Tongan VOS: Coordination plus ellipsis?

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1 Introduction

• Tongan basic word order is VSO but it also allows VOS in many situations (Churchward 1953, Custis 2004, Otsuka 2000, 2005c, Ball 2008, others)

(1) a. Na’e fili ‘e Sione ‘a Pila VSO
   PST choose ERG Sione ABS Pila
   ‘Sione chose Pila.’ (Otsuka 2005c:246)

b. Na’e fili ‘a Pila ‘e Sione VOS
   PST choose ABS Pila ERG Sione
   ‘Sione chose Pila.’

• Assuming that VSO is the basic word order, how is VOS derived?

Outline of the talk

o Morphosyntactic basics
o Two hypotheses for deriving VOS from VSO
  leftward object displacement vs. rightward subject positioning
o Dilemma: the right way to get the subject on the right
  movement vs. clausal coordination+ellipsis
o Conclusions

2 Tongan basics

Tongan (lea faka-tonga): Polynesian language of the Tongic subgroup, spoken by about 150,000 people (about 100,000 in Tonga)

- morphologically and syntactically ergative
- morphologically isolating (analytic)
- head-initial, predicate-initial, non-verbal predicates (including PPs)

2.1 Derivation of VSO: Head movement

• VSO derived by movement of the verb to a functional head X˚ above the subject in spec,TP (Otsuka 2000, 2005a,c, Custis 2004, others)

(2) XP
    X
    T
    TP
    T+v+V
    SU
    T’
    vP
    [EPP]
    v’rep
    VP
    OBJ

(3) a. Na’e tuku [‘e Siale] [‘a e pa’anga] VSO
    PST leave ERG Siale ABS DET money

b. Na’e tuku [‘a e pa’anga] [‘e Siale] VOS
    PST leave ABS DET money ERG Siale
    ‘Siale left the money.’

(4) 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.’

Assume VSX is the basic word order with derivation as in (2), VXS can be derived by

L-OBJ: Leftward displacement of OBJ/PP
R-SUBJ: Rightward displacement of SUBJ
3.1 Leftward object displacement (L-OBJ)

See Otsuka 2005a,b,c, Custis 2004; Miyagawa 2001, 2003 for Japanese; Bossi & Diercks 2019 for Kipsigis

VOS derivation: OBJ raises to spec,TP, SUBJ remains in-situ

(5)

\[
\begin{align*}
\text{XP} & \quad \text{TP} \\
\text{T+v+V} & \quad \text{OBJ} \\
\text{[focus]} & \quad \text{T'} \\
\text{[ufocus]} & \quad \text{vP} \\
\text{[EPP]} & \quad \text{SU} \\
\text{v'} & \quad \text{V} \\
& \quad \text{OBJ}
\end{align*}
\]

Leftward object movement is driven by EPP on T and focus feature on preposed element. Spec,TP is an all-purpose, EPP and focus position.

3.2 Rightward subject displacement (R-SUBJ)

VOS derivation: SUBJ displaced rightward

(6)

\[
\begin{align*}
\text{XP} & \quad \text{SUBJ} \\
\text{T+v+v+V} & \quad \text{TP} \\
\text{cc} & \quad \text{T'} \\
\text{T} & \quad \text{vP} \\
\text{ee} & \quad \text{v'} \\
& \quad \text{V} \\
& \quad \text{VP} \\
& \quad \text{OBJ}
\end{align*}
\]

4 Evidence in favor of R-SUBJ

<table>
<thead>
<tr>
<th>captures discourse status of core arguments</th>
<th>L-OBJ</th>
<th>R-SUBJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>reflexive interpretations</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>word order options with an adjunct PP</td>
<td>x</td>
<td>✓</td>
</tr>
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</table>

4.1 Discourse status of core arguments

- Immediately post-verbal material is focused/new information (Custis 2004, Otsuka 2005c)

(7) What did Siale leave?

- a. Na’e tuku ‘a e pa’anga ‘e Siale PST leave ABS DET money ERG Siale VOS
- b. # Na’e tuku ‘e Siale ‘a e pa’anga PST leave ERG Siale ABS DET money ‘Siale left the money.’ #VSO

(8) Who left the money?

