Surface-Syntactic constructions controlled by Arabic ‘Psychic’ verbs

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Abstract

This paper presents an innovative description of syntactic constructions controlled by Arabic psychic verbs. It emphasizes the paratactic aspect of Standard Arabic by showing the productivity of the asyndetic junction between two finite verbs and the strong degree of grammaticalization of this kind of junction. These constructions, to the best of our knowledge, do not exist in Indo-European languages.

Keywords

Arabic, syntax, surface-syntactic construction, verbal government.

1 Introduction

In this paper, we present surface-syntactic constructions controlled by groups of verbs called zanna and its sisters and ʔ araа and its sisters by Arabic traditional grammar. These groups include verbs of perception, cognition and speech [= PCS]. To our knowledge, these verbs have not been the subject of a thorough formal description. First, the traditional Arabic description of PCS verbs is provided (Section 2), then some more recent ones (Section 3); we justify why we reject both. A description within the Meaning-Text theory framework is advanced (Section 4). All of the examples given below are based on Standard Arabic and attested by one of these reference books: Al-Chartouni (1986), Al-Chinawi & al. (1988), Blachère & Gaudefroy-Demombynes (1994) and Wright (1988).

2 PCS verbs in the Arabic grammatical tradition

PCS verbs are traditionally divided into two groups: zanna (‘to estimate’) and its sisters and ʔ araа (‘to make see’) and its sisters. The normative grammar does not make precise the nature of the syntactic relation between PCS verbs and their complements. It just says that morphologically these verbs govern complements in the accusative case. The verbs of the first group govern two accusative complements, and those of the second group govern three. Therefore, we will rename these two groups trivalent and quadrivalent PCS verbs.
According to their semantics, the trivalent verbs are traditionally subdivided into:

1. The verbs of *heart* (afʿ ṣaalu alquluub), which carry, according to the Arabic grammar, the sense of doubt or certainty (e.g. ʔ alfaa ‘discover’, taʕ allama ‘learn’).

2. The verbs known as verbs of transformation and perception. We will not discuss them in the present paper.

The quadrivalent verbs are traditionally classified as verbs of communication and speech (e.g. ʔ aχbara ‘inform’, ʔ at lama ‘tell’, ḫaddātha ‘say to’). (1a) is an example of a trivalent verb and (1b) of a quadrivalent one.

(1) a. ʔ hasiba zajd+u+n al+safar+a mufiid+a+n
   (V)PAST (N)+NOM+INDEF DEF+(N)+ACC (ADJ)+ACC+INDEF
   estimated Zayd travelling useful
   ‘Zayd considered travelling useful.’

   b. ʔ arajtu {ʔ anaad} zajd+a+n al+safar+a mufiid+a+n
   (V)PAST (N)+ACC+INDEF DEF+(N)+ACC (ADJ)+ACC+INDEF
   showed {I} Zayd travelling useful
   ‘I showed to Zayd that travelling is useful.’

In addition to these tri- and quadrivalent constructions, a PCS verb from the above groups may govern several kinds of propositional complements instead of two or three accusative ones. These cases are traditionally presented as exceptions. We think, on the contrary, that they present the main syntactic construction used with the verbs under analysis (*cf.* section 4).

### 3 Some recent analyses of Arabic PCS verbs

Now we will present some recent analyses of PCS verbs and indicate why we did not follow any of them. These analyses are ordered according to their conformity with the traditional one.

The oldest description was advanced by Wright (1859). Following the normative grammar, Wright treats the verbs known as *of heart* as having two object complements standing to one another in the relation of subject and predicate. He states that the quadrivalent verbs control three complements in the accusative case without specifying the syntactic relation of each complement with the verb. The importance of Wright’s grammar is that it is considered as a main foreign reference for Arabic.

Blachère and Gaudefroy-Demombynes (1994) propose a description less related with normative grammar but not really different. They consider a construction composed of a *direct object* and an *attribute* that can be a noun, an adjective or a clause. The idea of a verb

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1. We don’t show in the transliteration the obligatory assimilation of the article as in aS-safara.

