
THE GRAMMATICALISATION OF AN AUXILIARY AND A COPULA: THE ARABIC ‘SIT’ PARTICIPLE*

MARIS CAMILLERI
University of Essex

LOUISA SADLER
University of Essex

ABSTRACT This paper discusses the grammaticalisation of the posture verb active participle *gāʿid* (and phonological variants) ‘sitting’ in vernacular Arabic. Two trajectories of change are considered. The grammaticalisation of the participle as a PROG auxiliary is widespread across the different varieties, and previously discussed in the literature, while the development of a newly emerging copula function of *gāʿid* shows a more restricted distribution, and has received little attention to date. We provide a staged formalisation of how the development could have taken place in two independent diachronic trajectories, couched within LFG. In developing this proposal, we argue that the Arabic facts do not support the crosslinguistic trajectory put forward by Kuteva (1999, 2001), in which it is argued that the extension of a postural meaning for the canonical locative encoding of physical objects is the basis for the grammaticalisation of an aspectual auxiliary. Rather, for Arabic we suggest that the development of a copula from the posture verb active participle post-dates the grammaticalisation of the aspectual auxiliary. We argue that the auxiliary function developed out of the stative/unbounded semantic dimension of the original posture verb semantics, while the copula function developed independently and later in time from a bleached general locative extension of the participle’s original postural semantics.

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1 INTRODUCTION

It is well known that posture verbs are strong candidates for grammaticalisation. Heine & Kuteva (2002) point to a range of aspectual values (including continuous, durative, progressive, and habitual) and copula functions that arise as a result of the grammaticalisation of posture verbs. Newman & Rice (2004), concentrating on the grammaticalisation of the posture verb *sit* across various languages, note the development of expressions of progressive and habitual aspect, a present-tense marker, a generalised copula, a locative marker, and a concessive counter-expectation marker (meaning ‘not yet’). It has also been shown that in a number of languages, progressive markers which have developed out of locative, postural and movement verbs can develop further into general imperfectives (and occasionally into present tense markers) (Comrie 1976, Bybee & Dahl 1989, Bybee, Perkins & Pagliuca 1994, Austin 1998, *inter alia*).

In this paper we discuss the grammaticalisation of the active participle form of the posture verb *sit* in vernacular Arabic. The grammaticalisation of this element as an aspectual auxiliary is discussed in sources including Jarad (2015), Camilleri & Sadler (2017) and Basulaiman (2018), and noted or exemplified in a variety of descriptive sources for the different dialects. A copula grammaticalised from this posture verb form is found in Maltese (Borg 1987, 1988, Stassen 1996), and Camilleri & Sadler (2019) have recently put forward the argument that a cognate form is emerging more widely as a copula, even if with a varied and somewhat more restricted distribution, in some of the Arabic dialects. The current contribution develops a proposal couched in LFG for the diachronic trajectories that independently lead to the grammaticalisation of an aspectual auxiliary and to the development of a copula. The two trajectories are related in that they both take the active participle of the *sit* verb as their starting point. We argue in particular that the grammaticalisation path from posture verb to progressive auxiliary in Arabic, which is a widespread development across the Arabic dialects, does not support the trajectory put forward by Kuteva (1999, 2001), in which it is the extension of the posture verb for the canonical positioning of physical objects which is at the basis of the grammaticalisation process for the aspectual auxiliary. On the other hand, we argue that the development of a copula usage, which is at an earlier stage, and which is less widely distributed across the Arabic varieties, *does* depend on a locational extension or bleaching of the posture participle’s form, in a step in which co-occurrence with locational arguments is key (Lesuisse & Lemmens 2018, Pfenninger 2007).

The paper is structured as follows. In §2 we show that the active par-

ticiples form of the posture verb *sit* has developed a fully grammaticalised use as an aspectual auxiliary across the Arabic varieties. In §3 we discuss the proposed trajectory of change from posture verb to progressive auxiliary, as developed in Kuteva (1999, 2001), and argue that Arabic does not support this diachrony. In §3.3 we develop a hypothesis concerning the diachronic development, formalised in the framework of LFG. In §4 we turn to evidence in support of the argument that a further grammaticalisation process involving this same active participle form is in progress in some Arabic varieties, and develop a hypothesis concerning this additional diachronic development. We then conclude with a discussion of the relationships between these multiple grammaticalisation paths in §5.

2 GRAMMATICALISATION OF A PROGRESSIVE CONSTRUCTION IN ARABIC

2.1 The ‘sit’ active participle in Arabic

In Arabic, imperfective (as opposed to perfective) forms of the lexical verb give rise to all three of the readings which imperfectives express crosslinguistically, i.e:

- (1) (i) the progressive or *event-in-progress* reading;
(ii) the habitual or *generic characterizing* reading;
(iii) the *continuous* reading with lexically stative predicates
(Deo 2015: 4)

The use of the imperfective form is just one strategy for expressing an *event-in-progress* (progressive) reading. In some dialects, it is the active participial forms that allow for the expression of this reading, and this depends on the aspectual class of the associated verb (see Henkin 1992, Woidich 1995, Boneh 2010, Mughazy 2004, Procházka & Batan 2015, Hallman 2017). In the majority of the dialects, the predominant strategy is to use some sort of additional marker, such as an auxiliary or a prefix with the imperfective form of the lexical verb (see e.g. Agius & Harrak 1987, Mitchell & Hasan 1994, Harrell 1962, Watson 1993), or, as in Tunisian and Libyan, the prepositional marker *fi* ‘in’ following the imperfective verb, while preceding the object (second argument) in transitive constructions (Mion 2004, Pallottino 2016, Börjars, Ghadgoud & Payne 2016a, McNeil 2017). An additional widespread strategy in many vernacular varieties of Arabic is the use of the active participle forms *gāʿid/qāʿid* (or phonological variations thereof) of the lexical verb meaning ‘sit’ *gaʿad/qaʿad* ‘sit.PFV.3SGM’, in combination with a lexical

verb in the imperfective form.¹ In fact the imperfective and perfective verb-forms of this verb have in the different dialects also grammaticalised into a distinct aspectualiser expressing a durative or continuative reading of ‘keep; endure in state x’ (Eksell 1995, Vanhove 1993, Maas 2009, Camilleri 2016, El-Sadek 2016, Alotaibi 2019 among others). We however do not discuss these developments here.

Variation exists among the dialects as to whether the lexical meaning of ‘sit’ is still associated with the participial form at all; in some dialects this form has come to mean ‘exist’, while in Maltese it has virtually lost all lexical meaning. For dialects which still retain the lexical ‘sit’ meaning, when there is semantic compatibility between the ‘sit’ participle and the following imperfective lexical verb, ambiguity arises out of context, as illustrated in (2)-(3). This ambiguity arises through the syntactic reanalysis of a circumstantial construction which is found synchronically in the grammar, in which the lexical ‘sit’ participle is the main predicate, with the lexical imperfective verb understood as a circumstantial adjunct. In this construction, the lexical verb in the imperfective expresses a subsidiary, concurrent circumstance or activity, as in ‘while eating’ in (2). For further details of the characteristics of circumstantial adjuncts in Arabic, see Isaksson, Kammen-sjö & Persson (2009). The reanalysis results in the grammaticalisation of a construction where the lexical verb takes centre stage, and *gāʿid* has an auxiliary function.

- (2) *wəħid qāʿid yə-kol*
 one.SGM sit.ACT.PTCP.SGM 3M-eat.IPFV.SG
lexical reading: ‘Somebody is sitting and eating/sitting while eating.’
grammatical reading: ‘Somebody is eating.’
 Tunisian: Saddour (2009: 273)

- (3) *bas hāḍi gāʿid-ə t-mūt*
 but DEM.SGF sit.ACT.PTCP-SGF 3F-die.IPFV.SG
lexical reading: ‘But this is sitting (while) dying.’
grammatical reading: ‘But this is dying.’ Emirati: Persson (2013: 15)

As a participial, it agrees in NUMBER and GENDER (but not PERSON) with the subject:²

¹ In some vernaculars the same is true of the active participle *gālis/yālis* (from the verb *gālas* ‘sit.PFV.3SGM’). We focus on *gāʿid* here, a form which is widely distributed across the different dialects.

² For clarity, from this point on we gloss the grammaticalised aspectual use of the active

- (4) *w ʔana ʔāʕd-a ʔa-ʕallah el-hawādes ʔilli*
 CONJ I PROG-SGF 1SG-repair.IPFV DEF-accident.PL COMP
ḥaṣal-et
 happen.PFV-3SGF
 ‘And I am repairing the damage that happened.’
 Egyptian: ElSadek (PC)
- (5) *It-tifla qieghd-a t-i-kteb.*
 DEF-girl PROG-SGF 3F-FRM.VWL-write.IPFV.SG
 ‘The girl is writing.’ Maltese: Camilleri (2016: 73)

As an exponent of progressive (or *event-in-progress*) aspect, the ‘sit’ active participle may co-occur with other auxiliaries to construct more complex temporal and aspectual interpretations. For example, in (6) for Maltese, the progressive marker occurs in combination with both the perfective and imperfective forms of *kien* ‘be’ to express a past habitual progressive. In Kuwaiti (7), it co-occurs with the future form of *kān* ‘be’ built on the imperfective form, giving rise to a future progressive reading.

- (6) *Kon-t in-kun qieghed n-i-kteb u*
 be.PFV-1SG 1-be.IPFV.SG PROG.SGM 1-FRM.VWL-write.IPFV.SG CONJ
hu j-i-ḡi j-waqqaf-ni.
 he 3M-FRM.VWL-come.IPFV.SG 3M-CAUSE.stop.IPFV.SG-1SG.ACC
 ‘I used to be writing, and he would come stop me.’ Maltese
- (7) *bāčir ha-l-wagt b-a-kūn gāʕd-a*
 tomorrow DEM-DEF-time FUT-1SG-be.IPFV PROG-SGF
ʔa-ktib fi l-imtihān
 1SG-write.IPFV in DEF-exam
 ‘Tomorrow, at this time, I will be writing during the exam.’
 Kuwaiti: Alaskar (PC)

2.2 Evidence for the grammaticalisation of a PROG auxiliary

The fact that, in some dialects, the semantics of the lexical function of the active participial form has widened from expressing spatial, postural orientation to something that is *temporally located*, that is, from a ‘sit’ meaning to a ‘stay/remain’, and even an ‘exist’ reading, as we will see, is itself evidence of desemanticisation. Direct evidence for loss of lexical semantic status is

participle simply as PROG.

found in Maltese: in this variety very few active participles (just a handful) retain a verbal meaning and status. The ‘sit.ACT.PTCP’ form has only a number of lexicalised, adjectival meanings such as ‘unemployed’ and ‘stagnant’, as in (8) for instance, where a verbal, ‘sit’ interpretation is not possible.

- (8) *Marija qieghd-a.*
 Mary sit.ACT.PTCP-SGF
 ‘Mary is unemployed.’
 Cannot mean: ‘Mary is sitting.’ Maltese

However, the active participle *gāʕid* does have a widespread occurrence in a verbal function as a grammaticalised form expressing PROGRESSIVE aspect. This is in contrast with the (morphologically related) perfective and imperfective verb-forms, which still maintain the lexical meaning of ‘sit’, as exemplified by the imperfective *jogghod* ‘3M.sit.IPFV.SG’ in (9), alongside an additional durative, grammaticalised sense.³

- (9) *Il-hin kollu j-qum u*
 DEF-time.SGM all.SGM 3M-stand up.IPFV.SG CONJ
j-o-qghod.
 3M-FRM.VWL-sit.IPFV.SG
 ‘He’s all the time getting up and sitting down.’ Maltese

Robust evidence that the participle has indeed grammaticalised as an ASPECTUAL marker comes from the fact that it can combine with lexical predicates which are incompatible with the physical disposition inherent in the posture sense. This shows that it does not retain the aspects of its previous meaning in such contexts. The following examples illustrate this for a range of dialects.

- (10) *nora gāʕd-a ta-rgiʕ maʕa aʕdig-at-ā fi*
 Nora PROG-SGF 3F-dance.IPFV.SG with friend-PLF-3SGF.GEN in
il-hafla (al-hin)
 DEF-party DEF-time
 ‘Nora is dancing with her friends at the party (now).’
 Hassāwi: [Al-Abdullah \(2016: 34\)](#)

³ Forms of the ‘sit’ verb other than the active participle have also developed a range of grammaticalised senses in a number of dialects, but we do not discuss these cases here.

- (11) *al-weled gāʿed tōl al-waġet y-nōṭṭ*
 DEF-boy PROG.SGM long DEF-time 3M-jump.IPFV.SG
 ‘The boy is jumping all the time.’ Libyan: Sigurti (PC)

- (12) *gāʿd-a t-niṭṭ*
 PROG-SGF 3F-jump.IPFV.SG
 ‘She is jumping.’ Kuwaiti: Alaskar (PC)

Furthermore, it combines with inanimate subjects, as shown in (13)-(15), which is otherwise not generally appropriate for the verb in its lexical meaning. Both of these properties suggest full or partial loss of the lexical meaning — an observation which is commonplace in the grammaticalisation literature on auxiliaries, such as Kuteva (2001).

- (13) *il-baṣṣ gāʿid y-ōṣal is-sāʿa ḥams min*
 DEF-bus.SGM PROG.SGM 3M-arrive.IPFV.SG DEF-hour five from
isnīn
 year.PL
 ‘The bus has been arriving at five o’clock for years.’
 Kuwaiti: Alaskar (PC)

- (14) *il-ġiṭar gāʿid y-waġif*
 DEF-train.SGM PROG.SGM 3M-stop.IPFV.SG
 ‘The train is stopping.’ / ‘The train is slowing down to stop.’
 Hassāwi: Al-Abdullah (2016: 84)

- (15) *al-malābes/ad-dabaṣ gāʿad-a ta-ḵef*
 DEF-clothe.PL sit.ACT.PTCP-SGF 3F-dry.IPFV.SG
 ‘The clothes are drying.’ Libyan: Sigurti (PC)

It is often the case that, as a lexical item changes in function into a grammatical item, it also undergoes phonological weakening and/or morpho(phono)logical erosion, and may develop into a clitic, and then into an affix (and further, into a null element) (Hopper & Traugott 2003: 7, Bybee et al. 1994, Harris & Campbell 1995: 337, Fischer 2007: 182). This is encapsulated in unidirectional clines of change such as that in (16), which are often interpreted as being indicative of increased degrees of grammaticalisation, pertinent to both form and function. In relation to such clines, Heine (1993: 109) observes that ‘conceptual grammaticalization precedes erosion’, thus implying that functional change precedes formal change.