- a. Na’e tuku ‘e Siale ‘a e pa’anga PST leave ERG Siale ABS DET money VOS
- b. # Na’e tuku ‘a e pa’anga ‘e Siale PST leave ABS DET money ERG Siale ‘Siale left the money.’ #VOS

- Alternative proposal: The right peripheral material is topicalized/old/backgrounded information

Object focusing is a side effect of the need for some constituent to be construed as new information/focus when the subject is old/backgrounded

4.1.1 non-focused objects

- The post-verbal object need not be focused. Custis 2004, in a corpus-based study of the pragmatics of word order variation, shows that VOS occurs when the object is the topic of the sentence (Custis 2004:60)
What happened to the fish?
Na’e kaiha’asi ‘a e ika ‘e Mele VOS
PST steal ABS DET fish ERG Mele
‘Mele stole the fish.’ (Custis 2004:19)

We propose that the post-verbal position is covered by a negative condition: it is not backgrounded

4.1.2 indefinite subjects

• indefinite subjects are possible in VSO but not VOS

(10) a. Na’e ‘akahi ‘e ha leka ‘a e pusi
PST kick ERG DET.NSPC child ABS DET.SPC cat
‘A child kicked the cat.’ VS

b. * Na’e ‘akahi ‘a e pusi ‘e ha leka
PST kick ABS DET.SPC cat ERG DET.NSPC child
(‘A child kicked the cat.’) *VOS

(11) Na’e ‘akahi ‘e he leka ‘a ha tokotaha
PST kick ERG DET.SPC child ABS DET.NSPC someone
‘The child kicked someone.’ VSO

Indefinites resist topic interpretation (Gundel 1988, Krifka 2003, Reinhart 1981) and thus cannot be subjects in VOS

4.1.3 wh-phrase

• Subject wh-in-situ is impossible in VOS order

(12) a. Na’e ‘akahi ‘e hai ‘a e pusi? VSwh
PST kick ERG who ABS DET cat
(‘Who kicked the cat?’)

b. * Na’e ‘akahi ‘a e pusi ‘e hai? *VOSwh
PST kick ABS DET cat ERG who
(‘Who kicked the cat?’) (ok as an echo question)

c. Ko hai na’a ne ‘akahi ‘a e pusi? CLEFT
KO who PST 3SG.CL kick ABS DET cat
‘Who kicked the cat?’

4.1.4 focused elements

• Inherently focused subjects are impossible in VOS order

(13) a. ‘Oku tauhi ‘e Pila pē ‘a ia VStoC
PRS care ERG Pila EMPH ABS 3SG
‘Only Pila takes care of him.’

b. * ‘Oku tauhi ‘a ia ‘e Pila pē *VOSstoc
PRS care ABS 3SG ERG Pila EMPH

4.1.5 summary

• SUBJ in VOS is topical/backgrounded/old information

This is not accounted for in L-OBJ since the subject has the same morphosyntax in both VSO and VOS. In R-SUBJ, the status of SUBJ in VOS can be attributed to its rightward structural position

4.2 Reflexive interpretations

Tongan does not have dedicated anaphors (Churchward 1953, Dukes 1996; Hendrick 2005). A reflexive reading is expressed with the emphatic particle pē ‘only/EMPH’, which is either post-verbal or following the lower argument. Reflexive reading is always optional (and subject to speaker variation)

Examples are (un)grammatical on the reflexive interpretation

(14) a. ‘Oku tauhi (pē) ‘e Pila ‘a ia (pē) VSO
PRS care EMPH ERG Pila ABS 3SG EMPH
i he fale manaki
LOC OBL hospital
‘Pila takes care of himself at the hospital.’

b. ‘Oku tokoni (pē) ‘a Pila kiate ia (pē)
PRS help EMPH ABS Pila DAT 3SG EMPH
‘Pila helps himself.’
(15) a. *‘Oku tauhi ‘e Pila pē ‘a ia
   PRS care ERG Pila EMPH ABS 3SG
   i he fale manaki
   LOC OBL hospital
   (‘Pila takes care of himself at the hospital.’)

b. *‘Oku tokoni ‘a Pila pē kiate ia
   PRS help ABS Pila EMPH DAT 3SG
   (‘Pila helps himself.’)

assumptions about reflexive interpretation
(16) a. Subject/spec,TP is structurally superior to complements
   b. Reflexive interpretation is possible when pē ‘EMPH’ follows
      verb or structurally lower (bound) argument

