
RESEARCH ARTICLE

Tense in Standard Arabic: A Minimalist Account of Morphological Realization and Feature Checking¹

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ABSTRACT

This paper investigates the morphological realization of tense and the syntactic checking of the tense feature in Standard Arabic (SA). The empirical point of departure is a distribution puzzle: SA possesses only two verbal forms, the perfective and the imperfective, yet expresses three temporal distinctions. A substantial body of scholarship treats tense in Arabic as either entirely abstract, inferrable from agreement morphology or blocked from surface realization by morphological constraints (Benmamoun 2000; Watson 2002; Ryding 2005; El Fenne 2023), or as morphologically realized via the vocalic template (Bahloul 2008; Tucker 2011; McCarthy 1993; Embick 2010). Both positions are shown to make false predictions for the distribution of verbal forms in negative sentences. Working within Chomsky's (1993, 1995, 2000, 2001) Minimalist Program, this paper proposes a positional account: the past tense morpheme is identified with the voice morpheme realized *root-internally* (between C₁ and C₂ of the triconsonantal root), while the present tense morpheme is abstract. The two verbal forms differ at the template level in their CV structure (perfective: CVCVC; imperfective: CCVC) and in the distribution of agreement morphology (suffixal in the perfective; discontinuous in the imperfective), a structural difference that underlies the positional diagnostic proposed here. The perfective form is lexically marked [+Past]; the imperfective exists in two lexical entries, one bearing [+Present] and one tense-neutral. The [Tense] feature is uniformly strong, triggering overt V-to-T movement, with tense-bearing particles checking tense in negative and future contexts via movement to T°, while the verb checks its mood feature in Mood° (Ouhalla 1993, 1994). Implications for the typology of strong tense features and for the organization of the SA verbal system are discussed.

KEYWORDS

Standard Arabic, Tense, Mood, Negation, Minimalist Program, Feature checking, V-to-T movement, Perfective, Imperfective.

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1. Introduction

Standard Arabic (henceforth SA) presents a genuine morphosyntactic puzzle. Its verbal system has only two inflected forms, perfective and imperfective, yet the language expresses three temporal distinctions: past, present, and future. How these three distinctions are encoded with only two morphological forms, and how the tense feature is checked in the syntactic derivation, has generated substantial theoretical disagreement.

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Two broad positions have shaped the debate. The first holds that tense in SA is not directly realized on the verb but is either abstract, located in a silent functional head, or inferable from other grammatical material such as agreement morphology, verbal particles, or context. The second holds that tense is morphologically realized on the verbal stem itself, through vowel quality, template structure, or some combination of the two. Neither position, in any of its representative versions, accounts for the full range of distributional facts once negative sentences are brought into the picture.

This paper argues for a third position. Tense is not uniformly abstract, nor is it uniformly realized by any single vowel or template feature. Instead, the site of the voice morpheme relative to the consonantal root is the diagnostic: root-internal realization encodes [+Past], while root-external realization signals the absence of a past tense feature on the verb. This positional account connects directly to the CV template structures of the two verbal forms, building on recent work on Arabic verbal morphology (El Fenne 2023).

The paper proceeds as follows. Section 2 lays out the Minimalist mechanisms used in the analysis. Section 3 reviews previous accounts from both sides and identifies their shared empirical gap. Section 4 presents the CV structure of the two verbal forms and the mood paradigms, forming the morphological basis for the analysis. Section 5 examines the distribution of verbal forms and establishes the core generalization. Section 6 identifies the tense morphemes. Section 7 develops the Minimalist derivations. Section 8 concludes.

2. Theoretical Background: Core Mechanisms of the Minimalist Program

2.1 Architecture and Interfaces

Chomsky's Minimalist Program (MP) is a central framework in generative syntax that aims to explain language through the most economical and conceptually simple computational system possible (Chomsky, 1995, 2000). Rather than assuming a richly layered grammar, the MP reduces syntactic theory to the interaction of a small number of operations and interface conditions. Its broader ambition is to show that the language faculty is an efficient system designed to satisfy the demands of interpretation at the conceptual-intentional interface and articulation at the sensorimotor interface (Hornstein et al., 2005; Radford, 2009).

Architecturally, the MP assumes a lexicon and a narrow syntax that feeds two interpretive interfaces: Phonological Form (PF) and Logical Form (LF) (Adger, 2003; Chomsky, 1995). The lexicon supplies lexical items with formal features, including categorial, agreement, tense, and case features. Earlier levels such as Deep Structure and Surface Structure are eliminated, and syntax becomes a derivational process in which structures are built and checked before being sent to the interface systems.

2.2 Merge, Agree, and Move

The three central operations in this framework are Merge, Agree, and Move. Merge is the structure-building operation that combines two syntactic objects into a larger phrase and is responsible for hierarchical organization. Agree is a feature-checking and feature-valuing relation in which a probe searches for a matching goal to license uninterpretable or unvalued features, as in subject-verb agreement or case assignment (Adger, 2003; Chomsky, 2000). Move, often reanalyzed as Internal Merge, reemerges an already present element in a higher position when required by feature checking or interface conditions (Hornstein et al., 2005).

2.3 Feature Strength

Feature checking is crucial to this model. A major distinction is made between **strong** and **weak** features: strong features have to be checked before a certain level of derivation and typically trigger overt movement, whereas weak features could be checked later, often allowing covert movement or no visible movement at all (Chomsky, 1995; Hornstein et al., 2005). This distinction explains why some languages or constructions show overt displacement while others do not.

Overall, the Minimalist Program presents language as a highly constrained system in which Merge builds structure, Agree checks and values features, and Move satisfies remaining structural or interpretive demands. Feature checking, together with the distinction between strong and weak features, provides an account of why movement occurs in some contexts but not others. The significance of the framework lies in its attempt to reduce syntactic theory to the simplest possible set of principles while still explaining the complexity and variation of natural language (Chomsky, 1995, 2000; Radford, 2009).

3. Previous Accounts of Tense in Standard Arabic

3.1 The Tense-Abstractness View

A substantial group of analyses converges on the view that tense in SA has no independent morphological realization on the verbal stem (Benmamoun 2000; El Fenne 2023; Fassi Fehri 1993; Ryding 2005; Watson 2002). The accounts differ in their explanations for the absence of an overt tense morpheme, but all agree that the verb itself does not directly encode temporal reference.

