Aspectual pairing and aspectual classes in Abui

Preprint · December 2020

DOI: 10.13140/RG.2.2.35999.59043

5 authors, including:

František Kratochvíl
Palacký University Olomouc
34 PUBLICATIONS **214** CITATIONS
SEE PROFILE

David Moeljadi
Kanda University of International Studies
12 PUBLICATIONS **42** CITATIONS
SEE PROFILE

Benediktus Delpada
2 PUBLICATIONS **1** CITATION
SEE PROFILE

Vaclav Kratochvil
The Czech Academy of Sciences
35 PUBLICATIONS **50** CITATIONS
SEE PROFILE

František Kratochvíl*, David Moeljadi, Benidiktus Delpada, Václav Kratochvíl, and Jiří Vomlel

Aspectual pairing and aspectual classes in Abui

Abstract: This paper describes the aspectual classes in Abui, a Papuan language of the Timor-Alor-Pantar family. Abui innovated a system of aspectual stem pairing, realised by consonant mutation, vowel grading, and rime mutation. Although stem pairing is widespread (about 61% of the verbs alternate), about 38% of our 1330 verb sample are unpaired and immutable. Abui verbal stems combine with aspectual affixes, adverbs and auxiliary verbs, whose distribution is used here together with the stem types to describe aspectual classes, which are understood as lexicalisations of transitional possibilities of lexical items (e.g. inchoative-stative vs. inchoative-gradual.inchoative-stative). The paper takes the bidimensional approach to aspect distinguishing between properties associated with the perfective-imperfective system and other aspectual marking (cf. Sasse 2002). Combining the features of both types of aspectual marking, we construct in a bottom-up fashion the aspectual classes in Abui and also show that these may be further refined if contextual features such as valency or degree of change (affectedness) were included. A characteristic feature of the Abui system is the elaborate system of stative-inchoative verbs sensitive to scalar and change properties (e.g. instant vs. gradual). Abui telic verbs show sensitivity to the properties of the resulting state and are formally associated with stem alternation.

Keywords: aspectual pairing, perfective-imperfective, aspectual classes, lexical aspect, Papuan, Timor-Alor-Pantar

1 Introduction

This paper investigates the aspectual system in Abui (Glottolog: abui1241) which includes a system of paired imperfective and perfective verbal stems that vary in their compatibility with other aspectual marking (e.g. aspectual affixes, adverbs, and auxil-

***Corresponding author: František Kratochvíl,** Palacký University Olomouc, Czechia
David Moeljadi, Palacký University Olomouc, Czechia
Benidiktus Delpada, Univesitas Tribuana Kalabahi, Indonesia
Václav Kratochvíl, Jiří Vomlel, Czech Academy of Sciences, Institute of Information Theory and Automation, Czechia

iaries).[1] The goal of the paper is to describe the actional verbal classes with reference to various forms of aspectual marking as a complex system of lexicalised transitions (cf. Persohn 2017: 20).

To present the complexity of the Abui complex system in a stepwise fashion, the description is first divided into two parts, which each untangle a different component, but whose synthesis is presented in Section 4. Section 2 gives an overview of Abui aspectual marking, introducing syntactic, morphological, and lexical devices. Section 3 examines the compatibility of verbal stems with aspectual marking, as defined in Section 2 to capture the Abui actional classes.

1.1 Abui verbal morphology

Verbs are the locus of morphological complexity in Abui. Table 1 presents a schematic morphological template of the Abui verb: (i) the root may be preceded by two person-number prefixes indexing various types of undergoer arguments (for more details see Kratochvíl and Delpada 2015) and (ii) by the applicative and causative prefixes. The root may be followed by (iii) an inceptive and a stative suffix in slot +1; (iv) an inchoative suffix, perfective and perfect suffix in slot +2; (v) progressive and stative suffix in slot +4; and (vi) two more mood suffix slots. In general, suffixes associated with the preparatory phase of an event and with states are expressed in slot +1; suffixes marking a boundary or culmination in slot +2; slot +3 suffixes mark event progression after a boundary. Some roots undergo mutation (for details see Section 2.5).[2]

Tab. 1: Morphological template of the Abui verb

-3	-2	-1	0	+1	+2	+3	+4	+5
APPL CAUS	U_2	U_1	$root_{mutation}$	INCP STAT	INCH PFV PRF	STAT PROG	$MOOD_1$	$MOOD_2$

1 The Abui aspectual pairing has no counterpart within the Timor-Alor-Pantar family, to which Abui belongs, although markers of perfectivity and imperfectivity are attested throughout. Klamer (2014: 33) points out that the inflections for aspect (and mood) remain rather limited and the positions of the respective morphemes with respect to the verbal stem show much variation.

2 This template is a revised version of the Abui verb template given in Kratochvíl (2007: 236), where the mood suffixes were treated as a type of aspect.

Example (1) shows the verb root *waal* 'split, share' combined with the applicative *ming-*, the undergoer PAT prefix *ha-* and the mood suffix *-te*. The glosses contain numerical indexes of the affixal slots introduced in Table 1.

(1) *awa nuku do baai ming-ha-waal-te!*
bunch one PROX ADD APPL_{-3}-3.PAT_{-1}-split.IPFV-PRIOR_{+4}
'share at least this one bunch (of bananas)!' [EDL.395]

In (2), two person prefixes are attached to the root *-yooq* 'dance' which in turn is followed by the aspectual suffix *-e*.

(2) *ama do-ha-yooq-**e***
person 3I.REC_{-2}-3.PAT_{-1}-dance-PROG_{+3}
'people are dancing (of modern dance)' [B7.28.1c]

Two aspectual suffixes combine in (3), where the stative root *foq-* 'big' is followed by the inceptive and the inchoative suffix, whose function will be discussed in Section 2.3.[3]

(3) *di hen foq-**da-di**, he-deki wan kari-di*
3.AGT 3.COP big-INCP_{+1}-INCH_{+2} 3.AL-trousers already narrow-INCH_{+2}
'he is getting so big that his trousers are too narrow to him' [EVY.1472]

In (4), the perfective stem *ber* 'pull' is followed by the suffixes *-i* and *-a*.[4] The sentence describes two activities occurring simultaneously. Note also the incorporation of the nouns *yaai* 'song' and *baloqu* 'grass' which take the place of the first argument prefix slot.[5]

(4) *di yaai-panen do do-baloqu-ber-**i-a***
3.AGT song_{-1}-make.PFV PROX 3I.REC_{-2}-grass_{-1}-pull.PFV-PFV_{+2}-STAT_{+3}
'she is weeding (and) singing' [B7.35.3d]

Abui complex predicates consist of a lexical verb preceded by an inflected light verb, modifying the valence of the lexical verb (for more details see Kratochvíl 2014). In (5), the verb *-l* 'give' marks the presence of a human undergoer of *bool* 'hit'. Complex predicates include aspectual auxiliaries: the verb *bool* 'hit' is followed by the auxiliary

3 The form *hen* is an equative copula, which is translated with the English *so* here. Its function is to link the verb *foqdadi* with the degree expression that follows it, i.e. the trousers not fitting.

4 The sequence *ber-i-a* (pull.PFV-PFV-STAT) may be alternatively analysed as *ber-i yaa* (pull.PFV-PFV go.IPFV).

5 The perfective suffix attaching to a perfective stem is not semantically vacuous but marks a *final* verb in contrast to *medial* verbs expressed by the stem only (cf. Kratochvíl 2007: 210–217). Medial stems are restricted to subordinated clauses marked with a clause final demonstrative (cf. Kratochvíl 2011) and to clauses linked with the simultaneous linker *ba*, as can be seen in (4) and (21a) respectively.

kaanri 'complete, finish', which is marked with the priorative *-te*, to indicate that the fight was over before the father of the children (referred to with the 3rd person pronoun *di*) arrived. This example shows that auxiliaries such as *kaanri* may carry their own aspectual and mood suffixes.

(5) *moqu loqu wan tee-l=bool* ***kaan-ri-te*** *di*
kid PL already DISTR.BEN-GIVE=hit complete-INCH$_{+2}$-PRIOR$_{+4}$ 3.AGT
miyeei
come.PFV
'the children had already finished fighting each other before he arrived' [EBD.88]

2 Encoding of aspect in Abui

In Abui, aspect is encoded by auxiliaries (2.1), adverbs (2.2), affixes (2.3), reduplication (2.4), and segmental stem changes (2.5).[6]

2.1 Aspectual auxiliaries

Expressions of repetition (6a), frequency (6b), and duration (7) follow the modified predicate and in case of duration may contain a time unit noun, such as *menit* 'minute'.[7] Example (6) illustrates the distinction between the inceptive and the inchoative auxiliary stems. While the inceptive focusses on the culmination phase (i.e. the second hit), the inchoative encodes the resultant phase (i.e. the total of two hits). The verb *bool* 'hit' does not carry aspectual marking.

(6) a. *di nee-l=bool* ***ayoq-da***
3.AGT 1SG.BEN-GIVE=hit two-INCP$_{\text{repetition}}$
'he is hitting me for the second time' [E14.BD.A32]

b. *di nee-l=bool* ***ayoq-di***
3.AGT 1SG.BEN-GIVE=hit two-INCH$_{\text{frequency}}$

6 The grammaticalization of the aspectual marking is well studied in at least some language families and known to proceed from free to bound morphemes. Dryer (2013) reports that tense-aspect distinctions in his sample of more than 1,100 languages are most commonly recorded by affixation, with suffixation strongly favoured (attested in more than 660 languages). Other known strategies are tone change (mostly African languages) and stem modification (Indo-European, Semitic, Trans-New-Guinean). Dahl and Velupillai (2013) found that the opposition between perfective and imperfective was grammatically encoded in about half of their sample (in 101 of 222 languages).

7 Pluractionality or verbal number (cf. Veselinova 2013) in Abui is discussed in detail in Kratochvíl (2014: 146–147).

'he hit me twice' [E14.BD.A31]

Example (7) is analogous to (6b) in marking the totality of the duration (i.e. completion time) with the inchoative auxiliary *karnukdi* 'become ten (minutes)'. Unlike the uninflected verb *bool* 'hit' in (6b), the verb *lilri* 'heat up' is marked with the inchoative to indicate that the water reached the intended state of being hot.