2. The expressions in {...} are forms omitted on the surface.
with three syntactic actants is rejected: the third complement controlled by quadrivalent verbs is analysed as an apposition.

A formal description within the framework of the generative grammar, presented by Fassi-Fehri (1982), proposes a subcategorization with a predicative complement XCOMP: X can be an adjectival, a nominal, a prepositional or a verbal phrase, but cannot take the value of a completive phrase because the complementizer ʔan does not have a subject and the subject position of the embedded verb phrase is not accessible to control. Meanwhile, in case of verbs of heart control is required. But Fassi-Fehri did not give a description of syntactic constructions controlled by verbs of communication, and we did not find studies proposing other descriptions.

From our point of view, these attempts did not clarify the nature of the syntactic relation between the governing verb and its complements. Speaking of complements standing to one another in the relation of subject and predicate in Wright’s terms presents the semantic dependency between the two complements, but says nothing about the syntactic dependency. Fassi-Fehri’s analysis is inappropriate for several reasons. Firstly, the analysis proposed is based on control which is a morphological and not syntactic criterion. Secondly, it does not cover all the formal types of the so-called predicative complement; therefore, it rejects the CCOMP, while a clause with a completable phrase is grammatically correct even though it is less productive from the acceptability point of view. We also don’t think that presenting the third complement of quadrivalent verbs as an apposition is an appropriate description. The next section advances a description of the syntactic behaviour of these verbs within the Meaning-Text theory (cf. Iordanskaja & Mel’čuk (2000) and Mel’čuk (2003) for the theoretical framework).

4 Surface-Syntactic constructions controlled by PCS verbs

The PCS verbs may control at least two syntactically-related constructions. Subsection 4.1 focuses on the first surface-syntactic construction (SSynt-construction) of a sentence with PCS main verb. Throughout this subsection, we will emphasize the paratactic aspect of Standard Arabic. In Subsection 4.2, we will describe another SSynt-construction presenting a case of reduction of the first one.

4.1 The prototypical SSynt-construction controlled by PCS verbs

Except in ancient writings, it is less frequent to see a PCS verb controlling a completive clause introduced by the complementizer ʔan (cf. footnote 3). In such a case, the verb is governing a direct-object complement. Beside this construction, the above-listed PCS verbs govern a distinguishable propositional complement, a junction between two finite verbs (cf.

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3 Ex.: zaʕ ama alladiina kafaruu {humu} ʔan lan jubʕ aθuu {humu}
(V)PAST (DEICTIC) (V)PAST (CONJ) (ADV) (V)PRESENT
claimed those unbelieved {they} that not resurrected {they}
‘The unbelievers claim that they will never be resurrected’. (Coran : sourat 64 :7)
4.1.1. We propose a surface-syntactic relation (SSyntRel) called *propositional direct objectival* (prop-dobj) to describe the syntactic dependency between a Standard Arabic PCS verb and its propositional direct-object complement. The dependent verb is not necessarily in the indicative present. The SSyntRel *prop-dobj* presents a case of grammaticalized asyndetic junction between two finite verbs, a kind of junction very productive in Arabic⁴.

We think that a prototypical SSynt-construction controlled by a PCS verb includes the following SSyntRels: a subjectival SSyntRel (*subj*), a propositional direct objectival one (*prop-dobj*) and optionally an indirect-objectival one (*ind-obj*) in case of a trivalent verb (*cf. ex. (11a) and (12a)*). Figure 1 gives this SSynt-construction.

![Figure 1: Prototypical SSynt-construction controlled by a PCS verb](image)

This subsection is divided as follows: 4.1.1 presents different types of clauses which can fulfil the *prop-dobj* function; 4.1.2 describes properties of *prop-dobj*; 4.1.3 explains why a *prop-dobj* SSyntRel should be distinguished from a standard *direct objectival* one.

