بِسَمِ ٱللهِ ٱلرَّحَمُنِ ٱلرَّحِيمِ

In the name of Allah, Most Gracious, Most Merciful



And indeed, We have made easy the Quran to understand. Then is there any who would take admonition.

Understanding Al-Quran

Compiled at Evergreen Islamic Center San Jose, California USA http://eicsanjose.org

Source - Quranic Arabic Corpus http://corpus.quran.com

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Morphology Back

Arabic has a rich morphology and a single word can function as an entire sentence in English. For example the Arabic word *faja ʿalnāhum* (فَحَعَلْنَهُمُ) found in verse (23:41) can be translated into the English sentence "and We made them". The reason that such a compact syntax is possible is that the single word can be divided into 4 distinct morphological segments:



Fig 1. Morphological segmentation for word (23:41:4).

- fa a prefixed conjunction ("and")
- ja 'al the stem, a perfect past tense verb ("made") inflected as first person masculine plural
- *nā* a suffixed subject pronoun ("We")
- hum a suffixed object pronoun ("them")

This single-word sentence has VSO (verb-subject-object) order. In general Arabic is rather flexible with regards to word order since case endings can be used to determine the role of each word in a sentence. Word order is typically used to emphasize different parts of a sentence. In the Quranic Arabic corpus, a part-of-speech tag has been assigned to each morphological segment that makes up a word. For example the word above has 4 part-of-speech tags, with one tag for each of its 4 segments:

- CONJ conjunction
- V verb
- PRON pronoun (for the attached subject pronoun)
- PRON pronoun (a second pronoun segment for the attached object pronoun)

Although multiple segments can be fused together into a single word usually only one segment will be identified as the stem. Any segments preceding the stem are prefixes and any segments following the stem are suffixes. Prefix and suffix segments are optional while the stem segment is the unmodified form of the word. Occasionally a word will have two stems such as the contraction $\hat{z} = \hat{z} + \hat{z}$:



Fig 2. A contraction of two stems in word (78:1:1).

Roots and Lemmas

Back

In Arabic and other Semitic languages, similar words may be grouped together according to a root. This is a sequence of typically 3 or 4 consonants (known as radicals) which together form a triliteral or quadriliteral root. From a single root a wide variety of words may be formed, with distinct yet related meanings. For example from the triliteral root $k\bar{a}f$ $t\bar{a}$ $b\bar{a}$ ($b\bar{a}$) the verb "write" may be formed, as well as its derivatives in Arabic including "writing", "book", "author", "library" and "office".

The concept of a lemma is also used to group similar words together at a finer level of granularity than a root. The lemma groups word-forms that differ only by inflectional (as opposed to derivational) morphology, and do not vary in meaning. Unlike the root, the lemma is an actual word selected to represent the group and is typically the same word as used in dictionary headings. A third feature used to group words together is the SP (special) feature. Certain groups of verbs and particles have special rules in Arabic grammar with regards to case endings and syntactic roles.

Both roots and lemmas are used in the Quranic Arabic corpus so that words may be easily grouped together to form an electronic lexicon of the Quran in classical Arabic. For verbs, only the root (not lemma) is indicated, since the remaining morphological features are sufficient to determine the final form of the verb. Nouns, proper nouns and adjectives have both a root and a lemma. Other parts of speech such as particles only have lemmas (not roots) indicated, since these fall outside of the root + template paradigm. The following table lists the morphological features used to group similar words together.

Feature	Name	Description
ROOT:	root	Indicates the (usually triliteral) root of a word, for example ROOT:ktb
LEM:	lemma	Specifies the common lemma for a group of words, for example LEM:kitaAb
SP:	special	Indicates that the word belongs to a special group, for example SP: <in~< td=""></in~<>

Fig 8. Root and lemma features.

Person, Gender and Number

Back

In Arabic, words may inflect for person, gender and number. Unlike in English words inflect not only for plural and singular but also for the dual. For example there is a distinct word-form to represent "two books". In the Quranic Arabic corpus, the features for person, gender and number are combined using a concatenative notation. For example 3MS represents third person, masculine, singular. Similarly 2D represents second person, dual. The concept of gender in Arabic grammar may refer to either semantic, morphemic or grammatical gender.

Feature	Arabic Name	Values	Description
person	الاسناد	1, 2, 3	first person, second person, third person
gender	الجنس	M, F	masculine, feminine
number	العدد	S, D, P	singular, dual, plural

Fig 9. Features for person, gender and number.

Verb Features <u>Back</u>

The morphological features discussed in this section apply to verbs as well as to their derivatives: the active participle, passive participle and the verbal noun. An important verb feature is the aspect. This is closely related to but distinct from the concept of tense. In Quranic Arabic the aspect of a verb is either perfect, imperfect, or imperative. The perfect roughly corresponds to the past tense in English although there is a distinction: the perfect refers to actions which have been completed. In addition to aspect, verbs in Quranic Arabic are conjugated for mood. Imperfect verbs may be found in the indicative, subjunctive and jussive moods. The indicative mood is the normal "default" mood so that if the mood feature is not tagged then the verb should be considered to be in the indicative mood.

The two other features used for verbs and their derivatives are voice (active or passive) and form. The active voice is the default and if not indicated a verb should be considered to be in the active voice. Verb forms are indicated using roman numerals, as found in Arabic dictionaries, so that (IV) represents a fourth form verb.

Feature	Arabic Name	Description
PERF	فعل ماض	Perfect verb
IMPF	فعل مضارع	Imperfect verb
IMPV	فعل أمر	Imperative verb

Fig 10. Aspect features.

Feature	Arabic Name	Description
IND	مرفوع	Indicative mood (default)
SUBJ	منصوب	Subjunctive mood
JUS	مجزوم	Jussive mood

Fig 11. Mood features.

Feature	Arabic Name	Description
ACT	مبني للمعلوم	Active voice (default)
PASS	مبني للمجهول	Passive voice

Fig 12. Voice features.

Feature	Description
I	First form (default)
II	Second form
	Third form
IV	Fourth form
V	Fifth form
VI	Sixth form

VII	Seventh form
VIII	Eighth form
IX	Ninth form
X	Tenth form
XI	Eleventh form
XII	Twelfth form

Fig 13. Verb form features.

Derived Nouns

Back

In Quranic Arabic, the active participle, passive participle and verbal noun are three types of nominals which are derived directly from verbs. In the Quranic Arabic corpus these are tagged with the noun or adjective part-of speech-tag and include one out of three possible *derivation* features. For example active participles are tagged in the corpus as POS:N ACT PCPL. The verbal features above that apply to verbs also apply to derived nouns (aspect, mood, voice and form) and are used to indicate the morphology of the original verb that the noun was derived from. Figure 14 below shows the derivation features used to indicate the type of a derived noun:

Feature	Arabic Name	Description
ACT PCPL	اسم فاعل	Active participle
PASS PCPL	اسم مفعول	Passive participle
VN	مصدر	Verbal noun

Fig 14. Derivation features.

Nominal Features

Back

The feature Al+ is used to denote the prefixed determiner al("the") attached to nominals (nouns, proper nouns and adjectives). In Arabic there is no indefinite article ("a"/"an" in English). Instead tanwīn is used and diacritics are attached to the end of a word to mark it as indefinite. The features DEF and INDEF are used to indicate the state of a noun as definite or as indefinite respectively (see figure 15 below). Nominals may be found in one of three grammatical cases: the nominative case, the accusative case, and the genitive case (see figure 16):

Feature	Arabic Name	Description
DEF	معرفة	Definite state
INDEF	نكرة	Indefinite state

Fig 15. State features.

Feature	Arabic Name	Description
NOM	مرفوع	Nominative case
ACC	منصوب	Accusative case

GEN مجرور Genitive case

Fig 16. Case features.

Prefixes Back

As well as part-of-speech tags, multiple inflection features are assigned to each morphological segment. For example, features for person, gender and number. The features for prefixes end in + and are shown in figures 3 to 7 below. In contrast features for suffixes start with +.

Feature	Name	Segment part-of-speech / description
Al+	determiner (al)	DET – determiner prefix ("the")
bi+	preposition (bi)	P – preposition prefix ("by", "with", "in")
ka+	preposition (ka)	P – preposition prefix ("like" or "thus")
ta+	preposition (ta)	P – particle of oath prefix used as a preposition ("by Allah")
sa+	future particle (sa)	P – prefixed particle indicating the future ("they will")
ya+	vocative particle (yā)	VOC – a vocative prefix usually translated as "O"
ha+	vocative particle (hā)	VOC – a vocative prefix usually translated as "Lo!"

Fig 3. Features identifying prefixed segments.

Feature	Name	Segment part-of-speech / description
A:INTG+	interrogative particle (alif)	INTG – prefixed interrogative particle ("is?", "did?", "do?")
A:EQ+	equalization particle (alif)	EQ – prefixed equalization particle ("whether")

Fig 4. Features identifying the particle alif as a prefix.

Feature	Name	Segment part-of-speech / description
w:CONJ+	conjunction (wa)	CONJ – conjunction prefix ("and")
w:REM+	resumption (wa)	REM – resumption prefix ("then" or "so")
w:CIRC+	circumstantial (wa)	CIRC – circumstantial prefix ("while")
w:SUP+	supplemental (wa)	SUP – supplemental prefix ("then" or "so")
w:P+	preposition (wa)	P – particle of oath prefix used as a preposition ("by the pen")
w:COM+	comitative (wa)	COM – comitative prefix ("with")

Fig 5. Features identifying the particle wāw as a prefix.

Feature	Name	Segment part-of-speech / description
f:REM+	resumption (fa)	REM – resumption prefix ("then" or "so")
f:CONJ+	conjunction (fa)	CONJ – conjunction prefix ("and")
f:RSLT+	result (fa)	RSLT – result prefix ("then")
f:SUP+	supplemental (fa)	SUP – supplemental prefix ("then" or "so")
f:CAUS+	cause (fa)	CAUS – cause prefix ("then" or "so")

Fig 6. Features identifying the particle fa as a prefix.

Feature	Name	Segment part-of-speech / description
I:P+	preposition (<i>lām</i>)	P – the letter <i>lām</i> as a prefixed preposition
I:EMPH+	emphasis (<i>lām</i>)	P – the letter <i>lām</i> as a prefixed particle used to give emphasis
I:PRP+	purpose (<i>lām</i>)	P – the letter <i>lām</i> as a prefixed particle used to indicate purpose
I:IMPV+	imperative (<i>lām</i>)	P – the letter <i>lām</i> as a prefixed particle used to form an imperative

Fig 7. Features identifying the particle lām as a prefix.

Suffixes Back

In the Quranic Arabic Corpus, three features are used to indicate suffixes. These are attached pronouns, the vocative suffix and the $n\bar{u}n$ of emphasis. The vocative suffix is denoted by the morphological feature +VOC and is used only with the word $all\bar{a}h$ to produce the vocative word-form $all\bar{a}humma$. The morphological feature +n:EMPH is used to denote the emphatic usage of $n\bar{u}n$ as an attached suffix.

Attached pronoun suffixes are identified using the PRON: compound morphological feature. Pronouns attached to nouns are possessive pronouns, and when attached to verbs they are either subject or object pronouns. An attached pronoun may inflect for person, gender and number. A concatenative notation is used with the PRON: tag. For example PRON:3MS represents a third person masculine singular suffixed pronoun. Similarly PRON:2D represents a second person dual suffixed pronoun. See figure 9 above for person, gender and number features.

