What Tense and Aspect tells us about SVCs in Akan

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1 Introduction

☞ Akan (Niger-Congo) has multi-verbal constructions with no overt coordinator or subordinator

   (1)   a.   Kofi **tɔ-ɔ**   aduane **di-i**.
              Kofi buy-PST food   eat-PST
              'Kofi bought food and ate it'
       b.   Kofi **frɛ-ɛ**   Ama **soma-a**   no.
              Kofi call-PST Ama send-PST 3SG
              'Kofi call Ama and sent her.'

- These constructions have been referred to as serial verb constructions

- The goal of this talk is to shed more light on the nature of these constructions by looking at the distribution of tense and aspect.

Road Map

☞ Brief introduction about SVCs

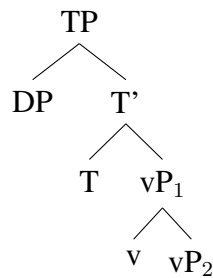☞ Martin's (2010) analysis of SVCs in Akan

☞ My analysis: I will propose the SVCs are covert coordination involving *v*P.
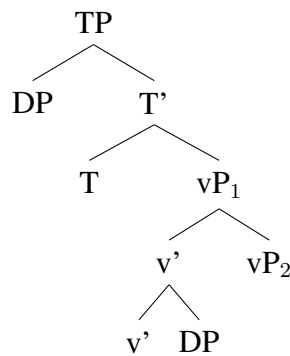
2 Serial Verb Constructions (SVCs)

- There is no unified definition of SVCs.

- But there are assumed to have the following properties

  - Contain at least two (main) verbs in what appears to be a single clause, (Veenstra 1993).

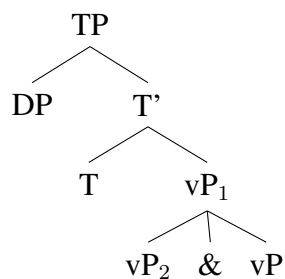*Rutgers University/ augustina.owusu@rutgers.edu

- Have only one (phonologically non-null) subject
- Have no overt subordination or coordination markers (Jansen et al. 1978 and Sebba 1987)
- They have a single event interpretation

- Analyses of SVCs can be divided into three broad categories

  - COMPLEMENTATION (Baker 1989, Baker & Stewart 2002, Collins 1997,Aboh 2009)

```
            TP
           /  \
         DP    T'
              /  \
             T    vP₁
                 /  \
                v    vP₂
```

  - ADJUNCTION (Baker and Stewart 2002)

```
            TP
           /  \
         DP    T'
              /    \
             T      vP₁
                   /   \
                  v'    vP₂
                 /  \
                v'   DP
```

  - COORDINATION (Agbedor 1994, Muysken and Veenstra 2006).

```
            TP
           /  \
         DP    T'
              /    \
             T      vP₁
                   / | \
                 vP₂ & vP
```

  - One of the main arguments against the coordination analysis is that you can extract out of SVCs.
  - For instance, Akan allow predicate clefting of the V_1

  (2)   a.   Kofi **tɔ-ɔ**   aduane **di-i**.
               Kofi buy-PST food   eat-PST
               'Kofi bought food and ate it.'

         b.   Tɔ na   Kofi **tɔ-ɔ**   aduane **di-i**.
               buy FOC. Kofi buy-PST food   eat-PST
               'Kofi BOUGHT food and ate it.'

2

2.1 SVCs in Akan

- SVCs in Akan differ from SVCs in closely related languages such as Ewe (Collins 1997)

- Tense, aspect and negation morphology occurs on all verbs

  (3)   a. Kofi **tɔ-ɔ**   aduane **di-i**.
             Kofi buy-PST food   eat-PST
             'Kofi bought food and ate it'
         b. Kofi a-n-tɔ   aduane a-n-di.
             Kofi PST-NEG-buy food   PST-NEG-eat
             'Kofi did not buy food to eat.'

