2004. Word order variation in Tongan: A syntactic analysis. Ph.D. dissertation, University of Minnesota.

Fanselow, Gisbert, and Denisa Lenertová. 2011. Left peripheral focus: mismatches between syntax and information structure. *Natural Language and Linguistic Theory* 29:169–209.

Fernández-Sánchez, Javier. 2020. *Right peripheral fragments*. Amsterdam: John Benjamins.

Gundel, Jeanette. 1988. Universals of topic-comment structure. In Michael Hammond et al. (eds.) *Studies in syntactic typology*, 209–242. Amsterdam: John Benjamins.

Gundel, Jeanette, Nancy Hedberg, and Ron Zacharski. 1993. Cognitive status and the form of referring expressions in discourse. *Language* 69:274-307.

Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.

Ko, Heejeong. 2008. Subject scrambling. In Mutsuko Endo Hudson et al. (eds.) *Japanese/Korean linguistics* 13, 193–206. Stanford: CSLI.

Ko, Heejeong., and Jae Young Choi. 2009. Rightward movement and Output Economy. SICOGG 11, HUFS, Aug 11–14, 2009.

Koster, Jan. 2000. Extraposition as parallel construal. Ms., University of Groningen.

Kural, Murat. 1997. Postverbal constituents in Turkish and the Linear Correspondence Axiom. *Linguistic Inquiry* 28:498–519.

Manetta, Emily. 2012. Rightward scrambling in Hindi-Urdu. *Linguistic Inquiry* 43:43–74.

Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands and the theory of ellipsis*. Oxford: Oxford University Press.

Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and Philosophy* 27:661–738.

Miyagawa, Shigeru. 2001. The EPP, scrambling, and wh-in-situ. In Michael Kenstowicz (ed.) *Ken Hale: A life in language*, 293–338. Cambridge, Mass.: MIT Press.

Miyagawa, Shigeru. 2003. A-movement scrambling and options without optionality. In Simin Karimi (ed.) *Word order and scrambling*, 177–200. Oxford: Blackwell.

Otsuka, Yuko. 2000. Ergativity in Tongan. Ph.D. dissertation, University of Oxford.

Otsuka, Yuko. 2005a. Two derivations of VSO: A comparative study of Niuean and Tongan. In Andrew Carnie, Heidi Harley, and Sheila A. Dooley (eds.) *Verb first: On the syntax of verb-initial languages*, 65–90. Amsterdam: John Benjamins.

Otsuka, Yuko. 2005b. Syntax and/or pragmatics: PP-scrambling in Tongan and the thematic hierarchy. In Jeffrey Heinz and Dimitrios Ntelitheos (eds.) *Proceedings of AFLA 12, UCLA Working Papers in Linguistics*, 343–357. Los Angeles: UCLA.

Otsuka, Yuko. 2005c. Scrambling and information focus: VSO-VOS alternation in Tongan. In Joachim Sabel and Mamoru Saito (eds.) *The free word order phenomenon: Its syntactic sources and diversity*, 243–279. Berlin and New York: Mouton de Gruyter.

Otsuka, Yuko. 2005d. Two passive-like constructions in Tongan. In I Wayan Arka and Malcolm Ross (eds.) *The many faces in Austronesian voice system*, 119–135. Canberra: Pacific Linguistics.

Ott, Dennis, and Mark de Vries. 2016. Right-dislocation as deletion. *Natural Language and Linguistic Theory* 34:641–690.

Overfelt, Jason. 2015. Rightward movement: A study in locality. Ph.D. dissertation, University of Massachusetts at Amherst.

Patel-Grosz, Pritty. 2015. *Epithets at the syntax-semantics interface*. Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Polinsky, Maria. 2016. *Deconstructing ergativity*. Oxford: Oxford University Press.

Polinsky, Maria, and Eric Potsdam. 2021. Deriving VOS from VSO in Tongan. In Diane Massam and Lauren Clemens (eds.) *Polynesian syntax and its interfaces*. Oxford: Oxford University Press.

Postal, Paul. 1972. "Pronominal epithets" and similar items. *Foundations of Language* 9:246–248.

Potsdam, Eric. 2007. Malagasy sluicing and its consequences for the identity requirement on ellipsis. *Natural Language and Linguistic Theory* 25:577–613.

Potts, Christopher. 2005. *The logic of conventional implicatures*. Oxford: Oxford University Press.

Tchekhoff, Claude. 1981. *Simple sentences in Tongan*. Canberra: Dept. of Linguistics, Research School of Pacific Studies, Australian National University for Linguistic Circle of Canberra.

de Vries, Mark. 2007. Dislocation and backgrounding. *Linguistics in the Netherlands* 24:235–247.

de Vries, Mark. 2009. The left and right periphery in Dutch. *The Linguistic Review* 26:291–327.

de Vries, Mark. 2011. Extrapositie. *Nederlandse Taalkunde* 16:273–306.

Proceedings of the Twenty-Seventh Meeting of the Austronesian Formal Linguistics Association (AFLA)

Henrison Hsieh and Keely New
(eds.)

AFLA XXVII
The Twenty-Seventh Meeting of the
Austronesian Formal Linguistics Association

National University of Singapore (held online)
August 20-22, 2020

Table of Contents