Participles in Syrian Arabic<sup>1</sup>

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Abstract

This paper explores the distribution and interpretation of active and passive participles in contemporary Syrian Arabic. The fact that Arabic participles license objective Case suggests they are 'verbal' participles, i.e. verbs 'disguised' as adjectives. However, a detailed investigation uncovers substantial parallels with English adjectival participles. These Arabic adjectival participles appear to differ from those in better studied Indo-European languages in containing licensing structure for object Case. This in turn means that adjectival participles are not necessarily structurally defective, as has been proposed in the literature, but that the size of adjectival participles is a point of cross-linguistic parametric variation.

#### 1. Introduction

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In this paper, I investigate the form and function of active and passive participles in contemporary Syrian Arabic, and show that they display an unusual mixture of properties of verbal and adjectival participles. On one hand, they occur with the full complement frame of the corresponding verb, a property typical of verbal participles. On the other hand, they display a variety of characteristics of adjectival participles, including the fact that their interpretation is connected to the aspectual type of the underlying verb in a way that I show is typical of adjectival participles. This pattern is significant for the analysis of the verbal/adjectival distinction. A common thread in recent analysis of the distinction is that adjectival participles are structurally 'smaller' than verbal participles. In particular, they do not contain the syntactic structure responsible for the licensing of the complements of the verb, particularly structure responsible for Case licensing of nominal complements. The pattern seen in Arabic means that its is possible for a constituent that contains enough structure to license the complement frame of the underlying verb to nonetheless display interpretational properties of adjectival participles, meaning that those interpretational properties do not result from paucity of structure in the case of Arabic. They instead appear to the be the contribution of the process that forms the participles. I present an analysis here that attributes these interretational properties to the adjectivizing operator.

# 2. Background on the verbal/adjectival distinction

Wasow (1977) observes that the passive participle in English is typically ambiguous between two different usages, a 'verbal' use and an 'adjectival' use. In the verbal use, a passive participle has the same aspectual type as the corresponding verb. The passive participle of an eventive verb remains eventive, and can, like the corresponding verb, occur in the progressive, which only eventive verbs may (Vendler 1957). The possibility of *repair* occuring in the progressive (1a) entails the possibility of *be repaired* occuring in the progressive (1b).

- (1) a. Max is repairing the car.
  - b. The car is being repaired.

However, Wasow also identifies an adjectival use of the passive participles, exemplified by a reading of (2a) that asserts that the repairing of the car is complete. It is similar in meaning to the corresponding passive perfect counterpart in (2b).

- (2) a. The car is repaired.
  - b. The car has been repaired.

Wasow claims that the adjectival use of the passive participles is uniformly stative, as opposed to the verbal use, which is aspectually like the underlying verb. One clue to the stativity of the adjectival use of *repaired* in (2a) is the fact it occurs there in the simple present tense, which eventive verbs normally may not. Unlike the adjectival participle, the corresponding eventive verb in (3) is only grammatical on a habitual reading that is not found in the interpretation of (2a).

# (3) #Max repairs the car.

Wasow then points out that adjectival participles do not license the repertoire of nominal objects that the corresponding verb licenses. Since in the passive constructions he investigates, the direct object of the verb has been promoted to subject, we can only show that the participle does not license an object in the context of double object constructions, where a secondary object remains in the verb complement after promotion of the primary object. Wasow points out that the passive participle of a double object verb cannot occur in the simple present tense, as (4a) shows.

Assuming that a passive participle is in principle ambiguous between a verbal and an adjectival construal and the adjectival construal is compatible with the simple present, because it is stative, then the offending fact about (4a) must be the presence of the secondary object

gloves. This is the only thing that distinguishes (4a) from (2a); the participle in (4a) has a secondary object (gloves), while the participle in (2a) does not. The participle given is grammatical in the past tense as a verbal participle (4b). Note that the verbal participle is grammatical in (4a) on a habitual reading, e.g. with the continuation every time he enters the lab. This means that the verbal participle has the aspectual type of the underlying verb and licenses its full complement frame (modulo passivization), while the adjectival participle is stative and does not license any nominal objects at all.

- (4) a. #Max is given gloves to handle the chemicals.
  - b. Max was given gloves to handle the chemicals.
  - c. Max has been given gloves to handle the chemicals.

This conclusion in turn entails that the participle in the perfect construction illustrated in (4c) is a verbal participle, since the secondary object is licit there. Note though that the perfect construction as a whole, whether active or passive, is stative. This is demonstrated by the fact that the perfect construction is incompatible with the progressive (5), unlike eventive predicates (Katz 2003a, Stowell 2007). It appears that the perfect construction displays a mixture of adjectival and verbal properties. The participle itself (e.g. *repaired the car*) is eventive when the underlying

verb is, but the construction as a whole (*have repaired the car*), including the auxiliary *have*, is stative.

- (5) a. \*Max is having repaired the car.
  - b. \*Max is having been given gloves to handle the chemicals.

Note that these remarks exclude the possibility of an active adjectival participle, at least one derived from a transitive verb. The object of the verb would go unlicensed in the adjectival use of the participle. Arabic, however, challenges this expectation.

# 3. Participles in Syrian Arabic

The morphological form of active and passive participles in Arabic depends on the morphological complexity of the base verb. If the verb is simplex, the active participle is formed with the prosodic template  $C_1a:C_2iC_3$  (where  $C_1-C_3$  constitute the consonantal root of the verb), and the passive participle is formed by the template  $maC_1C_2u:C_3$ , as shown in the table below for the standard root exemplar f-f-f-f. If the base verb is in any way morphologically augmented with respect to the simplex form, then the participle is formed by adding the prefix mi-, and the active/passive distinction is expressed by the stem vowel. The stem vowel i marks active and a marks passive. The table below lists logically

possible forms; not all of the forms listed below exist for all verbs, but active and passive participle formation is highly productive. Classical form IV seems to have been lost in modern Syrian Arabic.