(7) *na yá lil-ri menit* ***karnuk-di***
1SG.AGT water hot-INCH minute ten-$\text{INCH}_{\text{completion}}$
'I heated up the water in ten minutes' [E14.BD.12]

Auxiliary *langhatiik* 'do/happen continuously' expresses extended duration of the resultant state (8a), *pe* 'be near' its proximity (8b), and *kaandi* 'stop' its completion (9a).[8]

(8) a. *anuui saai* ***lang-ha-tiik***
[rain come.down.PFV] APPL-3.PAT-$\text{stretch}_{\text{aspect}}$
'it is raining continuously' [EVY.105]

b. *di wan taa* ***pe*** *hu anuui*
[[3.AGT already sleep.IPFV] $\text{be.near}_{\text{aspect}}$ SPC.AD] [rain *sei*
come.down.IPFV]
'he was almost sleeping when it rained' [EBD.095]

2.2 Aspectual adverbs

Auxiliaries *langhatiik* 'do/happen continuously' and *pe* 'be near' always immediately follow the modified verb, unlike *kaandi* 'stop' and *kaanri* 'finish', which admit aspectual adverbials *wan* 'already' (9a) and *dara* 'still, not yet' (9b).

(9) a. *anuui sei* ***wan do-kaan-di***
[rain come.down.IPFV] already 3I.REC-$\text{complete-INCH}_{\text{aspect}}$
'it already stopped raining' [EDL.232]

b. *ut teq* ***dara kaan-ri*** *naha*
[garden slash] still $\text{complete-INCH}_{\text{aspect}}$ NEG
'the field labour is not yet ready' [EDL.236]

8 The postverbal *pe* is treated as a verb, because it occurs in the same position as auxiliaries with overt verbal marking and is compatible with the perfective *-i*.

2.3 Aspectual suffixes

As discussed in Section 1, Abui verbal stems admit aspectual suffixes, whose function can be broadly characterised as follows:

1. ***-i*** highlights that the state-of-affairs contains a boundary, as in (10b, 15c); it is also compatible with expressions of completion 'in X time', as in (16);
2. ***-u*** marks persistent resulting states and is in complementary distribution with *-i*, as in (10c, 29b) and is compatible with expressions of completion 'in X time' (30);
3. ***-di***, with allomorphs *-ri* and *-ni*, marks the beginning of state-of-affairs, as in (11, 12, 17e) and is in complementary distribution with *-i* and *-u*;
4. ***-e*** highlights the ongoing character of the state-of-affairs, as in (2, 10a, 13c); it is compatible with expressions of duration 'for X time' and in complementary distribution with *-a*;
5. ***-a*** highlights that the state-of-affairs persists; it may follow the suffix *-i* and the suffixes *-di* and *-ri* (4, 18, 45c) and is in complementary distribution with *-e*;
6. ***-da***, with allomorphs *-ra* and *-na* marks the preparatory phase towards a new state-of-affairs, as in (12, 27, 41).

The closed vowels /u/ and /i/ are found in suffixes associated with boundaries, while the open vowels /a/ and /e/ in suffixes associated with progression or states. The suffixes *-i*, and *-u* are in complementary distribution and occupy the +2 slot in the verbal template shown in Table 1. The suffix *-e* occurs in slot +3.

(10) a. *di ko ne-l=bool-**e***
3.AGT IRR 1SG.LOC-GIVE=hit-PROG
'he will hit me' [E14.BD.A34]

b. *di ne-l=bool-**i***
3.AGT 1SG.LOC-GIVE=hit-PFV
'he hit me' [E14.BD.A33]

c. *yá tooq-**u***
water drop-PRF
'water is spilled' [B7.26.2b]

Located in slot +2 of the Template 1 are also the inchoative suffixes *-di*, *-ri*, and *-ni*. As shown in (11), the inchoative can be followed by the progressive *-e* in slot +3. In such cases, the progressive puts focus on the state-of-affairs, typically in situations where the state-of-affairs is new information. In this example, the addressee knows that the child is an orphan in foster-care, but the speaker highlights the identity of the caregiver as being speaker's father.

(11) *moqu ba iti lol nu hen-u maama hen-u*
kid REL there wander SPC 3.COP-PRF father 3.COP-PRF
*hoo-q=foq-**di-e***
3.GOAL-BRING=big-INCH-PROG
'that child walking there, it was my father who was raising her' [EVY.683]

Finally, slot +1 is filled by the inceptive suffixes *-da*, *-ra*, and *-na*. In (12) the verb *foqda* refers to growing up, which, as the example suggests, will occur more quickly, if one follows the imperative 'to eat properly'. The focus is not on the eventual result of growing up but on the process leading to it.

(12) *a qaang-qaang nala nee manghu he-abik-ni ba foq-**da!***
2SG.AGT properly food eat so.that 3.LOC-quick-INCH SIM big-INCP
'eat properly so that you grow up quickly!' [B07.016.7a]

The stative suffix *-a* occurring in slot +1 will be discussed in more detail in Section 3.6.

2.4 Aspectual reduplication

Reduplication in Abui has a range of functions, many of which are aspectual: repetition (13a), habituals (13b), extended duration with activities (13c), and gradual progression of inchoatives (13d).[9]

(13) a. *kaai dee-tamai dieng pe lang-**mara∼mara***
dog 3I.BEN-keep.doing.IPFV kitchen APPL-RDP∼go.up.IPFV
'the dog keeps entering the kitchen'[10] [EBD.47]

b. *di Pak Dan he-maama hoo-pang*
3.AGT PN 3.AL-father 3.GOAL-TOWARDS
*laang-**sei∼sei***
APPL-RDP∼come.down.IPFV
'she was always going to visit the father of Pak Dan' [SN.57]

c. *a nala la he-oom-**paang∼paang**-e?*
2SG.AGT what MD 3.LOC-2SG.inside-RDP∼feel-PROG

9 For a comprehensive treatment of Abui reduplication see Kratochvíl (2007: 312, 316, 413), for its use with quantifiers and numerals, see Kratochvíl (2014), as well as Klamer et al. (2017). Most recently, Klamer and Saad (2020) demonstrate in great detail that the Abui reduplication undergoes language contact-induced change and in the speech of younger speakers converges with the Alor Malay pattern.
10 The prefix *dee-* indexes the agentive participant, i.e. the dog. The prefix *dee-* contrasts with the prefix *hee-* which indexes non-agentive participants.

‘what are you pondering about?’ [Surrey.BD2.14]

d. *he-isi do war kanaq-da do lang-**hariik-ha-riik***
3.AL-body PROX day each-INCP PROX APPL-RDP∼3.PAT-ill
‘he gets more ill every day’ [B7.43.2e]

Reduplication is common in resultatives to indicate a greater than usual degree.

(14) *kaai di moqu nu takeei ba **ming-lai∼laini***
dog 3.AGT kid SPC bite.IPFV SIM APPL-RDP∼mince.PFV
‘the dog bit the child all over his body’ [B7.34.1f]

2.5 Aspectual stem alternation

Aspectual suffixes are subject to restrictions with alternating stems, to which we will now turn our attention. We will describe the restrictions in detail in Section 3. As can be seen in (15), some verbs distinguish an imperfective and a perfective stem; here *ong* ‘build.IPFV’ and *on* ‘build.PFV’. Example (15) reveals a number of important properties of the Abui stem-alternating system. Firstly, in terms of division of labour between stems and affixes, we see an overlap in function: aspect can be expressed by both the stems and by the affix. In (15c), we see the multiple exponence of perfectivity which is expressed by the perfective stem *on* ‘build’ and the perfective suffix *-i*. Finally, we can observe an uneven distribution of aspectual categories in morphology: only perfective and imperfective are expressed with stem alternation. Progressive, perfect, and stative are expressed exclusively with suffixes.[11]

(15) a. *Na fala **ong**.*
1SG.AGT house build.IPFV
‘I build houses.’ OR ‘I build a house’[12]

b. *Na fala **ong-e**.*
1SG.AGT house build.IPFV-PROG
‘I am building a house.’ OR ‘I am trying to build a house’

11 Such distribution agrees with the observations in Baerman and Corbett (2012: 65) that features expressed by stem alternation have greater semantic relevance than features expressed by suffixes (in Bybee’s 1985 terms).

12 Abui plain imperfectives are difficult to translate to English precisely because the imperfective is compatible with temporal adverbs such as *yaldo* ‘now’, *ko* ‘soon, IRR’, but needs further marking to encode habituals or progressive: the marker *la* needs to follow the pronoun *na* to encode a habitual while the progressive is shown in 15b. Duration expressions are also better translated with the English progressive, as can be seen in (18). Moreover, a bare noun is underspecified for number and can have a singular or plural reading.

c. *Na fala **on-i**.*
1SG.AGT house build.PFV-PFV
'I have built a house.'

d. * *Na fala **ong-i**.*
1SG.AGT house build.IPFV-PFV

e. *Fala **on-i**.*
house build.PFV-PFV
'A house has been built.'

f. *Fala **on-a**.*
house build.PFV-STAT
'The house is built (i.e. the house building has completed and remains contextually relevant).'

Stem alternation divides the Abui verbal inventory into three distinct classes (labeled Class I-III here). Class I verbs do not undergo alternation at all (38.6% of all examined verbs, 514 of 1330). Classes II and III are distinguished by the stem mutation type: stem-final coda consonant mutation for Class II and stem-final rime mutation for Class III.[13] An overview of all three classes is given in Table 2. It is an update on the facts reported in Kratochvíl (2007: 82–86).

Some perfective stems require the perfective suffix *-i* to be attached to satisfy phonotactic restrictions on coda, where consonants /b/, /p/, /f/, and /h/ are not allowed to occur. For the remaining verbs in Class II, verbs in medial clauses do not require the perfective suffix *-i*, while in final clauses it always occurs (see Footnote 4). Note also, that about a dozen verbs possess three stems (Classes III.f and III.g).[14]

The relative class size is visualised in Figure 1, where the size of individual boxes is proportional to the represented class size. The Class I is the largest, followed by Class III.a, which accepts new derivations. On the other hand, classes such as II.f, III.b and III.g contain just one verb root each (from which a number of stems sharing the same behaviour are derived).