### 4.1.1 Different dependent elements of *prop-dobj* SSyntRel

The prototypical dependent of the *prop-dobj* SSyntRel is a finite verb. Several kinds of clauses may fill this function, emphasizing the frequency and the regularity of finite verb asyndetic junctions. The *prop-dobj* SSyntRel essentially subordinates a preposition governing an evidential construction (PREP_evidentiality-N_{accusative}). The most frequent evidential preposition is ʔanna (2a), but others may occur such as kaʔanna, laʕalla⁵ (2b) and less frequent lajta. If the dependent element of the *prop-dobj* is an equative or locative clause in the indicative present, the copula is in the zero form (2a).

(2) a. 

\[ wa\dhatutu \{ʔ\text{ann}a\} \text{zajdan}\] \(_\text{P1}\)

\[\text{found} \{I\} \text{Zayd as#him is} \{\text{he}\} \text{lion}\]

‘I found Zayd [to be] a lion.’

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⁵ Discussing the grammatical nature of ʔanna, kaʔanna or laʕalla is beyond the scope of this paper. Traditionally, these elements are categorized as particles, modern linguists categorized them as conjunctions, but we propose to classify them as prepositions followed by an accusative noun instead of a genitive one, the construction functioning as an evidential adverb, we will respect this classification in the present paper (*cf. El-Kassas 2005*).
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b. [′adarii {ʔ anaa}]*_{P1} [lāt alla] jahdan jahdiru [huwa]*_{P2}

(ADV) (V)PRESENT (PREP) (N)ACC (V)PRESENT

not know {I} maybe Zayd arrives {he}

‘I don’t know whether Zayd will arrive or not.’

The present paper does not discuss the grammatical nature of {ʔ anaa, kaʔan naa or lāt alla}, but these elements could also be categorized as impersonal verbs (cf. El-Kassas 2005). In this case, they will be the dependent element of the prop-dobj SSyntRel, presenting an asyndetic junction: between a finite verb and a non-finite one.

The dependent element of prop-dobj SSyntRel may also be an interrogative clause (3) with V2 governing an interrogative adverb in the clause-initial position. Neither V1 nor V2 must be used in a specific tense: Arabic does not have the grammaticized sequence of tenses, as English and French. Figure 1 gives the surface syntactic structure of example (3).

(3) [ʔaʕlamu {ʔ anaa}]_{P1} [kam al[tārii {ʔ anaa}]]_{P2}

(V1)PRESENT (ADV) (V2)PRESENT

know {I} how much buy {I}

‘I know how much I should buy.’

The dependent element of the prop-dobj SSyntRel can also be direct speech (4a), free indirect speech (4b), a clause in the energetic mode (4c) or a negative clause (4d). In all these cases, the head of the embedded clause P2 is a finite verb directly depending on the PCS main verb.

(4) a. [saʔaltu#hu {ʔ anaa}]_{P1} [«maaadaa turiidu {ʔanta}»]_{P2}

(V1)PAST#(PRO) (ADV) (V2)PRESENT.2.MASC.SG

asked#him {I} what want {you}

‘I asked him: “What do you want?”’

b. [saʔaltu#hu {ʔ anaa}]_{P1} [maaadaa juridu [huwa]]_{P2}

(V1)PAST#(PRO) (ADV) (V2)PRESENT.3.MASC.SG

asked#him {I} what wants {he}

‘I asked him what he wanted.’

c. [ʕalimtu {ʔ anaa}]_{P1} [χabbaratu#haa {ʔ anaa}]_{P1} [lāʔjan#zaanāhanna zajdun]

(V)PAST (V)PAST#(PRO) #(V)ENERG (N)NOM

knew {I} announced#her {I} certainly#will success Zayd

‘I knew that I announced to her that Zayd will certainly succeed.’

d. [ʕalimtu {ʔ anaa}]_{P1} [maa Økaana zajdun naʔiman]_{P2}

(V)PAST (ADV) (V)PAST(N)NOM (ADJ)ACC

Prop-dobj
knew {I} not is Zayd sleeper

‘I knew that Zayd was not sleeping.’

