AFFIX *KI* IN OLD KANEMBU VERBS:
A BACKGROUNDING PROGRESSIVE-COMPLETIVE CATEGORY

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Abstract: Old Kanembu has an aspectual category that derives from imperfective stems by the affix *ki*. The *ki*-forms occur in conflicting aspectual domains, the main semantic discrepancy being between progressive and completive readings. The progressive-completive is a rare, but not non-existent category in world languages, and Old Kanembu seems to be one such language. Completive events presuppose a phase of duration prior to the phase of completion. The selection of the aspectual phases in a given *ki*-form is determined by aspectual lexical semantic as well as by pragmatic and discourse factors of the situations described in Old Kanembu texts. The main unifying semantic and pragmatic property of various occurrences of *ki*-forms can be described as liminal process which establishes background for the following (foregrounded) event.

Key words: Old Kanembu, aspect, progressive-completive, information structure, backgrounding, relevance, historical pragmatics.

1. Introduction

This study is a sequel to my previous article in “Language in Africa” on foregrounding categories of past and future tenses in Old Kanembu (Bondarev 2020). The foreground tenses are kind of mirror categories of the background aspectual category discussed here. Old Kanembu is an extinct Saharan language which survives in annotations to the Qur’anic manuscripts of the 17th to 18th century produced in the Borno sultanate, what is now northeast Nigeria and southeast Niger. Interlinear and marginal translations of the Qur’an into Old Kanembu (henceforth...
OKb) pay close attention to the discourse semantics of described events, and as a result, selection of specific verb categories is controlled by pragmatic factors.

The affix *ki* is ubiquitous in finite and non-finite verb forms and can often be confused with two homophonous (homographic) nonrelated morphemes, namely the past tense *kV* and applicative *kV* (*V* = vowel). A further complication arises from the occurrence of this morpheme in conflicting, seemingly mutually exclusive, aspectual domains. The major semantic discrepancy is between progressive and completive readings, although “progressive-completive” is not an unknown category in world languages (Bickmore 2007: 403, 404 on Cilungu; Decker 2013: 80 on Belize Kriol).

Completives are typically aligned with the anterior (perfect) and perfective senses (“the first family” of grammatical tense-aspect categories, in Croft’s (2012: 169–170) terms, referring to the sets of aspectual senses in Bybee et al. 1994), whereas progressives are part of the imperfective sets of senses including present and habitual (“the second tense-aspect family”). However, the two aspectual families are usually considered connected through the category of perfect which has “the continuous relevance of a previous situation” (Comrie 1981: 56).

That the item *ki* occurs in seemingly conflicting aspectual situations may suggest that *ki* represents two different homophonous morphemes, one being progressive and the other completive. However, drawing on my current understanding of OKb data and typological affinity between imperfective/progressive and completive aspects (Frawley 1992: 301; Croft 2012: 107–108) I suggest a uniform analysis of this ambiguous element and treat it as one and the same operator cumulatively encoding both aspectual meanings.

The main unifying semantic property of various occurrences of *ki*-forms can be described as *liminal process which establishes a background or precondition for the following (foregrounded) event*. As Croft (2012: 108) argues “Completive and Terminative constructions require the event to be durative, that is, they specify that there is a phase other than the rest phase prior to the profiled completion or termination
[of] transition phase”. Transitory/temporary (contingent) phases of events and processes are typically encoded by progressive operators (Comrie 1981; Frawley 1992: 314; Plungian 2003: 300; Timberlake 2007: 289; Croft 2012: 100) and thus both aspectual readings naturally match as two phases of the same situation seen from ‘inside’ (unlike imperfective and perfective which construe events as external units) and so one aspectual profile presupposes the other. Importantly, and in line with the backgrounding semantics encoded by the $ki$-forms in OKb, both progressive and completive have “the effect of backgrounding the event in expectation of a more salient event to follow” (Pennington 2012: 5 on the completive and progressive in Ma Manda; also see Frawley 1992: 297, 301). Which of the two phases of “aspectual contour” (Croft 2012) is selected (or “profiled”) in a given context of OKb texts seems to be conditioned by various Aktionsart / lexical semantic, pragmatic and discourse factors.

### 2. Preliminaries on aspectual, pragmatic and syntactic properties of $ki$

Some of the uses of the $ki$-forms describe continuous non habitual situations seen as temporary (contingent). As cross-linguistically typical for the progressive, the $ki$-forms “provide a background frame for other predicates that report significant change in the world” (Timberlake 2007: 288). Although under a general definition of progressiveness as “the combination of progressive meaning and non-stative meaning” (Comrie 1981: 35), the progressive does not naturally apply to the verbs with stative semantics, languages nevertheless differ in the degree

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1 Interesting parallel is attested in Bantu languages where the verbal prefix $ki$ (a chance resemblance, no doubt!) has persistive and simultaneous taxis semantics and (specific to language) may also have progressive, precedence and conditional readings (Güldemann 1998: 162–166).

2 Cf. Comrie’s (1981: 38) definitions for English progressive that has a tendency to indicate contingent situations.
of the non-stative uses of stative verbs (Comrie 1981: 35–39). As demonstrated below, the OKb ki-category operates on both dynamic and stative predicates. In line with Comrie’s analysis (Comrie 1981: 37), when OKb stative verbs occur in ki-forms they refer to temporary states as opposed to permanent states.