Following the consonant mutation typology by Merrill (2018: 6), we present the mutations in a tabular format distinguishing mutation *grades* (rows), i.e. a-grade, b-grade, and c-grade, from mutation *series* (columns).[15] Complexity considerations lead us to

13 Baerman and Corbett (2012: 65) treat stem alternations as a departure from the canonical situation where lexical information is realised by the stem and grammatical information by affixes. The extreme case of stem alternation is suppletion. The Abui stem alternations do not include suppletion, instead, they take place on segmental level in the stem-final rime.

14 Micro-variation is attested in many of the forms, for example, the III.f verb *tilei* 'hang' may also be realised as *tiyei* 'hang'.

15 Baerman and Corbett (2012: 55) concede that there is no theoretical consensus about stem alternations. In some theories, stems are treated as constituting a paradigm, but others consider alternations to be

Tab. 2: Formal verbal classes in Abui

class	mutation target	example	stems	%
I	none	*bool* 'hit'	**514**	**38.6%**
II	coda		**351**	**26.4%**
II.a	X*k*∼X*t*	*kek*∼*ket* 'prod'	91	6.8%
II.b	X*k*/*q*∼X*p*-*i*	*mooq*∼*moop*-*i* 'pray'	31	2.3%
II.c	X*ng*∼X*n*	*afeng*∼*afen* 'dwell'	94	7.1%
II.d	X*l*∼X*r*	*aral*∼*arar* 'burn off'	75	5.6%
II.e	X*i*∼XC-*i*	*baai*∼*baab*-*i* 'hit'	55	4.1%
II.f	X∼X*r*	*yaa*∼*yaar* 'go'	5	0.4%
III	rime		**465**	**35%**
III.a	X*a*∼X*i*	*tanga*∼*tangi* 'say, speak'	379	28.5%
III.b	CV∼C*iyeei*	*me*∼*miyeei* 'come'	5	0.4%
III.c	X*a*∼X(C)*eei*	*mara*∼*mareei* 'go up'	8	0.6%
III.d	$XV_1i \sim XV_{1/2}$:*i*	*wahai*∼*wahaai* 'look'	53	4%
III.e	rime mutation	*sei*∼*saai*∼*siyei* 'come down'	11	0.8%
III.f	rime mutation	*tilei*∼*tilii*∼*tilia* 'hang'	9	0.7%

Fig. 1: Relative size of the Abui formal classes (total 1330 stems)

arrange the mutation grades from more complex (a-grade) to less complex (b-grade). Only two series contain c-grade forms and are therefore listed as last. Taking the verb *ong* 'build, make' as an example, its perfective stem *on* is captured here as the a-grade of the *n*∼*ŋ* series (Class II.c), while the imperfective stem *ong* is the b-grade.

A few remarks can be made about the natural categories behind the various grades: (i) a-grade forms are associated with constrictions in the front of the mouth (i.e. high vowels, labial and alveodental obstruents) and encode perfectivity; (ii) b-grade forms are associated with open mouth (i.e. open vowels or velar obstruents) and encode imperfectivity. More specifically, in series II.a-II.c alveodental∼velar mutation distinguishes a-grade and b-grade.

units below the level of a fully inflected word and therefore deny their special status. Embick (2012: 22) discusses attempts to assign stem alternations either to lexical memory or to phonology.

Tab. 3: Abui aspectual stem mutations

a-grade	***t***	***p***	***n***	***r***	**C*i***	***r***	***i***	***iyei***	***ei***	**V:*i***	***iyei***	***ii***
b-grade	***k***	***k***	**ŋ**	***l***	***i***	**Ø**	***a***	***e***	***a***	**V*i***	***aai***	***ia***
c-grade											***ei***	***ui*/*ei***
class	II.a	II.b	II.c	II.d	II.e	II.f	III.a	III.b	III.c	III.d	III.e	III.f

Merrill (2018: 43) lists three types of mutation triggers: (i) morphological, (ii) lexical, and (iii) syntactic. The morphologically triggered mutation serves the same purpose as an affix, typically expressing categories such as noun class, tense/aspect, person-number agreement, or part of speech derivation. In lexically triggered mutation, words or affixes assume a specific mutation grade forced by words in their vicinity, which are inherently associated with that grade. Finally, syntactically triggered mutation is activated when a word assumes a certain syntactic position. Using this classification, Abui mutation appears to be morphologically triggered, expressing aspect. There are some instances where the syntactic position triggers the mutation, but their discussion is beyond the scope of this paper.

3 Aspectual properties of Abui verbal stems

Section 2 showed that aspect in Abui is encoded by auxiliaries, adverbs, verbal suffixes, reduplication, and stem alternation. Their distribution will be used here to investigate the semantic properties of Abui verbs and in Section 4 to describe Abui aspectual classes. Here, the discussion will follow the verb classes established in Section 2.5. We will examine the compatibility of verbal stem with (i) aspectual suffixes (perfective *-i*, perfect *-u*, stative *-a*, progressive *-e*, inchoative *-di/ri/ni*, and inceptive *-da/ra/na*), (ii) aspectual adverbs, (iii) aspectual auxiliaries (including expressions of duration and verbal number), and (iv) person prefixes that are sensitive to event culmination.

Our analysis is inspired by the line of work on aspect known as the *Radical selection theories of aspect* (cf. Bickel 1997; Sasse 2002). Under this approach, morphosyntactic markers of aspect target specific phases of states-of-affairs, indirectly revealing how the state-of-affairs is lexicalised. Under such an approach, it is not necessary to assume any logical universal categories for aspect, but to describe the aspectual design space of a given language in language-specific terms first. Given the plethora of aspectual approaches and the intensity of the debate, we believe that such approach is fitting for a little described language such as Abui.

Methodologically, we follow the descriptive approach laid out in Tatevosov (2002), showing, that the Abui aspectual classes can be defined by the distribution of stems, affixes, and other aspectual modifiers. Unsurprisingly, the Abui classes are more numerous than the traditional set of Vendler's classes (cf. Vendler 1967). In the choice of actional labels we follow Tatevosov's classification, which contains the following basic types: (i) *state*, (ii) *process*, (iii) *entry into a state*, (iv) *entry into a process*, and (v) *multiplicative process* (cf. Tatevosov 2002: 329–334). The final classification for Abui needs to be finer than Tatevosov's crosslinguistic actional types (cf. Tatevosov 2002: 375–376) and a number of Abui specific classes are added (for details see Section 4).

Tatevosov's types *process* and *entry into a state* are tied with the notion of telicity, which is understood here, following Verkuyl (1972), as the sum of the verb and its arguments, which measure out the activity denoted by the verb. Established tests for telicity use adverbials of duration 'for X time' and completion 'in X time' compatible with processes and entries into a state respectively; their Abui equivalents will be introduced in Section 3.1.

In Section 2.5 we have shown that a large portion of Abui verbal stems undergo final coda or rime mutation. Formally, a number of stem classes can be distinguished, as shown in Table 2, which despite their formal diversity show a fairly uniform pattern in their compatibility with aspectual suffixes, illustrating that the two layers of aspect are in a complex relation.

3.1 Two-stem telic verbs (Classes II.a-II.f, III.a-III.d)

Abui two-stem telic verbs are labeled as 'telic' because of their ability to form telic predicates, typically with perfective stems with definite or specific arguments. The perfective stem may combine with the perfective suffix *-i* and with completion expressions 'in X time', such as *menit nukdi* 'in one minute', which may precede the verb (16a) or follow it (16b). The perfective stem is incompatible with the progressive suffix (17e) but required by the priorative mood suffix *-te* (16d).

(16) a. *na* *yá* ***buut-i*** *menit* *nuk-di*
1SG.AGT water drink.PFV-PFV [minute one-INCH]$_{completion}$
'I drank up the water in one minute' [E14.BD.A54]

b. *menit* *kar-nuku* *hoo-mi* *mia* *pi*
[minute ten-one 3.GOAL-be.inside be.in]$_{completion}$ 1PL.INCL.AGT
yá *adetsan* ***buut-i***
palm.wine drink.PFV-PFV
'we drank up the palm wine in ten minutes' [E14.BD.A56]

c. **menit karnuk-da pi fa yá adetsan* ***buut-e***
minute ten-INCP 1PL.INCL.AGT MOD palm.wine drink.PFV-PROG
intended reading: 'we have been drinking palm wine for ten minutes' [E14.BD.A58]

d. *eeh, feela, me ko pi laaru*
oh friend come.IPFV IRR 1PL.INCL.AGT palm.wine
buut-te
drink.PFV-PRIOR
'hey, buddy, come and let's drink up the palm wine' [E14.BD.A60]

The imperfective stem *buuk* 'drink' is compatible with duration phrases 'for X time', which measure the length of the process but do not imply its culmination, as in (17a), and are therefore atelic. The imperfective stem is compatible with the progressive suffix *-e* (17b-17c) but incompatible with the priorative mood suffix *-te* (17d).

(17) a. *na yá* ***buuk*** *menit nuk-da*
1SG.AGT water drink.IPFV [minute one-INCP]$_{duration}$
'I have been drinking for one minute' [E14.BD.A53]

b. *menit kar-nuku hoo-mi mia pi*
[minute ten-one 3.GOAL-be.inside be.in]$_{duration}$ 1PL.INCL.AGT
yá adetsan ***buuk-e***
palm.wine drink.IPFV-PROG
'we will drink palm wine in ten minutes' [E14.BD.A55]

c. *menit karnuk-da pi fa yá adetsan*
[minute ten-INCP]$_{duration}$ 1PL.INCL.AGT MOD palm.wine
buuk-e
drink.IPFV-PROG
'we have been drinking palm wine for ten minutes' [E14.BD.A7]

d. **eeh, feela, me ko pi laaru*
oh friend come.IPFV IRR 1PL.INCL.AGT palm.wine
buuk-te
drink.IPFV-PRIOR
intended reading: 'hey buddy, let's drink some palm wine' [E14.BD.A59]

e. *eeh, feela, me ko pi laaru* ***buuk***
oh friend come.IPFV IRR 1PL.INCL.AGT palm.wine drink.IPFV
taq-di-te!
empty-INCH-PRIOR
'hey, buddy, come and let's drink up some palm wine!' [E14.BD.A62]

The following fragment presents a context in which both perfective and imperfective stems are used. When referring to the process of house building, the imperfective stem

is used. On the other hand, the perfective stem describes the entry into the built state, regardless of its grammatical status, as can be seen in (18), where the verb *on* 'build.PFV' occurs in the hypothetical conditional. Finally, the example also shows, that some perfective stems are compatible with the stative suffix *-a*, which marks the state that follows the entry into the state of being built.

