

The middle voice, valency and Aktionsart in the Arabic verb

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1 INTRODUCTION

In this paper, I will propose an analysis of the function of several of the verb Forms of Modern Standard Arabic (henceforth: *Arabic*).

My aim is threefold. Firstly, I wish to show that the Forms in question encode the middle voice, which I argue is characterised by the property of subject-affectedness. The middle Forms identified here are the ones known by Arabists as *Forms V, VII* and *VIII*, as well those I term the *U-* and *I-patterns*.

Secondly, I propose that there are several types of subject-affectedness, and argue that type of affectedness is largely what distinguishes one middle Form from another. We will look at how the above-mentioned Forms can be analysed in these terms.

Lastly, I will demonstrate how the valency and aspectual properties these Forms exhibit mostly follow from the type of affectedness they encode. Thus, it seems as though the middle voice mediates between aspect and valency in Arabic. It will also be clear from the exposition of these Forms that intransitivity cannot be a requirement of the middle voice.

The paper will start with an overview of the Arabic verbal system in section 2, which is followed by a discussion of methodology in section 3. Section 4 outlines my approach to the middle voice and affectedness, whereas sections 5 and 6 look at how the middle interacts with valency and Aktionsart respectively. Thereafter, the characteristics of the middle Forms in question are investigated in sections 7–11. Section 12 concludes the paper.

2 THE ARABIC VERB

Most Arabic verb stems are created by inserting triconsonantal roots into patterns of vowels and consonants. The verbs are divided into different classes or Forms based on the patterns used to derive their stems. When quoting the Forms, the root letters are represented by the letters *f*, *ʕ* and *l*, according to the convention of Arabic grammarians (Wright [1859–1862] 1962, 1: 30). Thus, a root such as *h r s* can be combined with the pattern *faʕala*, creating the verb *ħarasa* ‘guard s.th.’.

Stems of the same Form are assumed to have a semantic relationship to each other in addition to the morphological one. However, pinpointing the semantic component contributed by each Form has proven challenging. Most Arabic grammars content themselves with merely listing the meanings most commonly attested among the

verbs of each Form, without attempting any further analysis. The phenomenon has not been given much attention by linguists either, though there have been a few linguistic studies dealing with the Forms, such as [Danks \(2011\)](#) and [Fehri \(2012: chap. 2\)](#).

The ten most common Forms are referred to as *Forms I-X*. On the following page, there is a table showing the patterns used to derive these ten Forms, and a simplified overview of the meanings associated with them. Form I is derived using the three slightly different patterns *faʿala*, *faʿila* and *faʿula*, which I will refer to as the *A-pattern*, *I-pattern* and *U-pattern* respectively. For the sake of convenience, I will use Forms as a shorthand for Forms and patterns in this article. Unless otherwise stated, all Arabic verbs given hereafter are from my data sample. The details of how the sample was constructed can be found in section 3.

To demonstrate how different Forms might modify the meaning of a root, we might take a look at the verbs listed for the root *ḥ k m* in Hans [Wehr's Dictionary of Modern Written Arabic](#) ([1961] 1979, henceforth referred to only as *Wehr*). The root conveys a sense of judgement, and the Form I verb *ḥakama* simply means to pass a judgement. The Form II verb *ḥakkama* can be interpreted as a causative of Form I, as it means to make someone a judge. The Form III stem *ḥākama* has the conative sense of prosecuting someone, whereas *ʾaḥkama* from Form IV expresses the event of causing a state of firmness. The Form V verb *taḥakkama* displays the reflexive meaning of making oneself the judge over something, and the Form VI verb *taḥākama* has the reciprocal sense of bringing each other before the judge. The Form VIII verb *iḥtakama* can express a self-benefactive notion, as it can denote appealing for a legal decision. Finally, the Form X verb *istahkama* means to be strengthened, and thus seems to denote the result of the Form IV verb.

Even though the verbs derived from the root *ḥ k m* exemplify many of the meanings attributed to the Forms in Table 1, it is already clear that the generalisations about the Forms are too simplified. For instance, the resultative meaning of the Form X verb does not fit the sense of seeking something which was highlighted in the overview. The reality is that most Forms can express a variety of meanings, which might be hard to unify.

In addition, the distinctions are obscured by the fact that all the above stems have various readings, some of which are the same for different Forms. For instance, the verbs of both Forms V and VIII include the meaning of having one's way. My sample shows that a fair amount of synonymy is not uncommon.

Many roots also give rise to meanings which seem unrelated. This is the case for the root *q m r*, which is used to form the Form I verb *qamara* 'gamble', as well as the Form IV verb *ʾaqmara* 'be moonlit'. It can even be hard to see the link between different readings of the same stem, as is evidenced by the Form II verb *qabbala* 'kiss s.o., go south'. When analysing the verb Forms, we must thus take care to make sure any characterisation of them is flexible enough to allow for the above facts.

In this paper, I aim to shed light on the function of Forms V, VII and VIII and the U- and I-patterns, which I argue encode the middle voice. My methodology will be outlined in the next section.