In its turn, P2 could be a complex sentence as in example (5). In this case, we have three finite verbs standing in a syntactic dependency relations one to another: \((V_1)_{\text{finite}} \to (V_2)_{\text{finite}} \to (V_3)_{\text{finite}}\).

\[(5) \left[ \text{ʕalimtu {ʔ}} \right]_{P1} \left[ \text{ʔ} \right]_{P2} \left[ \text{ʔ} \text{anna} \right]_{P3} \left[ \text{ʔ} \text{rifu} \right]_{P4} \left[ \text{ʔ} \text{anta} \right]_{P5}\]

\[\text{P1} \quad \text{P2} \quad \text{P3}\]

\[\text{V1} \quad \text{PREP} \quad \text{PRO} \quad \text{V2} \quad \text{ADV} \quad \text{V2} \quad \text{PRESENT} \quad \text{N} \quad \text{NOM}\]

\[\text{knew} \quad \text{assert} \# \text{you} \quad \text{know} \quad \text{when} \quad \text{arrives} \quad \text{Zayd}\]

‘I knew that you know when Zayd arrives.’

All these clauses are traditionally presented as exceptions, while the construction with a PCS verb governing two or three accusatives complements is considered as the main construction. Contrary to this view, we think that a PCS verb may govern two different constructions. The second one presents a reduction of the embedded clause if it is an equative one, as we will see in subsection 4.2, but before we will present the properties of the dependent element of the prop-dobj SSyntRel.

### 4.1.2 Properties of the dependent element of the prop-dobj SSyntRel

The dependent element of the prop-dobj SSyntRel is positioned at the end of the sentence. The governor is a verb from the construction family \{V S Prop-dobj\} or the construction family \{V S Ind-obj Prop-dobj\}. This verb normally is one of the PCS verbs mentioned above, to which we add verbs like ʔabsara ‘perceive’, ʔistanba? a ‘sense’, tafakkara ‘think’, saʔala‘question’ and nazara ‘look’. Agentive and patientive adjectives and masdars derived from these verbs also govern a prop-dobj SSyntRel.

The dependent element of the prop-dobj SSyntRel possesses the following properties. Firstly, the prop-direct object cannot be omitted (6a). Secondly, it can stand alone as an answer to the question maaʔaa ‘what’ (6b). Thirdly, it is iterable (6c).

\[(6)\]

\[\text{a.} \quad *\text{hasiba zajdun} \quad *\text{ʔ araʔ zajdun} \quad \text{kariiman}\]

\[\text{V} \quad \text{PAST} \quad \text{N} \quad \text{NOM} \quad \text{V} \quad \text{PAST} \quad \text{N} \quad \text{NOM} \quad \text{N} \quad \text{ACC}\]

‘Zayd thought.’ ‘Zayd showed to Karim.’

\[\text{b.} \quad -\text{maaʔaa hasiba zajdun ?} \quad -\text{‘Zayd thinks what ?’}\]

\[\text{- ʔ anna alʔ awlaada kaanuu {humu} hunaa}\]

‘That children were here.’

\[\text{c.} \quad \text{ʕ alimatu {ʔ} annaa} \quad [\text{ʔ anna almasʔ alata} \quad \text{ʔ} \quad \text{batun}\]

\[\text{V} \quad \text{PAST} \quad \text{N} \quad \text{NOM} \quad \text{V} \quad \text{PRESENT} \quad \text{N} \quad \text{ACC} \quad \text{V} \quad \text{PRESENT} \quad \text{ADJ} \quad \text{NOM}\]

\[\text{wa} \# \text{ʔ anna alhalla} \quad \text{ʔ} \quad \text{batun}\]

\[\text{COORD} \quad \text{PREP} \quad \text{N} \quad \text{ACC} \quad \text{V} \quad \text{PRESENT} \quad \text{ADJ} \quad \text{NOM}\]

‘I knew that the problem is difficult and that the solution is complicated.’