(18) *wan tadeeng sui-da na fala* ***ong*** *haba, ama*
already day three-INCP 1SG.AGT house build.IPFV but person
afeenga maa-re, wan di ***on*** *(*ong) kaan-ri,*
be.other REAL-HORT already 3.AGT build.PFV build.IPFV complete-INCH
haba needi hare he-wahai-re to dara
but 1SG.FOC so 3.LOC-look.at.IPFV-HORT PROX.AD still
on-a *naha*
build.PFV-STAT NEG
'I have been building (my) house(s) for three days, but while some other people could have completely built it by now, it's me after all, so obviously it is not built yet' [E14.BD.A24]

Using Tatevosov's labels, this class can be characterised as *(multiplicative) processes* (imperfective stem) and *entries into a state* (perfective). However, the compatibility of some verbs with the stative *-a* identifies a subclass. The verbs compatible with the stative *-a* are quite diverse and do not share a common semantic denominator; the exhaustive list is given in (19). Note that some of the stative forms are compatible with the inchoative suffix *-di*, e.g. *aqut-a-di* 'become blind'.

(19) RESULTATIVE TELIC VERBS

PFV	gloss	IPFV	gloss	STAT	gloss	INCH
-reen	**'turned to'**	***-reeng***	**'turn to'**	***-reen-a***	**'facing s.t.'**	**n.a.**
aqut	**'closed (eyes)'**	***aquk***	**'close (eyes)'**	***aqut-a***	**'blind'**	**+**
-mon	**'died'**	***mong***	**'die'**	***mon-a***	**'dead'**	**n.a.**
on	**'built'**	***ong***	**'build, make'**	***on-a***	**'be built'**	**n.a.**
-piet	**'missed'**	***-piek***	**'miss, not hit'**	***piet-a***	**'failed, wrong'**	**n.a.**
-pun	**'caught'**	***-pung***	**'catch, grab'**	***pun-a***	**'hold'**	**+**
-taan	**'released'**	***-taang***	**'release'**	***taan-a***	**'loose'**	**n.a.**
tabun	**'hidden'**	***tabung***	**'hide'**	***tabun-a***	**'be hiding'**	**n.a.**
taqat	**'dried'**	***taqak***	**'to dry'**	***taqat-a***	**'dry'**	**n.a.**

The stative form may be used as a predicate, as seen in (18) and (20b). However, the stative forms are state-like as demonstrated by their compatibility with the inchoative (20c), suggesting that some of the combinations may in fact be lexicalised. For this reason *aquta* is glossed here as 'be.blind' instead of 'close.eyes.PRV-STAT'.

(20) a. *na wan n-ieng* ***aqut-i***
1SG.AGT already 1SG.INAL-eye close.eyes.PFV-PFV

'I closed my eyes' [EVY.254]

b. *h-ieng* ***aquta*** *hare nala* *ha-laqda* *beeqa*
3.INAL-eye be.blind so something 3.PAT-read.IPFV cannot
'he is blind so he cannot read' [B7.16.2b]

c. *n-ieng* *hen* *kabei* ***aquta-di,*** *hare na* *namei*
1SG.INAL-eye 3.COP little blind-INCH so 1SG.AGT prepare.field
maiye, ne-isi *do* *na* *lang-kooi* *baai*
COND 1SG.AL-body PROX 1SG.AGT APPL-cut.down.IPFV ADD
ha-du
3.PAT-have
'I am a bit blind so if I would slash (the field) I could also cut myself' [EVY.1625]

The subclass compatible with the stative *-a* needs a more elaborate actional criteria: <*(multiplicative) process*> (imperfective stem) and <*entry into a state*, *state*> (perfective). The label *multiplicative* is used because unmarked NPs may have a plural reading, so *fala ong*, shown in (18), may refer in some contexts to 'building houses', and elsewhere to 'building a house', without requiring any additional marking of iteration (cf. Tatevosov 2002: 334). The perfective stem forces a specific reading. The degree of change is variable across the class and has been treated in detail in (Kratochvíl and Delpada 2015). For further information see Section 3.7.

3.2 Inceptive telic verbs (Classes III.e-III.f)

A small number of verbs possess three grades of mutation (see Table 3) distinguishing the imperfective, perfective and inceptive stem. Class III.e contains 11 stems (0.8% of the total) and Class III.f just 9 stems (0.7% of the total). The inceptive and perfective stems do not combine with aspectual suffixes but the imperfective stem is compatible with the progressive suffix *-e* to denote extended duration.

In (21a) the contrast between the imperfective *sei* 'come down (IPFV), movement downward, i.e. *process*' and the perfective *saai* 'come down (PFV), movement downward to a deictic centre, i.e. *entry into a state*' is shown. The inceptive *siyei* 'come down (INCP)' is used when the focus is on the beginning of the movement downward (i.e. *entry into a process*), as in (21b), where the dog, hearing the sounds from the kitchen, immediately starts trying to get inside, usually just to be chased away or scolded.

(21) a. *ama min-tee-ir, t-or ba*
person APPL-DISTR.BEN-call.PFV DISTR.PAT-call.PFV PURP
sei *kapala loqu hoo-pang=**saai***
come.down.IPFV head PL 3.GOAL-TOWARDS=come.down.PFV
ba dee-l=too-luol ba ananra
SIM 3I.BEN-GIVE=DISTR.GOAL-gather SIM talk.IPFV
'people are calling each other down to come down to the chief's for a meeting' [NB9.122]

b. *Putikaai teenga da-moida maiye di aleeqa ding*
name plate 3I.PAT-sound.IPFV COND 3.AGT be.quick 3.INV.AGT
siyei
come.down.INCP
'when the plates are clanking, (the dog) Putikai immediately starts coming down (to the kitchen)' [EVY.370]

The verbs that make the perfective-imperfective-inceptive distinction are listed in (22).

(22) INCEPTIVE TELIC VERBS

imperfective		inceptive		perfective	
stem	**gloss**	**stem**	**gloss**	**stem**	**gloss**
sei	**'descend'**	***siyei***	**'start descending'**	***saai***	**'come down'**
bunia	**'hide'**	***bunii***	**'start hiding'**	***bunui***	**'hide away**
muria	**'plant'**	***murii***	**'start planting'**	***murui***	**'plant up'**
tilia	**'hang'**	***tilii***	**'put to hang'**	***tilei***	**'hang up'**

3.3 Processes

As mentioned in Section 2.5, immutable verbs constitute 38.6% of 1330 examined verbs. They do not form a homogeneous set, but fall apart into several distributional subclasses to which we now turn.

The first subclass contains process verbs compatible with both the perfective suffix *-i* and the progressive *-e*. It means that the stem does not have any inherent aspectual value (in terms of boundaries) but boundaries may be imposed by suffixation. This subclass is also characterised by its incompatibility with the inchoative and inceptive suffixes, as well as the perfect suffix *-u*.

As an example of a process verb consider now *bool* 'hit', whose ability to combine with frequency and repetition expressions was shown in (6a-6b), its compatibility with the perfective *-i* and progressive *-e* in (10). Duration expressions 'for X time' may follow the verb (23a), or be expressed as its BEN argument and indexed on the verb with the prefix *hee-* (23b).

(23) a. *di nee-l=bool menit karnuk-di*
3.AGT 1SG.BEN-GIVE=hit [minute ten-INCH]$_{duration}$
'he hit me for ten minutes' [E14.BD.A38]

b. *di menit karnuku **hee**-nee-l=bool-i*
3.AGT [minute ten]$_{duration}$ 3.BEN-1SG.BEN-GIVE=hit-PFV
'he hit me for ten minutes' [E14.BD.A39]

The compatibility with the progressive is shown in (24) where the compound verb *bel-baliik* 'trade, lit. buy-sell' combines with the suffix *-e* and the adverb *dara* 'still' to highlight the ongoing nature of the process in relation to the moment of the speech. The context here is that of the markets in the harbour town of Kalabahi, the old market near the harbour is the one to stay open till late in the night, while larger markets in the suburbs, including the one that the Abui villagers prefer to go to, close before sunset. Speaking in the evening, the speaker points that only the old market remains open.

(24) *anu makiila nu baai ama **dara** mia bel-baliik-**e***
market be.old SPC ADD person still take.IPFV buy-sell-PROG
'in the Old Market people are still trading' [EVY.822]

Another verb belonging to this class is *-weel* 'bathe, wash', which requires a person prefix indexing the 'washed' human participant. Examples of the expression of duration were shown in (23a). In (25), the expression of repetition is shown to demonstrate that the process is not lexicalised as multiplicative. In order to express repetition, a phrase describing the interval has to be used. The uninflected verb *-weel* 'bathe, wash' refers refers to continuing repetition, but with the perfective suffix *-i*, the repetition occurred in the past but does not continue into the present.

(25) a. *war kanaq-di di na-weel*
day every-INCH 3.AGT 1SG.PAT-bathe
'each day he washes me' [E14.BD.A44]

b. *war kanaq-da di na-weel-i*
day every-INCP 3.AGT 1SG.PAT-bathe-PFV
'he used to wash me (perfective) every day' [E14.BD.A45]

The completion of the process has to be marked with the auxiliary *kaanri* 'complete'. The contrast between the completive auxiliary *kaanri* 'complete' and the perfective can be seen in (26). The first sentence is more likely to be uttered in a situation, where the hearer does not know that someone took a bath. In the second case, the addressee is aware of the bathing, but does not know whether it has finished or not. It is common for the Abui villages that several houses form a single compound that shares a bathroom and one sometimes has to wait for one's turn.

(26) a. *wan da-weel-**i***
already 3I.PAT-wash-PFV
'he has already bathed' [EBD.36]

b. *da-weel **kaan-ri***
3I.PAT-bathe complete-INCH
'he finished bathing' [EBD.35]

Abui process verbs differ substantially in the degree of change that they entail (cf. Kratochvíl and Delpada 2015). Verbs such as *weel* 'bathe, wash', which require the PAT series prefix entail a minimal change, as demonstrated by entailments with varying acceptability in (27): *weel* 'bathe, wash' does not require the undergoer to become clean, but some washing has occurred (i.e. the undergoer is wet).

