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A web of relations : a grammar of rGyalrong Jiăomùzú (Kyom-kyo) dialects

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Citation

Prins, M. C. (2011, November 29). *A web of relations : a grammar of rGyalrong Jiăomùzú (Kyom-kyo) dialects*. Retrieved from <https://hdl.handle.net/1887/18157>

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Note: To cite this publication please use the final published version (if applicable).

VERBS AND VERB PHRASES

7.0 *Introduction*

Verbs are, literally, where all the action is in rGyalrong. Unsurprisingly, it is this part of the language that has attracted most attention from scholars.

This chapter starts off in section 7.1 with an overview of verb formation in the Jiǎomùzú dialects. Verbs consist of an infinitive marker *ka-* or *kə-* and a verb root. Compound verbs are common, consisting of a noun and one of a handful of compounding verbs. Verbs can be derived from nouns or from other verbs, often with the help of voice markers which are inserted before the verb stem. Irregular verbs occur in the Jiǎomùzú dialects. A verb has at most two stems, the citation form or 'root 1' and either 'root 2', which occurs in past tense forms, or 'root 3' which occurs in imperatives and all third person forms except non-past. Special classes of verbs are the linking, existential and auxiliary verbs, which I discuss briefly. An overview of nominalisation is next, and the section concludes with some remarks on comparisons.

In section 7.2 I discuss person and number marking. Suffix marking is derived from the personal pronouns and contains mainly, though not exclusively, information on number. I propose that the prefixes marking person are to a large extent fused, and that they contain information on the relationship between subject and object as well as on person hierarchy, with first person ranking higher than second and third, and second person ranking higher than third. The Jiǎomùzú dialects employ a system of direction marking in which the verb, when an object ranks higher than a subject, is marked for the category of inverse by *wu-*. Direction marking is sensitive to an animacy or empathy hierarchy. The Jiǎomùzú animacy hierarchy is as follows, with first person ranking highest: 1 > 2 > 3 human > 3 animate > 3 inanimate.

The next section of this chapter, 7.3, is devoted to orientation marking, which works on several levels in Jiǎomùzú. I discuss basic orientation marking in a geographical grid in which the speaker orients himself to his environment from the vantage point of his house. He uses three contrasting sets of directions, vertically up and down, up and down river, and towards the mountain or towards the river. After an overview of the 'solar axis hypothesis', I conclude that at least for Jiǎomùzú this interpretation of the oriental grid is not the most useful. Orientation markers double as mood markers and as tense and aspect markers in a range of different meanings.

Section 7.4 contains a discussion of the marking system for tense and aspect. Tense and aspect markers share one slot in the verb phrase. For tense, in subsection 7.4.b, I look at a situation as a whole within a certain time frame. Aspect covers the time frames and actions that are internal to a certain situation. Jiǎomùzú distinguishes between universal tense, absolute tense and relative tense. For absolute tense there is a basic split between past and non-past. Past tense is marked by prefixing

an orientation marker to the verb stem. Non-past is unmarked. The relative tenses encompass past-in-the-past, present-in-the-past, past-in-the-future, future-in-the-past and future-in-the-future. Aspect marking, described in 7.4.c, occurs on the verb for past progressive with marker *na-*, while past imperfective is marked by *to-*. Present imperfective has *kə-* for first and second person, with *ŋa-* for third. Terminative aspect is marked by *məto-* and *mata-*. A special case is marking for impending action or prospective aspect with viewpoint marker *və-*. The section on aspect concludes with an overview of aspectual meanings that are expressed not through marking on the verb but with the help of adverbs, verbs etc.

Section 7.5 gives a description of evidentiality as used in Jiǎomùzú. The concept underlying all evidentiality marking is the reliability of the speaker's statement. The neutral situation, in which the speaker is an eye witness to the action or event, goes unmarked. Information that is not first-hand knowledge is marked by *a-*. The second instance of evidentiality is marked by *na-*, which marks knowledge or information acquired by the speaker through personal experience, though not necessarily by being an eyewitness to a certain situation. This observation marker is very versatile. It is also used to mark mirativity and to distinguish between outsiders and insiders. The marker *nə-* signals reliability based on an outside authority.

In section 7.6 I look at attention flow. Marking for attention flow with *no-* occurs when the speaker directs a hearer's attention to the object rather than to the agent of the action. Attention flow does not occur in future tense situations and is sensitive to the animacy hierarchy. Topicalisation combined with action flow marking leads to constructions that resemble passives but that are entirely active in the Jiǎomùzú dialects. Marking with *no-* does not change the valency or transitivity of the verb.

The discussion of attention flow is followed by section 7.7 about viewpoint marking. Jiǎomùzú has a set of two viewpoint markers, *ʃi-* and *və-*, that indicate the direction in space in which a person or object is moving at the time of an action, from the perspective of the speaker. The markers are comparable with the use of 'coming towards' and 'going towards' in English.

Section 7.8 in the chapter describes the markers of the voice category. I describe reciprocity, which is marked by *ŋa-* or *wa-*, usually in combination with a reduplicated root. Canonical reflexivity is marked by *bja-* while *nə-* marks emphatic reflexivity and autobenefactive. Four sets of causative markers each add one argument to the verb as they are inserted. Causality markers *sa-/sə-* and *ʃa-/ʃə-* mark indirect causativity, while *ra-/rə-* and *va-/və-* mark direct causatives. Volition is marked by *mə-*. The markers *na-* and *nə-* form applicatives by adding objects. The impersonalising marker *ŋa-* signals the defocusing of the causal participant of an event, while *ŋo-* forms passives.

The chapter concludes with section 7.9 on mood in which I discuss negation, interrogative marking, different kinds of imperatives, real conditionals and a variety of irrealis constructions. Negation uses *ma-* for imperfective situations, *ʃi* in perfective frames and *mə-* for prohibitives. Polar questions are formed by prefixing a verb with *mə-*. Constituent or information questions employ interrogative pronouns or other strategies that do not pertain to verb morphology. Imperatives have root 1 prefixed by an orientation marker. Real conditionals prefix *mə-* to a verb already modified with an orientation marker. Irrealis is signalled by prefixing *a-* to a verb inflected for tense, aspect or mood. Quotatives use direct speech structures modified by the verb *kacəs*, 'say'. Submode expresses a

person's ideas, thoughts or beliefs about an event or fact. There are no markers in the Jiǎomùzú verb morphology to signal submode. Speakers simply add a verb like *kaseso*, ‘think’ to a sentence. The table below shows the categories of the Jiǎomùzú verb and where they occur in the verb phrase:

VERB PHRASE

M	AF	T, A	EV	person	VPT	V	R	R	person, number
Q	<i>no</i>	PFT/OR	NEV	2 <i>tə</i>	<i>ʃi</i>	AP			INTR
<i>mə</i>		<i>to</i>	<i>a</i>	1/2 <i>ta</i>	<i>və</i>	<i>na, nə</i>			1s <i>ŋ</i>
		<i>na</i>		1/3 –					1d <i>dʒ</i>
IMP		<i>kə</i>	OBS	2/1 <i>ko</i>	PROSP	VOL			1p <i>j</i>
<i>to</i>		<i>nə</i>	<i>na,</i>	2/3 <i>tə</i>	<i>və</i>	<i>mə</i>			2s <i>n</i>
<i>na</i>		<i>rə</i>	(<i>nə</i>)	3/1 <i>wu</i>					2d <i>ndʒ</i>
<i>kə</i>		<i>ro</i>		3/2 <i>to</i>		PAS			2p <i>jn</i>
<i>nə</i>		<i>ji</i>	EV	3/3 (<i>wu</i>)		<i>ŋo</i>			3s –
<i>rə</i>			<i>nə</i>						3d <i>ndʒ</i>
<i>ro</i>		PRIMP		INV		REC			3p <i>jn</i>
<i>ji</i>		1,2 <i>kə</i>		<i>wu</i>		CAN:			
		3 <i>ŋa</i>				<i>ŋa</i>			TRANS
IRR						COLL:			1/2s <i>n</i>
<i>a +</i>		PSTPROG				<i>wa</i>			1/2d <i>ndʒ</i>
		<i>na</i>							1/2p <i>jn</i>
COND						IMPS			1s/3 <i>ŋ</i>
<i>mə +</i>		PSTIMP				<i>ŋa</i>			1d/3 <i>dʒ</i>
		<i>to</i>							1p/3 <i>j</i>
NEG						REFL			2/1s <i>ŋ</i>
IMPF:		TER				CAN:			2/1d <i>dʒ</i>
<i>ma</i>		<i>məto</i>				<i>bja</i>			2/1p <i>j</i>
PFT:		<i>mata</i>				EREFL:			2s/3 <i>w</i>
<i>ji</i>						<i>nə</i>			2d/3 <i>ndʒ</i>
PROH:									2p/3 <i>jn</i>
<i>mə</i>						CAUS			3/1s <i>ŋ</i>
						INDIR:			3/1d <i>dʒ</i>
						<i>sa, sə</i>			3/1p <i>j</i>
						<i>ʃa, ʃə</i>			3/2s <i>n</i>
						DIR			3/2p <i>jn</i>
						<i>va, və</i>			3s/3 <i>w</i>
						<i>ra, rə</i>			3d/3 <i>ndʒ</i>
									3p/3 <i>jn</i>

Marker overview

Mood markers

Interrogative (Q) *mə-* is used to form polar questions.

Imperatives (IMP) take the orientation marker (OR) appropriate for the verb, either the lexicalized orientation marker or the marker suitable for the geographical direction expressed in the action, plus verb root 1, which is stressed.

Negation markers (NEG) replace tense and aspect markers. Prohibitive marker (PROH) *mə-* occurs for second person verb phrases without second person prefix *tə-*.

Irrealis (IRR) constructions are marked by *a-* prefixed to an inflected verb phrase.

Real conditionals (COND) take prefix *mə-*.

Two mood markers can occur together to form such constructions as polite question marker *məma* or negative conditional *məji*. In these cases the first marker takes the mood slot while the second marker fits in the tense and aspect marker slot.

Attention flow

Attention flow (AF) marker *no-* can replace tense and aspect markers as well as person markers. When a construction with *no-* is marked for non-direct evidentiality the vowel of the attention flow marker is retained but the marker becomes stressed.

Tense and aspect

Tense and aspect markers share one slot in the verb phrase.

Past perfective tense (PFT) is marked by an orientation marker as appropriate to the verb. The verb is in root 2, with stress on the root.

Relative tense past-in-the-future employs an orientation marker appropriate to the verb prefixed to verb root 1, with stress on the orientation marker.

Past imperfective aspect has two markers, *na-* for past progressive (PSTPROG) and *to-* for past imperfective (PSTIMP). Both markers occur in the same slot as past perfective prefixes. The verb is in root 2.

Present imperfective (PRIMP) is marked by stressed prefix *kə-* for first and second person, while third person employs the unstressed marker *ŋa-*. While non-direct evidential forms of first and second person imperfective use the non-direct evidential marker *a-*, third person present imperfective forms that are non-direct evidential normally take observation marking.

Terminative aspect (TER) occurs in past and non-past situations. For past situations terminative is marked by negation marker *mə-* with orientation marker *to-*. With non-past time frames terminative marking consists of negation marker *ma-* and prefix *ta-*. Terminative aspect marking can be split up, for example, by a nominaliser.

Evidentiality

The marker for non-direct evidentiality (NEV) is *a-*. Marking for non-direct evidentiality occurs in perfective situations. The marker is stressed and replaces the normal marker for past perfective in a verb phrase with verb root 1. The marker signals non-direct evidentiality, as well as a lack of awareness of an action when used with first persons.

Observation (OBS) marker *na-* is stressed. The marker signals knowledge gained by experience rather than by personal witnessing of a situation; new knowledge; and marks the speaker as an insider or outsider to the situation. In verb phrases marked for third person use of observation marking often functions as the direct evidential equivalent of present imperfective marking. Observation marker *na-* becomes *nə-* when it is not in the first slot of the verb phrase, except after negation marker *ma-* or when prefixed to linking verbs *ɲos*, ‘be’, *maʔk*, ‘not be’ and the existential verb *miʔ*, ‘not have’.

Reliability of a statement based on outside authority (EV) is signalled by *nə-* prefixed to a linking verb; the marker is stressed.

Person

The person prefixes occur in ditransitive verbs, except second person prefix *tə-*, which occurs with all verbs.

The person markers include inverse marker (INV) *wu-*, which is sensitive to an animacy hierarchy. When a subject ranks lower on the animacy hierarchy than an object, inverse marking occurs.

Viewpoint (VPT)

The viewpoint marker *və-* can also be used in an aspectual sense signalling impending action.

Voice

Applicatives add objects and are marked by *na-* or *nə-*. Applicative marker *na-* is mostly lexicalised but *nə-* is to a large extent productive.

There are two markers for reflexivity. Canonical reflexivity proper (REFL) is marked by *hʃa-* while emphatic reflexivity and autobenefactive (EREFL) are marked by *nə-*. The two markers can occur in the same verb phrase.

Causativity markers are divided into two sets that mark indirect causativity (*sa-/sə-* and *ʃa-/ʃə-*) and two sets that mark direct causativity (*va-/və-* and *ra-/rə-*).

Verb root (R)

Verb roots can be reduplicated to signal, among other things, reciprocity, repetition and emphasis.

Person and number

Person and number markers are suffixed to the verb root. Transitive relations with a first or second person object mark for object; transitive relations with a third person object mark for subject.

7.1 *Verb formation*

Verb derivation

Jiǎomùzú verbs in their citation form consist of an infinitive marker and a root. The infinitive markers *ka-* and *kə-* also function as nominalisers. Most stative verbs have *kə-* as their infinitive prefix, while most dynamic verbs are prefixed by *ka-*. In Jiǎomùzú stative verbs behave like dynamic verbs. They inflect for categories such as person, number and some forms of tense, aspect, mood, and evidentiality.

(1) kənəfəŋbjən convenient from 方便 *fāngbiàn*, 'convenient' (Chinese)
ma-nəfəŋbjən not convenient (NEG-convenient)

(2)	r̥ɿŋkə	green	from literary Tibetan <i>ljang-khu</i> , 'green'
	* kər̥ɿŋkə		
	r̥ɿŋkə w-əmdoŋk	green	(green 3s:G-colour)

(3)	təskru?	body	kəməskru?	pregnant
	tamar	butter	kəŋamar	greasy, oily
	tənu?	breast	kaʃənu?	breastfeed, suckle
	taʃu?	key	kaʃaʃu?	lock
	tak ^h u?	smoke; cigarette	kasak ^h u?	smoke (of a fire)
	losar	New Year	kanəlosar	celebrate New Year

(4)	kə-mni?	ka-sa-mni?	ka-va-mni?
	INF-little	INF-CAUS-little	INF-AP-little
	few, little	decrease (vt)	decrease (vi)

Other examples of verbs derived from verbs are:

- | | | |
|-----|-------------|--|
| (5) | kargaʔ | like |
| | kanərgaʔ | cherish |
| | kəsanərgaʔ | loveable |
| (6) | kazdə | accumulate; gather (vi) |
| | kasavəzdə | accumulate (vt) |
| | kaŋavəzdə | gather, assemble (vt) |
| (7) | kəʒder | scared |
| | kaʒder | fear |
| | kanəscar | frighten somebody |
| | kasənəscar | cause somebody to be scared |
| (8) | kaʃə | know |
| | kanəpʃə | know (someone), |
| | kasənəpʃə | introduce (a third party causes two people to be introduced) |
| | kəsaŋaməpʃə | recognise; know; be familiar with (each other) |

Sometimes the derivation of a verb from another verb requires not only affixing of a causativity marker but also a change in the root. For example, the verb *kəmbar*, ‘flammable, burnable’, changes its root from *mbar* to *mber* after causativity marker *sə-* is added:

- | | | | | | |
|------|--|----|---------|-----------------|--------------|
| (9a) | tʃəʔ | tə | ʃokʃoʔk | ka-mbar | ma-kʰut |
| | this | C | paper | NOM-ignite | NEG-possible |
| | This paper is not flammable, it is not possible to set it on fire. | | | | |
| (9b) | tʃəʔ | tə | ʃokʃoʔk | ka-sə-mber | kʰut |
| | this | C | paper | NOM-CAUS-ignite | possible |
| | This paper is flammable, it will burn. | | | | |

I have not found adverbs that can be transformed into verbs in a straightforward manner. Some nouns can function as adverbs, and some of these can be transformed into verbs. But it is more likely that the adverb as well as the verb derive from the noun in such cases:

- | | | |
|------|--------------|------------------------------|
| (10) | tazə | secret (noun) |
| | tazəzə | cautiously, quietly (adverb) |
| | tazəzə karjo | talk in low voices, quietly |
| | kanəzə | keep secret |

Compounding

A very productive process in the Jiāomùzú dialects is compounding, in the sense of forming complex predicates. A noun is combined with a verb to form a compound verb. Much used in compounding are the verbs *kaleʔt*, 'hit', *kava*, 'do' and *kataʔ*, 'put'. The verb loses its original or primary meaning when used in compounds. Here are some examples:

- | | | | |
|------|----------------------------|---------------------|----------------------------|
| (11) | popo kava | 'kiss (n) do' | kiss |
| | tarweʔk kava | 'hunt (n) do' | hunt |
| | tarngaʔ kava | 'dance (n) do' | dance |
| | smonlam kava | 'wish (n) do' | give a well-wishing speech |
| | ts ^h oŋ kava | 'business (n) do' | do business |
| (12) | tamtsu kaleʔt | 'button (n) hit' | button |
| | jawət kaleʔt | 'gesture (n) hit' | gesture |
| | jenxwa kaleʔt | 'telephone (n) hit' | make a phone call; call |
| | ts ^h alə kaleʔt | 'welding (n) hit' | weld, solder |
| (13) | tat ^h em kataʔ | 'patrol' (n) put' | patrol |
| | təskeʔr kataʔ | 'measure (n) put' | measure |
| | tatpe kataʔ | 'faith (n) put' | believe |
| | talam kataʔ | 'bet (n) put' | bet |

Less common are compounds with *kalhoʔk*, 'appear, happen':

- | | | | |
|------|-----------------------------|----------------------|---------|
| (14) | t ^h okpe kalhoʔk | 'product (n) appear' | produce |
| | təʃtʃu kalhoʔk | 'sweat (n) appear' | sweat |

Occasionally a noun can take more than one verb to form a compound:

- | | | |
|------|-------------|--------|
| (15) | təji kava | plough |
| | təji kaleʔt | plough |

Frequently there is a compound form as well as a regular verb form expressing the same meaning. The regular form is basically a noun prefixed with process verb marker *ka-* and maybe a voice marker:

(16)	mbərlen kaleʔt	(plane + hit)	kanəmbərlen	plane
	ʃkra kaleʔt	(sieve + hit)	kaʃkra	sieve, sift
	tazbrok kaleʔt	(kick + hit)	kanazbrok	kick (of a horse)
	tascok kaleʔt	(letter + hit)	karascok	write
	taʃuʔ kaleʔt	(key + hit)	kaʃaʃuʔ	lock
	losar kava	(New Year + do)	kanəlosar	celebrate New Year
	tarngaʔ kava	(dance + do)	kanərngaʔ	dance

In some cases there are a compounded form, a regular verb form and a verb that is a cognate or loan from Tibetan or Chinese:

(17)	tət ^h a kava	'book (n) do'	read, study
	karət ^h a		read, study
	kaslep		read, study (Tibetan སྒྲུབ་སྒྲུབ་ <i>slob sbyong</i>)

Marking of grammatical functions by changes in the verb root

The Jiāomùzú dialects have regular as well as irregular verbs. Regular verbs display the same root whatever the marking for tense, aspect and mood. Examples of regular verbs are *kaku*, 'buy' and *kambuʔ*, 'give'. Irregular verbs have more than one root. Which root appears depends on tense, aspect and mood marking and sometimes the semantics of the situation. I have found three different roots so far. An irregular verb uses at most two distinct roots, either root 1 and root 2 or root 1 and root 3.