- (16) Full (lexical) V forms > auxiliary > verbal clitic > verbal affix

Weakening and erosion of the participial form in its aspectual, auxiliary use are clearly found in many of the Arabic dialects. One way in which morphology is eroded is through the loss of paradigmatic contrasts/inflection. Synchronically, the use of agreeing forms of the grammaticalised participle is optional in Kuwaiti, which has resulted in the use of the SGM form emerging as an optional default, initiating a loss of paradigmatic contrasts.

- (17) *huma gāʿid* / *gāʿid-in y-haqqaq-ūn hadaf-hum*
 they PROG.SGM / PROG-PL 3-achieve.IPFV-PL goal-3PL.GEN
muʔahḥar
 lately
 ‘They are achieving their goal lately.’ Kuwaiti: Alaskar (PC)

There are an additional number of instances illustrating the extent to which the morphological form of the participle has eroded. Perhaps the most extreme case is evinced in (Muslim) Baghdadi Iraqi, where what is left of *gāʿid* is *d*, prefixed on the imperfective form of the verb, as in (18).⁴ In Jewish Baghdadi, on the other hand, erosion results in the form *qa(d)-* (Blanc 1964). In Kuwaiti, the first syllable is retained and shortened, as in *gaʿ* < *gāʿad* (19), while erosion along with other phonological processes yield *ḵāy* < *gāʿid* in Urban southern Iraqi (20). Maltese exhibits a broader shortening of the SGM form, ending up with *qed*, as in (21). All these, including the procliticisation found in Tunisian, (22a), are different ways in which the participle forms have been eroded.

- (18) *da-tu-mṭur ihwāha has-sana*
 PROG-3F-rain.IPFV.SG a lot DEM.DEF-year
 ‘It is raining a lot this year.’
 (Muslim Baghdadi) Iraqi: Cohen (1984: 288)

- (19) *maryam gaʿ ta-ktib maktūb*
 Maryam PROG 3F-write.IPFV.SG letter
 ‘Maryam is writing a letter.’ Kuwaiti: Al-Najjar (1991: 672)

- (20) *ḵāy a-gra*
 PROG 1SG-read.IPFV
 ‘I am reading.’ (Urban southern) Iraqi: Alshawī (PC)

⁴ Here we follow the suggestion of an anonymous reviewer, considering the *a* which forms part of the *da-* prefix to be epenthetic.

- (21) *It-tifla qed t-i-kteb.*
 DEF-girl PROG 3F-FRM.VWL-write.IPFV.SG
 ‘The girl is writing.’ Maltese: Camilleri (2016: 73)

- (22) (a) *winti ʔiš qat-t-qūl?*
 CONJ.you what PROG-2-say.IPFV.SG
 ‘And you, what are you saying?’
 (b) *ūwa qā i-fədlək*
 he PROG 3M-joke.IPFV.SG
 ‘He is joking.’ Tunisian: Cohen (1984: 280)

2.3 Grammaticalisation as a staged progression

The interaction with negation provides an insight into the microvariation that exists with respect to the status of the grammaticalised ‘sit’ active participial form in the different vernaculars. Sentential negation of nominal, adjectival and prepositional predicates in (zero) copula clauses involves the so-called pronominal NEG marking system, also referred to as pronominal negation, in which a negative marker combines with a pronominal form. In the Kuwaiti example in (23) we see this form (*mū*) negating an active participle (and dialects with so-called bipartite negation will additionally have *-š* suffixed to the pronominal negation). On the other hand, perfective and imperfective verb-forms (including the auxiliary *kān* ‘be’) are negated by means of the negative particle *mā*, which precedes the finite verb-form, as in (24b). Again, in dialects which have the so-called bipartite negation we typically find *mā ... -š* circumfixing the finite verb.⁵

- (23) *mū gāʕid, gāyim*
 NEG sit.ACT.PTCP.SGM stand.ACT.PTCP.SGM
 ‘He is not sitting, but standing.’ Kuwaiti: Alaskar (PC)

- (24) (a) *mā ʔalla-w šay*
 NEG leave.PFV.3-PL thing
 ‘They didn’t leave anything.’ Kuwaiti: Brustad (2000: 285)
 (b) *ʔawwel mā kān y-šuf-ha*
 first NEG be.PFV.3SGM 3M-see.IPFV.SG-3SGF.ACC
 ‘In the old days, he didn’t use to see her.’
 Kuwaiti: Brustad (2000: 286)

⁵ It is important here to point out that such a distinction in the realisation of NEG does not necessarily hold across all dialects.

A question that arises, then, is what form of negation is found when the active participle form occurs as a grammaticalised progressive auxiliary. In some varieties, we observe **persistence** of the form of negation appropriate to non-finite predicates, despite the participle's apparent syntactic (and morphological) reanalysis into an auxiliary. This is illustrated by the use of pronominal NEG marking in (25)-(26), in parallel with the negation of *gāʕid* when this functions as a *lexical* active participle, as in (23) above.

- (25) *al-harēm mū/mūš / ma-hum gāʕid-in/ġāls-in y-sulf-ūn*
 DEF-women NEG / NEG-3PL PROG-PL 3-talk.IPFV-PL
ʕan al-ʕirs al-ħin
 about DEF-wedding DEF-time
 'The women are not talking about the wedding now.'
 Hassāwi: [Al-Abdullah \(2016: 61\)](#)

- (26) *Pawlu mhux qieghed/qed i-kellim-hom.*
 Paul NEG PROG.SGM/PROG 3M-talk.IPFV.SG-3PL.ACC
 'Paul is not talking to them.' Standard Maltese

In other varieties, however, syntactic reanalysis along with morphological erosion results in the auxiliary undergoing negation in the manner of finite verbs, as shown in (27)-(28), where negation is through the *ma ... (-š)* strategy, as opposed to the pronominal strategy seen in (23), and (25)-(26).

Observe that in (27) in Iraqi, *da-* has been reinterpreted as an affix, and the NEG *mā* negates the verb-form inclusive of this PROG-expressing prefix.⁶ What the situation in dialectal Maltese illustrates, on the other hand, is that *qid* is reinterpreted formally (i.e. morphosyntactically) as a verbal auxiliary, rather than a participial auxiliary, and is in this context negated just as other verbs and verbal auxiliaries would be.

- (27) *ʔiskut ma-da-š-šūf iğ-ğāhil*
 be quiet.IMP.2SG NEG-PROG-2-see.IPFV.SG DEF-child.SGM
nāyīm
 sleep.ACT.PTCP.SGM
 'Quiet! Aren't you seeing that the child is sleeping!'
 (Muslim Baghdadi) Iraqi: [Cohen \(1984: 288\)](#)

⁶ A reviewer suggests an alternative to our analysis, and hypothesises the possibility that the use of *ma* in this context, rather than *mu*, could be indicative of the fact that the PROG marker may have grammaticalised *prior* to the divide that currently exists in the expression of NEG in the contemporary system, such that what we see in (27) would, under this view, constitute a case of persistence of the original unitary negation system.

- (28) *M’qid-x* *n-ghid-l-ik* *hekk* *biex*
 NEG.PROG-NEG 1-say.IPFV.SG-DAT-2SG like this in order to
n-beżżgħ-ek.
 1-frighten.CAUSE.IPFV.SG-2SG.ACC
 ‘I am not telling you this to frighten you.’
 Dialectal Maltese: Camilleri (2016: 79)

Another illustration of the gradual further progression associated with the progressive construction in Arabic is that once established as a progressive, we find evidence in some dialects that this form is proceeding further down along the path of change associated with the Imperfective cycle (Deo 2015). This cycle is represented in (29), where X and Y denote individual forms. In the initial state, there is a generalised imperfective marker, while the following stage is characterised by the emergence of an optional, specialised PROG marker. At stage III, the use of the additionally recruited grammatical resource is categorical, or obligatory, in some contexts, and ‘the exponents of PROG and IPFV have relatively circumscribed (though overlapping) domains of use’ (Deo 2015: 19–20). All the dialects which we have looked at have reached at least this stage. Finally the PROG marker itself generalises across the imperfective domain: the examples in (30) would constitute cases of extension to other imperfective readings, or generalised uses.

- (29) (I) XIPFV – The initial state with just a general IPFV marker, in principle ambiguous in its interpretation (hence the stage illustrated in (1) in association with imperfective forms)
 (II) (YPROG), XIPFV – Emergent (optional) PROG
 (III) YPROG, XIPFV – Categorical PROG (which is the stage reached synchronically across all dialects, even if through different means, where the construction expresses an *event-in-progress* reading)
 (IV) YIPFV– Generalized PROG where the erstwhile (analytic) construction expressing an *event-in-progress* reading now expresses readings associated with the imperfective.
 (Deo 2015: 20)

- (30) (a) *il-hilal* *gāʿid* *ya-fūz* *bil-kass*
 DEF-Hilal.SGM PROG.SGM 3M-win.IPFV.SG with.DEF-cup
kil sanah illa has-sanah
 every year except DEM.DEF-year
 ‘Il-Hilal wins the cup every year (except this year), i.e. it
 habitually wins.’ Hassāwi: [Al-Abdullah \(2016: 38\)](#)
- (b) *qa-y-ʿīd* *yə-mši*
 PROG-3M-want.IPFV.SG 3M-walk.IPFV.SG
 ‘He wants to walk.’ (Jewish Baghdadi) Iraqi: [Rubin \(2005: 137\)](#)
- (c) *humma* *gāʿid-āt* *yu-rgd-u*
 they.F PROG-PLF 3-sleep.IPFV-PL
 ‘They (F) are sleeping. / They sleep.’
 Libyan: [Pereira \(2008: 377\)](#)

Mion (2004: 251) posits a diachronic path of development for the expression of imperfective meanings in Moroccan Arabic, which, as illustrated below, closely corresponds to Deo's imperfective cycle. Synchronically, in this variety, the imperfective form is prefixed with markers such as *ka-* and *ta-*, and a PROGRESSIVE reading has synchronically started being expressed by combining this form with an additional marker that is itself related to a 'sit' verb. The staged process that has given rise to this synchronic situation is represented in (31).

- (31) (I) **yəktəb* 'he writes' \neq **kāʔin yəktəb* 'he is writing'
 (II) **yəktəb* 'he writes' \neq **kā-yktəb* 'he is writing'
 (III) *kā-yktəb* 'he writes' \sim 'he is writing'
 (IV) *kā-yktəb* 'he writes' \neq *gāləs kā-yktəb* 'he is writing'

He hypothesises that a construction emerged at Stage I in which the active participle form of 'be' combined with the imperfective verb-form in order to disambiguate and express a progressive reading. This form then underwent erosion at Stage II. Stage III is the stage where the Imperfective cycle à la Deo (2015) represented in (29), comes full circle, i.e. where an earlier form that only expressed a progressive in Stage II has now in Stage III come to serve as a generalised imperfective. In this respect, this stage corresponds to Stage IV in Deo's (2015) cycle. The current state of affairs in Moroccan is then presented in Mion's Stage IV, which we can think of as an instance of *renewal*, or the development of a newly recruited progressive marker, where the domain of application of the previous exponent of

generalised imperfective becomes more circumscribed, essentially replicating the cycle. The current state of affairs, which involves *kā-yktāb* expressing a generalised habitual, and the distinct form *gālās kā-yktāb* expressing a progressive reading, can be thought of as replicating in a parallel manner Stage II, i.e. where *yəktāb* was the IPFV form, and *kā-yktāb* was in turn the specialised form dedicated to the expression of the PROGRESSIVE. The synchronic situation in Moroccan has thus reverted to Deo’s Stage III, which is also the stage reached by the majority of the vernaculars. In parallel to the grammaticalisation taking place in different dialects, as illustrated in (30), the hypothesis would be that eventually, the current state, i.e. Mion’s Stage IV, will in Moroccan eventually proceed through a cyclic change once again, where Mion’s Stage III will be replicated once more, but where this time round, in parallel with changes elsewhere in other dialects, the form *gālās kā-yktāb* may emerge as the generalised imperfective. This hypothetical stage would constitute an instantiation of what Deo (2015: 20) describes as ‘Jespersionian cycles with repeated processes of weakening and morphosyntactic reinstatement of salient semantic contrasts’.

3 ANALYSIS

In this section we consider how the aspectual marker might have developed from the lexical posture verb by making use of comparative synchronic data to suggest a possible reconstruction of the trajectory of change. We first discuss in some detail the proposed trajectory of change from posture verb to progressive auxiliary as developed in Kuteva (1999, 2001), and we argue then that the Arabic data do not support this view of the diachrony. We then go on to develop an alternative view of the possible grammaticalisation trajectory.

3.1 Kuteva (1999, 2001): *An extension of bodily posture/orientation in space*

In an influential work on the grammaticalisation of aspectual auxiliaries from posture verbs, Kuteva (1999, 2001) argues that a key factor influencing the development of posture verbs into aspectual markers is the use of such posture verbs as ‘unmarked/canonical encodings of spatial position of physical objects’ (Kuteva 2001: 51), where her understanding of canonicity in this context has to do with what is most frequently encountered in everyday language to express such a sense (Kuteva 2001: 58).⁷ Her argument

⁷ An important aspect of Kuteva’s position is the rejection of an explanation for this case of grammaticalisation based on *frequency of usage*.

essentially *hinges* on the claim that in the languages she considers, the posture verb is used as the **canonical encoding** of the spatial positioning of an object. We will have cause to return to this point below. The grammaticalisation path from posture verb to progressive auxiliary ‘as an extended usage of the lexical encoding of spatial position of physical objects’ (Kuteva 2001: 67) involves four focal stages of development, which she discusses for Bulgarian.⁸

In Stage 1, the posture verb (with inherently stative or temporally unbounded semantics) is used in its lexical sense with human subjects to specify the subject’s orientation in space. It may co-occur in a bi-clausal pseudo-coordinated structure, with the second clause denoting a simultaneous activity.