Form	Pattern	Meaning	Example	Source of example
I: A-pattern	<i>faʕala</i>	dynamic reflects root meaning	<i>ʕarasa</i> ‘till the land’	my sample
I: I-pattern	<i>faʕila</i>	temporary (change of) state	<i>jadila</i> ‘be happy’	my sample
I: U-pattern	<i>faʕula</i>	permanent (change of) state	<i>raquʕa</i> ‘be stupid’	my sample
II	<i>faʕʕala</i>	causative intensive	<i>ballaʕa</i> ‘make s.o. swallow s.th.’ <i>mazzaqa</i> ‘tear s.th. to pieces’	my sample
III	<i>fāʕala</i>	conative (attempting to do s.th.)	<i>qātala</i> ‘fight s.o.’, seen as conative of <i>qatala</i> ‘kill s.o.’	Badawi et al. (2004: 60)
IV	<i>ʕafʕala</i>	causative	<i>ʕajrā</i> ‘cause s.th. to flow’	my sample
V	<i>tafaʕʕala</i>	reflexive	<i>taḥaffaza</i> ‘prepare o.s.’	my sample
VI	<i>tafāʕala</i>	reciprocal	<i>tawāfaqa</i> ‘come to an agreement’	Holes (2004: 103)
VII	<i>infaʕala</i>	passive	<i>inbahara</i> ‘be dazzled, blinded’	my sample
VIII	<i>iftaʕala</i>	benefactive	<i>ibtāʕa</i> ‘buy s.th.’	my sample
IX	<i>ifʕalla</i>	colours and physical defects	<i>iḥmarra</i> ‘be or go red’	Badawi et al. (2004: 60)
X	<i>istaʕʕala</i>	seeking s.th.	<i>istaāfara</i> ‘ask pardon’	Wright (1962: 1: 45)

Table 1 Overview of the most important Arabic verb Forms and their meanings, based on [Badawi et al. \(2004: 59–62\)](#), [Fehri \(2012: 32\)](#), [Holes \(2004: 100–105\)](#), [Ryding \(2005: 455–595\)](#) and [Wright \(1962: 1: 30–46\)](#).

3 METHODOLOGY

Many of the meanings associated with Forms V, VII and VIII and the U- and I-patterns, such as reflexives and spontaneous events, have been tied to the middle voice (Ajer 2014: 12–13, 33–35; Kemmer 1993: 142–145, 243; Ryding 2005: 530, 555, 565; Wright 1962: 1: 36, 40, 42). Thus, these Forms were chosen for my investigation of the Arabic middle voice.

My aim was to see whether these Forms do indeed encode the middle voice, and if so, what their unifying property might be. I also sought to find out what sets these Forms apart from each other, and I hypothesised that they might be encoding different components of the middle. Further, I wished to investigate how these Forms patterned for valency and Aktionsart, as these phenomena have previously been tied to the middle voice. We will come back to this in sections 5 and 6.

My analysis is based on a random sample of verbs which I constructed using Wehr, which is a highly esteemed dictionary. The main part of the sample contains 479 verbs of the U- and I-pattern and Forms V, VII and VIII. In order to enable comparison with Forms which do not seem to have a relation to the middle voice, verbs of the A-pattern and Forms II and IV were also included. Unless otherwise specified, I mean my core sample which does not include the verbs of the A-pattern and Forms II and IV when referring to *my sample*.

Before we proceed, it is worth noting that not all verbs displaying the I- and U-pattern will be analysed as belonging to these patterns. When the same root occurs in different Form I patterns with no change in meaning, I will consider there to be one verb which belongs to a *mixed pattern*, rather than to the different patterns it displays. Such mixed-pattern verbs contrast with *single-pattern verbs*, which cannot be used synonymously in different patterns. As the different patterns of mixed-pattern verbs are non-contrastive, we would predict that their behaviour might differ from that of single-pattern verbs. This does indeed seem to be the case, and mixed-pattern verbs will therefore be excluded from the analysis. Henceforth, when referring to I- and U-pattern verbs, I am thus only referring to single-pattern verbs.

Table 2 gives an overview of how the verbs in my sample are distributed across the Forms under investigation here, and how big a proportion of the verbs listed in Wehr the verbs of each Form constitute. All percentages given in this paper are rounded up or down to the closest whole number.

The present study was a pilot project, which necessarily looked at a subset of the data which could have been considered. Though I was only investigating data from one source, some striking trends in the data emerged, which seem promising as potential illuminators of our understanding of the interrelation between voice, valency and Aktionsart. My findings clearly indicate the need for further study of the interaction of these phenomena, as well as of the Arabic verb Forms.

Note that I am predominantly seeking to account for the synchronic differences between the Forms in question. However, I also speculate as to how these differences might have arisen. The constraints I will postulate on each Form are therefore

	My sample	Wehr	Proportion of verbs in Wehr included in my sample
I-pattern	68	-	-
U-pattern	17	-	-
Form V	198	953	21%
Form VII	55	267	21%
Form VIII	141	606	23%

Table 2 Number of verbs in core sample compared to total of verbs in Wehr, as reported by Danks (2011: 28).

potential constraints which could have held at a previous point in time, and which might help explain the current distribution of verbs across these Forms.

4 THE MIDDLE VOICE AND AFFECTEDNESS

As my data does not justify finer distinctions, I will use the term *initiator* to refer to the entity bringing about change in an event, and the term *undergoer* to signify the entity subjected to this change (Ramchand 2008: 24, 64).

Roberts (1987: 187–192, 210) argues that an important property of the English middle construction is that its subject would have been an undergoer in the underlying active clause. In (1) below, we see that the baseball is the subject of the middle construction. In the corresponding active clause, the baseball would be the undergoer argument, as it undergoes movement in the throwing event. The example is taken from Roberts (1987: 206).

(1) This baseball throws well.

It has been proposed that a property of *affectedness* holds of undergoer arguments, a term which has been chosen as these arguments experience the principal effects of events (Anderson 1979; Jaeggli 1986). Thus, the notion of subject-affectedness can be argued to be crucial to the analysis of the English middle. Here, I will investigate whether this notion can also be useful in defining an Arabic middle voice. For another approach to the middle, see Kemmer (1993).

Some of the verbs in my core sample do indeed have subjects which are undergoers and which thus fit the traditional notion of affectedness. There are several different types of change these arguments might undergo. Some of them undergo a change in property, as is the case for the subject of the Form VII verb *insalaḥa* ‘split, break open’. The subject of this verb clearly changes in the event, as it goes from being whole to being split open. The Form VII verb *insāḥa* ‘pour forth’ has a subject which is changed in another way – it undergoes movement. An argument is also an undergoer if its referent is created or destroyed in the event, which can be called a change in its ‘physical extent’ (Ramchand 1997: 76, 117). A change in the subject’s

physical extent takes place in the event encoded by the Form VIII verb *imtaḥaqa* ‘be destroyed’.