R-SUBJ: In VOS, structural relations between OBJ and SUBJ are the
same as in VSO. Expect same reflexive options in VOS as in VSO
(17) a. ‘Oku tauhi pē ‘a ia ‘e Pila VOS
   PRS care EMPH ABS 3SG ERG Pila
   (but see Ball 2008:88 which marks this pattern *)

b. ‘Oku tauhi ‘a ia pē ‘e Pila VOS
   PRS care ABS 3SG EMPH ERG Pila
   ‘Pila takes care of himself.’
   (but see Otsuka 2005c:(13a) which marks this pattern *)

L-OBJ: In VOS, the OBJ A-moves across the subject to spec,TP. (17b) is
predicted to be bad as a Principle C violation. Predict OBJ to be able to
bind SUBJ, as A-movement creates new binding options. (18) should be
good.

(18) *‘Oku tauhi ‘a Pila ‘e ia (pē)
   PRS care ABS Pila ERG 3SG EMPH
   (‘Pila takes care of himself.’)
   (also marked * in Otsuka 2005c:(13b))

Otsuka 2005c:250 stipulates that the antecedent of a reflexively-
interpreted pronoun must be ERG in order to prohibit (18) but this
incorrectly excludes (14b)

- Reflexive patterns are identical in VSO and VOS orders for our
  consultants (contra Otsuka’s data), which supports R-SUBJ

4.3 Word order with an adjunct PP

VSOX basic word order
(19) Na’e tuku [‘e Sione] [‘a e tohi] [‘i he loki]
   PST leave ERG Sione ABS DET book LOC DET X
   V S O X
   ‘Sione left the book in the room.’ (Otsuka 2005c:(24a))

(20) other word orders
   a. allowed: VSOX, VOSX, VOXS
   b. disallowed: *VXSO, *VSXO, *VXOS

L-OBJ both overgenerates and undergenerates available word orders. It
correctly predicts that an alternative word order will be ✓ VOSX. It
undergenerates ✓ VOSX. It overgenerates *VXSO
correctly generates VOSX
(21) Na’e tuku [‘a e tohi] [‘e Sione] tobj [‘i he loki]
   PST leave ABS DET book ERG Sione LOC DET room
   ‘Sione left the book in the room.’

undergenerates VOXS (assuming only one XP can move to spec, TP)
(22) Na’e tuku [‘a e tohi] [‘i he loki]
   PST leave ABS DET book LOC DET room
   [‘e Sione] tobj τPP
   ERG Sione
   ‘Sione left the book in the room.’
   (Otsuka 2005c:(24d) which marks this as *; it is allowed
in Ball 2008 and allowed by our consultants)

overgenerates *VXSO
(23) *Na’e tuku [‘i he loki] [‘e Sione] [‘a e tohi] τPP
   PST leave LOC DET room ERG Sione ABS DET book
   (‘Sione left the book in the room.’)
R-SUBJ correctly predicts that an alternative word order will be ✔ VOXS. It does not overgenerate, but it undergenerates ✔ VOSX.

VOXS
(24) Na’e tuku ec, ['a e tohi] ['i he loki] ['e Sione], PST leave ABS DET book LOC DET room ERG Sione ‘Sione left the book in the room.’
(Otsuka 2005c:(24d) marks this as *; it is allowed in Ball 2008 and allowed by our consultants)

undergenerates VOSX

We assume that some PPs can be adjoined high on the right, outside of the rightward subject

4.4 Intermediate summary

- VOS results from rightward displacement of SUBJ, not leftward displacement of OBJ

From a cross-linguistic perspective, object shift for focus purposes is unusual. Object shift is typically motivated by topicality (non-focus) (Holmberg 1999, Miyagawa 2003, Neeleman & Reinhart 1998, others, but see Bossi & Dierks 2019 on Kipsigis)

There are inconclusive arguments from Weak Crossover and locality (Polinsky & Potsdam, to appear, discussing the arguments from Otsuka 2005c)

5 Deriving R-SUBJ

How does the subject get on the right?