(27) a. *na ha-weel-i, #haba yoq-da naha*
1SG.AGT 3.PAT-bathe-PFV but wet-INCP NEG
'I washed him, #but he didn't get wet' [E14.BD.A24]

b. *na ha-weel-i haba san-ra naha*
1SG.AGT 3.PAT-bathe-PFV but clean-INCP NEG
'I washed him, but he is not clean' [E14.BD.A25]

c. *na ha-weel-i haba hei-si de-i daquni*
1SG.AGT 3.PAT-bathe-PFV but 3.AL-body 3I.LOC-have be.dirty
'I washed him but he is still dirty' [E14.BD.A22]

Process verbs constitute 11.9% of our sample (158 stems); several are listed in (28).

(28) PROCESSES

root	gloss	root	gloss	root	gloss
ak	**'open mouth'**	***ahel***	**'breathe'**	***baliik***	**'sell'**
burok	**'move'**	***fal***	**'soak'**	***fukang***	**'guard'**
kadel	**'split'**	***kariang***	**'work'**	***laak***	**'leave for'**
nee	**'eat'**	***weel***	**'bathe'**	***yai***	**'sing'**

3.4 Terminative processes

Another subclass of immutable verbs is defined by its compatibility with the perfect suffix *-u*, which indicates a culmination point beyond which the change cannot continue, often an irreversible effect. Terminative process verbs are compatible with the progressive *-e* but incompatible with the perfective *-i*, as shown in (29).

(29) a. *Na fala ha-toq.*
1SG.AGT house 3.PAT-demolish
'I demolish the house.'

b. *Na fala ha-toq-**u**.*
1SG.AGT house 3.PAT-demolish-PRF
'I demolished the house.'

c. *Na fala ha-toq-**e**.*
1SG.AGT house 3.PAT-demolish-PROG
'I am demolishing the house.'

Additional aspectual modifications demonstrate that the verb *toq* 'demolish' is compatible with expressions of completion 'in X time', stages, and gradual change. In all cases these expressions follow the modified verb *hatoq* 'demolish it'. The extent to which other verbs of this class are compatible with the expressions listed in (30) requires further investigation.

(30) a. *na fala ha-toq-u **tadeeng sui-da***
1SG.AGT house 3.PAT-demolish-PRF [day three-INCP]$_{\text{completion}}$
'I demolished the house in three days'

b. *na fala ha-toq-u **kaan-ri***
1SG.AGT house 3.PAT-demolish-PRF complete-INCH
'I completely demolished the house'

c. *na fala ha-toq **ahan-ri***
1SG.AGT house 3.PAT-demolish half-INCH
'I half demolished the house'

d. *na fala ha-toq-u **sei***
1SG.AGT house 3.PAT-demolish-PRF come.down.IPFV
'I demolished the house gradually'

In Tatevosov's terms, Abui terminative processes can be characterised as <*process*, {*entry into a state*, *state*}>. All stems belonging to this subclass share the X*ok* / X*uk*/X*oq* shape. In total there are 27 such verbs (2% of the total).

(31) TERMINATIVE PROCESSES

root	gloss	root	gloss	root	gloss
bok	**'make.hole'**	***buk***	**'tie.up'**	***fuk***	**'fart'**
lúk	**'bend, squat'**	***nabuk***	**'bury'**	***pok***	**'crack'**
toq	**'spill, demolish'**	***tudok***	**'sink'**	***yok***	**'cover'**

3.5 Inchoative processes

The third subclass of immutable verbs is characterised by its compatibility with the inchoative suffixes which highlight the beginning of the process. The uninflected verb *tahang* 'ask' denotes the process of asking, as shown in (32).

(32) *ama ming-tahang: tewir-te afe we ri*
person APPL-ask why-PRIOR before 2PL.AGT
tee-l=mii naha
DISTR.BEN-GIVE=take.PFV NEG
'people ask: why didn't you get married back then' [D.tahang]

The uninflected stems are compatible with the progressive *-e* which marks the extended duration of the process, contextually relevant to the moment of speech, as the verb *a-tahang-e* 'ask you again' in (33a). With the inchoative suffix, the inflected stem describes the entry into a process, as *ha-tahang-di* 'start asking' in (33b). A measure phrase indicating the process duration may follow the verb, as in (33c), where the motion verb *lol* 'wander, go around' describes an extended beginning of the process of asking or its repetitive character (multiple people are asked in turn).

(33) a. *ne-quta dikang na a-tahang-**e***
1SG.AL-grandparent again 1SG.AGT 2SG.PAT-ask-PROG
'grandfather, I want to ask you again' [APF.099]

b. *di mit=ba ding ta-tahang-**di***
3.AGT sit.PFV=SIM 3.INV.AGT DISTR.PAT-ask-INCH
'they sat down and started to bargain' [D.tahangdi]

c. *di oro Kalangfat wee-i ama hoo-pang=wee*
3.AGT DIST place.name leave-PFV person 3.GOAL-TOWARDS=leave
masi, he-fala h-ienglaqa naha, hare di ama
and.so 3.AL-house 3.PAT-know NEG so 3.AGT person
*ha-tahang-**di** lol-e*
3.PAT-question-INCH [wander-PROG]$_{duration}$
'he went to Kalabahi to visit somebody, but he didn't know the house, so started asking people around' [EDL.184]

Starting boundary descriptions precede the inchoative verbs, such as *sakola-di* 'start attending school' in (34). Note the complex predicate *ming-tung=yeting-ayoq-da* 'turn seven years' which contains an incorporated noun *tung* 'year' and a numeral *yeting-ayoqu* 'seven, lit. five-two'.

(34) *ming-tung=yeting-ayoq-da di sakola-**di***
[APPL-year-five-two-INCP]$_{boundary}$ 3.AGT study-INCH
'after he turned seven he started to attend school' [EBD.9]

Example (35) illustrates the compatibility of the inchoative suffix *-di* with the stative *-a*. The suffix combination denotes a gradual beginning of a state, where the focus is on its duration rather than on the beginning boundary of a state.

(35) *na me oo-munang-**di-a**-ti,*
1SG.AGT come.IPFV 2SG.GOAL-smell-INCH-STAT-REAL.PST
e-isi ha-muni
2SG.AL-body 3.PAT-be.smelly
'(After) I have sniffed at you (I found that) you stink' [Surrey.KM4.161]

Finally, a subset of the verbs included here may constitute a separate group, similar to Tatevosov's punctual verbs. They are verbs denoting cognitive and emotional events. The inchoative suffix is used to mark the abrupt culmination restricted to a single point, followed by the process (or state) described by the uninflected root, such as *-ienglaqa* 'know, count, recognise'. The inchoative marks the moment of learning or getting to know something, as in (36), where the uninflected and inchoative forms occur together in a single utterance.

(36) *afe yo Werner ha-poong dara n-ienglaqa naha yaal*
before MD.AD proper.name 3.INAL-face still 1SG.PAT-know NEG now
*o wala-di-te n-ienglaqa-**di***
MD just-INCH-PRIOR 1SG.PAT-know-INCH
'earlier on, I didn't know Werner, I only just got to know him now' [EDL.446]

The inchoative process class contains 127 stems (9,5% of the total), some of which are listed in (37).

(37) INCHOATIVE PROCESSES

root	gloss	root	gloss	root	gloss
buka	**'open (Mly.)'**	***-du***	**'have'**	***fukang***	**'guard'**
kafering	**'frighten'**	***maha***	**'want'**	***munang***	**'smell'**
puna	**'hold'**	***rina***	**'welcome'**	***tahang***	**'ask'**

3.6 Stative verbs

Stative verbs can be divided into several formal subclasses characterised by the final segments /a/, /ŋ/, and /i/; only a handful of words end in a different segment. The class consists of 196 stems (14,7% of the total) and some members are shown in (38), arranged according to the final segment.[16]

16 While some of these verbs seem to match the Vendler's category of achievements, by having no duration, this clearly cannot be applied to the whole set,

(38) FORMAL STATIVE CLASSES

root	gloss	root	gloss	root	gloss
afeenga	**'be other, strange'**	***aleeqa***	**'be quick'**	***beeqa***	**'be bad'**
bula	**'be sharp'**	***kira***	**'be hard'**	***taqa***	**'be empty'**
tamada	**'be fat'**	***tifa***	**'be new'**	***yoqa***	**'be wet'**
ahiling	**'be broad'**	***amaling***	**'be smelly'**	***fafang***	**'be straight'**
kilang	**'be careful'**	***mahapang***	**'be stupid'**	***yokung***	**'be inflamed'**
aqani	**'be black'**	***bui***	**'be short'**	***fiyai***	**'be new'**
fui	**'be flat'**	***morai***	**'be frail'**	***tihai***	**'be heavy'**
kilikil	**'be weak'**	***kuopal***	**'be stingy'**	***takukul***	**'be wrinkled'**
pe	**'be near'**	***moku***	**'be quiet'**	***sierak***	**'be easy'**

Stative verbs fall into several aspectual subclasses defined by their compatibility with the inceptive and inchoative suffixes and other modifiers. In general, stative verbs are not attested with the progressive suffix *-e*. In the few attestations in the Abui corpus, the suffix functions as a focus marker, putting focus on the stative predicate, such as *lung-e* 'long, lengthy' (39a) or the negative *naha* 'NEG' (39b).

(39) a. *ama he-buku=ng yaa lung-**e***
person 3.AL-land=TOWARDS go.IPFV long-PROG
'he went abroad for a LONG time' [EBD.34]

b. *a h-iéng maiye, maama món-i, mahaba*
2SG.AGT 3.PAT-look.IPFV COND father die.PFV-PFV but
*nedo h-iéng maiye, món naha-**e**!*
1SG.FOC 3.PAT-look.IPFV COND die.PFV NEG-PROG
'to you my father may seem dead but to me he is NOT dead at all!' [2003.TBE.54]

Completion expressions 'in X time' are compatible only with inchoative stems, as already shown in (7), but not with the uninflected states. Further distinction can be made by examining whether the state implies a scale, and how such scale may be structured. Kennedy and McNally (2005) show, that the nature of the scale is revealed by various modifiers and sometimes sensitive to a contextual standard. In Abui, those modifiers are *laqaang* 'very', *latukoi* 'much', and *qaang-qaang* 'well'.