Even though many of the verbs in my core sample have subjects which are traditionally viewed as affected, meaning that they are undergoers, this is not true for all of them. A case in point is the Form VIII verb *ihṭāla* ‘strive’, as the event it denotes does not effect a clear change in its subject. Further, the subjects of stative verbs such as the I-pattern verb *kariya* ‘be asleep’ must remain unchanged throughout the eventuality. At first glance, the subjects of these verbs therefore do not appear to be affected by the eventualities in question. However, these subjects are not prototypical initiators either, bringing about changes the effects of which do not in any way pertain to themselves.

The subject of the verb *ihṭāla* ‘strive’ is clearly heavily invested in the action, as striving entails that one has a particular goal in mind, and is working towards it with great commitment and effort. Due to this mental involvement of the subject, it is hard to construe someone who is striving to be as unaffected by the action as someone who is merely said to be working might be. Similarly, the subjects of self-benefactive verbs can be analysed as being particularly mentally invested in the event, as they generally act in their own interest and often have particular goals in mind they are trying to achieve. Their self-serving motives might be obvious, as in the case of the Form VIII verb *istāma* ‘bargain, haggle’, where the subject would clearly benefit from getting the price down. The mental involvement is less clear for certain other self-benefactive verbs, such as the Form VIII *ibtāfa* ‘buy’. However, these self-benefactive verbs also seem to pattern with verbs which more clearly imply particular mental involvement, so I will treat them the same.

Other types of verbs which entail mental involvement on the part of the subject are emotion and cognition verbs, as the minds and the feelings of their subjects are integral to the events they express. An example of an emotion verb is the Form VIII verb *ihṭadda* ‘be furious, agitated’, whereas the verb *ihṭasaba* ‘take into account’ from the same Form illustrates a cognition verb.

The subject of the stative I-pattern verb *kariya* ‘be asleep’ does not undergo any change – rather, it is a stateholder of which the state of being asleep is predicated. It might seem hard to reconcile stative readings with the idea of affectedness, as affectedness is often tied to the notion of change, and stative verbs by definition encode a lack of change. When looking more closely, however, stateholders are not as different from undergoers as they may seem. Even though a stateholder is not changed in the eventuality the way an undergoer is, it is experiencing a state which has taken effect prior to the eventuality. This previous event has had a continued effect on the stateholder argument, and the stative verb predicates that this effect still holds of its subject. Both undergoers and stateholders are experiencing the effects of some event – the difference is merely whether this event is encoded by the verb in question or whether it took place previously. Interpreted in this way, it seems natural to analyse also the lack of change predicated of an argument as a type of affectedness.

This line of thought might not be seen to work equally well for all stative verbs. A distinction is sometimes made between temporary or *stage-level* states and per-

manent or *individual-level* ones, a distinction which goes back to Carlson (1977). It is certainly true that stage-level verbs predicate that the subject is still in a state brought about by a previous event. The example verb used above, *kariya* ‘be asleep’, is such a stage-level verb. Clearly, the state of being asleep is the result of a previous event of falling asleep, and the subject can therefore be said to be affected by some previous event.

On the other hand, individual-level states such as the one predicated by the U-pattern verb *ḥasuba* ‘be highborn’ are normally not thought of as having been caused by any particular event. Thus, it might be harder to view the subject of an individual-level verb as being affected by any event. However, it seems as though individual- and stage-level states display the same patterning in my data. It is also worth noting that every state holding in the world will have been brought about by something. For instance, it is the event of being born into a noble family which leads to the state of being highborn. Thus, we have seen that stage- and individual-level verbs pattern alike, and that also individual-level states can be reconciled with the idea of predicating that the effect of a previous event is still holding. I will therefore treat the subjects of both types of stative verbs alike, and I argue that both stage- and individual-level verbs describe the effects previous events have had on their respective subjects.

We have now seen that even though the subjects of stative verbs and the subjects of many verbs entailing mental involvement do not fit the traditional notion of affected arguments, they do not appear to be entirely unaffected by the eventualities in question either. For this reason, I propose that we need a broader notion of affectedness, which can account for these types of effects as well.

I will term the arguments which have traditionally been viewed as affected arguments *directly affected*, as they undergo change as a direct result of the event denoted by the verb. Thus, verbs such as *insalaḥa* ‘split, break open’, *insāḥa* ‘pour forth’, and *imtaḥaqa* ‘be destroyed’ have directly affected subjects. This type of affected argument can be defined as in (2):

- (2) A directly affected argument is one which undergoes change as a result of the eventuality.

Subjects which are implied to be mentally involved in the eventuality, will be termed *mentally affected* arguments. Verbs such as *iḥtāla* ‘strive’, *istāma* ‘bargain, haggle’, *ibtāḥa* ‘buy’, *iḥtadda* ‘be furious, agitated’, and *iḥtasaba* ‘take into account’ have subjects which fit into this category. Mentally affected arguments will be defined as below:

- (3) A mentally affected argument is one whose mental involvement is associated with the eventuality.

The type of affectedness holding of the subjects of stative verbs such as *kariya* ‘be asleep’ and *ḥasuba* ‘be highborn’, will be called *lasting affectedness*. The term *lasting* is not meant to indicate that the state or property ascribed to a lastingly affected subject must last forever: what is crucial is that it lasts throughout the entire

eventuality encoded by the verb. The definition of a lastingly affected argument is given in (4).

- (4) A lastingly affected argument is one of which a continuous effect lasts throughout the eventuality without any change.