Part-of-Speech Tagset

Back

Traditional Arabic grammar defines a detailed part-of-speech hierarchy which applies to both words and morphological segments. Fundamentally, a word may be classified as a nominal ism (فعل), verb fi'il (عرف) or a particle harf (عرف). The set of nominals include nouns, pronouns, adjectives and adverbs. The particles include prepositions, conjunctions and interrogatives, as well as many others. Morphological annotation in the Quranic Arabic corpus divides words into multiple segments. Each segment is assigned a part-of-speech tag. These tags are detailed in the following sections. In addition to part-of-speech tags, each segment is annotated using a set of multiple morphological features.

Nominals <u>Back</u>

The first of the three basic parts-of-speech are the nominals ism (literally "names" in Arabic). The tags for nominals in the Quranic corpus are shown in Figure 1 below:

	Tag	Arabic Name	Description
	N	اسم	Noun
Nouns	PN	اسم علم	Proper noun
	ADJ	صفة	<u>Adjective</u>
Derived nominals	IMPN	اسم فعل أمر	Imperative verbal noun
Pronouns	PRON	ضمير	Personal pronoun

	DEM	اسم اشارة	Demonstrative pronoun
	REL	اسم موصول	Relative pronoun
	Т	ظرف زمان	Time adverb
Adverbs	LOC	ظرف مكان	Location adverb

Fig 1. Part-of-speech tagset for nominals.

Proper Nouns <u>Back</u>

Proper nouns are annotated using the PN tag in the Quranic corpus. In Arabic orthography, there is no distinction between a proper noun and a noun, whereas in English these are written with the first letter capitalized. Proper nouns in Arabic are known by convention and through the fact that they have the grammatical property of being definite even though they do not carry the al- determiner prefix. The set of proper nouns includes personal names such as "the prophet ibrāhīm". In Arabic, proper nouns as known as السم علم المناف المناف

Pronouns Back

Three types of pronoun are identified in the corpus using the tags PRON, DEM and REL. The personal pronouns (PRON) are those which are found in English ("I", "we", "you", "them", "us") together with pronouns found only in Quranic Arabic, such as those inflected for the dual or feminine (for example antumā, "you two"). When segmenting words for morphological annotation, the PRON tag is also used to identify attached pronoun segments, which are suffixes that appear at the end of words. In the case of nouns these are possessive pronouns. For example "his book" is fused into a single Arabic word-form (kitābuhu). Suffixed pronouns attached to <u>verbs</u> will be either subject pronouns or object pronouns.

The DEM tag is used to identify demonstrative pronouns ("this", "that", "these", "those"). In Quranic Arabic, these are termed ism ishāra (literally, "the names of pointing"). The REL tag is used to identify relative pronouns which connect a relative clause to its main clause (for example "the book that you bought"). In Arabic grammar, relative pronouns are known as ism mawsūl ("the names of connection").

Adjectives <u>Back</u>

Adjectives (عفة) are closely related to nouns in Quranic Arabic, and it is sometimes not straightforward to distinguish between the two as both carry the same morphological features. For example both nouns and adjectives accept the determiner al- ("the"). The rule followed in the Quranic corpus is to mark a word as an adjective if it is considered to be one according to its syntactic role in the sentence. A nominal tagged as an adjective will directly follow the noun that it describes.

Verbs Back

The second of the three basic parts-of-speech is the <u>verb</u>. All verbs in the Quranic corpus are tagged using the V (verb) tag. Each verb is also annotated using multiple <u>morphological features</u> to specify conjugation. In Quranic Arabic, verbs can be conjugated according to three different grammatical aspects (perfect, imperfect and imperative) as well as <u>moods of the imperfect</u> (indicative, subjunctive and jussive). Nouns derived from verbs – such as active and passive participles – are tagged as N (noun) and are annotated using the "derivation" feature.

Tag	Arabic Name	Description

Verbs V فعل <u>Verb</u>

Fig 2. Verb part-of-speech tag.

Particles <u>Back</u>

The third of the three basic parts-of-speech is the particle. Particles include prepositions, lām prefixes, conjunctions and others. Interrogative particles are tagged using INTG, which includes the independent particle hal and the prefixed interrogative alif. Negative particles in the Quranic Arabic corpus are tagged as NEG. Certain negative particles may place a following imperfect verb into the <u>subjunctive or jussive mood</u>. The VOC tag is used to identify vocative particles and prefixes such as in yā-rabbi. In English this would be roughly translated using the archaic vocative particle "O", as in "O my Lord". Part-of-speech tags for particles and Quranic initials are shown in Figure 3 below.

	Tag	Arabic Name	Description
Prepositions	Р	حرف جر	<u>Preposition</u>
	EMPH	لام التوكيد	Emphatic <i>lām</i> prefix
<i>lām</i> Prefixes	IMPV	لام الامر	Imperative lām prefix
	PRP	لام التعليل	Purpose lām prefix
	CONJ	حرف عطف	Coordinating conjunction
Conjunctions	SUB	حرف مصدري	Subordinating conjunction
	ACC	حرف نصب	Accusative particle
	AMD	حرف استدراك	Amendment particle
	ANS	حرف جواب	Answer particle
	AVR	حرف ردع	Aversion particle
	CAUS	حرف سببية	Particle of cause
	CERT	حرف تحقيق	Particle of certainty
	CIRC	حرف حال	Circumstantial particle
	СОМ	واو المعية	Comitative particle
Particles	COND	حرف شرط	Conditional particle
	EQ	حرف تسوية	Equalization particle
	EXH	حرف تحضيض حرف تفصيل	Exhortation particle
	EXL	حرف تفصيل	Explanation particle
	EXP	أداة استثناء	Exceptive particle
	FUT	حرف استقبال	Future particle
	INC	حرف ابتداء	Inceptive particle
	INT	حرف تفسير	Particle of interpretation

	INTG	حرف استفهام	Interogative particle
	NEG	حرف نفي	Negative particle
	PREV	حرف کاف	Preventive particle
	PRO	حرف نفي	Prohibition particle
	REM	حرف استئنافية	Resumption particle
	RES	أداة حصر	Restriction particle
	RET	حوف اضواب	Retraction particle
	RSLT	حرف واقع في جواب الشرط	Result particle
	SUP	حرف زائد	Supplemental particle
	SUR	حرف فجاءة	Surprise particle
	VOC	حرف نداء	Vocative particle
Disconnected Letters	INL	حروف مقطعة	Quranic initials

Fig 3. Part-of-speech tagset for particles and the Quranic initials.

Prepositions<u>Back</u>

In the case of attached prefixes, the <u>prepositions</u> are straightforward. Certain single letter prepositions may be fused to a word as a prefix. These include bi, ka, ta, wa, and one of the senses of $l\bar{a}m$. The prefixed prepositions ta and wa occur in Quranic Arabic but not are not typically found in the modern standard form of the language. They are used in the Quran as particles of oath, for example ta-allah, "by Allah". In addition independent words may be prepositions. In the Quranic Arabic corpus, prepositions are identified by the P tag. A word is tagged as a preposition if and only if it considered to be a genitive preposition harf jar (a).

Quranic Initials (Disconnected Letters)

Back

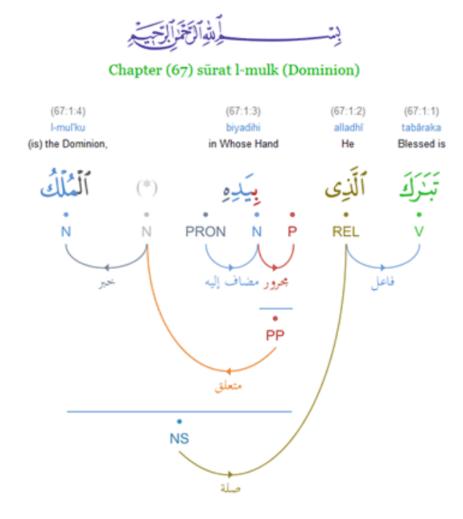
The Quranic initials (or muqatta ʿāt in Arabic) are sequences of mysterious letters, such as alif lām mīm (الله), which make up the first verses of several chapters in the Holy Quran but do not combine to form words. These are also known as the disconnected letters (حروف مقطعة). There are numerous suggestions as to the meaning of these letters and so they are given their own part-of-speech tag (INL). This is so as to avoid any assumptions as to their meaning, which would be the case if they were tagged as being proper nouns or as abbreviations.

In the Quran, 30 verses in 29 chapters begin with initials. All initials occur at the first verse, except for those in chapter 42. This chapter has a pair of initials at verses (42:1) and at (42:2). The full meaning behind the Quranic initials is still not yet clearly understood, and there are differing opinions as to their interpretation. One observation is that the initials are almost always followed by a description of Quranic revelation itself. The only occurrence of double initials - at the first two verses of chapter 42 - is followed by two mentions of revelation, at verse (42:3).

(إعراب القرآن الكريم) Grammar

Back

The grammar section provides a set of guidelines for annotators. In the Quranic Arabic Corpus, the traditional Arabic grammar of *iˈrāb* (اعراب) is used to visualize Quranic syntax through the use of dependency graphs. This description of Quranic grammar is useful for further computational analysis, as well as for linguists researching the language of the Quran, and for those with a general interest in the Arabic language. The syntactic treebank contains verses of the Quran annotated using dependency grammar.



The Syntax of Nominals

<u>Back</u>

The nominals are one of the three basic parts-of-speech according to traditional grammar. These include nouns, pronouns and adjectives. The following sections describe the syntax of nominals:

Gender - semantic, morphemic and grammatical gender

Adjectives - these follow and depend on the noun that they describe

Possessives - the possessive construction of iḍāfa (إضافة) is used with the genitive case

Apposition - two nouns placed side by side, both with the same syntactic function

Specification - tamyīz (غييز) specifies the degree of a head word

Numbers - the *murakkab* (مركب) dependency is used to annotate digit compounds

Verbs, Subjects and Objects

Back

The verbs form the second of the three basic parts-of-speech. The following sections describe the syntax of verbs in the Quran, as well as case rules for subjects and objects of verbs:

Verb forms - the different forms of verbs found in Quranic Arabic Subjects and objects - these will inflect for different cases according to syntactic function The verb kāna (کان واخواتا) - a special group of verbs with different case rules

Verb moods - the subjunctive and jussive moods of the imperfect (فعل مضارع)

Imperative verbs - commands, requests and negative prohibitions using the imperfect jussive

Phrases and Clauses

Back

In the Quranic Arabic corpus, phrase nodes are used to represent phrases and clauses. Traditional Arabic grammar defines a set of dependencies for different types of phrases and clauses:

Preposition phrases - these use the genitive case and can attach to nouns or verbs Coordinating conjunctions - these connect two words, phrases or clauses (حرف عطف)

Subordinating conjunctions - together with relative pronouns these introduce subordinate clauses Conditional sentences - formed of two clauses, the condition (شرط) and the result (جواب شرط)

Adverbial Expressions

Back

The accusative case ending *manṣūb* (منصوب) is used in various grammatical constructions, which include adverbial expressions and objects:

Circumstance - the circumstantial accusative (しょ)

Cognate accusative - the maf'ūl muṭlaq (مفعول مطلق)

Accusatives of purpose - I-maf'ūl Ii-aj'lihi (المفعول لأجله)

Comitative objects - I-maf'ūl ma'ahu (المفعول معه)

The Syntax of Particles

Back

The particles are the third of the three basic parts-of-speech. The following annotation guidelines discuss common syntactic constructions involving particles:

The particle alif (i) - interrogative and equalizational uses of hamza

The particle inna (ان واخواهّا) - a special group of particles with their own case rules

The particle fa (ف) - conjunction, resumption and cause particles

Vocative particles - these can place a noun into one of two grammatical cases

Exceptive particles - may place a noun into the accusative case according to the type of exception

Quranic Grammar - Gender (الجنس)

Back

In Arabic linguistics, the gender of a noun may refer to *semantic*, *morphemic* or *grammatical* gender. In the Quranic Arabic corpus, nouns are tagged for gender according to grammatical gender, since this determines how the noun will function syntactically. Using grammatical gender allows *gender agreement* to be considered through dependencies in the <u>syntactic treebank</u>. The different distinctions of gender may be illustrated by considering the second word of verse (13:11):

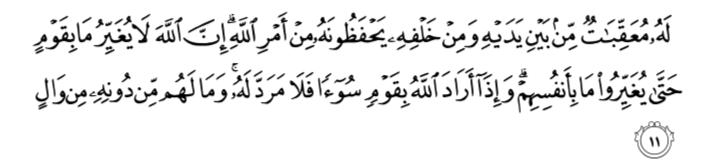


Fig 1. The second word of verse (13:11) is an indefinite form II masculine plural active participle and is in the nominative case.