	Verb	Active	Passive Participle
		Participle	
Ι	faSal	fa:Sil	maf\u:l
II	faSSal	mifassil	mifaSSal
III	fa:Sal	mifa:Sil	mifa:Sal
V	tifaSSal	mitfassil	mitfassal
VI	tifa:Sal	mifa:Sil	mitfa:Sal
VII	iftaSal	miftaSil	miftaSal
VIII	infaSal	minfaSil	minfaSal
IX	ifSall	mifSill	mifSall
X	istafSal	mistafSil	mistaffal

Note that in the participles of morphologically complex verbs (non-form I), the active/passive distinction has a separate morphological exponence than the verb/participle distinction. This is a carry-over from Classical Arabic, in which the active/passive distinction was productively marked by a stem vowel alternation. In modern Syrian Arabic, the stem vowel

alternation does not productively distinguish active and passive verbs. Rather, form VII functions productively as a passive for form I, and form V functions productively as passive of form II. That is, the *in*- and *ti*prefixes are passivizing in modern Syrian. As a result, the 'active' participles of forms V and VII are passive in signification on account of the passive prefix in the stem. It is therefore often the case that an active form VII participle is synonymous with a passive form I participle (e.g. minhazim = mahzu:m (defeated) from hazam (defeat)) or an active form V participle is synonymous with a passive form II participle (e.g. mit/ayyil = mifayyal (turned on, said of lights and machines) from fayyal (turn on)). In spite of the general overlap in signification just described, the overlapping forms sometimes are distinguished lexically idiosyncratically. For example, *manfu:x* means *inflated* (said of inflatable boats, for example) while *minnafix* means *swollen* (said of wounds). As a result of the overlapping stem vowel passive and the prefix passive found in the participles, and the fact that participle formation is marked uniformly for active and passive participles (by the mi-prefix, at least for non-form I verbs), the boundary between active and passive participles is somewhat murky in Syrian Arabic. This might lead us to expect active and passive participles to be substantially similar syntactically and semantically. In this paper, I demonstrate that this is the case, focusing first on the active participles (those from the 'active' column in the table above).

# 4. Syrian Arabic active participles

Active participles in Syrian Arabic appear to be verbal; they license the full complement frame of the corresponding verb, whether transitive (6a) or ditransitive (6b). The examples in (6) contrast the perfective (simple past tense) verb with the active participle. The Arabic active participle is glossed here and throughout this paper by its English morphological counterpart with -ing. As is evident from the translation, however, the active participles in (6) do not have the progressive interpretation of the English active participle. Rather, they have what one might call a 'perfect' interpretation, describing a 'post state' of an event falling under the underlying verb description. As a small literature substantiates, this perfect interpretation is actually contingent on the lexical aspect of the underlying verb, and occurs most robustly with 'telic' verbs (those that make reference to a logical endpoint) like those in (6) (Wild 1964, Cowell 1964, Woidich 1975, Brustad 2000, Mughazy 2005, Boneh 2010). I return to this issue in section 1.2 in detail, restricting myself for now to only those verbs that license the perfect reading of the participle. Note lastly that the active participle requires the support of a copular auxiliary, but this auxiliary is dropped in the present tense. It will make its appearance in due course.

(6) a. ma:hir s<sup>c</sup>allaħ / mis<sup>c</sup>alliħ s-sijja:ra mahir repaired / repairing the-car.

'Mahir repaired / has repaired the car.'

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b. ma:hir Sat<sup>s</sup>a / Sa:t<sup>s</sup>i marwa:n l-kta:b
mahir gave / giving marwan the-book
'Mahir gave / has given Marwan the book.'

Because the active participles appear to be verbal and have a 'perfect' reading, we appear to be looking at an Arabic counterpart of the English perfect construction. On the basis of these parallels and others, Boneh (2010) describes the active participle construction as the Arabic perfect. Below, I investigate these parallels in more detail. While the parallels hold up quite well, it turns out these properties are shared by adjectival passive participles, and therefore that the characterization of the active participle construction as a perfect construction is premature.

#### 1.1. 'Perfect' properties of the active participles

**Stativity** The Arabic active participle construction is stative, as is the English perfect. The stativity of the Arabic active participles is evidenced firstly by the fact that they are incompatible with the progressive particle *Cam*, even when supported by the imperfective auxiliary *jiku:n* (7a). The progressive is compatible with an imperfective eventive verb (7b) but not with a stative verb. The active participle construction in (7a) patterns with

the stative verb in (7c). As the translation to (7a) shows, the English perfect is also incompatible with the progressive. Note that the phoneme written q here is weakened to 2 in many varieties of Syrian Arabic, particularly urban varieties like that found in Damascus.

- (7) a. \*ma:hir Sam jiku:n ħa:t<sup>s</sup>it<sup>s</sup> l-qahwe Sa n-na:r.

  mahir PROG be putting the-coffee on the-fire

  \*'Mahir is having put the coffee on the stove.'
  - b. ma:hir Sam jaħt<sup>s</sup>ut<sup>s</sup> l-qahwe Sa n-na:r.
     mahir PROG put the-coffee on the-fire
     'Mahir is putting the coffee on the stove.'
  - c. \*ma:hir Sam jaSrif dʒ-dʒawa:b.

    mahir PROG know the-answer

    \*'Mahir is knowing the answer.'

Another test for the state/event distinction is the way the predicate affects the interpretation of modal verbs (Hoffmann 1966, Condoravdi 2002). An eventive predicate allows only the 'deontic' reading of a modal verb like *la:zim (must)*, while a stative predicate is compatible with the 'epistemic' reading. The deontic reading, illustrated in (8a) with an eventive verb,

expresses an obligation that accrues to its subject. The epistemic reading, illustrated in (8b) with a stative verb, comments on the speaker's epistemic state: the speaker expresses a high degree of certainty that the underlying proposition is true. These readings are reflected in the English translations. Once again, the active participle of an eventive verb in (8c) patterns with the stative verb in (8b) in licensing the epistemic reading of the modal, as (8c) shows, and the English perfect in the translation to (8c) is like the Arabic active participle.

- (8) a. ma:hir la:zim jaħt<sup>s</sup>ut<sup>s</sup> l-qahwe Sa n-na:r
  mahir must put the coffee on the fire

  'Mahir must put the coffee on the stove.' [deontic]
  - b. ma:hir la:zim ja\rif d\zeta-d\zetaawa:b

    mahir must know the answer.

    'Mahir must know the answer.' [epistemic]
  - c. ma:hir la:zim jiku:n ha:t<sup>s</sup>it<sup>s</sup> l-qahwe sa n-na:r
    mahir must be putting the coffee on the fire
    'Mahir must have put the coffee on the stove.' [epistemic]

Non-finiteness Although the Arabic active participles have a perfect reading, in which the event described by the underlying verb is 'past shifted', the participle construction is itself non-finite, and is related to tense by an auxiliary (which, as mentioned previously, goes unpronounced in the present tense). This is once again like the English perfect. In contexts that require a past tense predicate, the participle cannot occur without a past tense auxiliary. Such contexts include root clauses modified by a past tense *lamma* (*when*) clause, as illustrated in (9). If the verb is past tense in the *lamma* clause, then whatever past signification the participle contributes does not suffice to make the main clause past tense in (9). The past tense auxiliary *ka:n* (*was*) must be added. Here too, the English perfect must occur with a past tense auxiliary, as the translation to (9) indicates.

(9) lamma dʒi:-t, \*(ka:n) ma:hir ħa:t<sup>s</sup>it<sup>s</sup> l-qahwe Sa n-na:r
when came-1s, \*(was) mahir putting the-coffee on the fire
'When I arrived, Mahir \*has/had put the coffee on the stove.'