Mental affectedness can be combined with the two other types of affectedness. The subject of the Form VIII verb *irtajafa* ‘tremble, shudder’ is undergoing a trembling movement, which is associated with fear and thus with mental involvement. It can therefore be construed to be both directly affected and mentally affected.

It is also possible for a subject to be both lastingly affected and mentally affected, as is the case for emotion verbs such as *ihtadda* ‘be furious, agitated’. As the subject of an emotion verb is predicated to be in a state which pertains to the feelings of the subject, the subjects of such verbs are therefore mentally affected as well as lastingly affected.

Direct and lasting affectedness, on the other hand, are by nature mutually exclusive, as a directly affected argument undergoes change in the eventuality whereas a lack of change holds of a lastingly affected argument. However, the same verb can have several readings which give rise to different types of affectedness. This can be demonstrated by the Form VII verb *inbaġata* ‘be taken by surprise, be aghast’. It has a directly affected subject in the meaning of being taken by surprise, and a lastingly affected subject in the meaning of being aghast, as this state lasts throughout the entire eventuality. In both readings the subject is mentally affected as well.

Thus, it is clear that different types of subject-affectedness can arise for the same verb, either simultaneously or in different readings. This should be kept in mind when interpreting the numbers and percentages in this paper.

Any argument which is directly, mentally and/or lastingly affected will be analysed as an affected argument. When defined in this way, the property of affectedness can hold of the subjects of 472 of the 479 verbs in my core sample, or 99%. It therefore seems as though the property of subject-affectedness can unify the verbs in my core sample. Table 3 provides a breakdown of how many verbs of each Form allow subject-affectedness.

	Affected	
	Nr.	%
I-pattern	68	100%
U-pattern	17	100%
Form V	196	99%
Form VII	55	100%
Form VIII	136	96%

Table 3 Verbs in core sample allowing subject-affectedness.

Only two Form V verbs and five Form VIII verbs do not seem to allow subject-affectedness. The Form V verbs in question are *tamannana* ‘weaken s.o.’ and *tanak̄kala* ‘sift s.th.’, whereas the Form VIII verbs are *ik̄tabaza* ‘bake bread’, *iġ̄tazala* ‘spin s.th.’, *intaḳala* ‘sift s.th.’, *iġ̄tarafa* ‘ladle out of’, and *iq̄tatta* ‘sharpen a pen’. Of these verbs, all except the last two are synonymous with verbs of the same root occurring in Forms which do not belong to the middle. They might therefore be expected to display more idiosyncratic behaviour. In any case, as the verbs which do not seem to allow subject-affectedness are so marginal in the Forms under investigation, they will be regarded as lexical exceptions.

As the property of subject-affectedness has previously been tied to the middle voice, it seems reasonable to assume that it is also a characteristic of the middle in Arabic. I thus argue that Form V, VII and VIII and the U- and I-patterns encode the middle voice, and that this means that their verbs must allow readings where the subject is affected. Exactly how this requirement is imposed is not central to my argument, but I propose that it might be introduced by a middle voice head such as the one in (5), which assigns a [+affected] feature to the subject.

(5) Middle voice head: Voice_[+affected]

Having unified the Forms in my core sample by the category of the middle voice defined by the property of subject-affectedness, the question is what the distinction between these Forms is. It seems redundant for the system to allow several different middle Forms if they do not have at least slightly different functions. Thus, the next step is to find more specific defining properties for each Form, setting them apart from each other. In order to account for these differences, I will assume that the different middle Forms introduce different versions of the middle voice head in (5), assigning different features in addition to the [+affected] feature. For simplicity’s sake, all features will be treated as though they are independent from each other, though this is not crucial to the analysis.

I propose that the differences between the middle Forms largely relate to differences in type of affectedness, and argue that these differences have an effect on valency and Aktionsart, which are the phenomena we turn to in sections 5 and 6.

5 VALENCY AND THE MIDDLE VOICE

Middle verbs are generally thought to have a reduced number of arguments as compared to corresponding active verbs, and the middle voice has therefore often been characterised as a valency-reducing phenomenon which renders verbs intransitive (Dixon & Aikhenvald 2000: 1, 12). However, Croft, Shyldkrot & Kemmer (1987: 184–185) argue that the middle voice does not always have that effect, and that valency-reduction and intransitivity should not be used to define the middle voice. My analysis supports this view. It is clear that the property of intransitivity is not crucial to the middle, as 112 of the 479 verbs in my core sample, or 23%, do in fact allow transitivity. Some of the verbs also have the same valency as their active counterparts, which is the case for the Form V middle verb *taḥammaqa* ‘immerse

o.s. in s.th.'. Similarly to the active Form II verb *ḥammaqa* 'deepen s.th.', this verb is divalent, taking both a subject and an object.

Even so, it does seem as though middle verbs are often valency-reducing and intransitive. Rather than using this fact to capture the middle voice, I will in the discussion of the U-pattern and Forms VII and VIII argue that the intransitivity associated with the middle is caused by the property of subject-affectedness, and that how strongly intransitive a middle Form is depends on the type of subject-affectedness it encodes. Thus, the valency properties of the Arabic middle voice do not define it, but rather arise as a by-product of the crucial requirement of subject-affectedness.

6 AKTIONSART AND THE MIDDLE VOICE

Aktionsart is another phenomenon whose interaction with the middle voice will be investigated. The Aktionsart of a verb phrase comprises its inherent aspectual properties, such as whether the event it denotes is construed as stative or dynamic, or whether it is durative or punctual. Another important Aktionsart distinction is whether the event is *telic* or *atelic*, meaning whether it has a set endpoint or not.

Vendler's (1957) influential theory of Aktionsart distinguishes between four aspectual classes based on the properties above, with the whole verb phrase contributing to the classification. However, in our analysis of Arabic verb Forms only the contributions of the verbs themselves concern us, meaning that not all Vendler's classes are relevant to the present study. Therefore, I will rather draw on the classification of Ramchand (1997: 126–127), where verbs are distinguished from each other according to the internal temporal structure of their events.

