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Grammaticalization of the Particle Qad in Arabic

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ABSTRACT

In this paper, we explore the grammaticalization of the modal-aspectual particle *qad* in Classical Arabic and *qid* in Saudi Najdi Arabic. This particle has two functions: before a perfect verb, it serves as emphasis (i.e., *surely, indeed, verily),* and before an imperfect verb, it indicates possibility (i.e., *may, might, could).* We first classify the environments in which this particle is found — i.e., before perfect or imperfect verbs, before or after the auxiliary *kāna,* before negatives, etc. — and demonstrate that *qad* is not an affix, whereas *qid* is. We then consult other Semitic languages for plausible analogies to the origins and development of *qad.* After that, we synthesize the data and analysis into an account of the grammaticalization of the particle *qad,* namely from plausible origins as an adjunct, then the specifier with interpretable features, then first verb in a Serial Verb Construction (SVC), to a head with uninterpretable features, to an affix with fewer uninterpretable features. Finally, we explore the plausible early stages of *qad*: as specifier with interpretable features (Biblical Aramaic example), then as a SVC (Syriac example), and then demonstrate that *qad* cannot precede tensed negatives because *qad* is base-generated as the head of AspP, thereby blocking the negative from acquiring tense from T.

Keywords: Serial Verb Construction; Modality; Reanalysis; Feature Economy; Semitic Linguistics

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1. Introduction

In this paper, we examine the *modal-aspectual* marker *qad* in Classical Arabic (CA), its cognate in Saudi Najdi Arabic *qid,* and other (what we propose to be) related markers, namely *qam* in Northeastern Neo-Aramaic (NENA), *qadama* in Geʾez, *qaddem* in Syriac, and *qōdām* in Biblical Aramaic. We are interested in this particular marker (over others such as *sawfa, rāḥ, ǧālis,* etc., to be discussed briefly in Section 3) for two main reasons: first, the particle itself seems to be understudied, especially in the generative tradition; and second, its dual semantic function (either as a marker for emphasis or possibility) presents a compelling syntactic challenge, that is, how can the *modal-aspectual* features of the verb relate to the function of the preverbal particle? To synthesize the data from the aforementioned languages, we employ a methodology referred to as *dynamization of synchrony* [1]. In their volume on Serial Verb Constructions (SVCs), Andrason and Aikhenvald [2] describe this methodology as follows:

"a synchronic state … in a specific language at a specific point in time or a collection of such synchronic states exhibited in several languages, are interpreted diachronically and arranged into a sequence. This sequence, in turn, reveals and/or reflects an evolutionary path that these constructions have followed" [2]

Applying this to our examination of the *modal-aspectual* marker *qad* and its cognates means observing segments from closely related languages and arranging those segments into a diachronic story. In other words, these cognates are separated by a significant amount of space or time, undergoing distinct but related processes of change.

With that in mind**,** the purpose of this paper is to determine the stages of *qad*'s development from lexical to functional material, and which linguistic features of *qad* and its progenitors were lost and gained in its history.

The authors chose CA, as opposed to Modern Standard Arabic (MSA), because we presumed either that there would be no significant difference in function or distribution, or that any differences would be considered innovations outside the scope of the paper. We chose Saudi Najdi Arabic (SNA) because it is the native dialect of one of the authors. In fact, where not otherwise cited, examples in Arabic are sourced from the judgments of one of the authors. We did not exactly 'choose' the other languages; rather, we encountered them in the course of our examination.

In the course of this paper, we will make use of some potentially confusing terminology, i.e., (im)perfect vs. (im) perfective. The former is a purely morphological category describing whether verbal inflection occurs before or after its host. In other words, the *perfect* verb is any verb that takes suffix conjugations (e.g., Arabic *qatala* 'he killed'), and an *imperfect* verb is any verb which takes prefix conjugations (e.g., Arabic *yaqtulu* 'he kills'). As for (im)perfective, this is a purely aspectual category describing the completeness of a particular event. This distinction can also be seen in the examples where *perfect* and *imperfect* verbs are marked *perf* and *impf* because those verbs take suffix and prefix inflection, respectively, not because they are *perfective* or *imperfective.* That being said, in practice, these categories overlap; a morphologically perfect verb is likely (but not guaranteed) to have a perfective interpretation. The distinction between morphological tense and aspectual interpretation will be important throughout our analysis, especially as we examine how these forms behave in CA and SNA.

With these preliminaries established, we now turn to the structure of the paper. Section 2 presents *qad* in CA and *qid* in SNA, with examples showing their restrictions and affixation patterns. We also argue that *qad* is best analyzed as a particle rather than an adverbial. Section 3 explores the wider Semitic context for these forms. In Section 4, we briefly outline the relevant Minimalist assumptions, synthesize the data into a grammaticalization account, and examine how *qad* interacts with SVCs and negation. Section 5 concludes the paper.

2. The Particle QAD in Context

For clarity, we refer to the Classical Arabic form as CA *qad* and the Saudi Najdi form as SNA *qid* throughout the paper. Collectively, we refer to these as the QAD-class particles. When we use the general term "the particle," we do so only when referring to shared properties across both forms.

2.1. QAD Preceding PERF and IMPF

In CA, *qad* is uninflected and precedes both perfect and imperfect verbs, as seen below. Preceding perfect verbs, *qad contributes emphasis (i.e., by making an epistemic commitment to the truth of the event)* as in (1); and preceding imperfect verbs, it serves to indicate possibility as in (3). *Because of this, qad is a modal-aspectual particle.* According to Salamah [3], combining *qad* with non-past verb forms, particularly the imperfect, usually suggests modality in terms of possibility or probability, suggesting that *qad* is a modal/particle verb (i.e., *may, might*). The minimal pairs in (1) through (8) represent the contribution that qad and qid make to the expression.

(1) *qad* *māta* CA [4]
QAD died.PERF
'he indeed has died'

(2) *māta* CA
died.PERF
'he died'

(3) *qad* *ta-ktubu* *al-waǧība* CA
QAD write.IMPF the-assignment
'She may write the assignment'

(4) ta-ktubu al-waǧība CA
write.IMPF the-assignment
'She writes the assignment'

In SNA, the particle is rendered *qid* and can only precede perfect verbs, as shown in (7). For the purposes of this paper, we refer to *qad* in CA with its rendering in SNA as forming a QAD-class.