This noun is a plural of plurals and has been tagged as masculine since this is its grammatical gender, which is the type of gender annotated in the Quranic corpus. In particular, the noun is:

- semantically masculine (masculine in meaning)
- morphemically feminine (feminine in form)
- grammatically masculine-rational (masculine by syntatic function)

The way that the gender of this noun is annotated is sensitive because the word refers to the angels, whose gender is considered to be semantically masculine according to the Islamic faith. The Quran mentions those who incorrectly consider the angels to be feminine in verse (43:19). Although the word appears feminine in form, it is masculine in meaning as well as in grammatical function. The verse in chapter 13 (sūrat l-ra 'd) which contains the noun under discussion reads:



Sahih International: For each one are successive [angels] before and behind him who protect him by the decree of Allah. Indeed, Allah will not change the condition of a people until they change what is in themselves. And when Allah intends for a people ill, there is no repelling it. And there is not for them besides Him any patron.

The fact that this noun functions as masculine syntactically can be seen through gender agreement. The following verb in the same verse refers to this noun, and is conjugated for third person masculine plural:

Translation	Ara	bic word	Syntax and morphology
(13:11:8) yaḥfazūnahu who guard him	ِ نَهُ و PRON	يَ <mark>حُفَظُو</mark> PRON	V – 3rd person masculine plural imperfect verb PRON – subject pronoun PRON – 3rd person masculine singular object pronoun ب على مضارع والواو ضمير متصل في محل رفع فاعل والهاء ضمير متصل في محل نصب مفعول به

Fig 2. Morphological annotation for the verb at (13:11:8)
- precise translation depends on context.

Semantic Gender Back

Semantic gender is determined by the meaning of a noun. For example, boys and girls, and men and women will have different biological gender. According to semantic gender, the words صامل (pregnant) and ماروزور (girl) are feminine, where as معقبات (angels) and the noun عمقبات (13:11:2) above are both masculine. Words such as كراسي (chairs) have no semantic gender. The possible values for semantic gender are masculine, feminine or none.

Morphemic Gender

Back

Morphemic gender (also known as illusory gender) specifies the form of the morpheme which is used to construct the word. The *ta-marbuta* and $\bar{a}t$ suffix are feminine morphemes. The suffixes $\bar{u}n$ and $\bar{i}n$ are masculine. This means that the word $\dot{c}(Caliph)$ is morphemically feminine (feminine in form) although semantically masculine (masculine in meaning). The two possible values for morphemic gender are masculine or feminine.

Grammatical Gender

Back

Grammatical gender is also known as functional gender, and determines how words such as nouns and adjectives function syntactically. The rules which determine gender agreement differ according morphological features such as part-of-speech, plurality and rationality. Two prominent syntactic constructions which are relevant to gender agreement are adjectives and numbers:

1. For adjectives, singular nouns agree in semantic gender if this is masculine or feminine (but not if the gender is none), or they agree with morphemic gender if semantic gender is none. Plural noun rules for agreement use the feature of rationality (غير عاقل or عاقل). Rational plurals agree with semantic gender

but irrational plurals always take feminine singular adjectives. This is why کراسي (masculine plural) takes (feminine singular) as an adjective.

2. The gender polarity (reverse gender agreement) of numbers is based on the singular form of the word regardless of the morphemic gender of its plural. For example خسخ (five folders) because اسجل (five libraries) because أخست مكتبات feminine.

Quranic Grammar - Adjectives (صفة)

Back

An adjective may depend on a nominal (a proper noun or noun) through a sifa (حفة) relation, with the adjective following the nominal word that it modifies. An adjective will agree with the noun it depends on in terms of gender, number and definiteness. It will also agree in <u>grammatical case</u> - nominative, genitive or accusative. An exception to this rule is that a feminine singular adjective can describe an irrational plural noun (see <u>grammatical gender</u>). More than one adjective can depend on the same noun, such as the two adjectives found in verse (1:3) of sūrat l-fātiḥah:

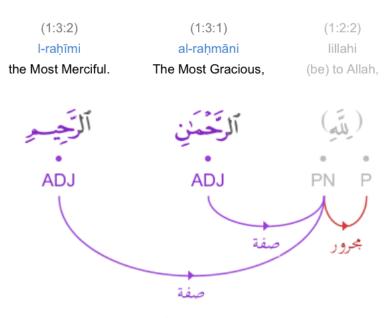


Fig 1. Two adjectives in verse (1:3).

Quranic Grammar - The Possessive Construction (إضافة)

Back

The idāfa (إضافة) construction of traditional Arabic grammar is a possessive construction (also known as a genitive construction) which relates two nouns. The second noun will come after and depend on the the first noun, so that the second noun is the dependent and the first noun is the head. In an idāfa relation the second noun will always be found in the genitive case majrūr (مجرور). idāfa is also possible between two morphological segments of the same word, such as between a noun stem and a pronoun suffix. In this construction the attached suffixed pronoun will still be considered to be in the genitive case. There are three constraints that must be satisfied when forming a possessive construction:

- 1. The head noun must not have the definite article marker (l-).
- 2. The head noun must not have the indefinite marker of tanwin (نتوین).
- 3. The dependent noun must be in the genitive case majrūr (مجرور).

There is no restriction on the grammatical case of the head noun and this should be determined by the syntactic role of the possessive construction within the sentence. Verse (88:1) below has a possessive construction formed from words (88:1:3) and (88:1:4), with the dependent word in the genitive case majrūr (مجرور). The head word is nominative marfū (مرفوع) because it is the subject of a verb:

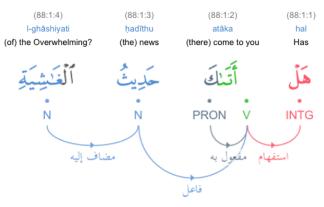


Fig 1. Possessive construction in verse (88:1).

Quranic Grammar - Apposition (بدك)

Back

Apposition is known as badl (بدك) in traditional Arabic grammar. In this construction, two nouns will be placed side by side, both with the same syntactic function. The two nouns must have the same case ending (grammatical case). In verse (96:16) below, the noun (96:16:1) is an apposition (badl) to (96:15:6). Both these nouns have the same case ending and are in the genitive case majrūr (مجرور). The first noun (96:15:6) is in the genitive case because of a prefixed preposition and since the two nouns are in apposition, the same case ending applies to (96:16:1).

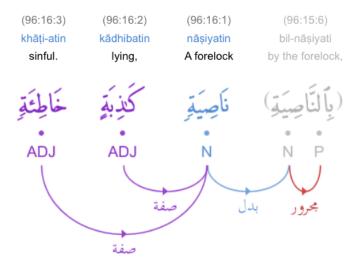


Fig 1. Apposition between two nouns in verse (96:16).

Quranic Grammar - Specification (تمييز)

Back

The specification relation tamyīz (تمييز) places a dependent noun into the accusative case manṣūb (منصوب) and is used to specify the degree of the head word. An example of tamyīz may be found in verse (69:32):

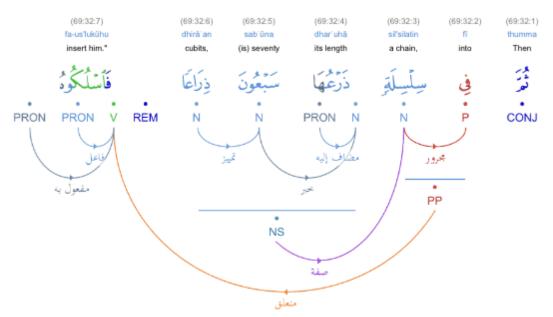


Fig 1. Specification relation in verse (69:32).

In the above example there is a specification dependency between words (69:32:5) and (69:32:6).

Quranic Grammar - Numbers (أرقام)

Back

The cardinal numbers from 13 to 19 are always found in the accusative case manṣūb (منصوب). Each of these numbers is formed from two separate words related through the compound dependency murakkab (مرکب). The first word will be the first digit of the number and the second word will refer to the number 10. For example, nineteen would roughly read "nine and ten". The first word of the compound structure will have the opposite gender of the counted noun, while the second word will agree in gender with the counted noun.

Verse (74:30) below contains the number 19. Two words are used to form the number (nine and ten) and these are related through a compound dependency. Each of the two numeric words are in the accusative case manṣūb (منصوب). The first word is feminine and the second is masculine. In this verse the counted noun is omitted:

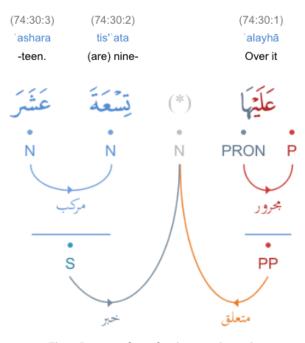


Fig 1. Compound number in verse (74:30).

Quranic Grammar – Verb Forms

Back

This section of the annotation guidelines provides an introduction and overview to verb forms in the Quran. More detailed explanations can be found in standard references of traditional Arabic grammar. In the Quran, verbs, and other words that denote related semantic concepts, are formed through a system known as derivation. The idea is that words are derived from a stem or template that is defined by a sequence of letters known as radicals. These are often referred to as triliteral or quadriliteral radicals, for 3 or 4 root letters respectively.

Arabic shares this linguistic feature with other Semitic languages such as Hebrew, which has seven different verb forms. The basic rule of derivation in Quranic Arabic is that nearly all words are derived from a three root (triliteral) or a four root (quadriliteral) pattern system. The Arabic letters fā ʿayn lām (فُعَلُ are typically used as placeholders in verb patterns to denote three different radical letters, since is a prototypical verb that means "to do" or "to act". This is denoted by F-3-L in figure 1 below. Roots in Arabic convey a basic meaning which then allow for more complex semantic concepts to be derived, whether these are verbs or nouns. Based on this system nouns and verbs can have up to fourteen to fifteen forms, although though ten is the norm for most roots.

