Bine sketch grammar

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Contents

1 Introduction

This sketch describes the Western variety of Bine (Glottocode: bine1240; ISO 639-3: bon).[1] Bine is spoken in the Oriomo-Bituri district of Western Province, and it belongs to the Oriomo language family, also known as Eastern Trans-Fly. In older sources, Bine is sometimes referred to as Pine, Kunini, Masingara or Oriomo.[2] The word *bine* or sometimes *wayabine* refers to a place of creation. There are perhaps 2000 speakers in 9 villages and settlements.

The Oriomo family comprises four languages: Gizrra, Bine, Wipi (formely Gidra) and Meryam. While the first three in the list are spoken on the New Guinea mainland, Meryam is the language of Mer island and Erub island in the Torres Strait. The family was first grouped as belonging to the Trans-Fly stock of the Trans New Guinea family by Wurm (1975). Subsequent research has called this classification into question, and classified Oriomo as a separate family (Ross 2005, Evans, Arka, et al. 2017).

There are at least two dialects of Bine. The villages of Boze, Giringarede, Kunini, Masingara, Tati, and Umea belong to the Eastern variety (E), while the villages of Irukupi and Drageli belong to the Western variety (W). The differences between the two dialects are mostly on the phonological level and in the lexicon. At the current stage of documentation, it is unclear whether the Eastern dialect splits into several varieties or not. Bine speakers characteristically say that all villages speak in a distinct way. In my own fieldwork, however, I have not been able to verify this claim for the pair of Irukupi and Drageli, which both speak the Western dialect. There are three villages - Sogal, Sebe and Umea - for which I have not been able to collect data. Based on inspection of wordlists collected by Fleischmann and Turpeinen (1976), Sogal and Sebe both belong to the Western dialect, while Umea belongs to the Eastern dialect.

The first published information on Bine comes from Sidney Ray's description of "Kunini" (Ray 1907: 208–300) as part of the report from the Cambridge Anthropological Expedition to the Torres Straits. During the 1970s, further work on the language was carried out by two SIL missionaries, Lillian Fleischmann and Sinikka Turpeinen, who were based in Kunini village. The outcome of this first documentary push was an unpublished grammar written in tagmemic style (Fleischmann and Turpeinen 1975), a dialect survey (Fleischmann and Turpeinen 1976), and several papers on specific topics: phonemes (Fleischmann and Turpeinen 1977), conjunctions (Fleischmann 1981a), relativization (Fleischmann

[1] I would like to thank the residents of Irukupi for welcoming and hosting me, especially Solomon Girisa, Lendy Jamie and Ronald Gidra who helped me in elicitation and with translation. The project and fieldwork was funded by the Endangered Languages Documentation Project (ELDP) and received institutional support from the University of Cologne. I thank Mandana Seyfeddinipur, Birgit Hellwig, and Lena Wolberg at these institutions for their help. René van den Berg and Freddie Yarita from SIL, Ukarumpa, scanned the Bine grammar essentials and made them available to me. I thank Nick Evans and two anonymous reviewers for their helpful comments on an earlier version of this chapter. Last but by no means least, I thank Charlotte van Tongeren for her brief visit to Irukupi, Nick Evans and Penny Johnson for letting me stay with them in Canberra while I waited for the PNG research visa, and Anne Münch for accompanying me on two field trips and sharing this foolhardy experience.

[2] The words *Kunini* and *Masingara* are the names of villages, while *Oriomo* is the name of the river in the eastern part of the plateau. The Oriomo river runs through Wipi speaking territory.

1981b), sentence boundaries (Fleischmann 1981c), and negation (Fleischmann 1981d). The present chapter continues and further refines the descriptive work on Bine. Moreover, it adds to our knowledge of Bine by focussing on the Western variety, which has received little attention in the past. The data collection took place between 2017 and 2019 and comprised short visits to most Bine speaking villages, plus a total of 8 months fieldwork in the village of Irukupi. The documentation project was funded by the Endangered Languages Documentation Programme (ELDP). Further fieldwork was planned for 2020 and 2021, but forestalled by the pandemic outbreak. This resulted in gaps in the data. The documentary materials from the project have been archived online as Döhler (2019).

A short comment on the presentation of the data: Example sentences from the text corpus are marked by a source code, whereas elicited examples have no such marking. The source code appears in [square brackets] at the end of the translation line.[3] Examples are glossed as used in context, which means that — especially for agreement in verbs — patterns of syncretism cannot be discerned directly from the glosses, e.g.: the prefix *na-* indexes first and second person singular. Instead of using a gloss like "1|2SG", I gloss it as either "1SG" or "2SG". The syncretism is then described in the respective section on verb morphology.

This chapter provides some sociolinguistic background (§2), followed by sections on phonology (§3), nominals and nominal morphology (§4), verb morphology (§5), and syntax (§6).

2 Sociolinguistics & Multilingualism

Speakers of Bine live in small villages inland from the coast, some of which are just a few kilometers away from the shore like Masingara, Kunini, or Drageli, while others are located a day's walk away like Sebe and Sogal. Coastal villages in the area (Tureture, Mawata, and Mabdauan) are populated by speakers of Southern Coastal Kiwai. Although there is some intermarriage, general knowledge of Kiwai is limited. The three villages of Sebe, Sogal and Umea are described as "mixed" with speakers of the neighbouring languages, i.e., Agob in the case of Sebe, and Wipi in the case of Sogal and Umea.

Diglossia is the main type of multilingualism with English as the language of administration and education, and Bine as the everyday language. All Bine speakers receive their schooling in English, and most people under the age of 60 have a very good command of it. While English holds a strong position in the school system and also in the United Church, Tok Pisin has spread to some official domains, e.g. the village court and the Seventh-day Adventist Church. Most people know enough Tok Pisin to follow a conversation or even converse in Tok Pisin. My general impression of the wider area is that Tok Pisin is spreading at the expense of English and local languages.

The surveyed Bine villages differ from other regions in Southern New Guinea in that intermarriage with speakers of other languages is the exception (cf. Döhler, this vol.). My data from Irukupi shows that of 60 recorded marriages, only six

[3] The code formatting is: bon = the ISO-code for Bine, YYYYMMDD = the date of recording, XXX = a three letter code that identifies the speaker, #NN = the annotation number on the respective tier in the ELAN file.

were with neighbouring villages, while most (38) were within the village. As a consequence, there are few multilingual households, in which children have the opportunity to learn the neighbouring languages. Knowledge of Gizrra, Agob, Southern Kiwai and Wipi is low, limited to the children of those few multilingual households. During my time in Irukupi, I witnessed several Wipi speakers passing through the village, and in all cases English was used for conversation. While this observation holds true for most Bine villages, I would expect a different scenario for the inland villages that are reported to be "mixed". Unfortunately, I was not able to visit these places during my fieldwork.

3 Phonology

3.1 Phoneme inventory

Bine has 15 consonants and five vowels. Consonants are distributed over three places of articulation: bilabial, alveolar and velar. There are two series of plosives: plain voiceless /p t k/ and voiced /b d g/, contrastive in all positions. Minimal pairs are: *kupi* 'waterhole' vs. *kubi* 'mouse', *gite* 'in-law' vs. *gide* 'plant sucker', *sike* 'drunk' vs. *sige* 'enough'. The plosives [ʔ] versus [k] constitute the most obvious dialectal difference between the two dialects. The Eastern dialect [k] has lenited to a glottal stop [ʔ] in most environments, e.g. *'ewe* (E) vs. *kewe* (W) 'village' and *li'a* (E) vs. *rika* 'not'.[4] Bine has three nasal phonemes /m n ŋ/, and two alveolar fricatives /s/ and /z/. The latter is in free variation with a post-alveolar affricate: [z∼dʒ]. The approximant /r/ shows considerable variation; depending on speech rate and individual speaker it is pronounced as alveolar [ɹ], retroflex [ɻ], or as a tap [ɾ]. The retroflex occurs especially in onset clusters like /dr/, as in *drage* [dɻage] 'very' and *dreŋgo* [dɻeŋgo] 'dog', in which retroflexion spreads over the cluster. The lateral approximant /l/ is attested for all dialects of Bine, but in the Western dialect described here, it carries very little functional load. Nevertheless, a few minimal pairs, such as *uri* 'tree' vs. *uli* 'honey bee', and *waru* 'centipede' vs. *walu* 'tree species', support its status as a phoneme. In the Eastern dialect, /l/ is much more frequent in the lexicon, and it corresponds in most cases to /r/ in the Western dialect: *blome* (E) vs. *brome* (W) for 'pig', or *bulubulu* (E) vs. *buruburu* (W) for 'ashes'. Further approximants include the semivowels /y/ [j] and /w/. Consonantal phonemes are shown in Table 1.