- (32) *Ana sedi na divana i piše pismo.*
 Ana sit.3SG.PRES on couch.DEF and write.3SG.PRES letter
 ‘Ana is sitting on the couch and is writing a letter.’
 Bulgarian: Kuteva (2001: 68)

According to Kuteva, Stage 2 involves an extension of the posture verb to ‘express canonically the spatial position of physical objects’ (Kuteva 1999: 207). This reading can still co-occur with a second clause, and the resultant reading is a simultaneous activity or event. It is the extension to a wider class of subjects (physical objects) at Stage 2 that is ‘the first prerequisite for ‘sit’/‘stand’/‘lie’ to start along the path of auxiliatation’ (Kuteva 1999: 207). This is the key stage where reanalysis of a structure involving two distinct clauses starts taking place, as indicated by the free translation. The impetus for this change is the loss of the ‘human body’ semantics, permitting the inherent unboundedness of the situation to become a focal feature.

- (33) *Drexite sedjat v koridora i sǎbirat*
 clothes.DEF sit.3PL.PRES in corridor.DEF and gather.3SG.PRES
prax.
 dust
 ‘The clothes are in the corridor and gather dust.’
 ‘The clothes are gathering dust in the corridor.’
 Bulgarian: Kuteva (1999: 207)

⁸ A similar position is taken by Bybee et al. (1994: 127–137) who suggest that ongoing activities are construed as locations in which agents find themselves, e.g. *They are in the middle of lunch*. Location is deemed as a necessary component of progressive aspect; to be located in a posture is to be located in an activity.

Stage 3 is characterised by ‘greater cohesion’ (Kuteva 2001: 70) between the verbs, and the structure is now understood to involve one clause and no longer gives rise to the sort of ambiguity illustrated in (33). Any complements or adverbial modifiers occur peripherally, as is the case with *v mazeto* ‘in the cellar’ in (34), in contrast to the linear placement of *v koridora* ‘in the corridor’ in (33). Finally, in Stage 4 the construction is extended to animate subjects too, as in (35).

- (34) *Trionăt leži i răždjasva v mazeto.*
 saw.DEF lie.3SG.PRES and get rusty.3SG.PRES in cellar.DEF
 ‘The saw is getting rusty in the cellar.’ Bulgarian: Kuteva (2001: 70)

- (35) *Sedi i se oplakva vmesto da se*
 sit.3SG.PRES and REFL complain.3SG.PRES instead to REFL
xvane za rabota.
 take.3SG.PRES for work
 ‘She/he is complaining all the time instead of starting to work.’
 Bulgarian: Kuteva (2001: 71)

Kuteva’s (1999) proposal of a four-staged development is summarised below:

1. A human subject has its orientation in space specified, and this orientation in space is temporally unbounded, given the stative nature of the posture predicate.
2. The predicate’s semantics is extended to express a canonically spatial position of physical objects, thus also allowing non-human subjects.
3. As cohesion increases, possibly through frequent use, the structure becomes mono-clausal.
4. This extends to the animates found in Stage 1, now in a mono-clausal structure, involving a single event.

3.2 Kuteva’s (1999) hypothetical trajectory is untenable for Arabic

In this section we argue that the Arabic facts do not support this grammaticalisation path. The issue revolves mainly around two central claims in Kuteva’s (1999, 2001) account. The first claim is that the extension of the posture verb to the ‘spatial positioning of physical objects’, i.e. their ‘orientation in space’ is key to the onset of the grammaticalisation of a progressive

auxiliary. This proposal leads us to expect to find examples like the structurally bi-clausal, coordinate reading of (33) in which the posture verb is used to express the physical orientation of an inanimate object across all the varieties of Arabic, and to expect it to occur as the means that canonically encodes the spatial position of objects without there being reference to a simultaneous situation, in examples that would parallel her (36).

- (36) *Drexite sedjat v garderoba.*
 clothes.DEF sit.3PL.PRES in wardrobe
 ‘The clothes are in the wardrobe.’ Bulgarian: Kuteva (1999: 207)

The second is the claim that the aspectual use first arises with an inanimate subject and then (in Stage 4) extends to animate subjects, that is to say that these are the last to ‘give up’ the connection to posture (physical disposition) semantics. We consider this trajectory first from evidence based on a corpus-based study on one particular Arabic vernacular, before making our own proposal for a grammaticalisation trajectory for Arabic.

Basulaiman (2018) is a careful study of posture-verb grammaticalisations based on a 159,903 word corpus of sentences involving the ‘sit’ verbs *gaʕad* and *ḡalas*, taken from written and audio-visual sources in Urban Hijazi Arabic, and held as a SketchEngine corpus. Basulaiman extracts and classifies all the sentences in which forms of these roots occur, distinguishing four categories. One of these is the category P, for physical bodily postures. This she uses to represent the lexical use of these items, where the main focus is the orientation of the body, rather than on spatial position/location as such. In this respect, it broadly corresponds to Kuteva’s Stage 1. This sort of use is illustrated in (37).

- (37) *niḥna mā ḡī-na al-baḥar ʕašān ni-fḍal*
 we NEG come.PFV-1PL DEF-beach in order to 1PL-remain.IPFV
gāʕd-īn
 sit.ACT.PTCP-PL
 ‘We did not come to the beach to remain sitting.’
 P – Urban Hijazi Arabic: Basulaiman (2018: 30)

In addition to P she distinguishes a category E (for general state of existence) which ‘includes the meaning *remain, stay, keep*’ (Basulaiman 2018: 19), and a category L, which is the classification she gives to uses of the participle in locative contexts. This is a categorisation used by Basulaiman *only* where there is a PP locative expression. The E and L uses are illustrated

in (38) and (39), respectively.⁹ Finally, the category G denotes the auxiliary uses of the active participle form, as in (40). This is in turn representative of all the aspectual uses we have been discussing up to this point.

- (38) *kān gāʿid li-wahd-u*
 be.PFV.3SGM sit.ACT.PTCP.SGM for-alone-3SGM.GEN
 ‘He was alone.’ E – Urban Hijazi Arabic: Basulaiman (2018: 70)

- (39) *humma gāʿid-īn fī magħaʿ*
 they sit.ACT.PTCP-PL in remote area.SGM
 ‘They are in a remote area.’
 L – Urban Hijazi Arabic: Basulaiman (2018: 32)

- (40) *ʔinn-u kān gāʿid yi-ṣarriḥ:*
 that-3SGM.ACC be.PFV.3SGM PROG.SGM 3M-shout.IPFV.SG
ḥarriḡ-ū-ni
 get out.IMP-PL-1SG.ACC
 ‘that he was shouting: “Get me out!”’
 G – Urban Hijazi: Basulaiman (2018: 48)

A significant point about Basulaiman’s classification is the separation of E and L, where she notes that: ‘Although some languages overlap the functions of L and E (see Guirardello-Damian 2002: 156–157), in other languages, these are considered unrelated (see Lemmens 2002: 133)’. Critically for her Urban Hijazi data, it seems to be the case that the two *should* be kept apart. In her discussion, she observes that:

- i. the data classified as E does not correlate with any of Kuteva’s (1999, 2001) stages presented above;
- ii. she takes the data in L to relate to Kuteva’s (1999) Stage 2, in which the posture predicate may express the spatial position of physical objects, and where the location of the subject is the core meaning.

Sentences with the active participle (as opposed to perfective and imperfective verb-forms) constitute a large part of her data (36.9% for *ḡālis* and 40.4% for *gāʿid*, both participles associated with the verbs meaning ‘sit’), confirming the centrality of the active participle to the temporal/aspectual

⁹ Here and throughout this sub-section we maintain the glossing for the active participle given in the source.

system of dialectal Arabic. For this data sub-set, we find the distribution across the four categories as shown in Table 1.¹⁰

ACT.PTCP	ǧālis (36.9%)	gāʿid (40.4%)
P (physical bodily posture, lexical use)	19.5%	6.6%
E (general state of existence)	22%	12.1%
L (with locative expression)	7.3%	8.8%
G (aspectual auxiliary)	51.2%	70.3%

Table 1 The distribution of the ‘sit.ACT.PTCP’ forms in Urban Hijazi Arabic (Basulaiman 2018: 22, 24)

Given that the extension to ‘the spatial position of physical objects’ is argued by Kuteva to be the key, enabling step for the grammaticalisation of the aspectual auxiliary, the figures in Table 1 for the L category, which corresponds to Stage 2 in Kuteva’s trajectory, are unexpectedly low for this hypothesis. That is, Kuteva’s claim is that for a posture predicate to have reached the synchronic stage where it has an aspectual function, then this form must have at an earlier Stage also been the means which ‘canonically’ encoded spatial location.

Spatial location is by no means frequently encoded via posture verbs in Arabic, and indeed the use of *gāʿid* or *ǧālis* would also be redundant in L contexts, as no verbal element is needed at all in cases of locational predication. In fact, Basulaiman herself already points out the conundrum we are faced with in reconciling Kuteva’s claim with the Urban Hijazi data, concluding: ‘Based on the apparent lack of instances of *sit* with [a] locational function, it is unlikely that this dialect uses the postural forms canonically to indicate spatial configurations, as anticipated by Kuteva (2001: 45) for languages with grammaticalised posture verbs. This is similar to the findings of Newman & Rice (2004: 355) for English, where the locational function of posture verbs is not fully developed’ (Basulaiman 2018: 32). We agree with this conclusion. Furthermore, Kuteva’s Stage 2 explicitly specifies the extension of the posture verb to encode the spatial position of inanimate subjects.

In the Urban Hijazi data which Basulaiman has systematised, we initially find relatively few instances of L *ǧālis/gāʿid* uses, and secondly, *all* such locational instances involve human subjects. In fact, all the active participle data (i.e the participles *ǧālis/gāʿid*), except those that involve the fully-

¹⁰ Table 1 gives a purely synchronic snap-shot of the data distribution, and hence the order of rows has no particular significance here. As we shall see in (44), it does however correspond to Basulaiman’s proposed trajectory of change, reading from top to bottom.

grammaticalised aspectual marker, that is the uses categorised as G, have a human subject. If the use for the spatial positioning of inanimate subjects were ‘canonical’, then this would be rather surprising, if not paradoxical.

The inability to take inanimate subjects in this locational context is something noted by Jarad (2015: 93) for *yālis* ‘sit.ACT.PTCP’ in Emirati, which is the equivalent of *gāʿid*, and also used to mark progressive aspect. This is made clear through his own observation, as follows: ‘Data from Emirati Arabic do not support the view that posture verbs are used to describe inanimate entities in configurations which are similar to human and animal postures described by the same verb-forms. [...] Emirati speakers do not use posture verbs in existential constructions or in constructions where the subject is inanimate’. This is illustrated in the contrast between (41) and (42). In agreement with Jarad (2015), we take this as casting further doubt on the applicability of Kuteva’s intermediary Stage 2 as a crucial stage in the trajectory that leads to the development of a progressive aspectual auxiliary, at least for Arabic.¹¹

- (41) *d-diyāya yāls-a ʕala l-baiḍ*
 DEF-chicken.SGF sit.ACT.PTCP-SGF on DEF-egg.PL
 ‘The chicken is sitting on the eggs.’ (Animal posture)
 Emirati: Jarad (2015: 93)

- (42) (a) *fi ktāb (*yālis) ʕaṭ-ṭāwli*
 EXIST book.SGM sit.ACT.PTCP.SGM on.DEF-table
 ‘There’s a book (sitting) on the table.’
 (b) *l-lamba (*yālis-a) ʕaṭ-ṭāwli*
 DEF-lamp.SGF sit.ACT.PTCP-SGF on.DEF-table
 ‘The lamp is (sitting) on the table.’ Emirati: Jarad (2015: 93)

In contrast, Jarad (2015)’s example in (43) suggests that, in Emirati, the fully grammaticalised aspectual form *does* allow inanimate subjects, as it does in Urban Hijazi, and other Gulf dialects, although Jarad (2015) does not explicitly address this point.¹²

¹¹ In recent work, Kinn, Blenselius & Andersson (2018) also cast doubt on this in relation to the aspectual grammaticalisation of the Scandinavian pseudo-coordination construction, suggesting that expressions with human subjects take the lead.

¹² Note that, in (43), agreement is SGM with ‘team’ and not PL with the animate members of the team.

- (43) *l-isbūʕ* *l-yāy* *miṭil* *hal* *wagt*
DEF-week.SGM DEF-come.ACT.PTCP.SGM like DEM.SGM time.SGM
real *madrīd* *b-i-kūn* *yālis* *yi-lʕab*
Real Madrid FUT-3M-be.IPFV.SG sit.ACT.PTCP.SGM 3M-play.IPFV.SG
l-final
DEF-final
‘Next week this time, Real Madrid will be playing in the final.’
Emirati: Jarad (2015: 104)

Basulaiman (2018)’s P and G categories correspond to Kuteva’s Stage 1 and Stage 4, respectively, and she takes the examples in her L category to correspond to Kuteva’s Stage 2. She places her type E examples into a further intermediary category which she posits between Kuteva’s Stage 1 and Stage 2; a stage which she takes to involve a broadening and bleaching of the lexical meaning. The path of change which Basulaiman envisages is that represented in (44):

- (44) lexical (posture) use (P) > ‘exist’/‘remain’/‘stay’ (E) >
positional/locational use (L) > fully grammaticalised aspectual use (G)

Here we depart from the view expressed in (44), which we will suggest may be conflating some separate, albeit related, developments. The lack of L data in Basuleiman’s corpus of examples is of course not necessarily significant, as the sample size is quite small.¹³ However, we take this to be consistent with the idea that the L pattern is not in fact an intermediary stage in the grammaticalisation of the progressive auxiliary (as it is for Basuleiman), but is part of a separate innovation which is still developing, and which, we believe, also gives rise to existential uses which we discuss in §4.2. We argue for this position in §4, building on Camilleri & Sadler (2019) and supported by a wider comparative account of the data. This analysis is consistent with the thinking outlined in Newman & Rice (2004). They discuss the possibility for Dutch and German of an additional path of grammaticalisation involving the gradual extension of the use of the posture verb to indicate the location or *existence* of an entity that is *independent* of, and distinct from any aspectual grammaticalisation path, potentially providing crosslinguistic support for a proposed diachronic reconstruction, in the absence of written historical records (Comrie 1989).