Fig 1. Three roots in a triliteral pattern.

For example, take the three root concept of D-R-S which gives the basic meaning of "to study". By adding letters to the three root template (before, in between or after the radicals in the stem) other more complex meanings are formed such as "school", "teacher", "lesson" or even "legislation". In figure 2 below the x's are the extra letters that can be added to the original 3 root letters. These additional letters do not have to all added at the same time. Notice that the root is still present in the template and has not changed. In some forms, the root letters are doubled, and in other forms vowels may be added or elongated.

$$x-D-x-R-x-S-x$$

Fig 2. Derivation of possible forms.

Using derivation system of roots and patterns, nouns (singular, dual, plural), and verbs (singular, dual, plural, 1st, 2nd, and 3rd person, imperatives and verbal nouns) are derived in an almost mathematical way, leaving little room for confusion as to the desired meaning of the word. Of course the ideal model of this derivation is the Quran, and as you look through the Quran you will see these in play. In the remainder of this section, examples are quoted from the Quran, so that it becomes easy to see the forms. These derived forms allow for the language to reflect the state of how a particular action (i.e. a verb) was performed. The derived forms even indicate how many individuals participated in the action, and if it was reciprocal or not.

Triliteral Verb Forms

Back

To illustrate the idea of derived forms, the examples below use a three letter root (although not all roots feature in all verb forms) and lists the first ten standard forms (I to X). When annotating Arabic verb forms, the convention in the Quranic Arabic Corpus is to use Roman numerals, e.g. IX denotes a form nine verb or noun. In the examples below, root letters are capitalized and their meanings are shown in brackets. The first column in the table below specifies the template used in the derivation, as found in standard references of traditional Quranic Arabic grammar. Letters shown in capitals denote a radical that is part of the original root used in the derived verb form. Example words are taken from the Quran. You can click on an Quranic word below to see details of the verse in context.

Form	Derived Verb	Meaning	Examples
Form I F-a-3-a-L-a	K-a-T-a-B-a ("to write")	The simplest form, "he wrote". Verbs of this form are generally transitive so that they require an object, as in "he wrote a book" or "he ate an apple". However it is possible to have intransitive verbs that require no object verbs in this class as	Example:
0		well.	(2:187:28)
			kataba
			has ordained
			كتب
			V
Form II F-a-33-a-L-a	3-a-LL-a-M-a ("to teach")	A verb that is already transitive becomes doubly so, as it takes a meaning of "make do" or "make become", so the meaning could be "to make one learn" i.e. "to teach". This form reflects meaning in three ways:	Causative:
		1. Intensity of the verb (repetition or the	(96:4:2)
		energy in which the action is performed).	[°] allama
		2. He made himself do (to make himself).	taught
		3. Causative (to make another do).	عَلمَ
		In the intensity example on the right, the form of	١.
		the verb shows the intensity and the repetition of the action, i.e. she closed all the doors and bolted them.	V
			Intensity:
			(12:23:8)
			waghallaqati
			And she closed
			و َغَلَّقَتِ
			•
			V CONJ

Form III F-aa-3-a-L-a

Q-aa-T-a-L-a ("to fight")

This form implies that there is someone or something else present and that the action is performed upon him/her/it. This forms reflects meaning in two ways:

- 1. Causative ("to be") as an active participle.
- Mutual action (he made him do the same).

In the causative example on the right, the active participle is derived from form I SH-a-H-i-D-a "to witness" or "to be present", which also occurs in the same verse. So here it is almost as if to say "he caused himself to witness".

In the second example, the verb "fight" requires someone to be fought with, and so the action is mutual.

Causative:

(12:26:7)

shāhidun

a witness



Intensity:

(2:244:1)

waqātilū

And fight



PRON CONJ

Form IV a-F-3-a-L-a

a-H-L-a-K-a ("to destory") This pattern is similar to form II in that it makes intransitive verbs transitive, and transitive verbs doubly so. This form has the meaning of:

- He made himself do or perform an action.
- 2. A reflexive causative, i.e. he made himself do something transformative to a place or a state.

In the first example on the right, he made himself "destroy the crops".

In the second example, the verb is causative, so that he made himself "want to harm".

In the third example, he was not of the losers before this action of killing, but now was transformed into that state.

Example 1:

(2:205:8)

wayuh'lika

and destroys





Example 2:

(12:25:15)

arāda

intended



Example 3:

(5:30:7)

fa-aşbaha

and became



CONJ

Form V t-a-**F**-33-a-**L**-a



t-a-DH-KK-a-RR-a ("to receive admonition") Form 5 is linked to form 2. Whatever action is done through a F-a-33-a-L-a form 2 verb, the t-a-F-33-a-L-a form 5 verb is from the point of view of the object of the verb. This usually reflects the reflexive or effective meaning, e.g. "he made himself" or "he made something undergo an action".

In the first example on the right, DH-a-KK-a-R-a "to remind" is form II, and now in form V it is from the point of view of the object, i.e. "he received the reminder".

In the second example, the verb here is t-a-GH-a-YY-a-R-a "to undergo change", so these rivers in paradise do not undergo any change of state or taste even if ones tries to do that (in relation to form II: GH-a-YY-a-R-a "to cause to change").

Example 1:

(2:269:13)

yadhakkaru

remembers





Example 2:

(47:15:16)

yataghayyar

changes





Form VI t-a-<mark>F</mark>-aa-3-a-L-a



t-a-DH-aa-H-a-R-a ("to support one another") Form 6 is the reflection of how the object underwent the action of form 3 (F-aa-3-a-L-a). Notice that as in form 5, this is obtained by adding ta- before the verb. Since form 3 implies an action done on someone, form 6 implies reciprocity as in the English sentence "they looked at each other".

The subject cannot be singular in this function of the form. For example, t-a-K-aa-T-a-B-a itself would mean "they corresponded with each other" (they wrote to each other). Here they support one another in this particular action. This usually reflects the meaning of:

Mutuality:

(2:85:11)

tazāharūna

you support one another



- Pure mutuality, e.g. t-a-B-aa-D-a-L-a "he exchanged" takes one object, or t-a-3-aa-W-a-N-a "he became assisting". More than one party needs to be involved in this action
- Conative he made himself be the doer.
- Pretension he made himself do something, e.g. "He made himself appear to forget".

Conative:

(46:16:8)

wanatajāwazu

and We will overlook



CONJ

Form VII i-n-**F**-a-3-a-**L**-a i-n-Q-a-L-a-B-a ("to turn away") This form expresses submission to an action or effect. In the case of an animate being, this is an involuntary submission. The form reflects meaning on two levels:

Reflexive:

(3:144:18)

yangalib

turns back



- Reflexive (to let oneself be put through).
- Angentless passive (non-reciprocal of form I).

In the second example, the verb is i-n-F-a-T-a-R-a "to be taken apart". In the Quranic sense, the agent of the action is God, as the skies do not split without a cause. But here it serves the heaven's submission to be broken apart.

Agentless passive:

(73:18:2)

munfatirun

(will) break apart



Form VIII i-**F**-t-a-3-a-**L**-a

i-3-t-a-R-a-DHa ("to excuse

oneself")

This form is generally the reflexive of the simple form K-a-T-a-B-a "he wrote", where the object of form 1 becomes its own object. This form reflects two meanings:

- Either conative or causative (to make oneself do).
- 2. Reciprocal.

In the conative example on the right, the verb is i-3-t-a-R-a-DH-a "to excuse oneself". Here in the second person, the meaning becomes "do not excuse yourselves".

In the causative example, they made themselves take a conscious effortful action.

Conative:

(9:94:8)

taʿtadhirū



Causative:

(2:51:7)

ittakhadhtumu



Form IX i-F-3-a-LL-a i-S-W-a-DD-a ("to turn black in color") This form usually reflects the meaning of stativity, and typically refers to bodily defects and colors. For example, i-3-W-a-JJ-a "to be crocked or lame".

Color:

(3:106:4)

wataswaddu

and would become black



Form X i-s-t-a-F-3-a-L-a

إِسْتَفْعَلَ

i-s-t-a-H-Z-a-Aa ("to make oneself mock at") The tenth form usually reflects the meaning of someone seeking something. Typically the form reflects the meaning of:

- 1. Causative i-s-t-KH-R-a-J-a "to effortfully make come out" (i.e. he extracted).
- Reflexive causative i-s-t-a-H-Z-a-A-a "he made himself deride".
 Reflexive transformative "he made be himself be something", e.g. i-s-t-a-3-R-a-B-a "he made himself an Arab"
- 3. Causative "to do to the self", e.g. "he made the object do himself" (as the subject), or "He sought to be done by the object". i-s-t-GH-F-a-R-a "he sought to be forgiven by someone else".

Reflexive causative:

(13:32:2)

us'tuh'zi-a

were mocked اُسْتُهُزِئَ

Causative:

(4:106:1)

wa-is'taghfiri

And seek forgiveness



Fig 3. Triliteral verb forms (I to X).

Quadriliteral Verb Forms

Back

Quadriliteral verb forms have four radical root letters. These are much rarer than triliterals. In Arabic grammar, quadriliteral verbs have four standard forms, I to IV. The table below illustrates example quadriliteral verbs from the Quran.

Form	Derived Verb	Meaning	Examples
Form I F-a-3-L-a-L-a	D-a-H-R-a-J-a ("he rolled")	The basic quadriliteral verb form with four radical root letters.	
-11°à			Example:
المحال			(7:20:1)
			fawaswasa
			Then
			whispered
			فُوسُوسَ
			• •
			V REM
Form II t-a- <mark>F</mark> -a-3-L-a-L- a	t-a- <mark>D</mark> -a-H-R-a- J-a ("he rolled	This form has the meaning of reflexive, or reflexive causative.	
تَفَعْلَلَ	[intransitive]")		
Form III i-F-3-a-n-L-a-L- a	i-B-R-a-n-SH-a- Q-a ("to bloom, to	This form corresponds in meaning to the form VII triliteral verb, and is usually intransitive.	
إِفْعَنْكُلَ	flourish")		
Form IV	i-Q-SH-a-3-a-	This form has a stative meaning.	
i-F-3-a-L-a-LL-a	RR-a ("to be in a state of shuddering or shivering")		Example:
۽ ڪٽ	sinvering)		(39:23:8)
			taqshaʻirru
			Shiver
			تقشع
			•
			V

Fig 4. Quadriliteral verb forms (I to IV).

Quranic Grammar - Verbs, Subjects and Objects

Back

According to traditional Arabic grammar, every verb which is in the active voice must have a subject fā 'il (فاعل). If the subject of a verb is implicit through inflection, then an explicit subject is added to the dependency graph as a hidden subject pronoun. Similarly every verb in the passive voice must be linked to another node through a dependency relation called nāib fā 'il (نائب فاعل). This represents the subject of a passive verb, and if not already a word in the verse, must also always be present by adding a hidden subject pronoun. A verb can optionally take an object maf 'ūl bihi (مفعول به) and ditransitive verbs take a subject and two objects. The subject and objects of a verb can be other words, or they can be pronoun suffixes fused to the same verb. Regardless of which morphological segments take the role of subject and object, the subject must always be in the nominative case marfū '(مرفوع)', and any objects must always be in the accusative case manṣūb (منصوب).