(5) *l-bent* *qid* *ktib-t* *er-risalah*
the-girl QAD wrote.PERF-3FS the-letter
'The girl indeed had written / wrote the letter'

(6) *l-bent* *ktib-t* *er-risalah*
the-girl wrote.PERF-3FS the-letter
'The girl wrote the letter'

(7) * *l-bent* *qid* *ta-ktib* *er-risalah*
the-girl QAD 3F-write.IMPF the-letter
'The girl indeed has written the letter'

In syntactic notation, the asterisk * placed before a sentence or example indicates that the structure is ungrammatical or unacceptable in the language under discussion.

(8) *l-bent* *ta-ktib* *er-risalah*
the-girl 3F-write.IMPF the-letter
'The girl writes the letter'

2.2. QAD Kāna

There are several other patterns which *qad* exhibits of note here. In conjunction with *kāna* 'was', which can only be followed by the imperfect, *qad* can go before or after, i.e., *kāna qad faʿala* and *qad kāna yafʿalu.* Similarly, SNA *qid* can precede *kān* as seen below, but because *kān* cannot precede a perfect verb, example (11) is ungrammatical. Importantly, the alternation between *kāna qad faʿala* and *qad kāna yafʿalu* demonstrates the different scopes that *qad* and *kāna* may take. That is, in (9), *qad* has scope over *kāna yuṣalli* which is already imperfective, while in (10) it is *kāna* that takes scope over *qad ṣallā,* which is perfective. Because in both examples *qad* precedes a perfect verb, it contributes emphasis, i.e. epistemic commitment to the truth of the event.

(9)	*qad*	*kāna*	*yuṣalli*	*fī al-bayt*	CA
	QAD	be.PERF	pray.IMPF	in the-house	
	'He indeed had been praying in the house'				
(10)	*kāna*	*qad*	*ṣallā*	*fī al-bayt*	CA
	be.PERF	QAD	pray.PERF	in the-house	
	'He had indeed prayed in the house'				
(11)	**qid*	*kān*	*ṣallā*	*fī al-bayt*	SNA
	QAD	be.PERF	pray.PERF	in the-house	
	'He had indeed prayed in the house'				
	The asterisk (*) is a standard notation in syntax indicating that the sentence is ungrammatical.				
(12)	*qid*	*kān*	*yuṣalli*	*fī al-bayt*	SNA
	QAD	be.PERF	3MS-pray.IMPF	in the-house	
	'He indeed had been praying in the house'				
(13)	*kān*	*qid*	*ṣallā*	*fī al-bayt*	SNA
	be.PERF	QAD	pray.PERF	in the-house	
	'He had indeed prayed in the house'				

2.3. QAD and Affixes

In some cases in CA, certain prefixes can be added to the particle *qad*. The prefix *la-* is attached only to *qad* and not to the main verb, as in *la-qad* [4], to mark emphatic meaning (e.g., certainly, surely). Therefore, there are three levels of emphasis, zero emphasis as in (14); the first-degree emphasis as in (15); and second-degree emphasis, as in (16). Other prefixes include *fa-* (17) and *wa-* (18).

(14)	*gadara*	*al-fārisu*		CA
	leave.PERF	the-horseman		
	'The horseman left.'			
(15)	*qad*	*gadara*	*al-fārisu*	CA
	QAD	leave.PERF	the-horseman	
	'The horseman has indeed left.'			

(16) *la-qad* *gadara* *al-fārisu* CA
Emph-QAD leave.PERF the-horseman
'Surely, the horseman has left.'

In what follows, we analyze how CA *qad* behaves with respect to prefixation and suffixation, in contrast to SNA *gid*. Al-Aswad [5] states that *la-qad* carries two interpretations . Firstly, it serves as emphasis; secondly, it functions as a perfective aspect marker for the verb, indicating the recent completion of the action. Bahloul [4] views *la-qad* as an emphatic adverb.

(17) *la* *tantazir* *al-waqt* *al-munāsib* *fa-qad* *la* *yaʔtī* *abadan* CA
NEG wait(for) the-time the-right so-QAD NEG come.IMPF never
'Don't wait for the right time, it may never come.'

(18) *wa-qad* *ʿadda* *eṭ-ṭullāb* *al-ḥafla* *bi-nağāḥ* CA
and-QAD perform.PERF the-students the-ceremony with-success
'The students have performed the ceremony successfully'

While in CA *qad* also appears with these prefixes (despite their operating at the clausal level), this option is not available in SNA. Interestingly, however, *qid* can take pronominal suffixes, allowing it to precede imperfect verbs, while *qad* cannot, as seen in (20).

(19) *qid-h* *y-ākal* *ʿašāʾ-h* SNA
QAD-3MS 3MS-eat.IMPF dinner-3MS
'He has already eaten his dinner.'

(20) **qad-h* *y-ākal-u* *ʿašāʾ-h* CA
QAD-3MS 3MS-eat.IMPF dinner-3MS
'He has already eaten his dinner.'
The asterisk (*) is a standard notation in syntax indicating that the sentence is ungrammatical.

The pronominal suffixes that *qid* hosts show agreement with the subject of the sentence, not the object. Although *qid* cannot precede imperfective verbs in SNA, its ability to host pronominal suffixes suggests a reanalysis as a bound form with morphosyntactic interaction in the T-domain. This contrasts with CA *qad*, which remains a free particle. Future work may explore whether this affixal behavior points to a further stage of grammaticalization beyond what is attested in CA. Based on this, we argue that *qad* allows prefixes to adjoin to it, but is not yet an affix itself, while *qid* can affix to agreement in T. Moreover, that *qad* is not yet an affix can be seen when there are elements that intervene between *qad* and the verb, as in *qad wallāhi ʾaḥsanta* 'thou hast, by God, done well' or *qad laʾamrī bittu sāhiran* 'I have, by my life, passed the night sleepless' [6]. Additionally, *qad* can be stranded, as in the following example, also from Lane, who makes no distinction between *qadī* and *qad* [6].

(21) *qad* *w-allāhi* *ʿaḥsan-ta* CA
QAD by-God well-2MS
'[indeed] thou hast, by God, done well'

(22) *qid* *mona* *safarat* *li-r-riyāḍ* CA
QAD mona travel.PERF to-the-Riyadh
'Mona has indeed traveled to Riyadh'

(23) *ʿafida at-taraḥḥulu ġayra ʿanna rikābanā lammā tazul biriḥālinā wakaʿan* ***qadi*** CA
'The time of departure has drawn near, though the camels that we ride have not left with our utensils and apparatus for traveling, but it is as though they **had** (left).'

