A Distributed Morphology based approach to Present Participle and Null Copula nominal sentences in Arabic
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1. Theoretical Background


(1) Basic structures:
   a. Nouns
      \[
      \begin{array}{c}
      \text{DP} \\
      \text{D} \quad \text{numP} \\
      \text{num} \quad \text{nP} \\
      \text{(CV) (CV)} \\
      \end{array}
      \quad \quad \quad \quad \quad \quad
      \begin{array}{c}
      \text{TP} \\
      \text{T} \quad \text{aspP} \\
      \text{asp} \quad \text{vp} \\
      \text{(CV) (CV) (CV) (CVCV..)} \\
      \end{array}
      \]
   b. Verbs

(2) A copular sentence (Raising Analysis)
   a. [NP e] T' SC
      T NP1 NP (subj) predicate
      \[T \quad \text{TP} \quad \text{PredP} = \text{Small Clause}\]
      \[\text{TP} \quad \text{Pred} \quad \text{xNP} \quad \text{predicate}\]

The copula is the morphosyntactical spell out of Tense features (Moro 1988)
The verb ‘to be’ doesn’t have any argument positions (Moro 1988, 2006)
T assigns NOM to DP; Pred assigns PRED case to xNP (Matushansky 2008)
2. Standard Arabic (SA) data

- SA null copula nominal sentences (present tense):

  (3) a. ?anaa ?ustaað-un
      I teacher.NOM
      ‘I’m a teacher’
  b. al-?ustaað-u fi l-bayt-i
      the.teacher.NOM at home.OBL
      ‘The teacher is at home’
  c. rašiid-u ?ustaað-un
      Rashid teacher.NOM
      ‘Rashid is a teacher’
  d. rašiid- u al-?ustaað-u
      Rashid the.teacher.NOM
      ‘Rashid is the teacher’

- SA copular sentences (past and future tenses):

  (4) a. al-?ustaað-u *(kaana) fi l-bayt-i
      the teacher.NOM be.PAST.3S at home.OBL
      ‘The teacher was at home’
  b. al-?ustaað-u *(saykuunu) fi l-bayt-i
      the teacher.NOM be.FUT.3S at home.OBL
      ‘The teacher will be at home’
  c. rašiid-u *(kaana) ?ustaað-an
      Rashid be.PAST.3S teacher.ACC
      ‘Rashid was a teacher’
  d. rašiid-u *(saykuunu) ?ustaað-an
      Rashid be.FUT.3S the.teacher.ACC
      ‘Rashid will be a teacher’

- SA doesn’t allow a pronominal copula as Hebrew does (cf. Doron 1986):

  (5) a. ?aš-šažarat-u (*hiyya) xaḍraa
      the.tree.NOM (she) green
      ‘the tree is green’
  b. šažarat-un (*hiyya) xaḍraa-n
      tree.NOM (she) green.NOM
      ‘a tree is green’

- SA active participles (henceforth: actPart):

  (6) a. ?anaa δaahib-un ?ilaal l-bayt-i
      I go.actPart.NOM to the home.OBL
      ‘I’m going home’ / ‘I go home’
  b. ?anaa kaatib-un risaalat-an
      I write.actPart.NOM letter.ACC
      ‘I’m writing a letter’ / ‘I write a letter’
SA maṣdar (deverbal nouns):

(7) a. (?anaa)  ?awaddu  l-kitaabat-a
    I like.Pres1S maṣdar (to write).ACC
    ‘I like to write’

b.  ḍarb-u  ražul-in  mar?at-an  xaṭa?-un
    maṣ.(to hit).NOM man.OBL woman.ACC wrong.ACC
    ‘It’s wrong for a man to hit a woman’ (Kremers 2003: 130)

Finite verbal forms can replace deverbal nouns:

(8) a. (?anaa)  aḥhabu  ?ilaā  l-bayt-i
    I go.Pres1S to the home.OBL
    ‘I’m going home’ / ‘I go home’

b. (?anaa)  ?aktubu  risaalat-an
    I write.Pres1S letter.ACC
    ‘I’m writing a letter’ / ‘I write a letter’

c. (?anaa)  ?awaddu  ḍan  ?aktuba
    I like.Pres1S that write.Pres1S
    ‘I like to write’

d. (??)  yaḥribu  ar-ražul-un  al-mar?at-a  xaṭa?an
    hit.Pres3S man.NOM woman.ACC wrongly
    ‘The man hits the woman wrongly’

3. Some Previous Accounts

3.1 On null copula nominal sentences:

- Bahloul (2008) proposes a Mod(ality)P which takes NP, PP or VP as a complement (cf. Copular Sentences structures: (2)).
- Fassi Fehri (1993) proposes a “Spell out rule” disallowing the copula to surface whenever Tense, Mood and/or Aspect are unspecified.