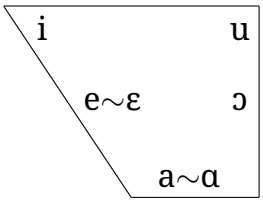
Bine has five vowels /i e a o u/, thus, distinguishing three height levels: low vs. mid (*arŋi* 'search' vs. *orŋi* 'bite', *iŋwa* 'lizard type' vs. *iŋwe* 'behind'), and mid vs. high (*kopi* 'buttocks' vs. *kupi* 'waterhole', *gone* 'don't' (PROH) vs. *goni* 'wash'), as well as front vs. back (*gagi* 'lobster' vs. *gagu* 'wall', *kake* 'bone' vs. *kako* 'nothing'). There are no tonal contrasts. The vowel phonemes are shown in Figure 1.

[4]This is also the reason why in most previous publications, as well as on official maps, the village name Irukupi is written as "Irupi". In the Eastern dialect, the name is pronounced as [iruʔupi], which is often contracted to [irupi].

	BILABIAL	ALVEOLAR	PALATAL	VELAR
VOICELESS PLOSIVE	p	t		k
VOICED PLOSIVE	b	d		g
NASAL	m	n		ŋ
VOICELESS FRICATIVE		s		
VOICED FRICATIVE		z∼dʒ <j>		
APPROXIMANT		ɾ∼ɹ∼ɻ <r>		
LATERAL APPROXIMANT		l		
SEMIVOWEL			j <y>	w

Table 1: Consonant phonemes (and non-obvious graphemes)

Figure 1: Vowel phonemes



3.2 Suprasegmental features

Vowel length is phonemic in Bine, but the opposition of short versus long vowels occurs only in word-initial open syllables. Moreover, the length contrast is attested only for a subset of the vowel phonemes: /a/, /i/, and /u/. As a convention, long vowels are written with identical adjacent vowel graphemes. Minimal pairs are as follows: *kame* 'my' (1SG.POSS) vs. *kaame* 'bush wallaby', *pita* 'pain' vs. *piita* 'palm cockatoo', and *ure* 'tree species' vs. *uure* 'waves'.

Stress is word-initial in Bine for monomorphemic words as well as multimorphemic words, e.g. inflected verbs. The phonetic correlate of stress is a higher pitch and greater intensity, and only a slight increase in duration. Stress is not indicated in this description.

Depending on the speech rate words are often shortened. Shortening affects especially the pronouns, demonstratives, and a number of particles. For example, the form *ka* can be a shortened version of the 1SG pronoun in the nominative (*kane*), accusative (*kambina*), as well as dative (*kame*). During transcription, my language teachers insisted that such "mistakes" ought to be fixed. Therefore, I put the truncated part of a shortened word in brackets, as in (5) in the next section, to be both faithful to the actual recording and to the grammaticality judgments of the speakers.

3.3 Phonotactics

The following syllable types are attested in monomorphemic words: V (*u.ge* 'first born'), CV (*ŋi* 'name'), and CCV (*tri* 'feast'). Vowels in open syllables are slightly lengthened. Closed syllables of the type CVC (*saŋ.ga* 'White-faced Heron') and

CCVC (*trin.tri* 'bubbles') are much rarer, and almost absent in word final position.[5] Most examples of closed syllables involve a nasal in the coda position, often with a homorganic plosive in the onset of the following syllable. Thus, these examples could be explained in terms of a formerly existing set of prenasalized plosive phonemes (/mb nd ŋg/). More data and more comparison with other Oriomo languages is needed to see if this hypothesis can be verified.

Tautosyllabic consonant clusters are restricted to the onset. Such clusters involve a combination of plosive + approximant (*ka.bre* 'forest spirit', *dreŋ.go* 'dog', *a.gra.ri* 'to hang')[6], nasal + approximant (*mre.pe* 'moon'), or more rarely stop + nasal (*knun.de* 'other, next' and *knon.te.te* 'in-law').[7] There are a few examples of stop + /w/ (*twa.gi* 'grass type', *dwo-* 3SG.F.APPL, *kwa.te* 'coconut shell', and *gwe.te* 'bundle').

There are several types of heterosyllabic consonant clusters. Some of the more common ones are nasal + approximant (*mam.re* 'dugong', *iŋ.re* 'clan'), stop + nasal (*ŋab.ne* 'wasp', *ak.na.di* 'to beat (drum)'), and approximant + stop (*war.pe* 'drum', *as.wer.ki* 'to pull out').

4 Nominals

4.1 Nouns

The clearest morphosyntactic criterion for positing a class of nouns lies in the fact that they can be inflected for a range of cases. Other nominals, like demonstratives, can be inflected only for a subset of cases. Bine nouns denote objects or sets of objects, living entities, places, actions, qualities and ideas. As such, they can be subdivided by their scope into general and proper nouns, or by their content into e.g. kinterms, toponyms, plant names, time intervals, etc.

4.1.1 Gender & number marking

Bine has grammatical gender, realized on the verb. There is no overt gender marking on nouns. Instead, the agreement target is the verb prefix for referents in 3SG. The two gender categories are sex-based: feminine vs. masculine undergoer. In this way, Bine conforms to a pattern found elsewhere in Southern New Guinea, e.g. in languages of the Yam family (Carroll 2016, Döhler 2018) and in Yelmek and Maklew (Gregor 2020). In Bine, gender marking only applies to animate referents (*mogebi* 'woman' or *babe* 'father'), while inanimates show a default masculine agreement. A number of nouns have flexible gender, e.g. certain kinterms (*bagra* 'child', *gite* 'in-law'), general cover terms (*binam* 'human'), and nouns denoting animals whose sex is perceiveable (*dreŋgo* 'dog', *brome* 'pig').

Number marking on nouns and pronouns is fused with case marking, and based on an opposition between singular versus non-singular, the latter includ-

[5] Exceptions are a few placenames like *se.ber* for Saibai island, or loanwords like *tu.torn* for an invasive fish species that is called 'two thorn' in the local variety of English.

[6] The lateral approximant is very rare in the lexicon of the Western dialect. Two examples of consonant clusters are *kla.ri* 'armpit' and *pla.ri* 'softness'.

[7] This word is used reciprocally between parents in-law and the daughter in-law.

ing dual and plural referents. Dual number is encoded only in the verb, which involves the agreement affixes as well as the verb stem itself (cf. §5). Nominal number marking only applies to animate referents.

While number marking proper is absent in nouns, reduplication can sometimes express a plural reading (*gire* 'a dance' > *giregire* 'dances', *made* 'friend' > *mademade* 'friends'). However, reduplication is rare in the Bine lexicon, and its most frequent function is to mark non-prototypicality (*buru* 'ashes' > *buruburu* 'white things, white people', *krabe* 'angry' > *krabekrabe* 'a bit angry', *puam* 'a loud banging sound' > *puampuam* 'gun').

A much rarer strategy is a pairing construction. This involves (i) juxtaposition of two nouns, (ii) absence of the connector *pebo* 'and', (iii) integration of both nouns into one phonological phrase, and (iv) attachment of the relevant case marker (if applicable) in its non-singular form. Two corpus examples are: *uwe-dagma=bime gonigoni pupu* [crow-bird.of.paradise=DAT.NSG washing place] 'The crow and the bird of paradise's washing place' and *sakre-segare=bime mete* [PN-PN=DAT.NSG house] 'Sakre and Segare's house'.

4.1.2 Case & adpositions

Bine has a rich set of case suffixes and postpositions on noun phrases to mark grammatical relations and semantic roles. Some case suffixes trigger morphophonological changes, e.g. the accusative case, when attached to words ending in /e/ such as *mrepe* 'moon', triggers a change of the final vowel to /i/: *mrepine* [moon-ACC.SG]. Case suffixes only appear on the final element of the NP rather than on every word, e.g. in *ŋure neneni-bine* [sister two-ACC.NSG] 'two sisters' the accusative attaches to a postposed numeral.

The case markers show accusative alignment, meaning that S and A are flagged with the nominative case, e.g. *mrepete* in (1) and *mane* in (2), while P is flagged with the accusative case, e.g. *mrepine* in (2). Hence, Bine has both a marked nominative and a marked accusative case. The bare noun is used under certain circumstances, for example in the so-called presentational copula construction (cf. Table 5), as can be seen in the last two words of (2).

(1)

mrepe-te	*uam-ige*	*ŋaru*	*dume*	*kambo*	*sige.*
moon-NOM.SG	run.NPL-3SG.A	until	sky	LOC	enough

'The moon flew up into the sky.' [bon20180213-01 BTA #129]

(2)

*"**mrepi-ne***	***ma(ne)***	*i-mrit-an-ite?*	***mrepe***
moon-ACC.SG	2SG.NOM	3SG.M.U-hide-IPFV-2SG.A	moon

re-si-nae?"
where-3SG.M-be

"Are you hiding the moon? Where is the moon?" [bon20180213-01 BTA #122]

Bare nouns can also be used, when participant reference is obvious from context. This occurs more often for P (accusative), than for S and A (nominative), as

in (3) with the noun phrase *pendi kibu*. Another factor is the animacy of the referent, i.e. bare nouns are more often used for inanimate referents.