**Present Orientation** As Boneh (2010) points out, the active participles in Syrian Arabic assert that the post state of the underlying verb holds at the reference time, which is the utterance time in simple present tense contexts. This is in contrast to the perfective (simple past tense) form of

the same verbs. The perfective verbs in (10) are compatible with the continuation there that denys that the post-state entailment of the verb still holds at the utterance time (that the glasses are lost in (10a) and that the window is open in (10b)). The participial forms of the same verbs are incompatible with that continuation (11). As the translations to the examples below reflect, the Arabic active participles pattern like the English perfect in this respect.

- (10) a. maːhir dˤajjaʕ nadˤdˤaːraːt-u bas laːqaː-hun baʕdeːn.

  mahir lost glasses-his but found-them later

  'Mahir lost his glasses, but he found them again later.'
  - b. ana fatah-t ʃ-ʃibbaːk bas sakkar-t-u baʕdeːn.

    I opened-1s the-window but closed-1s-it later

    'I opened the window, but I closed it again later.'
- (11) a. \*ma:hir mid<sup>s</sup>ajjiS nad<sup>s</sup>d<sup>s</sup>a:ra:t-u bas la:qa:-hun baSde:n.

  mahir losing glasses-his but found-them later

  \*'Mahir has lost his glasses but he found them again later.'
  - b. \*ana fa:tiħ ∫-∫ibba:k bas sakkar-t-u baʕde:n.I opening the-window but closed-1s-it later

\*'I have opened the window but I closed it again later.'

The Present Perfect Puzzle If Arabic active participles in fact represent a perfect construction, we expect it to display characteristics of the 'present perfect puzzle'. The present perfect puzzle refers to the puzzling fact that, although the perfect situates the event described by the underlying verb in the past with respect to the reference time, just as the simple past does, the present perfect does not allow a past adverb (e.g. *yesterday*) to modify the event time (the time of leaving in (12a)), unlike the simple past (12b) (Klein 1992, Portner 2003b, Katz 2003b). What is particularly puzzling about the phenomenon is that the restriction is only found in the simple present. In the past perfect (12c) and even in present modal constructions like (12c), the past adverb may very well describe the time of leaving.

- (12) a. ?\*Chris has left New York yesterday.
  - b. Chris left New York yesterday.
  - c. Chris had left New York yesterday.
  - d. Chris must have left New York yesterday.

Mughazy (2005) reports that active participles in Egyptian Arabic do not display the present perfect puzzle, and accordingly claims that they have a 'past tense' reading. Note though that examples like that in (9) rule out the

possiblity that the active participles represent a past tense construction. Syrian speakers consulted for this research also accept examples analogous to (12a), as shown in (13a), though they display a slight preference for simple past in such contexts (13b), and this disparity disappears in past tense (13c) and modal (13d) contexts, as in English. It seems safe to say the present perfect puzzle manifests itself as a slight dispreference for the present participle with a past adverb, but the effect is not as strong as in English.

- (13) a. xa:lid ka:tib r-risa:ale (?mba:rħa).

  khalid writing the-letter (?yesterday)

  'Khalid has written the letter (?\*yesterday).'
  - b. xa:lid katab r-risa:ale (mba:rħa).khalid wrote the-letter (yesterday)'Khalid wrote the letter (yesterday).'
  - c. xa:lid ka:n ka:tib r-risa:ale (mba:rħa).

    khalid was writing the-letter (yesterday)

    'Khalid had written the letter (yesterday).'
  - d. xa:lid la:zim jiku:n ka:tib r-risa:ale mba:rħa.

khalid must be writing the-letter (yesterday)

'Khalid must have written the letter (yesterday).'

While this appears at first glance to represent a difference between the Arabic active participle construction and the English perfect, I show below that this difference can be traced to an independent difference between the two languages, and therefore does not qualify as a difference between the active participles in Arabic and the English perfect.

It is the case, namely, that agreement between verb tense morphology and various temporal anchors is more relaxed in Arabic than in English. For one, neither Standard Arabic (Fassi Fehri 2004) nor Syrian Arabic (Cowell 1964) displays sequence of tense effects. In such languages, the tense in a subordinate clause is relative to the tense in the matrix clause, and does not morphogically 'agree with' the matrix tense, as opposed to the situation in English (Prior 1967, Ladusaw 1977, Dowty 1982, and many others). Consequently, the future tense in the subordinate clause in (14a) is interperted as future with respect to the past time invoked in the matrix clause, expressed by *was going to* in English. Similarly, the present tense in the embedded clause in (14b) is interpreted as present with respect to the matrix past time, meaning that the individual might not be sick at the

utterance time. These examples are from Cowell (1964), with the transcription adjusted to match the other data presented here.

- (14) a. ba\( \text{de:n qa:l innu ra\( \text{ha jint\( \text{vaz\( \text{vir awa:mir } 3di:de.} \)} \) afterwards said that will await orders new 'Then he said that he was going to await new orders.'
  - b. bas mba:riħ smi\$-t inn-ak mari:d³.just yesterday heard-1s that-you ill'Just yesterday I heard that you were ill.'

In light of this observation, the relative naturalness of examples like (13a) with the past adverb might be tracable to the fact that the participle is able to be anchored to the past adverb, much like  $mari:d^{\varsigma}(ill)$  is anchored to smiSt (I said) in (14b). This possibility is confirmed by the fact that the participle is not compatible a wh-adverbial like e:mta (when). If (13a) were a past tense construction, it would be expected to license the wh-adverbial e:mta, just like the corresponding perfective verb (15a). This expectation is not borne out (15b). This means that the deictic past adverb  $mba:r\hbar a$  (vesterday) establishes a past time that is able to anchor the participle, not vice versa. Since the quantificational adverb e:mta is not deictic, it cannot establish a specific past time that the participle picks up.

- (15) a. e:mta katab xa:lid r-risa:le?

  when wrote khalid the-letter

  'When did Khalid write the letter?'
  - b. \*e:mta ka:tib xa:lid r-risa:le?when writing khalid the-letter\*?'When has Khalid written the letter?'

In effect, Arabic does not display the present perfect puzzle because the puzzle is obviated by a general flexibility in temporal anchoring that is seen in Arabic but not English. Note that even (15b) arguably does not display the effect of the present perfect puzzle, because the judgment for Arabic is noticably worse than the judgment for the corresponding English perfect construction in the translation for (15b). The judgment in (15b) does, however, match English judgments for adjectival participles with a past adverb, a point I return to in section 1.2. In a related vein, note that the anchoring effect of deictic adverbs does not extend to bare adjectival predicates (16), but rather only those that are derived from a verb (the participles).

(16) \*ana mariːd<sup>s</sup> mbaːrħa.

I ill yesterday

\*'I am ill yesterday.'