13 Moreover, we do not believe that the lack of data is because this is an ‘older’ phase of the language, and hence must be a receding feature, which could potentially be viewed as an alternative explanation.

Finally, before considering the path which we propose for Arabic, we note that the applicability of Kuteva's (1999, 2001) trajectory is also questioned for Korean (Song 2002). The basic facts which Song (2002) discusses are as follows. The posture verb 'stand' can be used for the spatial positioning of inanimates and animates (with some restrictions), but 'sit' and 'lie' can be used only for animate entities. Further, it is only 'sit' and vulgar 'lie', which is a different verb from 'lie', that can then be used as progressive auxiliaries in the context of human and animate subjects.

Moreover, the use of the posture verb (for spatial positioning) is not canonical, even for animates: 'in Korean the use of the posture verbs 'sit' and 'lie' cannot even be regarded as an unmarked or canonical way of encoding the spatial position of human or animate entities [...] the use of the verb of existence *iss-* alone will suffice' (Song 2002: 379). Song thus suggests in relation to Korean that the posture-based extension to spatial positioning and the aspectual extension are conceptually independent of each other, and further, that the basis of the aspectual extension is the stationary position of 'sit' and 'lie' (as opposed to 'stand'), and hence involves the stative dimension, rather than the specification of orientation in space.¹⁴

Like Arabic then, these data challenge Kuteva's (1999) claim that: 'the first prerequisite for the posture-verb structure to start along the path of (aspectual) auxiliatation is the use of the posture verb as an unmarked/canonical encoding of the spatial position of physical objects' (Kuteva 1999: 205), with the 'inherent stative semantics, or temporal "unboundedness" of the verb situation' taking more of a non-focal feature (Kuteva 1999: 206).

3.3 *The aspectual trajectory: A proposal for Arabic*

We have argued above that the grammatical path from posture verb to aspectual auxiliary in Arabic does not hinge on the extension of the postural sense of the verb, where its semantics extends to encode the spatial positioning of inanimate objects. Rather we hypothesise that the core step is much more likely to have built on the inherent stativity and temporal unboundedness of the posture verb semantics. On this view, the key development is rather the extended, bleached use of the 'sit' active participle to express meanings with temporal unboundedness as a focal feature. This is accompanied and reinforced by the lexical uses which occur in some dialects, to the exclusion of the original postural meaning. The trajectory which we postulate for Arabic is as follows:

¹⁴ In response to Song (2002), Kuteva (2001: 73) claims that intermediate stages may be jumped over, or ignored, but this itself seems to directly undermine the proposed conceptual basis of the proposed trajectory, as articulated in §3.1.

- I. A human subject has its orientation in space specified, and this orientation in space is temporally unbounded, given the stative nature of the posture predicate.
- II. Frequent co-occurrence of the posture verb with an accompanying circumstantial adjunct clause (which in Arabic generally plays a role similar to a *while*-type adjunct clause in English) leads to reanalysis by argument-extension. Consequently, the predicate's semantics starts to undergo widening and bleaching, with the temporal unboundedness beginning to emerge as the focal element.
- III. As cohesion increases, possibly through frequent use, the posture verb loses its subject selectional requirements, and occurs in the durational lexical meaning with a range of animate and inanimate subjects.
- IV. This leads to a loss of all lexical meaning, with reanalysis as a grammatical feature. In some dialects, however, we see divergence, with the original lexical meaning of the active participle persisting independently alongside the grammaticalised meaning.

In the rest of this section we represent the syntactic aspects of this proposed trajectory of grammaticalisation within the multi-dimensional framework of LFG, in which different dimensions of linguistic information are co-present and represented independently, yet are linked by explicit correspondences.¹⁵ The external syntax or constituent structure is represented at the level of c(onstituent)-structure; the model does not assume a single universal template for the c-structure, but directly accommodates the wide variability in external syntax which is found crosslinguistically. The c-structure interacts with the level of f(unctional)-structure, which is what is most relevant to us here. The syntactic dimension of the f-structure represents the 'internal' syntactic properties of predicate-argument structure and semantically interpreted features such as tense, negation and definiteness, and is considered to be largely invariant across languages. Beyond syntax, the projection-based correspondence architecture accommodates other dimensions of linguistic representation, such as those modelling information structure, prosodic structure, morphological structure and semantic structure. We will have little to say about the c-structure representation of

¹⁵ For a general introduction to the theory, see [Bresnan, Asudeh, Toivonen & Wechsler \(2015\)](#) and [Börjars, Nordlinger & Sadler \(2019\)](#). For application to diachronic data and historical change, see in particular the contributions in [Butt & King \(2001\)](#), [Vincent \(2001\)](#), [Börjars, Harries & Vincent \(2016b\)](#), and [Börjars & Vincent \(in press\)](#).

the constructions we discuss, concentrating on the semantically motivated changes in a(rgument)-structure themselves, and the corresponding developments at the level of f-structure. As [Börjars et al. \(2016b\)](#) point out, in such a framework changes in different dimensions are not assumed to necessarily take place in lockstep, hence the development of a grammaticalised meaning does not necessarily involve a change in structural position or categorial status.

We have seen that the Arabic dialects in general have a construction in which the active participial form itself is the main sentential predicate, and participates in the temporal and aspectual system, as illustrated in (45); a construction which we have referred to above as the ‘verbal use’ to distinguish it from other, nominal and noun-modifying uses of the active participle.¹⁶ The predicate-argument information associated with the lexemes in (45) is as shown in (46). The PRED value of a lexical predicate is a semantic form which specifies the number of arguments a predicate has, and the grammatical functions which they correspond to, at f-structure: in this way, subcategorisation requirements are stated at f-structure. The list of arguments given in (46) indicate that the predicates ‘sit’ and ‘drive’ require a SUBJ, and ‘read’ requires both a SUBJ and an OBJ. The well-formedness constraints of Completeness and Coherence that govern the f-structure require that all and only the arguments which a predicate selects be present in the f-structure. For instance, a sentence in which ‘sit’ occurs without a SUBJ will be incomplete, while a sentence in which it occurs with an additional argument (such as an OBJ) will be incoherent, and both will be ungrammatical.¹⁷

- (45) (a) *niswān gāʕd-īn hinī*
 woman.PL sit.ACT.PTCP-PL here
 ‘Women are sitting here.’
 Gulf Arabic: [Isaksson et al. \(2009: 249\)](#)
- (b) *ʔana sāyiʔ*
 I drive.ACT.PTCP.SGM
 ‘I am driving.’
 Egyptian: [Mughazy \(2004: 38\)](#)
- (c) *ʔana ʔāri el-kitāb*
 I read.ACT.PTCP.SGM DEF-book
 ‘I have read the book.’
 Egyptian: [Mughazy \(2004: 107\)](#)

¹⁶ In Maltese, however, the verbal use of active participles, as illustrated in (45), has largely disappeared, and is restricted to just a few lexemes.

¹⁷ In LFG notation, the single quotes around a semantic form indicate uniqueness (of the event or object instance).

- (46) (a) (\uparrow PRED) = 'SIT < SUBJ >'
 (b) (\uparrow PRED) = 'DRIVE < SUBJ >'
 (c) (\uparrow PRED) = 'READ < SUBJ, OBJ >'

The f-structure for the fully lexical case of (45a) is that in (47), which corresponds to our Stage I of the hypothesised aspectual trajectory for the posture verb. The temporal interpretation of the examples in (45) is PRESENT, in the absence of the temporal auxiliary *kān* 'be.PFV.3SGM', as for instance in (6) and (7).¹⁸

$$(47) \left[\begin{array}{ll} \text{TENSE} & \text{PRES} \\ \text{SUBJ} & \left[\begin{array}{ll} \text{PRED} & \text{'WOMAN'} \\ \text{INDEX} & \left[\begin{array}{ll} \text{NUM} & \text{PL} \\ \text{PERS} & 3 \\ \text{GEND} & \text{FEM} \end{array} \right] \end{array} \right] \\ \text{PRED} & \text{'SIT < SUBJ >'} \\ \text{ADJ} & \{ [\text{PRED} \text{ 'HERE' }] \} \end{array} \right]$$

We hypothesise that the bridge or first step in grammaticalisation comes in relation to sentences in which the intransitive *sit* is accompanied by a circumstantial adjunct clause. As noted above, this is one of the typical structures used in Arabic to express a concomitant event (another is a form of pseudo-coordination). In these circumstantial adjunct clauses, the predicate in the adjunct clause, often, generally occurs as an imperfective. So in (48), for instance, 'listening to the poem', which is understood as a event concomitant to the event denoted by the matrix predicate, functions as a circumstantial adjunct within the clause headed by (lexical) 'sit', which is an active participle. (49) is similar, except that here the matrix predicate is the imperfective form of 'sit'. In these examples, both the main predicate and the predicate of the adjunct clause are shown in boldface.

- (48) *lagē-ta-h* *gāʿid* *ya-smaʿ*
 find.PFV-1SG-3SGM.ACC sit.ACT.PTCP.SGM 3M-hear.IPFV.SG
al-giṣidah
 DEF-poem
 'I found him sitting down listening to the poem.'
 Wādi Ramm Jordanian: *Almashaqba* (2015: 162)

¹⁸ We omit ASPECT from these illustrative f-structures because the aspectual interpretation of the active participle in its verbal use depends on the lexical aktionsart of the corresponding verb.

- (49) *ni-gʿad maʿan ni-t-hādat/ni-t-sāmar li-hadd*
 1PL-stay.IPFV together 1PL-RECIP-night chat.IPFV until-limit
as-sāʿa ḥams ḥams u nuṣṣ
 DEF-hour five five CONJ half
 ‘We sit together talking and chatting in the night until five or five
 thirty.’ Gulf: Isaksson et al. (2009: 216)

The circumstantial adjunct is a very common construction in Arabic. The examples in (50) show that even in Maltese, a language in which there are very few remaining lexical, *eventive* ACT.PTCPs, these forms can function as main predicates, followed by an imperfective verb-form in a circumstantial adjunct. We interpret this as indicating that historically, the active participle *qieghed* ‘sit.ACT.PTCP’ would also have been able to occur in constructions with a circumstantial adjunct, prior to its eventual grammaticalisation.

- (50) (a) *Diehl-a t-i-ġri.*
 enter.ACT.PTCP-SGF 3F-FRM.VWL-run.IPFV.SG
 ‘She is entering (while running/while she runs).’
 (b) *Miexi j-ghaġġel.*
 walk.ACT.PTCP.SGM 3M-hurry.IPFV.SG
 ‘He is walking (while he hurries) i.e. walking
 quickly/hurriedly.’

Since an adjunct is not a subcategorised argument of a predicate, it will appear freely and optionally with that predicate, governed only by semantic compatibility. The semantic form of the intransitive ‘sit’ predicate in (48) is as shown in (46a) above, requiring a unique argument which functions as the SUBJ. The analysis of the embedded predication in (48), including the circumstantial clause, that is, *sitting, listening to the poem*, is shown in (52), where the XADJ (open adjunct) function corresponds to the circumstantial adjunct. The SUBJ of the ‘sit’ clause in (48) is an unexpressed pronominal anaphorically controlled by the (overt) OBJ pronominal realised by the 3SGM.ACC inflection on the matrix verb ‘find’, which is not represented here in the partial f-structure for (48).¹⁹ Of interest here is the relationship be-

¹⁹ LFG distinguishes between two types of control, anaphoric control, in which the controlled element behaves like an unexpressed pronoun and hence corresponds to a function with PRED = ‘PRO’, and functional control, in which the controller and controllee are token-identical, that is, correspond to **one** single f-structure. Since nothing in particular hangs on this distinction here, we assume anaphoric control in this case. For further details on the treatment of control predicates, see Bresnan et al. (2015), Börjars et al. (2019), and Dalrymple, Lowe & Mycock (2019).

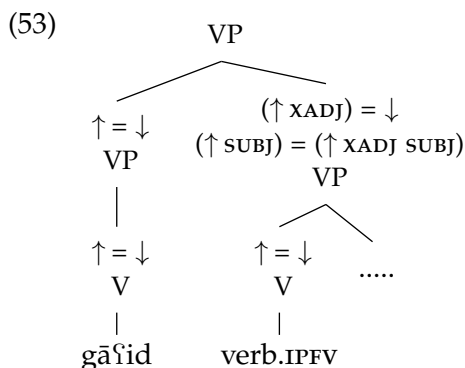
tween the SUBJ of the ‘sit’ clause and the understood SUBJ of the circumstantial clause (the xADJunct) which we take to be one of obligatory functional control. Note that the verbal head of this whole construction (in the case of (48), the active participle ‘sit’, and in the case of (49), the imperfective form of ‘sit’) does not lexically specify the SUBJ control equation, since the adjunct is not a subcategorised argument of this predicate. Rather it is constructionally specified by an annotation on the c-structure rule introducing circumstantial adjuncts. The c-structure rule in (51) introduces the circumstantial adjunct and the control equation specifying identity between the SUBJ of the main clause and that of the adjunct.²⁰

$$(51) \text{ VP} \longrightarrow \begin{array}{cc} \text{VP} & \text{VP} \\ \uparrow = \downarrow & (\uparrow \text{ xADJ}) = \downarrow \\ & (\uparrow \text{ SUBJ}) = (\uparrow \text{ xADJ SUBJ}) \end{array}$$

Annotations such as those shown in (51) specify the mapping between c-structure and f-structure, where \uparrow can be read as ‘the f-structure corresponding to the mother node’ and \downarrow can be read as ‘the f-structure corresponding to this node’. Hence the annotation $(\uparrow \text{ xADJ}) = \downarrow$ on the daughter VP node can be paraphrased as specifying that the f-structure of the mother VP node has an attribute xADJ and the value of that attribute is the f-structure of that daughter VP node (whatever that might be). The (partial) f-structure for example (48) in which a form of ‘sit’ occurs with a circumstantial adjunct is shown in (52), and the relevant part of the c-structure tree is shown in (53).

$$(52) \left[\begin{array}{l} \text{SUBJ} \left[\begin{array}{l} \text{PRED} \text{ 'PRO'} \end{array} \right] \\ \text{PRED} \text{ 'SIT< SUBJ >'} \\ \text{xADJ} \left[\begin{array}{l} \text{SUBJ} \left[\begin{array}{l} \text{PRED} \text{ 'LISTEN< SUBJ, OBJ >'} \\ \text{SUBJ} \left[\begin{array}{l} \text{PRED} \text{ 'POEM'} \\ \text{DEF} \text{ +} \end{array} \right] \end{array} \right] \\ \text{OBJ} \left[\begin{array}{l} \text{PRED} \text{ 'POEM'} \\ \text{DEF} \text{ +} \end{array} \right] \end{array} \right] \end{array} \right] \end{array} \right]$$

²⁰ For discussion of constructionally introduced (in contrast to lexically introduced) functional control see Bresnan (1982: 323–325).