(3) *wate-te* ***pen(di)*** ***kibu*** *s-e-wend-an-em-ige.*
brother-NOM.SG MED meat VENIT-3PL.U-bring.PL.U-IPFV-PL.U-3SG.A
'The brother was bringing those (pieces of) meat.' [bon20180202_02 MKE #27]

CASE FLAGS

GLOSS	SG	NSG	SEMANTIC ROLE
NOM	*-te*	*-kina*	agent
ACC	*-ne*	*-bine*	patient, theme
DAT	*-me*	*-bime*	recipient, beneficiary, possessor
LOC	*-mbawe*	*-bimbawe*	animate: location, goal, source
ALL	*-me* (∼ *-m*)		goal ('to'), purpose ('for'), instrument ('with')
ABL	*-ka*		source ('from')
CHAR	*-yam(e)*		characteristic ('associated with')
CAU	*-nampi* (∼ *-pi*)		reason, cause ('because of')
SIM	*-pana*		comparandum ('like')

POSTPOSITIONS

kambo		location ('at, on, on top of')
sumande		location ('at, inside, underneath')
gomende		location ('close to')
wasi	*kome*	accompaniment ('with')

Table 2: Case flags & adpositions

Table 2 shows the case flags and adpositions. I analyse the nominative, accusative and dative as 'core cases', based on the ability of these arguments to be indexed in the verb. For the three core cases and the locative (animate) case there is a distinction in number between singular and non-singular, the latter marked by /bi/; nominative non-singular *-kina* is an exception. The number distinction, also relevant for the comitative postposition, is only used with animate referents.[8]

4.2 Nominals (nouns and adjectives)

Nouns and adjectives are not distinct classes in Bine. Nominals with a quality meaning like *kokre* 'strong, strength' can be used as adnominal modifiers (4), but they can also be part of an adpositional phrase (5), or even take case suffixes like the nominative in (6). Therefore, I analyse these words as being heterosemous, i.e., they function as adjectives in one construction (4), but as nouns in another kind of construction (6).

[8]The comitative postpositions in Table 2 express the number of the complete set of referents: *wasi* '(one) with one more' = dual, *kome* '(one) with more than one' or '(many) with one more' = plural.

(4) *pepo* *ngango* *babe-kina* ***kokre*** ***meni-ne***
then uncle father-NOM.NSG strong word-ACC.SG
di-k-isi.
3SG.M.U-speak-3NSG.A
'Then, the uncles and fathers talked strongly.' (lit. '... speak strong words')
[bon20180207-01 KOM #625]

(5) *wa(ne)* ***kokre*** ***kome*** *na-omne-peye!*
2NSG.NOM strength COM 1SG.U-hold.NPL.U-2NSG.a.IMP
'You must hold me tight!' (lit. '... hold me with strength.')
[bon20180125-02 TDI #303]

(6) ***kokre-te*** *de-omn-ige.*
strength-NOM.SG 3SG.M.U-hold.NPL.U-3SG.A
'He got strong again.' (lit. 'Strength held him.') [bon20181024 LUM #289]

The most common way to modify a noun qualitatively is by forming compounds, which are always right-headed. Examples are: *sira ŋali* [vulva hair] or *bute ŋali* [penis hair] for 'pubic hair', and *renondi pupu* [sit.NMLZ location] for 'camp'. The phrase *kokre menine* in example (4) can be analysed as a compound ('strength words'). For nominal quantification see §4.4.

4.3 Pronominals

4.3.1 Personal Pronouns

Personal pronouns in Bine encode case, person, number and clusivity. The number values set up a distinction between singular and non-singular number, the latter comprises dual and plural number (cf. §5.3). For third person, the number distinction is neutralized in all but the nominative case forms. Gender is not encoded in the free pronouns.

Table 3 shows that there is a distinction between inclusive and exclusive first person pronouns in Bine. Clusivity is attested for all Oriomo languages, and also for the adjacent Pahoturi River family (Lindsey et al. 2022: 10). From an areal perspective, this is noteworthy since clusivity is absent from most Papuan languages in Southern New Guinea, e.g. absent from Yam, Kiwaian, and Suki-Gogodalan languages. Clusivity might be a contact phenomenon from Australian languages, where it is widely attested, including in the Torres Strait or in the tip of Cape York, e.g. Kalaw Lagaw Ya (Ray 1907: 22) and Uradhi (Crowley 1983: 354).

Free pronouns have forms for the following cases: nominative (7), accusative (8), dative/possessive (7), and allative (9). Furthermore, there is an emphatic series used for co-reference (reflexive/reciprocal) or emphasis (10). Pronominals are often shortened in fast speech, as can be seen in the examples below.

	NOM	ACC	DAT/POSS	ALL	EMPH
1SG	*kane*	*kambina*	*kame*	*kambawe*	*kakame*
1NSG.INCL	*mine*	*mimbina*	*mime*	*mimbawe*	*mimime*
1NSG.EXCL	*kine*	*kimbina*	*kime*	*kimbawe*	*kikime*
2SG	*mane*	*mambina*	*mame*	*mambawe*	*mamame*
2NSG	*wane*	*wembina*	*weme*	*wembawe*	*weweme*
3SG	*tambe*	*tembina*	*teme*	*tembawe*	*teteme*
3NSG	*tepi*				

Table 3: Personal pronouns

(7) ***ma(ne)*** ***ka(me)*** *ŋena* *na-kar-en-ite?*
2SG.NOM 1SG.DAT what 1SG.U-give-IPFV-2SG.A
'What will you give me?' [bon20180120_03 TTU #24]

(8) ***tembina*** *umre* *t-a-wen-ine.*
3.ACC knowledge VENIT-3DU.U-do-1SG.A
'I will let them know.' [bon20180121_01 GGU #117]

(9) ***temba(we)*** *t-uam-ige.*
3.ALL VENIT-run.NPL-3SG.A
'He is running towards him.' [bon20190106_01 MSD #128]

(10) ***tetem(e)*** *kubu-m(e)* *nam(be)* *a-bit-iasi.*
3.EMPH fight-ALL in_vain MID-start-3DU.A
'They almost started to fight (each other).' [bon20180209_01 JGO #70]

4.3.2 Demonstratives

Demonstratives and other deictic markers in Oriomo languages are complex systems which have grammaticalized various non-spatial, or non-situational uses.[9] Table 4 shows the Bine demonstratives in their situational use. There are three levels of distance from the deictic centre (proximal, medial, distal), which is usually the speaker. Interrogatives pertaining to space pattern formally with the demonstratives, much like English *where/there/here*. I use the term "ignorative" (IGNO) for this function.

[9]For Meryam, Piper (1989: 146) describes a distinction between old and new referents. For Wipi, Dondorp and Shim (1997 (2017): 67) describe a distinction between visible and invisible referents, as well as a gender distinction in third singular.

In their pronominal function, demonstratives can be flagged for case, e.g. *andi-te* [this-NOM] or *andi-ne* [this-ACC], as in (11b) below. In their adnominal function, they always precede the noun, e.g. *andi ŋure* 'this girl', and thus, they are not case marked (cf. §4.1.2). In their adverbial function, they can be neutral (*ama* 'here'), allative (*paema* 'hither') or ablative (*aka* 'hence').

	PRO-/ADNOMINAL	ADVERBIAL		
		NEUTRAL	ALLATIVE	ABLATIVE
PROX	*andi*	*ama*	*paema*	*aka*
MED	*pendi*	*peema*	*piema*	*peka*
DIST	*undi*	*uma*	*iema*	*uka*
IGNO	*rundi*	*ruma*	*riema*	*ruka*

Table 4: Demonstratives

Bine has a presentational copula (or deictic existential marker) which patterns similarly, as shown in Table 5. The first column of the table can be translated as 'she is here!', 'she is there!', 'she is over there!', and 'where is she?'.

	3SG.F	3SG.M	DUAL	PLURAL
PROX	*age-to-nae*	*age-si-nae*	*agi-tegi*	*agi-temi*
MED	*pe-to-nae*	*pe-si-nae*	*pe-ti-negi*	*pe-ti-nemi*
DIST	*i-to-nae*	*i-si-nae*	*i-ti-negi*	*i-ti-nemi*
IGNO	*re-to-nae*	*re-si-nae*	*re-ti-negi*	*re-ti-nemi*

Table 5: Presentational copula

These forms often occur in dialogic pairings of the type shown in example (11), which comes from a picture card task.