Cross-linguistically, some stative verbs are less compatible with progressive reading, as, for example, know. In OKb, the verb (n)dug ‘know’ occurs in ki-forms, suggesting a progressive-completive construal specific to this language. Under various approaches to the analysis of aspect, the verb ‘know’ is usually analysed as being an inceptive state (Bickel 1997; Johanson 1996; Croft 2012: 38), an aspectual type that have initial boundary (phase) followed by a state. This easily lends to completive meaning but is not natural with progressive meaning. However, aspectual lexical and grammatical operators may coerce a predicate into various aspectual types, usually contingent on the aspectual potential of the predicate but often typologically unpredictable.3

English progressive -ing, for example, has a wide semantic scope (Comrie 1981) but does not naturally occur with stative predicates; nonetheless some progressive uses do include stative verbs (live, stand) and also can expand the scope of the progressive to render emotive (affective) meaning (see) (Comrie 1981: 37). A similar pragmatic function of emotive emphasis is attested in the ki-forms of the OKb verb (n)dug ‘know’, as discussed below with examples (9) and (12).

Another function of ki that does not contradict its progressive-completive semantics is relevance, as defined by Croft (2012: 143) for pluperfect and experiential perfect: “the prior occurrence of an event is relevant to the current… situation”. This function is used to relate the encoded event to a foregrounded situation and bring the event “up to a current level of relevance in the memory of the speaker and has/obtains relevance for the moment of speech” (Eads & Persson 2013:

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3 Cf. Plungian (2004: 395) on impossibility of unified description of Russian aspect or Croft (2012: 84ff) on polysemy, derivation and vagueness as three extremes but still insufficient approaches to unified analysis of aspect.
363; also cf. Souag’s (2013: 198) interpretation of some usages of the perfect marker -a in Berber as having relevance meaning).

The *ki*-forms predominantly occur in dependent syntactic environment, such as adverbial locative and temporal constructions, complement clauses and relative clauses as subjects of be(come)-constructions or in the main clauses but also encoded as locative constructions. One of the frequent occurrences of the *ki*-forms is in adverbial clauses encoded as locative constructions, which is another common crosslinguistic feature of progressive aspect (Comrie 1981: 99–103; Croft 2012).

### 3. *ki* in finite forms

I will now turn to examples to demonstrate a range of aspectual semantics expressed by the morpheme *ki*, providing arguments for its progressive/completive interpretation in the backgrounded events. This section deals with the finite verbal forms, in which person and number are indexed in the inflectional forms. In finite forms, the morpheme *ki* is usually attached to the imperfective stems which are characterised by reduced vowels in the inflectional slot and a non-productive affix *s* (the asterisk after *s* designates this morpheme’s non-productive nature). The vowel segment of the morpheme *ki* is either encoded as <i> or <ī> (unclear condition) and the consonant segment *k* is sometimes written as <g>. In 3rd person forms, the agreement marker *s* is usually deleted (as is the case with any tense and derivational affixes in OKb). The same (repetitive) Qur’anic phrases can be translated either by the *ki*-forms or by the OKb imperfective. This covariance with imperfective forms offers a three-way analysis of *ki*, as follows: (a) *ki*-forms are interchangeable with the progressive/simultaneous reading of the imperfective; (b) *ki* adds a completive phase to the progressive situation, and (c) it adds an emotive/affected meaning to the same progressive semantics (‘to be in persistent state or to be indeed in a certain state or to persistently do something). Cases with (a) are instructive for the analysis of *ki* as operating only on imperfective and
thus having natural potential for progressive. Cases with (b) are instructive for progressive-completive interpretation of *ki*, and (c) for the uses of *ki* conditioned by pragmatics and discourse.

The examples below show progressive/simultaneous uses of both s*-imperfective forms (1) and *ki*-forms (2), suggesting that such uses are interchangeable.4

(1) **s*-imperfective** (1YM/2: 110, etc.; used for translation of Arabic imperfective)

\[
\text{agō nadiyi } s-dī=ka \\
\text{thing 2PL.SBJ s*-do.2PL.IPFV=IO}
\]

‘(Allah sees) what you are doing.’

(2) **ki-form**

2ShK 2: 144. (Ar. IPFV)

\[
tandi ki-s-a-di-yi=kan \\
3PL ki-s*/s-3PL-do-IPFV=ABL
\]

‘(God is not unaware) of what they are doing.’

Note that in (2), as with all 3rd person forms, the segment <-s-> is ambiguous and can either be analysed as the non-productive s* or 3rd person agreement marker s. But since *ki* usually deletes the 3rd subject marker s in most of the forms, it is more likely that such <ki-s> sequences in 3rd person forms represent the frozen s*, which occurs sporadically.

### 3.1. *ki in main clauses*

Although most uses of the *ki*-forms occur in dependent syntactic environment, there are rare occurrences of the *ki*-form corresponding

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4 Since *ki* has progressive semantics, its interchangeability with the imperfective in translation of the Qur’anic sentences which express God’s consistent awareness of human activity also suggests that the scribes interpreted such sentences in progressive sense, i.e. God being simultaneous observer of what humans do.
to the main clause in Arabic (3). The verb ‘teach’ (a causative of ‘know’) appears in locative construction marked by locative nn (variant spelling nin or n).

(3) (1YM/3: 48) (Ar. ipfv) “He will teach him the Book and wisdom, the Tora and the Gospel” (Abdel Haleem 2005: 38).

\[
\begin{align*}
tīka & \quad ki-s-ātūdūy=ni'n & \quad kitābn & \quad ki-s-ātūdūy=nn \\
3SG.DO & \quad ki-s*/s-teach.3SG=LOC & \quad book.and & \quad ki-s*/s-teach.3SG=LOC \\
hikman & \quad ki-s-ātūdūy=nn & \quad tawrēn & \quad lānjīlnn \\
wisdom.and & \quad ki-s*/s-teach.3SG-LOC & \quad Tora.and & \quad Gospel.and
\end{align*}
\]

‘He will (be) teach(ing) him the Book, the wisdom, the Tora and the Gospel.’