2.4. QAD and Negative Particles

As seen in the following examples, QAD is sensitive to negation. That is, while the untensed negative particle can co-occur with QAD, as in example (24), tensed negative particles cannot, as in examples (25) and (26). Further, the negative particles and QAD do not co-occur in SNA, as seen in example (27). Importantly, the tensed negative particles *lam* and *lan* are marked PST and FUT, respectively, not PERF and IMPF, because these categories are related to the morphological form of verbs. In fact, *lam* and *lan* are *tensed* particles because they influence the tense of the following verb, not its aspect. In terms of tense, *lam* shifts the event into the past, while *lan* shifts the event into the future.

(24)	qad	lā	yuḥibbu	al-ʾaṭfāl	ad-dīrasat-a	CA
	QAD	NEG	like.IMPF	the-children	the-studying-ACC	

'The children may not like studying.'

(25)	* *qad*	lam	yuḥibbu	al-ʾaṭfāl	ad-dīrasat-a	CA
	QAD	NEG.PST	like.IMPF	the-children	the-studying-ACC	

'The children may not have liked studying.'

The asterisk (*) is a standard notation in syntax indicating that the sentence is ungrammatical.

(26)	* *qad*	lan	yuḥibb-u	al-ʾaṭfāl	ad-dīrasat-a	CA
	QAD	NEG.FUT	like.IMPF	the-children	the-studying-ACC	

'The children will not have liked studying.'

The asterisk (*) is a standard notation in syntax indicating that the sentence is ungrammatical.

(27)	**qid*	lā/lam/lan	yu-ḥebb	al-ʾaṭfāl	ad-dīrasah	SNA
	QAD	NEG	like.IMPF	the-children	the-studying	

'The children may/will not have liked studying.'

The asterisk (*) is a standard notation in syntax indicating that the sentence is ungrammatical.

It is likely that example (27) is ungrammatical because these negative particles are not used in SNA. Interestingly, *qid* may follow a negative particle, as in the following example:

(28)	*mā*	*qid*	*ḥabb-u*	*al-ʾaṭfāl*	*ad-dīrasah*	SNA
	NEG	QAD	like-3MP.PST	the-children	the-studying-ACC	

'Indeed, the children have never liked studying.'

2.5. QAD: Adverbial or Particle

Finally, because they behave differently in syntactic derivation, it is important to consider whether QAD is an adverbial or a particle. To determine this, we now turn to the behavior of adverbials and whether QAD exhibits this behavior. An adverbial is an element that modifies verbs, adjectives, and adverbs by elaborating on how the action

is carried out, or to what degree the adjective or adverb applies. In the following examples, *qad* does not modify the action of the verb; instead it has modality effects, expressing probability or possibility.

(29) *qad* *nazala* *al-maṭar* CA
QAD descend.3MS.PERF the-rain
'It indeed has rained.'

(30) *qad* *ya-nzilu* *al-maṭar* CA
QAD 3MS-descend.IMPF the-rain
'It might rain.'

Some other properties of QAD that suggest it is a particle rather than an adverbial include the following: (1) it cannot immediately precede or take scope over adjectives or adverbs, as it is only verb-related; (2) it cannot appear independently of the verb it relates to; and (3) its position in the sentence is primarily determined by its relation to the verb, i.e., it cannot follow the main verb of the sentence.

To this point, we have classified the restrictions on the environments in which the QAD-class particles (CA *qad* and SNA *qid*) can appear. **Table 1** summarizes the distributional constraints on *qad* and *qid* in CA and SNA.

Table 1. Summary of QAD-class constraints.

Environment	CA Qad	SNA Gid
QAD PERF	yes, ex. (1)	yes, ex. (5)
QAD IMPF	yes, ex. (3)	no, ex. (7)
QAD *kāna* PERF	no, ex. (11)	no, ex. (11)
QAD *kāna* IMPF	yes, ex. (9)	yes, ex. (12)
Kāna QAD PERF	yes, ex. (10)	yes, ex. (13)
Prefix-QAD	yes, exs. (16), (17), (18)	no
QAD-suffix	no, ex. (20)	yes, ex. (19)
QAD X verb	yes, ex. (21)	yes, ex. (22)
Sentence Final QAD	yes, ex. (23)	no
QAD *lā*	yes, ex. (24)	no, ex. (27)
QAD *lam/lan*	no, exs. (25), (26)	no, ex. (27)

3. Origins of the Particle QAD

As for the origins of *qad*, the oldest attestation of a particle like *qad* is in a Ṣafaitic inscription dating sometime between the 1st c. BCE and 4th c. CE. Al-Jallad [7] claims that in the following inscription, *qd* correlates perfectly with CA *qad*.

(31) *l bṭ w nyk b-grmh fʾtm zf* ***f-qd ʾbṣ*** Ṣafaitic, C285
By Bṭ and he copulated with Grmh as he had celebrated [7]
'the sending of the bride **and had been pleased**,' 1st c. BCE – 4th c. CE

For more context, although he does not give an analysis of *qad*, Rubin [8] points to several other Semitic languages, namely Geʿez and several dialects of Neo-Aramaic. In Geʿez, the verb *qadama* appears to function like *qad*: *laʾlla* ***qadama*** *ʾaʾmaromu* 'those whom he knew beforehand' (Rom 8:29) and ʾaqdam-ku *wanagarkukəmu* 'I told you beforehand' (I Thess 3:4). Here the verb is inflected (as seen by the suffix *-ku* and root-pattern alternation between *qadama* and ʾaqdam), indicating an early stage of grammaticalization; more on this in Section 4.1. Interestingly, the same verse in Peshitta is rendered as follows.

(32)	*qaddem-n*	*ʾemmar-n*	*lə-kon*	Syriac
	before-1CP	say.PERF-1CP	to-you	1 Thess. 3:4
	'We told you before…'			Peshitta

While CA *qad* is not adverbial but auxiliary, it is likely derived from an adverbial. Although more often used spatially (i.e., 'in front of') than tense-aspectually, the prepositional phrase with *min* 'from', $\sqrt{qdm}$ in Biblical Aramaic (BA) seems to represent a predecessor to Syriac multi-verb structures with *qaddem*. Here, when preceding a verb in the perfect, *min-qōdām-ay* appears to indicate a recently completed past action, just as in *qad* preceding a perfect verb. Of note, however, is the inflection; the verb following *min-qōdām-ay* is not marked, thereby entailing 3MS, unlike Syriac *qaddem* SVCs and *qad* preceding perfect verbs where the (second) verb is inflected for the agent. Crucially, the subject of šīm cannot be *ṭoʾēm* because it would need to be a theme, but the verb is not passive.