(11) a. *pamkere* ***re-si-(nae)****?*
pumpkin(E) IGNO-3SG.M-be
'Where is the (the card with the) pumpkin?' [bon20190109 DEP #212]

b. *andi-ne* *pimba* *ya-kit-esi.* *pamkere*
PROX-ACC.SG before 3SG.M.U-put_down.NPL.U-PL.A pumpkin(E)
age-si-nae*!*
PROX-3SG.M-be
'We put this (picture card) down earlier. The pumpkin is here!'
[bon20190109 TTU #296]

Non-spatial uses of the demonstratives are manifold. One of the simplest is the temporal use, as shown for the medial adverbial in (12).

(12) ***peka*** *rundi* *poga* *tape* *a-sigr-in-isi.*
MED:ABL FOC frog skin MID-wear-PL-3PL.A
'From that (time) onwards, they wore frog skins.'
[bon20180122_07 RDE #34]

Another extension of the demonstratives pertains to the (assumed) informational status of the addressee. The medial forms of the presentational copula (cf. Table 5) all have an /e/ vowel, e.g. *pesi*/*peto* 'he/she is there' (shortened from *pesinae*/*petonae*). This is a very common way of indicating the location of some referent. There is another series of the medial with an /i/ vowel. The forms *pisi*/*pito* are used when the speaker wants to draw the addressee's attention to some referent. Olsson (2019) has coined the term 'absconditive' for this function (glossed as ABSC). Consider example (13) below, in which the speaker describes how she saw a venomous snake approaching a group of children. She calls out to her friend who is already aware of the snake (*isinae* 'it is over there'). Then she redirects her friend's attention to a little girl who is also playing in the area (*pitonae* 'she is there', or 'Don't you see her?').

(13) *kudeware* *i-si-nae.* *ma(ne)* *bagra*
papuan_black DIST-3SG.M-be 2SG.NOM child

s-e-wand-em-i! *aya* *lina-me* *bagra* *kuta*
VENIT-3PL.U-bring.PL.U-PL.U-2SG.A.IMP oh_no PN-POSS child also

pi-to-nae. *t-o-ka(n-i)!*
ABSC-3SG.F-be VENIT-3SG.F.U-bring.NPL.U-2SG.A.IMP

'The papuan black snake is over there. Bring the children here! Oh no, Lina's daughter is also there. Bring her here!'

[bon20180213_02 WTA #38-39]

For the medial series in Table 4, there is another set with an /u/ vowel instead of the /e/ vowel: *pendi* vs. *pundi* 'that', or *peka* vs. *puka* (∼ *puŋga*) 'from there'. The contrast is not clear here, but the distribution of these form in the corpus is skewed, with many more /e/ forms than /u/ forms.

4.3.3 Interrogatives

As was mentioned in the preceding section, spatial interrogatives, such as *rundi* 'which one', *ruma* 'where', *riema* 'where to', and *ruka* 'where from', pattern with the demonstratives (cf. Table 4). They share with most other interrogatives that they have an initial /r/ consonant: *rate* 'who', *rimba* (∼ *rimbanu*) 'when', *ripo* 'how', *rija* 'how many'. The only exception to this rule is the word *ŋena* 'what'.

Some of the interrogatives can be inflected for case, e.g. *rate-te* [who-NOM], *rati-ne* [who-ACC], or *rati-me* [who-POSS] 'whose'. In questions, the interrogative pronouns remain in-situ, as in (7).

The interrogative *rundi* 'which one' is often used as a focus marker, to introduce or re-introduce a referent, as in (12) and in (14).

(14) *te(me)* *mage-te* ***rundi*** *koŋga-ne* *u-mrit-an-ige.*
3.POSS mother-NOM.SG FOC woman-ACC.SG 3SG.F.U-hide-IPFV-3SG.A

'(But it was) his mother (who) was hiding the woman.'

[bon20180122_03 OPE #7]

4.4 Numerals & Quantifiers

Bine has a restricted numeral system with monomorphemic roots up to the value of 'four'; see Table 6. The value 'five' *netera ime ute* translates literally as 'one hand asleep', which stems from a practice of finger-counting, whereby one starts palm up with an open hand, and with each value one finger is folded inward so that by the counting value 'five' the hand is closed, i.e. 'resting' or 'sleeping'.

Quantity	Lexeme	Comment
1	*netera*	
2	*neneni*	
3	*nasaye*	also means 'a few'
4	*towe*	
5	*netera ime ute*	lit. 'one hand asleep'
6	*netera ime ute netera*	
7	*netera ime ute neneni*	
...		
10	*neneni ime ute*	lit. 'two hands asleep'

Table 6: Numerals

Numerals usually precede the noun in adnominal use, as in (15). Ordinal numerals are formed by placing the cardinal numeral in allative case, which also marks instruments, as in (16).

(15)

domi	*bi*	*de-wen-em-isi.*	***nasaye***	***domi***	*g-emi.*
pile	already	3PL.U-make-PL.U-3PL.A	three	pile	IND-be.PL

'They already made piles. There are three piles'

[bon20190106_01 SGI #148-149]

(16)

kuta	*i-temn-ige*	***nasaye-me.***
again	3SG.M.U-ask-3SG.A	three-ALL

'He asked him again, for the third time.' [bon20180209_01 JGO #146]

The most frequently used quantifier is *knunde* (sometimes *nunde*) which generally means 'some', as in (17). The same word is also used as an indefinite pronoun, as in (18).

(17)

knunde	*lori*	*kusikusi*	*umre*	*g-emi.*
some	male	teenager	knowledgeable	IND-be.PL

'Some young boys know.' [bon20180207_01 KOM #693]

(18) ***knunde*** *babe* *langu* *bora* *piem* *na-lk-ane-pesi.*
some big forest inside MED 1PL.A-walk.PL.A-IPFV-1PL.A.IRR
'We were walking into another big forest.' [bon20180211_19 BTA #42]

In negated clauses, *(k)nunde* is used to express the concept 'no one' or 'nothing'.

(19) ***nu(nde)*** *binam-te* *rika* *e-gren-ige.*
some people-SG.NOM NEG 3PL.U-kill-3SG.A
'No one killed (animals).' [bon20181024 LUM #213]

For larger amounts, the quantifier *oba* 'many, much, plenty' is used (20).

(20) *kine* ***oba*** ***kakesea*** *de-wen-an-m-isi.*
1NSG.EXCL.NOM plenty work 3PL.U-make-IPFV-PL.U-3PL.A
'We are doing plenty of work.' [bon20190123_03 OPE #48]

4.5 Temporal nouns and adverbs

Bine employs various temporal nouns and temporal adverbs to refer to times. While temporal nouns are fairly free in their syntactic position, e.g. in preverbal position in (21), temporal adverbs occur clause initially. Moreover, temporal nouns can be inflected for case. The system of temporal nouns include: *pande* 'today, now', *birikie* 'yesterday', *kiekie* 'tomorrow', *kemande* 'a few days ago, recently', and *itekienda* 'a few days in the future'. Some of these nouns contain an element /kie/, which probably originates in the word *kie* 'night'. Temporal adverbs include *mutre* 'first', *iŋwe* 'last', *birinde* 'earlier, before', *pinponda* 'later'.

(21) *"ya* *pen(di)* *binam-te* ***kiekie*** *na-gre-nige."*
yes MED man-SG.NOM tomorrow 2SG.U-kill.NPL.U-3SG.A
"Yes, that man will kill you tomorrow." [bon20180125_01 TTU #168]

5 Verbs

Verbs are the main locus of morphosyntactic complexity in Bine. Indexing of up to two core arguments (i.e. agreement) is found in four positions in the verb complex, including the verb stem. The aspectual contrast perfective vs. imperfective, three tense distinctions, an irrealis category, and valency are all encoded in the verb. Table 7 shows the verb template. In addition to morphology proper, there are a number of preverbal particles that express negation and more fine-grained tense-aspect-mood categories.

Slot	Categories	Examples
-2	direction, aspect	*s-/t-* (VENIT), *b=* (PRF)
-1	person, number, gender (U), TAM	*e-* (3SG.M.U), *o-* (3SG.F.U)
stem	number (U)	plural/non-plural stem
1	aspect	*-an* (IPFV)
2	number (U)	*-m* (PL.U)
3	tense	*-und* (RPST), *-ume* (PST)
4	number (U)	*-in* (PL.U)
5	person, number (U/A), TAM	*-pe* (3SG.A.IRR), *-pi* (2SG.A.IMP)

Table 7: Bine verb template

5.1 Classification of verbs

Bine verbs can be classified according to different criteria. Morphosyntactic criteria are described in §5.1.1-5.1.3 with a focus on argument coding patterns (or indexing). Other criteria are based on phonology and various inflectional peculiarities (§5.1.4).