Benmamoun (2000) offers the most syntactically developed version of this position. He observes that the perfective and imperfective forms differ primarily in their agreement morphology: agreement in the perfective is entirely suffixal (e.g., *katab-a* "he wrote," *katab-u*: "they (m.) wrote"), while in the imperfective it is discontinuous, appearing in both a prefix and a suffix (e.g., *ja-ktub-u* "he writes," *ja-ktub-u:na* "they (m.) write"). Benmamoun proposes that it is this agreement pattern that signals tense: the presence of a prefix in the imperfective indexes present tense while its absence in the perfective indexes past tense. Tense itself, on this account, is an abstract morpheme in T° with no phonological content. The correlation between agreement morphology and tense is derivative rather than direct.

Watson (2002) and Ryding (2005), in descriptive reference grammars that have significantly influenced generative analyses, treat the perfective and imperfective not as tense forms but as aspect forms: the perfective encodes a completed action (broadly corresponding to past reference in most contexts), and the imperfective encodes an ongoing or habitual action (broadly corresponding to present or future reference). On this aspect-based view, tense proper is conveyed by particles, adverbials, and discourse context rather than by the verbal morphology itself.

El Fenne (2023), working within Distributed Morphology (Halle and Marantz 1993), extends the abstractness claim and provides a morphological rather than syntactic explanation for it. She argues that tense and mood markers are subject to a morphological constraint that blocks their surface realization whenever they are followed by a PNG (person-number-gender) suffix. Since the perfective always carries a PNG suffix and the singular imperfective forms carry either a mood suffix or a PNG suffix, the tense morpheme is systematically suppressed in the output. El Fenne concludes that tense and mood are fused with PNG features in a "global affix" (GAF), a complex affix in which all morphosyntactic properties are realized simultaneously without fixed linear order.

Fassi Fehri (1993) takes a related but distinct position. He treats the imperfective as aspectually underspecified, occupying a default position in the tense-aspect paradigm and receiving its temporal interpretation from the syntactic context. Tense is contributed by the functional head T° , which may or may not have phonological content depending on the temporal value being expressed.

3.2 The Morphological Realization View

A second group of analyses holds that tense is directly encoded in the morphology of the verbal stem (Embick 1997, 2010; Bahloul 2008; McCarthy 1993; Tucker 2011). The key disagreement within this stand of scholarship concerns precisely which morphological element encodes tense.

Bahloul (2008) provides the most explicit morpheme-by-morpheme analysis. He assigns distinct morphological functions to each vowel position in the triconsonantal vocalic template $CV_1CV_2CV_3$. According to the author, V_3 expresses agreement (e.g., *katab-a* "he wrote," vs. *katab-u*: "they wrote,"), while V_2 encodes argument structure: active transitive verbs take /a/ (e.g., *katab-a* "he wrote,"), stative intransitives /u/ (e.g., *kabur-a* "he grew up"), psychological predicates /i/ (e.g., *fahim-a* "he understood"). However, the initial template vowel V_1 is claimed to encode tense and aspect. For the perfective, $V_1 = /a/$ marks past tense; for the imperfective, the prefix vowel (*ja-*, *ta-*, etc.) is identified as the present tense-aspect morpheme. The summary of Bahloul's (2008) morphemic analysis is summarized as follows:

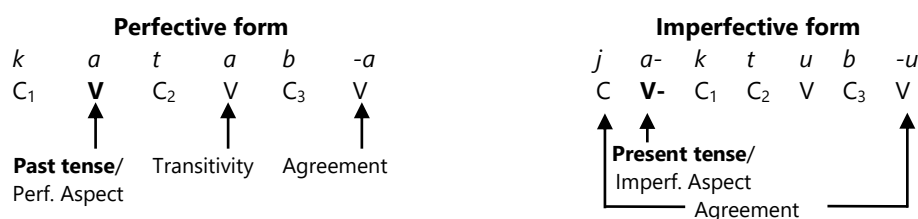


Figure 1: Bahloul's (2008) morphemic analysis of the perfective and imperfective templates

Tucker (2011), in a morphosyntactic analysis using prosodic markedness constraints, argues that the vocalic quality of the verbal stem expresses three distinct morphosyntactic features simultaneously: tense, aspect, and voice. On this account, the template vowels are not merely phonological fillers but bearers of morphosyntactic content, a position that aligns with Bahloul (2008) in treating tense as morphologically encoded but that differs in the theoretical apparatus used to derive the template.

McCarthy (1993) and Embick (1997, 2010) also treat the verbal stem as encoding tense and aspect. McCarthy's root-and-pattern analysis assigns morphological significance to the full vocalic template, with the perfective and imperfective templates understood as encoding both aspect and tense. Embick's Distributed Morphology account similarly places tense features in the stem, with morphological realization determined post-syntactically by vocabulary insertion.

3.3 The Shared Empirical Gap

Despite their differences, both sides share a critical limitation: they have constructed their analyses almost exclusively on the basis of affirmative sentences. In that domain, the correlation between verbal form and tense value is largely consistent

with both positions. The decisive evidence comes from negative sentences, as the following sections demonstrate. In negative SA sentences, the verbal form and the tense interpretation systematically diverge: past tense sentences require the imperfective form, not the perfective. This divergence cannot be accommodated by any version of either stand without fundamental revision.

A further limitation shared by all previous accounts is that both lines of thought operate with a binary assumption: either tense is abstract across the board, or it is morphologically realized across the board. Neither position entertains the possibility that the two verbal forms may behave differently with respect to tense realization, nor that the SA tense system may be asymmetric, with different tenses encoded differently. As long as this assumption goes unquestioned, any analysis built on it will be unable to account for the full range of distributional facts. The following sections examine the data that expose this limitation and develop an account that does not presuppose uniformity across verbal forms or across tense values.

4. The CV Structure of SA Verbal Forms and the Mood Paradigms

4.1 Perfective and Imperfective: Template Structures

SA verbal morphology is non-concatenative (McCarthy 1981, 1993; Ratcliffe 1998): words are formed by superimposing an abstract vocalic template onto a consonantal root, typically triconsonantal. The combination of root and template produces a surface form. For the root /ktb/ "write," the perfective active form is *kataba* (template CVCVC) and the imperfective active form is *jaktubu* (template ja-CCVC-u, or more precisely CV-CCVC-V once affixal material is included; cf. El Fenne 2023).