Root 1 appears in non-past situations. This is normally the root that appears in the citation form of the verb, for example root 1 of the verb *kaleʔt*, 'hit' is *-leʔt*, for the verb *kavi*, 'come', root 1 is *-vi*. Many verbs have a different form that occurs in past tense situations, root 2. Often verbs distinguish between root 1 and root 2 by means of an alternation of glottal stops. If root 1 has a glottal stop, root 2 does not and vice versa. A verb in this category is *kasriʔ*, 'endure':

(18)	citation form		kasriʔ	bind
	non-past	1s	ŋa sriʔ-ŋ	I will bind
		2s	nəŋʝo tə-sriʔw	you will bind
		3s	wuʝo sriʔw	he will bind
	past	1s	ŋa kə-sri-ŋ	I bound
		2s	nəŋʝo kə-sri-w	you bound
		3s	wuʝo kə-sri-w	he bound

The alternation of glottal stops to mark tense is also reported for the Northern rGyalrong dialect of Sîdàbà and for the Central rGyalrong variety of Zhuōkèjī.¹³⁸

Other verbs distinguish between root 1 and root 2 by a change of vowel in the verb root. An example is *kaltep*, 'fold', as shown in the following paradigm:

	NON-PAST	PR. IMPF.	PST	IMP
1s	ltep-ŋ	'kə-ltep-ŋ	kə-ltap-ŋ	
1d	ltep-dʒ	'kə-ltep-dʒ	kə-ltap-dʒ	
1p	ltep-j	'kə-ltep-j	kə-ltap-j	
2s	tə-ltep-w	'kə-tə-ltep-w	kə-tə-ltap-w	kə-'ltep-w
2d	tə-ltep-ndʒ	'kə-tə-ltep-ndʒ	kə-tə-ltap-ndʒ	kə-'ltep-ndʒ
2p	tə-ltep-jn	'kə-tə-ltep-jn	kə-tə-ltap-jn	kə-'ltep-jn
3s	ltep-w	'na-ltep-w	kə-ltap-w	
3d	ltep-ndʒ	'na-ltep-ndʒ	kə-ltap-ndʒ	
3p	ltep-jn	'na-ltep-jn	kə-ltap-jn	

Examples of other verbs that have a vowel change in root 2 forms are:

(19)	citation form	root 1		root 2	
	katʃ ^{hi} i	-tʃ ^{hi} i	go ₁	-rʃi	go ₂
	kavi	-vi	come ₁	-vu	come ₂
	kaʃleʔk	-ʃleʔk	fall ₁ , drop ₁	-ʃlaʔk	fall ₂ , drop ₂
	kanətʃ ^{he} e	-nətʃ ^{he} e	get drunk ₁	-nətʃ ^{ha} a	get drunk ₂
	karwe	-rwe	rise ₁	-rwa	rise ₂
	kaməzeʔk	-məzeʔk	jump ₁	-məzaʔk	jump ₂
	kaməleʔk	-məleʔk	swallow ₁	-məlaʔk	swallow ₂

Remarkably, *katʃ^{hi}i* uses a completely different root for root 2, *rʃi*, rather than just a change of vowel. It is the only verb in my data that employs suppletion.¹³⁹

There are also irregular verbs that apply a vowel change in the verb root for third person in present imperfective and past perfective aspect, observational and non-direct evidential, in irrealis and nominalised forms. In addition to these third person forms, imperatives, which address second persons, also have a vowel change. I call this kind of verb root 'root 3'. The abbreviated paradigm for *katʰoʔ*, 'ask', shows the changes clearly:

¹³⁸ Sun 2000a; Lin 2003.

¹³⁹ The change of the entire root of *katʃ^{hi}i* seems to be consistent across dialects. It is reported by Lin (2003: 255) for Zhuōkèjī as well as by Jacques (2004: 351-357) for several northern dialects.

	NON-PAST	PRIMP	OBS	PFT	PST, NEV
1s	t ^h oʔ-ŋ	'kə-t ^h oʔ-ŋ		to-t ^h oʔ-ŋ	
2s	tə-t ^h oʔ-w	'kə-tə-t ^h oʔ-w		to-tə-t ^h oʔ-ŋ	
3s	t ^h oʔ-w	ŋa-t ^h aʔ-w	'na-t ^h aʔ-w	to-t ^h aʔ-w	to-'a-t ^h aʔ-w
	IMP	IRR	NOM		
1s		a-to-t ^h oʔ-ŋ	kə-t ^h oʔ-ŋ		
2s	to-'t ^h aʔ-w	a-to-tə-t ^h oʔ-w	kə-t ^h oʔ-w		
3s		a-to-t ^h aʔ-w	kə-t ^h aʔ-w		

Other examples of verbs in the root 3 category are:

(20)	citation form	root 1		root 3	
	karndaʔ	-rndaʔ	cram ₁	-rndeʔ	cram ₃
	kaskliʔ	-skliʔ	endure ₁	-sklu	endure ₃

In this study I mark glosses of irregular verb roots with small numbers, 1, 2 or 3, to indicate their category. Citation forms of roots that have alternations are marked with a small number 1.

Nominalisation does not influence the choice of verb root. Take for example the irregular verb *kanəʔf^he*, ‘drink alcohol, get drunk’:

(21)	ka-nəʔf ^h e	kə-nəʔf ^h e-ŋo
	INF-get.drunk ₁	NOM-get.drunk ₁ -p
	get drunk	alcoholics
	pkraʔis	to-nəʔf ^h a
	bKra.shis	PFT-get.drunk ₂
	bKra-shis was drunk.	PFT-NOM-get.drunk ₂ -p
		drunk people, (people who have been drinking)

Apart from the occurrence of root 2 or root 3 in the different syntactic environments as described above, a change in root can also occur in other situations that are governed by semantic or pragmatic factors. Certain modal or aspectual meanings can thus be expressed by a change in verb root that is outside the expected scope of the irregular verb stem. The examples below show the use of *kataʔ*, ‘put’, in different environments. The citation form has the root *taʔ*-, which should normally be considered root 1. However, in non-past situations, the normal environment for root 1, the root *teʔ*- appears, while the past perfective root 2 is *laʔ*-. The verb *kaleʔt*, ‘hit’ is a verb with root 1 and root 2 forms, and is given here to show the contrast with the formation of the roots for *kataʔ*.

(22)	citation form	gloss	root 1 (non-past)	root 2 (past perfective)
	kaleʔt	hit	leʔt	laʔt
	kataʔ	put	teʔ	taʔ

Nominalised forms for these verbs show that the citation form for *kataʔ* is not aberrant. In example (23) the nominalised form of *kaleʔt* uses root 1. In example (24) the expectation is for root 1 *teʔ* of *kataʔ* to appear in the nominalised verb form, but instead root 2 *taʔ* is used. Root 2 of *kataʔ* consistently appears in root 1 environments and should be considered the citation form for this verb:

- (23) dianxwaꞑ kə-leʔt tə pkraʃis 'nə-ŋos
 telephone NOM-hit₁ C bKra.shis EV-be
 The caller is bKra-shis.
- (24) soʃnu laktʃe tʃe-j kə-taʔ tə pkraʃis 'nə-ŋos
 tomorrow things here-LOC NOM-put₁ C bKra.shis EV-be
 The one who will put the things here tomorrow is bKra-shis.

An example of modal meaning expressed through a root change is in sentence (25). The neutral sentence is (25a), with root 1, *teʔ*, of the verb *kataʔ*, 'put' in the irrealis:

- (25a) poŋeʔj pkraʃis w-əmba-j a-nə-tə-teʔ-w raŋraŋ
 money bKra.shis 3s:GEN-vicinity-LOC IRR-PFT-2-put₁-2s other
 You should put the money at bKra-shis', don't take it elsewhere.
- a-mə-tə-'tsep-w
 IRR-PROH-2-take-2s

But in sentence (25b) there appears root 2 with the irrealis form:

- (25b) poŋeʔj pkraʃis w-əmba-j a-nə-tə-'taʔ-w raŋraŋ
 money bKra.shis 3s:GEN-vicinity-LOC IRR-PFT-2-put₂-2s other
 You should put the money at bKra-shis', don't take it elsewhere.
- a-mə-tə-'tsep-w
 IRR-PROH-2-take-2s

The semantic difference between the irrealis forms of (25a) and (25b) is that in (25a) the speaker only exhorts the hearer to put the money at bKra-shis'. The hearer can do so or can decide not to – the moral obligation to act upon the advice of the speaker is not absolute. In (25b), however, the changed root expresses a strong imperative. The hearer will feel obligated or compelled to take the advice about storing the money at bKra-shis' place. The same vowel flip-flop can occur in unmarked non-past situations. Sentence (26a) is just a simple statement that I'm putting my book in a certain place. The verb phrase has root 1. But in sentence (26b), which has a follow-up clause, root 2 appears. The vowel change is apparently triggered by the fact that the first clause is a type of imperfective, albeit one without the verbal prefixes that mark imperfective aspect:

(26a) ṇa ṇ-ət^ha tʃe-j teʔ-ṇ
 I 1s:GEN-book here-LOC put₁-1s
 I'll put my book here.

(26b) ṇa ṇ-ət^ha tʃe-j taʔ-ṇ pkraʃis soʃnu vəja
 I 1s:GEN-book here-LOC put₂-1s bKra.shis tomorrow fetch
 I'll put my book here; bKra-shis will pick it up tomorrow.

Several authors have remarked on the irregularity of verbs across the rGyalrong dialects.¹⁴⁰ The distinction between a root that appears in past tense situations and one that occurs in non-past environments is a shared feature. But the grammatical categories that require variation in the root of a verb are not entirely consistent across the dialects. For example, Guillaume Jacques, for Chábǎo, one of the Northern rGyalrong dialects,¹⁴¹ mentions that stem 3 alternation only occurs in transitive verbs, while stem 2 occurs with some intransitives. In Jiǎomùzú alternation of verb roots occurs in transitive verbs, as shown in the paradigms for *kaltep* and *kataʔ* above, as well as in intransitive verbs. There does not seem to be a big distinction between transitive and intransitive in this respect. Example (27) shows an intransitive verb that is irregular:

(27) ka-məzeʔk to-məzaʔk
 INF-jump₁ PFT-jump₂
 he jumped

Sun, in his paper on Showu, finds that irregular roots employ, besides vowel alternation, a number of other means in their formation, such as a change of consonants, suffixing with *-t*, changes in tone, and others. For Jiǎomùzú I have thus far not found anything like that. The irregular roots are marked only by changes in vowels or an alternation in the occurrence of the glottal stop. According to Lin¹⁴² some twenty percent of verbs in the Zhuōkèjī dialect have irregular roots distinguished by ablaut. Almost all verbs signals stem change by means of tonal flip flops, which involves tone polarity. There are only two categories of irregular roots in Zhuōkèjī. One is used in the citation form, called 'stem 1'. The stem 1 forms “include other person Present Imperfective, Non-Past, Imperative, and Irrealis”. The forms of the other root, Lin's 'stem 2' “are Perfective, Past Imperfective, and self-person Present Imperfective”. Zhuōkèjī's stem 2 combines some of the categories marked by Jiǎomùzú root 2 and root 3. The Zhuōkèjī categories marked in irregular verbs overlap with those marked in the Jiǎomùzú irregular verbs, but do not cover all that is marked by Jiǎomùzú root 2 and root 3.

¹⁴⁰ Guillaume Jacques gives an overview in his work on northern rGyalrong dialects, Jacques (2004: 351-357) and Xiàng (2008: 227-242). Sun 2004 extensively discusses stem change in Showu (a northern rGyalrong dialect).

¹⁴¹ Xiàng (2008: 230).

¹⁴² Lin (2009: 56, 57).

Which verbs are irregular is different across the dialects of rGyalrong. Lin gives *kaki*, 'buy' as having a vowel change, but in Jiǎomùzú *kaku*, 'buy', does not alternate vowels. In contrast, the Jiǎomùzú verb *kat^ho?*, 'ask' does have vowel change, whereas in Zhuōkèjī it does not, according to Lin's data.¹⁴³ Jacques mentions *kandza*, 'eat' as a verb with a distinct root 3 in Chábǎo,¹⁴⁴ but it is has no vowel change in Jiǎomùzú.

Special classes of verbs: linking, existential and auxiliary verbs

The Jiǎomùzú dialects have some verbs that can cover the scope of a sentence as well as the phrase and the clause level. There is a set of two linking verbs, positive *ɲos*, 'be', and negative *maʔk*, 'not be'. There is also a set of two existential verbs, positive *ndo?*, 'have, exist', and negative *mi?*, 'not have, not exist'. Linking and existential verbs do not take the normal verbal prefixes *ka-* or *kə-* in their citation forms. These verbs inflect for person and number and can be marked for tense, aspect, mood, and evidentiality, within the limits posed by the semantics of the verbs:

- (28) kətʃe tə-ɲos-n
 where 2-be-2s
 Where are you?
- (29) ɲa ɲə-poŋeʔj maʔk
 I 1s:GEN-money not.be
 It is not my money.
- (30) varʃi tərmu kəməca na-ndoʔ-jn
 last year person many PFT-have-3p
 Last year there were many people.
- (31) jaŋma to-¹a-mi?
 bike PSTIMP-NEV-not have
 The bike is not there [anymore].

Linking verbs can occur as the main or only verb in a sentence, or they can occur in sentences with one or more nominalised verb phrases. They occur with all kinds of complements, used among other things to define, as in (32), to identify, see example (33) and to indicate role as in (34):

- (32) wuʃo kəru ɲos
 he Tibetan be
 He is Tibetan.

¹⁴³ Lin (2000: 121-131).

¹⁴⁴ Xiàng (2008: 230).

- (33) tʃəʔ tə pkrəʃis ɲos
 this C bKra.shis be
 This is bKra-shis.

- (34) tʃəʔ tə makmə ɲos
 this C soldier be
 He is a soldier.

In sentences with nominalised verb phrases, the linking verb conveys the degree of certainty of the speaker about the statement he just made. Note that the presence of *ɲos* in such statements does not prove that the statement is true or false. It just lets the hearer know that the speaker commits himself to the truth-value of the statement. Linking verbs, especially the positive *ɲos*, often occur at the end of sentences in stories:

- (35) bdət tə kə tərmu ʃi kə-ndza na-kə-ɲos 'nə-ɲos
 demon C PR people often NOM-eat PFT-NOM-be EV-be
 That demon often ate people.

Note that linking verbs can be nominalised, as in (35).

The positive linking verb *stʃi*, like *ɲos*, means ‘be’ but also carries a modal load expressing the speaker’s attitude towards the statement made in the sentence. The modal meanings expressed by *stʃi* range from condescension to modesty. The most straightforward expression of this usage is demonstrated in example (36). Sentence (36) may be used by a neighbour who thinks bKra-shis is not a good marriage candidate because of his lowly profession, or by a proud mother who wants to sound modest when she tells about her son:

- (36) pkrəʃis makmə stʃi
 bKra.shis soldier be:CD
 bKra-shis is no more than a soldier.

The use of *stʃi* can convey a certain disappointment, when something is rather less than one had thought it to be:

- (37) peciŋ wastop kəstsə 'na-stʃi
 Běijīng very small OBS-be:CD
 Běijīng¹⁴⁵ is actually only very small!

¹⁴⁵ 北京.

Examples (38) and (39) show the condescension of a speaker for some aspect of another person's opinion, achievement or behaviour:

- (38) namk^ha tə ata sok kətsə 'nə-stʃi
 sky C above manner small EV-be:CD
 Surely the sky is the size of [the small circle] above [-every child knows that!].
- (39) ŋa kəŋes me ma-kə-varo-ŋ stʃi
 I two only NEG-NOM-own-1s be:CD
 Honestly, I only have two! [And you are stupid not to know that already.]