In terms of argument coding patterns, Bine verbs fall into three classes: transitive verbs, A-aligned intransitive verbs, and P-aligned intransitive verbs. This makes Bine an example of "split intransitivity" (Merlan 1985). Yam languages, spoken further to the West, show the same classes of argument coding patterns, e.g. Nama (Siegel 2017). Ditransitive verbs do not form a class at the basic level of the lexeme, but instead some verbs have a monotransitive and a ditransitive function (cf. §5.5). For the description of these coding patterns, we start with transitive verbs because they are comparatively simple in structure.

5.1.1 Transitive verbs

Transitive verbs take suffixes for the actor and prefixes for the undergoer, as in (22) with the verb *akadi/awandi* 'bring'. Note that the verb stem is involved in marking number, which is why there are two infinitives for some of the verb lexemes (cf. §5.3).[10] Transitive verbs make up about half of the verb lexemes documented so far.

(22) a. *tambe* *ŋuri-ne* ***o-kad-ige.***
3SG.NOM girl-ACC.SG 3SG.F.U-bring.NPL.U-3SG.A
'He brought the girl.'

b. *mane* *ŋuri-bine* ***e-wande-m-ite.***
2SG.NOM girl-ACC.NSG 3PL.U-bring.PL.U-PL.U-2SG.A
'You brought the girls.'

c. *mane* *kambina* ***na-kad-ite.***
2SG.NOM 1SG.ACC 1SG.U-bring.NPL.U-2SG.A
'You brought me.'

[10] Infinitives almost always begin with /a/ and end in /i/. I analyse the latter as a nominalizing suffix: *-i*. The corresponding stems of *akadi* and *awandi* 'bring' are /kad/ and /wand/, respectively.

5.1.2 A-aligned intransitive verbs

A-aligned intransitive verbs index the single argument in the suffix slot, as in (23) with the verb *akni/aknari* 'return'. The suffix is drawn from the same set as for the actor of transitive verbs. The prefix slot, on the other hand, is filled with an invariant form *a-* (glossed MID for 'middle'), which is identical to the third person dual undergoer prefix of transitive verbs. A-aligned intransitive verbs make up almost all of the intransitive verb lexemes.

(23) a. *tambe* ***a-kn-ige.***
3SG.NOM MID-return.NPL-3SG.A
'He returned.'

b. *tepi* ***a-kn-iasi.***
3NSG.NOM MID-return.NPL-3DU.A
'They (2) returned.'

c. *tepi* ***a-knar-isi.***
3NSG.NOM MID-return.PL-3PL.A
'They (pl) returned.'

5.1.3 P-aligned intransitive verbs

P-aligned intransitive verbs index the single argument in the prefix slot, as in (24) with the verb *aloni* 'shiver'. The prefix is drawn from the same set as for the undergoer of transitive verbs. The suffix slot is filled with a deponent 3SG actor suffix, which I show in the glosses. P-aligned intransitive verbs make up a very small part of the intransitive verb lexemes.

(24) a. *kane* ***na-lon-ige.***
1SG.NOM 1SG.U-shiver-3SG.A
'I shivered.'

b. *mane* ***na-lon-ite.***
2SG.NOM 2SG.U-shiver-2SG.U
'You shivered.'

c. *weme* ***di-lon-ige.***
2NSG.NOM 2NSG.U-shiver-3SG.A
'You (2) shivered.'

d. *weme* ***di-lon-ni-ige.***
2NSG.NOM 2NSG.U-shiver-PL.U-3SG.A
'You (pl) shivered.'

Reviewers of this chapter have commented that P-aligned intransitive verbs could be analyzed as transitive verbs in a transimpersonal construction (Malchukov 2008); resulting in readings like 'It shivers me' for (24a). Such an analysis would equate them with experiencer-object constructions of the type 'hunger does me' > 'I am hungry' (cf. §6.4). While I agree that there is a historical connection to transitive verbs, I do want to point here to the differences that set them up as a separate class, or at least as a subclass of transitive verbs.

The first point lies in their semantics. Some of them are indeed experiential and non-volitional (*aloni* 'shiver', *atrami* 'fall', *atrimera* 'forget'), but there are a number for which this cannot be said (*renondi* 'sit/stay', *akrandi* 'dwell/stay', *yewini* 'float'). For the verb 'walk/come' (*-kirad/-lk*), which lacks an infinitive, the single argument is clearly an actor (see examples 18 and 49). The second observation is that even though the morphology places them with transitive verbs, the dependent marking differs in that the argument indexed by the prefix is always in nominative case. This is different to experiencer-object constructions, where it would always be in accusative case. Thirdly, there are a few places in the paradigm of all P-aligned intransitive verbs, where we find double agreement in both the prefix and the suffix: all 2SG inflections, as in (24b), and all inflections in first person (SG and NSG) in past tense, or in irrealis mood.[11] This does not not occur in experiencer-object constructions, cf. §6.4 examples (50) with 1SG in irrealis and (51) with 2SG.

5.1.4 Other dimensions of verbal classification

There are other criteria for grouping Bine verbs into classes, which should be understood as lexical idiosyncrasies, i.e. they cannot be predicted from semantics or phonology, nor from any of the structural features described above.

Some verbs take as third person prefixes *i-/u-*, instead of *e-/o-* (cf. Table 8). Compare *i-rt-ige* [3SG.M.U-plant-3SG.A] 'He planted it' versus *e-kad-ige* [3SG.M.U-bring.NPL.U-3SG.A] 'He brought him/it'. Another class of verbs occurs with an initial *d-* in all inflections that start in a vowel. Compare *de-pan-ine* [3SG.M.U-see-1SG.A] 'I saw him/it' versus *e-pl-ine* [3SG.M.U-throw.NPL.U-1SG.A] 'I threw it'. Verbs can also be classified according to the presence or absence of participant number marking in their verb stem, i.e. many verbs have a plural stem and a non-plural stem (cf. §5.3). What complicates matters further, is that a few verbs take different prefix forms for these stem types. For example, the verb *akiti/akrandi* 'put down' takes the *e-/o-* prefixes for the non-plural stem *akiti* (*e-kit-ige* [3SG.M.U-put.down.NPL.U-3SG.A] 'He put him/it down'), but the plural stem *akrandi* takes the *i-* prefix (*i-krande-m-ige* [3PL.U-put.down.PL.U-PL.U-3SG.A] 'He put them down') instead of the expected *e-* prefix (**ekrandemige*).

5.2 Person indexes

The affixes used for indexing are shown in Tables 8 and 9. For the prefixes, there is no distinction between dual and plural number, hence the label NSG for non-

[11] An example for first singular is: *na-nend-an-ume-ne* [1SG.U-stay-IPFV-PST-1SG.U] 'I was staying'. An example involving first plural (irrealis) is given in (18)

singular. In this respect, the prefixes are parallel to the personal pronouns (cf. Table 3). There is an important exception to this pattern: the prefix (*d*)*e/i-* is used for both SG.M and PL in third person for all transitive verbs. In this context alone, there is an opposition between dual (*d*)*a-*) and non-dual (*d*)*e/i-*). Unlike the personal pronouns, the prefixes neutralize 1SG and 2SG. The middle prefix, which is used with A-aligned intransitive inflections, is identical to the 3NSG (and 3DU in transitive verbs respectively).

	SG	NSG
1	*na-*	*ni-*
2	*na-*	(*d*)*i-*
3FEM	(*d*)*o/u-*	(*d*)*a-*
3MASC	(*d*)*e/i-*	
MID	(*d*)*a-*	

Table 8: Person prefixes

The person suffixes show a syncretism between 1PL and 3PL, which is also found in the irrealis forms (cf. Table 12). There is a separate form for dual number (*-iasi*), which is not used with all verbs. All we can say, is that most verb inflections do not encode dual number in the suffix, and for these the PL column in the Table can be glossed as non-singular (NSG).

	SG	DU	PL
1	*-ine*	(*-iasi*)	*-isi*
2	*-ite*	(*-iasi*)	*-ye*
3	*-ige*	(*-iasi*)	*-isi*

Table 9: Person suffixes

5.3 Participant number

Participant number marking in verbs is rather complex in Bine, because its exponents are distributed across different positions of the verb complex and each slot employs a different opposition. Number marking in the actor suffixes is fairly straightforward and has been explained in §5.2 above. More complex is the number marking for the undergoer. While the prefixes encode an opposition between singular (SG) and non-singular (NSG), cf. Table 8, there is other morphology (including the verb stem) that draws a distinction between plural (PL) and non-plural (NPL). Dual number is then encoded by a combination of a NSG in the prefix with a NPL stem. Note that there is a caveat to this pattern, in that the prefixes do make a dual (DU) versus non-dual (NDU) for transitive verb inflections (cf. §5.2). For these, it is the singular that is encoded by a combination of a NDU in the prefix with a NPL stem.