In addition to the difference between their base templates, the perfective and the imperfective display a distinction in the way subject agreement is expressed. In the perfective, agreement is realized entirely through suffixation. In the imperfective, agreement is discontinuous, distributed across a prefix and a suffix on either side of the verbal stem. These two distinctions, template structure and agreement expression, are summarized in Table 1:

Form	Base Template	Example (3SM)	Agreement Distribution
Perfective	CVCVC	<i>katab-a</i>	Suffix only
Imperfective	CCVC	<i>ja-ktub-u</i>	Prefix + suffix

Table 1: CV templates and agreement distribution in SA verbal forms (following El Fenne 2023)

The suffixal nature of the perfective and the discontinuous morphology of the imperfective have a direct bearing on the tense analysis. As argued in Section 6, the site of the voice morpheme within the template, root-internal for the perfective (CVCVC) and prefix-external for the imperfective (CV-CCVC), is precisely the diagnostic that identifies the past tense feature.

4.2 Mood in the Imperfective

The imperfective form inflects for three finite mood values: indicative, subjunctive, and jussive (El Fenne 2023; Ouhalla 1993; Aoun et al. 2010). Mood is realized as a suffix attached to the right edge of the verbal stem, immediately following the root and preceding any person-number-gender (PNG) suffix. The indicative is marked by /-u/, the subjunctive by /-a/, and the jussive by sukun /°/, the absence of a vowel in that position.

This three-way contrast, however, is not visible throughout the paradigm. It surfaces only in the person-number-gender slots that carry no further suffix beyond the mood vowel itself: the first person singular and plural, the second person masculine singular, the third person masculine singular, and the third person feminine singular. In exactly these slots, the same verbal root yields three minimally different forms depending on mood, for example *ja-ktub-u* (indicative), *ja-ktub-a* (subjunctive), and *ja-ktub-°* (jussive) for the third person masculine singular. Table 2 presents the full set of forms in which the mood contrast is realized in this way.

Person	Indicative (selected by la: and sawfa)	Subjunctive (selected by lan)	Jussive (selected by lam)
1st Sg.	<i>ʔa-ktub-u</i>	<i>ʔa-ktub-a</i>	<i>ʔa-ktub-°</i>
1st Pl.	<i>na-ktub-u</i>	<i>na-ktub-a</i>	<i>na-ktub-°</i>
2nd Masc. Sg.	<i>ta-ktub-u</i>	<i>ta-ktub-a</i>	<i>ta-ktub-°</i>
3rd Masc. Sg.	<i>ja-ktub-u</i>	<i>ja-ktub-a</i>	<i>ja-ktub-°</i>
3rd Fem. Sg.	<i>ta-ktub-u</i>	<i>ta-ktub-a</i>	<i>ta-ktub-°</i>

Table 2: Forms where mood is morphologically realized (no PNG suffix follows)

In every other person-number-gender slot, a PNG suffix follows the position where the mood vowel would otherwise appear, and the three-way mood contrast disappears from that position. El Fenne (2023) describes this as a case of complementary distribution: when a PNG suffix is present, the mood vowel is suppressed, and the form is determined entirely by agreement, independent of mood. The second person feminine singular, all plural forms, and all dual forms fall into this category, and Table 3 presents them.

Person	Indicative	Subjunctive	Jussive
2nd Fem. Pl.	<i>ta-ktub-ø-na</i>	<i>ta-ktub-ø-na</i>	<i>ta-ktub-ø-na</i>
3rd Fem. Pl.	<i>ja-ktub-ø-na</i>	<i>ja-ktub-ø-na</i>	<i>ja-ktub-ø-na</i>
2nd Fem. Sg.	<i>ta-ktub-i:na</i>	<i>ta-ktub-ø-i:</i>	<i>ta-ktub-ø-i:</i>
2nd Dual	<i>ta-ktub-ø-a:ni</i>	<i>ta-ktub-ø-a:</i>	<i>ta-ktub-ø-a:</i>
3rd Dual	<i>ja-ktub-ø-a:ni</i>	<i>ja-ktub-ø-a:</i>	<i>ja-ktub-ø-a: (Fem.: ta-ktub-ø-a:)</i>
2nd Masc. Pl.	<i>ta-ktub-ø-u:na</i>	<i>ta-ktub-ø-u:</i>	<i>ta-ktub-ø-u:</i>
3rd Masc. Pl.	<i>ja-ktub-ø-u:na</i>	<i>ja-ktub-ø-u:</i>	<i>ja-ktub-ø-u:</i>

Table 3: Forms where the dedicated mood vowel is suppressed by a following PNG suffix

A closer look at Table 3 shows that El Fenne's complementary distribution claim, while correct in spirit, does not hold without qualification across the full paradigm. If mood were simply absent once a PNG suffix is merged, the PNG suffix itself should be identical across indicative, subjunctive, and jussive in every one of these slots. This is true only for the second and third person feminine plural, where the suffix *-na* is invariant across all three moods. In every plural and dual masculine form, and in the second person feminine singular, the PNG suffix itself alternates in shape depending on mood: the indicative consistently takes a longer allomorph ending in a nasal, *-u:na* in the masculine plural, *-a:ni* in the dual, *-i:na* in the second feminine singular, while the subjunctive and jussive consistently take a corresponding allomorph lacking that nasal, *-u:*, *-a:*, and *-i:* respectively. Mood is therefore not simply absent in these slots; rather, its effect is relocated from the dedicated mood vowel onto the shape of the PNG suffix itself. What holds across the paradigm is a weaker generalization than strict complementary distribution: the dedicated mood vowel position is suppressed whenever a PNG suffix follows, but a residual mood distinction often survives in the alternation between a long and a short allomorph of that PNG suffix.

The sukun /°/ of the jussive deserves separate comment, since it might appear to be simply the absence of any mood marking rather than a marking in its own right. Its behavior in Table 3 argues against this. The jussive's /°/ patterns exactly like the indicative's /-u/ and the subjunctive's /-a/ in being suppressed under the same morphological condition, the presence of a following PNG suffix, and in triggering the same short-allomorph effect on that suffix wherever it survives. If /°/ were simply the absence of a mood morpheme, this parallel behavior would be a coincidence. Its patterning instead suggests that sukun is the realization of an underlying root node in the mood position, present in the representation but lacking phonological content of its own (El Fenne 2023), exactly as the indicative and subjunctive vowels are present and overt.