In 4.1.3, we give the reasons for distinguishing a prop-dobj SSyntRel from a dobj one.
4.1.3 Why distinguish the prop-dobj SSyntRel from the dobj SSyntRel

The dependent element of the prop-dobj SSyntRel is different from that of the dobj SSyntRel by the following five properties:

1. The subject can follow the direct object, but cannot follow the dependent element of the prop-dobj SSyntRel because of the heaviness of the subjectal constituent.

   (7) a. * hasiba [ʔ anna alʔ awlaada kaanuu {humu} hunaa]_prop-dobj zajdun
      (V)PAST (PREP) (N)ACC (V)PAST {PRO} (ADV) (N)NOM
      thought that children they were here Zayd
   
   b. *ʔ araɑ [ʔ anna alsafara Ø_kuuna {huwa} mufiidun]_prop-dobj zajdun kariiman
      (V)PAST (PREP) (N)ACC (V)PRESENT (ADJ)NOM (N)NOM (N)ACC
      showed that travelling it is useful, Zayd to Karim

   vs.

   c. ʔ akala [altuffahata]_dobj zajdun
      (V)PAST (N)ACC (N)NOM
      ‘Zayd ate the apple.’

2. Contrary to the direct object, the prop-direct object cannot precede an indirect object:

   (8) a. *ʔ araɑ zajdun [ʔ anna alsafara Ø_kuuna {huwa} mufiidun]_prop-dobj *[kariiman]_dobj
      showed Zayd that travelling is useful Karim

   b. *ʔ araɑ zajdun [ʔ anna alʔ awlaada kaanuu {humu} hunaa]_prop-dobj *[li#kariimin]_dobj
      showed Zayd that children were here to Karim

   vs.

   c. ʔ atta zajdun [tuʃf anlaşıl]_dobj li#kariimin
      give Zayd an apple to Karim

3. In opposition to the direct object, the prop-direct object cannot correspond to a prolepsis:

   (9) a. *[ʔ anna alʔ awlaada kaanuu {humu} hunaa]_prolepsis hasiba#[hu]_prop-dobj zajdun
      that children were here thought that Zayd

   vs.

   c. [altuffahata]_prolepsis ʔ akala#[haa]_dobj zajdun
      ‘The apple, Zayd ate it.’
4. The prop-direct object cannot be pronominalized: *hasiba#hu zajdun vs. akala#haa zajdun. But it may be substituted by a demonstrative: hasiba zajdun dalika | hadaa ‘Zayd thought that’.

5. The direct object and the prop-direct object cannot be coordinated:

\[ \text{dobj} \quad \text{Prop-dobj} \]

\[
\text{ʕalimatu} \quad \text{ʕanaa} \quad \text{u} \quad \text{ʔuubata} \quad \text{almas} \quad \text{ʔalati} \quad \text{ʔanna} \quad \text{ʔalalla} \ \text{ʔalaa} \quad \text{ʔahadun}
\]

‘I knew the difficulty of the problem and that the solution is complicated.’

4.2 Another SSynt-construction controlled by PCS verbs: a reduction case of the propositional direct object clause

Beside the main SSynt-construction presented above, a PCS verb may govern another one in case of reduction of the dependent of the prop-dobj SSyntRel. The reduction is done as follows:

V1 is the syntactic head of the clause C1 and controlling a prop-dobj object; V2 is the syntactic head of a clause C2 and the dependent of the prop-dobj SSyntRel. If V2 is the verb kaana in the present indicative and if it governs the preposition (or the verb) ʔanna, C2 can be reduced as follows:

- ʔanna and kaana are omitted from the surface-syntactic construction.
- ʔanna’s dependent element becomes direct object of V1.
- The attribute of kaana becomes the object-copredicate dependent of V1.