MOVEMENT: Subject moves rightward
ELLIPSIS: Coordination of two clauses with fronting of subject in second clause followed by ellipsis

5.1 Movement (MVT)

The empty category is a trace/copy of the subject, which has undergone rightward movement

The movement is similar to Rightward Scrambling (Kural 1997, Manetta 2012, others) or Rightward Topicalization (Clemens & Coon 2018)

(26) XP₂
XXXX

5.2 Coordination + Ellipsis (ELLIPSIS)

VOS results from coordination of two clauses, the second clause specifying the first one (Ott & de Vries 2016). The second clause contains the rightward subject. It is reduced through movement followed by ellipsis. The subjects of the two clauses are linked cataphorically

(27) 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 “a e pa’anga]
PST leave ABS DET money

[CP₂ ‘e Siale, [CP₁ na’e tuku [CP₂ ‘a e pa’anga]]]
ERG Siale PST leave the money

‘He left the money, Siale, left the money.’
The relationship between CP₁ and CP₂ is one of specification. :P is **specification coordination** (Koster 2000, de Vries 2009, Ott & de Vries 2016)

The relationship between the rightward subject and its correlate in the full clause is one of coindexation. For all individuals, events, etc. introduced in the second conjunct, the specification operator :P presupposes that they are identical to some individual, event, etc. in the first conjunct.

Juxtaposed sentences with near-identity are possible (pragmatically odd because of redundancy).

(29)  
\[ \text{Na‘e ui‘i} \quad \text{‘e ha takotaha, pro} \quad \text{‘a e faiako, PST call ERG DET someone ABS DET teacher} \]  
\[ \text{na‘e ui‘i} \quad \text{‘e Sione (‘a ia) PST call ERG Sione ABS 3SG} \]  
\[ \text{‘Someone called the teacher, Sione called him.’} \]

6 Deciding between MVT and ELLIPSIS

<table>
<thead>
<tr>
<th></th>
<th>MVT</th>
<th>ELLIPSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>discourse status of subject (section 4.1)</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>no rightward movement</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>independently motivated movement</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>impossibility of subject clitic doubling</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>epithet doubling</td>
<td>?</td>
<td>✓</td>
</tr>
<tr>
<td>case connectivity</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>reflexive interpretations (section 4.2)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>word order options with an adjunct PP (section 4.3)</td>
<td>✓</td>
<td>✓</td>
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6.1 Information structure role of subject

In the MVT analysis, minimalist assumptions lead us to posit a feature [+topic/bkbgnd] on a head that triggers movement to the head’s specifier (see Manetta’s (2012) EPP-R feature)

(30)  
\[ \text{YP} \quad \text{SUBJ} \quad \text{[top]} \]  
\[ \text{Y’} \quad \text{X} \quad \text{TP} \]  
\[ \text{T+v+V} \quad \text{SUBJ} \quad \text{T'} \]  

This is not explanatory. It gives us no expectations/predictions about the information structure role of the final SUBJ.

Under ELLIPSIS, the information structure role of the final subject is identified. Because :P is specifying coordination, the subject in the second clause must particularize (“specify”) its correlate in the first clause (Ott & de Vries 2016). It cannot introduce a new discourse referent, but it can, and must, be descriptively richer than its correlate.
6.2 No rightward movement

Rightward movement is required under MVT but not under ELLIPSIS.

Rightward movement has an uncomfortable position in generative syntax. Kaynian Antisymmetry (Kayne 1994) excludes it completely but it is still widely posited and argued for (Ko 2008, Ko & Choi 2009, Manetta 2012, Overfelt 2015, among others).

6.3 Motivating the movements

- Neither movement operation is independently motivated
- Motivating the movement in the ELLIPSIS analysis

(31) a. Ko-Topicalization/Focusing
   b. fragment answer fronting

Ko-topicalization

(32) a. Ko Mele na’a ne kaihāasi ‘a e ika
   KO Mele PST 3SG.CL steal ABS DET fish
   ‘Mele stole the fish.’ (Custis 2004:126)
   b. Ko Pita na’e ‘alu ki Nu’u Sila
      KO Pita PST go to New Zealand
      ‘Pita went to New Zealand.’ (Custis 2004:153)

Ko-Topicalization/Focusing is not the right structure to feed ellipsis

(33) a. ko does not appear on the rightward subject in VOS
   b. the XP following ko is not case-marked, unlike S in VOS

(34) 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, ‘a e pa’anga]
      PST leave ABS DET money
      [CP2 ko Siale, [na’a ne tuku [CP1 ‘a e pa’anga]]]
      KO Siale PST leave the money

(35) Ko (*‘e) Siale na’a ne tuku ‘a e pa’anga
    KO ERG Siale PST 3SG.CL leave ABS DET money
    ‘Siale left the money.’

Fragment answers are derived by fronting the answer to a high left peripheral position followed by ellipsis (Merchant 2004).