(33)	*min-**qōdām**-ay*	*šīm*	*ṭəʾēm*	BA
	from-before-1CS	place.3MS.PERF	(a) decree	Daniel 6:27
	'I have hereby given an order…'			JPS 1985

Similarly, the following verse demonstrates a stage wherein ***min-qōdām*** serves to shift the second event (*the Word desired to speak with him*) into a point before the already past first event (*and the sun went down*). In this way, it functions as a sort of pluperfect marker. For this reason it is likely that *qad* derives from $\sqrt{qdm}$ and not $\sqrt{\text{qʿm}}$, because *qad* is a tense-aspectual marker that shifts the following event into the past. This is in contrast with $\sqrt{\text{qʿm}}$, whose semantics more closely resemble progressive aspectual markers, not perfective. A precise dating of the Aramaic of this verse is not known; scholars date the various strata of the text from 1st c. BCE to the 8th c. CE [9].

(34)	*u-ṭəmaʾ*	*šimš-āʿ*	*bəlāʾ*	*ʿišūnēy-h*	Targum	Pseudo-Jonathan
	and-sink.3MS.PERF	sun-the	without	time-his		Genesis 28:10
	'and the sun went down before his time'					Etheridge, 1862

min-**qōdām**	dəbir-āʿ	da-hawāh
from-before	that-be.3MS.PERF	word-the
'forasmuch as the Word had'		

miṭḥamād	lə-malālāʿ	ʿimē-h
desire.PART	to-speak	with-him
'desired to speak with him'		

Later, in some dialects of Neo-Aramaic, a particle *qam/kəm,* either from the same source or from *qāʿim*, 'to rise, stand up', is used to denote past tense more generally, as in the example below from the Northeastern Neo-Aramaic (NENA) dialect of Qaraqosh. In this example, *-lə*, probably a proleptic definiteness marker, represents both part of the past tense **and** a pronominal object. Kəm is used to avoid the doubling of that clitic [8].

ptəx-lə	'he opened'
**ptəx-lə-lə*	'he opened it'
***kəm** ptəx-lə*	'he opened it'

The asterisk (*) is a standard notation in syntax indicating that the sentence is ungrammatical.

Like SNA *qid*, which it can only precede perfective verbs, NENA *qam* can only precede imperfective verbs [10]. Unlike CA and SNA however, what Kalin calls the *secondary perfective* — i.e., *qam* appended to the imperfective verb — is semantically equivalent to the *canonical perfective*, i.e., the perfective verb. This suggests a further stage of grammaticalization, where even more featural deterioration has taken place; that is, the particle is attested in a more specialized distribution.

Following Maclean's [11] suggestion that *qam* has a verbal origin, Rubin [8] proposes *qam* < *qdam*, the *peʾal* form of the verb *qaddem* 'he was before,' aligning with the Syriac example shown above. Given these parallels, Rubin [8] posits that the most likely origin of *qad* is a verbal hendiadys with *qad(d)ama*, 'to precede' or 'go/do before'. This aligns nicely with what is known of grammaticalization cross-linguistically, namely that tense-aspectual markers often have verbal origin. While the idea that *qad* may derive from a verb such as *qad(d)ama* has been previously proposed [8], this paper contributes a novel account by integrating this hypothesis into van Gelderen's *Feature Economy* framework. By offering formal syntactic derivations across Semitic cognates and tracing *qad* through a structured grammaticalization path, we aim to refine and extend the original insight.

This hypothesis also correlates with the development of other tense-aspectual markers in Arabic, namely posture verbs like ʒalis 'sit,' movement verbs like *raḥ* 'go', and volition verbs like *b-* (from *baġa* 'want'). These three markers all have verbal origin, and each is in a different stage of grammaticalization, as we will discuss in Section 4.1.

(35) *ğalis* *amši* *ʾala riğul-i* SNA
PROG walk.IMPF on feet-my
'I'm walking on my feet'

(36) *raḥ* *amši* *ʾala riğul-i* SNA
PROSP walk.IMPF on feet-my
'I'm going to walk on my feet'

(37) *b-amši* *ʾala riğul-i* SNA
MOD-walk.IMPF on feet-my
'I will walk on my feet'

If this Semitic data does indeed share a common origins, we can say that the verbs and particles we have mentioned so far all form part of a $\sqrt{qdm}$ class, with Aramaic, Arabic, and Geʾez subclasses: the first containing NENA *qam*, Syriac *qaddem*, and BA *qōdām*; the second (the QAD-class) containing SNA *qid*, CA *qad*, and Ṣafaitic *qd*; and the third containing Geʾez *qadama*. **Table 2** shows these cognates on a timeline to summarize the sources consulted in this section. The dates used here are approximations.

Table 2. Timeline of $\sqrt{qdm}$ cognates in Semitic.

Approximate Date	Language/ Variety	Attested Cognate
2nd c. BCE	BA	*min*-qōdāmay *šīm ṭəʾēm*
1st c. BCE	Ṣafaitic	*f*-qd *ʾbṣ*
2nd c. CE	Syriac	qaddemn *ʿemmarn*
5th c. CE	Geʾe	*laʿəlla* qadama *ʿaʿmaromu*
6th c. CE	CA	qad *mātā*
Present	NENA	kəm ptəx-lə
Present	SNA	*qid* -h *y-ǻkal ʾašǻʿ-h*

While the comparative data surveyed above helps reconstruct the diachronic trajectory of *qad* across Semitic languages, it does not in itself explain the structural mechanics behind this development. To account for *how* lexical material like *qadama* becomes a functional particle in Arabic, and what principles constrain its syntactic reanalysis, we now turn to a formal derivation grounded in Minimalist syntax. This theoretical lens enables us to model the grammaticalization process not just historically, but also structurally — tracing how features degrade and reconfigure across syntactic domains.

4. Minimalist Perspective

From these data emerge several interesting questions, namely, what principles predict the grammaticalization of the particle *qad* in Arabic? That is, which features weakened and which ones emerged in the trajectory from lexical to grammatical elements? To address these questions, we adopt a Minimalist perspective. This theoretical framework allows us to examine the formal characteristics of qad and its cognates. We believe that a formal approach is needed to organize the disparate properties of qad and its cognates into a coherent account. Given Minimalist assumptions, all syntactic structures are generated by a basic binary set-building operation called Merge. In this paper, these structures are represented using trees. These structures are sent to two interfaces to receive interpretation: the Conceptual-Intentional system, where the structure receives an interpretation in Logical Form LF, and the Sensorimotor system, where the structure receives an interpretation in Phonetic Form PF.