The first of Ramchand's classes are verbs expressing change which unfolds over time (Ramchand 1997: 120, 124). As the change they denote is gradual, I will term them *gradual verbs*. An example of such a gradual verb is *ijtanā* 'gather, harvest' from Form VIII. Gradual events can be either telic or atelic.

The second class are punctual verbs, which describe an abrupt change (Ramchand 1997: 122–123). Punctual verbs can be exemplified by the Form VII *infajara* 'explode'. Whether the change leads to a new result state or not does not make a difference to their temporal structure, and my data does not seem to support such a distinction either. As a punctual verb portrays the event of change as instantaneous, it necessarily has a set endpoint, and I will therefore analyse all punctual verbs as being telic.

The last class of verbs are verbs like the U-pattern *ḥasuba* 'be highborn' which have undifferentiated timelines, meaning that they do not express any change (Ramchand 1997: 124). In other words, these verbs are states. As states by definition cannot express change, stative verbs must be atelic. Further, as we have already seen, their subjects must belong to a particular type of affected argument, namely lasting affectedness. Therefore, a verb with a lastingly affected subject will automatically belong to the aspectual class of states and will be atelic.

We have seen that there is a necessary relationship between the voice and Aktionsart properties of stative verbs. In the following sections, we will try to uncover

whether there is any relation between the different types of middle voice and the classes of punctual and gradual events as well.

We will also look at telicity as an independent factor, and see whether it is connected to the middle, as telicity has previously been tied to affectedness (Tenny 1987: 2). Furthermore, Danks (2011: 191, 211, 255) shows that two other Arabic verb Forms, Forms III and VI, might be characterised by atelicity. This raises the question of whether telicity distinctions could be relevant to the analysis of other verb Forms as well.

We will now take a closer look at the properties of the middle Forms investigated in this paper.

7 THE U-PATTERN

Tables 4 and 5 below provide an overview of the Form's properties for affectedness, transitivity and Aktionsart.

	Direct	Mental	Lasting
Nr.	8	2	17
%	47%	12%	100%

Table 4 Types of affectedness assigned by U-pattern verbs in my sample.

	Can take object	Atelic	Telic	State	Punctual event	Gradual event
Nr.	0	17	2	17	0	10
%	0%	100%	12%	100%	0%	59%

Table 5 Transitivity and aspectual properties of U-pattern verbs in my sample.

As the key property of the middle is subject-affectedness, it would be preferable if the specific requirements we identify for each Form relate to type of affectedness. It does indeed seem like such a requirement holds of the U-pattern, as all the verbs of this pattern in my sample allow lastingly affected subjects, as is shown by Table 4.

We see that verbs such as *šaḥaba* 'be difficult', *ḡaruba* 'be a stranger, be strange' and *kaṭura* 'be numerous, increase' obey this requirement, as all of them have at least one reading where the subject is lastingly affected.

Thus, I postulate that the following middle voice head is introduced by the U-pattern morphology:

- (6) The middle voice head of the U-pattern: **Voice**_{[+affected][+lasting]}

However, it is clear from Table 4 that synchronically, the U-pattern allows other readings in addition to stative ones. After stative readings, change of state readings

are the most common. The verb *kaṭura* ‘be numerous, increase’ is an example of a verb which both has a stative reading and a change of state reading. It is easy to see how these change of state readings might have developed, as it seems logical for a verb expressing a state to be extended to express the change resulting in that state as well.

As Table 5 shows, all U-pattern verbs in my sample must allow atelicity. This can easily be explained by a requirement of allowing lastingly affected subjects, as this means all verbs must have stative readings, which are by definition atelic. The Form’s focus on lasting affectedness might lead it to be associated with atelicity overall. It is therefore unsurprising that telicity should be dispreferred also for the change of state readings, and that none of the U-pattern verbs in my sample encode punctual events, which are necessarily telic. The verb *kaṭura* displays behaviour typical of a U-pattern verb in this respect, as the change of state it can denote is the atelic event of increasing.

However, even though telicity is rare, some U-pattern verbs do allow telic readings. This is expected if the strong tendency for atelicity is an effect of the requirement of lasting affectedness, rather than being a requirement in itself.

The requirement of lasting affectedness can account for the U-pattern’s preference for intransitivity as well as atelicity. A prototypical object undergoes change in the eventuality, and no such change can be predicated by a stative verb. The core stative readings of the Form are therefore naturally incompatible with prototypical objects. It seems as though this incompatibility of prototypical U-pattern readings with prototypical objects leads to an overall association with intransitivity, an association so strong that none of the U-pattern verbs in my sample allow any kind of object. Thus, it seems as though a very strong preference for intransitivity has developed in the U-pattern due to the relative intransitivity imposed by the requirement of lasting affectedness.

To summarise, we see that the properties of the U-pattern can be explained if there is a requirement on its verbs of allowing lastingly affected subjects. The atelic, stative readings displayed by all U-pattern verbs are a necessary consequence of this. The fact that other readings are also largely atelic is a more indirect result of this requirement, due to the association with atelicity to which it leads. The strict intransitivity of the Form arises in a similar manner. Thus, the aspectual properties and the valency of the U-pattern are not what defines it, but rather seem to be effects of the type of affectedness it favours.

8 FORM VII

Nearly all Form VII verbs in my sample allow directly affected subjects, as evidenced by table 6 below. Only the two verbs *inkataba* ‘subscribe’ and *inkaffa* ‘abstain’ do not seem to fit this generalisation. I therefore propose that Form VII can be captured by a requirement of allowing directly affected subjects, with *inkataba* and *inkaffa* being lexical exceptions.