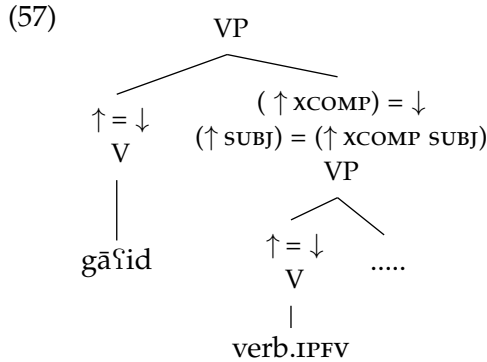
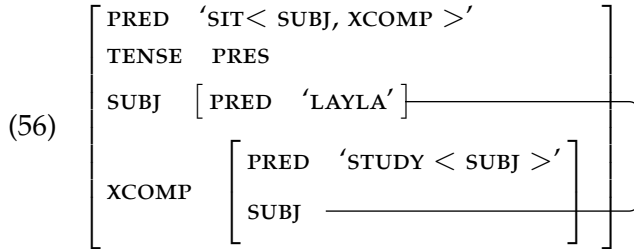


For convenience in considering the stages we hypothesise in the grammaticalisation process, (54) summarises the key characteristics of the construction providing the impetus for grammaticalisation: syntactically an intransitive lexical use of ‘sit’ with a circumstantial adjunct. The participle selects for an animate subject and is associated with the lexical semantics of a posture verb.

Stage I			
(54)	f-structure	(↑ PRED) = ‘SIT < SUBJ >’	from lexicon
	information	(↑ SUBJ) = (↑ XADJ SUBJ)	from rule annotation
	predicate-argument	ARG1 is: [+ANIM]	
	constraints	PREDICATE: postural semantics (including durational and locational entailments)	

We hypothesise then that it is a structure that involves the posture participle co-occurring with a circumstantial adjunct that is the precursor enabling the eventual grammaticalisation of the ‘sit’ active participle into an aspectual auxiliary. At Stage II we postulate a syntactic reanalysis that gives rise to the argument-extension of the matrix ‘sit’ predicate, whereby the XADJ is re-interpreted as a clausal argument of the main predicate. This is an xCOMP or open complement, in LFG terms; a similar f-structure reanalysis is proposed in Vincent (2001: 24) for the *have* PERFECT in English. At Stage II, then, we suggest syntactic reanalysis, potentially as yet without loss of any selectional or meaning components, such that the SUBJ of ‘sit’ is still a thematic argument which is subject to selectional restrictions. The *emerging* reading (alongside the circumstantial, which continues to exist) for an example such as (55) would be along the lines of (56), at this stage. As summarised in (58), the difference from Stage I is that instead of an XADJ, the ‘sit’ active participle takes an xCOMP, which functions as a clausal ARG2 of the lexical predicate, and the associated functional control equation becomes part of the lexically-specified information.

- (55) *layla gāʿid-a ta-dris*
 Layla sit.ACT.PTCP-SGF 3F-study.IPFV.SG
 ‘Layla is (sitting) studying.’ Kuwaiti: Alaskar (PC)



Stage II

(58)	f-structure	(↑ PRED) = ‘SIT< SUBJ, xCOMP >’	from lexicon
	information	(↑ SUBJ) = (↑ xCOMP SUBJ)	from lexicon
	predicate-	ARG1 is: [+ANIM]	
	argument	PREDICATE: postural semantics	
	constraints	(including durational and locational entailments)	

The subsequent developments, assuming a gradual and unidirectional process, would involve increased cohesion and loss of semantic components. This must have involved essentially (i) semantic widening and bleaching of the sense of the posture verb, to the eventual loss of lexemic meaning, and (ii) a loosening of the selectional restrictions exerted by the posture verb over the subject. Given the circumstances of Arabic, with a written norm based on Classical Arabic, and its considerable distance from the modern vernaculars, we cannot use a historical record to establish the chronology of these developments.²¹ Nonetheless we suggest that it is the inherently stative, unbounded element of the semantics of ‘sit’ which becomes focal at

²¹ In fact, the grammaticalisation being discussed here has not taken place in Classical Arabic.

this stage, giving a PRED meaning which we have characterised by means of a lexical form name PROG, for expository purposes. It remains an open question whether the widening of the sense of the posture verb to a durational, unbounded, stative meaning took place before the loosening, or the loss of selectional restrictions over the subject. If this were the case, then we would simply posit (59) as a possible intermediary step, in which, the lexical predicate occurs in its wider, bleached sense, but where it still retains the earlier selectional restrictions over the subject, as a thematic argument (and hence inside the angle brackets in the PRED value).

$$(59) (\uparrow \text{PRED}) = \text{'PROG} < \text{SUBJ, XCOMP} > \text{'}$$

In any event, we suggest that key to the eventual development of the aspectual use is the situation hypothesised to be Stage III, at which point there is a significant loss of lexical meaning and a loss of subject thematicity, giving rise to a raising predicate. This loss of thematic restrictions over the SUBJECT is represented in LFG terms in (60) by the placement of the SUBJ GF outside of the angle (< >) brackets in the PRED value. At this point, the predicate has lost its locational entailments.

Stage III	
f-structure	$(\uparrow \text{PRED}) = \text{'PROG} < \text{XCOMP} > \text{SUBJ}'$
(60) information	$(\uparrow \text{SUBJ}) = (\uparrow \text{XCOMP SUBJ})$
predicate-argument constraints	PREDICATE: durational, stative semantics

This hypothesised intermediate stage (Stage III) as a raising predicate is what would then give rise to the eventual loss of whatever bleached lexical meaning remained, and the emergence of the purely functional use of this form realising an aspectual value PROG in the final stage, Stage IV, and the concomitant loss of the PRED feature (see (64) for the summary of the situation at Stage IV). Notice that had the original postural reading been maintained in this context, semantic incompatibility would have resulted, in an example such as (61), yet given the reading available for (61) this suggests that what is left of the postural meaning is the temporal unboundedness of the state. The sentence in (61) is analysed as shown in the mono-clausal f-structure in (62), where the erstwhile posture participle provides the aspectual information in the f-structure headed by the predicate 'jump'.

As a syntactic consequence of the loss of a PRED feature and its emergence as a purely functional form, the c-structure complement of the active

participle is the main clausal predicate. In the c-structure in (63), the auxiliary and the lexical predicate are co-heads, that is, they are both annotated $\uparrow = \downarrow$ and contribute information to the same f-structure: the auxiliary *gāʕid* contributes the aspectual feature, and the lexical verb (here ‘jump’) contributes the PRED value, i.e. the lexical semantic content.

- (61) *gāʕid-a t-nitt*
 PROG-SGF 3F-jump.IPFV.SG
 ‘She is jumping.’

Kuwaiti: Alaskar (PC)

- (62)
$$\left[\begin{array}{ll} \text{PRED} & \text{'JUMP < SUBJ >'} \\ \text{TENSE} & \text{PRES} \\ \text{ASP} & \text{PROG} \\ \text{SUBJ} & \left[\text{PRED} \text{'PRO'} \right] \end{array} \right]$$

- (63)
$$\begin{array}{c} \text{VP} \\ \swarrow \quad \searrow \\ \uparrow = \downarrow \quad \uparrow = \downarrow \\ \text{V} \quad \text{VP} \\ | \quad | \\ \text{gāʕid-a} \quad \uparrow = \downarrow \\ \quad \quad \text{V} \\ \quad \quad | \\ \quad \quad \text{t-nitt} \end{array}$$

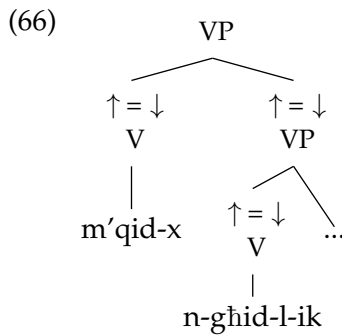
- (64)
$$\frac{\text{Stage IV}}{\text{f-structure information} \quad (\uparrow \text{ASP}) = \text{PROG}}$$

The synchronic analysis of aspectual auxiliaries as either raising or fully functional (PRED-less) elements (depending on their characteristics) is well established in LFG (see Falk 2008 for more detail on the analysis of auxiliaries in LFG), while the diachronic trajectory from a raising predicate to a grammatical feature is discussed in Vincent (2001) for the auxiliary *have* in perfect constructions in English.

This end stage of the syntactic path can give rise to further interpretational shifts in accordance with the Imperfective Cycle, such as the development from a categorical progressive marker to a generalised imperfective, as well as further morphosyntactic and morpho(phono)logical changes, such as a category change, agreement loss, and erosion. As discussed in §2.3 above, in some dialects there is evidence of further morphosyntactic changes that are reflected in the c-structure. For example, in some varieties, this form

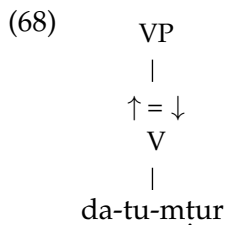
in its grammaticalised, aspectual use exhibits verbal negation, rather than the form otherwise used by participle forms, suggesting the form's further integration as a functional V-head in the c-structure, as in (66). The example from dialectal Maltese (which differs from Standard Maltese (26) in this respect) is repeated in (65) from (28).

- (65) *M'qid-x n-ghid-l-ik hekk biex*
 NEG.PROG-NEG 1-say.IPFV.SG-DAT-2SG like this in order to
n-beżżgħ-ek.
 1-frighten.CAUSE.IPFV.SG-2SG.ACC
 'I am not telling you this to frighten you.'
 Dialectal Maltese: Camilleri (2016: 79)



Similarly, morpho(phono)logical erosion may lead eventually to prefixation and a loss of syntactic structure, giving the fragmented tree in (68) for (67).

- (67) *da-tu-mṭur ihwāha has-sana*
 PROG-3SGF-rain.IPFV a lot DEM.DEF-year
 'It is raining a lot this year.'
 (Muslim Baghdadi) Iraqi: Cohen (1984: 288)



In this section we have proposed a grammaticalisation trajectory from the postural active participle 'sit.ACT.PTCP' to a functional progressive marker.

We have argued against the idea that host-class expansion of the postural verb into a canonical means with which to express the spatial position of physical objects (that is, the locational intermediary step) is relevant to the development of the aspectual auxiliary use in Arabic. We have suggested an alternative trajectory in which it is the stative, durational aspects of the original postural sense which play a key role in the case of the Arabic grammaticalisation of a PROG marker from the ‘sit’ participle, in parallel to previous suggestions in the literature for Korean. Syntactically we hypothesise that argument-extension, that is, the reanalysis of a frequently co-occurring adjunct as an argument of the predicate, plays a role in the stepwise progression from the original lexical sense to a purely functional, grammatical meaning.

In what follows we return to the question of the possible role of the spatial/locational dimension of the meaning of the posture verb. We will argue that this dimension *is* in fact implicated in an independent development in some varieties of Arabic, in the form of an emergent additional copula in the system. We argue that the two processes are not only independent and distinct, but that the grammaticalisation of a locative encoding from the ‘sit.ACT.PTCP’, which then led the way specifically to a copula function, is in Arabic likely to have *post-dated* the widespread grammaticalisation of the same active participle as an aspectual auxiliary, given the synchronic restrictions on the extent and range of interpretations associated with this emerging copula form.

4 GRAMMATICALISATION OF A COPULA CONSTRUCTION IN ARABIC

In this section we argue that at least some varieties of Arabic have developed a copula use of *gāʿid* ‘sit.ACT.PTCP’. More specifically we argue that this should not be viewed as an intermediary stage in the grammaticalisation of the progressive auxiliary. Rather, we posit that there are two, co-present and divergent grammaticalisation paths for *gāʿid*.

The development of a copula function of *gāʿid* across the different vernaculars is still emerging. This is in contrast to the well established auxiliary grammaticalisation that is both more widespread across the dialects, and one that involves clear evidence of further grammaticalisation, as has been illustrated in §2.2, including the semantic development of the progressive construction into a more generalised imperfective construction in some dialects.

4.1 *The Arabic Copula*

Theoretically-oriented accounts of the Arabic copula system (Eid 1983, Doron 1986, Eid 1991, Benmamoun 2000, Aoun, Benmamoun & Choueiri 2010, Choueiri 2016 among others) generally describe it in the following, broad-brush terms. In predicative copula constructions with present tense reference, the copula is absent/null (except in modal contexts). Other predicative copula constructions use inflected forms of the verb *kān* ‘be’. An additional copula form, based on the 3rd PERSON pronouns, and generally referred to as the pronominal copula, is limited to non-predicational (equational) sentences. The precise distribution of the pronominal copula, including the extent to which it is required in different types of non-predicational copula constructions, is subject to variation across dialects.

Using data from a range of dialects, much of which comes from descriptive grammars, Camilleri & Sadler (2019) show in some detail that the synchronic state of affairs is more complicated. Camilleri & Sadler (2019) argue that the active participle form *gāʾid* ‘sit.ACT.PTCP’, and its phonological counterparts, used as a progressive auxiliary, as shown in §2, has emerged as an additional copula in some dialects (and is emergent in others). The argument therein is such that a number of other Arabic dialects are essentially moving towards the synchronic situation in Maltese, where the ‘sit.ACT.PTCP’ form can be used as an alternative to the zero copula in both temporary and more permanent locational predicational contexts such as (69) and (70) (Borg 1987, Borg 1988, Stassen 1996 and Dalmi 2015, 2016).²² Based on the robustness of the copula use, even if in certain instances it is (still) in complementary distribution with a zero copula, one could argue that this usage must have been established for quite some time.²³

- (69) *Iċ-ċacetta (qieghd-a) fil-kexxun.*
 DEF-key.SGF (BE-SGF) in.DEF-drawer
 ‘The key is in the drawer.’ Maltese: Stassen (1996: 281)

²² We gloss *qieghd* as ‘BE’ in this section, as that is its grammatical function in the structure. We here thus choose to reflect our grammaticalisation analysis within the glossing provided.