Fig 1. below lists hidden subject pronouns by verb inflection:

Verb Inflection	Hidden Subject Pronoun
First person singular	أَنَا
First person plural	نَحْنُ
Second person masculine singular	أُنتَ
Second person masculine plural	أنتُم
Third person masculine singular	ھُو
Third person feminine singlar	هِيَ
Third person masculine plural	هُم

Fig 1. Hidden subject pronouns.

The following dependency graph shows a syntactic analysis for verse (99:1). The passive verb has a dependency relation for *nāib fā il* (نائب فاعل):

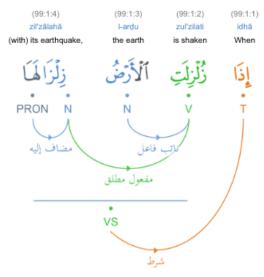


Fig 2. Passive verb subject representative (99:1).

The next verse (99:2) has an active verb with a fā ¡¡ (فاعل) dependency relation:

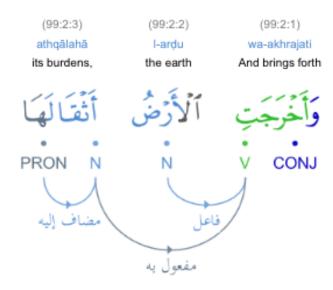


Fig 3. Verb subject dependency relation (99:2).

Quranic Grammar The Verb kāna (کان واخواتها)

Back

Certain verbs do not take a subject and object, but instead take a subject and predicate. In traditional Arabic grammar the two most common groups of these verbs are known as kāna and her sisters (کاد واخواتها) and kāda and her sisters (کاد واخواتها). Figure 1 below lists words from the first group kāna and her sisters (کان واخواتها).

Verb	Arabic		Translation*
<u>kāna</u>	كَانَ		be
<u>laysa</u>	لَيْسَ		not be
<u>şāra</u>	صَارَ		reach
<u>aşbaḥa</u>	أَصْبَحَ		become, reach morning
<u>aḍḥā</u>	أَضْحي		reach forenoon
<u>amsā</u>	أُمْسى		reach evening
<u>zalla</u>	ڟؘۘڷ		become
<u>bāta</u>	بَاتَ		spend the night
Fig	1	The	verh l

Fig 1. The verb kāna and related verbs.

In a dependency graph, the verb kāna (کان) does not link to other words through subject and object dependencies. Instead kāna has dependencies known as ism kāna (اخبر کان) and khabar kāna (خبر کان). The subject ism kāna is always in the nominative case marfū (منصوب) and the predicate khabar kāna is always in the accusative case manṣūb (منصوب). Verse (110:3) contains dependencies for ism kāna and khabar kāna as shown below:

^{*} precise meaning depends on context (see <u>translation accuracy</u>).

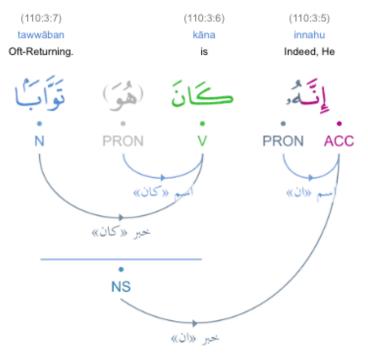


Fig 2. The verb kāna in verse (110:3).

The Verb kāda (كاد واخواتها)

Back

A related group of verbs is known as kāda and her sisters (کاد). In traditional Arabic grammar these verbs are also known as أفعال المقاربة. The verb kāda (کاد) is similar to the verb kāna (کان) but there are some differences. As with kāna (کان) the subject is a nominal word (noun or pronoun) found in the nominative case. However for kāda (کاد) the predicate will be an imperfect verb (فعل مضارع) found in the indicative mood marfū (منصوب). This verb takes the place of an accusative noun manṣūb (منصوب). An example of kāda (کاد) can be found in the first part of verse (67:8):

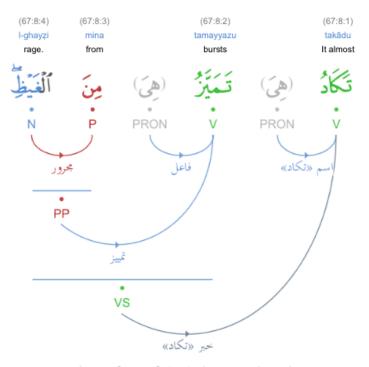


Fig 3. The verb kāda in verse (67:8).

Negative Particles Acting Like laysa

Back

The particle mā (الم) in a negative sense can behave like the verb laysa (البس). In this construction, the negative particle mā will take a subject and predicate. An example may be found in verse (86:14):

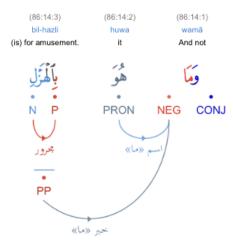


Fig 4. The particle mā in verse (86:14) with its accusative predicate.

Quranic Grammar - The Subjunctive and Jussive Moods

Back

A present tense imperfect verb fi'il mudāri' (فعل مضارع) may be found in one of three grammatical moods: the indicative, the subjunctive and the jussive. In traditional Arabic grammar these verb moods are known as marfū' (مرفوع), manṣūb (مبخزوم) and majzūm (مبخزوم), and each mark the verb with a different vowelized ending. If a verb is unmodified then it will be in the indicative mood marfū' (مرفوع). Depending on context, a verb may also be found in either the subjunctive or the jussive moods. Note that mood is only applicable to imperfect verbs and not perfect verbs fi'il māḍ (فعل ماض).

The Subjunctive Mood

Back

Semantically, the subjunctive mood occurs when a verb is used in the context of intent, purpose, expectation, permission, possibility or necessity. Syntactically, verbs in the subjunctive mood are found after certain particles. These include the <u>subordinating conjuction</u> an (أَن), and the prefixed particle fa when used as a <u>particle of cause</u> (فاء السبية). The following table lists particles which may place a verb into the subjunctive mood:

Part-of-speech	Particle
Negative particle	لَن
Purpose <i>lām</i> prefix	لام التعليل
Denial <i>lām</i> prefix, e.g. (<u>4:137:16</u>)	لام الجحود
Cause fa prefix	فاء السببية
Comitative wa prefix	واو المعية
Subordinating conjunction	أَنْ
Subordinating conjunction	کي
Subordinating conjunction	حَقَّىٰ

Fig 1. Particles which take the subjunctive mood.

The dependency graph below shows a syntactic analysis for verse (72:12). In this verse, the negative particle lan (نن) at (72:12:9) places the following verb into the subjunctive mood manṣūb (منصوب):

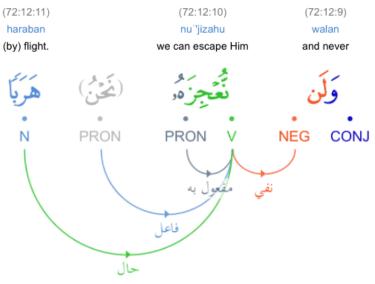


Fig 2. A verb in the subjunctive mood in verse (72:12).

The Jussive Mood

Back Imperfect verbs in the jussive mood are found in five main contexts:

1. After the negative particle lam (ﷺ), as in verse (112:3).

- 2. After the <u>imperative</u> lām prefix.
- 3. As a <u>prohibition</u> (negative imperative) with the particle $l\bar{a}$ ($^{\lor}$).
- 4. As the <u>result</u> of an imperative.
- 5. In conditional clauses.

Fig 3. below lists particles which can place a verb into the jussive mood:

Part-of-speech	Particle
Imperative <i>lām</i> prefix	لام الأمر
Prohibition particle	لا الناهية
Negative particle	ļ
Negative particle	ما
Conditional particle	Ľ.
Conditional particle	إنْ
Conditional particle	مَنْ
Conditional particle	مهما
Conditional particle	متى
Conditional particle	أين
Conditional particle	کیف

Conditional particle	أينما
Conditional particle	حيثما
Conditional particle	إذما
Conditional particle	أبى
Conditional particle	أيان
Conditional particle	أين
Conditional particle	أي

Fig 3. Particles which take the jussive mood.

An example of the jussive mood can be found in verse (94:1). There is a negation dependency between words (94:1:1) and (94:1:2). The particle lam places the following verb - which depends on it - into the jussive mood majzūm (عجزوم):

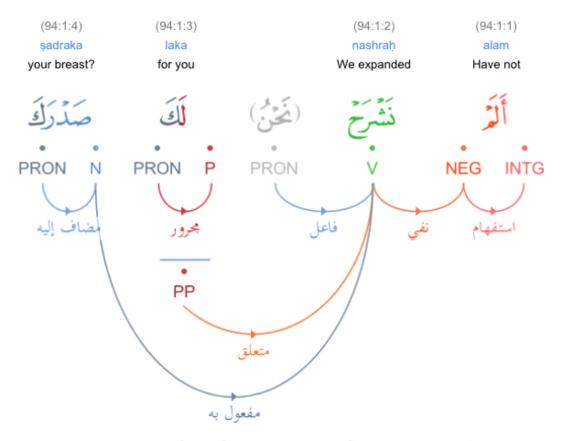


Fig 4. A verb in the jussive mood in verse (94:1).

Quranic Grammar - Imperative Verbs (الأمر والنهي) Command or request

Back

An imperative expression may be either a command or request (أمر), or else a negative prohibition (نهي), or else a negative prohibition (عبي). An example of an imperative verb used as a command can be found at the start of chapter 87, in verse (87:1) shown below:

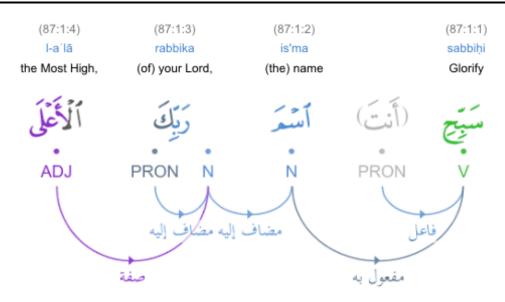


Fig 1. An imperative verb used as a command in verse (87:1).

An imperative may also be formed using an imperfect verb fi'il mudāri' (فعل مضارع), by prefixing the verb with the imperative lām prefix. The dependency graph for verse (106:3) shown below describes the syntax of this imperative construction. The imperative lām prefix always precedes an imperfect verb which will be found in the jussive mood majzūm (مجزوم). In the dependency graph below the imperative lām prefix and the imperfect jussive verb are linked through an imperative dependency (أمر).

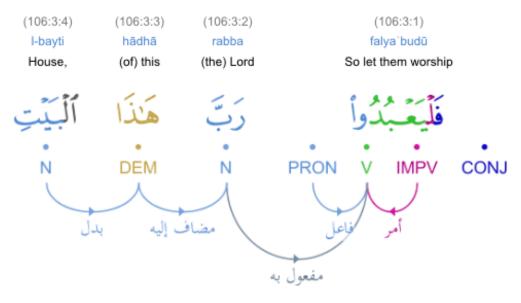
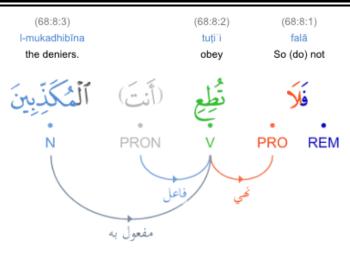


Fig 2. The imperative lam prefix used with a jussive verb in verse (106:3).