The context of this Qur’anic passage seems to justify a progressive-completive reading of the ki-form. The predicate ‘teach’ is construed as a process ‘teaching’ which leads to the completion phase ‘get someone know something’ (“incremental accomplishment” in Croft (2012: 62)’s terms) and both phases are important profiles of the depicted situation. Thus, the angels first tell Mary that God will teach Jesus those scriptures (i.e. process: knowledge will incrementally be acquired) and then (in Q.3: 50) Jesus will confirm the truth of the Torah (i.e. result: knowledge acquired) to the Children of Israel.

3.2. Main clause of reported speech

The examples of the uses of ki with the verbs ‘believe’ and ‘plot’ may also be treated as occurrences in the main clause. Although the clauses are complements of speech verbs of reported speech constructions, they are expressed as direct reported speech. As the examples below demonstrate, the marker ki indicates prior events and it combines with both activity predicate (‘plot’) and (transitory) state predicate (‘believe’). If with ‘plot’ the situation seems to no longer hold, ‘believe’ (in this context) presupposes that the state still holds at the moment of Pharaoh’s speech. However, both situations share the property of relevance of the
prior event to the current situation (the Pharaoh’s speech). As a result of the magicians having believed in Moses’ God, Pharaoh accuses them of the supposed plotting to drive out the people (of authority) and threatens the magicians by punishment. Thus, believing and plotting constitute a combined prior event that presupposes (provides the ground for/result in) an event that follows (punishment).

The uses of \textit{ki} in this context is not conditioned by syntax and/or temporal adverb ‘before’. This is evident from non-\textit{ki} forms that frequently occur with the adverbial construction ‘before’ (e.g. with perfective in 1YM/10: 91, 1YM/12: 76, past in 1YM/22: 42 and future in 1YM/4: 159). This supports the suggested analysis that this category has an aspectual potential wider than just ‘the prior occurrence of the event’. Otherwise, the adverb ‘before’ would have been a default environment for \textit{ki}.

To demonstrate a consistent correspondence of the \textit{ki}-forms (in boldface) to the mentioned prior states/events, the examples below are given in full context of the OKb comments on two ayas that describe the same situation in varying details. In (4a) both ‘believe’ and ‘plot’ are mentioned, and in (4b) ‘believe’ is expressed in the imperfective to convey the magicians’ proclamation of faith and the \textit{ki}-form to refer to the fact that this act of believing occurred before Pharaoh’s granting it.

(4) a. (1YM/7: 123) (Ar. \textit{pfv}) “... but Pharaoh said, ‘How dare you \textbf{believe} in Him \textbf{before} I have given you permission? This is a plot you have \textbf{hatched} to drive the people out of the city!’” (Abdel Haleem 2005: 102).

\textit{firʕawānyi} \textit{kūrajādiyi} \textit{guljī},
Pharaoh.\textit{sbj} \ \textit{ruler.3pl.sbj} \ \textit{say.3sg.pfv}
\textit{nadiyi} \textit{ki-z-rāyu=ré} \textit{jī} \textit{guljī},
2pl.\textit{sbj} \ \textit{ki-s*-believe.2pl.ipfv=tag} \ \textit{say.3sg.cnv} \ \textit{say.3sg.pfv}

\textsuperscript{5} Cf. Croft’s terminology (2012: 143).

\textsuperscript{6} Cf. progressive in the Middle English both with process and stative predicates ‘believe’ (Croft 2012: 88, citing Ziegler 1999: 78–79).
The Pharaoh, their ruler, said, ‘You believed?’, he said, ‘in Moses, before (receiving) the order: ‘Believe!’ This is a plot’, he said, ‘you were plotting it’, he said, ‘you were plotting it in the city’, he said, ‘so that you could later drive its (of the city) families out’.

b. (1YM/26: 46–49) “…and the sorcerers fell down on their knees, exclaiming, ‘We believe in the Lord of the World, the Lord of Moses and Aaron.’ Pharaoh said, ‘How dare you believe in him before I have given you permission?’” (Abdel Haleem 2005: 233).

‘They were saying, ‘we believe in the Lord of prophets Moses and Aaron’; Pharaoh said, ‘You believed?’, he said, ‘in Moses, before the order (was given) to you?’

3.3. ki-forms of gul ‘say’

One of the most frequent occurrences of ki in the manuscripts is with the speech verb gul ‘say’. Almost all such occurrences are in temporal adverbial clauses which in turn function as direct complements of
predicates with the meaning ‘remember’ (that is, ‘remember when’). Such uses may correspond to Arabic imperfective and perfective forms which either emphasise a simultaneous meaning of the act of speaking (in case of imperfective) or a completion of a speaking-event prior to a following situation (which may be expressed overtly or referred to covertly/elliptically). Both perfective and imperfective uses of Arabic speech verbs, introduced by the Qur’anic phrase ‘(remember) when’, set up background for a more salient (foregrounded) situation. Thus, all uses of ‘say/speak’ encoded by *ki*-forms of OKb *gul* ‘say’ (‘remember when you were saying’) can be construed as progressive-completive describing the act of speaking as transitory process (uttering phrases) upon completion of which a new situation is introduced into the discourse. Examples (5)–(6) profile some of these uses of the verb *gul* ‘say’ and provide a comparative context for aspectual difference between *ki*-forms and past tense forms. In both examples (5) and (6), the OKb glosses give translation of the same Arabic phrase *wa ið qulnā* ‘and (remember) when we said’ with the Arabic verb in perfective form. The OKb phrase in (5) has a *ki*-form of the verb *gul* ‘say’ whereas the phrase in (6) does not exhibit the *ki* morpheme. The main difference between the two events described by the same Arabic phrase ‘when we said’ is that of anterior and posterior semantics. Thus, the speech event in (5) establishes a background for the salient part of the discourse (disobedience of the wrongdoers) and so the speech is a precondition for what follows it. In (6), the speech event is a result of the act of Moses’s prayer and thus is construed as a posterior foregrounding event. This analysis is further corroborated by the use of the *ki*-form of the OKb verb ‘to pray’ in the same (6) where the act of prayer provides a background for this micro ground-figure situation (a prayer and response to it).