²³ It is an interesting question why Maltese is at the forefront of this, and a number of other diachronic developments in Arabic, where in case after case it appears to be at the higher end of the grammaticalisation scale. One important difference is the fact that Maltese is not subject to diglossic pressure from Classical Arabic and Modern Standard Arabic, which may be what is affecting the other Arabic dialects.

- (70) *Malta (qieghd-a)/*hija f'nofs il-Baħar*
 Malta.SGF BE-SGF/COP.3SGF in.middle DEF-sea.SGM
Mediterran.
 Mediterranean.SGM
 'Malta is in the middle of the Mediterranean sea.'
 Maltese: Camilleri & Sadler (2019: 10)

Qieghed can also be used in non-locative predicative copula constructions, and here the choice between *qieghed* and the zero copula correlates with a semantic/interpretational difference (Stassen 1996: 277). In these constructions, *qieghed* is associated with states of affairs which are temporary, contingent or accidental, rather than permanent, inherent or characteristic. In (71), the pronominal and zero copulas give a time-stable interpretation, while *qieghed* gives a temporary/contingent interpretation, corresponding to the distinction between inherently quiet by nature, as opposed to being quiet or behaving in a quiet manner.²⁴

- (71) *It-tifel Ø/hu/qieghed kwiet.*
 DEF-boy.SGM Ø/COP.3SGM/BE.SGM quiet.SGM
 'The boy is quiet.'
 Maltese: Stassen (1996: 292)

The wider distribution of *qieghed* in locative predication constructions is consistent with the view that this is the earlier development, and indeed Stassen (1996) explicitly refers to the use of *qieghed* as a locational encoding.

Camilleri & Sadler (2019) argue that the same development of a copula construction from a locational source can be seen in some other Arabic dialects, although it is not yet so deeply entrenched in the system as it is in Maltese, and shows considerable variation across the different dialects.²⁵

In a number of dialects, *gāʿid* can be used for temporary locational predications, as in (72). However they vary as to whether an inanimate subject is possible in its presence: (73) shows that it is in Kuwaiti, although clearly optional, yet for instance Basulaiman's corpus contains no corresponding examples for Urban Hijazi.

- (72) (a) *has-sammāk alliy gāʿid ʕala ĵanb al-baħar*
 DEM.DEF-fisherman who BE.SGM on side DEF-sea
 'this fisherman that is by the sea' Negev: Henkin (2010: 138)

²⁴ We use terms such as contingent/inherent and temporary/permanent purely descriptively, without any particular theoretical intent.

²⁵ Once again, the 'sit' active participle in these copula examples will be glossed as 'BE' to reflect the copula function.

- (b) *həs-bāl-hə gāʕd-ə b-əl-bēt*
 feel-mind-3SGF.GEN BE-SGF in-DEF-home
 ‘She thinks she is at home.’ Hadari: [Al-Bahri \(2014: 189\)](#)

- (c) *wa ʔana gāʕid fī maktab-i*
 and I BE.SGM in office-1SG.GEN
 ‘while I am in my office’ Urban Hijazi: [Basulaiman \(2018: 70\)](#)

- (73) *iş-şahın (gāʕid) gaddām-ik*
 DEF-plate.SGM BE.SGM in front-2SGM.GEN
 ‘The plate is in front of you.’ Kuwaiti: Alaskar (PC)

Other dialects can use the locative copula for both contingent/temporary locations (such as the ones in (72)) and permanent/characteristic locations. This is the case for Maltese, as we have seen above, and also for some Palestinian varieties (see (74)). This pattern is suggestive of further emergent uses of the copula function of *gāʕid* along a clear grammaticalisation path that first starts off with temporary locative uses, restricted to animates, which then broadens up to inanimates, until it then grammaticalises the ability to be used to express fixed locative predication, with both inanimate and animate subjects.

- (74) *ʔingiltra (kāʕd-i) fī ʔarb ʔurubba*
 England.SGF BE-SGF in west Europe
 ‘England is in the west of Europe.’
 Tulkarem Palestinian: Al-labadi (PC)

Very much as we see in Maltese, the use of *gāʕid* as a copula has ventured beyond locative predication in other Arabic dialects too, to a use in predicational copula constructions expressing contingent properties and states. These include some of the examples which [Basulaiman \(2018\)](#) places within her E category in her classification of the examples in her Urban Hijazi corpus, and data from (Tripolitan) Libyan, where *gāʕid* might be characterised as taking on the function of an element that is signaling a temporal anchoring.

- (75) (a) *badal māni gāʕd-a fādy-a kida*
 instead of BE-3SGF idle-SGF like this
 ‘instead of being idle like this’
 Urban Hijazi: [Basulaiman \(2018: 42\)](#)

- (b) *kān gāʕid li-wahd-u*
 be.PFV.3SGM BE.SGM for-alone-3SGM.GEN
 ‘He was alone.’ Urban Hijazi: Basulaiman (2018: 70)
- (c) *lē gāʕid mibawwiz kida?*
 why BE.SGM grumpy.SGM like this
 ‘Why are you (being) grumpy like this?’
 Urban Hijazi: Basulaiman (2018: 70)
- (76) (a) *āne gāʕəd bla hədma*
 I BE.SGM without work
 ‘I am without work.’ Libyan: Pereira (2008: 401)
- (b) *ʕlē-ma ʕəllh-u fi-h gāʕəd*
 as much as repair.PFV.3-PL in-3SGM.GEN BE.SGM
ʕəkl-a zēy əz-zəbb!
 appearance.SGM-3SGM.GEN like DEF-dick
 ‘However much they repair it (no matter what they do to repair it), it still looks rubbish/crap.’ Libyan: Pereira (2008: 417)

With this array of comparative data, Camilleri & Sadler (2019) argue that what is in essence a locative copula has grammaticalised in a number of dialects, but shows a degree of cross-dialectal variation in its range of usage (animacy, permanence, locational). Varieties such as Maltese, Libyan, and Urban Hijazi seem to have moved further along the path of grammaticalisation, such that the copula is now also used in these dialects to mark temporary, contingent states.²⁶ The synchronic variation is somewhat reminiscent of the differences between Romance split copula systems, where we benefit from having historical data and diachronic studies. Spanish *estar*, the contingent ‘be’ copula, retains ‘a strong sense of location’ (Devitt 1990: 108),

26 A reviewer asks us whether we can expand further as to whether this pattern of difference in the use of *gāʕid* as a copula could be indicative of ‘a diffusion through dialect contact after a single initial change’. We cannot say whether there is a single initial source of change in one particular variety. All we can say, beyond presenting the distinct synchronic facts as they stand in the different vernaculars, and what they are indicative of in terms of a process of morphosyntactic change, is that we could in principle conceptualise the synchronic snapshot of the variation, as well as the change in progress, as an evolutionary scenario that aligns with sociolinguistic views such as those articulated by Labov and his colleagues, i.e. within a theoretical understanding/framework where synchronic microvariation is causally related to language change, and where such change may not necessarily have been external to the individual systems, but could have hypothetically also been internal (Weinreich, Labov & Herzog 1968, Labov 1994, *inter alia*), and thus correlated with the different developments which certain forms appear to display, time and time again, crosslinguistically.

and occurs in both permanent and temporary locative predication, while both Portuguese and Catalan are sensitive to some notion of contingency or explicit temporal anchoring in the choice of the predication copula in these constructions: for Portuguese it has 'more strongly a sense of temporariness' (Devitt 1990: 108) and for Catalan '*estar* is used to state the limits of permanence clearly ...' (Batllori & Roca 2012: 75).²⁷ For adjectival predicates, Spanish, Catalan and Portuguese reflect the permanent/temporary parameter in the choice of copula.

This is similar to the difference between Urban Hijazi and Kuwaiti on the one hand, which use this copula form with locational predication which are temporally bounded, and varieties such as Maltese and Palestinian, which use this form with all locational predication irrespective of the permanent/temporary distinction. All of these varieties then primarily share the 'locational' encoding, and specifically the temporal locational encoding. A few of these varieties have then extended further upon the use of this copula to express more generalised temporary properties, as is the case, for instance, in the use of the copula in adjectival predication constructions.

4.2 The copula trajectory: A proposal for Arabic

There is some discussion in the literature of possible trajectories for the emergence of copulas grammaticalised out of posture verbs (independent of their grammaticalisation as aspectual auxiliaries). Numerous sources affirm the key role of locational predication in this development. In Romance, the use of *estar* replacing *ser* happened first in locative predication uses, and only later in 'transient attributives' (Brucart 2012: 12 citing Carvalho 2010 for Portuguese, and Falk 1979 and Antonio Vañó-Cerdá 1982 for Spanish and Catalan, and see also Remberger & González-Vilbazo 2007). The trajectory in (77) figures in Devitt (1990: 103) and Remberger & González-Vilbazo (2007: 207), in connection with Spanish.

- (77) posture verb → locative verb → existential verb → copula with a temporary sense

²⁷ *Ser* is not entirely excluded in what look like locational predication in Spanish, but which quite possibly do not have to do with physical location, but for instance with the planning of a location, as in (i):

(i) *El próximo mundial de fútbol es en Alemania.*
the next world cup of football SER.3SG in Germany

'The next football world cup is to take place in Germany.'

Spanish: Remberger & González-Vilbazo (2007: 210)

Devitt (1990) considers the role of this trajectory in Turkish for the development of the enclitic (or suffix) *-dir* (from the posture verb ‘stand’) as a present tense copula with a presuppositional epistemic modal flavour to be ‘a development tied to the “temporary” semantics’ (Devitt 1990: 113) of the structure, as schematised in (78).²⁸

- (78) posture verb → locative verb → temporary sense (copula) →
presuppositional modal sense

In their corpus-based study Lesuisse & Lemmens (2018: 46) consider the three construction types in (79) in the Modern English period (1500–1920) as constituting a cline of grammaticalised use. They observe that: ‘The copular construction can be considered as the most grammaticalised, since the lexical verb has been reanalysed as a copula. Logically, such a copular reading (e.g. *The house stood empty* vs. *The house was empty*) is only possible if the posture verb had established itself as a basic locative verb (in our example, as the basic verb for expressing the location of a house)’ (Lesuisse & Lemmens 2018: 46).²⁹

- (79)
- the postural construction: *We sat down (at the feast)* refers to the posture/bodily disposition of a human figure;
 - the locational construction: *The student’s desk stood by the window* refers to the location of an animate or inanimate figure in relation to the ground;
 - the copular construction: *Convention Committees sit supreme over them*.

The step from a locative verb to a copula function is also critical in grammaticalisation clines which do not start out from a posture verb (Meillet 1912, Lehmann 1982 for French and English, respectively, *inter alia*). In discussing the development of Old English *wesan* from a full (lexical) verb with existential force to a copula and an aspectual auxiliary, Pfenninger (2007: 58) argues that its tendency to occur with locative modifiers gave ‘be’

²⁸ It is also used in the statement of general truths, in contrast with the zero copula, which then refers to the present moment. This is a use which Devitt (1990) represents as another development out of the temporary sense copula, somewhat problematically.

²⁹ The use of a posture verb in the locational construction is not the norm for the spatial positioning of physical objects in English. They find that there however *were* such older uses for English, and consider various possible explanations for the observed decline over time of the locational and copular constructions in the Modern English period. This leads to a synchronic situation in which usages of such verbs in English differ considerably from those in other Germanic languages.

a 'take place' meaning, such that by the time of Old English: 'It was in these contexts where 'be' acquired its locative meaning and appeared with an additional constituent in its VP. Once this additional constituent constituted a copula complement (a subject complement or an adverbial), 'be' was reanalysed as a copular verb, which by definition links the subject of a sentence with a predicate', and then developed onwards into an aspectual auxiliary with additional morpho(phono)logical erosion later on, instantiating the cline in (80):

- (80) existential 'be' → locative 'be' → copula 'be' → auxiliary 'be' → clitic 'be' (Pfenninger 2007: 58)

With that overview, we now turn to consider what trajectory might be hypothesised for Arabic which is both consistent with what we see synchronically in the different varieties and also informed by trajectories proposed in the light of diachronic developments in other languages. The core development which unites these varieties of Arabic is the use of the 'sit' participle in cases of temporary (contingent) locative predication. So this, we posit, must be at the heart of the diachronic developments. Some dialects then show extension to all locations, while others show extension to temporary properties.

We have already seen that there is reason to doubt that the aspectual grammaticalisation depends on the extension of the posture verb as the canonical encoding of the spatial position of physical objects, as this usage is very far from canonical. Therefore, we do not postulate an intermediate LOC phase in the development of the aspectual auxiliary use. Nonetheless this usage *has* developed, we have argued, as a copula form with a restricted domain in a variety of dialects, and this development is independent of the wider development of an aspectual auxiliary. We thus postulate that the trajectory that takes the active participle of the posture verb into a locative copula use in Arabic (posture verb → locative copula) comes about via semantic widening involving a loss of the postural configuration, to something more generalised such as 'staying, remaining in a location', before broadening further to the function of 'be in a location'.

We hypothesise that the development into a copula also takes as its starting point the lexical use, and in particular those instances in which 'sit' co-occurs with a simple locative adjunct, illustrated by (81) and its f-structure in (82), repeated here from (47) above. This then, is the first stage, summarised in (83).