These structures are characterized by a set of relations between the linguistic features of the elements that comprise the structure. The condition of *Full Interpretation* FI requires that these features be assigned an interpretation in LF and PF [12]. Features that have values, or that are inherently interpretable, are known as interpretable, i.e., [i-F], otherwise, they are uninterpretable, i.e. [u-F]. To ensure FI, Uninterpretable Features require values in order for the derivation to converge. Uninterpretable features uF are formal syntactic properties that must be checked and deleted during the derivation in order for the sentence to converge [13].

4.1. Grammaticalization

To trace the development of *qad* from a Minimalist perspective, we turn now to grammaticalization. The simplest definition of grammaticalization is the process by which lexical material becomes functional. Grammaticalization is ubiquitous in language, with examples ranging from the negative cycle to agreement cycles. The type of grammaticalization relevant here is that of tense-aspectual markers.

Grammaticalization progresses along a series of stages, including desemanticization, extension, decategorialization, phonological reduction (i.e., erosion), and reanalysis. The process of grammaticalization is believed to involve these stages [14–17]. Hopper [16] observed that for any linguistic item to improve its status in terms of grammaticality or even switch from lexical status to grammatical one, it needs to go through a process that is often termed a channel, chain, cline, or pathway, which is a cross-linguistic phenomenon. The changes that a lexical item undergoes during the grammaticalization process—whether phonological, semantic, or morphosyntactic—are argued to follow a unidirectional path [16,18]. This process commonly moves from being a content word to achieving grammatical status, then to becoming a clitic, and eventually to manifesting as an inflectional affix [16]. According to Hopper and Traugott, the transition from lexical to grammatical status does not occur abruptly but proceeds through gradual, smaller changes as the item shifts from one category to another. For instance, a lexical item cannot suddenly grammaticalize without undergoing these intermediary stages. Linguists disagree on the number of pathways a grammaticalized item can go through; however, the "cline of grammaticalization," as illustrated below by [16] is a subject of consensus amongst linguists [14,19]. In short, when a lexical verb goes through the grammaticalization process, it ends up as a TMA marker or a functional category.

Lexical item → Grammatical word → Clitic → Inflectional affix

In **Table 3**, shown below, we posit five stages in the development of Semitic tense-aspectual markers. In the first stage, $\sqrt{qdm}$ is an adjunct with both spatial and temporal features. In the second, it is *extended* to have tense-aspectual effects on the following verb. In the third stage, verbal hendiadys (also known as serial verbs or verbal pseudo-coordination) occurs, where two verbs of more or less equal lexical weight appear in series. In this stage, the first verb may be inflected, as seen in the Ge'ez and Syriac examples above. In the fourth stage, involving *semantic bleaching* (also known as desemanticization) and *decategorialization*, the first verb loses its lexical and categorial content. Unfortunately, there is no documentation of this specific stage occurring with *qad*, but it is likely to have undergone desemanticization because it has demonstrably undergone decategorialization, i.e., from being the first verb in an SVC (Stage III) to being a tense-aspectual marker as in Stage IV. Additionally, at Stage V, semantic bleaching can be seen in the split of functions of *qad*; that is, at this point *qad* preceding a perfective verb indicates emphasis, while preceding an imperfective verb indicates possibility. This split in function is indirect evidence of desemanticization. In the fifth stage, so much content is lost that the verb is reanalyzed as a tense-aspectual marker; at this point, it can no longer be inflected. By the sixth stage, phonological reduction has reached a point where the tense-aspectual marker becomes affixed either to the verb or to agreement (as in Example 19).

Table 3. Tense-aspectual marker grammaticalization.

Stage	Grammaticalization Process (with Examples)
Stage 1	adjunct, e.g. BA *qōdām YHWH* 'before (in front of) YHWH'
Stage 2	extension, e.g. BA min-qōdām-ay šīm ṭəʾēm
Stage 3	verbal hendiadys, e.g. Syriac qaddem-n ʾemmar-n
Stage 4	reanalysis to tense-aspectual marker, e.g. CA qad māta / qad ʾaktub
Stage 5	phonological reduction, e.g. SNA qid (-h) y-ākal

The question might arise as to how the Aramaic and Arabic stages are related. Because there is little to no extant evidence of Arabic *qad* before Stage IV, we hypothesize a contact-induced change [20]. Owens [21] expands on this relationship, which took place over centuries of contact between the Aramaeans and Arab tribes. Given this contact, we model the Arabic *qad* as having carried on the development of the Aramaic $\sqrt{qdm}$.

The task now is to reconstruct the path of development on which *qad* grammaticalized in terms of linguistic features. That is, the above stages are descriptively adequate, but they say nothing of the fundamental principles that predict such a cline of development from a Minimalist perspective. For this perspective, we consider grammaticalization as a consequence of *Feature Economy*. According to this, linguistic features deteriorate, consequently transforming the syntactic behavior of the element undergoing grammaticalization.

Feature Economy [22]: Minimize the semantic and interpretable features in the derivation, e.g.,

Adjunct		Specifier		Head		Affix
SEMANTIC	→	[i-F]	→	[u-F]	→	[u-F]

In other words, the course of grammaticalization is characterized by a degradation of semantic features, from lexical content to interpretable to uninterpretable features. This degradation also corresponds to a shift in the syntactic function of the grammaticalized element, namely its position shifts from adjunct, to specifier, to head, and finally to affix. According to this path of development, Stage 1 from **Table 3** corresponds to the first step (adjunct), Stage 2 to the second step (specifier), Stages 3–4 to the third step (head), and Stage 5 to the last step (affix).

As *qad*'s form attested in CA already appears to occupy Stage 5, evidence for *qad* in earlier stages is elusive at best and scant at worst. As aforementioned, *qad* likely derives from *qadama* and presumably would have functioned in much the same way as the Ge'ez and Syriac examples, i.e., inflected and having semantic features.

As for the route of development from CA *qad* to SNA *qid* , more can be said. As will be discussed in Section 4.3, CA *qad* has uninterpretable tense-aspectual and modality features. These features, however, are broader than those of SNA *qid* as seen in Section 2, where we demonstrated that while CA *qad* can precede perfective or imperfective verbs, SNA *qid* can only precede perfective verbs. SNA *qid,* on the other hand, would acquire [uT] features of the form [u-PST], as it can only precede past perfective verbs.