These sentences are perfectly valid with *ŋos* rather than *stʃi*, but then lack the extra modal load. When a process of change requires the meaning 'become' *kava*, 'do' occurs if there is an agent, while for non-agentive processes *kəŋər*, 'be changed' does service. In sentence (40a) the use of *vaw* indicates an agent in the drying process. The marker *to-* in this example signals relative tense past-in-the-future or future perfective. The sentence is also grammatical with *ŋər*, indicating the drying process happens naturally. In (40b) the use of *ŋər* would be ungrammatical, since the lightening of a load implies an agent's active involvement:

- (40a) tʃəʔ təndʃu 'to-raʔm tʃe wastop kərko va-w
 this leather FPFT-dry LOC very hard become-3s
 This leather will be very hard once it is dry.
- (40b) rgambə w-əŋgi-j laktʃe təŋnes 'to-k^hit tʃe
 basket 3s:GEN-inside-LOC thing a.few FPFT-take.out LOC
 The basket, once some things have been taken out, really will be very light.
- wastop kəʃo va-w
 very light become-3s

Auxiliaries can express a range of modal meanings such as permission, potential, obligation, experience, and a speaker's beliefs or thoughts. The Jiāomùzú dialects have modal auxiliary verbs that can function as the main verb in a sentence or be an auxiliary that modifies other verb phrases. Such verbs take the verbal prefix *ka-* and inflect for the normal verbal categories. To express learned ability Jiāomùzú uses the verb *kaʃpaʔ*, 'can, able, know':

- (41) kəpaʔ-skaʔt kava ʃpaʔ-w
 Chinese.language do know-3s
 She speaks Chinese.

- (42) nənʝo ɲə-tʃʰitʃeꞥ kaleʔt mə-kʰut əhə ɲa ma-ʃpaʔ-ɲ
 you 1s:GEN-car drive Q-can No I NEG-know₁-1s
 Can you drive my car? No, I don't drive (don't know how to)

Example (41) implies that the 'she' referred to learned to speak the Chinese language, and is most likely not a native speaker of Chinese. In example (42) the person requested to drive the car has never learned how to drive and therefore has to refuse the request.

Other auxiliaries in this category are *kacʰa*, 'able' and *kano*, 'dare'. Personal ability to do something is expressed by the verb *katʃʰa*, 'able':

- (43) ɲa kakoʔr mata-cʰa-n 'nə-ɲos mənə ɲa ɲ-əkʃet
 I help TER-able-2s EV-be CON I 1s:GEN-strength
 I am not able to help you, because I'm not strong enough.

ma-'nə-rtek
 NEG-OBS-enough

- (44) nənʝo tərtsʰot kəpdu tʃe vi mə-tə-cʰa-n
 you time four LOC come Q-2-able-2s
 Are you able to come at four o'clock?

There are also auxiliaries, such as *kəjok*, 'may, allow', *kəkʰut*, 'can' that occur only in auxiliary positions in sentences that contain other verbs or verb phrases. These verbs take prefix *kə-* and do not take agreement prefixes. Permission in the narrow sense of the word is expressed by the verb *kəjok*, 'be allowed'. Some examples of jussives with *jok*:

- (45) nənʝo ɲə-tʃʰitʃeꞥ ji-nə-tsep-w jok
 you 1s:GEN-car PFT-ERFL-take-2s may
 You may take the car.
- (46) pkraʃis katʃʰi kʰut koronə nənʝo katʃʰi ma-jok
 bKra.shis go can but you go NEG-allow
 bKra-shis can go, but you are not allowed to go.

The most general and all-encompassing verb for expressing permission, ability and potential, is probably *kʰut*. It ranges in meaning from 'can, okay, may', generally used in situations that require permission or agreement, to 'able', without any semantic limit on that term.

- (47) pkraʃis katʃʰi 'na-kʰut mənə wu-naɲve to-'a-nə-va-w
 bKra.shis go OBS-can CON 3s:GEN-leave PFT-NEV-EREFL-do-3s
 bKra-shis can go, he asked for leave.

- (48) tʃəʔ w-əza tə katʃʰi ma-^lnə-kʰut mənə
 this 3s:GEN-man C go NEG-OBS-can CON
 This man can't go because he can't walk.

kavətʃi ma-^lnə-kʰut
 walk NEG-OBS-can

Unlike the earlier example, (48) does not express a lack of permission to go. Rather, the man is unable to walk. There may be a physical disability or another reason, like personal prestige, that makes walking out of the question.

The modal auxiliary *ra*, 'want, need, must' is a very frequently used verb in Jiǎomùzú clauses and sentences. It is different from other modal auxiliaries because, though it can occur as the main verb in a sentence, it does not take person and number marking:

- (49) ɲa ʃokʃoʔk ki ra *ɲa ʃokʃoʔk ki raŋ
 I paper IDEF need
 I want a sheet of paper.

- (50) nənʝo tə-tʃʰi-n ra
 you 2-go₁-2s must
 You must go.

The verb does inflect for tense, mood and observation. In non-past sentences it can be used as an auxiliary to express a sense of futurity as well as a high degree of certainty for the speaker that an event or action will take place. Future and mood are thus closely linked. Auxiliary *ra* should not be confused with the verb *kanarə*, 'to have use for, need', which inflects for person and number, and cannot be used as an auxiliary. Example (51) shows the use of *kanarə* as a main verb in (51a) while (51b) demonstrates the use of *ra* as a main verb:

- | | |
|---|---|
| <p>(51a) ɲa ma-narə-ŋ
 I NEG-need-1s
 I don't need it.
 I have no use for it.</p> | <p>(51b) ɲa ma-ra
 I NEG-want
 I don't want it.</p> |
|---|---|

Nominalisation of verbs and verb phrases

Nominalisation turns verbs into nominals. Processes of nominalisation are common and exceedingly productive in the Jiǎomùzú dialects, creating anything from agent nouns to relative and complement clauses. Three different nominalisers are used in Jiǎomùzú, *sa-*, *ka-* and *kə-*. Wei and Jacques mention a fourth nominaliser, *tə-*, for the Zhuōkèjī and Chábǎo dialects respectively.¹⁴⁶ The

¹⁴⁶ Wei (韦) (1999: 31); Xiàng (2008: 98-102).

nominaliser *tə-* turns verbs into nominals with the meaning ‘the act of...’, such as English ‘eating’, ‘staring’ or ‘walking’, and into nouns of manner and degree. The nominaliser replaces the verbal marker in the citation form of the verb, as in the following examples from Wei (my transcription):

- | | | | | |
|------|----------|-------|----------|---------------------|
| (52) | ka-ʃmo | steal | tə-ʃmo | the act of stealing |
| | ka-rʒəʔk | run | tə-rʒəʔk | the act of running |

Wei notes that the prefix *tə-* in these examples is equivalent to the noun marker *tə-*, since it allows for the formation of genitives by the replacement of the prefix consonant:

- | | | |
|------|---------------------|-----------------------------|
| (53) | tə-ʃmo | η-əʃmo |
| | NOM-steal | 1s:GEN-stealing |
| | the act of stealing | the stealing of my property |

For Jiǎomùzú this sort of construction does not qualify as a nominalised form. The formation of nouns from verbs by prefixing *tə-* to the root is not productive in Jiǎomùzú. It is not possible to form nouns such as ‘the act of walking’ or ‘the act of running’ in this way:

- | | | | | |
|------|---------|---------|------------|----------------------|
| (54) | karʒəʔk | to run | * tə-rʒəʔk | (the act of running) |
| | kavətʃi | to walk | * tə-vətʃi | (the act of walking) |

Furthermore, nominalised forms can be turned into genitives by prefixing a person marker to the nominalised construction. The nominaliser itself will not be affected. In cases where a noun does occur with *tə-* and denotes a meaning such as ‘the act of...’, as in *təʃmo*, ‘the act of stealing’, it is not possible to form genitives that leave the prefix unaffected:

- | | | | | |
|------|--------|---------------------|------------|-----------------|
| (55) | tə-ʃmo | the act of stealing | * nə-təʃmo | (your stealing) |
| | | | * ηə-təʃmo | (my stealing) |

In those cases in Jiǎomùzú where there is a nominal form with *tə-* it must be considered a non-derived noun in which *tə-* is a noun marker rather than a nominaliser. It is indeed possible to turn such non-derived nouns into genitive constructions:

- | | | |
|------|-----------------------|--------------------------|
| (56) | təʃmo | ηə-ʃmo |
| | (the act of) stealing | 1s:GEN-steal |
| | | The stealing of my stuff |

Jacques describes the formation of nouns of manner and degree, in which verb roots prefixed with *tə-* yield nominals that express a manner of being, for example ‘his face is very black’. That it concerns true nominalisation here rather than non-derived nouns is clear from an example of Jackson Sun, quoted by Wei:

- (57) o-tə-rtʃone? the way she/he dances

The third person genitive marker *o-* is prefixed to the noun and does not replace the consonant of *tə-*. In the Jiǎomùzú dialects this sort of nominalisation does not occur. It is not possible to form constructions like ‘his face is very black’ with *tə-*, let alone to turn them into genitive constructions:

- (58) * w-awo tə-neʔk ndo?
3s:GEN-head NOM-black have

Some forms look as if they are nominalised by *tə-*, as in example (59). At first glance *tə-* seems to be prefixed to the citation form of the verb. On closer inspection *tə-* turns out to be the genitive marker derived from the generic pronoun *təʃo*, ‘oneself’, prefixed to the patient noun *kanəmpʃu*, ‘acquaintance’:

- | | | |
|------|------------------------|-------------------------------------|
| (59) | ka-nəmpʃu | tə-ka-nəmpʃu |
| | NOM-be.acquainted.with | one.self:GEN-NOM-be.acquainted.with |
| | acquaintance | one’s acquaintance |

The proof that this is a genitive construction rather than a nominalisation with *tə-* comes from replacing the generic pronoun marker *tə-* with the marker for another person, for example third person singular. The third person marker replaces *tə-*:

- (60) wu-ka-nəmpʃu
3s:GEN-NOM-be.acquainted.with
the person that he knows, his acquaintance

The nominaliser *sa-* is an oblique marker, deriving nouns that denote place or instrument of the corresponding verbs. The nominaliser replaces the verbal marker of the verb in the citation form:

- | | | | | |
|------|-----------------------|-------|-----------------------|------------------------------------|
| (61) | ka-mp ^h el | sell | sa-mp ^h el | place where selling takes place |
| | tascok ka-leʔt | write | tascok sa-leʔt | instrument or material for writing |

Nominals formed with *sa-* can be turned into genitives by prefixing them with a person marker:

- | | | | |
|------|---|----------------|--------------------------|
| (62) | ka-ju | sa-ju | wu-sa-ju |
| | live | NOM-live | 3s:G-NOM-live |
| | | dwelling place | the place where he lives |
| | wu-sa-ju | sok | ma-kəktu |
| | 3s:G-NOM-live | manner | NEG-big |
| | The place where he lives is not that big. | | |

(63) *nasapu *sanapu

(64) * nə-sa-vu ndə kəʃtɾə ɲos
2s:GEN-NOM-come, that when be

The nominalisers *ka-* and *kə-* are employed in participant nominalisation and action nominalisation. Participant nominalisation forms objects, including those with a patient or recipient role, by prefixing a root with *ka-*, while subjects of intransitive verbs and agents of transitive verbs are formed by prefixing a verb root with *kə-*.

(65)	transitive verb		subject/agent noun
	ka-lok	herd	kə-lok herder
	ka-ʃmo	steal	kə-ʃmo thief
	ka-no	drive	kə-no the one who drives
	ka-ndza	eat	kə-ndza the one who eats
	ka-cop	burn	kə-cop the one who burns

(66) tascok ka-leʔt letter hit: to write tascok kə-leʔt secretary
 ts^hoŋ ka-va trade do: to trade ts^hoŋ kə-va trader, businessman
 talam ka-taʔ bet put: to gamble talam kə-taʔ gambler

(67)	intransitive verb		subject/agent noun
	ka-rjəʔk	run	kə-rjəʔk the runner
	ka-vətʃi	walk	kə-vətʃi the walker, pedestrian
	ka-nətʃ ^h e	drink (alcohol)	kə-nətʃ ^h e the alcoholic, drunk

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(68)	intransitive verb		undergoer/patient noun
	ka-nəngo	(be) ill	kə-nəngo the patient
	ka-ʃpət	breed	kə-ʃpət breeder, herder
	ka-ʃi	die	kə-ʃi the deceased

Jacques¹⁴⁸ notes that in the Northern rGyalrong dialect of Japhug (Chábǎo) agent nominalisation of transitive verbs requires nominaliser *kə-* as well as the possessive prefix *wu-*, which is coreferent with the object. Agent nominalisation of intransitive verbs does not require prefixing with *wu-*. In Jiǎomùzú it is possible to make explicit the object of a transitive verb root which is nominalised for agent by prefixing the nominalised form with third person singular possessive *wu-*, but it is not obligatory, as shown in the following example for the transitive verb *kaku*, ‘buy’:

(69)	kə-ku	tə		kə-ku	tə	pkraʃis	ŋos
	NOM-see	C		NOM-see	C	bKra.shis	be
	the one who buys;	buyer		The buyer is	bKra-shis.		

It is possible to prefix such agent nouns with *wu-*, which to some extent makes an otherwise unmentioned object implicit:

(70)	wu-kə-ku	tə	
	3s:GEN-NOM-buy	C	
	The buyer	(of an item)	

(71)	wu-kə-ku	tə	pkraʃis	ŋos
	3s:GEN-NOM-buy	C	bKra.shis	be
	The buyer	(of that item)	is	bKra-shis.

Normally such marking for genitive does not occur unless the object of the verb is known from the context or is made explicit by the speaker. For example, (72) would be the follow-up in a story where the story teller has told his audience that there was, suddenly, a strange noise:

(72)	wu-kə-məsem	tə	jontan	ŋos
	3s:GEN-NOM-hear ₁	C	Yon.tan	be
	The one who hears it	[the noise]	is	Yon-tan.

The agent noun unmarked for third person singular is *kəməsem*, ‘the hearer; the one who hears’, and is also perfectly grammatical.

Objects can be explicit in a sentence with an agent noun. Marking the agent noun with *wu-* in such situations puts extra emphasis not on the object, but on the nominalised agent:

¹⁴⁸ Jacques (forthcoming: 3).

- (73) pkraʃis kə-məto tə lhamo ɲos
 bKra.shis NOM-see C lHa.mo be
 The person who sees bKra-shis is lHa-mo.

pkraʃis wu-kə-məto tə lhamo ɲos
 bKra.shis 3s:GEN-NOM-see C lHa.mo be
 The person who sees bKra-shis is *lHa-mo*.

Nominalisation with *ka-* forms patient nouns with the meaning ‘that which is...’, which function as objects:

- (74) ka-ndza ka-ndza təndze
 INF-eat₁ NOM-eat₁ food
 eat that which is eaten

Note that *kandza*, ‘that which is eaten’ is a specific participant nominalisation. The noun *təndze*, ‘food’, is the regular noun, marked by noun marker *tə-*.

Along the same lines are patient nominalisations for verbs such as:

- (75) citation form patient noun
 kavəja fetch kavəja that which is fetched
 kacop burn kacop that which is burned
 tascok kaleʔt write kalaʔt that which was written
 kalok herd kalok that which is herded
 kano drive kano that which is driven

- (76) pəʃurtə ka-leʔt tə ʃopʃop ʼnə-ɲos
 a.few.days.ago NOM-hit₁ C fish EV-be
 What we set free a few days ago is fish.¹⁴⁹

- (77) kʰəna ʼna-vi ɲə-ka-leʔt tə kətʃe ɲos
 dog OBS-come₁ 1s:GEN-NOM-hit₁ C where be
 A dog is coming! – where is my thing for hitting with!?

Note that in (77) *ɲəka-leʔt*, though in the English translation it looks like an instrument, the Jiăomùzú form is a patient nominalisation. The literal translation for *ɲəka-leʔt* is ‘that which is hitting’. Instruments are formed with *sa-*, resulting in the case of (77) in *saleʔt*, ‘an instrument for hitting’. Action nominalisation forms nouns that have the meaning ‘the act of...’. In the Jiăomùzú dialects action nominalisation occurs with both *ka-* and *kə-*. Sun¹⁵⁰ remarks that there is a distinction

¹⁴⁹ According to the Buddhist custom of buying sentient beings and setting them free to generate good karma.

between marking for human and non-human in action nominalisation, that is, marking on the verb for human involvement is different from marking for non-human involvement. Human arguments take *ka-* while non-human arguments take *kə-*, specifically in complement clauses where the nominalised verb serves as a sentential subject. In Jiăomùzú actions that involve human and non-human agents alike can be nominalised by either *ka-* or *kə-*, depending on the pragmatics of the situation. When there is a third person subject the nominaliser is *kə-*, but when the subject is a second person *ka-* appears. Compare the following sentences. Both have a third person subject. In (78a) there is a human agent, bKra-shis. In (78b) the agent is a cat. The marking on the nominalised verb makes no difference:

- (78a) pkraʃis ʃarə ma-kə-ndza nə ma-ŋgrel ko
 bKra.shis meat NEG-NOM-eat CON NEG-be.used.to MD:ANX
 bKra-shis is not used to not having meat. (not being the eater of meat)

- (78b) lolo ʃarə ma-kə-ndza nə ma-ŋgrel ko
 cat meat NEG-NOM-eat CON NEG-be.used.to MD:ANX
 The cat is not used to not having meat.

When outside observers make a statement about the eating habits of a third party, here bKra-shis or a cat, the nominaliser is *kə-*. But in a situation where the speaker directly addresses the agent of the action, marking with *ka-* is grammatical when the agent of the eating is bKra-shis, a human, but is rejected by native speakers when the agent is the cat:

- (79a) pkraʃis ʃarə ma-ka-ndza nə ma-ŋgrel ko
 bKra.shis meat NEG-NOM-eat CON NEG-be.used.to MD:ANX
 bKra-shis, you're not used to not having meat! (the eaten not being meat)

- (79b) ?* lolo ʃarə makandza nə maŋgrel ko

Actually, according to native speakers the ungrammaticality of (79b) is caused by a semantic constraint: the speaker cannot have a dialogue with the cat, that is, a human is required in this position. But if given a context in which one would speak to a cat, (79b) becomes acceptable to native speakers. The *kə-/ka-* difference is not caused by the contrast between human and animal, but rather by the opposition of third person subject and second person subject. Consider also the following examples :

- (80a) pkraʃis c^he ma-kə-moʔt nə 'na-haʔw
 bKra.shis liquor NEG-NOM-drink CON OBS-good
 It is good that bKra-shis doesn't drink. (bKra-shis' not drinking is a good thing.)