- Collins (1997) distinguishes Ewe SVCs and covert coordination by the presence or absence of tense on all the verbs

  (4)   a. Ekpe a   ƒo kɔpo yi xɔ-me.   **Ewe SVC**
             rock FUT hit cup go room-in
             'A rock will hit a cup into the room.'
             'A rock will hit a cup, and the cup will go into the room.'
         b. Ekpe a   ƒo kɔpo a   yi xɔ-me.   **CC**
             rock FUT hit cup FUT go room-in
             'A rock will hit a cup, and the rock will go into the room.'

- Though is marked on all verbs, tense and polaritythey have to match

  - **Same tense specification**
    T_{past} $\text{V}_1[\text{T}_{past}]$ $\text{V}_2[\text{T}_{past}]$
    T_{neg} $\text{V}_1[\text{T}_{neg}]$ $\text{V}_2[\text{T}_{neg}]$

- For aspect and future, the subsequent verbs all have the **a-** morpheme

  - **a- on non-initial verbs**
    FUT $\text{V}_1[\text{T}_{fut}]$ $\text{V}_2[\text{T}_{a-}]$
    PROG $\text{V}_1[\text{T}_{prog}]$ $\text{V}_2[\text{T}_{a-}]$
    PERF $\text{V}_1[\text{T}_{perf}]$ $\text{V}_2[\text{T}_{a-}]$

- SVCs do not have object sharing, a property argued by Baker (1989) to be a crucial characteristics of SVCs.

- Apparent object sharing results from unconditions on final pronouns in Akan.

  - Inanimate final objects pronouns are not realized.

  - Animate object pronouns are realized as in (5-b).

  (5)   a. Kofi tɔ-ɔ   aduane di-i.
             Kofi buy-PST food   eat-PST
             'Kofi bought food and ate it'
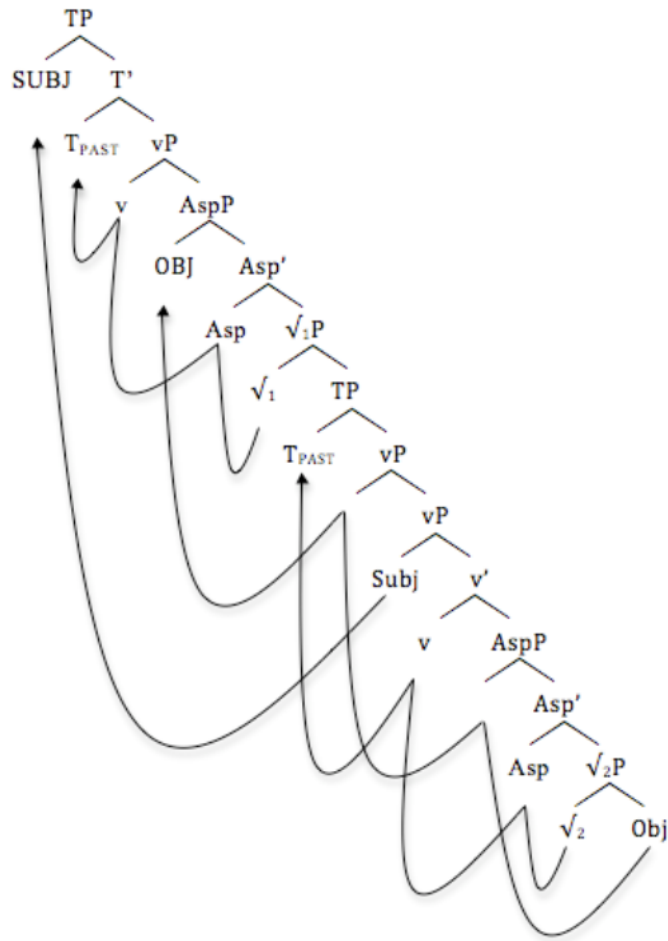
      b.   Kofi kye-e   akokɔ no ku-u   no.
           Kofi catch-PST hen   DEF kill-PST 3SG
           'Kofi caught a hen and killed it.'