We also showed that while CA *qad* can accept prefixes but not suffixes, SNA *qid* can accept suffixes but not prefixes. Assuming only left-adjunction is available, this suggests that while *qad* can be affixed to it (with prefixes), *qid* itself can affix to agreement features in T (pronominal suffixes). In **Figure 1**, we indicate this with [FREE] and [BOUND] features, respectively. That is, *qid* left-adjoins only to a perfective verb or to agreement features in T, *whereas qad* does not yet left-adjoin. The following serves to illustrate the development of features of *qad* from plausible origins as an adjunct, to specifier, to SVC, to CA *qad*, and to SNA *qid* . **Figure 1** corresponds almost perfectly with van Gelderen's [22] *Feature Economy*, with the one extra step being SVCs between the SPECIFIER and HEAD: free steps.

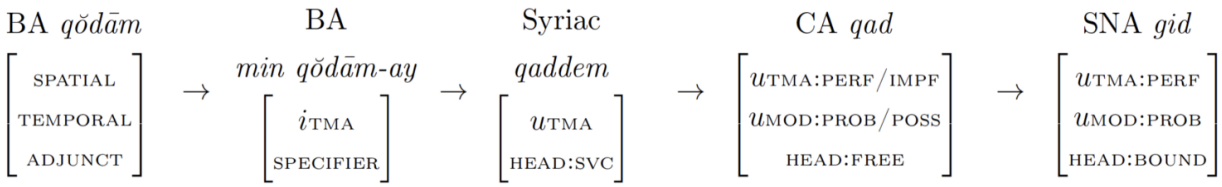

Figure 1. Feature Economy of QAD.

The derivational stages and feature degradation outlined above provide a structural basis for comparing *qad* with other Semitic constructions. We now turn to Biblical Aramaic and Syriac to examine how similar syntactic processes emerge in closely related languages, offering cross-linguistic support for the proposed grammaticalization path.

4.2. Derivation of BA and Syriac Examples

The question now is about the relationship between the examples from other Semitic languages mentioned in Section 3 and *qad*. To examine this relationship, we now consider the derivation of the Biblical Aramaic example (33), as shown in **Figure 2**. Of note, the verb starts low in the VP, then moves up to T to acquire inflection. Also, the PP *min qōdām-ay* is in the specifier of the TP and lends the derivation interpretable features. This corresponds to the second step of van Gelderen's [22] *Feature Economy*.

Next, we consider the derivation of SVCs. As seen in the Ge'ez and Syriac examples above, both verbs in the construction are inflected; in the Syriac example, both *qaddem-**n*** and *'emmar-n* are inflected for $_{1CP}$, and in the Ge'ez example, both *'aqdam-**ku*** and *wanagar-**ku**-kəmu* are inflected for 1cs. That both verbs are inflected suggests the existence of two TPs: a higher one for $\sqrt{qdm}$ and a lower one for the lexical verb. Both clauses share a little *pro*, which moves via successive Cyclic Movement (i.e., step-by-step movement through intermediate syntactic positions, as per Phase Theory [13]. It suggests that syntax operates in domains (phases), such as vP and CP, which restrict operations and regulate accessibility to syntactic constituents. This movement proceeds from the lower to the higher clause, escaping each phase through the escape hatch in the specifiers of vP and CP. This ensures both verbs are inflected with the same phi features. Because the first verb is in the head of T with uninterpretable features, this corresponds to the third step in van Gelderen's [22] *Feature Economy.*

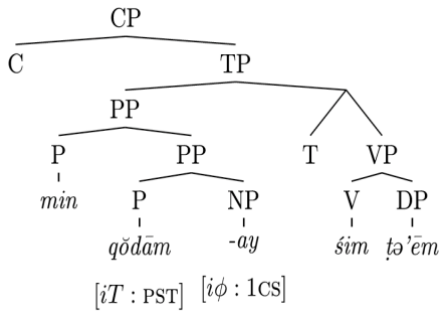

Figure 2. Biblical Aramaic example.

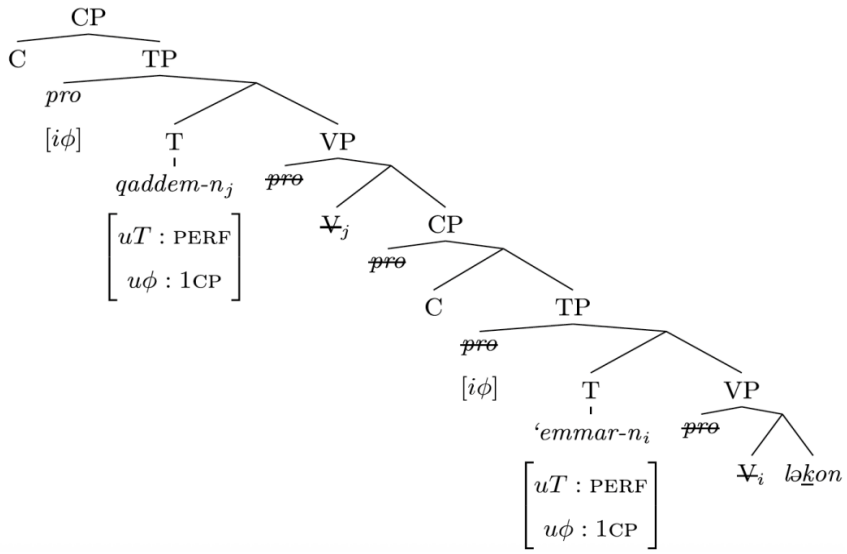

Figure 3. Serial Verb Construction-Syriac example.

The tree in **Figure 3** above represents a snapshot in the derivation just after valuation. That is, T inherits an uninterpretable feature from C, which is then valued *perf* by the interpretable feature in T (or MA, wherever the inflection is). The same is true of the phi features. T carries uninterpretable phi features which are valued, in this case $_{1CP}$.

If *qad* did in fact derive from verbal hendiadys (i.e., SVC) with *qad(d)ama* as Rubin [8] suggested, this structure serves to illustrate a plausible analogy for the origin of *qad*. The question of how this structure is reanalyzed from biclausal to monoclausal would shed more light; nevertheless, the transition period between Late Aramaic and Neo-Aramaic is poorly documented. Similarly, whether or not *qad* was in fact derived from verbal hendiadys with *qad(d)ama* remains unanswered.