Summary Active participles in Arabic have a past shifted interpretation in the range of examples discussed above, and display the stativity and present relevance that typifies the English perfect. They also license the full complement frame of the corresponding verb, as in the English perfect. The only apparent difference between the Arabic participles and the English perfect, the difference in compatibility with past adverbs, is traceable to a general typological difference between Arabic and English. All of these observations point to the conclusion that the active participle construction is the Arabic counterpart to the English perfect construction. The data reviewed in the following section, however, cast doubt on this conclusion.

#### 1.2. 'Adjectival' properties of the active participles

This section reviews properties of the Arabic active participles that parallel the behavior of Arabic passive participles, which in turn parallel the behavior of English adjectival passive participles, suggesting that the Arabic active participles have a closer affinity to adjectival participles than the previous observations lead us to believe.

First, the interpretation of the active participles is contingent on the aspectual type of the underlying verb in a way that is characteristic of passive participles in both Arabic and English. It is often remarked about the Arabic passive participles that the reading of the participles discussed above in which the event that the underlying verb describes is 'past shifted' with respect to the evaluation time of the participle (what I called the 'perfect' reading before), is only available to participles derived from eventive verbs. Participles of stative verbs have what I will call a 'simultaneous' interpretation, which asserts that the state the underlying verb describes holds at the evaluation time of the participle. The active participles of the stative verbs *habb* (*love*) in (17a) and *Saraf* (*know*) in (17b), for example, display the simultaneous reading. That these verbs are stative is evidenced by their incompatibility with the progressive (not shown).

- (17) a. ma:hir ħa:bib nawa:l z-zoγbi kti:r.
   mahir loving nawal zoghbi much
   'Mahir loves Nawal Zoghbi a lot.'
   Not: 'Mahir has loved Nawal Zoghbi a lot.'
  - b. ma:hir Sa:rif dʒ-dʒawa:b. mahir knowing the-answer

'Mahir knows the answer.'

Not: 'Mahir has known the answer.'

Compare the active participles of the stative verbs above to those of the eventive verbs discussed previously, repeated in (18), which display the past shifted reading.

- (18) a. ma:hir ħa:t<sup>c</sup>it<sup>c</sup> l-qahwe Sa n-na:r.

  mahir putting the coffee on the-.fire

  'Mahir has put the coffee on the stove.'
  - b. ma:hir fa:tiħ ∫-ʃibba:k.mahir opening the-window'Mahir has opened the window.'

Significantly, the passive participles of stative and eventive verbs behave like the active counterparts. The passive participles of the stative verbs in (17) also have the simultaneous reading (19), while the passive participles of the eventive verbs in (18) also have the past shifted reading (20).

(19) a. nawa:l z-zoybi maħbu:be kti:r. nawal zoghbi loved a lot

'Nawal Zoghbi is well loved.'

- b. dʒ-dʒawa:b maʕru:f.
  the-answer known
  'The answer is known.'
- (20) a. l-qahwe maħt<sup>s</sup>u:t<sup>s</sup>a Sa n-na:r. the-coffee put on the-fire 'The coffee is put on the stove.'
  - b. ∫-ſibbaːk maftuːħ.the-window opened'The window is opened.'

The significance of the facts in (19) and (20) is that the English translations there display the exact same sensitivity to the aspect of the underlying verb. The passive participles of *love* and *know* (*loved* and *known* respectively) have the simultaneous reading while the passive participles of *put* and *open* (*put* and *opened* respectively) have the past shifted reading. That is, passive participles in Arabic behave like English adjectival passive participles in that passive participles of eventive verbs receive a past shifted reading while passive participles of stative verbs

receive a simultaneous reading. This is significant because the active participles in Arabic behave exactly like the corresponding passive participles in Arabic, which again behave exactly like the corresponding adjectival passive participles in English. If the sensitivity to the aspect of the underlying verb is characteristic of adjectival passive participles, then the active participles in Arabic pattern like adjectival participles.

I mention here in passing that there is a subclass of the eventive verbs that receive the simultaneous reading in participle, namely verbs of directed motion such as  $ra:\hbar$ , (go), mafa (walk), fa:l (carry) and others. The active participles of these verbs have an essentially progressive interpretation (as well as a futurate reading typically available to progressive predicates). For reasons of space I must neglect this class here, except to say that the analysis in section 6 implicates that these verbs are subject to stativitzation before the participle is formed. The details of this derivation remain unclear.

More significant for the analysis in section 6 is the fact that most activity verbs have both active and passive participles with the past shifted reading, like those below. Each example below has the active participle in the *a*-example and the passive participle in the *b*-example. The active and passive participles below systematically share the past shifted reading.

Note that the English translations of the passive participles also have the past shifted reading, rendered there by the perfect construction.

- (21) a. ma:hir qa:ʃit<sup>c</sup> l-ard<sup>c</sup>.

  mahir scrubbing the-floor

  'Mahir has scrubbed the floor.'
  - b. l-ard<sup>c</sup> maqfu:t<sup>c</sup>a.the-floor scrubbed'The floor is scrubbed.'
- (22) a. ma:hir mmaffit<sup>s</sup> fasr-u.

  mahir combing hair-his

  'Mahir has combed his hair.'
  - b. ∫aSr-u mma∫∫at<sup>c</sup>.hair-his combed'His hair is combed.'
- (23) a. ma:hir fa:rik l-xaʃib bi-waraq qza:z.

  mahir rubbing the-wood with-sheet sandpaper

  'Mahir has sanded the wood.'

b. l-xasib mafru:k bi-waraq qza:z.the-wood rubbed with-sheet sandpaper'The wood is sanded.'

The facts presented above show that the Arabic active participles pattern aspectually like their passive counterparts, which in turn pattern like English adjectival participles. Except for a class of motion verbs, participles of eventive verbs, whether telic (e.g. (18) and (20)) or atelic (e.g. (21)-(23)), receive the past shifted reading, while participles of stative verbs (e.g. (17) and (19)) receive the simultaneous reading. English adjectival participles also show the basic contingency found in Arabic between the aspect of the underlying verb and the past shifted vs. simultaneous reading of the corresponding participle.

Further, the facts recounted in section 1.1 that represent evidence of a parallel between the Arabic active participles and the English perfect construction also apply to passive participles in both English and Arabic. This undermines the possibility of construing these parallels as uniquely supporting the analysis of the Arabic active participles as a perfect construction. We have seen that Arabic active participles are stative but so are adjectival participles, so this point does not support the perfect analysis

over the adjectival participle analysis. Just as the active participle in (7a) cannot be put in the progressive, neither can its passive counterpart, nor the corresponding adjectival passive participle in English; the translation to (24a) is ungrammatical on the adjectival reading of the phrase *put on the stove*, the reading analgous to *The coffee is put on the stove*. Also, just as the active participle in (8a) licenses the epistemic reading of the modal *la:zim (must)*, the passive counterpart does as well, as does the corresponding adjectival passive participle in English (translation to (24b)). In these examples, I add the adverb *already* to the English translation to exclude a verbal reading of the participle in English and emphasize the adjectival reading.