¹⁵⁰ Sun (2005: 8).

(80b) pkraʃis c^he ma-ka-moʔt nə 'na-haʔw
 bKra.shis liquor NEG-NOM-drink CON OBS-good
 bKra-shis, it's good that you don't drink. (bKra-shis, you not drinking is a good thing.)

(80c) lolo təlo ma-kə-moʔt nə 'na-haʔw
 cat milk NEG-NOM-drink CON OBS-good
 It is good that the cat doesn't drink milk.

(80d) ?* lolo təlo makamoʔt nə 'nahaʔw

Sentence (80c) can be used in a situation where a speaker has a cat that is used to drinking water rather than milk. The speaker likes that, since it is cheaper than having to feed the cat milk, as other households have to do. Sentence (80d) is grammatical for speakers who don't mind addressing their cat and praising it for being so cheap in its upkeep. There is nothing grammatically wrong with the sentence. The example is ungrammatical for those speakers who consider it bizarre to address animals.

Nominaliser *kə-* occurs with any agent if the speech situation is one of observation rather than direct address. When the speaker directly addresses the agent *ka-* occurs.

In one special case, concerning honorific marking, nominaliser *ka-* appears rather than the expected *kə-*. Honorific nominals occur for instance when a king or other highly respected individual speaks. The use of *ka-* either simply marks high social rank for the argument of the verb or indicates a form of imperative. For example, in the A-myi Sgo-ldong story (Text 1 at the end of this study) a diviner pronounces that a certain child is actually a king and the only one who can destroy a terrible demon. The diviner's speech ends with:

(81)ndə k^honə kə-c^ha miʔ-jn to-ka-cəs...
that CON NOM-able not.have-3p:HON PFT-NOM/HON-say
there is no one else who is able [to defeat the demon], [the diviner] said....

The verb phrase *tokacəs*, 'he said' has nominaliser *ka-* expressing honorific rather than the neutral nominaliser *kə-*.

Once a verb has been subjected to participant or action nominalisation it behaves like a normal noun. It can take number marking:

(82) ka-lok kə-lok-po
 INF-herd NOM-herd-p
 herd herders

- (83) ka-nəno to-kə-nəno-ɲo
 INF-hurt PFT-NOM-hurt-p
 hurt people who were hurt; the wounded

A nominalised verb can be turned into genitives like other nominals:

- (84) ka-nəngo kə-nəngo ɲə-kə-nəngo
 INF-be.ill NOM-be.ill 1s:GEN-NOM-be.ill
 be ill patient my patient
- sondi ɲə-kə-nəngo tə kanəja k^hut
 day.after.tomorrow 1s:GEN-NOM-be.ill C go.home possible
 The day after tomorrow my patient can be discharged.

- (85) ka-ptʃo ka-ptʃo ɲə-ka-ptʃo
 INF-use NOM-use 1s:GEN-NOM-use
 usage my usage
- ɲa tama? ka-va-j ɲə-ka-ptʃo ɲos
 I work NOM-do-LOC 1s:GEN-NOM-use be
 I use it for my work.

And nominalised constructions occur with noun adjuncts like contrast marker *tə* and indefiniteness marker *ki*. The following sentence may come from the context of two doctors discussing their respective workloads in the hospital:

- (86) ɲa ɲə-kə-nəngo kərtok pəɲnu ma-vi nənjo nə-kə-nəngo ki
 I 1s:G-NOM-be.ill one today NEG-come you 2s:G-NOM-be.ill IDEF
 One of my patients will not come today, should I see one of yours?
- kanatso mə-ra
 see Q-need

Participant and action nominalisation can be brought to bear on an inflected verb. Nominalisation can co-occur with marking for person and number, tense, aspect and mood and other categories in as far as these categories are compatible with the semantics of the verb root and the context of the nominalised construction. The examples below demonstrate the use of the different categories of inflection in nominalised constructions. Sentence (87) shows the root of *kava*, ‘do’, marked for past imperfective aspect as well as for first person singular:

- (87) η a to-kə-va- η təmpnok tə wastop 'na-mem
 I PSTIMP-NOM-do-1s bread C very OBS-tasty
 The bread that I made turned out to be really tasty!

Example (88) has a nominalised form of *katop*, 'hit', marked for past imperfective aspect with *to-*, and for first person singular:

- (88) η a to-kə-top- η wu-sloppən tə pkraʃis 'nə- η os
 I PSTIMP-NOM-hit-1s 3s:GEN-teacher C bKra.shis EV-be
 [I just dawned on me that] The teacher whom I hit is bKra-shis.

Example (89b) is marked for past tense on the nominalised form of *kartsə*, 'hit (accidentally)'. The speaker in sentence (89a) witnessed the accident sometime in the past. In sentence (89b) the speaker tells about a man who was hit by a car. At some time in the past the speaker saw the man. He knows that the man had an accident but was not present when the accident happened:

- (89a) η a k^horlo kə-rtse w-ərmə tə na-məto- η
 I car NOM-hit 3s:GEN-person C PFT-see-1s
 I saw the man who was being hit by a car.

- (89b) η a k^horlo nə-kə-rtse w-ərmə tə na-məto- η
 I car PFT-NOM-hit 3s:GEN-person C PFT-see-1s
 I saw the man who got hit by a car.

Modality in the next example, (90), is marked on the nominalised root of *kaməto*, 'see' by *ji-*, which indicates negation in perfective environments:

- (90) k^haʃpa- η o namk^ha tə tatʃ^he kəndzət ʃo me ji-kə-məto- η n 'nə- η os
 frog-p sky C size little always only NEG/PFT-NOM-see-3p EV-be
 The frogs had never seen more than only a very small bit of the sky.

Attention flow can be marked on nominalised constructions, as in (91):

- (91) ...wurənə pak nə no-kə-ntʃ^ha 'nə- η os ʃo
 CON pig CON AF-NOM-slaughter EV-be MD:R
 So then they really did slaughter the pig!

But evidentiality cannot be expressed on a nominalised verb construction:

- (92) ji-kə-vu wu-sloppən w-əskruʔ 'na-mbro
 PFT-NOM-come₂ 3s:GEN-teacher 3s:GEN-body OBS-tall
 The teacher who came is tall.
- * ji-'a-kə-vi wu-sloppən w-əskruʔ 'na-mbro
 PFT-NEV-NOM-come₁ 3s:GEN-teacher 3s:GEN-body OBS-tall

To express that a speaker has no direct evidence of a situation or event in a nominalised structure a form of *kacəs*, 'say' is added, to indicate hearsay:

- (93) sloppən w-əskruʔ kə-mbro ki ji-kə-vu 'na-cəs
 teacher 3s:GEN-body NOM-tall IDEF PFT-NOM-come₂ OBS-say
 They are saying (I have heard that) a teacher who is tall has come.

Nominalisers occur in first position in nominals derived from uninflected verbs. They also occur in first position in an inflected nominalised verb phrase, if the verb is marked only for person and number. This kind of nominalisation apparently is quite rare; I only have one or two examples of it in narratives. The example below is from the A-mysis Sgo-ldong story, see Text 1 at the end of this study:

- (94) ŋa nə tʃəʔ tə sok kə-tə-ndoʔ-n
 I CON this C manner NOM-2-have-2s
 I had no idea whatsoever that you were alive and living here like this -...
- nə tʰi ʒik ma-'nə-ʃi-ŋ kʰonə....
 CON what also NEG-OBS -know-1s CON

If a verb phrase that is inflected for other categories, such as tense, aspect or mood, is nominalised, the nominaliser occurs in the second slot, after the first inflection marker. Nominalisers travel, as it were, further to the left in the verb phrase in order to maintain the position in the second slot. In the examples above, nominaliser *kə-* appears after the aspect marker *to-* in (87), and maintains the second slot also after mood marker *ʃi-* in (90). The exception to this rule is causativity marking, which occurs after the nominaliser. This may be an indication that voice markers have a closer relation to the root and are considered more as integral to the verb root than are the other verbal prefixes. Alternatively, it may be that causatives can be derived only from verbs, not from nouns or nominalisations. The examples below demonstrate this for causativity marker *sə-* and the marker for reciprocity, *ŋa-*:

- | | | | | |
|------|---|---|--|--------------|
| (95) | ka-vi
come ₁ | ka-sə-vi
INF-CAUS-come ₁
cause to come, send | kə-sə-vi
NOM-CAUS-come ₁
the sent one | * səkəvi |
| | ndə tə na-kə-sə-vu
that C PFT-NOM-CAUS-come ₂
[They] sent him [to us]. | 'nə-ŋos
EV-be | | * nasəkəvu |
| (96) | ka-leʔt
hit ₁ | ka-ŋa-le-leʔt
INF-REC-RED-hit ₁
fight | kə-ŋa-le-leʔt
NOM-REC-RED-hit ₁
fighter | * ŋakələleʔt |

If the verb is inflected for more than one category and several markers appear before the root, *kə-* still maintains its position in the second slot. This rule also holds for the rare constructions that employ two markers, such as terminative aspect. Terminative aspect is marked by *məto-*, see section 7.4.c on aspect below. Nominaliser *kə-* takes the second slot, between *mə-* and *to-*:

The sentence literally means the old couple had reached their furthest limit in their ability to provide for the child: their resources were finished, and they stopped being able to bring him up. The occurrence of *kə-* between *mə-* and *to-* may be an indication that this form of aspectual should be considered as a combination of a mood marker and tense/aspect marker.

- (98) nənʃo no-ko-mbuʔ-ŋ w-ət^ha tə
you AF-NOM/2/1-give-1s 3s:GEN-book C
the book that you gave me

In example (98) the attention flow marker *no-* takes up the first slot. The second slot is shared by person marker *ko-*, which indicates a second person subject with a first person object, and nominaliser *kə-*, which marks action nominalisation.

Comparisons

Jiāomùzú employs verbs, locatives and adverbs in the formation of comparisons. I discuss comparisons extensively in section 5.3 of the chapter on adverbs. Here I just give an example of equal, comparative and superlative constructions.

Equality is expressed by the verb *kəndʒa*, 'same, similar':

- (99) tʃəʒo tʃ-ambro 'na-ndʒa-dʒ
 1d 1d:GEN-height OBS-EQ-1d
 We two are the same height.

Comparative structures use a locative meaning 'at the bottom of', which is marked for the person and number of the quality that is to be compared:

- (100) ɲa ɲə-ʃartse nəŋʒo nə-ʃartse w-aka-j 'na-neʔk
 I 1s:GEN-skin you 2s:GEN-skin 3s:GEN-COMP-LOC OBS-black
 My skin is darker than yours.

Note that person and number marked on *wakaj* agree with the noun, regardless of the genitive marking on that noun. In example (100) *ʃartse*, 'skin', is third person singular and therefore marked for third person on *wakaj*, even though it is itself marked for first and second person respectively.

Superlatives are formed by placing the adverb *stiŋ*, 'most', in front of the verb:

- (101) wuʒo ɲi-ʃweʃaw^ʔ w-əŋgi stiŋ kəhaʔw 'nə-ŋos
 he 3p:GEN-school 3s:GEN-inside SP good EV-be
 He is the best student in the school.

7.2 Person and number

a. Transitivity

The Jiāomùzú dialects distinguish between intransitive, transitive and ditransitive verbs. Person and number are expressed by markers suffixed to the verb root. The difference between transitive and intransitive verbs is clear from differences in the suffixes for person and number, see section 7.2 on person and number marking below. Transitive verbs also can express the relationship between the subject and one object in person markers which are prefixed to the verb root. If there is an inanimate direct object and an animate recipient or goal, the recipient is treated as the direct object in the person and number marking on the verb. For all other combinations of object and patient the agreement of the verb follows the system as described below. The semantics of a verb also govern which arguments are expressed in the person and number marking affixed to the verb root. The

overarching principle here is that there must be a direct relationship between the two arguments marked on the root. For example, the verb *katop*, ‘hit’ is transitive. The subject and the object are directly linked by the action expressed by the verb root. Both subject and object are expressed on the verb in the person prefixes. When there is no direct impact of the action expressed by the root on the object, no person prefixes appear. For example, there are several verbs that mean ‘give, hand, pass to’. The verb *kambu?* means ‘give’ and implies a direct vector between subject and patient or recipient. The object that is being given moves from the subject to the recipient and remains there. Person marking is prefixed to the verb root to show the relation between the subject and the recipient:

- (102a) *ŋa nəŋʂo tət^ha ki ta-mbu?-ŋ*
 I you book IDEF 1/2-give-1s
 I give you a book.

But the verb *kak^ham* means ‘give’ in the sense of ‘handing to, passing’. The subject gives an object, say a book, to a recipient who will pass the book to the person it is ultimately meant for. There is no direct vector between the subject and the recipient; the book only makes a pit stop before passing on. Consequently, the relationship between subject and recipient is not marked. No person prefixation appears with *kak^ham*:

- (102b) *ŋa nəŋʂo tət^ha ki k^ham-ŋ*
 I you book IDEF give-1s
 I give you a book.

Note that in such situations the direct object, the book, is also not marked in the person prefixes. For more on the relationship between subject and objects, see section 8.1 of the chapter on sentences. Several scholars have remarked on the significance of transitivity in rGyalrong. Wáng Jiànmín¹⁵¹ and Zànlā Āwàng, in their comparison between Amdo Tibetan and rGyalrong,¹⁵² maintain that rGyalrong as well as Amdo differentiate between transitive and intransitive verbs. The evidence they provide for transitivity is the presence of an ergative marker after the subject. The problem with that analysis is that in Jiǎomùzú ergativity is marked only to avoid ambiguity. In most instances it is not ambiguous which argument is the subject, and so no ergative marker appears. Moreover, prominence marker *kə*, though it can mark ergativity in Jiǎomùzú, also occurs with constituents that are decidedly not subjects. Its occurrence is not an indicator of transitivity. For a discussion of the role of *kə*, see section 4.3.e of the chapter on nouns. Finally, ergative markers in Tibetan do not always coincide with the distinction of transitivity, but occur usually with intentional verbs.¹⁵³ Jin

¹⁵¹ 王建民.

¹⁵² Wáng Jiànmín and Zànlā Āwàng (1992: 68-70).

¹⁵³ Intentionality in literature on Tibetan verbs is often expressed in the dichotomy ‘active’ and ‘involuntary’, see e.g. page xvi of the introduction to Melvyn Goldstein’s *The New Tibetan-English Dictionary of Modern Tibetan*.

Péng and his former collaborator Qú Āitáng¹⁵⁴ looked at the *-u* suffixes (*-w* in my transcriptions) for second and third person singular in the verb paradigm and analysed them as transitivity markers, as opposed to *-n* for second person singular and no marking for third person singular in the intransitive paradigm. Later work, especially DeLancey's,¹⁵⁵ has advanced other interpretations, which I discuss extensively in section 7.2 on person and number below. Jacques¹⁵⁶ mentions two morphological features of all transitive verbs in Chábǎo, namely a prefix *a-* in the direct aorist 3/3 forms and agent nominals of transitive verbs have a possessive prefix which is co-referent with the object. Neither of these tests is valid for the Jiǎomùzú dialects, so that distinguishing between transitive and intransitive verbs must depend on the person and number marking, as indicated by Jīn.

All examples of paradigms in the sections below are in a simple non-past tense, in which only person and number marking occur. Throughout this study I use a slash to note transitive relations. The transitive relationship between a first person subject and a third person object is thus glossed as 1/3.

b. Intransitive verbs

The verbs *katʰi*, 'go', demonstrates the intransitive paradigm:

(103)	katʰi, 'go'					
	1 s	tʰi-ŋ	2s	tə-tʰi-n	3s	tʰi
	d	tʰi-dʒ	d	tə-tʰi-ndʒ	d	tʰi-ndʒ
	p	tʰi-j	p	tə-tʰi-jn	p	tʰi-jn

The person and number markers for intransitive verbs are as follows:

(104)	1 s	-ŋ	2 s	tə - n	3 s	
	d	-dʒ	d	tə - ndʒ	d	-ndʒ
	p	-j	p	tə - jn	p	-jn

¹⁵⁴ Jīn Péng (1958: 88), Qú Āitáng (瞿霭堂) (1983: 37).

¹⁵⁵ DeLancey 1980.

¹⁵⁶ Jacques (forthcoming: 2).

Person and number marking are derived from the personal pronouns, as can be seen easily from the list of basic pronouns below:

(105)	1 s	ŋa	2s	nənjo	3s	wujo
	de	tʃəno	d	nənʃondʒ	d	wuʃondʒ
	di	tʃəjo				
	pe	jino	p	nənʃoŋo	p	wuʃoŋo
	pi	jiʃo				

Note that the distinction for inclusive and exclusive, which exists in the pronouns, is not marked on the verb. For a full description and analysis, see section 3.1 of the chapter on pronouns.

The person and number markers are suffixed directly to the verb root. The one exception to this is the second person marker *tə-*, which is prefixed, and not linked to the second person singular pronoun *nənjo*. In his comparison of head marking or pronominalising languages Bauman¹⁵⁷ assumes that *tə-* originally embodied a non-pronominal meaning. The evidence he gives for this assumption includes

"the fact that *#te* [Bauman's notation for the proposed prototype marker] is not used as an independent second person pronoun in any language...; that it characteristically assumes a different morphological position from the 1st (or 3rd) person morphemes, occurring in the dual and plural, as well as in the singular; and, lastly, that in Jyarung and Kachin it co-occurs with -n... in the singular."

He then raises the possibility that *tə-* historically should be interpreted as "a type of evidential marker specifying the orientation of an action with respect to the speech participants, specifically that its presence marks the action as not initiated by the speaker." From that position, he says, it is easy to understand the reinterpretation of *tə-* as a second person marker: "Its negative definition - speaker exclusion - is simply inverted to the positive corollary - hearer inclusion - by changing the focused participant." This theory is quite attractive, since the Jiāomùzú dialects have a preoccupation with marking relationships between persons, as shown in the systemic marking of transitive relations as well as hierarchy as expressed in marking for direction and attention flow, which I discuss later in this chapter. In any case, on a synchronic level *tə-* as used in Jiāomùzú can only be interpreted as a second person marker, to which Bauman agrees: "...in specific instances [*#te*] appears to have been reinterpreted as pronominal."