Prohibition Back

The negative imperative (نهي) is used to specify prohibition. This is always formed using the prohibition particle (العل مضارع مجزوم). The negative imperative is usually translated as "do not". An example of prohibition can be found in verse (68:8). In the graph below the imperfect verb has been placed into the jussive mood majzūm (مجزوم) through a prohibition dependency:



13. Prohibition (negative imperative) used with a jussive verb in verse (68:8).

The Imperative Result

Back

The dependency relation known as jawāb amr (جواب أمر) links a resulting action to a preceding imperative verb. The pseudo-syntax used for this construction is:

do <imperative> then <result>

The result of an imperative will always be an imperfect verb found in the jussive mood majzūm (مجزوم). An example may be found in verse (70:42) shown below. In this verse the two verbs in the imperative result clause are both in the jussive mood (70:42:2) and (70:42:3):

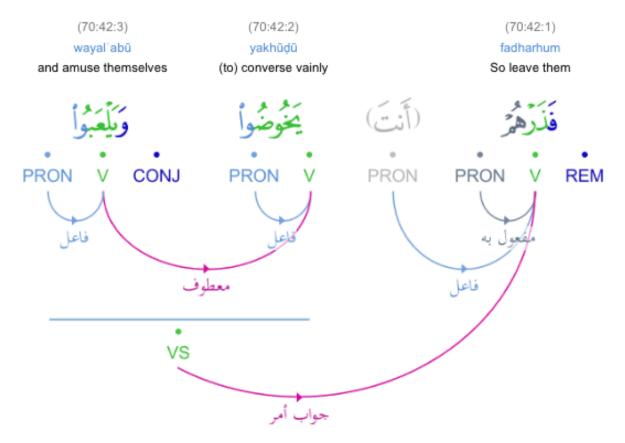


Fig 4. An imperative verb with its result in verse (70:42).

Quranic Grammar - Preposition Phrases (جار ومجرور)

Back

A preposition harf jar (حرف جر) comes before a noun and always places the noun into in the genitive case majrūr (مجرور). The preposition may be an individual word or it can be a preposition prefixed to a noun as part of the same word. The preposition and the genitive noun are related through a dependency known as jār wa majrūr (جار ومجرور), with the noun dependent on the preposition. The preposition may also link with other parts-of-speech that are nominals instead of nouns. For example a single word can consist of a preposition and a suffixed pronoun, which together are related in a jār wa majrūr dependency. According to traditional Arabic grammar the suffixed pronoun will still be considered to be in the genitive case majrūr (مجرور).

The preposition and the genitive nominal together form a preposition phrase. In traditional Arabic grammar a preposition phrase jār wa majrūr must always be attached to another part of the sentence (PP-attachment). In a dependency graph the type of relation for preposition phrase attachment is known as muta 'aliq (متعلق) which may be translated as "link" or "attachment". A preposition phrase may attach to either a verb or a nominal. For example, when an action is performed and the sentence uses a preposition phrase to add meaning, the preposition phrase can be attached to the verb through the muta 'aliq relation. Similarly a preposition phrase can be muta 'aliq with a noun. In dependency graphs a preposition and its genitive noun are represented together using a PP phrase node. PP-attachment is annotated by showing a dependency between the phrase node and a terminal node in the graph such as a verb.

In verse (100:5) below a preposition phrase (PP) is attached to its preceding verb:

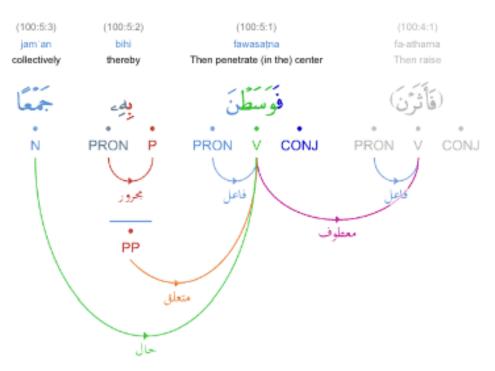


Fig 1. Preposition phrase attached to a verb in verse (100:5).

The next verse (100:6) contains a preposition phrase attached to a noun:

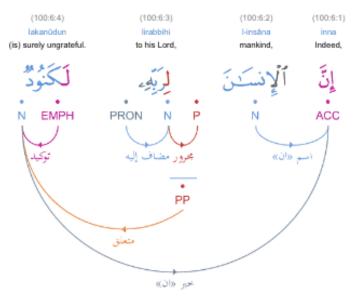


Fig 2. Preposition phrase attached to a noun in verse (100:6).

Particles of Oath as Prepositions

Back

The letter wāw can be prefixed to a word as either a conjunction ("and") or as a particle of oath ("I swear by"). When used as an oath wāw acts like a genitive preposition ḥarf jar and places the following noun into the genitive case majrūr (مجرور). As an example consider the first verse of chapter 68 which begins with an oath. Because the letter wāw acts as preposition, it places the following noun (68:1:2) into the genitive case:

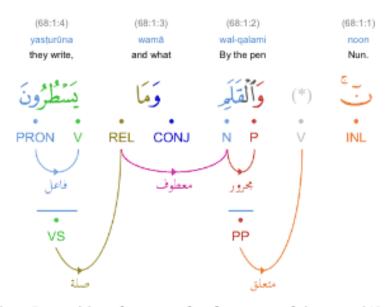


Fig 3. Preposition phrase used to form an oath in verse (68:1).

Preposition Phrase Attachment

Back

The head node for PP-attachment is determined by both syntactic and semantic criteria. The grammatical rules for determining head node selection can be illustrated by considering several incisive examples from Salih's al-iʿrāb al-mufaṣṣal (Dar Al-Fikr, Beirut). For example, the preposition phrase spanning (4:141:34)-(4:141:35):

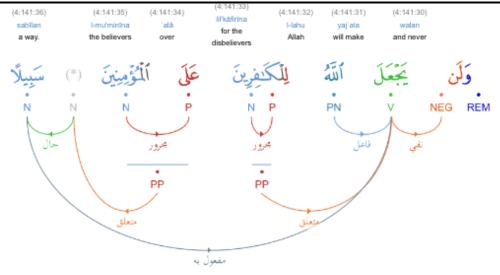


Fig 4. Examples of PP-attachment in verse (4:141).

Note that the first preposition phrase is attached to a verb, while the second preposition phrase is attached to a hidden <u>circumstantial accusative</u> known as known as hāl (حال). According to al-iʿrāb al-mufaṣṣal, the reason for this PP-attachment is:

جار ومجرور متعلق بحال لأنه صفة مقدمة عليه

In this example, the preposition phrase is attached to a circumstantial accusative (hāl) since this acts as a forwarded adjective (صفة مقدمة). Attachment to Hidden Implicit Words

A preposition phrase may be attached to a hidden implicit word, introduced into a dependency graph as part of the reconstructive technique in traditional Arabic grammar known as taqdīr (تقدير). Studying examples of PP-attachment to hidden implicits in Salih's al-iʿrāb al-mufaṣṣal suggests that in general an adjective (متعلق بصفة) is used for attachment when the head word is indefinite, and a hidden implicit circumstantial accusative (متعلق بحال محذوفة) is used for attachment when the head is in a definite state. An interesting example may be found in Salih's analayis of PP-attachment for verse (4:98), where these two choices for PP-attachment are discussed:

لانها اسم جنس «أل»غير معرفة فيها «المستضعفين»حرف جر بياني أو متعلق بصفة لأن «من»متعلق بحال محذوفة لأن

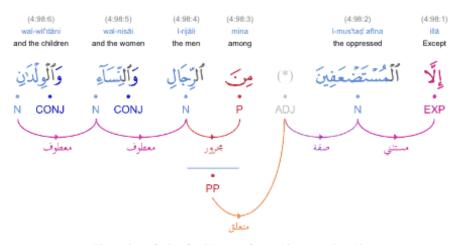


Fig 5. One choice for PP-attachment in verse (4:98).

Labeling the preposition as بياني (4:98) suggests that its role is to illustrate or to clarify. In this analysis, one purpose of the preposition would be to specify the categories of المستضعفين. The alternative analysis of PP-attachment is supported by the fact that

Quranic Grammar - Coordinating Conjunctions (عطف) <u>Back</u>

A coordinating conjunction (حرف عطف) is a particle which connects two words, phrases or clauses together. The most common conjunction is the prefixed particle wa, usually translated as "and". The three independent coordinating conjunctions which are not prefixes are shown in Figure 1 below:

Coordinating Conjunction	Arabic	Translation*
<u>thumma</u>	<u> </u>	then
<u>aw</u>	أُوْ	or
<u>am</u>	أُمْ	or

Fig 1. Independent coordinating

conjunctions.

In a syntactic dependency graph, the node which represents the coordinating conjunction is neither the head nor the dependent node in a conjunction relation. The conjunction will instead introduce a dependency (معطوف) between the words before and after the conjunction. If two nouns are related through conjunction then they will both have the same case ending (grammatical case). Similarly, two verbs related through conjunction will be found in the same mood. The first verse of sūrat 'abasa (80:1) contains a conjunction dependency between two verbs which are both in the indicative mood (احرفوع):

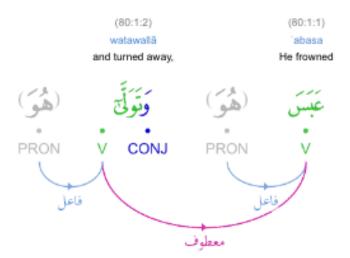


Fig 2. Coordinating conjunction between two verbs in verse (80:1).

In verse (92:3) below the two nouns (92:3:3) and (92:3:4) are related through conjunction. The first noun is in the accusative case manṣūb (منصوب) because it is the <u>object of a verb</u>. The second noun is also in the accusative case because of conjunction:

^{*} precise meaning depends on context (see <u>translation accuracy</u>).

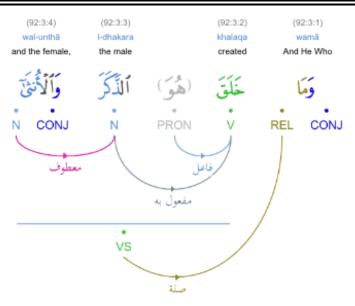
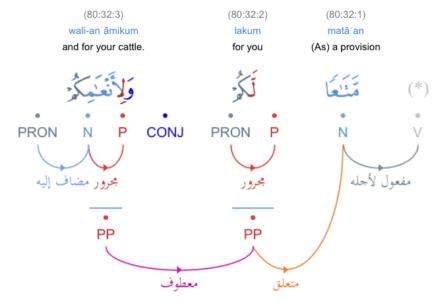


Fig 3. Coordinating conjunction between two nouns in verse (92:3).

Phrasal nodes may also be related through conjunction, as in verse (80:32) shown below. The noun at the start of the verse (80:32:1) is in the accusative case manṣūb (منصوب) due to an <u>accusative of purpose</u>. The following two prepositions phrases (PP) are in conjunction:



Coordinating conjunction between preposition phrases in (80:32).

Fig 4. Coordinating conjunction between preposition phrases in verse (80:32).