	Direct	Mental	Lasting
Nr.	53	15	26
%	96%	27%	47%

Table 6 Types of affectedness assigned by Form VII verbs in my sample.

I thus postulate the following voice head for Form VII:

- (7) The middle voice head of Form VII: Voice_{[+affected][+direct]}

Verbs such as *insāḥa* ‘pour forth’ and *infajara* ‘explode’ fit this requirement, as their subjects undergo change as a direct result of the event, making them directly affected.

Provided that they have at least one reading with a directly affected subject, Form VII verbs might also give rise to subjects which are affected in other ways. As these verbs express change in their subjects, it seems unsurprising that many should also be able to express the resulting state, giving rise to lastingly affected subjects as well. This is the case for the verb *inzaʕaja* ‘be stirred up, feel uneasy’, which has a directly affected subject in the first reading and a lastingly affected one in the second.

From the discussion so far, it might sound as though the U-pattern and Form VII are very similar, as directly and lastingly affected subjects are common in both. However, the fact that the focus of Form VII differs from that of the U-pattern is not trivial, and results in different aspectual properties. As we saw in section 7, the U-pattern favours atelic readings, and punctual readings do not occur. Table 7 below, which outlines the transitivity and Aktionsart of Form VII verbs, clearly demonstrates that the aspectual properties of this Form are very different from those of the U-pattern. Form VII does not appear to show a preference for either telic or atelic readings, and states, gradual events and punctual events are all common.

	Can take object	Atelic	Telic	State	Punctual event	Gradual event
Nr.	0	39	40	26	37	27
%	0%	71%	73%	47%	67%	49%

Table 7 Transitivity and aspectual properties of Form VII verbs in my sample.

Given the different foci of Form VII and the U-pattern, the difference in aspectual properties seems natural. As the core readings of the U-pattern give rise to lasting affectedness, which is incompatible with telicity, the strong preference for atelicity is unsurprising. The core Form VII readings, on the other hand, involve directly affected subjects which undergo change. Such change can be portrayed as being telic and punctual as easily as atelic and gradual, as exemplified by *infajara* ‘explode’ and *insāḥa* ‘pour forth’ respectively.

However, it is also evident from table 7 that Form VII is similar to the U-pattern in rejecting objects, though the reason for this is likely to be different. The strict intransitivity of the U-pattern is a result of the stativity of its core readings, which is not easily reconcilable with having a prototypical object which undergoes change. This is clearly not the reason objects are dispreferred in Form VII, as the Form’s focus is on direct affectedness and thus change. However, the focus is on change in the subject specifically, and having an object which also undergoes change might take away from this focus. For this reason, Form VII is not very compatible with prototypical objects either, leading to a general association with intransitivity.

To summarise, we see that the condition imposed by Form VII on its verbs seems to be that they must be able to give rise to directly affected subjects. This is not a requirement one would expect to lead to strict restrictions on aspectual properties, so the variety in Aktionsart displayed by Form VII verbs is unsurprising. A requirement of direct affectedness in the subject also sheds light on the intransitivity of this Form.

9 THE I-PATTERN

	Direct	Mental	Lasting
Nr.	32	26	54
%	47%	38%	79%

Table 8 Types of affectedness assigned by I-pattern verbs in my sample.

	Can take object	Atelic	Telic	State	Punctual event	Gradual event
Nr.	13	66	15	54	11	34
%	19%	97%	22%	79%	16%	50%

Table 9 Transitivity and aspectual properties of I-pattern verbs in my sample.

Unlike verbs of the U-pattern and Form VII, it is clear from Table 8 that the class of I-pattern verbs cannot be captured by a requirement on type of affectedness. The property of atelicity seems to be the one which comes closest to unifying all verbs of this Form. Only the verbs *rahiqa* ‘overtake’ and *naqida* ‘escape’ seem to resist an atelic interpretation, and might thus be viewed as lexical exceptions. I therefore propose that the I-pattern is characterised by requiring all verbs to have atelic readings.

Postulating an atelicity requirement might seem strange, as the requirements proposed so far relate to the notion of affectedness. As there are many middle Forms, however, it is not surprising that they might not all be distinguished from

each other based on type of affectedness alone. Thus, it seems plausible that the different Forms might also introduce other types of requirements.

It might also be objected that a [+atelic] feature appears somewhat unnatural. However, I view this as an artefact of the terminology used. The last question raised by an atelicity restriction on the I-pattern, is whether it is imposed by the middle voice head or an aspectual head. I will not go into this issue here, but for convenience, I will assume that all the features I propose are introduced by the middle voice head.

I therefore argue that the I-pattern is underspecified for type of affectedness, and that atelicity is its defining property. Thus, I postulate the following voice head for the I-pattern:

(8) The middle voice head of the I-pattern: **Voice**_{[+affected][+atelic]}

It is important to note that whereas the [+affected] feature is assigned to the subject, the [+atelic] feature pertains to the verb itself. However, as this technicality is not central to the argument at hand, it is not indicated in the notation.

The fact that the I-pattern is underspecified for type of affectedness but unified through atelicity, can be demonstrated by the verbs *tariya* ‘become wealthy’, *şalifa* ‘boast’, and *naziha* ‘be respectable’. The verbs differ from each other in that the subject of *tariya* is directly affected, that of *şalifa* is mentally affected and that of *naziha* is lastingly affected. However, we see that they all display the atelic readings required by the I-pattern.

As already mentioned, the requirement of atelic readings does not prevent telic ones from occurring as well. For instance, the verb *darima* can both express the atelic event of burning, or the telic, punctual event of catching fire.

Though neither telic nor punctual events are disallowed in the I-pattern, it is clear from Table 9 that they are not very common. It seems as though telicity in general, and punctuality in particular, are dispreferred in the I-pattern. This is natural, as one would expect the requirement of allowing atelic readings to lead to an association with atelicity, making the Form more resistant to readings that go against this association. It is therefore also unsurprising that gradual verbs such as *tariya* ‘become wealthy’ occur more commonly.

