

# Adjectival constructs in Arabic

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Mediterranean Syntax Meeting, Rhodes, 23-25 June, 2005

## 1 Introduction

- (1) a. imra'-at-un    ġamīl-at-u    -l-waġh-i  
      woman-f-NOM beautiful-f-NOM the-face-GEN  
      'a woman with a beautiful face' (lit. 'a woman beautiful of face')
- b. al-raġul-u    -l-<sup>c</sup>aẓīm-u    -l-ḥaẓẓ-i  
      the-man-NOM the-great-NOM the-fortune-GEN  
      'the man who is very lucky' (lit. 'the man great of fortune')

## 2 Adjectival constructs as construct state

Construct state features present in adjectival constructs:

- lack of definiteness marking on the head noun:

- (2) a. bayt-u-n  
      house-NOM-INDEF  
      'a house'
- b. al-bayt-u  
      the-house-NOM  
      'the house'
- c. \*bayt-u  
      house-NOM
- (3) a. bayt-u    -l-raġul-i  
      house-NOM the-man-GEN  
      'the man's house'
- b. (\*al)-bayt-u-(\*)n    -l-raġul-i  
      (\*the)-house-NOM-(\*INDEF) the-man-GEN
- (4) a. imra'-at-u-n    ġamīl-at-u-n  
      woman-f-NOM-INDEF beautiful-f-NOM-INDEF  
      'a beautiful woman'
- b. \*imra'-at-u-n    [ ġamīl-at-u-n    -l-waġh-i ]  
      woman-f-NOM-INDEF beautiful-f-NOM-INDEF the-face-GEN  
      'a woman beautiful of face'

- Nothing can intervene between head noun and genitive complement:

- (5)
- a. al-sayyār-at-u -l-ḥamrā' -u  
the-car-f-NOM the-red(f)-NOM  
'the red car'
  - b. \*sayyār-at-u (-l)-ḥamrā' -u -l-rağul-i  
car-NOM (the)-red-NOM the-man-GEN
  - c. sayyār-at-u -l-rağul-i -l-ḥamrā' -u  
car-NOM the-man-GEN the-red-NOM  
'the man's red car'
- (6)
- a. ḡamīl-un ḡiddan  
beautiful-NOM very  
'very beautiful'
  - b. \*imra' -at-un [ ḡamīl-at-u ḡiddan al-wağh-i ]  
woman-f-NOM beautiful-f-NOM very the-face-GEN
  - c. imra' -at-un [ ḡamīl-at-u -l-wağh-i ḡiddan ]  
woman-f-NOM beautiful-f-NOM the-face-GEN very  
'a woman with a very beautiful face'

### 3 Adjectival constructs as adjectives

Features of adjectives present in adjectival constructs:

- predicative and attributive use

- (7)
- a. 'anta <sup>c</sup>aẓīm-u -l-ḥazz-i  
you great-NOM the-fortune-GEN  
'you are very lucky' (lit. 'you are great of fortune')
  - b. bayt-un kaṭīr-u -l-'abwāb-i  
house-NOM.INDEF many-NOM the-doors-GEN  
'a house with many doors' (lit. 'a house many of doors')

- modification by degree adverbs

- (8)
- a. imra' -at-un ḡamīl-at-u -l-wağh-i ḡiddan  
woman-f-NOM beautiful-NOM the-face-GEN very  
'a woman very beautiful of face'

- definiteness agreement<sup>1</sup>

- (9) a. bayt-un                      haḡariyy-un  
house-NOM.INDEF stone-NOM.INDEF  
‘a stone house’  
b. al-bayt-u                      -l-ḡariyy-u  
the-house-NOM the-stone-NOM  
‘the stone house’
- (10) a. raḡul-un                      [ <sup>c</sup>aḡim-u    -l-ḡazz-i ]  
the-man-NOM.INDEF great-NOM the-fortune-GEN  
‘a man who is very lucky’  
b. al-raḡul-u                      [ -l-<sup>c</sup>aḡim-u    -l-ḡazz-i ]  
the-man-NOM the-great-NOM the-fortune-GEN  
‘the man who is very lucky’