- (24) a. \*l-qahwe Sam ti-ku:n maħtsu:tsa Sa n-na:r.

  the-coffee prog F-be put on the-fire

  \*'The coffee is being [already] put on the stove.'
  - b. l-qahwe la:zim ti-ku:n maħt<sup>s</sup>u:t<sup>s</sup>a Sa n-na:r.
     the-coffee must F-be put on the-fire
     'The coffee must be [already] put on the stove.' [epistemic]

Also, just as the active participle cannot occur in past tense contexts without a past tense auxiliary (9), neither can the passive participle

counterpart (25). Again, the English translation to (25) shows the same behavior; the passive participal phrase *put on the stove* cannot occur in the past tense context *when I arrived*.

(25) lamma ʒi:-t, \*(ka:n-it) l-qahwe maħt<sup>c</sup>u:t<sup>c</sup>a Sa n-na:r

when came-1s, \*(was-F) the-coffee put on the fire

'When I arrived, the coffee \*is/was [already] put on the stove.'

Further, the present orientation that active participles display (11) is also found in the passive participles, as (26) illustrates. Once again, in both English and Arabic, the post-state that the adjectival participle refers to must hold at the evaluation time of the sentence, even though the event the participle evokes is past shifted.

- (26) a. \*ʃ-ʃiba:k maftu:ħ, bas sakkar-t-u ba\$de:n.
  the-window opened, but closed-1s-it afterwards
  \*'The window is opened, but I closed it afterwards.'
  - b. \*l-ga:to ma\su:1, bas akal-t-u ba\subseten.

    the-cake made, but ate-1s-it afterwards

    \*'The cake is made, but I ate it afterwards.'

Lastly, the passive participles in Arabic also fail to display the effect of the present perfect puzzle. Like the active participle in (13b), the active participles in the *a*-examples below are at worst marginally compatible with the deictic past adverb *mba:rħa* (*yesterday*). The passive participles in the *b*-examples are analogous. This is very unlike English, as remarked in section 1.1, but as discussed there, the absence of the present perfect puzzle in Arabic can be traced to independent differences in temporal anchoring in the two languages.

- (27) a. ? ma:hir da:hin l-ba:b mba:rħa.mahir painting the-door yesterday\*?'Mahir has painted the door yesterday.'
  - b. ? 1-ba:b madhu:n / mindahin mba:rħa.the-door painted / painted yesterday\*'The door is pained yesterday.'
- (28) a. ? hinne mballt<sup>s</sup>-i:n ha:d ∫-∫a:riγ s-sana l-ma:d<sup>γ</sup>ije.
  they paved-P this the-street the-year the-past
  \*? 'They have paved this street last year.'
  - b. ? ha:d ∫-∫a:riγ mballat<sup>q</sup> / mitballit<sup>q</sup> s-sana l-ma:d<sup>q</sup>ije.

this the-street paved / paved the-year the-past

\* 'This street is paved last year.'

- (29) a. ? ma:hir Sa:mil ga:to mba:rħa.mahir making cake yesterday\*? 'Mahir has made a cake yesterday.'
  - b. ? l-ga:to ma\(\sigma\) mu:l mba:r\(\hat{h}a\).the-cake made yesterday\* 'The cake is made yesterday.'

Recall that the quantificational adverb *e:mta* may not anchor a participle (15b). Significantly, the judgment in that case is not like the marginality of a past adverb in the English present perfect, but rather it is like the stark ungrammaticality of English adjectival participles in the translations to the *b*-examples above, which do not admit past adverbs at all. This parallel reinforces the similarity of the participles in Arabic to the English adjectival passive participles.

As a result of these observations, the many parallels between the Arabic active participles and the English perfect construction do not in fact uniquely support an analysis of the active participles as a perfect

construction. They equally well support an analysis of the active participles as adjectival participles on par with adjectival passive participles in both English and Arabic. The adjectival participle analysis has prima facie support from the fact that the contingency between the meaning of the participle and the aspectual type of the underlying verb parallels that in adjectival participles in both English and Arabic, and the fact that *e:mta* (*when*) is strongly incompatible with the present tense participles. Several additional observations lend additional support to the adjectival participle analysis, which I describe in turn below.

Incompatibility with non-verbal predicates First, the English perfect construction is compatible with non-verbal main predicates supported by the auxiliary *be* like *be sick* or *be in London*. In general, stative predicates in the perfect are ambiguous between an 'existential' and a 'universal' reading. The former, supported by the modifier *once* in (30), asserts that the stated held on some prior occasion; the latter, supported by a duration adveb like *for three days*, asserts that the state holds up to the reference time.

- (30) a. Max has been sick (once / for three days).
  - b. Max has been in London (once / for three days)

On neither reading is anything like the syntactic format in (31) available in Arabic. The morphological counterpart to (30) in Arabic would have the auxiliary *ka:n* (*be*) in the active participle form (=*ka:jin*), followed by the non-verbal predicate. This format is profoundly ungrammatical in Syrian Arabic, meaning the active participle construction does not accept non-verbal predicates, unlike the English perfect.

- (31) a. \*ma:hir ka:jin mard<sup>s</sup>a:n (marra / tlit ijja:m).

  mahir being sick (once / three days)

  ('Mahir has been sick (once / for three days).')
  - b. \*ma:hir ka:jin bi-london (marra / tlit ijja:m).mahir being in-london (once / three days)('Mahir has been in London (once / for three days).')

**Incompatibility with progressive predicates** Second, the English perfect construction may embedd a progressive predicate (32), but the Arabic active participle may not.

- (32) a. Max has been pumping up the boat.
  - b. Max has been making coffee.

Again, the closest morphosyntactic counterpart to (32) has the Arabic copula in the active participle form, followed by a progressive predicate, which in Arabic is expressed by the progressive particle *Gam* followed by the imperfective form of the verb, as in (33). This construction is also profoundly ungrammatical in Syrian Arabic, meaning we cannot reconstruct the English progressive perfect in the Arabic active participle construction.

- (33) a. \*ma:hir ka:jin Sam b-ji-nfax l-qa:rib.

  mahir being PROG PRES-3M-pump.up the-boat

  ('Mahir has been pumping up the boat.')
  - b. \*ma:hir ka:jin Sam b-ja-Smal qahwe.

    mahir being PROG PRES-3M-making coffee

    ('Mahir has been making coffee.')

Incompatibility with *lissa* (*still*) One of the the most striking adjectival properties of the active particples in Arabic is their compatibility with *lissa*, an inflected particle meaning *still*. English *still* combines only with stative predicates, and introduces the presupposition that the state held previously (Loebner 1989). Kratzer (2000) points out that *still* is

compatible with adjectival participles, though she notes differences in acceptability among the participles that I return to below.

- (34) a. The boat is still pumped up.
  - b. The building is still evacuated.