3.2 On Participles

- Kremers (2003) notes that there is a similarity between actPart and finite verbal forms and that “[this] suggests that we must analyze them (actPart) as verbal projection where at some point a nominal or adjectival functional head is projected”.
- Fassi Fehri’s (1993) proposal:
4. Analysis

Assuming Kremers’ (2003) and Fassi Fehri’s (1993) works on participles and building on Guerssel & Lowenstamm (1990), Lowenstamm (1996, 2004, 2008) and Bendjaballah & Haiden (2008), I propose the following:

4.1 ActPart analysis:
In (10), (11) and (12), I show how to build the actPart in SA.

(10) SA template (Guerssel & Lowenstamm 1990; Lowenstamm 2004)

[CV] CV1 [infCV] CV2CV ..

(11) SA syntactic terminals Spell outs (cf. Bendjaballah & Haiden 2008)

a. v → 3 consonants: e.g. δhb ‘idea of going’
b. v → CV2
c. asp → /a i/
   [infCV]
d. n → CV1

(12) ActPart structure

a. np

n’

n
aspP

asp

vP

CV1

[infCV]

CV2

[infCV]CV2

δhb

b. → CV2 → [infCV]CV2 → CV1[infCV]CV2 + (CV) → [δaahib]

δ hb δ hb δ hb δ hb

δ hb δ hb

a i a i

a i a i
4.2 Null copula nominal sentences (NP + actPart) analysis:

(13)  ?anaa  ðaahib-un ?ilaa l-bayt-i  

\[ \text{nP} \]
\[ ?anaa \]
\[ n' \]
\[ AspP \]
\[ Asp \]
\[ CV_1 \]
\[ subj \]
\[ vP \]
\[ v' \]
\[ PP \]
\[ ?ilaa l-bayt-i \]
\[ \delta hb \]
\[ CV_2 \]

The complex head [v v] moves up to n passing through Asp.

Why the root cannot take the form of the Imperfective template?

This is because of the lack of TP, which is responsible of such a template:

(14)  (55) ?aðhabu ?ilaa l-bayt-i  

\[ ?anaa \]
\[ ?aðhabu \]
\[ ?ilaa l-bayt-i \]

The template is built by the structure: each terminal adds its spell out.

The template of the imperfective is \([\text{preCV}] + C_1C_2VC_3 + [VCV]\), the V between C\(_1\) and C\(_2\) being always empty. (Imperfective and perfective forms have been analyzed by Guerssel & Lowenstamm 1990 and Lowenstamm 2004)
4.3 Null copula nominal sentences (NP + NP/AP/PP) analysis:

(15) nP
     \_ ?anaa ?ustaað-un
     \_ n' AspP
     \_ CV_1 Asp vP
     \_ [tI] v' [infCV]
     \_ \_ v SC
     \_ \_ kwn CV_2 \_ ?ustaað

- The root kwn which corresponds to the copula kaaana may not surface. I claim that this is possible due to the lack of arguments to be checked (Hale & Keyser 1993 for argument structure).
- Following Hale & Keyser’s Theory on argument structure, I claim that the root kwn instantiates a different lexical argument structure which is:

(16) [vP[v'[v[kwn [v]] SC]]]

- Note that the head Pred in Matushansky (2008) (cf. (2.b)) must be empty to account for Russian null copula sentences.

5. Conclusions

1. This work shows that the Syntax-Phonology interface plays an important role in word formation.
2. The structure in (15) accounts for the agrammaticality of the following:

(17) *?anaa ?akuunu ?ustaað-an/un
     I am teacher.ACC/NOM
     ‘I’m a teacher’

3. On the other hand, the structure in (15) predicts that (18) is possible (although not obligatory):

(18) ?anaa kaa?in-un ?ustaað-an
     I be.actPart.NOM teacher.ACC
     ‘I’m a teacher’

4. Finally, the structure (13) predicts that a sentence formed by NP + copula + actPart is agrammatical: this is the case.
6. References


Marantz, A. 2001. “Words” Ms. MIT.