## 4 Hebrew adjectival constructs

Analysis of Hazout (2000), Kim (2002), Siloni (2002):

- (11) yalda yefat                      ’eynayim/se’ar  
girl beautiful.CS eyes/hair  
‘a girl with beautiful eyes/hair’

- adjectival constructs are complex adjectives formed in syntax  
e.g., meaning is fully transparent, no lexicalisation effect, as is possible with nominal construct states:

- (12) beyt ha-sefer  
house the-book  
‘the school’  
(Hazout 2000, p. 38)

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<sup>1</sup>In Hebrew, definiteness agreement is marked on the genitive noun:

- (i) a. na’ara šxorat se’ar  
girl black hair  
‘a girl with black hair’  
b. ha-na’ara šxorat ha-se’ar  
the-girl black the-hair  
‘the girl with black hair’  
c. \*ha-na’ara ha-šxorat se’ar  
the-girl the-black hair  
‘the girl with black hair’  
(Hazout 2000)

- the genitive noun must be an inalienably possessed noun, and the head noun must be its possessor

- (13) a. yalda yefat 'eynayim/se'ar  
 girl beautiful.CS eyes/hair  
 'a girl with beautiful eyes/hair'  
 b. \*yalda yefat 'ofana'im/mexonit/bayit  
 girl beautiful.CS bicycle/car/house  
 'a girl with a beautiful bicycle/car/house'  
 (Siloni 2002, p. 5)

- the genitive noun must be the subject of the adjective

Obvious problem: the open argument position of the adjective is filled, and hence it should not be possible to use the structure as a predicate.

Solution: the genitive noun must have a lexical argument position, which becomes the new open argument position of the adjectival construct. Inalienably possessed nouns have such an open argument position:

- (14) #the hair is black<sup>2</sup>

## 5 Problems for the analysis

- How is the possessive argument of the genitive noun promoted to the external argument of the adjectival construct?

Hazout (2000): "(...) the morphological rule of A+N compound formation [i.e., the formation of the adjectival construct] involves as one of its components the externalization of the internal argument of N."

The assumption that a morphological rule affects argument structure is problematic.

Kim (2002) and Siloni (2002) only mention the phenomenon, but do not work out the syntax of it. (Kim works out the semantics.)

One possible solution that I could imagine: *tough*-movement (Chomsky 1981):

- (15) a. John is [ Op<sub>i</sub> easy [ to please t<sub>i</sub> ] ]  
 b. yalda [ Op<sub>i</sub> yefat [ 'eynayim t<sub>i</sub> ] ]  
 girl pretty.CS eyes

Potential problem: if the genitive noun is the subject of the adjective, we are apparently dealing with *predicate inversion* structures. (See Bennis, Corver & den Dikken 1998 and den Dikken 1998.) In these structures, however, extraction (out) of the subject after inversion is disallowed:

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<sup>2</sup>In Hebrew and other languages, inalienably possessed nouns actually have special syntactic properties:

- (i) a. ha-rofe badak l-o 'et ha-'ozen  
 the-doctor examined to-him ACC the-ear  
 'the doctor examined his ear'  
 (Siloni 2002)

- (16) a. John considered { [the cause of the riot]<sub>pred</sub> to be [a picture of a politician]<sub>sub</sub> }  
 b. \*a picture of a politician<sub>i</sub> was considered { [the cause of the riot]<sub>pred</sub> to be [ t<sub>i</sub> ]<sub>sub</sub> }

For this reason, extraction of an operator out of the possessor argument position of the genitive noun should be impossible.