Figure 2 and 3 show this reduction case:

The main SSynt-construction

\[
\text{(V)} \quad \text{prop-dobj} \quad \text{(kaana)} \quad \text{ʔanna} \quad \text{ʔanna} \quad \text{ʔu}\text{uubata} \quad \text{almas} \quad \text{ʔalati} \quad \text{ʔanna} \quad \text{ʔalalla} \quad \text{ʔalaa} \quad \text{ʔahadun}
\]

The reduction of the direct object clause

\[
\text{(V)} \quad \text{obj-copred} \quad \text{dobj} \quad \text{(ADJ)(PREP)} \quad \text{(N)}
\]

Figure 2 : Reduction of the direct object clause if ʔanna is a preposition
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If the main verb $V_1$ is bivalent, in case of prop-direct object clause reduction it will govern three surface-syntactic actants: a subject, a direct object and an object-copredicate element, e.g., verb *hasiba* (11). If $V_1$ is trivalent, in case of prop-direct object reduction it will govern four SSynt actants: an indirect object in addition to the three SSynt actants above-mentioned, e.g., verb *ʔ araα* (12). We recognize in examples (11) and (12) tri- and quadrivalent verbs described in section 2:

(11) a. *hasiba zajdun [ʔ anna alʔ awlaada $\varnothing_{\text{kaana)} \{\text{humu}\}$ naaʔ imuun]$_{\text{prop-dobj}}$

\[\begin{array}{ll}
(V1)\text{PAST} & (N)\text{NOM} \quad (\text{PREP}) \quad (N)\text{ACC} \\
\text{thought} & \text{Zayd} \\
& \text{constat} \\
& \text{children} \\
& \text{are} \{\text{they}\} \\
& \text{sleepers}
\end{array}\]

‘Zayd thought that children were sleeping.’

↓ reduction

b. *hasiba zajdun [alʔ awlaada]$_{\text{dobj}}$ [naaʔ imiin]$_{\text{objective-copredicate}}$

\[\begin{array}{ll}
(V1)\text{PAST} & (N)\text{NOM} \quad (N)\text{ACC} \\
\text{thought} & \text{Zayd} \\
& \text{children} \\
& \text{sleepers}
\end{array}\]

‘Zayd thought that children are sleeping.’

(12) a. *ʔ araα zajdun kariiman [ʔ anna alsafara $\varnothing_{\text{kaana)} \{\text{huwa}\}$ mufiidun]$_{\text{dobj-prop}}$

\[\begin{array}{ll}
(V1)\text{PAST} & (N)\text{NOM} \quad (\text{PREP}) \quad (N)\text{ACC} \\
\text{showed} & \text{Zayd} \\
& \text{Karim} \\
& \text{constat} \\
& \text{travelling is} \{\text{it}\} \\
& \text{valuable}
\end{array}\]

‘Zayd showed to Karim that travelling is valuable.’

↓ reduction

b. *ʔ araα zajdun [kariiman]$_{\text{dobj}}$ [alsafara]$_{\text{dobj}}$ [mufiidan]$_{\text{objective-copredicate}}$

\[\begin{array}{ll}
(V1)\text{PAST} & (N)\text{NOM} \quad (N)\text{ACC} \\
\text{showed} & \text{Zayd} \\
& \text{Karim} \\
& \text{travelling} \\
& \text{valuable}
\end{array}\]

‘Zayd showed to Karim that travelling is valuable.’

The object-co-predicative SSYntRel allows us to describe the reduction of the prop-direct object clause. The prototypical dependent of this SSYntRel is an adjective or a noun in the accusative case. It may also be a verb in the indicative present, with a pronominal subject coreferential with the modified noun. The present tense has in this case a progressive value:

(13) *taraktu {ʔ anaa} al+ʔ awlaad+a [jal$\varnothing$ abuun {humu}]$_{\text{objective-copredicate}}$

\[\begin{array}{ll}
(V1)\text{PAST} & \text{DEF+(N)+ACC} \\
\text{let} \{\text{I}\} & \text{children} \\
\text{played} \{\text{they}\}
\end{array}\]

‘I left the children playing.’
5 Conclusion

We have presented a description of syntactic constructions controlled by PCS Standard Arabic verbs, showed the productivity of asyndetic junction between finite verbs, and described a case of reduction of the embedded clause. Further studies may focus on the frequency of these syntactic constructions in different Arabic dialects. It is also interesting to list all PCS Standard Arabic verbs and test the acceptance of each one to the described surface-syntactic constructions.

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