3.6.1 Non-scalar stative verbs

Non-scalar states are not compatible with inceptive and inchoative suffixes. Two such stems are attested in the examined set: *diyei* 'hot, burning' (**diyei-di*, intended reading 'become burning'), and *mang* 'domestic, tame'. Both meanings are lexicalised as extremes (of a possible scale) which cannot be further changed or modified. Non-scalar

states are not compatible with the modifiers *laqaang* 'very', *latukoi* 'much, too much', or *qaang-qaang* 'well'.

3.6.2 Stative verbs with a lexicalised standard

States with a standard combine exclusively with the inchoative suffixes *-di* and *-ri*. States with a standard are not compatible with the stative *-a* which encodes a process leading to an entry into a state. This suggests that such states are not lexicalised as scalar, but as a standard for comparison, a precise point on a scale. Only maximum standard states can be modified with *laqaang* 'very', minimum standard states such as *kofa* 'sterile, childless' are incompatible with *laqaang* 'very'. Several stative verbs from this class are listed in (40) and arranged according to their final segment.

(40) STATIVE VERBS WITH A STANDARD

root	gloss	root+INCH	gloss	STAT
kafuuka	**'be chilly, cold'**	***kafuuka-di***	**'become chilly'**	**n.a.**
kofa	**'be sterile, childless'**	***kofa-di***	**'become sterile'**	**n.a.**
maseena	**'be nice, pretty'**	***maseena-di***	**'become pretty'**	**n.a.**
masupa	**'be bitter'**	***masupa-di***	**'become bitter'**	**n.a.**
tifa	**'be new'**	***tifa-di***	**'become new'**	**n.a.**
toola	**'be adult'**	***toola-di***	**'become adult'**	**n.a.**
makiila	**'be old'**	***makiil-ri***	**'become old'**	**n.a.**
ahiling	**'be broad'**	***ahiling-di***	**'become broad'**	**n.a.**
mahapang	**'be stupid, dumb'**	***mahapang-di***	**'become stupid'**	**n.a.**
paliiking	**'be bent, crooked'**	***paliiking-di***	**'become bent'**	**n.a.**
raloowang	**'be sweet'**	***raloowang-di***	**'become sweet'**	**n.a.**
salimang	**'be dangerous'**	***salimang-di***	**'become dangerous'**	**+**
morai	**'be weak'**	***morai-di***	**'become weak'**	**n.a.**
rofi	**'be correct, true'**	***rofi-di***	**'become true'**	**n.a.**
rumai	**'be strong'**	***rumai-di***	**'become strong'**	**+**
tukoi	**'be strong'**	***tukoi-di***	**'become strong'**	**n.a.**
walangai	**'be green'**	***walangai-di***	**'become green'**	**+**

The scalar interpretation can be forced by aspectual auxiliaries, such as *hapeeqda* 'approach, move nearer', which follow the stative verbs, as in (41), where the maturation process requires the analytical expression.

(41) *di wan yaa neng* ***toola*** ***ha-peeq-da***
3.AGT already go.IPFV man be.adult 3.PAT-near-INCP
'he is almost an adult man' [D.Tola]

With the exception of *makiila*, the stative root is unaltered by the inchoative suffixation. It appears that *makiila* is a stative stem, whereas the input for the inchoative derivation is the bound root *makiil-*. An example of its use is given in (42).

(42) *afu do* ***makiil-ri*** *hare he-ha-mun=he-amaaling lai*
fish PROX old-INCH so 3.AL-3.PAT-smell=3.AL-bad.smell spread
'the fish is spoiled so its foul rotten smell is spreading' [EVY.815]

3.6.3 Stative verbs (simple scale)

Stative verbs belonging to this class point to a scale around a property lexicalised by the root. In combination with the inchoative and inceptive suffixes they describe complex events consisting of a sequence of states along the said scale. By admitting the inceptive suffix *-da*/*-ra*, they mark the entry into a process leading to the referred state. An example is *kiding-ra* in (43), where the verb points to the process of flow reduction rather than to the final volume.

(43) *yá ong-kiding-**ra**!*
water CAUS-small-INCP
'turn down the water (tap) a bit!' [EVY.0673]

Stative verbs in this class combine with both *laqaang* 'very' and *latukoi* 'much, too much'. Two morphological groups can be distinguished: (i) stems ending in /i/ and /ŋ/ admit the inceptive and inchoative without stem change; (ii) XCa stems drop the vowel /a/ before the inceptive and inchoative prefixes are attached to the bound root (XC-CV). Following Saad 2020: 298, 338, we treat the *-a* as a separable stative suffix, with the caveat, that for verbs listed in (40), there is no evidence at all that the final *a* is a separable suffix. A number of examples are listed in (44).

(44) STATIVE VERBS (SIMPLE SCALE)

root(+STAT)	gloss	root+INCP	gloss	root+INCH	gloss
bui	**'be short'**	***bui-da***	**'shorten'**	***bui-di***	**'become short'**
fui	**'be flat'**	***fui-da***	**'flatten'**	***fui-di***	**'become flat'**
marai	**'be hungry'**	***marai-da***	**'crave'**	***marai-di***	**'become hungry'**
tihai	**'be heavy'**	***tihai-da***	**'grow heavy'**	***tihai-di***	**'become heavy'**
kiding	**'be small'**	***kiding-ra***	**'reduce'**	***kiding-ri***	**'become small'**
alin-a	**'be rotten'**	***alin-ra***	**'rot'**	***alin-ri***	**'become rotten'**
damay-a	**'be low'**	***damai-da***	**'to lower'**	***damai-di***	**'become low'**
falaak-a	**'be bright'**	***falaak-da***	**'to brighten'**	***falaak-di***	**'become bright'**
kariy-a	**'be narrow'**	***kariy-da***	**'to narrow'**	***kariy-di***	**'become narrow'**

3.6.4 Stative verbs (gradable scale)

This class of stative verbs differs from the previous one in allowing the stative suffix *-a* to be followed by the inchoative *-di*. The resulting combination refers to a gradual

change taking place over a longer span of time. The inchoatives may attach either to the XCa stem or to the XC root. Using the stem *foqa* 'be big' as an example, the root *foq* serves as the input for the inceptive in (45a) to focus on the process of making something bigger and to the inchoative to mark the entry into a state (45b). The stem *foqa* 'be big' serves as the input for the inchoative with a different meaning. While *fok-di* refers to beginning of the state, the stem *foqadi* indicates a state of being perhaps too big in the given context.[17] Examination of other verbs sharing this pattern shows that the XCa-*di* form generally denotes gradual change, which occurs over a longer span of time.

(45) a. *yá* *ong-ha-foq-**da***
water CAUS-3.PAT-big-INCP
'open up the water (tap)' [EVY.0672]

b. *anuui saai* *ba* *foq-**di***
rain come.down.incp SIM big-INCH
'it started to rain more and more' [B7.61.1c]

c. *kalieta* *beeqa* *foq**a**-**di**-**te*** *di* *sakola-di-a*
old.person be.excessive be.big-INCH-PRIOR 3.AGT school-INCH-STAT
'he is already too big/old to start school' [SAE.005]

In Tatevosov's terms, simple stative verbs and derived inchoatives and inceptives may be captured with the actional class set <{*entry into a process, process*}, *entry into a process*, *entry into a state*, *state*>. The inability of the inceptive *-da* to combine with XCa stems suggests that the final /a/ is a stative aspectual suffix sharing the +1 slot with the inceptive.[18] Note that the stative roots ending in *Xt* alternate with *Xk* when the inceptive and inchoative suffixes are attached.

(46) STATIVE VERBS (GRADABLE SCALE)

root+STAT	gloss	root+INCP	root+INCH	stem+INCH
ameet-a	**'be small'**	***ameek-na***	***ameek-ni***	***ameeta-di***
foq-a	**'be big'**	***foq-da***	***foq-di***	***foqa-di***
palaat-a	**'be cold'**	***palaak-na***	***palaak-ni***	***palaata-di***
peeq-a	**'be near'**	***peeq-da***	***peeq-di***	***peeqa-di***
tow-a	**'be whole'**	***toi-da***	***toi-di***	***towa-di***
lil-a	**'be hot'**	***lil-ra***	***lil-ri***	***lila-di***

A similar pattern is found with deadjectival stative verbs. Abui possesses a small class of adjectives which receive the suffix *-i* to serve as stative predicates. The suffix *-i*

17 In (3), the sequence *foq-da-di* 'big-INCP-INCH' was shown to support the suffix ordering in the verbal template.

18 As pointed out above, the final /a/ in states with a standard listed in (40), such as *kafuuka* 'be chilly, cold', *maseena*, 'be nice, pretty', or *toola* 'be adult' cannot be treated in the same way, because the there is no evidence that the XCa stem contains an XC root and that the final /a/ is a separable suffix.

functions as a verbaliser. However, when inchoative suffixes are applied, the verbaliser suffix *-i* is dropped, suggesting that the verbaliser suffix *-i* is located in the +1 slot, analogically to the stative *-a* in (46). We consider the meaning of the suffix *-i* to be analogous to the stative *-a* and mark it accordingly in (46).

(47) DEADJECTIVAL STATIVE VERBS

root	gloss	root+STAT	gloss	root+INCP	root+INCH
adet	**'yellow'**	***adet-i***	**'be yellow'**	**n.a.**	**n.a.**
aqan	**'black'**	***aqan-i***	**'be black'**	***aqan-ra***	***aqan-ri***
daqun	**'dirty'**	***daqun-i***	**'be dirty'**	**n.a.**	***daqun-ri***
san	**'ripe, clean'**	***san-i***	**'be ripe, clean'**	***san-ra***	***san-ri***

Abui aspectual suffixes may serve as verbalisers, as can be seen in (48) below where the inchoative suffix *-di* attaches to the noun *amaqaang* 'person, human being'.

(48) *he-ni-di yo ee hel ee buku nu he-aduo*
3.LOC-idem-INCH MD.AD before 3.TOP before land SPC 3.AL-owner
*nu wan hen wan he-amaqaang-**di***
SPC already 3.COP already 3.AL-person-INCH
'and so that landowner became their kin' [2012.KY.57]

Some of the stative verbs (both simple and gradable scale) are compatible with the stative suffix *-a*, which attaches to the inchoative form and indicates that the entry into a process is a gradual one and stretches over some time. The change is typically not finished in relation to the viewpoint and set to continue for some time, as in (49b).