(5) (1YM/2: 58) (Ar. *pfv*) Context: “Remember **when We said**, ‘Enter this town and eat freely there as you will, but enter its gate humbly and say, “Relieve us!” Then We shall forgive you your sins and increase the rewards of those who do good.’ [2: 59] But the wrongdoers
substituted a different word from the one they had been given. So, because they persistently disobeyed, We sent a plague down from the heavens upon the wrongdoers.” (Abdel Haleem 2005: 8–9)

krge atro tamōgō
town DEM.IO enter.2PL.IMP

niyēh gul-kī-n-īyē=ka uðkurū
say.1PL.CNV say-ki-AUX-1PL=DO remember.2SG.IMP (Ar.)

‘Remember (when) we said, ‘Enter this town!’”

(6) (1YM/2: 60) (Ar. pfv) Context: “Remember when Moses prayed for water for his people and We said to him, ‘Strike the rock with your staff.’ Twelve springs gushed out, and each group knew its drinking place…” (Abdel Haleem 2005: 9)

kasti jam-ki-n=ka uðkurū
prayer say.prayer-ki-3SG.IPfv=DO remember.2SG.IMP (Ar.)
gul-l-iyyē
say-pst.-2SG.IMP (Ar.)

‘Remember (when) Moses was praying… We said…’

3.4. Other verbs in adverbial constructions of clausal complements of ‘remember’

The other verbs occurring in the adverbial constructions of the complement clauses of the predicate ‘remember’ also exhibit the same tendency to appear in ki-forms. But as with the verb gul ‘say’, there is variation in selection of aspect/tense categories. However, it seems that the ki-forms are preferred for the predicates describing the situations that serve as important reference points for all subsequent events, points against which the more recent situations are judged.

For example, the verbs ‘take’ and ‘do’ occur in ki-form in 1YM/33:7-8, but all the verbs that describe the events in the following part of the Qur’anic narrative are in past forms (33: 9–10). The events expressed in the past tense all describe a chain of situations that occur sequentially one after another during a single event of a siege of Medina
(armies approaching and attacking the city, the believers expressing doubts of God’s protection, etc). The ordeal of the siege and battle is presented in the Qur’an (33: 11) as a test for the believers. This event and the trial of the believers from which they eventually came out victorious, is to “remind the believers of God’s goodness to them” (Abdel Haleem 2005: 266). But what immediately precedes this siege-event in the Qur’anic narrative (Q.33: 7–8) is another reminder (to the Prophet Muhammad) about a pledge taken by God from him and the other prophets that “God will question [even] the truthful about their sincerity, and for those who reject the truth He has prepared a painful torment” (Abdel Haleem 2005: 267). Thus, the trial of the faithful and defeat of the unbelievers are predicated on that pledge. Therefore, it is reasonable to suggest that the occurrence of *ki*-forms only in the pledge part of the narrative (i.e. Q.33: 7–8) is conditioned by the importance of this background situation for the ensuing events. These uses of the *ki*-form are illustrated in (7).

(7) a. (1YM/33: 7)

ʕahadjādīka *kī-māgīye=*ka uðkurū
pledge.3PL.DO *ki-take.1PL.IPVF=DO remember.2SG.IMP (Ar.)
‘Remember their pledges that we took (from them).’

b. (1YM/33: 8)

ʔālay danī ūgūiro atka *ki-dō
God.SBJ so.that question.3SG.IPVF.SBJV thus *ki-do.3SG.IPVF
‘so that God may thus question (the truthful)’ (lit. ‘do questioning’)

Note, that the *ki*-form <ki-dō> of the verb *di* ‘do’ in the last example is used in irrealis (purposive) sense, although the event expressed by the predicate is itself placed in the temporal domain of the past (see 3.6 below).

Importantly, the *ki*-form is a recurrent feature in references to pledges. The same verb ‘take’ also appears as *kī-māgīvē* ‘we took’ in 1YM/2: 63 and 2: 93 (“Remember when we took your pledge, and made (making [2: 63]) the mountain tower above you…” (Abdel
Haleem 2005: 9, 12). In 2ShK/2:93, the *ki*-form is also used with the verb *ḥaf* ‘raise’ in the same pledge statement, i.e. *ḥaf-ki-n-i-yi* ‘we raised (above you)’.

### 3.5. *ki*-forms in adverbial constructions formed with the locative *n/nn*

The *ki*-forms also occur in temporal adverbial clauses introduced by the same Arabic adverb *ið* ‘when’, but not embedded as complements of ‘remember’. The verb phrase of the adverbial clause is marked by a locative marker *n/nn*. This is in contrast to the ‘when’-adverbials of complement clauses discussed in the preceding section where the direct object clitic *ka* is attached directly to the final element of the verb phrase — typically the last segment of the verbal inflection, as in (7). In some cases, there is double locative marking involved in the uses of the *ki*-forms in adverbial clauses (9) and it is not clear whether the first locative is conditioned by the *ki* category, as it seems the case in (3), or whether the first locative is part of the adverbial construction itself, which alone does not explain the double marking.