- (81) *niswān gāʿid-īn hinī*
 woman.PL sit.ACT.PTCP-PL here
 ‘Women are sitting here.’ Gulf Arabic: [Isaksson et al. \(2009: 249\)](#)

$$(82) \left[\begin{array}{l} \text{TENSE} \quad \text{PRES} \\ \text{SUBJ} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'WOMAN'} \\ \text{INDEX} \quad \left[\begin{array}{l} \text{NUM} \quad \text{PL} \\ \text{PERS} \quad 3 \\ \text{GEND} \quad \text{FEM} \end{array} \right] \end{array} \right] \\ \text{PRED} \quad \text{'SIT< SUBJ >'} \\ \text{ADJ} \quad \{ [\text{PRED} \quad \text{'HERE'}] \} \end{array} \right]$$

Stage I

- (83) f-structure information (↑ PRED) = ‘SIT< SUBJ >’ from lexicon
 predicate-argument PREDICATE: postural semantics (incl.
 constraints durational and locational entailments)
 ARG1 is: [+ANIM]

We suggest that the next stage involves semantic broadening of the sense of the predicate. This stage is supported by examples such as (84) which clearly involve a use of *gāʿid* with lexical semantic context but which (in contrast to (81)) have lost the postural entailment, while maintaining a broadened locational sense. We take this to be illustrative of Stage II in the trajectory of the copula development. Note that the active participle still has, and maintains, in addition, the ‘sit’ meaning in some of these dialects, but not in others.

- (84) (a) *ʔana illi gāʿid-a fī al-bēt li-t-ṭabīḥ*
 I who sit.ACT.PTCP-SGF at DEF-home for-DEF-cooking
w an-naḥīḥ
 CONJ DEF-blowing
 ‘I am the one who’s **remaining** at home for cooking and blowing.’
 Urban Hijazi: [Basulaiman \(2018: 44\)](#)
- (b) *ʔādi kull wāḥid gāʿid b-bēt-uh*
 normal all one sit.ACT.PTCP.SGM in-house-3SGM.GEN
wa ma le-h šuyl tāni
 and NEG have-3SGM.GEN job.SGM other.SGM
 ‘It’s normal, everyone is **staying** in his house, having no other job.’
 Kuwaiti: [Persson \(2009: 248\)](#)

- (c) *hūwa lāgi l-jeɁwɁ mlīh fa*
 he find.ACT.PTCP.SGM DEF-ambience.SGM good.SGM so
gāʕəd ɣādi
 stay.ACT.PTCP.SGM there
 ‘He found that the ambience is good, so he is **staying** there.’
 Libyan: [Pereira \(2008: 402\)](#)

Examples such as these may correspond to a stage in which a semantically bleached two-place predicate has emerged, which we will represent with the PRED function name *STAY/REMAIN_{LOC}*, for a *stay*, *remain* predicate which takes a locational predication as its second argument, corresponding to a reanalysed locative modifier. The trajectory here bears a resemblance to that discussed above for the aspectual auxiliary in involving the reanalysis of an adjunct as an argument, here a locative adjunct as an OBL (rather than a clausal adjunct as an xCOMP). (85) gives a (partially simplified) f-structure for the relevant part of example (84a). A summary of the changes is presented in (86).

$$(85) \left[\begin{array}{l} \text{PRED} \quad \text{'STAY/REMAIN}_{\text{LOC}} < \text{SUBJ, OBL} > \text{' } \\ \text{TENSE} \quad \text{PRES} \\ \text{SUBJ} \quad \left[\text{PRED} \quad \text{'PRO'} \right] \\ \text{OBL} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'IN} < \text{OBJ} > \text{' } \\ \text{OBJ} \quad \left[\text{PRED} \quad \text{'HOUSE'} \right] \end{array} \right] \end{array} \right]$$

Stage II

- | | | |
|------|-------------|---|
| (86) | f-structure | (↑ PRED) = ‘STAY/REMAIN _{LOC} < SUBJ, OBL >’ |
| | information | from lexicon |
| | c-structure | OBL = PP or NP |
| | constraint | |
| | predicate- | PREDICATE: continuative, locational |
| | argument | semantics |
| | constraints | ARG1: [+ANIM] |

We hypothesise that at Stage III the key development is the emergence of a *locative* copula. The uses of *gāʕid* in (84), which involve a ‘continuative’ (locative) nuance, contrast with the fully bleached, locative copula functions this form has in (72)–(74), above. We suggest that this contrast is representative of a diachronic development, and that at Stage III the participle

has developed a grammaticalised function as a copula which takes locative complements.

Given the flexibility of its syntactic architecture, a number of approaches to copula constructions are possible in LFG and indeed there is no *a priori* reason why the structural diversity of predicative copula constructions crosslinguistically and indeed within a single language should correspond to a single uniform analysis at the level of functional structure. In fact, a number of different analyses are motivated in the LFG literature for copula constructions of various sorts. These include ‘single-tier’ analyses in which the copula verb itself introduces purely functional information, and hence has no PRED value at all, serving simply to express TENSE and ‘link’ the predicative element to its subject, and several ‘two-tier’ analyses in which the copula is treated as having lexical semantic content and the predicative complement is treated variously as an open (xCOMP) or closed complement (OBL, COMP or PREDLINK) argument of the copula. For a representative range of discussion see Rosén (1996), Falk (2004), Dalrymple, Dyvik & King (2004), Nordlinger & Sadler (2007), and Attia (2008). An important strand of work shows that locative complements show a pattern of behaviour distinct from the general run of predicative complements, motivating an analysis as an OBL_{LOC} function in these instances (see in particular Bresnan’s discussion of locative inversion in English and Chicheŵa (Bresnan 1994), and the discussion of the f-structure of PP complements in Bresnan et al. 2015: 295–301/Bresnan 2001: 275–280). Building on this, Falk (2004) argues that the Hebrew copula form *yeš* and its negative *eyn* have a PRED value ‘be < SUBJ, OBL_{LOC} >’.

Under this analysis, the f-structure for the locative example with *gāʿid* in (87), repeated from (73) above, is that in (88).³⁰ The lexical content of the predicate has bleached from the previous stage, but it maintains the same argument-structure, subcategorising a locative complement. Note that the preposition *gaddām* ‘in front of’ is analysed as a simple locative taking only an OBJ argument, and not as a predicative element subcategorising a SUBJ. A summary of the analysis of this stage in the trajectory follows in (89).

- (87) *iš-šahn* (*gāʿid*) *gaddām-ik*
DEF-plate.SGM BE.SGM in front-2SGM.GEN
‘The plate is in front of you.’ Kuwaiti: Alaskar (PC)

³⁰ As indicated in (87), the copula element is itself optional. We return below to the question of the analysis of such examples *without* the optional *gāʿid*.

$$(88) \left[\begin{array}{l} \text{PRED} \quad 'BE_{LOC} < \text{SUBJ}, OBL_{LOC} >' \\ \text{TENSE} \quad \text{PRES} \\ \text{SUBJ} \quad \left[\text{PRED} \quad 'PLATE' \right] \\ \text{OBL} \quad \left[\begin{array}{l} \text{PRED} \quad 'IN \text{ FRONT} < \text{OBJ} >' \\ \text{OBJ} \quad \left[\text{PRED} \quad 'PRO' \right] \end{array} \right] \end{array} \right]$$

Stage III

(89)	f-structure information	(\uparrow PRED) = ‘BE _{loc} < SUBJ, OBL _{loc} >’ from lexicon
	c-structure constraint	OBL = PP NP
	predicate-argument	PREDICATE: locational semantics
	constraints	

Stage III in the development of *gāʿid* as a copula is the synchronic end point in some dialects. In these dialects we have a ‘be’ locative copula which has not developed further into a more generalised copula. As is natural, such dialects additionally vary as to whether they impose additional semantic constraints on the range of subjects permitted, for example, or on whether *gāʿid* can appear in all such locative structures, or whether the particular variety circumscribes the use of the copula to just temporary locative encodings.

A question arises as to the analysis of such examples without an overt copula element, which are fully grammatical, as indicated by the parentheses around *gāʿid* in (87). Here there are essentially two analytic choices. One hypothesis would be that locative complements are never directly predicational, and such ‘null’ copula constructions involve a null PRED ‘BE_{LOC} < SUBJ, OBL >’. On this view, the f-structure of the two variants (with and without the overt copula) would be identical to that in (88). However, as [Bresnan et al. \(2015\)](#) and many other sources clearly establish, PPs (including locative PPs) can certainly be interpreted predicatively in a variety of constructions. [Bresnan et al. \(2015: 294\)](#) propose that while other lexical categories may intrinsically select a SUBJ, a lexical predication template applies to extend the lexical form of a preposition or a nominal, for it to end up subcategorising for a subject – (90) exemplifies the result of its application on a preposition such as ‘in’.

$$(90) \quad 'IN < (OBJ) >' \Rightarrow 'BE-IN < SUBJ, OBJ >' \quad (\text{Bresnan et al. 2015: 294})$$

This is the approach taken by Falk (2004: 237) for Hebrew where locative PPs may occur in a ‘null’ copula construction as an alternative to the use of the locative copulas *yeš* and *eyn*. In the absence of the copula, the Ps are treated as cases of direct predication. Under this analysis, the f-structure of the ‘null’ copula variant of (87) would be the single-tier f-structure in (91).

$$(91) \left[\begin{array}{ll} \text{TENSE} & \text{PRES} \\ \text{SUBJ} & \left[\text{PRED} \text{ 'PLATE'} \right] \\ \text{PRED} & \text{'IN FRONT < SUBJ, OBJ >'} \\ \text{OBJ} & \left[\text{PRED} \text{ 'PRO'} \right] \end{array} \right]$$

It takes us too far afield to discuss further these different hypotheses concerning the ‘null’ copula in this construction and for simplicity and maximal clarity we assume with Falk (2004) the application of a lexical predication template, eschewing the postulation of a null ‘BE’ predicate in these structures.

While Stage III is the endpoint of the grammaticalisation of *gāʿid* in a number of varieties, this is not so for dialects such as Maltese, Urban Hijazi, and Libyan. Examples such as (75) and (76) suggest that there has been an additional development to a final Stage IV in which the use of *gāʿid* as a copula has extended in use beyond locative complements to a range of predicative contexts. We hypothesise that as it extends to a wider range of predication structures at Stage IV, the copula element loses its PRED value and progresses into a fully bleached grammatical formative that lacks a predicate-argument structure. That is, we adopt a single-tier analysis (Dalrymple et al. 2004, Nordlinger & Sadler 2007) of these copula constructions in which the head of the predicative phrase contributes the PRED value in the f-structure of the copula construction itself, and the syntactic role of *gāʿid* is purely functional, contributing TENSE, implying further that *gāʿid* now also takes on an I position in the c-structure, in the PRESENT TENSE, therefore illustrative of a functional shift from the V node it sits in, both as a lexical item, as well as a PROG auxiliary.³¹ Under this direct predication account, the (partial) f-structure analysis for the non-locative predicative construction in (92) below, repeated from (75c), is (93). As a predicative element, the participle *mibawwiz* ‘grumpy’, which has an adjectival function here, subcategorises for a SUBJ argument (here simply a PRO).

31 A closely related alternative would be a ‘two-tier’ analysis in which BE is a raising verb subcategorising for an open complement (xCOMP) and a non-thematic SUBJ. This would treat the copula as simply a step away from being a purely functional element, but we see no particular grounds for adopting such an analysis here.

- (92) *lē gāʿid mibawwiz kida?*
 why BE.SGM grumpy.SGM like this
 ‘Why are you (being) grumpy like this?’
 Urban Hijazi: Basulaiman (2018: 70)

$$(93) \left[\begin{array}{cc} \text{PRED} & \text{'GRUMPY < SUBJ >'} \\ \text{TENSE} & \text{PRES} \\ \text{SUBJ} & \left[\begin{array}{cc} \text{PRED} & \text{'PRO'} \\ \text{PERS} & 2 \\ \text{NUM} & \text{SG} \\ \text{GEND} & \text{M} \end{array} \right] \end{array} \right]$$

The copula *gāʿid* is an alternative to the ‘null’ copula, both with locative complements and with the wider class of non-locative, predicative complements such as (92), which has an adjectival predicate. These alternatives share the same syntax, and an f-structure along the lines of (93) above. However, despite its purely functional syntactic role, the use of the copula *gāʿid* specifically with non-locative, predicative complements is of significance semantically. For example, in Maltese, where the corresponding form *qiegħed* is highly grammaticalised, the use of this form with non-locative predicates is associated *solely* with temporary, episodic, and non-inherent characteristics and properties, in contrast to the ‘null’ or pronominal copulas, which are associated with individual-level or permanent characteristics and properties – in (94) (repeated from (71)) the distinction being between ‘currently being quiet’ and ‘quiet by nature’.

- (94) *It-tifel Ø/hu/qiegħed kwiet.*
 DEF-boy.SGM Ø/COP.3SGM/BE.SGM quiet.SGM
 ‘The boy is quiet.’
 Maltese: Stassen (1996: 292)

If our hypothesis is on the right track, then Stage IV involves the emergence of a general copula with the characteristics summarised in (95), alongside persistence of the locational copula predicate, which is restricted to occurring only with OBL_{LOC} complements.

Stage IV			
(95)	f-structure function	co-head of non-LOCATIVE PREDS	from lexicon
	c-structure constraint	PRED = PP NP AP	from lexicon
	predicate-argument constraints	PREDICATE: non-locational semantics	
	semantic information	non-inherent/stage-level/ temporary	

In summary, our hypothesis is the following. The process starts off with a one-place lexical ‘sit’ with animate (typically human) subjects in Stage I. From this develops a wider, bleached lexical meaning of ‘continue to be located’ which we have referred to with the predicate name ‘STAY/REMAIN_{LOC}’, for concreteness. This development involves argument-extension, that is, incorporation of a locative modifier as an argument. Subsequently, this lexical item bleaches further, and becomes a copula, ‘BE_{LOC}’ at Stage III. This copula is restricted to occurring only with locative complements, with which it is found in a wide cross-section of dialects (Stage III). Other dialects show a further development alongside the locative copula, the emergence of a general copula occurring with a range of predicate elements and associated with temporary or stage-level characteristics and properties. In dialects such as Maltese, Urban Hijazi and Libyan, in which we see this development, we suggest that grammaticalisation has progressed to a complete loss of predicate-argument structure, so that *gāʿid* functions as a grammatical formative in these non-locative predicative structures in Stage IV. These dialects then have two separate *gāʿid* copulas — a PRED-bearing BE_{LOC} copula with SUBJ and OBL_{LOC} arguments, and a contingent ‘be’ copula which is syntactically a functional element, occurring with non-locative predicative elements.