Another way to characterize the system is in terms of "distributed exponence" (Caballero and Harris 2012, Carroll 2016), whereby the individual morphs are

underspecified for a specific grammatical category, and value saturation is achieved only through the combination of several morphs. An example, that fully exhausts the combinatorial possibilities is the verb *arkemiti/arkemitnadi* 'stand' in Table (10). There are two stems: /rkemite/ is used for singular and dual, while /rkemitnade/ is used for plural and paucal.[12] Furthermore, there are two prefixes: *i-* is used for singular (3SG.M) and plural, while *a-* is used for dual and paucal. Hence, this verb encodes a four-way distinction: singular, dual, paucal, plural. Note that this has been attested only for the verb 'stand', whereas other verbs simply do not make use of the combination in the bottom right cell of the table, i.e. there is no paucal value for these verbs.

Bine and other Oriomo languages show a striking similarity in this architectural principle to languages of the Yam family (Evans 2015a, Döhler 2018, Siegel 2023) and the Pahoturi River family (Schokkin 2022, Lindsey 2019). The four-way number distinction has been described for other Oriomo languages, e.g. Meryam (Piper 1989: 126), but also for Yam languages, e.g. Nen (Evans 2019).

	/rkemit/	/rkemitnade/
i-	*irkemitenige* SG: 'He stands.'	*irkemitnademenige* PL: 'They stand.'
a-	*arkemitenige* DU: 'They both stand.'	*arkemitnadenige* PAUC: 'A few (people) stand.'

Table 10: Distributed exponence for *arkemiti/arkemitnadi* 'stand'

Stem changes have been attested for approximately one third of the verb lexemes, and most of them also have two infinitives, for example *apli* 'blow (one or two things)' vs. *ayari* 'blow (many things)', *uami* 'run (of one or two individuals)' vs. *ueŋweradi* 'run (of many individuals)', and *amni* 'tie (one or two things)' vs. *amnendedadi* 'tie (many things)'. Table 11 illustrates the range of formal differences between the two stems, which includes suppletion, weak suppletion, and mutation. In all cases, the difference in form is found on the right edge of the stem, and in many instances we can make out signs of fossilized morphology, e.g. adding /erad/ or /edad/ to the non-plural stem to derive the plural stem. At present, there is not enough comparative data across Oriomo languages to speculate on the origin of these fossilized morphs.

There are two other ways to encode the plurality of undergoers, and these are applicable to a much wider range of verbs than the stem alternations. Both strategies involve suffixation: There is the *-m* suffix (25) and the *-in* suffix (26). Both suffixes do not attach directly to the stem, but they follow the imperfective suffix *-an* (cf. §5.4.2). Note that the three strategies are not mutually exclusive, which may result in double, or even triple marking of undergoer plurality, as in (27) and (22b) above.

(25) *ma(ne)* *ba* *ŋena* *rame* *e-gned-an-**m**-ite?*
2SG.NOM might what leaf 3PL.U-cook-IPFV-PL.U-2SG.A
'What leaves are you cooking?' [bon20181024 LUM #335]

[12]The /me/ element in the top right cell, *irkemitnademenige*, is not part of the verb stem, but the plural undergoer suffix *-m*.

English	NPL		PL	
	STEM	INFINITIVE	STEM	INFINITIVE
throw, blow	pl	*apli*	yar	*ayari*
exit, take out	sat	*asati*	serkin	*aserkini*
put down	kit	*akiti*	krand-m	*akrandi*
bring	kad	*akadi*	wand-m	*awandi*
run	uam	*uami*	ueŋwerad	*ueŋweradi*
return	kn	*akni*	knar	*aknari*
hit/kill	gr	*agri*	grek-m	*agreki*
arrive	in	n/a	inkerkedad	n/a
tie, wrap	mn	*amni*	mnendedad	*amnendedadi*
bite	rng	*orŋi*	rgnad	*orgnadi*
get on, get in	tekwambit	*atekwambiti*	tekwerad	*atekweradi*
forget	trimar	*atrimera*	trimerad	*atrimeradi*

Table 11: Verbs stems expressing the plurality of the undergoer

(26) *kine* *puŋga* *ni-nand-**in**-ige.*
1NSG.EXCL.NOM MED 1NSG.U-stay-PL.U-3SG.A
'We stayed there.' [bon20180211_17 UKU #14]

(27) *dreŋgo-ki(na)* *rimba* *ueŋwerad-**in**-isi* ...
dog-NOM.NSG when run.PL-PL-3PL.A (.)
'When the dogs ran ...' [bon20190911 RGI #147]

The plural stem and the two suffixes track the participant number of the P argument in transitive verbs, and that of the S argument in P-aligned intransitive verbs. Since, S and P are treated alike in this way, we can speak of an absolutive pattern.

5.4 Tense, aspect & mood

5.4.1 Tense

Bine has two morphologically marked tenses: the recent past and the past. Present tense is expressed by the absence of tense marking, hence, the term non-past is more suitable here. The aspectual distinction between perfective and imperfective can be interpreted as hodiernal past versus present tense respectively (cf. §5.4.2). As is common in many languages, non-past inflections can be used in narratives that are set in the past as a "historical present" (Schiffrin 1981).

The recent past (RPST) is used for events that took place on the preceding day, but can reach back up to a few weeks ago. Its exponent is the suffix *-und*, as in (28).

(28) *birikie* *peŋga* *be-gr-**und**-isi.*
yesterday MED 3SG.M.U-kill.NPL.U-RPST-3PL.A
'They killed him there yesterday.' [bon20180207_01 KOM #713]

The past tense (PST) encompasses events that happened before yesterday, and it extends until the ancestral past. So there is some variability for recent events, e.g. a week ago, in that speakers can use either the recent past or the past tense. The exponent of the latter is the suffix *-ume*, as in (29). The two suffixes *-und* and *-ume* occupy the same slot in the morphological template of the verb, which means that they cannot co-occur.

(29) *kine* *pen(di)* *neneni* *lori* *bagra-bi(me)* *kome*
1NSG.EXCL.NOM MED two male child-DAT.NSG food
*ta-kar-in-**ume**-si.*
3DU.R-give-PL.T-PST-1PL.A
'We gave those two boys food.' [bon20180211_18 UKU #17]

Future events are encoded periphrastically with a non-past inflection and the preverbal particle *page*, as in (30). Page does not occur with recent-past or past inflections.

(30) *sibre-te* *rika* ***page*** *uam-i(ge),* *ka(ne)* *sea-ne*
crocodile-NOM.SG NEG FUT run.NPL-3SG.A 1SG.NOM rope-ACC.SG
bi *dw-omn-ine.*
already 3SG.U-hold.NPL.U-1SG.A
'The crocodile will not run off, (when) I hold the rope.'
[bon20180119_01 NID #52]

5.4.2 Aspect

Bine has an imperfective suffix *-an*, which attaches directly to the verb stem. Its meaning extends to progressive aspect, and it occurs with all tenses. In example (31) it is shown with the past tense. Note that only the first verb in this example appears in imperfective aspect.[13]

(31) *uri* *bata-n(e)* *te-mel-**an**-ume-ne* *sige.* *koko*
tree log-ACC.SG 3SG.M.P-follow-IPFV-PST-1SG.A finish bamboo.node
kake *manu.* *kane* *pe(ndi)* *sibri-ne*
bone size 1SG.NOM MED crocodile-ACC.SG
te-kn-ume-ne *sige.*
3SG.M.U-shoot-PST-1SG.A finish
'I was following the log bridge. (The water was) knee-deep. (and then) I shot the crocodile.' [bon20180120_02 TTA #29]

[13] See (2), (3), (7), (14), (20), and (25) for examples with the non-past, and (18) for an example with irrealis mood.

There is no dedicated perfective affix, but instead the absence of the imperfective marker implies a perfective reading, which is interpreted as a hodiernal past for all non-past inflections (See example (11b) above). The preverbal particle *biri*, which can clitize to the verb as *b*=, expressed a perfect meaning roughly equivalent to 'already' (cf. §5.4.4).

5.4.3 Mood

Irrealis is encoded by a separate set of suffixes, as shown in Table (12). Note that there are no distinct dual forms, as there are for the indicative suffixes (cf. Table 9). Furthermore, there are some changes in the prefixes for irrealis, e.g. the middle prefix is *ra-* instead of (*d*)*a-*, and the 3SG.M prefix is *ya-* instead of (*d*)*e/i-*. The analysis of this aspect of irrealis morphology is premature at this point.

	SG	NSG
1	*-pene*	*-pesi* (∼ *-usi*)
2	*-pete*	*-peye*
3	*-pe*	*-pesi* (∼ *-usi*)

Table 12: Irrealis person suffixes

Semantically, irrealis covers both counterfactual events in the past (32) and future events (33).