¹⁵⁷ Bauman (1975: 204-206).

For the Jiǎomùzú dialects, the analysis of the markers leads to the following conclusions:

(106)	1s		-ŋ
	2	tə-	
	2s		-n
	non-first		-n-
	dual		-dʒ
	plural		-j

Note that the non-first person marker *-n-* is prefixed to the dual marker but suffixed in the plural marker for second and third person.

Based on his analysis of first and second person intransitive verb affixes of head marking languages Bauman proposes that the system underlying the affixation pattern of these contemporary languages originally did not discriminate person information in the dual and plural.¹⁵⁸ However the Jiǎomùzú dialects of rGyalrong mark for 'non-first', which is person information, skimpy though it is. Bauman thinks this may be a later development. On a synchronic level, the marking in Jiǎomùzú indicates a clear dichotomy between first person and all other persons. It is puzzling why third singular remains unmarked. Based on the marking for first and second person singular, as derived from the personal pronouns, the appearance of *-w* would have been likely, but it is not there. This is an indication that Jiǎomùzú treats third person different from first and second person, which means that there is evidence for two different systems of hierarchy in the language. One system distinguishes first person from second and third, as evidenced by the pronouns, and the other distinguishes first and second from third person. Support for this assumption comes from the transitive paradigm.

c. Transitive verbs

The transitive paradigm

As an example for the transitive paradigm I use the verb *kanajo*, 'wait', which below is given in full. Since *kanajo* expresses an action with a vector which has a direct line between subject and object and which stops at the object, person prefixes occur as well as person and number suffixes:

(107)	1s/2s	ta-najo-n	I will wait for you
	1s/2d	ta-najo-ndʒ	I will wait for you two
	1s/2p	ta-najo-jn	I will wait for you

¹⁵⁸ Bauman (1975: 191-194).

1d/2s	ta-najo-n	the two of us will wait for you
1d/2d	ta-najo-ndʒ	the two of us will wait for you two
1d/2p	ta-najo-jn	the two of us will wait for you
1p/2s	ta-najo-n	we will wait for you
1p/2d	ta-najo-ndʒ	we will wait for the two of you
1p/2p	ta-najo-jn	we will wait for you
1s/3s	najo-ŋ	I will wait for him/her
1s/3d	najo-ŋ	I will wait for the two of them
1s/3p	najo-ŋ	I will wait for them
1d/3s	najo-dʒ	the two of us will wait for him
1d/3d	najo-dʒ	we two will wait for them two
1d/3p	najo-dʒ	the two of us will wait for them
1p/3s	najo-j	we will wait for him
1p/3d	najo-j	we will wait for the two of them
1p/3p	najo-j	we will wait for them
2s/1s	ko-najo-ŋ	you will wait for me
2s/1d	ko-najo-dʒ	you will wait for us two
2s/1p	ko-najo-j	you will wait for us
2d/1s	ko-najo-ŋ	you two will wait for me
2d/1d	ko-najo-dʒ	you two will wait for us two
2d/1p	ko-najo-j	you two will wait for us
2p/1s	ko-najo-ŋ	you will wait for me
2p/1d	ko-najo-dʒ	you will wait for the two of us
2p/1p	ko-najo-j	you will wait for us
2s/3s	tə-najo-w	you will wait for him
2s/3d	tə-najo-w	you will wait for the two of them
2s/3p	tə-najo-w	you will wait for them
2d/3s	tə-najo-ndʒ	you two will wait for him
2d/3d	tə-najo-ndʒ	you two will wait for them two
2d/3p	tə-najo-ndʒ	you two will wait for them

2p/3s	tə-najo-jn	you will wait for him
2p/3d	tə-najo-jn	you will wait for the two of them
2p/3p	tə-najo-jn	you will wait for them
3s/1s	wu-najo-ŋ	he will wait for me
3s/1d	wu-najo-dʒ	he will wait for the two of us
3s/1p	wu-najo-j	he will wait for us
3d/1s	wu-najo-ŋ	the two of them will wait for me
3d/1d	wu-najo-dʒ	they two will wait for us two
3d/1p	wu-najo-j	the two of them will wait for us
3p/1s	wu-najo-ŋ	they will wait for me
3p/1d	wu-najo-dʒ	they will wait for the two of us
3p/1p	wu-najo-j	they will wait for us
3s/2s	to-najo-n	he will wait for you
3s/2d	to-najo-ndʒ	he will wait for the two of you
3s/2p	to-najo-jn	he will wait for you
3d/2s	to-najo-n	the two of them will wait for you
3d/2d	to-najo-ndʒ	they two will wait for you two
3d/2p	to-najo-jn	the two of them will wait for you
3p/2s	to-najo-n	they will wait for you
3p/2d	to-najo-ndʒ	they will wait for the two of you
3p/2p	to-najo-jn	they will wait for you
3s /3s	najo-w	he will wait for him
3s /3d	najo-w	he will wait for the two of them
3s /3p	najo-w	he will wait for them
3d/3s	najo-ndʒ	the two of them will wait for him
3d/3d	najo-ndʒ	they two will wait for them two
3d/3p	najo-ndʒ	the two of them will wait for them
3p/3s	najo-jn	they will wait for him
3p/3d	najo-jn	they will wait for the two of them
3p/3p	najo-jn	they will wait for them

Explicit and implicit occurrence of subject and objects

Because of abundant person and number marking on the verb as well as on nouns the arguments in a sentence are often left out in Jiǎomùzú conversation. However, if the context does not provide clues and if leaving out an argument would lead to ambiguity or confusion for the listener, the argument must appear. For example, the 3/2 form *tonajon* is ambiguous:

- (108) to-najo-n He waits for you
 The two of them wait for you
 They wait for you

The ambiguity is resolved by the use of the appropriate third person pronoun or noun:

- (109) sloppən kə to-najo-n
 teacher PR 3/2-wait-2s
 The teacher waits for you.
- pkraʃis narənə lhamo-ndʒ kə to-najo-n
bKra.shis and lHa.mo-3d PR 3/2-wait-2s
bKra-shis and lHa-mo wait for you.
- wuʃo-ɲo kə to-najo-n
3-p PR 3/2-wait-2s
They wait for you.

Note that prominence marker *kə*, which marks ergativity here, is optional in these constructions. The speaker uses *kə* only to emphasise that listener should get a move on, since people are actually waiting for him. Because indirect objects are not marked on the verb when there is a direct object, they generally have to appear in full form, either as personal pronoun or noun, in the sentence, unless the context provides enough information to avoid confusion. They cannot be omitted like the subject or the object that do get marked on the verb:

- (110) kʰəzaʔ ɲa pkraʃis mbuʔ-ɲ
 bowl I bKra.shis give-1s
 I will give bKra-shis the bowl.
- (111) kʰəzaʔ wuʃo-ɲo kə jino mbuʔ-jn
 bowl 3-p PR we:e give-3p
 They will give us the bowl.

Overview of person and number markers

An overview of the Jiǎomùzú person and number markers follows below:

(112)	1/2s	ta-	-n
	d	ta-	-n-dʒ
	p	ta-	-j-n
	1s/3		-ŋ
	d		-dʒ
	p		-j
	2/1s	ko-	-ŋ
	d	ko-	-dʒ
	p	ko-	-j
	2s/3	tə-	-w
	d	tə-	-n-dʒ
	p	tə-	-j-n
	3/1s	wu-	-ŋ
	d	wu-	-dʒ
	p	wu-	-j
	3/2s	to-	-n
	d	to-	-n-dʒ
	p	to-	-j-n
	3s /3		-w
	d		-n-dʒ
	p		-j-n

Suffixes

The overview of person and number markers above shows that when, in Jiǎomùzú transitive paradigms, there is a third person object, the person and number agreement is with subject. But for a non-third person object, agreement for person and number is with the object. The Jiǎomùzú pattern of agreement is not uncommon. Various scholars have recognized it as a widespread and, presumably, old trait of the language family.¹⁵⁹

As I have shown in section 3.1 of the chapter on pronouns, the person and number suffixes of the

¹⁵⁹ Van Driem (1992: 53), DeLancey (1980: 47-49), Bauman (1975: 243-250).

Jiǎomùzú verb derive from the personal pronouns. An analysis of the suffixes shows that they contain the following components of meaning:

(113)	-ŋ	1s	-j	p
	-n	2s	-n-	non-first
			-dʒ	d

For the suffixes of the intransitive verb this analysis is sufficient, because third person singular remains unmarked, but in the transitive paradigm there remains one suffix to be analysed: *-w* in 2s/3 and 3s/3 forms. The agreement pattern in Jiǎomùzú is significant here. The verb paradigm shows that when there is a third person object, the person and number agreement in the suffixes is with the subject. If there is a non-third person object, agreement for person and number is with the object. That means that *-w* in the 2s/3 forms signals subject marking, here second person singular. This differs from marking in the intransitive paradigm, where a second person singular subject is marked by *-n*. The *-w* marker in 3s/3, marking third person singular subject, differs from the intransitive suffixes, where third person singular subjects are not marked. I conclude that, at least in these forms, the Jiǎomùzú dialects mark transitivity and intransitivity differently. Transitivity marker *-w* only occurs with second and third person singular. If it would also mark first person singular it should occur in 1s/3, but it does not. The marker in 1s/3 is *-ŋ*. Here we have another sliver of evidence that Jiǎomùzú opposes first person to second and third person, as well as an indicator of transitivity. The table listing meanings of suffix morphemes as given in (113) should be expanded to include this new information:

(114)	-ŋ	1s	-j	p
	-n	2s	-n-	non-first
	-w	non-first, singular, transitive	-dʒ	d

In the intransitive paradigm the suffixes obviously mark subject, but in the peculiar agreement pattern of the transitive paradigm they signal either object or subject. Since the pattern is regular and the pronominal prefixes show the transitive relationship, see below, there is no need to indicate subject and object in the glossing of person and number suffixes. Throughout this study I gloss the verbal suffixes only for person and number, for example *-ndʒ* will be glossed either as 2d or 3d, according to the agreement pattern and the terms of the transitive relation.

Prefixes

There are five prefixes in the Jiǎomùzú paradigm, *ta-*, *ko-*, *tə-*, *wu-* and *to-*. The suffixes mostly contain information on number, though there is some information on person in non-first person *-n-* and on person and transitivity in non-first person singular transitive *-w*. One may expect therefore that the prefixes will contain the main load of person information. Support for this idea comes from *tə-*, which is the second person marker, familiar from the intransitive paradigm. The marker occurs

in full form in 2/3 forms. Also in other transitive relations with a second person the marker *tə-*, though not in its full form, occurs:

(115)	1/2	t	-	a
	2/3	tə	-	
	3/2	t	-	o

Remarkably, in the prefix *ko-*, which marks 2/1 forms, *tə-* or a form of *tə-* does not occur. Now from the analysis of other verbal prefixes it is clear that in Jiăomùzú two or even three markers can merge and occupy one slot. In such cases one marker displaces either the consonant or the vowel of the second marker. For example, the past perfective negation marker *ʃi-* replaces the consonant of the past tense prefix, but not its vowel, see section 7.9.b on negation. And the non-direct evidential marker *a-* replaces the vowel of the past tense prefix, but leaves the consonant, see section 7.5 on evidentiality. If this principle of merging is applied to the prefixes in the transitive verb paradigm, implicit markers become explicit and the table of prefixes can be expanded as follows:

(116)	1/2	tə	-	a	
	2/1	k	-	tə	- o
	2/3	tə	-		
	3/2	tə	-		o

Assuming that in 1/2 second person marker *tə-* replaced the consonant of a second prefix, but not the vowel, *-a* should signal the other half of the transitive relation, which is first person. In the 2/1 forms, if I assume second person *tə-* to be implied, the consonant *k-* should mark first person. This leads to the proposition that underlying 1/2 prefix *ta-* and 2/1 prefix *ko-* are the second person marker *tə-* and a first person marker *ka-*. The prefix *ka-*, of course, does not derive from the first person pronoun. But then, neither is *tə-* derived from the second person pronoun. In fact, the use of *ka-* as a carrier of first person information is attested in such forms as Bunan first singular *-ki*.¹⁶⁰ Further encouragement for the identification of *ka-* as first person marker comes from Bauman, as quoted by Nagano, who gives *#ka* as a tentative construction for the first person pronoun in some eastern Himalayish languages.¹⁶¹ The table can be expanded once more. As was expected, the markers in the first two columns contain person information:

(117)	1/2	tə	-	ka	
	2/1	ka	-	tə	- o
	2/3	tə	-		
	3/2	tə	-		o

¹⁶⁰ Bauman (1975: 194).

¹⁶¹ Nagano (1984: 74).

Note that first and second person markers occur in reverse order: *tə-ka-* for first person subject with a second person object, and *ka-tə-* for a second person subject with a first person object. Also, *ka-* only occurs in forms with a second person, not in forms with a third person. This may be an indication that Jiāomùzú considers first and second persons to be different from third persons. Evidence for this assumption is plentiful in the Jiāomùzú dialects. First, a look at the transitive verb paradigm shows that third person objects are not marked in the person and number prefixes. In 1/3 and 3/3 forms there is no prefix at all. In 2/3 forms the prefix is *tə-*, which marks second person, see the analysis of the intransitive paradigm above. The 3/1 forms have *wu-*, which looks like a third person subject marker. However, *wu-* does not occur in 3/3 forms, where it should occur if *wu-* signals third person subject. So *wu-* signals neither third person objects nor subjects. Furthermore, as noted before, in the Jiāomùzú transitive paradigm third person objects do not show agreement with the person and number suffixes, while non-third person objects do show such agreement. Also, third person does not have any marking for subject in the intransitive paradigm, whereas first and second person subjects are marked. These patterns show that Jiāomùzú treats third person as different from first and second person. Yet another pointer is aspectual marking for present imperfective aspect: *kə-* for first and second person, but *ŋa-* for third person. All this leads to the conclusion that Jiāomùzú employs a system in which first and second persons are opposed to third persons. The hypothetical first person marker *ka-* only occurs in 1/2 and 2/1 sets because first and second person are part of the same set. The 1,2 > 3 opposition necessitates marking in 1/2 and 2/1 forms but not in any relations with a third person.

But assumption of a system that treats first and second person as members of one set, as opposed to third person, flies in the face of the 1 > 2,3 opposition marked by *-n-* for non-first and *-w* for non-first singular transitive in the suffixes, as described above. The conclusion must be that the Jiāomùzú dialects employ two separate but overlapping systems of person classification, both with supporting evidence from elsewhere in the language. The first classification, 1 > 2,3 is marked in the person and number suffixes and has supporting evidence from the pronouns. The second classification, 1,2 > 3, is marked in the person and number prefixes as well as in the agreement pattern and aspect and ergativity marking. Note that the two person classification systems in my analysis do not inherently imply a hierarchical difference between persons. Rather they show just a split between different sets of persons. This analysis leaves only the prefix *wu-* in 3/1 to be accounted for, as well as the unexplained *-o* morpheme in the 2/1 and 3/2 prefixes.

Scott DeLancey was the first scholar to notice in the rGyalrong language a system of direction marking similar to that found in several Amerindian language families.¹⁶² Direction marking is unrelated to marking for geographical orientation, which I discuss in section 7.3 below. Rather, it concerns a system in which agent and patient of a transitive verb are assigned relative rank based on the concept of animacy hierarchy. The animacy hierarchy differs a little from language to language. In the Jiāomùzú hierarchy, which I discuss in more detail in section 7.2.d on inverse marking below, first person ranks higher than second person and third person, second person ranks higher than third

¹⁶² DeLancey 1980.

person, human ranks higher than non-human, and animate ranks higher than inanimate, along the following pattern:

(118) 1 > 2 > 3 human > 3 non-human, animate > 3 non-human, inanimate

Animacy hierarchy in the Jiăomùzú dialects has relevance not only for direction marking but also links to marking for attention flow and ergativity. I discuss animacy hierarchy extensively in section 7.2.d on inverse marking below, including examples that give proof of the hierarchy set out above for Jiăomùzú.

In languages that have a direction marking system, a marker on transitive verbs indicates the direction of the relation between agent and patient. A relation in which the agent ranks higher than the patient on the animacy hierarchy is called ‘direct’. If a patient ranks higher than an agent the relation is called ‘inverse’. Some languages mark both direct and inverse direction on the verb. The Jiăomùzú dialects do not mark for direct, only for inverse. The inverse marker is *wu-*, as the following examples will make clear. Example (119a) and (119b) show a first and second person agent respectively with a third person patient. The relations are direct. Apart from *tə-* for second person, and the normal person and number suffixes that mark the transitive relation for subject, no special marking occurs:

<p>(119a) <i>ŋa pkrəʃis najo-ŋ</i> I bKra.shis wait-1s I will wait for bKra-shis.</p>	<p>(119b) <i>nəŋʝo pkrəʃis tə-najo-n me</i> you bKra.shis 2-wait-2s INTR Will you wait for bKra-shis?</p>
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But if the ranking according to the animacy hierarchy is reversed, *wu-*, which signals neither object nor subject, occurs in the relation between a third person agent and a first person patient:

(120) *pkrəʃis ŋa wu-najo-ŋ*
bKra.shis I 3/1:INV-wait-1s
bKra-shis will wait for me.

The conclusion must be that Jiăomùzú prefers first person over third person for a subject slot in a transitive relation. If the order is reversed, marking with *wu-* occurs. This pattern of marking implies that first person ranks higher than third person. If *wu-* is indeed an inverse marker, one would expect it to show up also in relations with a second person agent and a third person patient, as it does in the Northern rGyalrong dialect of Japhug,¹⁶³ yielding the form *təwunajon*. However, there is no prefix *wu-*. Instead *to-* occurs:

¹⁶³ Jacques (2010: 129).

- (121) pkraʃis nənʝo to-naʝo-n
bKra-shis you 3/2-wait-1s
bKra-shis will wait for you.