For example, the speech verb *gul* ‘say’, perception *faham* ‘hear’, and two verbs metaphorically expressing speech (*yām* ‘spread’) and hearing (*θabākir* ‘receive’) are consistently given in *ki*-forms marked by the locative *n* in 1YM/24:12, 14, 15 and 16. This part of sura 24 describes the event of spreading the false rumours against Aisha, the Prophet’s wife. The acts of speaking, hearing and passing on (i.e. speaking) what was heard is plausibly construed as a durative process that was happening before the slanderers were condemned and gossipmongers reprimanded. At the same time, these events background the ensuing discourse on the matters of marriage. The examples below profile these uses of *ki*-forms in the context of the uttering-hearing discourse in substantial details, for this part of 1YM is an important piece of evidence supporting the suggested analysis of the aspectual and pragmatic characteristics of the *ki*-category.
(8) 1YM/24: 12, 14, 15, 16.

a. 1YM/24: 12&16 (Ar. PFV): “When you **heard** the lie, (12:) why did [they] not think… (16:) why did you not say, ‘We should not repeat this– God forbid!– It is a monstrous slander’?” (Abdel Haleem 2005: 221).

\[\text{kundūgō} \quad \text{nadīyi} \quad \text{tīka} \quad \text{faham-kī-n-iyu} = n\]

‘When you heard (were hearing) it.’

b. 1YM/24 :14 “If it were not for God’s bounty and mercy towards you in this world and the next, you would already have been afflicted by terrible suffering for **indulging in such talk.**” (Abdel Haleem 2005: 221).

\[\text{alarō} \quad \text{nadīka} \quad \text{jarfandō}\]

\[\text{agō} \quad \text{nadīyi} \quad \text{yām-kī-n-iyu} = \text{gin}\]

\[\text{ʕaðab kambātmay alarō nadīka jarfandō}\]

‘It would have afflicted you what you spread; a grave punishment would have afflicted you.’

c. 1YM/24:15 (Ar. PFV). Context: “When you took it up [receive] with your tongues, and **spoke** with your mouths things you did not know... you thought it was trivial...” (Abdel Haleem 2005: 221).

\[\text{kundūgō} \quad \text{nadīyi} \quad \text{tīka} \quad \text{θabākir-gi-n-īyu} = n\]

‘when you were receiving this’

\[\text{tlamdū} = n \quad \text{θabākīr-ki-yubū} = n \quad \text{alarō} \quad \text{nadīka}\]

\[\text{tongue.2PL=LOC} \quad \text{receive-ki-2PL=AG=LOC} \quad \text{COND} \quad \text{2PL.DO}\]

\[\text{jarfandō}\]

\[\text{2PL.APPL.find.3SG.AFP}\]

‘You were receivers with your tongues, (and the punishment) would reach you.’
Like the above examples of backgrounding (8a–c), the Qur’anic text in 1YM/3:48–52 establishes a discourse background for the engagement of the apostles in supporting Jesus’s mission. Starting from the ki-form of the verb ‘teach’ (derived from the root *dug* ‘know’) illustrated earlier in (3) (where ‘teach’ refers to an event in the future relative to the deictic centre of the utterance), Jesus’s preaching is also framed by *ki*-forms of the speech verb *gul-ki-n* ‘he said’. The preaching events ends with Jesus’s understanding (sometimes interpreted as gradual\(^7\)) that the audience is not convinced. This is expressed by another *ki*-form, this time of the verb *dug* ‘know’ *ki-ndug* ‘he (having) realised’. Although it is arguable whether ‘he realised’ can be construed

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\(^7\) See Abdel Haleem’s (2005: 38) translation (that follows a certain exegetical tradition) given with example (9) have the polarity *still* added in brackets: ‘When Jesus realized that they [still] did not believe…’. This suggests that the perception of the audience’s disbelieve was not punctual but rather gradual.
as progressive in this case, it is not impossible, since there is a notion of gradual realisation of knowledge. Such a construal aligns with the context of the given preaching event where the utterances are introduced one by one, each with a purpose to convince (which proves unsuccessful). This speech event is spread in time and it is only after its completion that the new foreground information is given. The completion phase of the event is thus signalled by the adverbial clause ‘when he realised’.

(9) (1YM/3: 52) Context: Jesus was preaching to the Children of Israel that he was the messenger of God (3: 49–51) and “When Jesus realized that they [still] did not believe, he said, ‘Who will help me in God’s cause?’” (Abdel Haleem 2005: 38).

\[
\begin{align*}
\text{nābi} & \quad \text{ʕīsa} & \quad \text{ki-ndug}=n=\text{gin} \\
\text{prophet} & \quad \text{Jesus} & \quad \text{ki-know.3SG.IPfv?=Loc=INE} \\
\text{nrdika} & \quad \text{ki-ndug}=\text{nn} & \quad \text{guljī} \\
\text{disbelief.DO} & \quad \text{ki-know.3SG.IPfv?=Loc} & \quad \text{say.3SG.Pfv} \\
\end{align*}
\]

‘(when) prophet Jesus has realised their disbelief, he said’.

The morphological composition of the \textit{ki-} form in (9) is problematic because of the graphemic representation of the final segment \textit{g} of the verb stem \textit{dug}. If the \textit{ki-} form was derived from the imperfective, one would expect either a final vowel or a change of \textit{g} to \textit{y} as in example (3). As such, the form looks more like a non-finite category converb and could be read as ‘having realised it he said’. Nevertheless, this \textit{ki-} form is presented in this section due to its occurrence in the same locative construction that describes an anterior durative event with the bounded semantics of completed activity.

### 3.6. \textit{ki-} forms in non-past/non-present irrealis events

The preceding examples of adverbial constructions (occurring both in complement clauses of ‘remember’ and in non-embedded adverbial clauses) profile the verbs in \textit{ki-} forms that describe events (E) before a reference point (R) that itself is located in the past tense, i.e. \textit{before}
a deictic centre (S) (E before R before S). This could suggest that the *ki*-category expresses both aspectual and temporal meaning and therefore represents a category similar to pluperfect (past in the past) that places the event before a reference point positioned in the past. On formal and semantic grounds however, this is not the case. As stressed before, the *ki*-forms tend to derive from imperfective stems, often containing the frozen s* affix, rather than from perfective stems. Moreover, these forms occur in all three temporal domains of past (as in the preceding examples), present, as in (2) and future (3). In addition to future, the uses of the *ki*-forms with the predicates expressing irrealis events (i.e., those without a truth value at the time of reference) further illustrate the non-temporal nature of the *ki*-category. The examples which follow profile the *ki*-uses of the verbs ‘come out’ and ‘find’.