(32) *pendi* *sibre-te* *nambe* *na-gre-pe* *kambina.*
MED crocodile-NOM.SG in_vain 1SG.U-kill.NPL.U-3SG.A.IRR 1SG.ACC
'That crocodile tried to kill me.' [bon20180119_01 NID #25]

(33) *kane-te* *ma(mbino)* *pa(ge)* *na-gre-pene.*
1SG.NOM-NOM.SG 2SG.ACC FUT 2SG.U-kill.NPL.U-1SG.A.IRR
'It's me, who will kill you.' [bon20190123_05 RGI #178]

Imperatives in second person singular and non-singular are formed by attaching the suffixes *-pi* (∼ *-i*) and *-peye* respectively, as in (34) and (5) above.

(34) *ka(ne)* *riporipo* *de-ter-en-ine,* *ma(ne)* *kuta* *iŋwe.*
1SG.NOM whereever M-stroll-IPFV-1SG.A 2SG.NOM also behind
ka(me) *pepo* *na-trikne-pi!*
1SG.DAT and 1SG.R-walk_behind-2SG.A.IMP
'Wherever I am walking, you (walk) also behind. You follow me!'
[bon20180121_01 GGU #61]

5.4.4 TAM particles

There are a number of uninflected aspectual or modal particles in Bine. A preliminary list is shown in Table 13. A few particles have quite idiosyncratic features, e.g. they may stand by themselves and function as interjections rather than TAM particles, e.g. *page* 'Wait!', *gone* 'Don't (do it)!', *biri* 'Let's get going!'. Others may occur in clause final position and act as a paragraph marker, such as *sige* 'enough/finished'. However, all particles described here frequently occur in preverbal position with TAM function, as *popoa* 'just' in (35) and *nambe* 'in vain' in (32) above.[14] The description of individual particles, their combinatorial possibilities, and their interaction with the TAM categories lies beyond the scope of this chapter.

(35) *kibu* *kako* *kine* ***popoa*** *ni-nend-an-ige.*
meat without 1NSG.EXCL.NOM just 1NSG.U-stay-IPFV-3SG.A
'We (have) no meat. We are just staying here.' [bon20180125_02 TDI #273]

FORM	TRANSLATION	COMMENT
uda	'already'	
biri	'already'	often shortened to *bi* or realized as proclitic *b=*
rika	'not'	clausal negator
gone	'don't'	prohibitive, usually with verbs in the imperative
nambe	'in vain'	frustrative, usually with verbs in irrealis inflection
kamo	'still, not yet'	
kuta	'also'	
sige	'then, enough'	focus, often shortened to *si*
popoa	'only, just'	
inde	'possibly, maybe'	
ba	'possibly, maybe'	

Table 13: TAM particles

5.5 Valency

The inflectional patterns described in §5.1.1-5.1.3 are not lexically fixed for all verb lexemes. For example, many transitive verbs can be placed in an A-aligned intransitive inflection. This is the most common way to detransitivize a verb, i.e. to remove its P argument. An example is the verb *agwapni* 'paint', which is normally used transitively, as in *e-gwapn-ine* [3SG.M.U-paint-1SG.A] 'I painted it'. In (36), the P argument is removed to give a reflexive reading — the middle prefix *a-* takes its place — since it is co-referential with A. The change in the inflectional pattern is used here to decrease the valency.

[14] That being said, all TAM particles can also appear in nonverbal predicate constructions of the type described in §6.1.

(36) *gowe-ka* ***a-gwapn-iasi.***
ground-ABL MID-paint-3DU.A
'They (2) painted themselves with mud.' [bon20180202_02 MKE #34]

Likewise, a change from the A-aligned pattern to the transitive pattern signals an increase in valency. An example is the verb *arpinati/arpineradi* 'wake up', which normally inflects in the A-aligned pattern with a middle prefix, as in the second token in example (37). The first token of *arpinati/arpineradi* is in the transitive pattern.

(37) *ka(ne)* *te(mbina)* ***ta-rpinerad-in-ume-ne.***
1SG.NOM 3.ACC 3PL.U-wake.PL.U-PL.U-PST-1SG.A

"ey ***a-rpinerad-in-(p)eye*** *sibre-te* *ime* *bi*
hey MID-wake.PL-PL-2SG.A.IMP crocodile-NOM.SG hand already
na-rŋ-ige."
1SG.U-bite-3SG.A
'I woke them up (and said) "Hey, wake up! The crocodile already bit me on the hand."' [bon20180120_02 TTA #58]

Ditransitive verbs, such as *akari* 'give', inflect like transitive verbs and draw from the same set of affixes for indexing. However, it is the recipient (R) argument, not the theme (T), which is indexed in the prefix. The corresponding NPs are flagged for dative (R) and accusative (T) case (cf. example (7) above). Hence, the flagging shows indirective alignment, while the indexing is secundative.

At the same time, the various strategies that mark undergoer plurality (cf. §5.3) do not pick up on the recipient, but they are sensitive to the theme argument. This can be seen in (38) with a singular recipient, but a plural *-m* suffix.[15] It follows that ditransitive inflections exhibit triple agreement.

(38) *ka(me)* *buru* *12* *sibre* ***na-kar-em-isi.***
1SG.DAT only twelve crocodile 1SG.R-give-PL.T-3NSG.A
'They gave me only 12 crocodile (skins).' [bon20180126_02 JKO #189]

The ditransitive construction appears to be quite productive. Transitive and A-aligned intransitive verbs can be placed into this inflectional pattern. For the latter, see (34) above, in which the valency of the verb *atrikni* 'walk behind' is increased 'walk behind me' with the 1SG indexed in the prefix and the corresponding NP in dative case. This verb normally occurs in an A-aligned pattern. Therefore, I analyse the ditransitive pattern as a valency increasing strategy, which usually introduces a recipient, beneficiary, or possessor into the argument structure.

[15] Another example occurs in (29) above with a dual recipient, and the plural marker *-in*.

6 Syntax

6.1 Non-verbal clauses

In discourse, many clauses are verbless, as in this short excerpt describing an encounter with a venomous snake in (39). The first and the last clause in this example occur without a predicate, despite the fact that in both clauses the subject is marked with nominative case.

(39) *kane* *sansi* *rika.* *“matilda* *wata!”* *matilda* *pen(di)*
1SG.NOM chance(E) NEG PN fast PN MED
kudewari(-ne) *ya-gre-pe* *sige.*
papuan_black(-ACC.SG) 3SG.M.U-kill.NPL.U-3SG.A finished
kudeware-te *budre.*
papuan_black-NOM.SG dead
‘I didn’t waste time (and said) “Matilda, hurry up!” Matilda killed that papuan black snake. The snake was dead.’ [bon20180212_02 WTA #32-35]

A common non-verbal predicator in Bine is the presentational copula described in §4.3.2 and the copula, or existential verb, shown in Table 14. While the presentational copula only expresses third person referents, the copula has forms for all person categories. However, the dual and plural forms neutralize person. The copula does not encode tense or aspect, but a set of heterogenous categories that relate to the supercategory of engagement (Evans, Bergqvist, et al. 2018a and 2018b).

	INDICATIVE	PURPOSIVE	PROXIMAL	ABSCONDITIVE	IGNORATIVE
1SG	*g-ane*	*m-ane*	*s-ane*	*tw-ane*	*rikw-ane*
2SG	*g-ate*	*m-ate*	*s-ate*	*tw-ate*	*rikw-ate*
3SG.F	*g-owe*	*m-owe*	*s-owe*	*tw-owe*	*rikw-owe*
3SG.M	*g-eye*	*m-eye*	*s-eye*	*tw-eye*	*rikw-eye*
DU	*g-egi*	*m-egi*	*s-egi*	*tw-egi*	*rikwin-egi*
PL	*g-emi*	*m-emi*	*s-emi*	*tw-emi*	*rikwin-emi*

Table 14: Copula inflections

The indicative form of the copula – with the meaning ‘to be’ – is the most basic, and we have seen two examples of this earlier in this chapter, namely (15) and (17) above. The purposive form of the copula expresses the intention, or even targeted plan of someone to do something, as in (40). A possible origin of the prefix *m-* might be the allative case marker *-me* (∼ *-m*), which can also have purposive semantics.

(40) *ka(ne)* *kewe* *ire* ***m-ane.***
1SG.NOM place eye PURP-be.1SG
‘I want to (go and) see the place’ [bon20181024 LUM #19]

The proximal, absconditive, and ignorative forms of the copula encode epistemic modality similar to what has been described for the presentational copula (cf. §4.3.2). The three categories are best modeled by considering the epistemic state of the speaker and addressee: in the proximal, both are aware; in the absconditive, the addressee is unaware; in the ignorative, the speaker is unaware. Compare the examples below. In (41), the referent of the proximal copula – which is in fact the speaker – is in the awareness of both hearer and speaker.