As stative eventualities are the only ones which are necessarily atelic, they might be seen as the most strongly atelic eventualities. A Form such as the I-pattern, which has an atelicity focus, should therefore be particularly compatible with states. Tables 8 and 9 show that this is indeed the case. The verb *naziha* ‘be respectable’ is an example of a stative I-pattern verb.

We would not expect the atelicity requirement of the I-pattern to have any direct effect on its valency. However, we have seen that this property is the reason for the prevalence of stative readings, which are not compatible with prototypical undergoer objects. Furthermore, there are also many I-pattern verbs which have directly affected subjects, and we know that such verbs tend to resist undergoer objects as well. This seems to associate the I-pattern with intransitivity, and it is therefore unsurprising that intransitive verbs such as *tariya* ‘become wealthy’ are predominant, as evidenced by Table 9.

However, as there is no direct connection between intransitivity and the Form's core property of atelicity, it is natural that the association with intransitivity should be weaker than for the U-pattern and Form VII. This is evidenced by the fact that objects are allowed in the I-pattern, even though they are rare. As the main readings of the Form are mainly resistant to undergoer objects, it is also expected that other types of objects should be more common. The verb *hawiya* 'love s.o./s.th.' has an object which is not an undergoer, as it is not subjected to any change.

It therefore seems as though a requirement of allowing atelic readings can unify the verbs of the I-pattern, in addition to shedding light on its valency and aspectual properties.

However, in order to determine whether such an atelicity requirement is enough to distinguish the I-pattern from all other Arabic middle Forms, the potentially middle Forms not investigated in this paper must be researched further. As we saw in section 6, Danks (2011: 191, 211) uses atelicity to capture Forms III and VI, and it is unclear whether Form VI might also belong to the middle. Until further research into this matter has been undertaken, however, I will tentatively assume that the middle voice head of the I-pattern contributes an atelicity requirement.

10 FORM VIII

Form VIII neither seems to be unified by type of affectedness nor by any particular valency or Aktionsart, as tables 10 and 11 show.

	Direct	Mental	Lasting
Nr.	82	95	56
%	58%	67%	40%

Table 10 Types of affectedness assigned by Form VIII verbs in my sample.

	Can take object	Atelic	Telic	State	Punctual event	Gradual event
Nr.	61	105	87	56	75	87
%	43%	74%	62%	40%	53%	62%

Table 11 Transitivity and aspectual properties of Form VIII verbs in my sample.

As we have identified more middle Forms than types of affectedness, it is clear that the middle Forms cannot be distinguished from each other based on type of affectedness alone. Together with the fact that one verb might assign several types of affectedness, this raises the question of whether any of the Forms might be characterised by a combination of affectedness types.

The different types of affectedness are assigned to the subjects by the verbs, and I therefore view them as different argument roles. The three affectedness roles might

interact with other subject roles, of which I have identified that of initiator to be relevant here. If a verb assigns more than one of these four roles to its subject, either simultaneously or in different readings, I will say that it assigns *overlapping* roles. Table 12 provides an overview of verbs allowing overlapping roles in Form VIII.

	Overlapping roles	Direct + other role	Mental + other role	Lasting + other role
Nr.	126	77	95	51
%	89%	55%	67%	36%

Table 12 Overlapping roles assigned by Form VIII verbs in my sample.

Of the properties examined so far, it seems as though that of assigning overlapping roles comes the closest to capturing the class of Form VIII verbs in my sample, as 89% of these verbs allow different subject roles. The Form also seems to show a preference for mental affectedness, with 67% of the verbs assigning this role.

A Form VIII verb displaying these characteristics is *iḥṭawaja* ‘need s.th.’. Its subject is lastingly affected through being in a state of need, something we might expect to affect its mental state, making it mentally affected. Another typical Form VIII verb is *iddaraḥa* ‘arm o.s.’, which assigns the roles of initiator, directly affected and mentally affected. The roles of initiator and directly affected devolve upon the subject due to it both effecting and undergoing the change in armament. As the subject would normally have strong motives for such an action, it is also mentally affected.

Even though the prototypical Form VIII verb assigns the role of mentally affected as well as another role to its subject, this does not hold true for 33% of the verbs of this Form. The verb *iḡtaṣṣa* ‘be overcrowded’ is an example of such an exception, as the subject only seems to be lastingly affected.

Thus, these characteristics do not seem to unify the verbs of Form VIII. However, in the absence of any properties which come closer to unifying it synchronically, I hypothesise that there might have been an original requirement on the Form of combining mental affectedness with another role. This could result from an original middle voice head as seen in (9). The [+role] feature is an underspecified feature which can represent any of the four subject roles identified earlier.

- (9) The original middle voice head of Form VIII: Voice_{[+affected][+mental][+role]}

If Form VIII originally introduced the voice head in (9), the fact that one of the roles is underspecified would give the Form an inherent variability in readings. However, it is unclear why this Form would develop new readings not obeying its original requirement.

The inherent variability of Form VIII might be the reason it gives rise to a much higher number of verbs than the U-pattern and Form VII, as the variety of readings allowed would make it easier to derive new verbs.

Due to the variation in readings, we would not expect Form VIII to place restrictions on Aktionsart. Table 11 shows that there is indeed great variation in the aspectual properties of the verbs of this Form.

We have seen that the foci on lasting and direct affectedness in the U-pattern and Form VII render these Forms incompatible with prototypical objects, leading to an association with intransitivity. There is no reason why Form VIII's focus on mental affectedness should have a similar effect, as having an object undergoing change does not negate the possibility of the subject being mentally impacted by the event. It therefore seems natural that the Form should allow transitive verbs such as *iḥtawaja* 'need s.th.'.