The three mood values in Table 2 are not in free variation; each is selected by a specific tense-bearing negation particle. The indicative, realized as /-u/, co-occurs with the future particle *sawfa* (1a) or the present negation *la:* (1b); the subjunctive, realized as /-a/, co-occurs with future negation *lan* (1c); and the jussive, realized as /°/, co-occurs with past negation *lam* (1d). This selectional relationship is categorical: substituting one negation particle for another while keeping the verb's mood fixed produces ungrammaticality, as shown in Section 5.2.

(1a)

sawfa ja-ktub-u xa:lid-u r-risalata

FUT 3M-write.IMPERF-INDICATIVE Khalid-NOM the-letter-ACC

'Khalid will write the letter.'

(1b)

la: ja-ktub-u xa:lid-u r-risalata

NEG.PRES 3M-write.IMPERF-INDICATIVE Khalid-NOM the-letter-ACC

'Khalid is not writing the letter.'

(1c)

lan ja-ktub-a xa:lid-u r-risalata

NEG.FUT 3M-write.SUBJUNCTIVE Khalid-NOM the-letter-ACC

'Khalid will not write the letter.'

(1d)

lam ja-ktub-° xa:lid-u r-risalata

NEG.PAST 3M-write.JUSSIVE Khalid-NOM the-letter-ACC

'Khalid did not write the letter.'

5. The Distribution of Verbal Forms: Data and Generalization

5.1 Affirmative Sentences

The distribution of verbal forms in simple affirmative sentences is consistent with both positions reviewed in Section 3. Consider (2):

(2a)

katab-a *xa:lid-u r-risalata*

write.PERF-3SM Khalid-NOM the-letter-ACC

'Khalid wrote the letter.'

(2b)

ja-ktub-u *xa:lid-u r-risalata*

3M-write.IMPERF-S Khalid-NOM the-letter-ACC

'Khalid is writing the letter.'

(2c)

sawfa ja-ktub-u *xa:lid-u r-risalata*

FUT 3M-write.IMPERF-S Khalid-NOM the-letter-ACC

'Khalid will write the letter.'

In (2a), the perfective form appears and the sentence is past. In (2b), the imperfective indicative appears and the sentence is present. In (2c), the imperfective appears again but the sentence is future, with the particle *sawfa* introducing the future interpretation. Taken in isolation, these data could support a claim that the verbal form itself encodes tense (Bahloul 2008; Tucker 2011) or that tense is inferred from agreement morphology (Benmamoun 2000). The critical data lie elsewhere.

5.2 The Critical Evidence: Negative Sentences

SA has three sentential negation particles that are lexically specified for tense: *lam* (past), *la* (present), and *lan* (future). Crucially, all three particles require the imperfective form of the verb, regardless of the tense value they express. Consider the sentences in (3), which are the negated forms of the sentences in (2), respectively:

(3a)

lam ja-ktub-° *xa:lid-u r-risalata*

NEG.PAST 3M-write.JUSS Khalid-NOM the-letter-ACC

'Khalid did not write the letter.'

(3b)

la: ja-ktub-u *xa:lid-u r-risalata*

NEG.PRES 3M-write.IND Khalid-NOM the-letter-ACC

'Khalid is not writing the letter.'

(3c)

lan ja-ktub-a *xa:lid-u r-risalata*

NEG.FUT 3M-write.SUBJ Khalid-NOM the-letter-ACC

'Khalid will not write the letter.'

Sentence (3a) is past in tense yet uses the imperfective form, specifically the jussive mood variant licensed by *lam*. Sentence (3b) employs the indicative imperfective preceded by the negative particle *la*: to denote the present tense. Sentence (3c) is future yet uses the imperfective subjunctive dominated by *lan*. The tense interpretation in all three cases is determined by the negation particle, not by the verbal form. The perfective is categorically excluded from all negative contexts, as confirmed by the ungrammaticality of (4):

(4)

* ***lam katab-a*** *xa:lid-u r-risalata*

NEG.PAST write.PERF-3SM Khalid-NOM the-letter-ACC

'(Intended: Khalid did not write the letter.)'

The data in (3) and (4) are fatal for all versions of both stands. For the tense-abstractness camp: on Benmamoun's (2000) account, the imperfective's prefix-plus-suffix agreement morphology signals present tense; sentence (3a), which uses this form in a past tense context, should be anomalous. More fundamentally, (4) shows that the perfective, whose suffixal agreement is supposed to signal past tense, is actively rejected by the past negation particle *lam*. If agreement morphology signals tense, (4) should be at least as grammatical as (3a).

For the morphological realization camp: on Bahloul's (2008) account, the prefix vowel /a/ in *ja*-ktub encodes present tense. Sentence (3a) uses this form in a past context, yielding a direct contradiction. For Tucker (2011) and Embick (2010), the vocalic quality of the imperfective stem is claimed to encode tense, aspect, and voice simultaneously; yet the same stem form appears across past, present, and future negative sentences in (3a-c), which is impossible if the stem directly encodes tense. El Fenne's (2023) abstractness account avoids this specific contradiction, but her claim that both tenses are equally abstract conflicts with the present paper's argument that the perfective does bear an overt tense-relevant morpheme, as Section 6 demonstrates.

5.3 The Core Generalization

The perfective form is restricted to affirmative past tense sentences. The imperfective form appears in all other verbal environments: affirmative present, affirmative future (with *sawfa*), and all negative sentences regardless of tense value. In negative and future sentences, the tense interpretation is determined by the tense-bearing functional element (the negation particle or *sawfa*), not by the verbal form itself.

This generalization reveals the asymmetry that any adequate analysis must derive: the perfective is a marked form, restricted to one environment, whereas the imperfective is an elsewhere form, occurring whenever tense is not encoded on the verb. Accordingly, the perfective is marked for past tense while the imperfective is not marked for tense.

In negative and affirmative future sentences, tense is expressed by the tense-bearing negation particles or the future particle *sawfa*, all of which precede the imperfective form of the verb. In these contexts, the imperfective contributes no tense value of its own, and the analysis is relatively straightforward.