But Katz (2003a) notes that *still* is unequivocally incompatible with the perfect (the examples below are based on Kratzer's).

- (35) a. \*Max has still pumped up the boat.
  - b. \*The fire department has still evacuated the building.

In light of this contrast, it is very significant that Arabic active participles are in principle compatible with *lissa* (*still*), as are the passive participles. The term *lissa* is a particle that typically bears an object clitic pronoun that agrees with the subject and that triggers a stem-final liaison *t*. The issue of the distribution of *lissa* is complicated by the fact that unlike *still*, *lissa* may combine with an eventive predicate, in which case it is interpreted to mean what *just* (in the sense of 'just now', not 'merely') means in English (36). But in connection with a stative predicate, it means *still* (37).

(36) a. ma:hir lissa:t-u Samal ga:to.

mahir LISSA-3MS made cake 'Mahir just made a cake.'

- b. ma:hir lissa:t-u ħat<sup>c</sup>t<sup>c</sup> l-qahwe ca n-na:r.
   mahir LISSA-3MS put the-coffee on the-fire
   'Mahir just put the coffee on the stove.
- (37) a. l-be:t lissa:t-u nad<sup>c</sup>i:f. the-house LISSA-3MS clean 'The house is still clean.'
  - b. l-bari:q lissa:t-u saxin.
    the-pot LISSA-3MS hot
    'The pot is still hot.'

In combination with a participle based on a stative verb—whether active (the *a*-examples) or passive (the *b*-examples)—*lissa* is unsurprisingly interpreted to mean *still* ((38)-(39)).

(38) a. ma:hir lissa:t-u ħa:bib nawa:l z-zoɣbi.
mahir LISSA-3MS loving nawal the-zoghbi
'Mahir still loves Nawal Zoghbi.'

- b. nawa:l z-zoybi lissa:t-a maħbu:be kti:r. nawal the-zoghbi LISSA-3FS loved a-lot 'Nawal Zoghbi is still loved a lot.'
- (39) a. ma:hir lissa:t-u \( \sa:\text{rif d3-d3awa:b.} \)
  mahir LISSA-3MS knowing the-answer
  'Mahir still knows the answer.'
  - b. dʒ-dʒawa:b lissa:t-u maʕru:f.
    the answer LISSA-3MS known
    'The answer is still known.'

In combination with a participle based on an eventive verb, *lissa* is ambiguous between *still* and *just*. It seems clear from the pattern in (36) and (37) that the *just*-reading is licensed by the underlying eventive verb and the *still*-reading is licensed by the participial derivative, which is stative, as discussed in section 1.1. The fact that English *still* is not compatible with the perfect construction (in spite of its stativity) shows that the active participles (and for that matter the passive participles) pattern as adjectival participles in Arabic. The passive participles below are completely parallel to the interpretation of their English translations

with *still*. The fact that the active participles display an interpretation of *lissa* parallel to that in the passive participles, which in turn are parallel to the English passive participles with *still*, supports an adjectival analysis of the Arabic active participles.

- (40) a. ma:hir lissa:t-u na:fix l-qa:rib.
  mahir LISSA-3MS pumping.up the-boat
- i. 'Mahir has pumped up the boat and it's still pumped up.'
  - ii. 'Mahir has just pumped up the boat.'
  - b. l-qa:rib lissa:t-u manfu:x.

the-boat LISSA-3MS pumped.up

- i. 'The boat is still pumped up.'
- ii. 'The boat has just been pumped up.'
- (41) a. ma:hir lissa:t-u fa:tiħ ∫-ʃibba:k.

mahir LISSA-3MS opening the-window

i. 'Mahir has opened the window and it's still

opened.'

ii. 'Mahir has just opened the window.'

b. ʃ-ʃibbaːk lissaːt-u maftuːħ.

the window LISSA-3MS opened

- i. 'The window is still opened.'
- ii: 'The window has just been opened.'
- (42) a. ma:hir lissa:t-u mrattib l-kitub Sa r-raff.

  mahir LISSA-3MS arranging the-books on the-shelf
- i. 'Mahir has arranged the books on the shelf and they're still arranged (they haven't been touched).'
  - ii. 'Mahir has just arranged the books on the shelf.'
  - b. l-kitub lissa:t-a mrattabe \( \Gamma \) a r-raff.
    the-books LISSA-P arranged on the-shelf
    - i. 'The books are still arranged on the shelf.'
    - ii. 'The books have just been arranged on the shelf.'
- (43) a. ma:hir lissa:t-u mxazzin ∫-ʃamaς bi-l-xiza:ne.

  mahir LISSA-3MS storing the-candles in-the-cupboard
- i. 'Mahir has stored the candles in the cupboard and they're still stored there.'
  - ii. 'Mahir has just stored the candles in the cupboard.'

b. f-samas lissa:t-u mxazzan bi-l-xiza:ne.

the-candles LISSA-3MS stored in-the-cupboard

- i. 'The candles are still stored in the cupboard.'
- ii: 'The candles have just been stored in the cupboard.'

The activity verbs discussed in section 1.2 behave analgously.

(44) a. ma:hir lissa:t-u qa:ʃit<sup>c</sup> l-ard<sup>c</sup>.

mahir LISSA-3MS scrubbing the-floor

- i. 'Mahir has scrubbed the floor and it's still
- scrubbed.'
- ii. 'Mahir has just scrubbed the floor.'
- b. l-ard<sup>s</sup> lissa:t-a maqsu:t<sup>s</sup>a.

the-floor LISSA-3FS scrubbed

- i. 'The floor is still scrubbed.'
- ii. 'The floor has just been scrubbed.'
- (45) a. ma:hir lissa:t-u mmassit<sup>s</sup> sasr-u.

mahir LISSA-3MS combing hair-his

- i. 'Mahir has combed his hair and it's still combed.'
- ii. 'Mahir has just combed his hair.'

b. sar-u lissa:t-u mmassat.

hair-his LISSA-3MS combed

- i. 'His hair is still combed.'
- ii. 'His hair has just been combed.'

In her discussion of adjectival passive participles in English, Kratzer remarks that not all participles accept *still* equally readily, for example *prove* in (46a). However, when we compare the adjectival participle *proven* with the perfect predicate *have proven* (46b), the former is clearly more acceptable than the latter. Specifically, the former gives the impression of being redundant, since being proven is inherently permanent (if it turns out the proof is wrong, then the theorem was never proven in the first place). Example (46b), however, gives the impression of being ungrammatical, not merely redundant.

- (46) a. #The theorem is still proven.
  - b. \*Max has still proven the theorem.

The Arabic participle *mmbarhan* (*proven*) patterns like (46a) as opposed to (46b), and, crucially, the active participial form *mmbarhin* is also

judged redundant with *lissa*, not ungrammatical. A similar case is the verb *hazam* (*defeat*). Once a team is defeated, their defeat cannot be reversed.