Quranic Grammar - The Subordinate Clause (صلة)

Back

Relative Clauses

A relative pronoun ism mawṣūl (اسم موصول) introduces a relative clause, which is a subordinate clause. The dependency of a relative clause on a relative pronoun is known as ṣilat l-mawṣūl (صلة الموصول)

traditional Arabic grammar. Verse (103:3) shown below contains a relative pronoun which is followed by a relative clause (صلة):

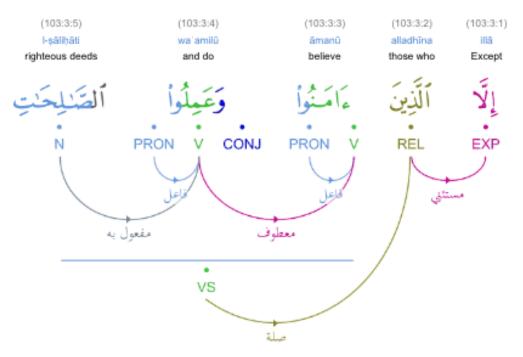


Fig 1. Relative pronoun and relative clause in verse (103:3).

Subordinating Conjunctions

Back

In general, the Arabic word silat (صلة) means relation. When used to relate words syntactically, the grammatical meaning is of a relative or subordinate clause. As well as a relative pronoun, a subordinating conjunction (حرف مصدري) may be used to introduce a subordinate clause. The most common such particle is an (أن) which is usually translated as "that". Verse (96:7) shown below contains a subordinate clause introduced by a subordinating conjunction:

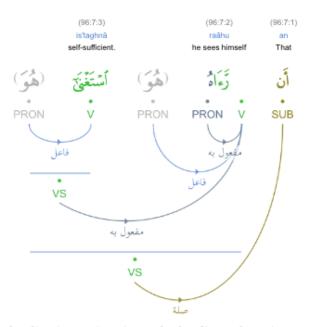


Fig 2. Subordinating conjunction and subordinate clause in verse (96:7).

A subordinate clause may also be introduced by the prefixed lām of purpose (لام التعليل). The subordinating conjunction an ("that") is implied in this construction, as illustrated by verse (72:17) in sūrat l-jin:

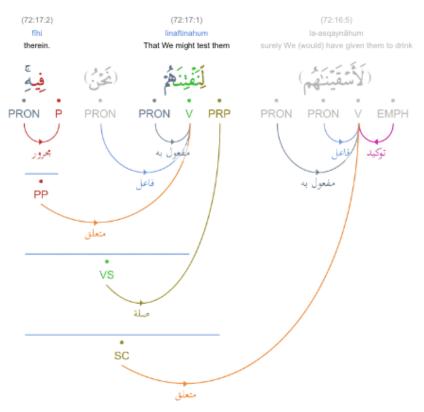


Fig 3. Prefixed 18m of purpose and subordinate clause in verse (72:17).

Subordinate Clauses and the Subjunctive Mood

Back

If a subordinating conjunction or purpose particle introduces a subordinate clause that is headed by an imperfect verb, then the verb will usually be found in the <u>subjunctive</u> mood manṣūb (منصوب). There are exceptions to this rule, such as if the verb forms part of a negative expression. Another exception is if the subordinating conjunction law (بو) introduces the subordinate clause, since this particle does not take the subjunctive mood.

Quranic Grammar - Conditional Expressions (شُرطُ

Back

Conditional sentences are composed of two clauses, the condition and the result, also known as the protasis and the apodosis respectively. The pseudo-syntax for a conditional sentence is:

if <condition> then <result>

In formal logic the condition corresponds to the consequent and the result to the antecedent. In traditional Arabic grammar these two clauses are known as shart (شرط) and jawāb sharṭ (جواب شرط).

Temporal Conditions

In the Quran, the word idhā ($^{[i]}$) is frequently used as a conditional particle and is usually translated as "when". The pseudo-syntax for this type of temporal conditional sentence is: when <condition> then <result>

An example may be found in verse (<u>83:30</u>) shown below. The word idhā (إذًا) is tagged as a time adverb zarf zamān (ظرف زمان) since it is a conditional particle used in a temporal sense:

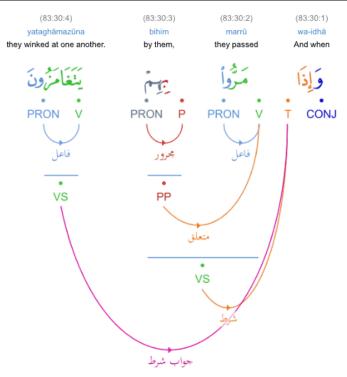


Fig 1. A temporal conditional sentence in verse (83:30).

Quranic Grammar - The Circumstantial Accusative (حال) <u>Back</u>

The circumstantial accusative in traditional Arabic grammar is known as hāl (احلى). A word in this syntactic role describes the circumstances under which an action takes place. The dependent word in the hāl relation will be found in the accusative case manṣūb (منصوب). Often the circumstantial word will be an active participle that depends on a verb, although other non-derived nouns may also be used as with (100:5:3) below:

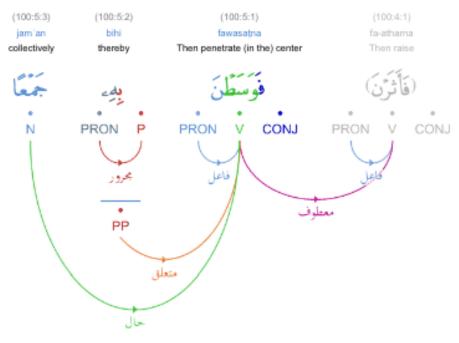


Fig 1. Preposition phrase attached to a verb in verse (100:5).

The head word for the circumstantial accusative may also be a pronoun. Verse (4:143) below starts with a circumstantial accusative that refers to an attached subject pronoun in the preceding verse (4:142:13):

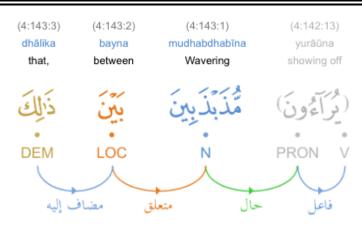


Fig 2. Circumstantial accusative in verse (4:143).

According to Salih's al-i rāb al-mufaṣṣal (Dar Al-Fikr, Beirut): حال من واو الجماعة في يراءون الواردة في الآية الكريمة السابقة منصوب بالياء لأنه جمع مذكر سالم

The Circumstantial Accusative with Interrogatives

The word kayfa (کیف) may be used in an interrogative sense and take the position of a circumstantial accusative. In verse (89:6) below, the word (89:6:3) is related to its following verb through a hāl (حال) dependency:

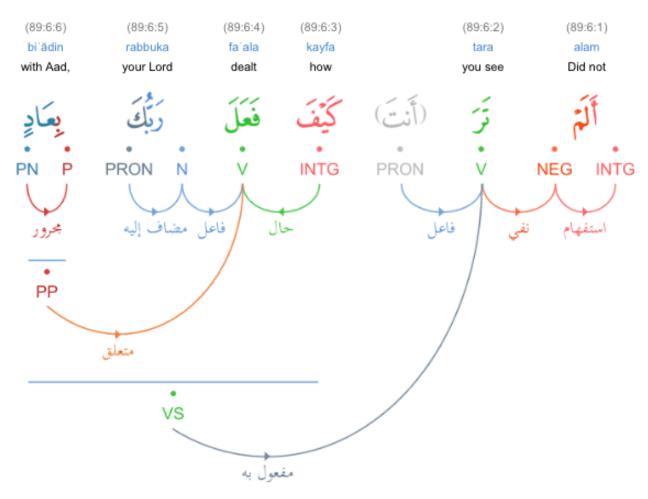


Fig 3. Circumstantial accusative in verse (89:6).

(مفعول مطلق) Quranic Grammar - Cognate Accusatives

Back

The cognate accusative is known as mafʿūl muṭlaq (مفعول مطلق) in traditional Arabic grammar. In this syntactic role a noun will be found in the accusative case manṣūb (منصوب). The cognate accusative is used to add emphasis by using a verbal noun derived from the main verb or predicate that it depends on. Both the accusative and the verb will resonate phonetically as they will share the same root. In verse (80:25) below, the verbal noun (80:25:4) is a cognate accusative for the verb (80:25:2). The verbal noun is derived morphologically from the verb and both share the same root ṣād bā bā ($coldsymbol{o}$):

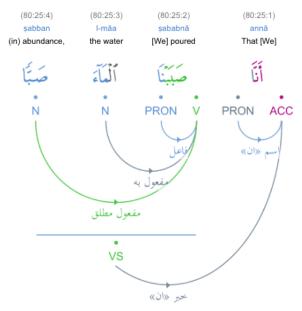
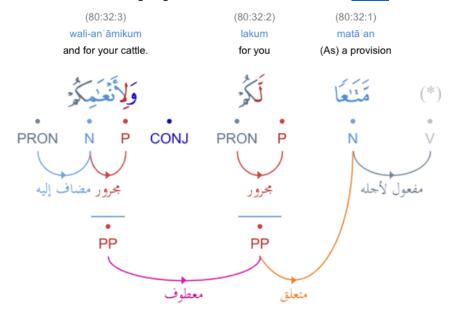


Fig 1. Cognate accusative in verse (80:25).

Quranic Grammar - The Accusative of Purpose (المفعول لأجله)

The adverbial structure l-mafʿūl li-aj'lihi (المفعول لأجله) is known as the accusative of purpose. An indefinite noun in the accusative case manṣūb (منصوب) is used to specify the purpose, motive or reason behind an action. An example of the accusative of purpose can be found in verse (80:32):



Coordinating conjunction between preposition phrases in (80:32).

Quranic Grammar - The Comitative Object (المفعول معه)

Back

The comitative object l-mafʿūl maʿahu (المفعول معه) is a noun which is found in the accusative case manṣūb (المفعول), and follows the comitative usage of the particle wāw (منصوب). In this usage, the particle wāw means "with" (مع), and is annotated using the COM (comitative) tag. The dependency graph below shows an example of the comitative object, in verse (5:36):

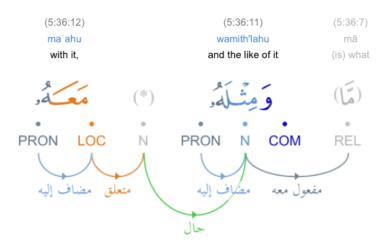


Fig 1. A comitative object in verse (5:36).

A second example may be found in verse 71 of sūrat yūnus (10:71): (10:71:22)

washurakāakum

and your partners.



Fig 2. Comitative usage of the particle waw in verse (10:71).

Quranic Grammar - The Particle alif (1)

Back

The particle alif (i), or more accurately the hamza, is used as an interrogative prefix or as a particle of equalization. Although the interrogative sense is used far more frequently (over 500 occurances) it is the rarer equalizational sense which is used first in the Quran, in verse (2:6) of sūrat l-baqarah:

Sahih International: Indeed, those who disbelieve - it is all the same for them whether you warn them or do not warn them - they will not believe.

The Interrogative alif Prefix

The prefixed alif is an interrogative particle (همزة استفهام) used to form a question and is usually translated as "is", "are", or "do". The dependency graph for verse (95:8) below shows an example of this use of the alif prefix. In general, both the particle hal (هل) and the alif may be used to form an interrogative sentence, although the prefixed alif is not usually used with with the definite article.