Referring back to the table for the analysis of person prefixes, my hypothesis was that *to-* is a merged marker consisting of *tə-* for second person and an unexplained *-o*. Could it be that *-o* actually signals inverse marking? The table of prefixed morphemes, after expansion with *wu-*, looks like this:

- (122) 1/2 tə - ka
2/1 ka - tə - o
1/3
3/1 - wu
2/3 tə
3/2 tə - o

It is clear that relations in which the patient ranks higher than the agent all have either *wu-* or *-o*. This indicates that Jiǎomùzú ranks first person over second, and second over third. Reversal of the ranking triggers marking with inverse marker *wu-*. The inverse marker is merged with person and number prefixes in the cases of second person agents with first person patients and third person agents with second person agents. Including this information in the table leads to the following results:

- | (123) | relation
(AG/PT) | prefix | person | person | rank reversal |
|-------|---------------------|--------|---------|---------|---------------|
| | 1/2 | ta- | tə- (2) | ka- (1) | - |
| | 2/1 | ko- | ka- (1) | tə- (2) | wu- |
| | 1/3 | - | - | - | - |
| | 3/1 | wu- | - | - | wu- |
| | 2/3 | tə- | tə- (2) | - | - |
| | 3/2 | to- | tə- (2) | - | wu- |
| | 3/3 | - | - | - | - |

Summing up

The Jiǎomùzú person and number affixes mark for transitivity in the suffixes of the transitive paradigm. The transitive paradigm gives evidence for two separate but overlapping systems of classifying person. One system opposes first person to second and third. The second system groups first and second person together and opposes them to third person. These classifications in and of themselves do not imply a hierarchy of one person or set of persons over another. Quite apart from these classifications of person, Jiǎomùzú does have a person hierarchy in which first person ranks higher than second and third, and second person ranks higher than third person. The $1 > 2 > 3$

hierarchy finds expression in the Jiǎomùzú preference to have, in neutral sentences, the highest ranking person in the subject slot with the lower ranking person in the object slot. If this order is reversed, the inverse marker *wu-* occurs. The two systems of person classification, 1>2,3 and 1,2>3 overlap for 3/1 forms, which in both systems require marking for inverse ranking. The first system further ranks first person over second person, so that a marker for reverse ranking appears in 2/1 forms. And the second system, by ranking second person over third person, accounts for the occurrence of reverse ranking markers in 3/2 forms. The entire person and number marking system can be summed up as follows:

(124)	ka-	1	-ŋ	1s
	tə-	2	-n	2s
	wu-	rank (inverse)	-dʒ	d
			-j	p
			-n-	non-first
			-w	non-first, singular, transitive

In this study I mark all transitive relationships only for person, for example 3/1 indicates a first person subject with a third person object. The implied marking for reverse ranking is regular and does not need to be noted separately. Semantic and pragmatic factors can trigger inverse marking with *wu-* in normally unmarked situations, see section 7.2.d. In those cases *wu-* is glossed specifically as inverse.

d. The Jiǎomùzú system of inverse marking

The Jiǎomùzú system of direction marking as expressed in the person prefixes is, conform the description above, fairly straightforward. In practice, however, the animacy hierarchy, semantic and pragmatic factors, and speaker preference all play a part in the intricate application of inverse marking.

The analysis of person prefixes above showed that in Jiǎomùzú first person ranks higher than second and third, and that second person outranks third person on the animacy hierarchy. The following examples clarify the influence of the animacy hierarchy on inverse marking. In the 3/3 category, where there is a third person agent and a third person patient, a sentence in which agent and patient are of the same rank in the animacy hierarchy, does not have inverse marking, as expected from the paradigm for *kanajo*, ‘wait’, above. Examples (125a), (125b) and (125c) have human, non-human animate and inanimate subjects and objects respectively, and inverse marking does not occur. Note that the examples also have no marking for ergativity or agentivity since the constituent order is clear. For more on prominence marking with *kə*, see the chapters on nouns and sentences:

(125a) pkraʃis lhamo najo-w
 bKra.shis lHa.mo wait-3s
 bKra-shis will wait for lHa-mo.

(125b) təwaʔm kartsə najo-w
 bear deer wait
 The bear will wait for the deer.

(125c) təmtʃik təjeʔm cop-w
 fire house burn-3s
 The fire will burn up the house.

But inverse marking can occur in sentences with two third person arguments if subject and object are different in ranking on the animacy hierarchy, and the object ranks higher than the subject. It is the speaker's preference to choose the use of inverse marking in these cases. It is not obligatory, and does not make any difference in meaning. For these reasons I have left the 3/3 relations in the paradigm for *kanajo*, 'wait' unmarked. Sentences (126a) and (126b) show that the category human ranks higher than non-human animate. When there is a human subject with a non-human object no inverse marking appears, as in (126a). But a non-human subject with a human object requires inverse marking, as in (126b):

(126a) pkraʃis təwaʔm najo-w
 bKra.shis bear wait-3s
 bKra-shis will wait for the bear.

(126b) təwaʔm kə pkraʃis wu-najo-w
 bear PR bKra.shis 3s:INV-wait-3s
 The bear will wait for bKra-shis.

Example (127) shows that the category animate outranks inanimate. In (125c) two inanimate arguments do not trigger inverse marking. But in a sentence with an inanimate subject and an animate object *wu-* does appear:

(127) təmtʃuk k^hə wu-sat-w
 fire dog 3s:INV-kill-3s
 The fire will kill the dog.

Inverse marking never occurs with inanimate objects, no matter the ranking of the subject:

- (128) təmtʃuk tascok cop-w
 fire letter burn-3s
 The fire will burn the letter.

* təmtʃuk tascok wucopw

- (129) pkraʃis ʃarə najo-w
 bKra.shis meat wait-3s
 bKra-shis is waiting for the meat.

* pkraʃis ʃarə wunajow

Inverse marking in Jiāomùzú differs from the system used in Japhug in that inverse marking is not obligatory in relations with an inanimate subject and a human agent. The following sentence would not be grammatical in Japhug, which requires inverse marking in these cases: ¹⁶⁴

- (130) k^horlo pkraʃis najo-w
 bus bKra.shis wait-3s
 The bus will wait for bKra-shis.

One could think the ‘bus’ here stands for ‘driver’, indicating a human subject. But inverse marking also does not appear with sentences like (131), though speakers usually prefer either topicalisation of the object or prominence marking for the subject to offset the imbalance caused by a human in the object slot with an inanimate entity as subject:

- (131) təmtʃuk pkraʃis cop-w
 fire bKra.shis burn-3s
 The fire will burn bKra-shis.

Inverse marking is not linked to the relative position of object and subject in a sentence. Topicalisation, with the object in the first slot in the sentence and the subject in the second, does not trigger marking with *wu-*, as is clear from the following examples with first person subjects and third person objects. Sentence (132a) is the neutral form while (132b) has the subject in the second slot with a topicalised object in the first slot:

¹⁶⁴ Jacques (2010: 144).

(132a) *ŋa pkraʃis najo-ŋ*
 I bKra.shis wait-1s
 I will wait for bKra-shis.

(132b) *pkraʃis ŋa najo-ŋ*
 bKra.shis I wait-1s
 It is bKra-shis that I will wait for.

When there might be confusion as to which argument is the subject and which the object in a topicalised sentence, the prominence marker *kə* occurs with the subject to solve the ambiguity, but no inverse marking:

(133a) *tʃaʃi sonam sat-w*
 bKra.shis bSod.nams kill-3s
 bKra-shis will kill bSod-nams.

(133b) *sonam tʃaʃi kə sat-w*
 bSod.nams bKra.shis PR:AG kill-3s
 It is bSod-nams that bKra-shis will kill.

Marking inverse ranking according to the animacy hierarchy is the most common reason for the appearance of inverse marker *wu-*. But syntactic considerations can influence the occurrence of *wu-* as well. When a verb phrase is marked with prefixes for other syntactic categories such as tense and aspect, inverse marking with *wu-* disappears, even in those situations where it is normally obligatory. In (134), which is marked for past perfective, there is a third person inanimate subject with a human object. The expected form of the verb phrase would be *nawusat*, but *wu-* does not appear:

(134a) *təmtʃuk kə pkraʃis na-sat-w*
 fire PR:AG bKra.shis PFT-kill-3s
 The fire killed bKra-shis.

Note that in this sentence the subject is marked by prominence marker *kə* for agentivity, even though there is no confusion about which argument has the role of subject and Jiǎomùzú does not normally mark subjects for ergativity or agentivity. The issue here is rather that bKra-shis is human, outranking the inanimate fire. The attention of the hearer will rest with the human object rather than the inanimate subject. Prominence marker *kə* puts the appropriate amount of emphasis back on the subject. The animacy hierarchy also links to prominence marking with *kə* for, among other things, agentivity. But a subject that ranks lower on the animacy hierarchy than an object does not automatically require marking with *kə*, as is clear from example (132b) above. For an extensive discussion of the relation between prominence marking and animacy hierarchy, see section 4.3 of the chapter on nouns.

The preferred form of (134a) for native speakers is actually marked for attention flow by *no-*, directing the hearer's attention to the object bKra-shis and away from the subject fire:

- (134b) təmtʃuk kə pkraʃis no-sat-w
 fire PR:AG bKra.shis AF/PFT-kill-3s
 The fire killed bkra-shis.

At first glance, it looks as if inverse marker *wu-* has merged with past tense marker *na-* to produce attention flow marker *no-*. The following example shows that this is not the case. In (135) there is an inanimate third person subject, fire, with a human object, you. As expected, the 3/2 relation is marked by *to-*, which, according to the analysis above, already includes inverse marking with *wu-*. Nevertheless, attention flow marker *no-* appears and the normal past tense marker *na-* is prohibited:

- (135) təmtʃuk kə nəŋʝo no-to-cop-n
 fire PR you AF/PFT-3/2-burn-2s
 The fired burned you.

* təmtʃuk kə nəŋʝo natocopn

Also, attention flow marking can occur together with inverse marking, as the examples below will show. For more on attention flow marking, see section 7.6 below.

In non-past tense sentences marked for observation, inverse marking also does not occur in situations where it would be expected. The observation marker is *na-*, but example (136b) does not have *nawunajo*:

- (136a) pkraʃis təwaʔm 'na-najo-w
 bKra.shis bear OBS-wait-3s
 bKra-shis is waiting for the bear.
- (136b) təwaʔm kə pkraʃis 'na-najo-w
 bear PR bKra.shis OBS-wait-3s
 The bear is waiting for bKra-shis.

In fact, a structure with third person observation marker *na-* as well as inverse marker *wu-* is not grammatical:

- (136c) * təwaʔm kə pkraʃis 'nawunajow

Finally, there are semantic and pragmatic reasons that can influence the speaker's choice to use inverse marking. Consider the following sentences. Both are grammatically correct but differ in meaning. Sentence (137a) has an animate, non-human third person subject and a third person human object, and is marked for inverse accordingly. This is the neutral sentence. It might be used if a bear has been lurking around and the speaker advises that the woman should not walk by herself in the area where the bear has been seen. Sentence (137b) expresses the speaker's certainty, based on

previous experience of the behaviour of the bear, that the bear will be waiting. Perhaps the bear has been around for many years and is known to lie in wait for people at a certain place. Sentence (137b) is unmarked for inverse. The expression of certain modal meanings, such as a speaker's certainty or the habituality of an action or event, can thus interfere with inverse marking:

(137a) təwaʔm jimo wu-najo-w
 bear woman 3/3:INV-wait-3s
 The bear will wait for the woman.

(137b) təwaʔm jimo najo-w
 bear woman wait-3s
 The bear will wait for the woman.

The examples above show that overt inverse marking with *wu-* is normally absent in past tense situations. But in some cases semantic or pragmatic reasons do require its occurrence. One such situation occurs when a lower ranking subject performs an action that has a direct bearing on a not physically present or unaware higher ranking object. In these cases marking with *wu-* indicates the object's participation in the action is somehow less than entire. This emphasises once more the importance in transitive relations of the direct vector between subject and object for the duration of the action or event. The function of inverse marking in these cases is somewhat similar to the role of argument suppressing markers like *ŋa-*, which suppresses agents (see section 7.8 on voice below). But *wu-* does not belong in this category. First of all, it occurs before person markers, while voice markers occur after person markers. Second, marking with *wu-* does not change the valency of the verb nor does it inhibit person and number suffixing. Inverse marking in these instances differs from generic marking with *wu-* in Japhug, which does inhibit person and number marking.¹⁶⁵ As shown above, a 3/1 relation in a transitive verb paradigm is marked by *wu-*, for inverse. In sentences with 3/1 relations in past tense this marker does not usually appear, though it occurs, as normal, in non-past tense sentences. Consider the following examples, all for the 3/1 forms of transitive verbs:

(138a) pkraʃis ŋa tətʰa wu-ʃi-rŋe-ŋ
 bKra.shis I book 3/1:INV-VPT-lend-1s
 bKra-shis will lend me a book.

(138b) pkraʃis ŋa tətʰa no-ʃi-rŋe-ŋ
 bKra.shis I book AF/PFT-VPT-lend-1s
 bKra-shis lent me a book.

¹⁶⁵ Jacques (forthcoming: 7-10).

- (138c) pkraʃis ɲa tət^ha no-wu-ʃi-rɲe-ɲ
 bKra.shis I book AF/PFT-3/1-VPT-lend-1s
 bKra-shis lent me a book.

Example (138a) gives the default sentence for non-past, where inverse marker *wu-* occurs as expected. Example (138b) shows a sentence in which the expected form is *nowuʃirɲeɲ*. However, *wu-* is absent. Still, the meaning of (138b) is straightforward. I wanted a certain book which was in bKra-shis' possession, and he lent it to me. The unemphasised, unmarked and easily overlooked bit of information in this sentence is that bKra-shis and I actually met face to face. He handed me the book in person. In (138c) there was no such direct transaction. The presence of *wu-* here indicates that somehow bKra-shis lent me the book without my actually physically taking part in the transaction. Maybe bKra-shis came to my house and left the book while I was out. I found out he had done so only upon my return.

Here is another example with the verb *kaskoʔr*, 'hire':

- (139a) pkraʃis ɲa wu-skoʔr-ɲ
 bKra.shis I 3/1:INV-hire-1s
 bKra-shis will hire me.
- (139b) pkraʃis ɲa no-skoʔr-ɲ
 bKra.shis I AF/PFT-hire-1s
 bKra-shis hired me.
- (139c) pkraʃis ɲa no-wu-skoʔr-ɲ
 bKra.shis I AF/PFT-3/1:INV-hire-1s
 bKra-shis hired me.

The pattern in these three sentences is the same as in the previous set, and the difference in meaning as well. Example (139b) indicates that bKra-shis and I agreed that he hire me, during a meeting of some sort. In (139c) there was no personal contact between bKra-shis and me. Rather, bKra-shis came to my house and arranged, maybe with one of my relatives, the hiring. I became aware of the fact only when I returned and my relative told me about it.

Also interesting is the verb *kascoʔ*, 'see off':

- (140a) pkraʃis ɲa wu-və-scoʔ-ɲ
 bKra.shis I 3/1:INV-VPT-see.off-1s
 bKra-shis will see me off.
- (140b) pkraʃis ɲa no-və-scoʔ-ɲ
 bKra.shis I AF/PFT-VPT-see off-1s
 bKra-shis saw me off.

- (140c) pkraʃis ɲa no-wu-və-scoʔ-ɲ
 bKra-shis I AF/PFT-3/1:INV-VPT-see.off-1s
 bKra-shis saw me off.

The structure is the now familiar one - but one may ask how, in (140c), bKra-shis could see me off if I'm not actually physically there? The solution is simple. Example (140b) means that bKra-shis comes to where am, say, my house. From there we go together to the place where our ways part, say the bus station. His seeing me off in this case requires that bKra-shis is with me all the way from my house to the bus station. For the seeing off, our point of departure is the same. In (140c) our points of departure are different. I leave my house at a certain time to go to the bus station, having agreed with bKra-shis to meet him there. bKra-shis goes to the bus station by a different route, and I am not physically present for that part of the seeing off. At the bus station we say goodbye. Then bKra-shis returns home and I take off on the bus.

A similar logic works in the last set of examples, for *kaməto*, 'see, meet, run into'.

- (141a) pkraʃis ɲa wu-məto-ɲ
 bKra.shis I 3/1:INV-see-1s
 bKra-shis will see me.
- (141b) pkraʃis ɲa no-məto-ɲ
 bKra.shis I AF/PFT-see-1s
 bKra-shis saw me.
- (141c) pkraʃis ɲa no-wu-məto-ɲ
 bKra.shis I AF/PFT-3/1:INV-see-1s
 bKra-shis saw me.

Example (141b) simply expresses that bKra-shis saw me somewhere, maybe trying to sneak out of class unseen, and I also saw bKra-shis seeing me. I know he saw me. Example (141c) means that I thought I had, say, sneaked out of class without bKra-shis seeing me. However, he did see me, but I was not aware of that. I found out only when he, or someone else told me. Note that in this example the first person is, to some extent, actually physically present, albeit at a distance. But there is no direct transaction, no direct contact of third person and first person as implied by (141b), even though it is only fleeting eye contact.

Though these examples are all for situations with a third person subject and a first person object, inverse marker *wu-* can also occur, with the same function, in 2/3 and in 3/3 relations:

- (142) pkraʃis nənʃo no-wu-to-najo-n
 bKra.shis you AF-INV-3/2:INV-wait-2s
 bKra-shis waited for you.

In sentence (142) bKra-shis waited, but the person he waited for, ‘you’, did not show up. The ‘you’ is told later by a third party that they had made bKra-shis wait. Note that in this sort of construction there is actually a reduplication of inverse marking. The marker *wu-* is already present in person marker *to-* but gets added once more to signal the special case of a non-present person.

(143a) təwaʔm pkraʃis no-najo-w
 bear bKra.shis AF/PFT-wait-3s
 The bear waited for bKra-shis.

(143b) təwaʔm pkraʃis no-wu-najo-w
 bear bKra.shis AF/PFT-3/3:INV-wait-3s
 The bear waited for bKra-shis.