On this view, we hypothesise that the development from ‘sitting’, to a widened, bleached meaning of ‘remaining, staying’ must have taken place *prior* to the grammaticalisation of the locative copula function. We have also suggested that the bleached components of the meaning which serves as an intermediate stage in the development of the copula use is different from that implicated in the development of the PROG-expressing aspectual auxiliary use, which is focussed on the stative/unboundedness of the posture verb, rather than the locational element; a view consistent also with the discussion in [Jarad \(2015\)](#).

Whatever the stages involved (and there are very meagre grounds for advancing anything more than a very tentative suggestion), the broad outline

would seem to be clear, namely the development of some form of locative copula *preceding* the extension (already attested in Maltese, and in Hijazi and Libyan, if we are correct) to the class of temporary properties, as shown schematically in (96), which we think may have been preceded by the emergence of a ‘stay, remain’ sense with a locative complement, giving the cline in (97).

- (96) posture verb → locative copula → temporary sense copula
- (97) posture verb (Stage I) → ‘stay, remain’ lexical uses (Stage II) → locative PRED-maintaining copula (Stage III) → temporary sense copula (Stage IV)

Finally we note another development: *gāʿid*³² has taken on a separate function in Libyan and Chadian. The data below illustrates this use, in which *gāʿid* in these two particular dialects, which we gloss as EXIST, has an existential function with a meaning such as ‘be (there), be present, exist’.

- (98) *mūš lāzəm n-jí ɣudwa ʕlē-ħāṭər hūwa mūš*
 NEG must 1-come.IPFV.SG tomorrow because he NEG
gāʿid!
 EXIST.SGM
 ‘I don’t have to come tomorrow because he will not **be** (there).’
 Libyan: [Pereira \(2008: 424\)](#)

- (99) *mūsa gāʿid*
 moussa EXIST.SGM
 ‘Moussa **is (there)/exists.**’
 Chadian: [Rubin \(2005: 139\)](#)

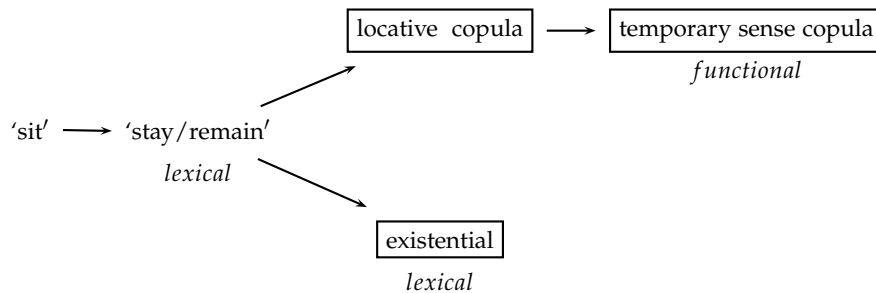
A possible hypothesis concerning the source of this existential reading is that it has developed from the bleached, lexical predicate ‘stay, remain’ (which we have given the PRED name of STAY/REMAIN_{LOC} in (86) above), a development which would entail intransitivisation through the loss of the requirement for a locative (PP/NP) argument, as schematised in (100), and which in turn gives rise to a further lexical sense.

- (100) (↑ PRED) = ‘STAY/REMAIN_{LOC} < SUBJ, OBL >’ →
 (↑ PRED) = ‘EXIST/BE PRESENT < SUBJ >’

32 But not *ḡālīs* ‘sit.ACT.PTCP’ (as far as we know), which appears otherwise to have undergone similar developments, both as an aspectual auxiliary and a copula, in those dialects which have this form.

If this is correct, then the overall picture for the developments we have discussed in this section are as shown schematically in (101), where *lexical* indicates that the element has a PRED value, and *functional* that it associates with and expresses purely grammatical information, and has no PRED value.

(101)



In this section we have identified two further developments from the active participle form of the lexical participle meaning 'sitting'. In addition to the very widespread grammaticalisation of this form as an aspectual auxiliary in the Arabic dialects, we have discussed the parallel emergence, in a subset of dialects, of a copula usage. This grammaticalisation is most advanced in Maltese, where *qiegħed* is used as a copula in all sorts of locational predications and in those involving contingent or temporary properties. We have, however, also seen such a similar distribution in other varieties as well, suggesting robust parallel cross-dialectal development. We have proposed a possible diachronic trajectory for this development, in which the locational copula has emerged from the semantically bleached and extended use of the lexical active participle with a 'stay, remain' sense. We have also suggested that this lexical form may have given rise, in a parallel development, to a lexical 'be present, be there, exist' reading, at least in a small number of dialects which also exhibit the development of the copula.

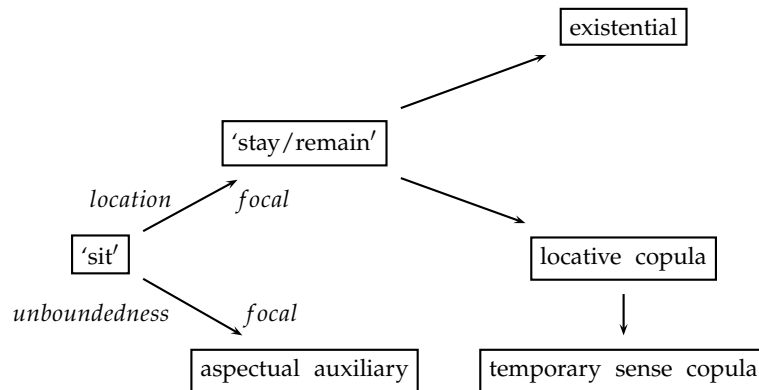
In the following section we address the question of how the developments which we have discussed in this section relate to the grammaticalisation of the aspectual auxiliary.

5 MULTIPLE GRAMMATICALISATION PATHS

We argued in §3 that the aspectual auxiliary function of *gāʿid* could not have arisen out of an intermediary stage in which *gāʿid* functioned as a locative copula, or as the canonical means of spatial positioning of physical objects, as is referred to by Kuteva (1999, 2001). The aspectual PROG auxiliary use is

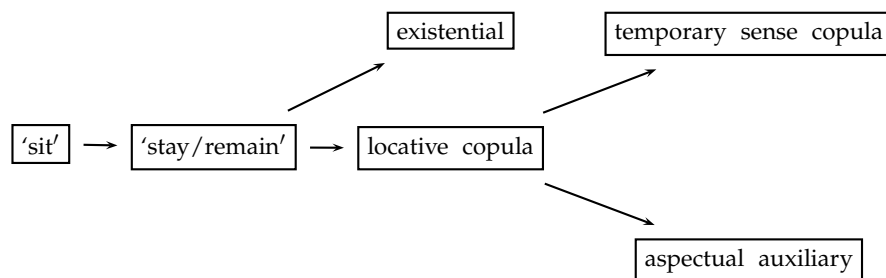
widespread across the varieties, while the locative copula usage identified in §4.1 has a more restricted (and more varied) distribution, and is consistent with the conclusion that it is a separate and more recent development in the Arabic vernaculars. The somewhat more complex picture which emerges is shown in (102).

(102)



This is opposed to the view which puts the locative copula development on the path to the aspectual auxiliary, for example, as would be the case in (103).

(103)



The view depicted in (103) is partly the one which Basulaiman (2018) endorses herself. Within her view she additionally conflates what we have here been carefully keeping distinct, and that is the lexical 'stay, remain' readings, which are themselves what provide the onset for the locative copula's development from the lexical existential uses of this same form; a development out of an intransitivisation of the 'stay, remain', along with a change in semantics. This view has an obvious problem. This is the fact that the copula does not share the widespread distribution of the aspectual

auxiliary. Some subsidiary explanation of this fact would be needed. A case in point is Iraqi, where the grammaticalisation of the PROG-marking aspectual auxiliary function is well advanced, and is expressed synchronically as a prefix on the verb, as in (104), including (30b) repeated from §2.3 above. However, as (105) shows, the active participle form (which is the source for the PROG-expressing prefix) cannot be used as a locative copula, and is always interpreted lexically as a posture verb.

- (104) (a) *qa-y-yīd* *yə-mši*
 PROG-3M-want.IPFV.SG 3M-walk.IPFV.SG
 ‘He wants to walk.’ (Jewish Baghdadi) Iraqi: Rubin (2005: 137)
- (b) *maryam da-ti-lšab wahiya*
 Maryam PROG-3F-play.IPFV.SG CONJ.3SGF.NOM
gāšd-a šala l-kursī
 sit.ACT.PTCP-SGF on DEF-chair
 ‘Maryam is playing while she is sitting on the chair.’
 (Muslim Baghdadi) Iraqi: Camilleri & Sadler (2018: 137)
- (105) (a) *gāšd-a b-il-muntazah*
 sit.ACT.PTCP-SGF in-DEF-park
 ‘She is sitting in the park.’
 Cannot mean: ‘She is in the park.’
- (b) *hiya b-il-muntazah*
 she in-DEF-park
 ‘She is in the park.’ (Urban southern) Iraqi: Alshawī (PC)

The separation of the locative copula development from the aspectual development, and the hypothesis that the latter preceded the former development, are also supported by synchronic morphophonological evidence in varieties in which both occur. As illustrated in §2.3 above, we find eroded and prefixal forms of the auxiliary, supporting the hypothesis that the grammaticalisation of the auxiliary function is much older than the grammaticalisation of the copula; something we can only evidence by looking comparatively at the synchronic states of affairs across the contemporary vernaculars. On the other hand, the copula forms are still likely to be full forms across the dialects, even in Maltese, which is generally rather far along the grammaticalisation end in comparison to other dialects. The eroded cliticised form *qed* is freely available without constraints in aspectual auxiliary function (see (106)). However, it is restricted to a SGM subject, as in (107), when used as a copula. The fact that the form is *still* as constrained, reflecting

its source in the SGM form of the active participle *qieghed*, is suggestive of the fact that it has only just started being used as a copula form, unlike its auxiliary counterpart, which occurs with all subject types.

- (106) *Qed* *n-iekol/t-iekol/j-iekl-u*
 PROG 1-eat.IPFV.SG/3F-eat.IPFV.SG/3-eat.IPFV-PL
 ‘I am eating. / She/we are eating.’

- (107) *Jien_M/hu/*hi/*aħna qed id-dar*
 I.M/he/*she/*we BE.SGM DEF-home
 ‘I (M) am at home. / He is at home.’

Moreover, further reason to support the hypothesis being put forth here comes from the fact that other PROGRESSIVE markers such as *ʕam(m)-*, mainly used in Levantine dialects, derived from the active participle form *ʕammāl* associated with the verb *ʕamal* ‘do’, as illustrated in (108) (with (108b) additionally including the lexical verb-form), have not developed into a copula.

- (108) (a) *ʔəbn-i ʕam-i-šīr rəḡḡāl*
 son-1SG.GEN PROG-3M-become.IPFV.SG man
 ‘My son is getting to be/becoming a man.’
 Syrian: Cowell (1964: 32)
- (b) *ʔinti ʕmilī mitil mā ʕam-ʔil-l-ek*
 you do.IMP.2SG like what PROG-1SG.say.IPFV-DAT-2SG
 ‘Just do as I am telling you.’
 Lebanese: Haddad (2018: 82)

This we take to be the result of the fact that unlike the case with *gāʕid*, the original semantics of *ʕammāl* prior to its grammaticalisation, which includes an association with ‘do’, is not endowed with any lexical semantic content which could have set it along a path in which it could have been bleached into some sort of extended locational meaning domain. In the case of *gāʕid*, on the other hand, it is precisely this bleaching into a ‘stay, remain’ lexical predicate, which *does* involve an extension in the locational domain (and distinct from the path leading to the aspectual auxiliary function), which has led to the grammaticalisation of this form as a copula in Arabic.

6 CONCLUSION

In this paper we have discussed several types of grammaticalisation paths present in the Arabic dialects which take the active participle form of the

posture verb *sit* as their source, and have developed a proposal for the diachronic trajectory for each of these grammaticalisation processes, couched within the syntactic framework of LFG. We have argued that the grammaticalisation of a progressive auxiliary from this form in Arabic, which is widespread across the dialects, does not support the trajectory put forward by Kuteva (1999, 2001), in which the key stage is the use of the posture predicate for the spatial positioning of physical objects. Rather, we have argued that the key focal element leading to this grammaticalisation is the inherently stative, unbounded element of the semantics of the posture verb. On the other hand, we have argued that the development of a copula usage, which is at an earlier stage of development and less widely distributed across the Arabic varieties (along with a separate, lexical development as a verb of existence) *does* depend on a locational extension or bleaching of the posture verb-form in a step in which co-occurrence with locational arguments is key.

ABBREVIATIONS

↑ = the f-structure associated with the mother node

↓ = the f-structure associated with this node

1 = 1st PERSON

2 = 2nd PERSON

3 = 3rd PERSON

ACC = accusative

ACT.PTCP = active participle

ADJ = adjunct

ANIM = ANIMATE

AP = adjectival phrase

ARG1 = first argument

ARG2 = second argument

ASP = ASPECT

CAUSE = causative

COMP = complementiser/clausal complement

CONJ = conjunction

COP = copula

DAT = dative

DEM = demonstrative

DEF = DEFINITE

E = general state of existence

EXIST = existential

F/FEM = feminine

FRM.VWL = formative vowel
FUT = future
G = grammaticalised auxiliary
GEN = genitive
GEND = GENDER
GF = grammatical function
IMP = imperative
IPFV = imperfective
L = locative expression
LFG = Lexical Functional Grammar
LOC = locative
M = masculine
NEG = NEGATION
NP = noun phrase
NUM = NUMBER
OBJ = OBJECT
OBL = OBLIQUE
P = physical body position
PFV = perfective
PL = plural
PP = prepositional phrase
PRED = predicate
PRES = present
PROG = progressive
RECIP = reciprocal
REFL = reflexive
SG = singular
SUBJ = SUBJECT
VP = verbal phrase
XADJ = open ADJUNCT
XCOMP = open complement

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Maris Camilleri
Department of Language
and Linguistics
University of Essex
Colchester, CO4 3SQ
United Kingdom
mcamil@essex.ac.uk

Louisa Sadler
Department of Language
and Linguistics
University of Essex
Colchester, CO4 3SQ
United Kingdom
louisa@essex.ac.uk