- (47) a. # ma:hir lissa:t-u mmbarhin l-naz<sup>s</sup>arijje.

  mahir LISSA-3MS proving the-theorem

  # 'Mahir has proven the theorem and it's still proven.'
  - b. # n-naz<sup>s</sup>arijje lissa:t-a mmbarhane.the-theorem LISSA-3FS proven# 'The theorem is still proven.'
- (48) a. # barʃaluːna lissaːt-u haːzim rijaːl madrid.

  barcelona still-3MS defeating real madrid

  # 'Barcelona has defeated Real Madrid and Real Madrid is

  still defeated.'
- b. # rija:l madrid lissa:t-u minhazim / mahzu:m qadda:m
  barʃalu:na.

  real madrid still-3MS defeated / defeated before barcelona
  # 'Real Madrid is still defeated by Barcelona.'

Again, there is no distinction in grammaticality between the *a*- and *b*-examples above. However pragmatically odd the passive participle is, the active participle is the same, and none are ungrammatical with *lissa*. This means that the Arabic active participles are just like adjectival passive participles in their compatibility with *lissa*, and are unlike the English perfect, which is systematically ungrammatical with *still*. This indicates that the active and passive participles in Arabic are adjectival, not verbal, participles.

## 5. Complement frames again

The Arabic active participles vary in meaning in accordance with the aspectual type of the underlying verb in the same way adjectival passive participles do in both English and Arabic, and they are compatible with *lissa*, just as adjectival participles are. They are also unlike the perfect in that do not accept non-verbal or progressive main predicates. The few similarities between the Arabic active participles and the English perfect are indepedent similarities between the interpretation of the perfect and adjectival participles, and are not evidence that the active participles constitute a perfect construction.

The Arabic active participles nonetheless display one property that is decisively not adjective-like, namely the fact that they license the full complement frame of the corresponding verb. If indeed the Arabic active participles are adjectival, then the fact that they license the full complement frame of the corresponding verb is a significant empircal observation. It means that adjectival participles in English do not fail to license the complement frame of the verb by virtue of being adjectival, but rather for some other reason. I proceed to that matter in a moment, but first investigate a prediction of the observations made so far.

If Arabic participles are adjectival but nonetheless license object Case, then we should find grammatical examples in Arabic of the examples in English whose ungrammaticality lead Wasow to conclude that adjectival participles do not license Case, examples like (4a). Double-accusative verbs in Syrian Arabic confirm this prediction. A secondary object is possible in passive participles, where the primary object has been promoted to subject.

- (49) a. ma:hir minSat<sup>s</sup>i kfu:f la-jitSa:mal l-ki:mija:wija:t.

  mahir given gloves to-handle the-chemicals

  (lit.: 'Mahir is given gloves to handle the chemicals.')
  - b. ma:hir mitd<sup>c</sup>ajjif qahwe.
     mahir served coffee

(lit.: 'Mahir is served coffee.')

- c. ma:ria mamnu:ha mi:da:lijja:t kti:ra
  mahir awarded medals many
  (lit.: 'Maria is awarded many medals.')
- d. ma:ria min\$a:ra sijja:rit marwa:n min mba:rħa.
  maria lent car marwan since yesterday

  (lit.: 'Maria is lent Marwan's car since yesterday.')

These observations confirm that adjectival participles in Arabic differ from adjectival participles in English in that the participle assigns Case to its object(s) just like the corresponding verb does, unlike English participles. This is therefore one respect in which Arabic and English are thoroughly different.

#### 6. Analysis

Embick (2004) claims that verbal participles, which license the full complement frame of the verb (modulo promotion of the primary object to subject) differ from adjectival participles, which do not (in English), in that the verbal participles contain all the syntactic structure required to license the verb's object(s), while adjectival participles are structurally

'defective'; they lack the Case/inflectional superstructure required to license an object. That is, adjectival participles are 'small', and verbal participles are 'big'. Specifically, verbal participles contain the object Case licensing projection AgrOP in the basic clause schema in (50), while adjectival participles lack it. 'Resultative' adjectival participles contain the agent- and event-licensing projection vP but not AgrOP (an additional class of adjectival participles called 'target state' participles, contain only the patient-licensing VP; these exist in Arabic, too, but I do not go into the matter here). That is, verbal participles contain all the underlined structure in (50), while adjectival participles contain only the double underlined structure, according to Embick.

# (50) [TP subject [AgrOP object [vP agent v [vP patient V ]]]]

The Arabic active participles we have reviewed license the full complement domain of the corresponding verb, and therefore contain AgrOP (and perhaps more structure for double object verbs). Yet they have interpretational properties of adjectival participles. This suggests that the structural size of the participle is not the critical factor that determines its semantic behavior. That is, being a verbal participle is not an entailment of containing AgrOP. The equivalence 'big participle = verbal participle' does not seem to be valid. It must be possible for a participle to

be 'big' in this sense but yet display the interpretational properties of an adjectival particple. It appears that the interpretational properties of the participle are not an aftereffect of the size of the participle but directly related to the meaning of the adjectizing operator. I present an analysis in these terms below, one that seeks to derive the contingency between the interpretation of the participle and the aspectual type of the underyling verb.

Kratzer (2000) claims that verbs like  $pump\ up$  describe a relationship between an event of pumping up an entity x and the 'result' state of x being pumped up, as illustrated in (51a). The agent is not represented here, since it is introduced by a Voice head external to the VP (Kratzer 1996). The stativizing operator that forms the adjectival participle, which Kratzer identifies with the passive participial morphology in German and English, is shown in (51b). The combination of the two—the meaning of the passive participle  $pumped\ up$ , is shown in (51c). It says of an entity x and a state x that x is a state of x being inflated that is caused by a pumping up event x. The adverb x in the phrase x in the phrase x in the presupposition that this state held previously.

- (51) a.  $\lambda s\lambda e [pump(e) \& inflated(the boat)(s) \& cause(s)(e)]$ 
  - b.  $\lambda R \lambda s \exists e [R(s)(e)]$

c.  $\lambda s \exists e [pump(e) \& inflated(the boat)(s) \& cause(s)(e)]$ 

Kratzer explains the infelicitousness of #still proven by claiming that the verb prove does not have a result state argument (52a). Here, the passive participle is built by a different stativizer, shown in (52b). This stativitzer merely situates the event described by the underlying verb in the past with respect to the participle's reference time. Since the passive participle proven simply asserts that a proving event took place in the past with respect to the reference time, and since once this is the case it is the case in perpetuity, the presupposition that still introduces is redundant. Note that it is somewhat suspicious that on this analysis the passive participial morphology is semantically ambiguous in a way that has the past shifting effect on both readings.