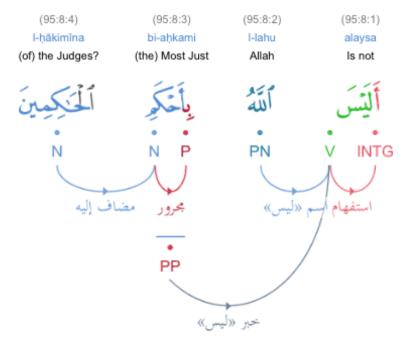


Fig 1. An interrogative alif in verse (95:8).

The alif of Equalization

The prefixed alif of equalization (همزة التسوية) occurs six times in the Quran, with the first use of this particle at (2:6:6) shown below. This usage of the prefixed alif is not interrogative and instead indicates equality. This particle is usually translated as "whether".

(2:6:6)

a-andhartahum

whether you warn them



Fig 2. The alif of equalization in verse (2:6).

The six uses of this particle are at (2:6:6), (7:193:9), (14:21:28), (26:136:4), (36:10:3), and (63:6:3). In each of these verses, the noun sawāon ("the same") is also used.

Quranic Grammar - The Particle inna (ان واخواتها) Back

The particle inna (ان) is known as an accusative particle (حرف نصب) because of its effect on the case ending of its subject. Like the verb kāna (کان), an accusative particle will take a subject and a predicate although with different case endings. Because of this similarity, these particles are considered to be verb-like (حرف جرف). Figure below 1 lists the group of accusative particles known as inna and her sisters (ان واخواتها).

Accusative Particle	Arabic	Translation*
<u>inna</u>	ٳؚڹۜٞ	indeed
<u>anna</u>	أَنَّ	that
<u>la</u> ʿalla	لَعَلَّ	so that

<u>lākinna</u>	لٰکِنَّ	but
<u>ka-anna</u>	كَأَنَّ	as if
<u>layta</u>	لَيْتَ	wish

Fig 1. The accusative particle inna and related particles.

An accusative particle accepts a subject and a predicate through dependencies called ism inna (اسم ان) and khabar inna (خبر ان). The subject ism inna is always in the accusative case manṣūb (منصوب), and the predicate khabar inna is always in the nominative case marfū (مرفوع). The dependency graph for verse (100:6) below shows links for ism inna and khabar inna, with an accusative subject:

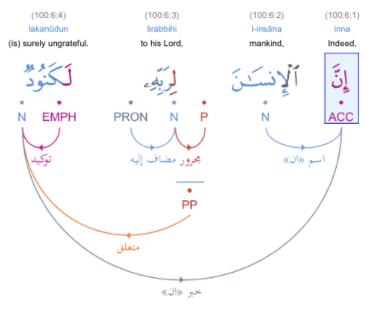


Fig 2. The particle inna in verse (100:6).

Negative Particles Acting Like anna

Back

The negative particle $l\bar{a}$ ($^{\vee}$) can behave like the accusative particle anna (†). In this construction, the negative particle $l\bar{a}$ will take a subject and predicate, with the subject in the accusative case manṣūb (منصوب), An example may be found in verse (75:11):

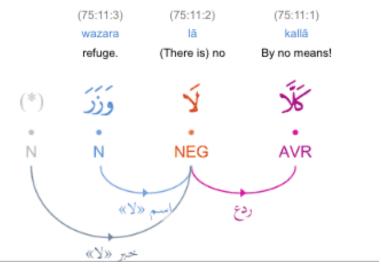


Fig 3. The particle mā in verse (75:11) with its accusative subject.

^{*} precise meaning depends on context (see translation accuracy).

Preventive Particles

Back

The preventive particle mā (الم) may come after an accusative particle to form a compound known as kāfa wa makfūfa (كافة ومكفوفة). In this construction, the accusative particle is prevented from modifying any case endings in the sentence. An example may be found in verse (79:13):

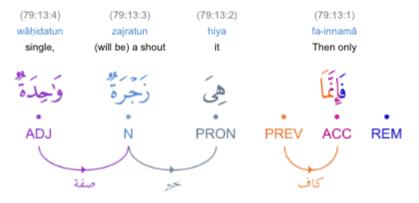


Fig 4. Preventive mā in verse (79:13).

Quranic Grammar - The Particle fa (🛋)

Back

The particle fa (i) is a connective particle that is usually translated as "and", "then" or "so". The particle is used as a prefix and connects words, phrases and clauses together using different types of syntactic relations. In the <u>Quranic Arabic Corpus</u>, each occurance of the particle fa (i) is annotated using one of the following 4 tags:

- a resumption particle (الفاء استنافية) a coordinating conjunction (الفاء عاطفة)
- a result particle (الفاء واقعة في جواب الشرط)
- a supplemental particle (الفاء زائدة)
- a particle of cause (الفاء سببية)

When used as a conjunction, the particle fa functions syntactically in a similar way to wa (''and''). The Resumption Particle (حرف استنافية)

This is the most common use of fa (ف). A particle of resumption or recommencement (حرف استنافیة) is used to indicate a sequence of events, and provides a close connection between elements of the sentence. Figure 1 below shows the syntactic dependency graph for verse ($\underline{69:16}$) which contains the prefix fa used in this sense at ($\underline{69:16:3}$):

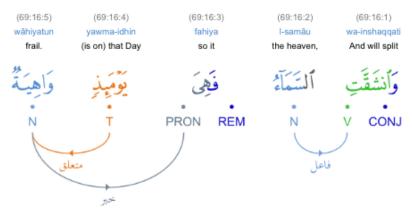


Fig 1. The prefix fa as a resumption particle in verse (69:16).

The Particle of Cause (حرف سببية)

Back

When used in a resultative sense, the prefix fa (ف) is known as a particle of cause (حرف سببية). If followed by an imperfect verb, this particle will place the verb into the <u>subjunctive mood</u> manṣūb (منصوب):

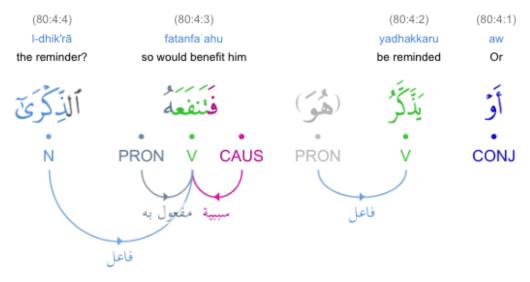


Fig 2. The prefix fa as a particle of cause in verse (80:4).

Quranic Grammar - Vocative Particles (حرف نداء)

Back

A vocative particle (حرف نداء) comes before a noun and can place the noun into one of two grammatical cases. In the example below, the noun has been placed into the nominative case marfū ((89:27:1)). The dependency graph shows a syntactic analysis for verse ((89:27:1)). In the graph, the words ((89:27:1)) and ((89:27:2)) are related through a vocative dependency:

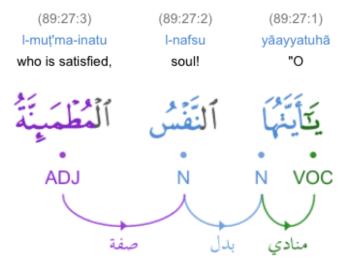


Fig 1. Vocative dependency in verse (89:27).

The following rules from traditional Arabic grammar determine the case ending for a noun that depends on a vocative particle (the addressee):

1. When the noun following the vocative particle is a word representing a specific individual, or group of individuals, then the addressee will be in the nominative case marfū (مرفوع). If the noun is indefinite it will have only a single dammah. See verse (89:27) above.

- 2. If the noun after the vocative particle refers to a general group of individuals then the addressee will be a singular noun in the accusative case manşūb (منصوب).
- 3. If the <u>possessive construction</u> of iḍāfa (إضافة) follows the vocative particle then the addressee (the head of the possessive construction) will be found in the accusative case manṣūb (منصوب).

Quranic Grammar - Exceptive Particles

Back

Like vocative particles, exceptive particles place a dependent noun into different grammatical cases. The following graph shows an exceptive relation in verse (92:20) between words (92:20:1) and (92:20:2):

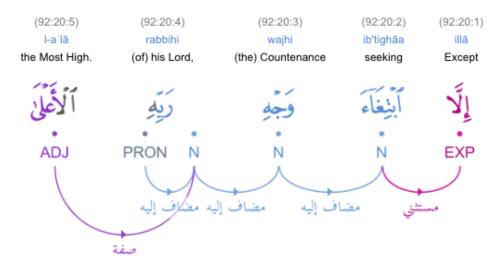


Fig 2. Exceptive relation in verse (92:20).

The most common exceptive particle is illā (일). Some other exceptive particles found in the Holy Quran are shown in the following table:

Part-of-speech	Exceptive Particle
Particle	١١
Particle	غير
Particle	سوی
Particle	خلا
Particle	عدا
Particle	حاشا

Fig 3. Exceptive particles.

In an exceptive expression, the exceptive particle will be found between two nouns with different syntactic functions. The noun before the particle is the main noun from which the exception is made al-mustathnā minhu (المستثنى منه). The noun after the particle is the excepted noun al-mustathnā (المستثنى منه). Below are some examples of exceptive expressions from the Quran. The main noun and the excepted noun are underlined:

- {فَشِرِبُواْ مِنْهُ إِلَّا قَلِيلًا مِّنْهُمْ} (2:249) 1.
- {فَسَجَدَ ٱلْمَلْئِكَةُ كُلُّهُمْ أَجْمَعُونَ إِلَّا إِبْلِيسٌ } (38:73)
- (4:66) إلَّا قَلِيلٌ مِّنْهُمْ } (4:66)

- {وَلَا يَلْتَفِتْ مِنكُمْ أَحَدٌ إِلَّا ٱمْرِأَتَكَ} (<u>11:81</u>) 4.
- {وَمَن يَقَنَطُ مِن رَحْمَةِ رَبِّةٍ إِلَّا ٱلضَّالُّونَ} (15:56) 5. (15:56)
- (مَا لَهُمْ بِهُ مِنْ عِلْمِ إِلَّا ٱتِّبَاعَ ٱلظَّنِّ) (4:157)

According to traditional Arabic grammar there are three types of exceptive expression. The first is when both the main noun and the excepted noun represent the same kind or type, and this is known as muttaşil (متصل) in examples 1, 3, 4 and 5 above. The second type of exceptive expression is when the main noun represents a different type or kind from the excepted noun, and this is known as munqatiʻa (منفتع) in examples 2 and 6 above. The third type of expression is known as muf'ragh (مفرغ) and this is when the main noun is not mentioned.

The grammatical rules for the exceptive particle illā (일) are as follows. These rules determine the case ending for the noun that follows the exceptive particle (the excepted noun):

- 1. If the main noun is positive and is mentioned, then the excepted noun will be found in the accusative case manṣūb (منصوب). See example 1 above.
- 2. If the main noun is negative and is mentioned, then the excepted noun may either be found in the accusative case manṣūb (منصوب), or the excepted noun may be found in the same case as the main noun through apposition badl (بدل). The sentence may be negative either through negation (example 3), prohibition (example 4) or interrogation (example 5).
- 3. If the main noun is negative (through negation, prohibition or interrogation) and is mentioned, and if the exceptive expression is munqatiʿa (منفتع) then the exceptive noun will be found in the accusative case manṣūb (منصوب). See example 6 above.
- 4. If the main noun is not mentioned then the exceptive particle will not have any influence, and the excepted noun will take the case ending that the context dictates.