- Martin (2011) choose to refer to these clauses as multi-verbal clauses instead of SVCs

- His analyzed as multi-clausal instead of mono-clausal constructions

- I continue to refer to them as SVCs

- In the next section, I will discuss Martin's analysis of these constructions in Akan, and show why it does not adequately account for all the data.

3 Martin 2011 Analysis

☞ Martin (2011) argues that Akan SVCs involve complementation

    – Following Kandybowicz (2010,2015): AspP is merged inside vP.

    – The vP-internal aspect corresponds to "inner aspect" (Travis 1991, 2010, Pearson 2001)

    – However, inner aspect in Akan is not lexical/situation aspect but viewpoint aspect.

    – vP$_2$ has an extended projection to TP

    – vP$_1$ is a functional head that does not assign thematic roles to it's complement.

☞ Motivations for this analysis

- Vowel lengthening is an indication of V-T movement (Kandybowicz 2010,2015)

- Following Boadi (2008), he assumes that **a**- in (6) is $T_{non-finite}$

(6)   Kofi bɛ-tɔ   aduane **a**-di.
       Kofi FUT-buy food   CONS-eat
       'Kofi will buy food and eat.'

☞ Disadvantages of the analysis

- Account for the restriction on T_2; it is either same as T_1 or **a-**

- Other constructions that have multiple TPs have no such restriction

(7)   a.   Kofi ka-a   sɛ   Ama re-da.   COMPLEMENT CLAUSES
             Kofi say-PST COMP Ama PROG-sleep
             'Kofi said Ama was sleeping'
       b.   Kofi ba-e   nanso na Ama a-da.   OVERT COORDINATION
             Kofi come-PST CONJ PST Ama PERF-sleep
             'Kofi said Ama was sleeping'

- It does not account for the relationship between aspect and the non-finite.

5

(8) a. Kofi bɛ-tɔ   aduane a-di
         Kofi FUT-buy food   CONS-eat
         'Kofi will buy food and eat.'

     b. Kofi re-tɔ   aduane a-di
         Kofi PROG-buy food   CONS-eat
         'Kofi is buying food to eat.'

     c. Kofi a-tɔ   aduane a-di
         Kofi PERF-buy food   CONS-eat
         'Kofi has bought food and eaten.'

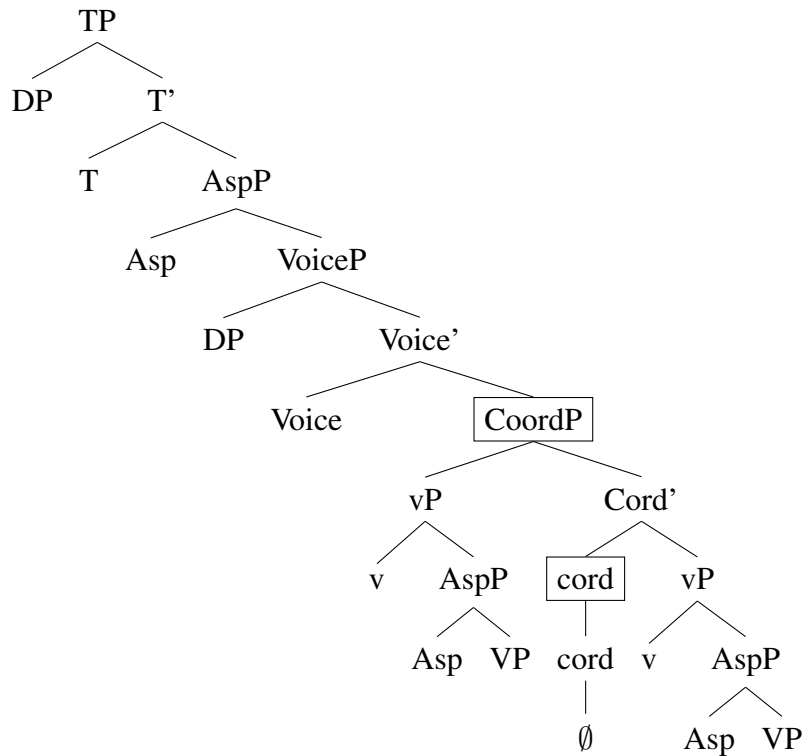- Explain most of the data but not all

4   SVCs as covert coordination

☞ Contra Martin(2011), I argue that Akan SVCs involve covert coordination of *v*Ps. Subject are merged in the spec of VoiceP. There is, therefore, only one subject and tense positions in SVCs.