4.3. Negation

With a plausible analogy for the origins of *qad*, we now turn to its development from the first verb in an SVC to head with [uF], and finally to affix with [uF]. From a feature-theoretic standpoint, the data reviewed in Section 2 suggest that *qad* has uninterpretable tense-aspectual and modality features. This implies that *qad* is base-generated as the head of AspP then via successive cyclic movement (i.e., projection by projection), moves to a ModP in the CP domain. Moreover, to explain the dual nature of the particle, we propose that when [uASP] on *qad* is valued [IMPF], its [uMOD] feature is valued [POSSIBLE] (i.e., *may, might, could*), and when it is valued [PERF], [uMOD] is valued [PROBABLE] (i.e., *certainly, indeed, verily*).

To demonstrate this, we turn now to *qad*'s interaction with negation. That *qad* precedes negation suggests the influence of the relative positioning of functional heads above the VP. Fassi Fehri [23] refers to *qad* as a *modality particle,* which expresses probability, and proposes the following structure (see **Figure 4**).

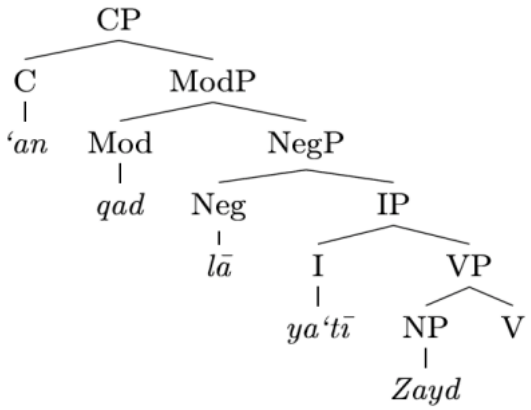

Figure 4. *qad* with Negation.

Benmamoun [24] and Aoun et al. [25], however, place the negative projection between the TP and the VP. This aligns more closely with the fact that some negative particles are tensed; if the negative particle is base-generated in its own projection, it would move up the structure to acquire tense. For the purposes of this paper, we will adopt this positioning and Fassi Fehri's [23] final placement of *qad* in ModP.

Of the several negative particles in CA, we consider *lā*, *lam*, and *lan*. The following examples serve to introduce these negative particles and their functions [26]. They can be classified as either tensed, i.e., *lam* and *lan*, or tenseless, i.e., *lā*.

(38) *lā* *ya-qraʿ-u* *Zayd-un* *ʿal-kitāb-a* CA
NEG 3MS-read-IND Zayd-NOM the-book-ACC
'Zayd is not reading the book'

(39) *lam* *ya-qraʿ-∅* *Zayd-un* *ʿal-kitāb-a* CA
NEG.PST 3MS-read-JUSS Zayd-NOM the-book-ACC
'Zayd did not read the book'

(40) *lan* *ya-qraʿ-a* *Zayd-un* *ʿal-kitāb-a* CA
NEG.FUT 3MS-read-SUB Zayd-NOM the-book-ACC
'Zayd will not read the book'

As seen in the examples below, according to Fassi Fehri [23], *qad* can only precede certain negative particles, i.e., *lam* and *lā*, and not *lan*. The question is: what is it about these particles that allows or disallows *qad* to precede them?

(41) *qad* *lam* *y-aʿtī* CA [23]
QAD not.PST comes
'He may not have come'

(42) *qad* *lā* *y-aʿtī* CA
QAD not comes
'He may not come'

(43) *qad* *lan* *y-aʿtī* CA
QAD not.FUT comes
'He may not have come'

According to the author's judgements, *qad lam yaʿtī* is also ungrammatical, leaving only *lā*. This suggests that either

qad lam was at one point grammatical but, to modern ears, is no longer, or that it had never been grammatical. Given that there are no examples of *qad lam* or *qad lan* in the Qurʾān, the latter possibility is more likely. Interestingly, *qad lā* does not appear in the Qurʾān either, but it is attested in pre- and early Islamic poetry, as seen in the following examples.

(44) *ʻalā man mubliġ-un ʾamra bna hind-i* ʻAl-Ḥirniq bint Badr
is anyone imparting Omar son Hind Pre-Islamic CA
ʻIs there anyone to impart tidings to ʾAmr Ibn Hind'

wa-qad lā *tu-ʾadam-u al-ḥasnāʻ-u dāmā*
and-QAD NEG 3FS-spare-IND the-beautiful-NOM slander
ʻFor the beautiful woman will not be spared from slander.'

(45) *wa ma ẓanan-ta anna-hu sa-ya-fʿal-u-hu* al-Qāḍī al-Nuʾmān
and what doubt-IN-DEF that-he FUT-3MS-make.IMPF-IND-he Abbasid Caliphate
ʻAnd what you had thought he would make,'
fa-daka ẓann-un min-k-a ***qad lā*** *ya-fʿal-u-hu*
then-that doubt-IN-DEF doubt-INDEF from-you-ACC may NEG 3MS-do-IND-he
ʻis merely a speculation of yours he may not do'

Benmamoun [24] argues that *lā* and its variants is the head of their own negative phrase, NegP, and as we have seen, *qad* is the head of its own modality phrase, ModP. So far, this leads to the following interim conclusions: (1) *lā* carries no tense features, (2) *lam* and *lan* move to T to realize interpretable T features, and (3) as head of the ModP, *qad* has an uninterpretable MOD feature. The question remains: why *qad* is only permissible with *lā*.

As mentioned above, along with [uMOD], *qad* carries uninterpretable tense-aspectual features, which can be valued by [iPERF] or [iIMPF], call it [iASP]. This implies that *qad* originates in the Aspect Phrase (AspP), and that it carries tense and aspect features that are not inherently interpretable. These features must be valued by the Tense Phrase (TP), which, in this paper, includes tense, mood, and aspect (collectively referred to as TMA). In the case of *qad lā* constructions, the negative particle does not move from its base-generated position. This is illustrated in **Figure 5**, which shows *qad* as the head of ModP and *lā* occupying Neg. The behavior of negation in these environments reflects the logic of *Feature Economy*: uninterpretable features on functional heads such as *qad* prevent lower elements (e.g., negation) from moving to T, blocking valuation and thereby altering clausal word order. Following Benmamoun's [24] analysis, the verb raises to T only when the negative is tensed.