Affirmative present sentences, however, present a different situation: the imperfective appears without any tense-bearing functional element, as in (2b). If the imperfective is genuinely unmarked for tense, a question immediately arises: how is present tense expressed in these sentences?

The perfective raises a parallel but distinct question. It appears exclusively in affirmative past sentences, again without any functional element that could supply the past tense interpretation. Since no external tense-bearer is present, the past tense must be encoded on the perfective form itself. But where, and how? The next section addresses both questions by investigating the morphological nature of the present and past tense morphemes in SA.

6. Identifying the Tense Morphemes

6.1 The Abstract Present Tense Morpheme

Verbless sentences provide direct evidence that the present tense morpheme has no phonological content. SA allows full predication sentences with no overt verb in the present tense, while past and future require the copular verb *ka:na* :

(5a)

ʔal-ʒaww-u mufmis-un

the-weather-NOM sunny-NOM

'The weather is sunny. [no verb; present tense]'

(5b)

ka:n-a l-zaww-u mufmis-an

be.PERF-3SM the-weather-NOM sunny-ACC

'The weather was sunny.'

(5c)

sa-ja-ku:n-u l-zaww-u mufmis-an

FUT-3M-be.IMPERF-S the-weather-NOM sunny-ACC

'The weather will be sunny.'

The distribution of the copula across (5a) to (5c) is itself the evidence. In the past and future sentences (5b) and (5c), the copular verb *ka:na* appears to provide lexical support for the tense feature on T°: since T°[+Past] and T°[+Future] must be checked, the copula is inserted to host the tense feature and allow it to be spelled out. In the present sentence (5a), by contrast, no copula appears, and the sentence is fully grammatical without one. If the present tense head required phonological support in the same way that past and future do, the absence of the copula in (5a) should render the sentence ungrammatical, or force the insertion of some other lexical element to host the feature. Neither happens. The simplest explanation is that T°[+Pres] does not need lexical support because it has no phonological content to spell out in the first place: there is nothing for a copula to host. The absence of *ka:na* in (5a) is therefore not an accident of this particular construction but direct evidence that the present tense morpheme is abstract.

In (5a), T°[+Pres] is syntactically active (as it assigns nominative case), but has no phonological realization. In (5b) and (5c), the past and future tense heads are realized by overt material. The asymmetry is categorical: the present tense head is incapable of phonological spell-out. This conclusion is consistent with Fassi Fehri's (1993) observation on the abstract copula in Semitic and with Hallman's (2016) analysis of the aspectual-temporal interface in Arabic. El Fenne (2023) reaches a similar conclusion from the morphological direction, noting that tense never surfaces as an independent morpheme in SA; the present analysis agrees with this observation while diverging on the past tense morpheme, as the next section shows.

The abstractness of the present tense morpheme has a direct consequence for the lexical entry of the imperfective form. T°[+Pres] is phonologically null but bears a strong [Tense] feature that must be checked before Spell-out. In present affirmative sentences, no tense-bearing particle is present in the structure: no element analogous to *lam*, *la*, or *sawfa* occupies NegP or AuxP. The only element available to check the [+Present] feature on T° is therefore the verb itself. This means that the imperfective form in present affirmative sentences must be valued for [+Present] in the numeration, so that Agree can be established between the verb and T°[+Pres] and the strong feature can be eliminated before Spell-out. At the same time, Section 5.2 established that the imperfective also appears in negative and future sentences, where the tense feature is carried by an independent particle. In those contexts, the verb has no tense feature to contribute and none is required of it. An imperfective form bearing [+Present] could not appear in those contexts without generating an unchecked feature on the verb, which would cause the derivation to crash. It follows that the imperfective must have two lexical entries: one bearing [+Present], selected in present affirmative sentences, and one that is tense-neutral, selected when a tense-bearing particle is present.

6.2 The Past Tense Morpheme: Position of the Voice Morpheme

The identification of the past tense morpheme requires examining the internal structure of the two verbal templates more carefully. The structural difference between the two verbal templates identified in Section 4.1 provides the starting point for identifying the past tense morpheme. The perfective template CVCVC contains a vowel slot between C₁ and C₂, while the imperfective base template CCVC does not. The presence of this root-internal vowel in the perfective and its absence in the imperfective is a structural asymmetry that must bear on the tense distinction between the two forms. This observation is consistent with Bahloul's (2008) claim that the vowel appearing after the first radical consonant, V₁ in his terms, is the morpheme encoding past tense and perfective aspect. Bahloul is right that this vowel is structurally significant; the question is whether his identification of its morphological function is correct.

The active and passive minimal pairs in (6) suggest that it is not. The vowel occupying the root-internal slot C₁C₂ in the perfective alternates between /a/ and /u/:

(6a)

ʃaraḥ-a l-ʔusta:ḏ-u d-darsa

explain.PERF.ACT-3SM the-teacher-NOM the-lesson-ACC

'The teacher explained the lesson. [voice vowel /a/ between C₁ and C₂: ʃ-a-r-aḥ]'

(6b)

ʃuriḥ-a d-darsu

explain.PERF.PASS-3SM the-lesson-NOM

'The lesson was explained. [voice vowel /u/ between C₁ and C₂: j-**u**-r-iḥ]'

In (6a), the perfective active form *jarah-a*, the root-internal vowel is /a/. In (6b), the perfective passive form *juriḥ-a*, the same position contains /u/. Both sentences are equally past in tense; the alternation between /a/ and /u/ tracks voice, not tense. If V₁ were a tense morpheme, as Bahloul (2008) claims, it should be invariant across the active/passive distinction, since both forms express the same tense. The fact that it alternates with voice is incompatible with a tense-morpheme analysis. The root-internal vowel of the perfective is therefore the voice morpheme, not the tense morpheme.

The imperfective forms in (7) confirm this conclusion while introducing the positional distinction that is the key to the analysis:

(7a)

ja-fraḥ-u l-ḡusta:ḍ-u d-darsa

3M.ACT-explain.IMPERF-S the-teacher-NOM the-lesson-ACC

'The teacher is explaining the lesson. [voice vowel /a/ in prefix: j-**a**-fraḥ]'

(7b)

ju-fraḥ-u d-darsu

3M.PASS-explain.IMPERF-S the-lesson-NOM

'The lesson is being explained. [voice vowel /u/ in prefix: j-**u**-fraḥ]'

In the imperfective, the voice morpheme is not root-internal. It appears in the agreement prefix: j-**a**-fraḥ (active) versus j-**u**-fraḥ (passive). The alternation between /a/ and /u/ encodes voice in exactly the same way as in the perfective, but the morpheme has migrated from the root-internal position C₁C₂ to the prefix position. This migration follows directly from the template difference: the imperfective base template CCVC provides no root-internal vowel slot, so the voice morpheme surfaces in the prefix instead.