(10) *lūg* ‘come out’
(1YM/2: 149, 150) (Ar. PfV) Context: [Commands on the change of the orientation of prayer] “Wherever you may have started out [*come out*], turn your face in the direction of the Sacred Mosque…” (Abdel Haleem 2005: 17)

\[\text{krge} \quad \text{nīyī} \quad \text{ki}-lūgm=nn \quad (2:149) \quad \text{ki}-lūgm=nn \quad (2:150, \text{diff. hand})\]

wherever 2sg.sbj *ki*-come.out.2sg.ipfv=loc

‘wherever you come out’

To illustrate a distribution of *ki*-forms and non-ki forms in irrealis context according to grammatical and semantic parameters, the uses of the verb ‘find’ are presented below in an excerpt from a coherent set of glosses that translate a continuous discourse/situation and are written sequentially and close to each other, thus providing a well-controlled set of data that excludes possible interpolation by different scribes.

(11) *fand* ‘find’
(1YM/4: 91) (Ar. PfV) Context: “You will find others who wish to be safe from you, and from their own people, but whenever they are back in a situation where they are tempted [to fight you], they succumb to
it. So if they neither withdraw, nor offer you peace, nor restrain
themselves from fighting you, seize and kill them **wherever you
encounter them**.” (Abdel Haleem 2005: 59)

\[
\begin{align*}
\text{nadīye} & \quad \text{fugē} & \quad \theta-ir-fand-īyū \\
2\text{PL} & \quad \text{future} & \quad \text{FUT-APPL-find-2PL.FUT}
\end{align*}
\]

‘you will find (others)’

\[
\begin{align*}
\text{tandī} & \quad \text{nadīka} & \quad \text{jarutiyyibūya} \\
3\text{PL} & \quad \text{2PL.DO} & \quad \text{2PL.APPL.leave.3PL.NEG.COND}
\end{align*}
\]

‘if they do not leave you’

\[
\begin{align*}
\text{tandīye} & \quad \text{nadīro} & \quad \text{ṣulūka} & \quad \text{dbhargaybūya} \\
3\text{PL.SBJ} & \quad \text{2PL.IO} & \quad \text{peace.DO} & \quad \text{offer.2PL.APPL.3PL.NEG.COND}
\end{align*}
\]

‘if they do not offer peace to you’

\[
\begin{align*}
\text{tandīye} & \quad \text{muskujādīka} & \quad \text{dafaṭyibūya} \\
3\text{PL.SBJ} & \quad \text{hand.3PL.DO} & \quad \text{restrain.3PL.NEG.COND}
\end{align*}
\]

‘if they do not restrain their hands’

\[
\begin{align*}
\text{nadī} & \quad \text{tandīka} & \quad \text{kuwatenūgū} & \quad \text{nadī} & \quad \text{tandīka} & \quad \text{yenūgū} \\
2\text{PL} & \quad \text{3PL.DO} & \quad \text{seize.2PL.IMP} & \quad \text{2PL} & \quad \text{3PL.DO} & \quad \text{kill.2PL.IMP}
\end{align*}
\]

‘(then) seize them (and) kill them’

\[
\begin{align*}
\text{krge} & \quad \text{nadī} & \quad \text{tandīka} & \quad \text{ki-r-fand-īyū=n} \\
\text{wherever} & \quad \text{2PL} & \quad \text{3PL.DO} & \quad \text{ki-APPL-find-2PL.IPVF=LOC}
\end{align*}
\]

‘wherever you find them’

The adverbial conditional clauses in the above examples establish
background for the consequent events expressed as instructions or
statements. The predicates expressed in *ki*-forms are necessary
preconditions for the subsequent events. The aspectual potential (lexical
aspect) of the predicates used in these conditionals (‘come out’ and
‘find’) has both durative and punctive construals (cf. Croft 2012: 52
on the aspectual potential of English *find*) and the situations they
describe may be construed as repetitive and persistive but transitory
and bounded. These durative and bounded construals of the illustrated
*ki*-forms in the irrealis context are similar to the *ki* uses in the past
tense domain.
4. *ki* in non-finite forms

Almost all *ki*-forms attested in non-finite verbs derive from *s*-stems.\(^8\) The non-finite forms presented in this section usually have reduced-vowel stems in their inflectional slots, some forms lacking person and number agreement markers (examples 14 and 15), and thus they belong in the converb category.

As for their aspectual meaning, the *ki*-converbs do not seem to clearly exhibit the set of semantic and pragmatic properties identified for the finite *ki*-forms. However, depending on lexical aspect, these forms show the same range of construal, such as *duration* and *antecedence/prerequisite relevant* for consequent events (‘know’), *transitory states relevant for consequent situations* (‘die’ — see details under example 13 below) and *persistent processes with emphatic/emotive* (‘indeed’) reading (‘flow’ ‘come out’, ‘fall down’, ‘bring out/take’). The predicates ‘flow’, ‘come out’ and ‘fall down’ describe the attributes of inanimate objects, such as stones that are used as standard of comparison with the hearts of disbelievers (i.e. ‘the hearts of disbelievers are harder than stones, the latter being softer because they release water (i.e. water comes out from them) and they fall in fear of God’). The situations described by ‘bring out/take’ are compared to each other and have both emphatic and simultaneous meaning (i.e. ‘God brings the believers to light while false gods take the disbelievers to darkness’). These interpretations are discussed with each example below.