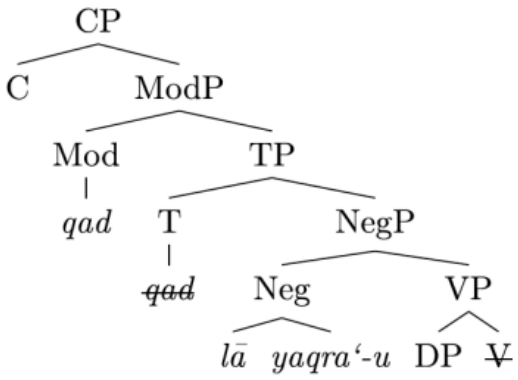

Figure 5. Derivation of qad lā.

The incompatibility of *qad* with tensed negative particles (e.g., *lam*, *lan*) follows naturally from its position as a head with uninterpretable features. Within the *Feature Economy* model, uninterpretable features ([uT], [uMOD], [uASP]) must be valued in the course of the derivation. We propose that *qad* originates in AspP with [uASP] and moves cyclically to ModP. This movement occupies a structural position that intervenes between the TP and NegP. When *qad* occupies ModP, it disrupts the standard feature-checking path: tensed negatives like *lam* and *lan*, which need to raise to T to check [iT] or [iMood] features, are blocked from doing so because *qad* already saturates that space. This intervention makes the derivation crash under Full Interpretation (i.e., the principle requiring all features to be checked or deleted before Spell-Out), thus ruling out *qad lan* and *qad lam*. By contrast, *lā*, which does not raise and carries no interpretable features, remains in situ and is thus compatible with *qad*. This structural asymmetry elegantly explains the grammaticality patterns and aligns with the unidirectional loss of interpretable features expected in *Feature Economy*.

Because *qad* is base-generated in AspP and moves to ModP via successive cyclic movement, tensed negative particles are unable to move to T to realize interpretable T features there. This explains why *qad* cannot be followed by tensed negative particles. This interaction between *qad* and negation exemplifies how grammaticalization can restructure the syntactic licensing of other functional heads, further supporting the modeling of *qad* as a head with [uF] in the Minimalist architecture. As for *mā*, it is interesting that it may precede *qid,* as in **Figure 6**. This is likely due to the fact that *qid* is affixal – *mā* left-adjoins to *qid* at T and the complex *mā qid* merges as a whole into Mod. The syntax of clitics, as seems to be the case here, is complex and better left to further research.

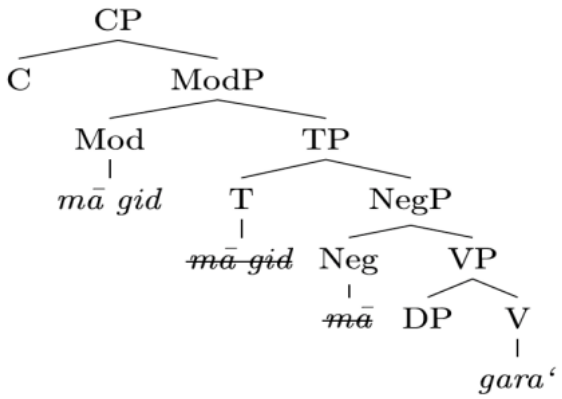

Figure 6: mā qid as a clitic complex.

5. Conclusions

The central claim of this paper is that *qad* likely grammaticalized along a path similar to cognate markers in Safaitic, Biblical Aramaic, Syriac, and Ge'ez. We compare and contrast *qad* with its cognates, demonstrating that while the morphosyntactic behavior of the former is distinct from that of the latter, this is to be expected given the current understanding of grammaticalization. We show that SNA *qid* is the natural grammaticalized continuation of CA *qad* in that its syntax is more restricted in some senses, e.g. by failing to appear before imperfect verbs, and less restricted in other senses, e.g., by being able to acquire pronominal suffixes.

We determined that, given these analogies and other tense-aspectual markers in Arabic, *qad* is likely to have derived from a verb, especially in light of evidence of a Syriac cognate appearing in SVCs. We introduce a Minimalist perspective, from which we are able to ask what principles predict the grammaticalization of the particle *qad*. With this in mind, we outline first a series of stages through which is likely to have passed according to the principles of grammaticalization. Then, we compare this series with van Gelderen's [22] *Feature Economy* whereby grammaticalization is characterized by a degradation of linguistic features from lexical content to [iF] to [uF], which, in turn,

results in a transformation of the syntactic behavior of the element undergoing grammaticalization, i.e., from specifier to head to affix. Using this as a template, we predict that *qad* would grammaticalize according to these principles.

While Classical Arabic *qad* and SNA *qid* share a common origin, their grammaticalization paths diverged in interesting ways. Qad retains the ability to co-occur with imperfect verbs and resists pronominal suffixes, aligning with its status as a functional head with uninterpretable features. In contrast, *qid* does not appear before imperfect verbs but allows pronominal suffixes, suggesting that it has grammaticalized further into the morphological domain. This asymmetry offers insights into variation within Semitic grammaticalization pathways.

We then consider the derivation of the Biblical Aramaic and Syriac examples, demonstrating that, as expected, the former corresponds to the second step in van Gelderen's [22] *Feature Economy*, where the grammaticalized element occupies the specifier of TP and lends interpretable features to the derivation, and the latter corresponds to the third step in the *Feature Economy*, where the grammaticalized element is now a head carrying uninterpretable features.

Finally, we conclude with CA *qad*'s and SNA *qid'*s relationship with negation. As we expect *qad* to be a head with uninterpretable features, we do in fact see that this must be the case given how it interacts with negation; namely, it cannot precede tensed negative particles because these particles are unable to move to the TP domain (where *qad* is base-generated as the head of AspP) to acquire tense.

Author Contributions

Conceptualization, M.A. and J.W.; methodology, M.A. and J.W.; formal analysis, M.A. and J.W.; investigation, M.A. and J.W.; resources, M.A. and J.W.; data curation, M.A. and J.W.; writing—original draft preparation, M.A. and J.W.; writing—review and editing, M.A. and J.W.; visualization, M.A. and J.W.; supervision, M.A. and J.W.; project administration, M.A. and J.W.; funding acquisition, M.A.. All authors have read and agreed to the published version of the manuscript..

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Data Availability Statement

No new datasets were generated or analyzed during the current study. All linguistic examples are drawn from publicly available published sources, cited within the manuscript, or from the authors' own grammaticality judgments.

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Conflict of Interest

The authors declare no conflict of interest. The funders had no role in the design of the stud; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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