Sentence (143a) above shows a neutral statement. Example (143b) indicated that bKra-shis was not aware of the bear waiting for him. He wandered around the woods without ever noticing the bear. The waiting bear maybe was disturbed by a third party and so did not interact with bKra-shis. The third party then tells about the waiting bear and the blissfully unaware bKra-shis after the event. This sort of situation is reminiscent of marking for unawareness in the context of evidentiality. But in evidentiality marking only first person can be marked for unawareness. Besides, in the examples with first person objects above, it makes no difference if the person is aware or not of what is happening. The point of the marking with *wu-* is to indicate that one party to the event is either not present or not aware. Either way, the party’s participation in the event is perceived as less than full, complete or wholehearted.

In this section I have shown that Jiǎomùzú marks relative rank of subjects and objects on the verb according to the animacy hierarchy. If the subject ranks higher than the object on the hierarchy no marking occurs. If the object ranks higher than the subject, marking with *wu-* for inverse ranking appears. The inverse marking is merged into the person and number markers for 2/1 and 3/2 relations but is explicit for 3/1 relations. Marking for other syntactic categories like tense and aspect crowd out the inverse marking. But marking for inverse can be explicit on verbs already cluttered with prefixes if there are semantic or pragmatic reasons to do so.

7.3 Orientation

The Jiǎomùzú dialects have an intricate system for marking geographical location and direction, consisting of nouns, adverbs, verbs and orientation markers. In the section below I describe the basic meaning and use of the Jiǎomùzú orientational grid. Part of the grid is a set of seven orientation markers, which occur with motion verbs and other verbs that require specification for the direction of the action expressed by the root. Some of the orientation markers can have derived or metaphorical meanings. Beside their role as markers of geographical direction, the orientation

markers are also used in aspect, tense and mood marking to express a wide range of meanings. I discuss these functions separately in sections 7.4 and 7.9 on tense, aspect and mood of this chapter.

Basic orientational grid and semantic implications

Native rGyalrong speakers of the Jiǎomùzú dialects centre themselves on their house. From there, they locate objects and places in their environment by making use of the main topographical features of their area, namely rivers and mountains. The direction of the house, which way it faces, is not relevant to the distinctions made about the environment.

The standard topography of a rGyalrong valley consists of a main river, at the lowest point of the valley, flanked on either side by steep hillsides on which hamlets or individual houses are situated. Viewing this environment from one's house, logically this leads to a distinction of four specific directions: upriver, downriver, towards the mountain and towards the river. To these four one more pair is added: vertically up and down. The Jiǎomùzú dialects of rGyalrong employ for these six directions orientational nouns, adverbs and verbs as well as orientation markers that are prefixed to the verb. The table below shows the correspondence of the different word categories for the six common orientations.

orientation	noun	adverb	verb	orientation marker
vertically up	ata	sto	kat ^h o	to-
vertically down	ana	na	kaɣə	na-
towards the mountain	atu	ro	karo	ro-
towards the river	ardu	ri	kare	rə-
upstream	aku	sku	kango	kə-
downstream	ani	nu	kandə	nə-

The mountain referred to in the orientation markers is the one to the back of the speaker as he faces the river, say, from the roof of his house, never the one on the opposite side of the river. The river is always the main river at the bottom of the valley, never a tributary or a brook coming down the mountainside.

At issue in determining the use of orientation markers is whether a person faces the river or the mountain, from his own side of the river. Consequently, the mountain-river axis does not imply a change in altitude, though, given the logic of rivers being below mountain slopes, going towards the river often - but not always - necessitates going downwards. By the same token going towards the mountain often, but not always, includes an upwards movement. The concept of verticality is therefore expressed in the separate pair for vertically up and down. In certain cases, where the change in altitude is very pronounced, the vertical movement axis can overrule the mountain-river

distinction.

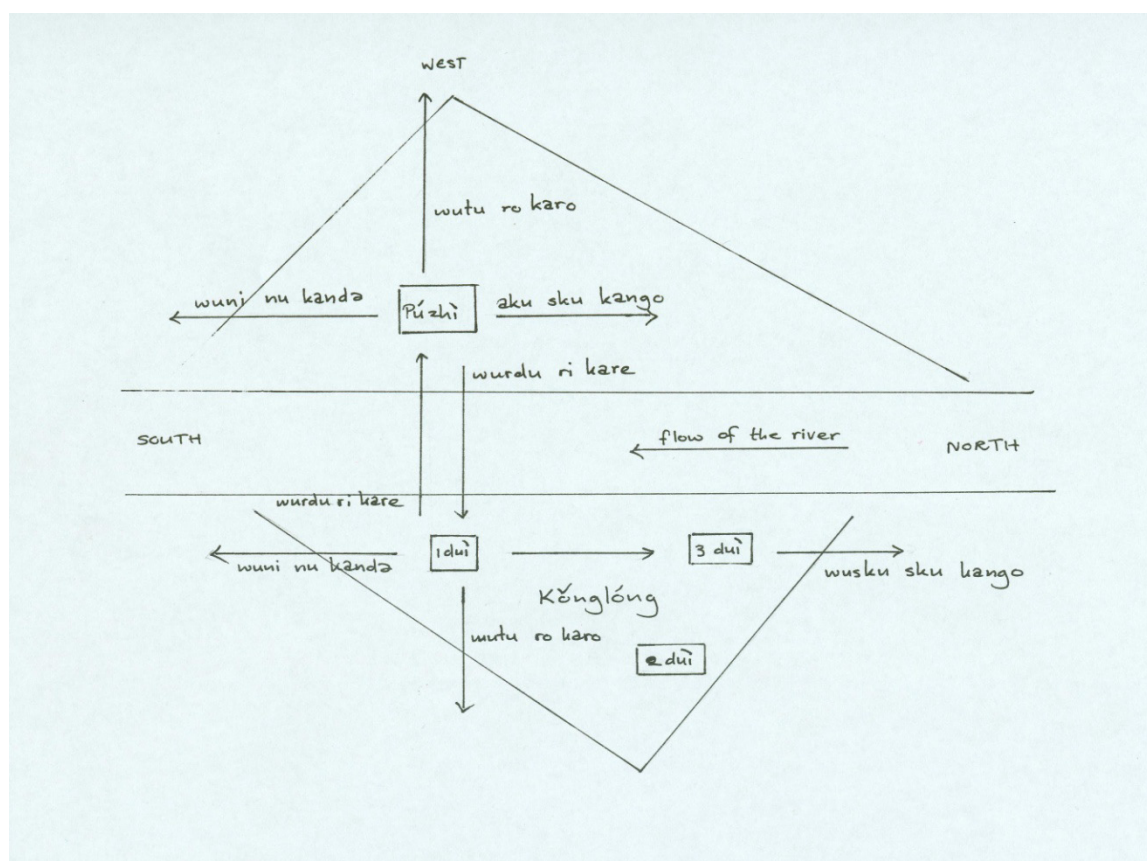
I illustrate the orientational grid with the situation in Kǒnglóng, a village in the township of Jiǎomùzú situated on the eastern slopes along the Jiǎomùzú river, which flows from north to south. For clarity I have added graph number one, see below, which shows the valley from the point of view of a resident of Kǒnglóng. Note that the main features are the river, in front of the speaker, and the mountain, at the back of the speaker, rather than our accustomed orientation for maps, which is northward. On the hill side there are three settlements.¹⁶⁶ Together they make up the village¹⁶⁷ of Kǒnglóng. The first and third settlements are on the lower slopes of the hill, at about the same elevation above the river. The second settlement is higher on the slopes, overlooking both the first and the third settlement. A speaker going from the first settlement to the second settlement of Kǒnglóng will say he is 'going towards the mountain', or, since the incline is quite steep, that he is 'going up'. People walking down from the second settlement to the first settlement will say they are 'going towards the river'. Or they might say they are 'going down', again because the decline is fairly steep.

The river in the Jiǎomùzú orientation system serves as a mirror. Again, the Kǒnglóng situation will make this clear. Across the river, on the slopes opposite Kǒnglóng, is a village called Púzhì. People from Púzhì, when going towards the river, will walk eastwards. People from Kǒnglóng, when going towards the river, move in a westerly direction. Yet all of them will use the same orientation marker, the one for 'towards the river', disregarding the actual cardinal directions of east or west. A speaker from Kǒnglóng can go towards the river or, alternatively, away from the mountain, cross the river and walk up the mountain on the other side - climbing towards Púzhì - all the while still using the markers for 'towards the river, away from the mountain'. The fact that he is now actually climbing up a mountain, away from the river, is irrelevant. What matters is that the speaker's mountain of reference is still in the same position, at his back, and that the river, should a line be drawn indicating his present trajectory, is still in front of his mountain of reference. By the same token, a speaker from Púzhì will use the orientation markers for 'going towards the river' if he walks towards Kǒnglóng, even though the actual direction is the reverse of the trajectory of the person from Kǒnglóng.

¹⁶⁶ In Chinese 队 *duì*, 'team' or 'group'.

¹⁶⁷ In Chinese 村 *cūn*, 'village'.

GRAPH NUMBER ONE: Kǒnglóng and Púzhi



The solar axis hypothesis

I have given a description of the topographical situation in Kǒnglóng, and explained how its features form the frame of reference for a native speaker's orientational system. I have emphasised that the cardinal directions of north, south, east and west as used on maps, are not relevant in this kind of system.¹⁶⁸ That means that in another valley, where the river, for example, flows in an east-west direction rather than north-south as in Kǒnglóng, I would still expect the same orientational distinctions to hold true.

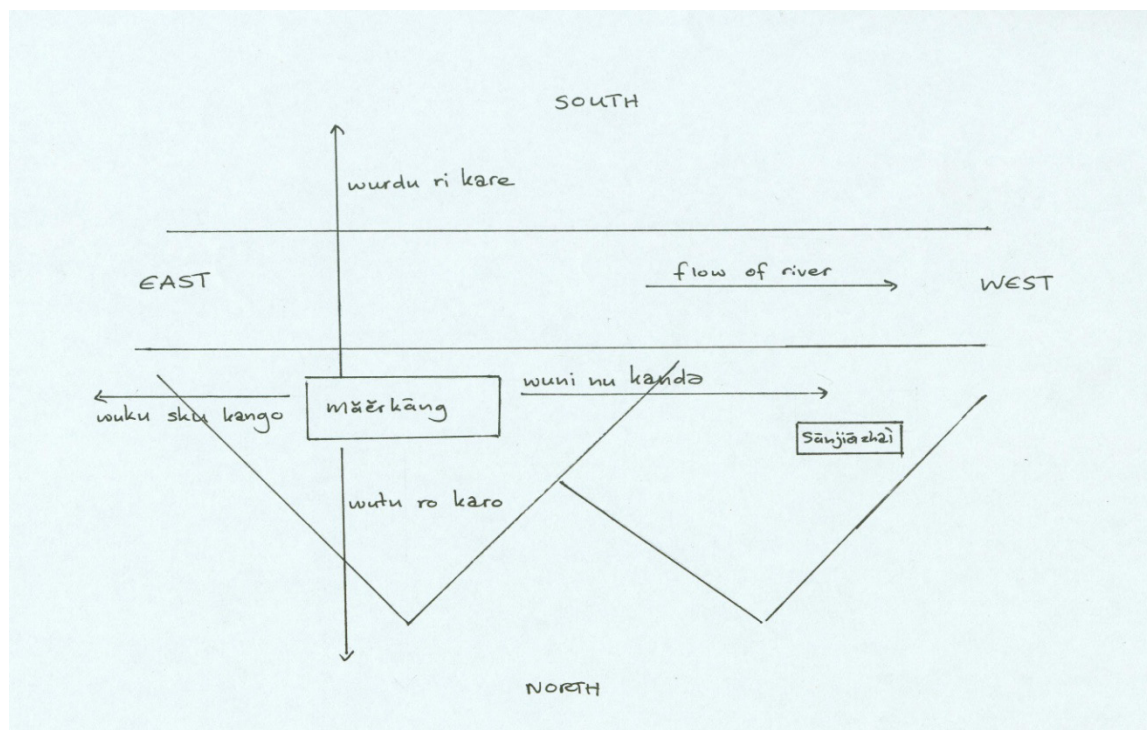
I put this idea to the test in Mǎěrkāng, the seat of government of Mǎěrkāng County. Graph number two below shows the situation. The river flows east to west. The centre of Mǎěrkāng town is situated on the slopes on the north side of the river. A little further west is a village called Sānjiāzhài,¹⁶⁹ about twenty minutes walk from the centre of town, also on the north side of the river. Sānjiāzhài is referred to in some of the example sentences below. There is also a village on the opposite side, to the south, of Mǎěrkāng town, but I have left it out as it is not relevant to this illustration. The

¹⁶⁸ There is no native vocabulary in the Jiǎomùzú dialects to express geographical direction in terms of cardinal directions. Loans from Tibetan are employed when appropriate, for example in liturgical texts which employ standard Buddhist terminology for cardinal directions.

¹⁶⁹ 三家寨.

situation is just like the one in Jiǎomùzú, after a 90 degree rotation to the east. Still, in spite of the change in cardinal directions, the orientational system used by native speakers is unchanged, referring only to the river-mountain, or front-back, and the upstream-downstream axis.

GRAPH NUMBER TWO: Mǎěrkāng and Sānjiāzhài



This confirms the findings of earlier researchers such as Lín Xiàngróng, Qú Āitáng and Nagano¹⁷⁰ for Zhuōkèjī. More recent work by J. T. Sun and Lin You-Jing¹⁷¹ on Cǎodēng, Mùěrzōng¹⁷² and Zhuōkèjī proposes that, rather than the mountain-river distinction, a solar axis marking the cardinal east-west orientation is at work. Of these varieties, Cǎodēng belongs to the group of Northern rGyalrong dialects and Mùěrzōng is a dialect of Lavrung, a language closely related to rGyalrong. Only Zhuōkèjī belongs, like the Jiǎomùzú dialects, to Central rGyalrong and is grammatically close to Jiǎomùzú. In the orientational system proposed by Sun and Lin there are the following three distinctions: east-west, upstream-downstream and vertically up-down. Lin You-Jing's paper gives the most comprehensive overview of the solar axis theory to date. As the verbal prefixes for eastwards and westwards she gives *ko-* and *nə-*. For upriver-downriver she uses *ro-* and *rə-* respectively. She bases this idea on the fact that her consultant, a native of Zhuōkèjī, uses *ro-* "if one were to travel upriver from Jiǎomùzú along the Jiǎomùzú River towards Cǎodēng...conversely, if

¹⁷⁰ Lín (1993: 227-8), Qú (1983: 73), Nagano (1984: 28-40).

¹⁷¹ Sun (2000: 180-183), Lin 2002. The solar axis theory since has also been adopted by Jacques in his work on the Japhug dialect, see Jacques (2004: 358) and Xiàng (2008: 242-258).

¹⁷² 木尔宗, འབྲུག་རྩེ་ལྗོངས་ 'Brag-rdzong.

one were to go from Cǎodēng to Jiǎomùzú [downriver], *rə-* would be the only apt orientation choice."¹⁷³ A salient detail here is that the Jiǎomùzú river flows from north to south. Jiǎomùzú speakers use *kə-* for 'upstream' - in Lin's example, towards Cǎodēng - and *nə-* for 'downstream', towards Jiǎomùzú. Note that the *kə-/nə-* pair here is applied to a north-south axis, and so cannot be equated with a solar axis or east-west orientation. Lin admits that "the use of *ro-* and *rə-* to code a mountain-river contrast does indeed figure prominently in the Zhuōkèjī and Suōmò dialects"¹⁷⁴ but she explains this by positing that originally the use of *ro-* and *rə-* referred to the small streams and brooks that, in some places, flow down the hill sides towards the main river in the valley. Lin then says that "the riverine pair has become generalised for cases where there are no mountain creeks...the orientational markings encode an opposition between higher and lower parts of the slope via metaphorical extension...Moving up-gradient (extended from 'upstream') is moving toward the mountains, and moving down-gradient (extended from 'downstream') is moving toward the river..."¹⁷⁵ If this is so, it makes it quite difficult for speakers to distinguish when *ro-/rə-* refers to up and down river as referring to the main river in the valley, and when it refers to 'towards the mountain' and 'towards the river' based on metaphorical use. Also, it makes the third pair in the orientational grid, *to-* and *na-* for 'upwards' and 'downwards' respectively, rather redundant, unless one interprets them very narrowly as only applying to a straight vertical axis. Jiǎomùzú speakers disagree with such an interpretation. In fact, they sometimes use *to-* and *na-* even to refer to a trip 'up' towards or 'down' from Cǎodēng, which is at a higher elevation than Jiǎomùzú. Also, even if one agrees that metaphorical use¹⁷⁶ of *ro-/rə-* originally indicated up and down river but that these markers now signal the mountain-river axis, this does not solve the issue of use of the 'solar axis pair' *kə-* and *nə-* for upstream and downstream along a north-south axis. Furthermore, for rivers that flow east to west along the solar axis, this leaves native speakers with two pairs of orientation markers for the same directions: *kə-/nə-* and *ro-/rə-*, in this analysis, overlap. In itself this idea is not so farfetched, since native speakers can use *to-/na-*, the vertical axis pair, also in combination with either the mountain-river pair or the upstream-downstream pair, as attested above for Jiǎomùzú. However, according to Lin, in such situations "the solar and riverine subsystems merge and become indistinguishable...The solar subsystem becomes dominant, blocking the riverine dimension. Notably, the dominance of the solar over the riverine subsystem asserts itself only where an upstream direction coincides with absolute east or any subdivision to the right of the north-south axis..."¹⁷⁷ Presumably in these cases Lin uses the main river in a valley as her reference point for *ro-* and *rə-*, rather than possibly present mountain creeks. Furthermore, it would be interesting to see if

¹⁷³ Lin (2002: 33). Zhuōkèjī is situated on the banks of the Suōmò river, about twenty minutes to the west of Mǎěrkāng town. The Suōmò river flows east to west.

¹⁷⁴ Lin (2002: 33).

¹⁷⁵ Lin (2002: 34).