---

\(^8\) This consistency is remarkable compared to the finite *ki*-forms discussed before, which often do not have the *s* element (some non-finite *ki*-forms also lack *s*, but what conditions its absence is unclear). All such non-finite *ki*-forms are used to translate either Arabic imperfective verb forms or perfective verb forms describing durative events. The consistency of *ki* / *s* covariance related to imperfective forms and progressive meaning in Arabic has resulted in grammaticalisation of the combination *ki*-s as a true imperfective in later development of OKb (Bondarev forthcoming).
4.1. ‘know’ in be(come)-constructions

(12) (Q.82: 12) (Ar. 1P.FV) Context: The angels constantly watching everyone to record people’s deeds for the assessment on the Day of Judgement. “Over you stand watchers, noble recorders who know what you do: the good will live in bliss, and the wicked will burn in the Fire” (Abdel Haleem 2005: 412)

a. 1YM/82: 12

\[ ki\text{-sanduku}=ye \quad \text{tasikē} \quad \text{agō} \quad \text{nandiye sdwaka} \]

\[ ki\text{-}\text{-3pL.know-CN\text{V}=SBJ} \text{be}\text{.3pL.FV thing} \quad \text{2pL.SBJ do.2pL-CN\text{V}=DO} \]

‘there are those who are being aware of what you are doing’

b. 2ShK/82: 12 (no vowel before SBJ -yi)

\[ tandiyi \quad ki\text{-s-anduk}=yi \quad \text{sikē} \]

\[ 3\text{pL.SBJ} \quad ki\text{-}\text{-3pL.know-CN\text{V}=SBJ} \text{be.3SG.FV} \]

‘There are those who know (are being aware of)’

The verb ‘know’ used in the ki-form of OKb translates a durative event that signals an antecedent and prerequisite situation for the consequent event of God’s judgement. Thus, ‘they know’ in this context means that ‘they are constantly watching you’ and such knowledge is a precondition for the Day of Judgement.

4.2. ‘die’ in be(come)-constructions and relative clauses

(13) a. (1YM/2: 28) (Ar. P.FV) Context: “How can you ignore God when you were lifeless and He gave you life, when He will cause you to die, then resurrect you to be returned to Him?” (Abdel Haleem 2005: 6)

\[ ki\text{-s-ūnū-y}=ro \quad \text{tadigīyu} \]

\[ ki\text{-}\text{-die-CN\text{V}=IO PST.be.2pL.AFP} \]

‘You [indeed] were dead.’ (lit.: ‘[you having died] [you were]’)

b. (1YM/2: 161) (Ar. P.FV) Context: ayas 158–162 deal with rewards and punishment in the afterlife. “As for those who disbelieve and die as disbelievers, God rejects them, as do the angels and all people.” (Abdel Haleem 2005: 18)

\[ tandīnī \quad agrtībū=\text{halan} \quad tandī \quad ki\text{-s-ūnu-y}=\text{nī} \]

\[ 3\text{pL.det.pl disbelievers=ADV} \quad 3\text{pL} \quad ki\text{-}\text{-die-CN\text{V}=DET.pl} \]

‘Those who die while being disbelievers.’
The *ki-*forms in both examples (13a–b) have transitory interpretation of the state ‘being dead’. In (13a) ‘being dead’ is bound to the subsequent state of resurrection and in (13b) ‘dying while disbelieving’ is a condition for the act of punishment, the latter taking place after the state of being dead has terminated. Thus, both uses of the *ki-*form express a transitory process and presuppose the same result: being brought to life at the Day of Judgement.

4.3. ‘flow’, ‘come out’, ‘fall down’
in be(come)-construction with emphatic reading

The *ki-*converbs of these verbs describe persistive processes which serve to put emphasis on the quality of the stones depicted as being softer than the hearts of disbelievers. Thus, the stones release water and split open to let water come out:

(14) θrθr ‘flow’, lūg ‘come out’, jb ‘fall down’
(1YM/2: 74) (Ar. ipfv) “Then your hearts became hardened after that, being like stones or even harder. For indeed, there are stones from which rivers burst forth, and there are some of them that split open and water comes out, and there are some of them that fall down for fear of Allah. And Allah is not unaware of what you do.” (Sahih)

*kāwθurunh* θrθr-ki-s=yih θīgī
stone.inside flow-ki-s*=SBJ be.3SG.PFV

tikan būrm=yih tī kāw θuron yi θīgī
3SG.ABL river=SBJ 3SG stone inside water be.3SG.PFV

tikanh yi ki-s-ūlūg=ye θīgī
3SG.ABL water ki-s*-come.out=SBJ be.3SG.PFV

agō jb-ki-s=y θīgī
thing come.down-ki-s*=SBJ be.3SG.PFV

‘There are rivers streaming from the stones; there are rivers and water inside the stones; there is water coming from there and coming down therefrom.’
4.4. ‘bring out’ in adverbial construction with emphatic and persistive reading

The events expressed by the ki-converbs of the verb tūlūg (tulūg) ‘bring out/take’ exemplified in (15) have emphatic and persistive reading. The events are contrasted to each other and construed as simultaneous (God bringing people to light and false gods to darkness). These contrasted events have relevance for the subsequent situation — the Judgment Day. That is, those brought to light will be returned to God, and brought to darkness will dwell in hell.