Further, transitivity is much more common in Form VIII than in the I-pattern, probably because lastingly affected readings are much rarer. However, even though many Form VIII verbs allow objects, a majority are intransitive. The slight preference for intransitivity is plausibly a product of the other roles overlapping with mental affectedness in Form VIII. Many of its verbs require their subjects to be lastingly or directly affected as well, and we have already seen that these types of subject-affectedness correlate with intransitivity.

To summarise, we see that if Form VIII originally required its verbs to assign mental affectedness as well as another role to their subjects, this might explain why such verbs are favoured synchronically. Such a requirement would result in an inherent variability, which could account for the lack of aspectual uniformity displayed by Form VIII verbs. As the subjects of many Form VIII verbs are lastingly or directly affected in addition to being mentally affected, it is unsurprising that intransitivity should be favoured. However, the focus on other roles overlapping with mental affectedness is not inherently incompatible with transitivity, explaining why transitive Form VIII verbs are not uncommon.

11 FORM V

	Direct	Mental	Lasting
Nr.	153	79	97
%	77%	40%	49%

Table 13 Types of affectedness assigned by Form V verbs in my sample.

	Overlapping roles	Direct + other role	Mental + other role	Lasting + other role
Nr.	159	126	79	87
%	80%	64%	40%	44%

Table 14 Overlapping roles assigned by Form V verbs in my sample.

	Can take object	Atelic	Telic	State	Punctual event	Gradual event
Nr.	38	175	93	97	78	132
%	19%	88%	47%	49%	39%	67%

Table 15 Transitivity and aspectual properties of Form VIII verbs in my sample.

Table 13 shows that Form V cannot be unified by a requirement on type of affectedness, whereas Table 14 indicates that it is similar to Form VIII in favouring overlapping roles. This tendency is weaker than for Form VIII, but it still seems to be the most characteristic property of the Form. Rather than preferring one of the roles to be mentally affected, Form V seems to prefer that one of them is directly affected.

Thus, I propose that the middle voice head of Form V might originally have imposed the following requirements:

- (10) The middle voice head of Form V: **Voice**_{[+affected][+direct][+role]}

The verb *tabarrara* ‘justify o.s., be justified’ displays the core properties of Form V, as it does not only have a directly affected subject, but also assign the roles of initiator, mentally affected and lastingly affected in these two different readings.

As for Form VIII, the fact that Form V is an overlapping Form seems to have led to a variability in readings, among them several that do not fit the proposed original requirement.

As Table 15 shows, Form V displays a preference for atelicity and gradual events. The aspectual properties of the verb *taqaṣṣā* ‘investigate’ is thus typical, as it expresses a gradual, atelic event. It is not evident why Form V should display such a preference. However, the less clear core properties of an overlapping Form such as Form V might make it hard to account for its aspectual properties.

Though we have seen that Forms V and VIII pattern alike in many respects, they do not pattern alike with regards to valency. As Form V has a focus on directly affected subjects, we would expect it to have a stronger association with intransitivity, and thus a stronger resistance to objects. As Table 15 shows, this prediction seems to hold.

The resistance is not as strong as for Form VII, however. This might be because the focus on directly affected subjects is somewhat obscured by the fact that it is an overlapping Form. Thus, transitive Form V verbs occur, but they are not common.

I have proposed that Form V might originally have been an overlapping Form with a focus on directly affected subjects. This would explain the strong but not absolute preference for intransitivity. If my hypothesis that Form V is an overlapping Form is correct, it would be unsurprising that it seems hard to find a property which can unify all the verbs of the Form and account for its aspectual properties, as overlapping Forms allow an inherent variability in readings. However, further research must determine whether this is indeed the right analysis of Form V.

12 CONCLUSION

In this paper, I have argued that several derivational verbal patterns in Arabic encode the middle voice. These are the U- and I-patterns and Forms V, VII and VIII, which I propose require their verbs to allow subject-affectedness, a property I view as definitional of the middle.

Based on my data, I extend the traditional notion of affectedness and distinguish between three different types of affectedness. The first, traditional type of affectedness is direct affectedness, which holds of an argument that undergoes change as a direct result of the eventuality. The second type is mental affectedness, which holds of an argument whose mental involvement is associated with the eventuality. Lastly, lasting affectedness holds of an argument of which a continuous effect is predicated to last throughout the eventuality without any change. Further, I hypothesised that these subtypes of affectedness might be part of what distinguishes the middle Forms from each other. My investigation of the middle Forms suggests that the U-pattern is defined by the fact that it must allow readings where the subject is lastingly affected, whereas the focus of Form VII is on directly affected subjects.

The other Forms allow more variation. I propose that Forms VIII and V are overlapping Forms, meaning that the verbs of these Forms must be able to assign their subjects several different roles or types of affectedness. This property would naturally lead to a variety of readings developing, and would explain why these Forms give rise to a higher number of verbs and are harder to unify than the U-pattern and Form VII. However, it seems type of affectedness is useful in distinguishing between Forms VIII and V as well, as Form VIII prefers that one of the types of affectedness assigned is that of mental affectedness, whereas Form V favours direct affectedness.

It is only in defining the properties of the last middle Form investigated, the I-pattern, that type of affectedness does not seem to play a role. Rather, the focus of this Form is on atelicity.

Not all types of affectedness are equally compatible with all Aktionsart and valency properties, and my findings suggest that how the Forms pattern for Aktionsart and valency is often the result of the types of affectedness they encode.

It is especially worth noting that objects are not categorically excluded across the middle Forms. There is still an overall preference for intransitivity, but this seems to be due to the relative incompatibility of lasting and direct affectedness with prototypical undergoer objects. Thus, the intransitivity often associated with the middle voice seems to be a by-product of these types of affectedness, rather than a crucial property of the middle.

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