- (52) a.  $\lambda e$  [prove(the theorem)(e)]
  - b.  $\lambda P \lambda t \exists e [P(e) \& \tau(e) \leq t]$
  - c.  $\lambda t \exists e [prove(the theorem) \& \tau(e) \le t]$

Katz (2003a) presents essentially the same explanation for the ungrammaticality of *still* with the perfect (35). In his analysis, the phrase *have proven the theorem* is a description of a time, not a state, and so is incompatible with *still*. As remarked above, though, there is a substantial

difference in acceptability between the adjectival participle and the perfect with *still*, as illustrated in (46), repeated in (53) below. If one of these two is excluded for combinatorial reasons, it is the ungrammatical (53b) rather than the infelicitous (53a). I conclude that Katz is right about (53b) and therefore that Kratzer is wrong about (53a).

- (53) a. #The theorem is still proven.
  - b. \*Max has still proven the theorem.

I propose instead that *prove*, like all of the verbs whose participles show the past shifted reading, also has a post state in its lexical semantics and (53a) is also derived by the stativizer in (51b). The difference between the infelicitous #still proven and the felicitous still pumped up can be traced to real world knowledge. Things that are pumped up have a natural tendency to revert to their original un-pumped up state, while things that are proven stay proven. The redundancy of *still proven* is not grammatical in nature. In light of his conclusion, the natural analysis of the Arabic active participles is that all of the verbs that allow the past shifted reading are derived from verbs with a post-state argument.

This cannot be the end of the story, though. Participles of stative verbs have the same morphology as eventive verbs (in English as well as

Arabic), but do not have an event argument. This makes stative verbs incompatible with the stativizer in (51b), which contains an existential quantifier over events.

I propose that these two cases can be unified under a definition of the stativizing (participial) morphology ('PART' below) that only binds the state argument of the underlying verb, as shown in (54). If the underlying verb is eventive, then an existential quantifier over the causing event in a verb like *pump up* in (51a) is inserted by default existental closure over unbound variables in the verb phrase (on which see Heim 1983, Diesing 1992). That is, an event argument that goes unsaturaturated in the environment of the stativizer gets saturated by existential closure. The past shifting effect is an entailment of the *cause* relation the verb puts the event in with respect to the result state. The participle describes the result state, whose cause must precede it. On the other hand, if the underlying verb is stative, the stativizer derives a description of that state; it is essentially vacuous in that case.

(54) PART = 
$$\lambda R \lambda s [R(s)]$$

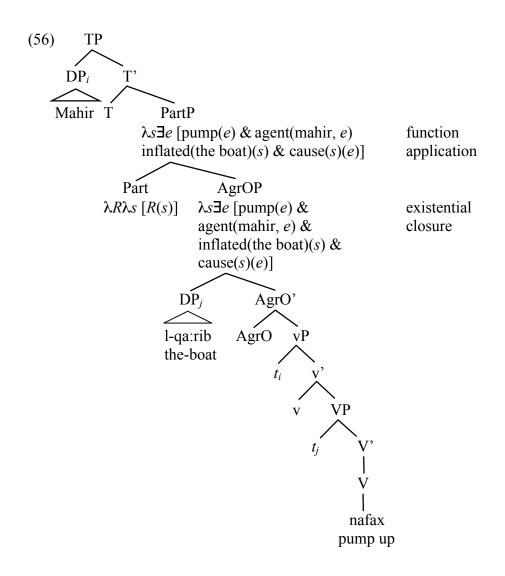
A participle derived from an eventive verb like *nafax* (*pump up*) in (55), an example based on Kratzer's, has the structure and interpretation in (56)

on this view. The bracketed constituent in (55) corresponds to the participle.

(55) ma:hir [PartP na:fix l-qa:rib].

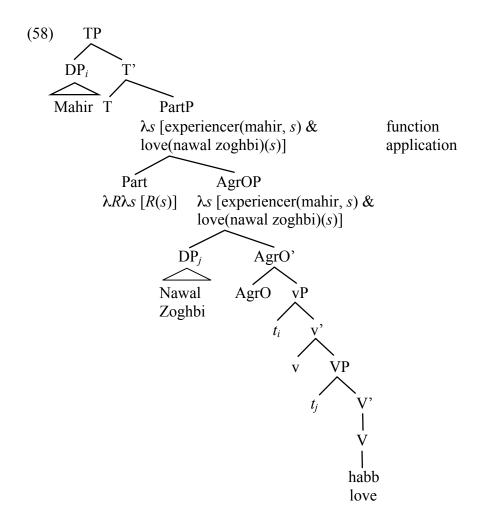
mahir pumping.up the-boat

'Mahir has pumped up the boat.'



A participle based on a stative verb like *habb* (*love*), shown in (57), has the same structure as the eventive counterpart in (55), but no eventive component over which existential closure applies.

(57) ma:hir [PartP ħa:bib nawa:l z-zoγbi ].mahir loving nawal the-zoghbi'Mahir loves Nawal Zoghbi.'



The active participles of eventive and stative verbs are formed in this manner in Arabic. It is evident from the table in section 3 that in the complex verb forms (non-form I), passivization is formed either by a stem vowel alternation or by prefixation internal to the *mi*- prefix that forms the participle. Assuming that this means that in general (i.e., even in the form I verbs), passivization is internal to the participle, then the analysis of the active participles in (55) and (57) carries over to the passive participles by virtue of passivization internal to PartP. Both lack of space and lack of imagination prevent me from presenting a complete analysis of passivization in Arabic in this paper, but it is clear that passivization in Arabic is a separate process from participle formation with a seperate morphological exponence. The situation in English, where these appear to be morphologically conflated, requires further investigation.

The fact that English adjectival participles do not license objective Case is compatible with Embick's claim about English: the participle is formed lower in English than in Arabic, above vP but below AgrOP. As a result, no object licensing structure is available in the English adjectival participle. However, the observations above on Arabic indicate that there is no necessary connection between adjectiveness and the failure of object licensing. If the participle is formed higher in the structure, the object is licensed, even though the participle is adjectival. English appears to have

'small' adjectival participles as kind of parameter specification. This specification is not logically necessary and consequently not universal.

#### 7. Conclusion

This paper has sought to motivate the claim that the Arabic active participles are 'big' adjectives, containing the complement licensing structure of the underlying verb (and its agent) but showing the interpretational behavior of an adjective. These observations implicate an analysis where the adjectivizing/stativizing morpheme applies relatively high in the structure, above AgrOP in Arabic. This conclusion in turn undermines the view that verbal participles are verbal by virtue of being 'big' in this sense. There are adjectival passives that are big enough to license the full complement frame of the underlying verb are nonetheless adjectival. What appears to characterize verbal participles in English is the absense of any stativizer. If the participial morphology itself is stativizing, then all participles should be stative. In Arabic, this expectation is borne out. The fact that participles in English may show verbal interpretational behavior is puzzling and indicates that what we call participial morphology in English is not itself adjectivizing. What role it has is unclear and requires further investigation.

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