(15) (1YM/2: 257) (Ar. ipfv) “God is the ally of those who believe: He brings them out of the depths of darkness and into the light. As for the disbelievers, their allies are false gods who take them from the light into the depths of darkness, they are the inhabitants of the Fire, and there they will remain.” (Abdel Haleem 2005: 29, 30)

\[\begin{align*}
\text{ʔālatī} & \quad \text{gurnuma} & \quad \text{tandī} & \quad \text{sāraybi} \\
\text{God.DET} & \quad \text{protector} & \quad \text{3PL} & \quad \text{believe.3PL.PFV.GEN} \\
\text{tandīka} & \quad \text{ki-s-ūtūlūg}=\text{ḥalan} \\
\text{3PL.DO} & \quad \text{ki-s*-bring.out.CNV=ADV} \\
\end{align*}\]

‘God is protector of those who believe, (by) bringing them out…’

\[\begin{align*}
\text{nūfurbi} & \quad \text{nīnmkan} & \quad \text{klīslāmbi} \\
\text{paganism.GEN} & \quad \text{darkness=ABL} & \quad \text{faith.GEN} \\
\text{nūrro} & \quad \text{tandīka} & \quad \text{ki-s-ūtūlūg}=\text{ḥalan} & \quad \text{gūnnuma} \\
\text{light.IO} & \quad \text{3PL.DO} & \quad \text{ki-s*-bring.out.CNV=ADV} & \quad \text{protector} \\
\end{align*}\]

‘he is the protector (by way of) bringing them from the darkness of paganism to the light of faith’

\[\begin{align*}
\text{tandī} & \quad \text{āgrsānī} & \quad \text{gurnumajā} & \quad \text{sadīkiya} & \quad \text{kašb-lāšrafmitī} \\
\text{3PL} & \quad \text{disbelieve.DET} & \quad \text{protector.3PL} & \quad \text{be.3PL.COND} & \quad \text{false-god.DET} \\
\end{align*}\]

‘those who disbelieve, their protector is false god’

\[\begin{align*}
\text{tandīye} & \quad \text{tandīka} & \quad \text{ki-s-ūtūlūg}=\text{ḥalan} \\
\text{3PL.SI} & \quad \text{3PL.DO} & \quad \text{ki-s*-bring.out.CNV=ADV} \\
\text{klīslāmbi} & \quad \text{nūrkan} & \quad \text{nūfurbi} & \quad \text{nīnmro} \\
\text{faith.GEN} & \quad \text{light.ABL} & \quad \text{paganism.GEN} & \quad \text{darkness.IO} \\
\end{align*}\]

‘They (false gods) are their (disbelievers’) protectors (by) bringing them from the light of faith to the darkness of paganism.’
5. Summary and conclusion

The illustrated syntactic environment, aspectual semantics and discourse status conveyed by the ki-forms are summarised as follows. The ki-forms rarely occur in main clauses, but when they do, they are expressed as locative constructions (3). The example in (3) ‘teach’ profiles gradual process that establishes background/relevance for consequent situations. Some usages of the ki-forms may marginally be considered as predicates of the main clause, e.g. ‘believe’ and ‘plot’ in direct reported speech (4), although these clauses are expressed as speech-verb complements rather than locative construction. The ki-forms in (4) express transitory (for ‘believe’) and durative (for ‘plot’) semantics and indicate relevance of prior event to the current situation.

In adverbial ‘when’-clauses which are complements of ‘remember’, the ki-forms of speech verb ‘say’ (5)–(6) express a transitory process and set up background for a more salient (foregrounded) situation. A similar construal in the same syntactic environment is attested in ki-forms of ‘take’ and ‘do’ (7) which establish an important reference point for all subsequent (related) events.

The ki-forms in adverbial constructions which are translations of the Arabic ‘when’-clauses have been illustrated with the speech and auditory verbs ‘say’, ‘hear’, ‘spread (by saying)’, ‘receive (by hearing)’. These forms introduce durative processes in antecedent situations that set background for consequent situations and ensuing discourse (8). The ki-form of the verb ‘teach’ in the same adverbial construction (9) describes a speech event with durative meaning upon completion of which the new foreground information is introduced.

In adverbial conditional clauses (‘wherever’) the uses of the ki-forms (10)–(11) are exemplified with the irrealis (non-past/non-present) events in order to demonstrate that the ki-category operates beyond the past tense domain — the property of the ki corroborated by the uses of ki in present (2) and future (3). The events encoded by ki in (10)–(11) and similar ‘wherever’ clauses have durative meaning (repetitive or persitve) and are necessary precondition for the consequent situations.
Finally, the non-finite ki-forms (converbs in be(come)-constructions, relative and adverbial constructions) — depending on lexical aspect — show the same range of construal as in the finite ki-forms, such as duration and antecedence/prerequisite relevant for consequent events (‘know’ in (12)), transitory states relevant for consequent situations (‘die’ in (13)) and persistent processes with emphatic/emotive (‘indeed’) reading (‘flow’, ‘come out’, ‘fall down’ in (14)), with some occurrences having simultaneous meaning (‘bring out/take’ in (15)).

All these uses of the ki-forms may thus be subsumed under a unifying description: a relevance backgrounding marker with progressive-completive semantics. Given that the antecedent and conditional semantics can also be expressed by the conditional verbal category (e.g. example (11)) and the progressive/simultaneous meaning by the imperfective (examples (1) and (2)), it is reasonable to suggest a discourse factor that activates the use of ki. Since the background information introduced by ki has a specific importance for the discussed situations, emphatic reading may be present in most of the examples.

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Abbreviations

1, 2, 3 – 1, 2, 3 person
ABL – ablative
ADV – adverbial (operator)
AFP – argument focus perfective
AG – agent noun
APPL – applicative
AUX – auxiliary
CNV – converb
COND – conditional

DET – determiner
DEM – demonstrative
DO – direct object
FUT – future tense
GEN – genitive
INE – inessive
IPFV – imperfective
IMP – imperative
IO – indirect object
OKb – Old Kanembu
OBJ – object marker
LOC – locative
NEG – negative
PST – past tense
PL – plural
PFV – perfective

ShK – the “Shetima Kawo” manuscript
SG – singular
SBJ – subject marker
SBJV – subjunctive
TAG – tag question
YM – the “Yerima Mustafa” manuscript

2: 72 etc. chapter and verse of the Qur’an

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