4.1   The analysis

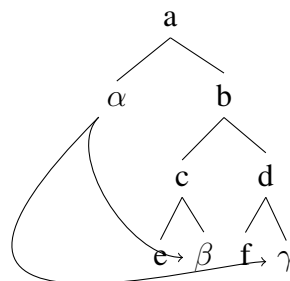☞ SVCs in Akan involve coordination of *v*P

- I am assuming that subjects are merged in **voiceP**, (Kratzer 1996)

- I maintain Kandybowicz's (2010, 2015) aspect inside *v*P.

- But for semantic composition reasons, I posit another aspect outside vP, **outer aspect**

  – Aspect is a event quantifier, $\langle\langle\epsilon t\rangle\langle it\rangle\rangle$

  – Aspect cannot combine with the type of VP

  – Aspect has to be interpreted higher than where it is merged

The tree diagram (TP):

```
                    TP
                 ／    ＼
              DP        T'
                     ／    ＼
                  T          AspP
                          ／    ＼
                      Asp        VoiceP
                             ／      ＼
                          DP          Voice'
                                   ／     ＼
                              Voice        [CoordP]
                                        ／      ＼
                                     vP           Cord'
                                  ／  ＼        ／    ＼
                                v     AspP  [cord]     vP
                                    ／  ＼   ／  ＼    ／  ＼
                                 Asp  VP cord  v    AspP
                                          |         ／  ＼
                                          ∅      Asp   VP
```

☞ Though every verb is marked for tense, they have to be the same.

(9) a. Kofi **tɔ-ɔ**   aduane **di-i**.
         Kofi buy-PST food   eat-PST
         'Kofi bought food and ate it'
     b. #Kofi **tɔ-ɔ**   aduane be-**di**.
         Kofi buy-PST food   FUT-eat

   – I adopt Pesetsky & Torrego's (2007) theory of Agree as feature sharing.

   – I adapt Hiraiwa's (2001) Multiple Agree theory.

   – **Parallel Agree** that allows a single probe to simultaneous Agree with all matched
     goals at the same derivational point. There is no c-command between the goals.

```
                    a
                 ／    ＼
              α        b
                    ／    ＼
                 c          d
               ／ ＼      ／ ＼
            e→β    f→γ
```

☞ Aspect and Future morphology, on the other hand, shows up on first verb and sequent
   verbs have the **a-** morpheme.

(10)   a.   Kofi re-tɔ   aduane a-di.
            Kofi PROG-buy food   CONS-eat
            'Kofi is going to buy food to eat.'
       b.   Kofi a-tɔ   aduane a-di.
            Kofi PREF-buy food   CONS-eat
            'Kofi bought food and ate it.'
       c.   Kofi bɛ-tɔ   aduane a-di.
            Kofi FUT-buy food   CONS-eat
            'Kofi will buy food to eat. '

– I argue that Asp outside the *v*P Agrees with *v* in the same way as T.

– **a-** is the spell-out of non-initial aspect/future

– It is an idiosyncrasy in Akan.

☞ There is a single subject in SVCs

(11)   #Kofi **tɔ-ɔ**   aduane Ama **di-i**.
        Kofi buy-PST food   Ama eat-PST

☞ Advantages of this analyses

– Account for why clausal complements and TP coordination does not have the same tense and aspect restrictions.

– Accounts for the relationship between aspect and **a-**.