(49) a. *no-rumai*
1SG.REC-be.strong
'I feel strong' [E14.BD.A65]

b. *do-rumai-di-a*
3I.REC-strong-INCH-STAT
'he was becoming strong (but eventually did not?)' [E14.BD.A69]

Finally, several stative roots show minimal pairs for the inchoative suffixes *-di* and *-ri*. The first example was given in (9), where the pair *kaan-di* and *kaan-ri* was illustrated. The main difference between the auxiliaries *dokaandi* 'stop' and *kaanri* 'complete' lies in their valency: *dokaandi* is monovalent while *kaanri* is bivalent. In (9b) there is an implicit agent responsible for the field labour to be completed, while in (9a) there is no external agent to the rain stopping. A similar valency difference distinghuishes *fiing-di* 'become senior' from *fiing-ri* 'become senior to s.o., be ancestor to s.o.'. However, this pattern does not seem to fit the pair *kul-ri* 'become light-skinned (of people)' and *kuli-di* 'become bleached, white (of objects left in the sun)', shown in (50).

(50) a. *Benny wan ama he-meelang mia* ***kul-ri***
name already person 3.AL-country be.in white-INCH
'Benny was abroad for so long that he turned white' [E14.BD.A28]

b. *afu teipa ba tuut ha-baang teq-a* ***kuli-di***
fish bone REL shore 3.INAL-shoulder dry.in.sun-STAT white-INCH
'the fish bones were sun bleached on the sea shore' [E14.BD.A29]

3.7 Affectedness and culmination

This section shows that the aspectual value of various stem-affix configurations may be interpreted differently in certain valence configurations and interact with the encoding of affectedness. In typological literature, affectedness has been invoked to define prototypical undergoers and it is understood as the property of simply undergoing change (literature dealing with alignment, case, transitivity). In formal semantic work, affectedness is understood as a scalar property delimiting the predicate, starting from Tenny (1987).

In Tenny's framework, there are five verb classes for which the notion of affectedness is relevant. These are (i) *verbs of creation, consumption and path-motion*, (ii) *verbs of physical change*, (iii) *verbs of abstract change*, (iv) *achievement verbs*, and (v) *verbs of locomotion* (1987:105).

Beavers (2011) reorganised Tenny's framework in a two-dimensional space for the encoding of affectedness. One dimension represents the types of change, and the other the degree of change. With respect to the types of change, Beavers identifies the following six types of change, restricting the discussion to transitive verbs:

1. *x* changes in some observable property (clean/paint/delouse/fix/break *x*)
2. *x* transforms into something else (turn/carve/change/transform *x* into *y*)
3. *x* moves and stays at some location (move/push/angle/roll *x* into *y*)
4. *x* is physically impinged (hit/kick/punch/rub/slap/wipe/scrub/sweep *x*)
5. *x* goes out of existence (delete/eat/consume/reduce/devour *x*)
6. *x* comes into existence (build/design/construct/create *x*)

Abui person-number prefixes (slots -2 and -1 in the verbal template in Table 1) may alternate to express different degrees of affectedness (for details see Kratochvíl and Delpada 2015). As a simple example may serve the *Ca-*∼*Ce-* alternation, which distinguishes different degrees of affectedness with verbs of observable change.[19] While

19 The C in *Ca-* and *Ce-* stands for one of the consonants attested in Abui pronominal forms.

both columns contain transitive verbs, the event can be thought to culminate (i.e. imply a change along the entire scale) only in the *Ca-* forms, while the *Ce*-marked forms encode at least a minimal change along the same scale. The pattern is common to several aspectual classes (listed in the right-most column).

(51) OBSERVABLE CHANGE (*Ca-/Ce*-type)

***Ce-* form**	**gloss**		***Ca-* form**	**gloss**	**class**
he-komangdi	**'make it blunter'**	∼	***ha-komangdi***	**'make it blunt'**	**inchoative**
he-qol	**'tie it'**	∼	***ha-qol***	**'tie it up'**	**telic**
he-kuya	**'peel it'**	∼	***ha-kuya***	**'expose it'**	**process**
he-lilri	**'warm it up'**	∼	***ha-lilri***	**'boil it'**	**inchoative**
he-siki	**'split it'**	∼	***ha-siki***	**'separate it'**	**process**

Affectedness differences sometimes correlate with valence: the *Ca-*∼*Ce-* alternation involves an intransitive verb (*Ce-*) denoting a process, entry into a process, or entry into a state and a transitive causative verb (*Ca-*). It appears that the intransitive *Ce-* forms in general refer to processes that do not culminate, but the *Ca-* forms are compatible with culmination (i.e. a change along the entire scale), as shown in (52). The alternation applies even to *Ce*-marked punctual verbs, such as *-fuuisi*'explode' and *-tukdi* 'break off'.

(52) INTRANSITIVE∼CAUSATIVE alternation (*Ca-/Ce*-type)

***Ce-* form**	**gloss**		***Ca-* form**	**gloss**	**class**
he-lai	**'it diffuses'**	∼	***ha-lai***	**'squeeze it out'**	**process**
he-buida	**'it's getting short'**	∼	***ha-buida***	**'shorten it'**	**entry into a process**
he-taqda	**'it's getting empty'**	∼	***ha-taqda***	**'empty it'**	**entry into a process**
he-foqda	**'it's getting big'**	∼	***ha-foqda***	**'enlarge it'**	**entry into a process**
he-peeqdi	**'it came near'**	∼	***ha-peeqdi***	**'put it near'**	**entry into a state**
he-melri	**'it got flavor'**	∼	***ha-melri***	**'season it'**	**entry into a state**
he-fuunri	**'it piled up'**	∼	***ha-fuunri***	**'pile it up'**	**entry into a state**
he-fuuisi	**'it exploded'**	∼	***ha-fuuisi***	**'blow it up'**	**entry into a state**
he-tukdi	**'it broke off'**	∼	***ha-tukdi***	**'break it off'**	**entry into a state**

The *Ca-*∼*Ce-* alternation is also found with some psych-verbs and with intransitive-causatives pairs. Stative and process verbs are marked with *Ce-*; the causative process or telic verbs take the *Ca-* prefix. This alternation type is quite common, with many examples in our database. Some examples are listed in (53).

(53) INTRANSITIVE∼CAUSATIVE alternation (*Ca-/Ce*-type)

he-rumai	**'it is strong'**	∼	***ha-rumai***	**'strengthen it'**
he-poqu	**'it hatched'**	∼	***ha-poqu***	**'crack it'**
he-lika	**'it is stuck'**	∼	***ha-lika***	**'stick it in'**
he-mong	**'it is dead'**	∼	***ha-mong***	**'extinguish it'**
he-liikda	**'it leans sideways'**	∼	***ha-liikda***	**'bend it'**

The above examples show that the affectedness space is multidimensional: the *Ca-∼Ce-* alternation appears to have a detransitivising function, marking the absence of an external force which is necessary for the event culmination (i.e. a change along the entire scale lexicalised by the verb root). At least some of the distributional aspectual classes, established in the previous sections can be further subdivided and interlinked when affectedness, valency and sentence context is considered.

4 Abui aspectual classes

Table 4 gives an overview of the Abui aspectual classes identified in Section 3 and the readings of compatible aspectual affixes. Readings listed in brackets are attested with only a subset of the given class. Combinations marked with n.a. are not attested in our data and were often confirmed as ungrammatical through elicitation. The readings partly refer to the labels used in (Tatevosov 2002); we use here the shorthand >*state* for Tatevosov's *entry into a state* and >*process* for his *entry into a process*. The classes are arranged in three major subsets: (i) stative verbs, (ii) telic verbs, and (iii) process verbs.

Figure 2 is derived from the visualisations of the state-of-affairs space such as Moens and Steedman (1988) and attempts to visualize the Abui aspectual classes. The event space is warped to represent the punctual vs. extended culmination phase, which differ in their duration. The event space is divided by one or two boundaries into the preparatory phase and resultant phase, which may precede and follow respectively the transition associated with the boundary. Abui aspectual classes described in this paper can be seen listed in the right of a line which represents the temporal characteristics of the respective state-of-affairs. Associated stems (INCP, IPFV, PFV) and affixes (PROG, PFV, STAT, PRF, INCH, INCP) are tagged to the temporal line. Non-scalar states are outside of the dynamic event space; they are constant. The highest point within the dynamic event space triangle is assigned to stative verbs (lexicalised standard) which are only compatible with an inchoative suffix when they commence. Terminative telic verbs are listed next because they have a culmination phase but the resulting state is more permanent than in other telic verbs. Two types of stative verbs listed next differ in whether or not the entry into a state can be gradual or not. Telic verbs which are listed next differ in their compatibility with the stative suffix *-a* denoting lasting results. Finally, process verbs combine with the inchoative to mark the entry into a process.

In Section 3.7 it was demonstrated that further refinement of the presented classes is possible if entailments and valency features are considered. Because of space constraints, these issues will be discussed elsewhere.

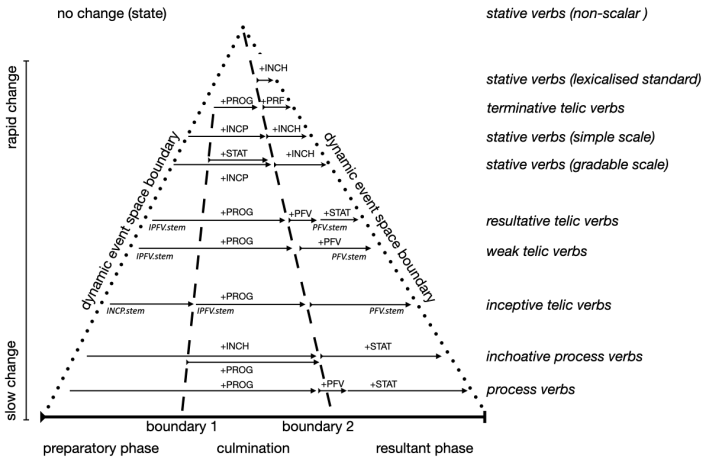

Fig. 2: State-of-affairs space mapped by Abui aspectual classes

Tab. 4: Overview of Abui aspectual classes and the readings of compatible aspectual affixes

class	STEM	INCP	INCH	PFV	PROG	PRF	STAT
stative$_{\text{non-scalar}}$	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
stative$_{\text{standard}}$	**n.a.**	**n.a.**	**> state**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
stative$_{\text{scalar}}$	**?**	**> process**	**> state**	**n.a.**	**n.a.**	**n.a.**	**(gradual > state)**
stative$_{\text{gradable}}$	**(state)**	**> process**	**> state**	**n.a.**	**n.a.**	**n.a.**	**(gradual > state)**
stative$_{\text{deadjectival}}$	**state**	**> process**	**> state**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
telic$_{\text{terminative}}$	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**ongoing**	**(>)state**	**n.a.**
telic$_{\text{weak}}$	**process/>state**	**n.a.**	**n.a.**	**>state**	**ongoing**	**n.a.**	**n.a.**
telic$_{\text{resultative}}$	**process/>state**	**n.a.**	**n.a.**	**>state**	**ongoing**	**n.a.**	**state**
telic$_{\text{inceptive}}$	**>process/process/>state**	**n.a.**	**n.a.**	**n.a.**	**ongoing**	**n.a.**	**n.a.**
process	**n.a.**	**n.a.**	**n.a.**	**>state**	**ongoing**	**n.a.**	**n.a.**
process$_{\text{inchoative}}$	**n.a.**	**n.a.**	**>process**	**n.a.**	**extended**	**n.a.**	**gradual**