- Lack of agreement between the adjective and the genitive noun:

- (17) a. ha-ne'arot [ šxorot / \*šxor ha-se'ar ]  
 the-girls [ black(f.pl) / \*black(m.sg) the-hair ]  
 b. na'ar [ yefe / \*yefot eynayim ]  
 boy [ pretty(m.sg) / \*pretty(f.pl) eyes(f) ]  
 (Hazout 2000, p. 36)
- (18) a. al-mar'-at-u [ -l<sup>c</sup>azīm-at-u / \*-l<sup>c</sup>azīm-u -l-ḥazz-i ]  
 the-woman-f-NOM [ the-great-f-NOM / \*the-great(m)-NOM the-fate(m)-NOM ]  
 'the very lucky woman'  
 b. al-bint-u [ -l-ḡamīl-at-u / \*-l-ḡamīl-at-āni  
 the-girl(f)-NOM [ the-beautiful-f-NOM / \*the-beautiful-f-DU.NOM  
 -l<sup>c</sup>ayn-ayni ]  
 the-eyes-DU.GEN ]  
 'the girl beautiful of eyes'

- Empirical problems:

- Kinship nouns, which also have a lexical possessor, are not allowed in adjectival constructs:

- (19) \*yalda yefat 'axot/'em/savta  
 girl beautiful.CS sister/mother/grandmother  
 'a girl with a pretty sister/mother/grandmother'  
 (Siloni 2002, p. 5)

- Many nouns that are not generally considered to be inalienably possessed can in fact appear in adjectival constructs. In Hebrew:

- (20) a. zo dira rexavat xalonot  
 this apartment wide(f.sg) windows  
 'this is an apartment with wide windows'  
 (Siloni 2002, p. 6)  
 b. 'erec merubat 'oxlusin  
 country plentiful population  
 'a country whose population is big'  
 (Hazout 2000, p. 29)  
 c. ha-yeled mešubac ha-xulca  
 the-boy plaid the-shirt  
 'the plaid-shirted boy'  
 (Hazout 2000, fn. 3)

And also in Arabic:

- (21) a. bayt-un kaṭīr-u -l-'abwāb-i  
house-NOM many-NOM the-doors-GEN  
'a house with many doors' (lit. 'a house many of doors')
- b. al-raḡul-u -l-<sup>c</sup>aẓīm-u -l-ḥazz-i  
the-man-NOM the-great-NOM the-fate-GEN  
'the man who is very lucky' (lit. 'the man great of fate')
- c. 'āṭār-un bālīḡat-u -l-ḥuṭūrat-i  
effects-NOM extreme-NOM the-danger-GEN  
'extremely dangerous effects' (lit. 'effects extreme of danger')
- d. al-šarikāt-u -l-muta<sup>c</sup>addidat-u -l-ḡinsiyyāt-i  
the-companies-NOM the-multiple-NOM the-nationalities-GEN  
'the multinational companies' (lit. the companies multiple of nationalities')  
(El-Ayoubi, Fischer & Langer 2001)

The correct generalisation of the type of noun that can appear as the genitive complement of an adjectival construct is that the noun must name some property or integral part of the head noun.

## 6 The genitive complement as internal argument

- Genitive in the noun phrase is a structural case (Lindauer 1995, Longobardi 1995):

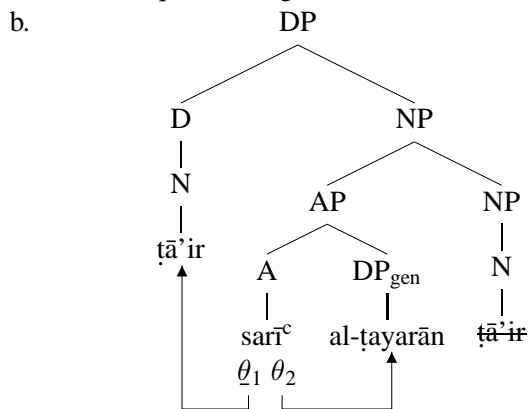
- (22) a. bayt-u 'ab-ī  
house-NOM father.GEN-my  
'my father's house' (possessive)
- b. ḥall-u -l-ṭālib-i  
solution-NOM the-student  
'the student's solution' (subject)
- c. ḥall-u -l-muškilat-i  
solution-NOM the-problem-GEN  
'the solution of (to) the problem' (object)
- d. ḥaḡm-u -l-ḡurfat-i  
size-NOM the-room-GEN  
'the size of the room' (property-carrier)
- e. <sup>c</sup>amal-u -l-šā<sup>c</sup>ir-i  
work-NOM the-poet-GEN  
'the poet's work' (agent)
- f. madrasat-u 'aḥ-ī  
school-NOM brother.GEN-my  
'my brother's school' (belonging-to)  
(after Lindauer 1995)