Two distinct morphological properties therefore emerge from comparing (6) and (7). The identity of the vowel, /a/ or /u/, encodes voice and is consistent across both verbal forms. The position of that vowel, root-internal in the perfective and root-external (precisely, after the agreement prefix) in the imperfective, correlates perfectly with the tense distinction between the two forms. It is not the identity of the voice morpheme but its position that is the past tense diagnostic, as illustrated below.

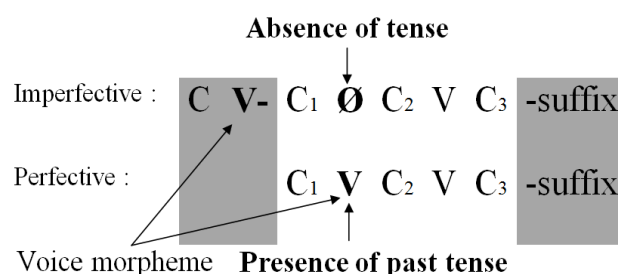


Figure 2: Position of the voice morpheme as the diagnostic for the presence or absence of past tense

The positional difference is thus structurally determined by the CV template, and it is the diagnostic for tense. To formalize it, we propose the following condition, which we term the Past Morpheme Condition (PMC):

Past Morpheme Condition (PMC): A verbal form bears the feature [+Past] if and only if the voice morpheme is realized root-internally, between C₁ and C₂ of the triconsonantal root. A verbal form whose voice morpheme is realized in the prefix position is underspecified for [+Past].

The PMC derives the generalization drawn from morphological structure: the perfective, with a root-internal voice vowel, is [+Past]; the imperfective, with a prefix-external voice vowel, is not. The absence of a root-internal vowel slot in the imperfective template (CCVC) makes it impossible for the imperfective to bear the [+Past] feature, which explains why it is the elsewhere form in the tense system.

The present analysis diverges from El Fenne (2023) on a specific and important point. El Fenne concludes that both past and present tense are equally abstract, arguing that tense never surfaces as an independent morpheme. The PMC challenges this

conclusion: the voice morpheme, when root-internal, is the phonological realization of the past tense feature. It is not a dedicated tense morpheme in the traditional sense, but its position carries tense-relevant information that distinguishes the perfective from the imperfective at the morphological level. Tense is not equally abstract across the two forms; it is realized obliquely, through a positional property of the voice morpheme, in the perfective. The tense morpheme inventory of SA triconsonantal verbs is summarized in table 6.

Tense	Morpheme / Realization	Verbal Form Selected
Past	Root-internal voice vowel (PMC; concrete)	Perfective [+Past]
Present	Abstract null T°[+Pres] (no PF content)	Imperfective [+Present entry]
Future	Lexical particle <i>sawfa</i> / <i>sa-</i>	Imperfective [tense-neutral entry]
Negative (past / pres. / fut.)	Tense-bearing negation particle (<i>lam</i> / <i>la:</i> / <i>lan</i>)	Imperfective [tense-neutral entry]

Table 6: Tense morpheme inventory in Standard Arabic

7. Tense Feature Checking: Minimalist Derivations

7.1 Feature Strength and the VSO Diagnostic

Before deriving individual sentence types, the strength of the [Tense] feature in SA must be established. The standard diagnostic is word order. SA displays VSO order in simple finite sentences, as in (8):

(8)

katab-a xa:lid-u r-risalata

write.PERF-3SM Khalid-NOM the-letter-ACC

‘Khalid wrote the letter.’

The finite verb *katab-a* precedes the nominative subject *xa:lid-u*. If the subject occupies its base position in Spec-vP, the verb must have moved from v° to T° before Spell-out, producing the VSO surface order.

This overt V-to-T movement establishes the strength of the [Tense] feature (Fassi Fehri 1993: 68; Aoun et al. 2010: 41; cf. Pollock 1989 for the original argument; Bobaljik and Thrainson 1998 for the typology). This motivates the assumption that the [Tense] feature in SA is uniformly strong. It must be checked before Spell-out, triggering overt movement of the tense-bearing element to T°.

7.2 Affirmative Past and Present Sentences: V-to-T movement

In affirmative past sentences, the perfective form, where the voice morpheme is root-internal, is lexically specified [+Past] in the numeration. As illustrated in Figure 3, the derivation of (8) proceeds as follows: the verb and its object merge to form a VP. The verb then moves to v°, checking its [V] feature. The subject merges in Spec-vP and its phi-features are checked against the verb's agreement features via Agree. Finally, the verb raises from v° to T°, checking its [+Past] feature against T°[+Past]. The subject remains in its base position in Spec-vP. This overt V-to-T movement places the verb to the left of the subject, producing the VSO order observed in (8).

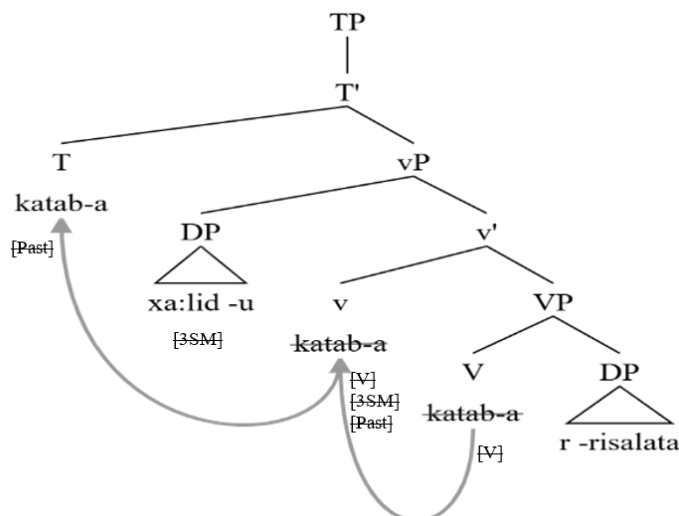


Figure 3: V-to-T movement in affirmative past sentences

The subject's remaining in Spec-vP rather than raising to Spec-TP is not an analytical stipulation but a grammatical property of SA. SA is a pro-drop language: the verb always surfaces with full phi-feature agreement, making the overt realization of the subject optional. The sentence in (8') illustrates this:

(8')

katab-a r-risalata
write.PERF-3SM the-letter-ACC
'He wrote the letter.'