Tab. 5: Comparison of Abui aspectual classes and Tatevosov's CLATs

Abui classes	CLAT
stative$_{\text{non-scalar}}$	**stative**
stative$_{\text{standard}}$	**strong inceptive-stative**
stative$_{\text{scalar}}$	
stative$_{\text{gradable}}$	
stative$_{\text{deadjectival}}$	
telic$_{\text{terminative}}$	
telic$_{\text{weak}}$	**strong telic**
telic$_{\text{resultative}}$	
telic$_{\text{inceptive}}$	
process	
process$_{\text{inchoative}}$	**strong ingressive-atelic**

5 Conclusion

In this paper, we have described the interplay of various types of aspectual marking in Abui, using their compatibility to describe the language-specific lexicalisation of states-of-affairs. We have established which phases are lexicalised by the roots and how these phases may be targetted by compatible aspectual affixes. This approach produces a fine-grained, Abui-specific categorisation of states-of-affairs. Having used the actional classes proposed in Tatevosov (2002) we can conclude with a comparison of the Abui system with the crosslinguistic actional types (CLATs) proposed in Tatevosov (2002: 375–376). The comparison is presented in Table 5.

The purpose of the comparison with Tatevosov's actional types is to highlight the features that are characteristic for the Abui system. They are the following:

1. Abui has an elaborate system of stative-inchoative verbs, which are further subdivided according to the nature of the property scale that they incorporate and the characteristics of the transition (rapid/instant vs. gradual);
2. The stative *-a* is generally incompatible with process verbs but combines with inchoatives (gradual change) and telic verbs (lasting state);
3. There is a specific class of terminative telic verbs which culminate into lasting and irreversible states;
4. There is an interesting correspondence between the natural phonological categories of the aspectual morphemes and their aspectual values: (i) constrictions in the front of the mouth correlate with perfectivity (entering into a state), (ii) open mouth (open vowels, velars) correlate with processes and states;
5. Some verbs lexicalise three stems: inceptive, imperfective and perfective;

6. Some verbs do not lexicalise the degree of affectedness, but participate in alternations mapping its degree (Kratochvíl and Delpada 2015);
7. The inceptive and inchoative suffixes: -Ca∼-Ci could perhaps be reanalysed into -C + -i/-a, where -C is a morpheme marking the *entry* component of the actional type, and the morphemes *-a* and *-i* mark the *process* and *state* component respectively.

Acknowledgments: We gratefully acknowledge the hospitality of the Abui community and in particular of the families of Timoteus Lanma and Vinsen Yetimauh, our Abui teachers. George Saad, Marian Klamer, Joseph E. Emonds, Boban Arsenijević, and Joanna Sio have offered important insights on this paper during its various stages. Finally, we thank the anonymous reviewers as well as the editors of this issue Thera Crane, Johanna Nichols, and Bastian Persohn for their valuable input.

This research was supported by the Czech Science Foundation grant 20-18407S *Verb Class Analysis Accelerator for Low-Resource Languages - RoboCorp*. F. Kratochvíl was responsible for the drafting of the paper and the Abui analysis. B. Delpada contributed his linguistic expertise of a native speaker of Abui and co-authored earlier drafts of this paper. V. Kratochvíl and J. Vomlel developed an automated system to explore Abui aspectual classes and D. Moeljadi developed means to extract aspectual data from the corpus. The details of this workflow will be reported in a separate publication.

Used abbreviations: In addition to the common abbreviation contained in the Leipzig Glossing Rules, this paper contains the following glossing abbreviations: AD addressee-viewpoint (in combination with a demonstrative), ADD additive marker *baai*, AGT agentive pronoun, AL alienably possessed, BEN verbal person-number prefix indexing a benefactive-like argument, CAUS causative prefix *ong-*, COND conditional mood marker, DISTR distributive/reciprocal, GOAL verbal person-number prefix indexing a goal-like argument, INAL inalienably possessed, INCP inceptive aspectual suffix *-da/-ra/-na*, IRR irrealis, LOC verbal person-number prefix indexing a location-like argument, MD medial demonstrative, MOD modal, PAT verbal person-number prefix indexing a patient-like argument, PRIOR priorative mood suffix *-te*, PROG progressive aspectual suffix *-e*, PROX proximal demonstrative, PURP purposive linker, RDP reduplication, REC verbal person-number prefix indexing a recipient-like argument, SIM simultaneous linker, SPC specific article, STAT stative aspectual suffix *-a*, SEQ sequential linker.

References

Baerman, Matthew & Greville G Corbett. 2012. Stem alternations and multiple exponence. *Word Structure* 5(1). 52–68.

Beavers, John. 2011. On affectedness. *Natural Language & Linguistic Theory* 29(2). 335–370.

Bickel, Balthasar. 1997. Aspectual scope and the difference between logical and semantic representation. *Lingua* 102. 115–131. https://doi.org/https://doi.org/10.1016/S0024-3841(97)00004-1.

Bybee, Joan. 1985. *Morphology*. Amsterdam/Philadelphia: John Benjamins.

Dahl, Östen & Viveka Velupillai. 2013. Perfective/imperfective aspect. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. https://wals.info/chapter/65.

Dryer, Matthew S. 2013. Position of tense-aspect affixes. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. https://wals.info/chapter/69.

Embick, David. 2012. Contextual conditions on stem alternations. In Irene Franco, Sara Lusini & Andrés Saab (eds.), *Romance Languages and Linguistic Theory 2010: Selected Papers from 'Going Romance' Leiden 2010*, vol. 4 (Romance Languages and Linguistic Theory), 21–40. Amsterdam: John Benjamins.

Kennedy, Christopher & Louise McNally. 2005. Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81(2). 345–381.

Klamer, Marian. 2014. The Alor-Pantar Languages: Linguistic Context, History and Typology. In Marian Klamer (ed.), *The alor-pantar languages: history and typology*, 5–53. Berlin: Language Science Press.

Klamer, Marian & George Saad. 2020. Reduplication in Abui: A case of pattern extension. *Morphology* 30. 311–346. https://doi.org/https://doi.org/10.1007/s11525-020-09369-z.

Klamer, Marian, Antoinette Schapper, Greville Corbett, Gary Holton, František Kratochvíl & Laura C. Robinson. 2017. Numeral words and arithmetic operations in the Alor-Pantar languages. In Marian Klamer (ed.), *The alor-pantar languages*, 329–365. Berlin: Language Science Press. https://doi.org/10.5281/zenodo.569396.

Kratochvíl, František. 2007. *A grammar of Abui: a Papuan language of Alor*. Utrecht: LOT.

Kratochvíl, František. 2011. Discourse-structuring functions of Abui demonstratives. In Foong Ha Yap, Karen Grunow-Hårsta & Janick Wrona (eds.), *Nominalization in Asian languages. Diachronic and typological perspectives*, 757–788. Amsterdam: John Benjamins.

Kratochvíl, František. 2014. Differential argument realization in Abui. *Linguistics* 52(2). 543–602.

Kratochvíl, František. 2014. Number in Abui and Sawila. In Marian Klamer & František Kratochvíl (eds.), *Number and quantity in East Nusantara*, vol. 1 (Papers from 12-ICAL), 123–151. Canberra: Asia-Pacific Linguistics.

Kratochvíl, František & Benidiktus Delpada. 2015. Degrees of affectedness and verbal prefixation in Abui (Papuan). In Stefan Müller (ed.), *Proceedings of the 22nd International Conference on Head-Driven Phrase Structure Grammar, Nanyang Technological University (NTU), Singapore*, 216–233. Stanford, CA: CSLI Publications.

Merrill, John Thomas Mayfield. 2018. *The Historical Origin of Consonant Mutation in the Atlantic Languages*. Berkeley: University of California, Berkeley dissertation.

Moens, Marc & Mark Steedman. 1988. Temporal ontology and temporal reference. *Computational linguistics* 14(2). 15–28.

Persohn, Bastian. 2017. *The verb in Nyakyusa: a focus on tense, aspect, and modality* (Contemporary African Linguistics 2). Berlin: Language Science Press. https://doi.org/10.5281/zenodo.926408.

Saad, George. 2020. Abui. In Antoinette Schapper (ed.), *The Papuan Languages of Timor, Alor and Pantar*, vol. 3 (Sketch grammars), chap. 5, 267–346. Berlin, Boston: De Gruyter Mouton. https://doi.org/10.1515/9781501511158-005.

Sasse, Hans-Jürgen. 2002. Recent activity in the theory of aspect: accomplishments, achievements, or just non-progressive state? *Linguistic Typology* 6(2). 199–271. https://doi.org/https://doi.org/10.1515/lity.2002.007.

Tatevosov, Sergej. 2002. The parameter of actionality. *Linguistic typology* 6(3). 317–401.

Tenny, Carol Lee. 1987. *Grammaticalizing aspect and affectedness*. Massachusetts Institute of Technology dissertation.

Vendler, Zeno. 1967. Verbs and times. In Zeno Vendler (ed.), *Linguistics in philosophy*. Ithaca, N.Y.: Cornell University Press.

Verkuyl, Henk J. 1972. *On the compositional nature of the aspects* (Foundations of language. Supplementary series). Dordrecht: Reidel.

Veselinova, Ljuba N. 2013. Verbal number and suppletion. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. https://wals.info/chapter/80.