- Genitive is assigned to an internal argument: the external argument of a noun is its referential role *R*, and can therefore not be an overtly realised genitive complement.

Assuming that what is true for the genitive in the noun phrase is equally true for the genitive in adjectival constructs, we have the following observations:

- An adjectival construct is a predicate, and therefore has an external open argument position.
- The genitive complement of an adjectival construct is assigned genitive case, and therefore must be an internal argument.
- The genitive complement of an adjectival construct must name some property or integral part of the head noun.

(23) a.  $\dot{\text{t}}\ddot{\text{a}}'\text{ir-u-n}$        $\text{sar}\bar{\text{t}}^{\text{c}}\text{-u}$        $\text{-l-}\dot{\text{t}}\ddot{\text{a}}\text{yar}\bar{\text{a}}\text{n-i}$   
 bird-NOM-INDEF quick-NOM the-flight-GEN  
 ‘a bird quick of flight’



Proposal: the internal argument being assigned to the genitive noun is the *attribute* role of Higginbotham (1985).

The attribute is a role present in the argument grid of any adjective, and is contextually filled, providing a dimension against which the adjective is graded.

(24) a. that is a big butterfly  
 b. that butterfly is big

The attribute role is assigned to a property of the head noun. Higginbotham’s examples give two possibilities, adjectival constructs introduce a third:

- in (24a) the property of being a butterfly is chosen
- in (24b) a “hyponym” property is chosen (*animal, entity*)<sup>3</sup>
- in (23) the property of flying is chosen

<sup>3</sup>In fact, it does not necessarily have to be a hyponym property:

(i) THAT butterfly is big!

According to my intuition, (i) can be read as an exclamation that the butterfly referred to is big *for a butterfly*, not for an animal or object in general. So given the right pragmatic context, the arbitrary interpretation of the attribute can in fact use the property of being a butterfly.

The idea that the genitive noun denotes a *property* of the head noun is supported by the fact that the genitive noun is not referential in these structures:

- (25) ha-yalda yefat ha-'eynayim<sub>i</sub> higi'a. #hen<sub>i</sub> hayu šxorot va-'acuvot  
 the-girl beautiful the-eyes<sub>i</sub> arrived. they<sub>i</sub> were black and-sad  
 (Siloni 2002, p. 12)
- (26) daḥalat al-ḡurfat-a bint-un ḡamīlat-u -l-ša<sup>c</sup>r-i. #kāna ṭawīl-an wa  
 entered.f the-room-ACC girl-NOM beautiful-NOM the-hair.m-GEN. was.3msg long-ACC and  
 'aswad-a  
 black-ACC  
 'A girl with beautiful hair entered the room. It was long and black.'

## 7 The attribute role

- Higginbotham's paraphrase of the attribute role is *for an X: a big butterfly* corresponds to *something that is a butterfly and that is big for a butterfly*.
- Paraphrase of adjectival constructs is  $\langle A \rangle$  with respect to  $\langle N \rangle$ : *a girl beautiful of eyes* corresponds to *a girl beautiful with respect to the eyes*.
- Paraphrases should only be taken as informal ways of understanding the semantic analysis, not as a formal definition.
- The semantic contribution of a theta role is not fixed, but is partially filled in by context: *John felled the tree* vs. *the wind felled the tree*.
- The attribute's contribution is to specify to which property of the subject the adjective actually applies.

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