(36) Q Who is laughing?
    A [CP Mary, C [‘t, is laughing]]

Tongan fragment answers do not require ko and show case marking

(37) Q Ko hai ‘oku kata?
    KO who PRS laugh
    ‘Who is laughing?’
   A1 *(‘a) e leka ni A2 *(‘a) ia
      ABS DET child that ABS 3SG
      ‘that child’ ‘s/he’

(38) Q Ko hai te ne fai ‘a e ngāue?
    KO who NPST 3SG do ABS DET work
    ‘Who will do the work?’
   A *(‘e) he faiako
      ERG DET teacher
      ‘the teacher’

Mechanically this achieves the right result, but fragments are new information/focused, while rightward subjects are old/background.

6.4 No subject clitic doubling

In VSO, subject clitics co-occur with pro but not a full NP (Chung 1978, Dukes 1996, Otsuka 2000, others).

(39) a. Na’a ne kai pro ‘a e ika clVproO
      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)
(40) a. Na’a ne ‘alu *pro clVpro 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 (clitic doubling) is impossible in VOS/VXS
(41) a. * Na’a ne kai ‘a e ika ‘e Sione *VOS PST 3SG.CL eat ABS DET fish ERG Sione (‘Sione ate the fish.’)
b. * Na’a ne ‘alu ki ‘apiako ‘a Mele *VPPS PST 3SG.CL go to school ABS Mele (‘Mele went to school.’)

Under MVT, 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 does not explain why subject clitic doubling in VOS is impossible. The first clause is independently well-formed and the full NP subject in the second clause further specifies the null subject, independent of the presence/absence of a clitic in the first clause

(42) a. * Na’a ne kaukau he moana ‘a Pila PST 3SG.CL swim DET sea ABS Pila (‘Pila swam in the ocean.’)
b. [Na’a ne kaukau pro, he moana] : PST 3SG.CL swim DET sea [‘a Pila, [na’a ne kaukau t. he moana]] ABS 3SG (‘He swam in the ocean, Pila.’)

6.5 Epithet doubling

ELLIPSIS predicts that the rightward subject can be doubled in the first clause. Doubling should be impossible under MVT

Most speakers allow an epithet in the post-verbal subject position, doubling a full NP

(43) a. Na’e ‘alu ‘a Pila ki he’ene pilinisipi PST go ABS Pila DAT POSS.3SG principal ‘Pila went to his principal.’
b. %Na’e ‘alu ‘a to’a mo e to’a, VEPoSi PST go ABS DET fellow ki he’ene pilinisipi ‘a Pila, DAT POSS.3SG principal ABS Pila ‘The idiot went to his principal, Pila.’

MVT might account for the epithet data if epithets have a more complex structure in which they are nominal appositives to some other DP (Postal 1972, Potts 2005, Patel-Grosz 2015, others)

(44) [DP1 DP [DP2 epithet ]]
The modified DP is the element that undergoes movement, stranding the epithet

6.6 Case connectivity

Rightward subject shows the case determined by the matrix predicate

(45) a. transitive predicate (ERG-ABS case frame)
Na’e tuku ‘a e pa’anga ‘e/*’a Siale PST leave ABS DET money ERG/ABS Siale ‘Siale left the money.’
b. intransitive predicate (ABS case frame)
Na’e ‘alu ki ‘apiako ‘a/*’e Mele PST go to school ABS/ERG Mele ‘Mele went to school.’
c. middle predicate (ABS-DAT case frame)
Na’e ki he faiako ‘a/*’e Pila PST DAT DET teacher ABS/ERG Pila ‘Pila saw the teacher.’

Case connectivity follows under both MVT and ELLIPSIS
6.7 Intermediate summary

- Both MVT and ELLIPSIS are successful but with some theoretical and empirical challenges

7 Conclusions and open questions

- The derivational relationship between VSO and VOS in Tongan is more effectively captured by the rightward positioning of SUBJ than by leftward displacement of OBJ (a similar proposal is made for the derivation of VOS in Greek (Georgiafentis & Sfakianaki 2004))

- Evidence in support of rightward positioning of S
  - discourse status of core arguments
  - reflexive interpretations
  - word order options with an adjunct
  - case connectivity

- Rightward positioning can be modeled with movement or coordination+ellipsis under specificational coordination

- Neither analysis is entirely without problems at this point, but they are mostly theory-internal

- At the same time, both analyses work, and an outstanding question is how to adjudicate between them
Acknowledgments

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