In (8'), no overt subject appears, yet the sentence is fully grammatical: the agreement suffix -a on the verb identifies the subject as third person singular masculine, rendering an overt nominal subject redundant. This optionality follows from the richness of SA verbal agreement morphology (Rizzi 1982; Alexiadou and Anagnostopoulou 1998) and entails that the EPP, the requirement that Spec-TP be filled, is not operative in SA in the way it is in non-pro-drop languages such as English and French. Spec-TP therefore remains empty, and VSO order is the direct surface reflex of V-to-T movement alone.

In affirmative present tense sentences, the imperfective form bearing [+Present] raises overtly to the null T°[+Pres] head, producing the same VSO order:

(9)

ja-ktub-u xa:lid-u r-risalata
3M-write.IMPERF-S Khalid-NOM the-letter-ACC
'Khalid is writing the letter.'

The derivation is parallel to the perfective case. T°[+Pres] is phonologically null but syntactically active. The imperfective [+Present] entry bears a feature that matches T°[+Pres], driving overt movement. The surface VSO order in (9) confirms this movement. This finding is consistent with Pollock's (1989) foundational observation that abstract T° heads can trigger overt V-movement in languages with strong tense features.

7.3 Negative Sentences: Tense Checking by the Negation Particle

Negative sentences in SA require two additional functional projections beyond TP: NegP, which hosts the sentential negation morpheme (Pollock 1989; Ouhalla 1990), and MoodP, which hosts the mood feature of the finite verb (Ouhalla 1993, 1994). Following Ouhalla (1993, 1994), Mood° is projected between Neg° and v° in the clausal spine: the verb moves to Mood° to check its mood feature, while the negation element moves to T° to check the tense feature. This architecture, independently motivated by the co-occurrence restrictions between the tense-bearing negation particles and the specific mood forms of the imperfective (documented in Section 4.2), is what the derivation below makes precise. The derivation of (3a), repeated here as (10), illustrates the general mechanism:

(10)

lam ja-ktub-° xa:lid-u r-risalata

NEG.PAST 3M-write.JUSS Khalid-NOM the-letter-ACC

'Khalid did not write the letter.'

A NegP is projected between TP and vP, with the negation particle in Neg°. The particle bears [+Past] and raises from Neg° to T° to check the strong tense feature. This movement to T° blocks V-to-T movement: T° is already occupied once the negation element has raised to it, and no second element may target the same head position (see Figure 4 for illustration).

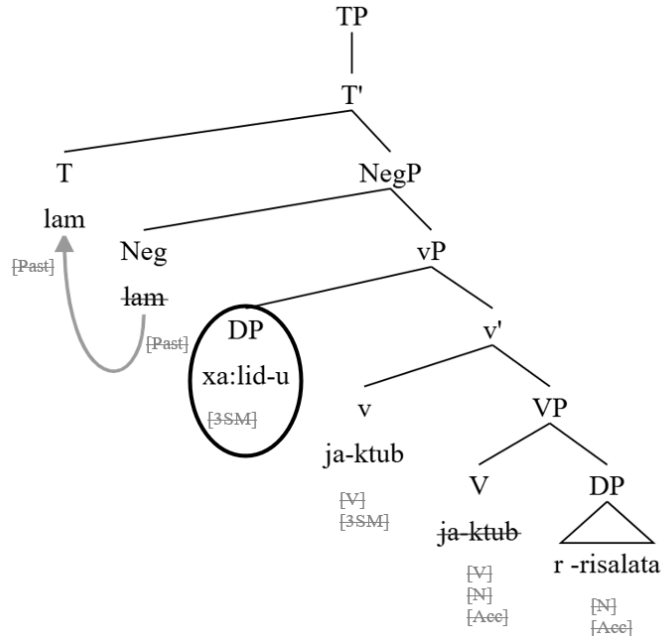


Figure 4: Movement of the negation particle to T°, blocking V-to-T movement

However, this creates an adjacency problem, as the subject intervenes between the negation particle and the verb. Sentence (11) shows that intervention by the subject is ungrammatical:

(11)

* *lam xa:lid-u ja-ktub r-risalata*

NEG.PAST Khalid-NOM write.JUSS the-letter-ACC

'(Intended: Khalid did not write the letter.)'

Following Ouhalla (1993, 1994), this adjacency requirement is satisfied by the projection of MoodP between NegP and vP, as illustrated in Figure 5. The verb moves from v° to Mood°, checking its mood feature: jussive with *lam*, subjunctive with *lan*, indicative with *la:*. This V-to-Mood° movement is overt and places the verb immediately adjacent to the negation particle, satisfying the selectional requirement.

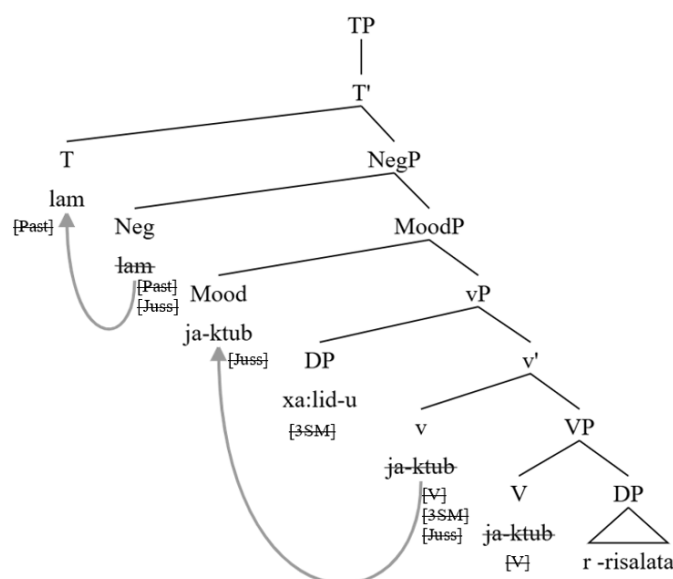


Figure 5: V-to-Mood° movement satisfying adjacency with the negation particle

The three-way mood alternation across the three negation particles, documented in Tables 2 and 3, is thus directly derived by the MoodP structure: each particle selects a specific feature value at Mood°, and the verb's movement to Mood° exposes its mood feature for checking. This is strong independent evidence for the MoodP projection (Aoun et al. 2010: 196; Benmamoun and Choueiri 2013: ch. 5; Soltan 2007: 214). Note that El Fenne (2023) accounts for the mood alternation morphologically, as a suppression effect governed by the PNG suffix constraint. The present analysis is complementary: the morphological suppression El Fenne describes operates at PF, while the selectional relationship between the negation particle and the mood feature is established in the syntactic derivation at the level of MoodP.