4.2   Overt Coordination in Akan

☞ Further evidence for the analysis in the previous section is the distribution of tense and aspect in some overt coordinate constructions.
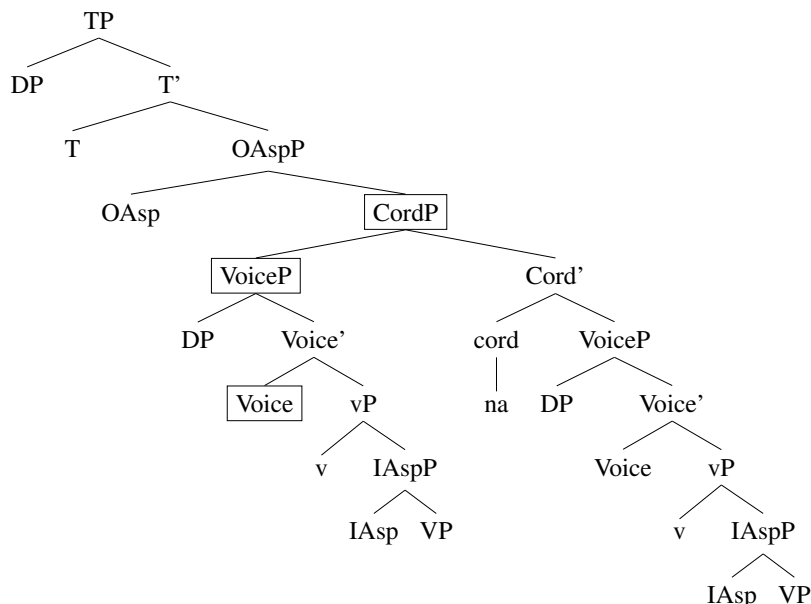
• In Asante Twi, *na* coordinates non-DPs

(12)   a.   Kofi bɛ-tɔ   aduane na   Ama a-di.
            Kofi FUT-buy food   CONJ Ama CONS-eat
            'Kofi will buy food and Ama will eat.'
       b.   Kofi tɔ-ɔ   aduane na   Ama **di-i**.
            Kofi buy-PST food   CONJ Ama eat-PST
            'Kofi bought food and Ama ate it.'

• The distribution of tense and aspect is similar to SVCs

• Based on the distribution of **a-** we can rule out TP coordination.

– **a-** cannot be the only tense/aspect in a clause

(13)   Ama a-didi
        Ama #CONS/PERF-eat
        'Ama has eaten'

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- I propose that *na* coordinate constructions involve VoiceP coordination

    – They have the same tense and aspect restrictions as SVCs
    – But they have multiple subject positions

5 Conclusion

- The proposed syntax accounts for the tense restriction in SVCs: since there is one tense marker, tense cannot vary.

- We can account for the single subject constraint in these constructions without any further stipulation.

- Proposing an account aspect head also accounts for the aspect restriction

- The consecutive morpheme **a-** is a spell-out of non-initial aspect.

- This analysis extends to overt *na* coordination which have the same tense and aspect restrictions.

- Overt *na* coordination involves VoiceP coordination while SVCs involve *v*P coordination.

5.1 Some challenges

- Future behaves like aspects. The non-initial verbs have the **a-** morpheme.

    (14) Kofi bɛ-tɔ   fufuo a-di
          Kofi PROG-buy fufuo CONS-eat
          'Kofi will buy fufuo and eat. '

    – Is FUT T or aspect?

- The **a-** morpheme is some times not required in SVCs.

9

(15)   a.   Kofi a-tɔ   fufuo re-di
                Kofi PERF-buy fufuo PROG-eat
                'Kofi has bought fufuo and is eating.'
        b.   Kofi re-to   nwom re-sa.
                Kofi PROG-sing song   PROG-dance
                'Kofi is singing and dancing.' (Simultaneously)

- Difference aspect markers on the verbs in (15-a)

- Aspect morphology on the non-initial verb in (15-b)

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Travis, Lisa., 1991, October. Derived objects, inner aspect, and the structure of VP. NELS.