(41) *i-temn-ine.* *ta(mbe)* *ngi* *ta-d-ige.* *“ka(ne)*
3SG.M.U-ask-1SG.A 3SG.NOM name MID-call_out-3SG.A 1SG.NOM
gora ***s-ane****!”*
PN PROX-be.1SG
‘I asked him and he called out his name: “It’s me, Gora, here!”’
[bon20180209_01 JGO #154]

In (42), the speaker is pointing out the referent of the absconditive copula to the hearer. This is reinforced by the following command “look at him!”.

(42) *an(di)* *sumande* ***tw-eye****.* *ma(ne)* *de-pani(-pi)*
PROX inside ABSC-be.3SG.M 2SG.NOM 3SG.M.U-see(-2SG.A.IMP)
pendi!
MED
‘This one is inside. You look at him!’ [bon20190109 DEP #234]

In (43), a man finds his son-in-law in a desolate state and confronts him as to why he is drunk. The absconditive copula is used to draw attention the surprising situation.

(43) *“ba* *ma(ne)* *ŋena* *mure* *kambo* ***tw-ate****?”*
might 2SG.NOM what action inside ABSC-be.2SG
“What are you up to?” [bon20180122-03 OPE #55]

In (44), the speaker is unaware of his own location, i.e., his situation. Hence, he uses the ignorative copula, roughly ‘be what?’. In the second clause of the example, we see the absconditive copula again. The example comes from the ‘Family Problems’ picture task (San Roque et al. 2012), in which the speaker imitates a character talking to himself. In this stretch of direct speech, the character comes to realize in what awkward situation he has steered himself into. Hence, the absconditive is revealing something new both to the audience on the meta level, but also to the character himself.

(44) *“ka(ne)* *si(ge)* *pande* ***rikw-ane****?* *babe* *nia* *kambo*
1SG.NOM FOC now IGNO-be.1SG big bad inside
tw-ane *pande.”*
ABSC-be.1SG now
“Where have I gotten myself into this? Now I am in big trouble.”
[bon20190109 DEP #519]

6.2 Negation

Bine employs different strategies for negation depending on the intended scope and certain TAM categories (see also Fleischmann (1981d)).

At the NP level negation is expressed with *kako* 'no, without, nothing', which usually follows the element over which it has scope, as in (45).

(45)

"o	*kine*	***uri_kobe***	***kako***	*popoa*
oh	1NSG.EXCL.NOM	fire	without	just

ni-krend-an-in-ige."
1NSG.U-dwell.PL.U-IPFV-PL.U-3SG.A
"Oh, we are just living here without fire." [bon20180125_02 TDI #68]

Clausal negation is expressed with the negator *rika*, which normally occurs in preverbal position, as in (46). Otherwise *rika* can also follow certain nominals, for example temporal nouns (*pande rika* 'not today'), in which case is has scope only over the nominal.

(46)

nie-te	*minji*	***rika***	*t-uem-an-ige.*
water-NOM.SG	good	NEG	VENIT-run.NPL.A-IPFV-3SG.A

"The water is not flowing properly." [bon20180131_18 SMA #106]

Negative commands are built with *gone* 'don't', glossed prohibitive (PROH). In most occurences, *gone* functions as a predicator, i.e., there is no inflected verb in the clause, as in (47).

(47)

"kome	*riporipo*	*gidape*	*agi-temi.*	*ma(ne)*	***gone***	*asati!"*
food	whatever	things	PROX-be.PL	2SG.NOM	PROH	exit

"Food and all things are here. Don't go out!" [bon20180125_01 TTU #141]

6.3 Questions

Content questions are formed by replacing the questioned referent with an interrogative pronoun, which remains in situ, but can be optionally fronted for focus. We have seen examples of questions in (7) and (25) above.

The copula in ignorative inflection (cf. Tables 5 and 14) is often used for questions about locations, rather than the interrogative *ruma* 'where'. We have seen examples of this in (2) and (11b) above.

Polar questions can be formed without any question marker or interrogative pronoun. The rising intonation is then the only marker of a question status (cf. the first clause in example 2). More commonly, polar questions contain one of two particles. There is the polar question marker *na*, as in (48). The second

particle is *ba*, which marks general uncertainty, and can be translated as 'might', as in (49). Hence, *ba* is often epiphenomenal to questions, and not a question marker per se.

(48) *tamtag* *"**na*** *ma(ne)* *kabre* *g-ate?"*
QUOT Q 2SG.NOM spirit IND-be.2SG
'(She) asked: "Are you a spirit?"' [bon20180125_01 TTU #208]

(49) *tep(i)* *"we* ***ba*** *run(di)* *binam-te*
3NSG.NOM hey might which man-NOM.SG
s-e-kired-an-ige *pendi?"*
VENIT-3SG.A-walk.NPL.A-IPFV-3SG.A MED
They (said) "What man might be coming there?"
[bon20180125_02 TDI #291]

6.4 Experiencer-object constructions

The most frequent word order in Bine is AUV, although not all arguments need to be expressed by an NP (or a pronominal). Participant reference is typically obvious from context in natural data. A notable exception to this order are so-called experiencer-object constructions, which express bodily and mental phenomena that affect humans and other sentient beings. There has been some work on experiencer-object constructions in Papuan languages (Foley 1986: 121ff., 190ff. Pawley et al. 2000, Evans 2015b, forthcoming, and Olsson & Döhler, this volume). In Bine, the stimulus or affector is coded as the actor (or subject), while the experiencer is coded as the undergoer (or object). The word order is UAV. In all attested tokens of this construction, the verb *omni* 'hold, grab' is used, as in (50), (51), and (52).

(50) *ka(mbina)* *pen(di)* *krabe-te* *n-omne-pe* *kantage*
1SG.ACC MED anger-NOM.SG 1SG.U-hold.NPL.U-3SG.A.IRR QUOT
"ka(ne) *pande* *morehead* *m-ane."*
1SG.NOM NOW PLN INT-be.1SG
'I got angry and said: "I'm going to Morehead now."' (lit. 'that anger held me') [bon20180126_02 JKO #10]

(51) *ma(mbina)* *kome-te* *bi* *n-omn-ige.*
2SG.ACC food-NOM.SG already 2SG.U-hold.NPL.U-3SG.A
'(when) you already get hungry.' (lit. 'food/hunger already held you.')
[bon20181024 LJA #64]

(52) *iŋga-ne* *pita-te* *kie* *dw-omn-ige.*
younger_sibling-ACC.SG sickness-NOM.SG night 3SG.F.U-hold.NPL.U-3SG.A
'The younger sister got sick at night.' (lit. 'sickness held her')
[bon20180125_01 TTU #48]

7 Concluding remarks

I hope that this grammatical sketch of Bine has shed some light on the small Oriomo family, which still lacks publicly available descriptions for most of its members.

Bine grammar contains a number of fascinating structural features. I have highlighted some of the complexities of its verb morphology, such as verb stem suppletion for participant number, triple indexing for ditransitive inflections, and multiple exponence. Further features of typological interest include the various semantic extensions of the demonstrative system and the copula, which encode engagement.

Abbreviations

All abbreviations follow the Leipzig Glossing Rules. Additional abbreviations are listed here: ABSC = absconditive, CHAR = characteristic, (E) = loanword from English, EMPH = emphatic, IGNO = ignorative, INT = intention, MID = middle, NDU = non-dual, PLN = place name, PN = personal name, RPST = recent past, VENIT = venitive

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Appendix

Table 15: Languages mentioned in this chapter

Language	Family, branch	ISO-code	Glottocode
Agob	Pahoturi River	KIT	agob1244
Bine	Oriomo	BON	bine1240
Ende	Pahoturi River	KIT	agob1244
Gizrra	Oriomo	TOF	gizr1240
Gogodala	Suki-Gogodala	GGW	gogo1265
Idi	Pahoturi River	IDI	idii1243
Kalaw Yagaw Ya	Pama-Nyungan	MWP	kala1377
Kiwai	Kiwaian	KJD	kiwa1251
Komnzo	Yam, Tonda	TCI	wara1293
Marind	Anim, Marind-Boazi-Yaqai	MRZ	nucl1622
Meryam	Oriomo	ULK	meri1244
Nama	Yam, Nambu	NMX	nama1266
Nen	Yam, Nambu	NQN	nenn1238
Ngkolmpu	Yam, Tonda	KCD	ngka1235
Nmbo	Yam, Nambu	NMC	namb1293
Tok Pisin	creole	TPI	tokp1240
Uradhi	Pama-Nyungan	UFR	urad1239
Wipi	Oriomo	GDR	wipi1242