7.4 Future Sentences

The future particle *sawfa* (or the proclitic *sa-*) is lexically specified [+Future]. It projects an AuxP between TP and vP and raises to T° to check the strong [+Future] feature, blocking V-to-T movement by the same mechanism as the negation particles (see Figure 6 for illustration). The verb moves to Mood° (indicative) to ensure adjacency with *sawfa*, and the tense-neutral imperfective entry is selected. The derivation is thus parallel to the negative case, with *sawfa* and the tense-bearing negation particles forming a natural class of tense-bearing functional elements that occupy T° in SA.

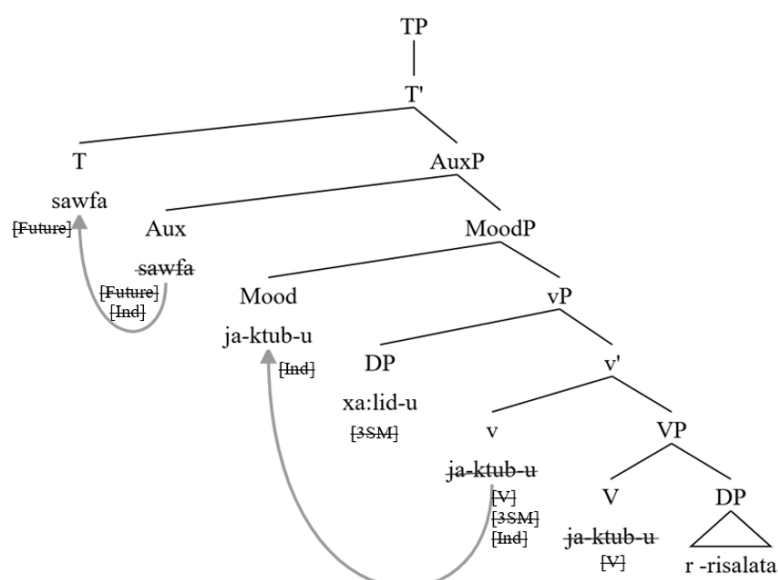


Figure 6: Movement of the future particle *sawfa* to T°, with V-to-Mood° movement

7.5 The Two Lexical Entries for the Imperfective: Three Arguments

The proposal that the imperfective exists in two lexical entries, one bearing [+Present] and one tense-neutral, requires justification that goes beyond the distributional pattern it is designed to capture.

The V-to-T movement argument. In present tense sentences, the imperfective moves overtly to T°[+Pres], as evidenced by VSO order. This movement is driven by a feature on the verb that matches T°. If the imperfective were uniformly tense-neutral, it would have no such feature, and movement to T° would violate Last Resort (Chomsky 1995: 280), which prohibits movement that does not satisfy any feature-checking requirement. The [+Present] entry is therefore required by the logic of the derivation.

The mood selection argument. In negative sentences, each particle selects a distinct mood form of the imperfective. This tripartite selectional relationship holds only with the tense-neutral entry: it is the tense-neutral imperfective that appears in these contexts, not the [+Present] entry. The distinction between the two entries is therefore syntactically active: the tense-neutral entry participates in mood checking at Mood°, while the [+Present] entry participates in tense checking at T°. A single underspecified entry could not straightforwardly capture both checking relationships.

The verbless sentence argument. Present tense verbless sentences establish that T°[+Pres] is syntactically real: it assigns case, and projects a TP. When a verb is present in a present tense sentence, it must check its [+Present] feature against this head. The [+Present] imperfective entry is the lexical item that does so; its existence as a distinct entry is entailed by the existence of the null T°[+Pres] that it checks.

8. Conclusion

This paper began with a puzzle: SA has two verbal forms but three tense distinctions. The existing literature offered two competing answers. One group of scholars held that tense is abstract, not directly encoded on the verb; another held that tense is morphologically realized in the vocalic template. Both positions were shown to fail on the same evidence: the distribution of verbal forms in negative sentences, where the imperfective appears regardless of tense value and the tense interpretation is carried by the negation particle.

The analysis developed here resolves this puzzle through a positional account of the voice morpheme. The two verbal templates differ in their CV structure: the perfective is CVCVC, with a root-internal vowel slot between C₁ and C₂; the imperfective base is CCVC, with no such slot. The voice morpheme occupies the root-internal slot in the perfective, and this root-internal realization is the phonological correlate of the [+Past] feature. In the imperfective, the voice morpheme migrates to the prefix position because no root-internal slot is available, and the form is consequently tense-neutral.

The imperfective has two lexical entries: one bearing [+Present] and one tense-neutral. Present tense sentences are derived by overt V-to-T movement of the [+Present] entry to the null T°[+Pres] head. Negative and future sentences are derived by movement of the tense-bearing particle to T°, blocking V-to-T movement and forcing the verb to move to Mood° instead. The three-way mood alternation (indicative, subjunctive, jussive) across the three negation particles is the morphological reflex of this movement, confirming the MoodP projection independently proposed by Ouhalla (1993, 1994) and supported by subsequent work on Arabic syntax (Aoun et al. 2010; Benmamoun and Choueiri 2013; Soltan 2007).

The result is a unified, empirically grounded account of tense in SA that engages constructively with both stands in the literature. It shows that tense in SA is neither entirely abstract nor uniformly realized by any single segmental morpheme, but is instead encoded through a positional property of the voice morpheme that has been overlooked in prior analyses. The discovery-driven structure of the argument, from affirmative data, through negative data, through the positional analysis of templates, to the minimalist derivations, reflects the actual sequence in which the analysis was motivated.

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