¹⁷⁶ Orientation markers can be used in metaphorical or derived senses of meaning, though in my experience such usage is limited to situations that are removed from general geographical or outdoors distinctions. I briefly discuss derived use of orientation markers below.

¹⁷⁷ Lin (2002: 36).

the *ro-/rə-* distinction does get used to indicate up and down river in Cǎodēng and Mùěrzōng, where the rivers flow from west to east, and thus do not coincide with the solar axis.

The accommodation of the solar axis theory for Central rGyalrong data requires rather a lot of juggling. The mountain-river contrast *ro-/ri-* as used in Jiǎomùzú has to be reinterpreted for other places as riverine, via mountain creeks and a metaphorical jump. The upriver-downriver pair *kə-/nə-* as used in Jiǎomùzú elsewhere overrides riverine contrast if the river flows from west to east. And still all this does not account for the use of *kə-/nə-* in Jiǎomùzú where the river flows from north to south, and *ro-/ri-* is never used to indicate the direction of water flow. By contrast, the simple system of three pairs as set out in the table above is applicable in any valley and allows speakers from different places to correctly interpret what they hear a person say, without having to worry about exactly which river, big or small, and which way it flows in relation to the sun. Until more accurate testing with speakers of Central rGyalrong dialects in their home valleys has shown otherwise, I maintain the simpler system as set out at the beginning of this section.¹⁷⁸

Grammatical expression of geographic orientation

Jiǎomùzú has verbs as well as nouns and adverbs that express specific orientations. The orientation markers as used in the verb phrase are obviously derived from the adverbs, with some minor adjustments, see table above. The nouns refer to locations and can be interpreted as 'a place....', with the right direction to fill in the blank. The noun *ata*, for example, can be glossed as 'a place vertically upwards from the speaker'. The marker *h-* is used to indicate middle to long distance. Long distance from the speaker is expressed by reduplication of the root: *hatata*, 'away up there'. Orientation markers in their basic geographical sense only occur in motion verbs marked for past tense and in imperatives, as the paradigm below for *kambjam*, 'fly', makes clear. The frame has, say, a bird flying in all known directions, with nouns and adverbs from the table above expressing the locations the bird flies to. The nouns are marked for middle distance with *h-*. Example (144a) shows non-past, which is unmarked. Examples (144b), (144c) and (144d) show non-past marked for observation, simple past and imperative respectively:

(144a) non-past

h-akə sku mbjam	will fly upriver
h-anə nu mbjam	downriver
h-ato ro mbjam	towards the mountain
h-ardu ri mbjam	towards the river
h-ata stu mbjam	upwards
h-ana na mbjam	downwards

¹⁷⁸ More testing of orientational grids may lead to surprising results. I know of two Southern rGyalrong villages, Dàwā Cun (大哇, ཏ་བ་, Da-bad) and Zúmù Cun (足木, རྩུ་མུ་ Kyom-mo) located on the same mountain slope in Xiaojin County, Hànniú (汗牛, ཏ་ཉི Ha-nyi) Township which use the same set of markers, *kə-* and *nə-*, but with opposite meanings (Tshe-dbang sGron-ma, personal communication).

(144b) present imperfective	
h-akə sku 'na-mbjam	is flying upriver
h-anə nu 'na-mbjam	downriver
h-ato ro 'na-mbjam	towards the mountain
h-ardu ri 'na-mbjam	towards the river
h-ata stu 'na-mbjam	upwards
h-ana na 'na-mbjam	downwards
(144c) simple past	
h-akə sku kə-mbjam	flew upriver
h-anə nu nə-mbjam	downriver
h-ato ro ro-mbjam	towards the mountain
h-ardu ri ri-mbjam	towards the river
h-ata stu to-mbjam	upwards
h-ana na na-mbjam	downwards
(144d) imperative	
kə-'mbjam	fly upriver!
nə-'mbjam	downriver!
ro-'mbjam	towards the mountain!
ri-'mbjam	towards the river!
to-'mbjam	upwards!
na-'mbjam	downwards!

If there is a need to indicate orientation in a non-past situation a specific orientational verb is required. As shown in the table above, there is a full set of orientational verbs matching the nouns and adverbs. These verbs are in English best glossed with help of the verb 'move': *kat^ho*, 'move up(wards)'; *karo*, 'move towards the mountain'.

The adverbs signal a direction or orientation and are best glossed as 'towards...' or 'in the direction of...'. The adverb *ri* means 'in the direction of the river' or 'towards the river', *nu* is literally 'in the direction in which the water streams', or simply downriver. At first glance it is tempting to consider the orientational adverbs as markers that can be part of the verb phrase. However, they can occur in positions away from the verb phrase, e.g. right before or after a noun phrase, see examples (145c) and (145j). Also, the adverbs can occur in non-past tense sentences as well as in past tense ones, whereas orientation markers cannot, see example (145c), (145i), (145l), and (145t). The adverbs can be used to express that the subject of the sentence moves not only in the direction of, but past a certain point. This is illustrated in examples (145l) and (145m). In (145l) the subject goes in the direction of the river. In (145m) the subject actually crosses the river.

Below follow examples of the use of these related markers for each orientation. Though I have not paraphrased it, the meaning of '...and beyond, past a certain place' may be implied for all orientations if the semantics of the situation allow for such an interpretation.

- (145a) *ŋa soʃnu tambat-j t^ho-ŋ*
 I tomorrow mountain-LOC ascend-1s
 I will go up the mountain tomorrow.
- (145b) *ŋa soʃnu ata tambat-j t^ho-ŋ*
 I tomorrow up.there mountain-LOC ascend-1s
 I will go up that mountain there tomorrow.
- (145c) *ŋa soʃnu ata sto tambat-j t^ho-ŋ*
 I tomorrow up.there up.and.over mountain-LOC ascend-1s
 I will go up and over that mountain there tomorrow.
- (145d) *ŋa soʃnu ata tambat-j sto t^ho-ŋ*
 I tomorrow up.there mountain-LOC up.and.over ascend-1s
 I will go up and over that mountain there tomorrow.
- (145e) *ŋa pəʃur tambat-j to-rʃi-ŋ*
 I yesterday mountain-LOC PFT:up-go₂-1s
 I went up the mountain yesterday.
- (145f) *ŋa soʃnu ʃomu-j tʃ^hi-ŋ*
 I tomorrow bottom.of.the.mountain-LOC go₁-1s
 I will go to the bottom of the mountain tomorrow.
- (145g) *ŋa pəʃur ʃomu-j na-rʃi-ŋ*
 I yesterday bottom.of.the.mountain-LOC PFT:down-go₂-1s
 I went down to the bottom of the mountain yesterday.
- (145h) *ŋa soʃnu ardujɕ-j ro-ŋ*
 I tomorrow second.settlement-LOC go.towards.mountain-1s
 I'll go (up) to the second settlement tomorrow.
- (145i) *ŋa soʃnu ardujɕ-j ro*
 I tomorrow second.settlement-LOC toward. mountain
 I'll go (up) to the second settlement tomorrow.
- ro-ŋ*
go.towards.mountain-1s

(145j) arduj^ㄨ tə kətʃe ɲos? w-atu
 second.settlement C where be? 3s:GEN-the.place.toward.the.mountains
 Where is the second settlement? It's over there (up) in the direction

ro karo tʃe ɲos
 towards.mountain go.towards.mountain LOC be
 of the mountain.

(145k) pkraʃis pəʃur arduj^ㄨ-j ro-rʃi
 bKra-shis yesterday second.settlement-LOC PFT-go₂
 bKra-shis went over to the second settlement yesterday.

(145l) ɲa soʃnu ndə-j ri ri-ɲ
 I tomorrow that-LOC towards.river go.towards.river
 I'll go (down) there towards the river.

(145m) ɲa soʃnu w-ardu-j ri
 I tomorrow 3s:GEN-place.towards.river-LOC towards.river
 I'll go (down) to the place in the direction of the river.

ri-ɲ
 go.towards.river-1s

(145n) ɲa pəʃur ndə-j ri rə-rʃi-ɲ
 I yesterday that-LOC towards.river PFT:to.river-go₂-1s
 I went over there, in the direction of the river, yesterday.

(145o) ɲa soʃnu mbark^ham-j sku ngo-ɲ
 I tomorrow Mǎěrkāng-LOC upriver go.upriver-1s
 I will go (up) to Mǎěrkāng tomorrow.

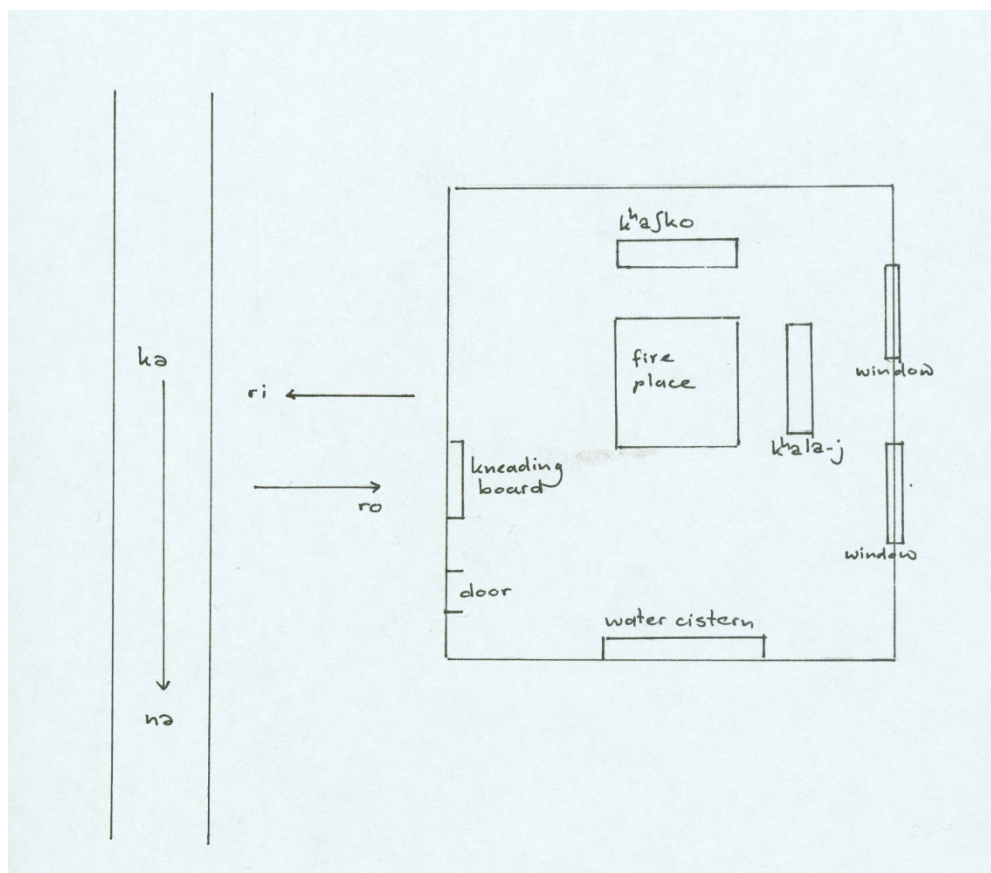
(145p) ɲa pəʃur w-aku-j sku kə-rʃi-ɲ
 I yesterday 3s:GEN-place.upriver-LOC upriver PFT:upriver-go₂-1s
 I went (up) to a place upriver yesterday.

(145q) ɲa soʃnu ndə-ɲ
 I tomorrow go.downriver-1s
 I will go downstream tomorrow.

Orientation inside the house

Inside the house the normal orientational prefixes are used as described above, but often in a derived sense.

GRAPH NUMBER THREE: orientation in the house



The illustration above shows the communal living room or kitchen of a traditional rGyalrong house. The men, along with guests and respected persons such as monks sit in the place called *k'asko*. The women sit on the side called *k'ala-j*. These terms are in themselves directional. For example, *k'ala-j* is derived from *k'a*, 'communal kitchen, living room', and *təla*, 'centre, middle'. When someone enters the house and the host tells him to go towards the window, he will say *rovin*, literally 'come towards the mountain'. When a person is called to come from the door to the men's sitting area, *kəvin*, 'come upriver' will be used, and so on. For references such as 'in front of', 'beside' and 'behind' adverbials are used that are not based in the geographical orientation markers:

- (146) coktse ɲa ɲ-ətɕu tɕe ɲos
 table I 1s:GEN-front LOC be
 The table is in front of me.

- (147) kamtsa ɲa ɲə-kawulaʃke wu-ʃacep ɲos
 window I 1s:GEN-left 3s:GEN-place be
 The window is to my left.

For more on the use of adverbials, see chapter 6 on adverbs.

Orientation outside of the home valley: ji

As long as a speaker is familiar with the geographical situation in a location outside his home valley, he will use the set orientational prefixes and verbs as described above. People from Jiǎomùzú are very familiar with the Mǎěrkāng valley, where the seat of the county government is located. They also are familiar with Ruòěrgài County, a day's travel to the north.

- (148) ɲa pəʃur mk^hono sku kə kə-vi-ɲ ɲos
 I yesterday Kǒnglóng upriver upriver PFT:upriver-come-1s be
 I came from Kǒnglóng yesterday.

- (149) ɲa soʃnu mdzorge-j t^ho-ɲ
 I tomorrow Ruòěrgài-LOC go.up-1s
 I'm going to Ruòěrgài tomorrow.

In example (148) the speaker went from Kǒnglóng to Mǎěrkāng, coming upriver. In example (149) the speaker is in Mǎěrkāng. The verb for 'go vertically up' is used because Ruòěrgài is at a higher altitude than Mǎěrkāng.

When a speaker does not know the relative geographical positions of locations, he will use the general orientation marker *ji-*. The following example comes from a Kǒnglóng speaker whom I asked to imagine she was from Cǎodēng, and say 'I went to Kǒnglóng last year':

- (150) ɲa varʃi mk^hono-j ji-rʃi-ɲ
 I last.year Kǒnglóng-LOC PFT:general.movement-go₂-1s
 I went to Kǒnglóng last year.

Since the speaker had never been to Cǎodēng, she had no idea what the appropriate orientation marker or verb would be. She used the generic orientation marker *ji-* instead, combined with the general motion verb *katʃ^{hi}i*, 'go'.

The use of *ji-* combined with general motion verbs becomes very prevalent in situations where a speaker can make no reference to mountains and rivers at all, e.g. when he is in a city. The following examples are all from Chéngdū, the capital of Sìchuān province. It is a flat place, but there is one well known river that flows through the center of town.

- (151) *ŋa pəʃur xwotseβetsan^ᵛ ji-rʃi-ŋ*
 I yesterday north.railway.station PFT:general movement-go₂-1s
 I went to the North railway Station yesterday.
- (152) *ŋa soʃnu ʃiməntsetsan^ᵛ tʃ^hi-ŋ*
 I tomorrow west.bus.station go₁-1s
 I'm going to the West Bus Station tomorrow.
- (153) *rəntʃ^hemtsʰo w-əʒeʔm h-anu tʃe ɲos*
 Rin.chen.'tsho 3s:GEN-house D-downriver LOC be
 Rin-chen-'tsho's house is over that way.

For lack of their normal mountains and rivers, Jiăomùzú speakers will refer to other landmarks to indicate where a certain object is located. These descriptive references can become rather convoluted:

- (154) *rəntʃ^hemts^ho wu-bangoŋsə^ᵛ minjwən^ᵛ ʃimən^ᵛ*
 Rin.chen.'tsho 3s:GEN-office Mínyuàn Westgate
 Rin-chen-'tsho's office is to the right of Mínyuàn's Westgate.
- kə-sa-məndə tʃe kac^ha wu-ʃet katʃ^hi tʃe ɲos*
 PFT:upriver-CAUS-arrive LOC right 3s:GEN-direction go₁ LOC be
- (155) *pkraʃis malatang^ᵛ kə-ndza ji-'a-tʃ^hi*
 bKra.shis spicy.soup NOM-eat PFT:general.movement-NEV-go₁
 bKra-shis went to eat spicy soup just outside the Eastgate.
- doŋməŋ^ᵛ w-arnam tʃe*
 Eastgate 3s:GEN-vicinity LOC

The marker *ji-* will also be used when there is no real sense of orientation or location at all, just a general sense of more or less abstract movement:

- (156) *nəŋʝo kətʃe ji-kə-tə-vu-n ɲos*
 you where PFT:general.movement-NOM-2-come₂-2s be
 Where have you come from?
- (157) *pkraʃis w-əmp^hi ji-rʃi*
 bKra.shis 3s:GEN-outside PFT:general.movement-go₂
 bKra-shis went out.

Extended or derived meanings of orientation markers

Apart from the marking for geographical direction as discussed above, the markers *kə-* and *nə-* also can have derived orientational meanings. The prefix *kə-* is used to indicate inward, converging or encompassing movement. This marker occurs with verbs like *kamp^hər*, 'embrace', *kamtʃuk*, 'bite', and *kasəmcuɾ*, 'surround'. The marker *nə-* occurs with verbs that express horizontal motion, either in one direction, such as in *kambu?*, 'give', and *kak^hrət*, 'sweep', or in alternating directions, as in *kakli*, 'rub', *kap^hjɪt*, 'wipe', and *karstʃu*, 'wash'. The sentences below give some examples of the secondary meaning of these markers.

- (158) kamtsa nə-k^hrət-w
window PFT-rub-3s
He washed the windows.

- (159) cəktse nə-p^hjɪt-w
table PFT-wipe-3s
He wiped the table.

- (160) pakʃu nə-ta-mbuʔ-n
apple PFT-1/2-give-2n
I gave you an apple.

It is clear that the original meaning of the marker, 'downriver', has largely disappeared, even though it may be argued that the flowing of a river semantically is somewhat related to the concept of 'horizontal movement'. Such a connection is harder to find still in the case of *kə-*, originally the marker for 'upriver':

- (161) makmə təjəʔm kə-nagər-jn
soldier house PFT-surround-3p
The soldiers surrounded the house.

- (162) k^hapri kə tərmu kə-'a-mtʃuk-w
snake PR person PFT-NEV-bite-3s
The snake bit someone.

- (163) tapuʔ kə-nərkək-w
child PFT-hold-3s
She held the child.

Sometimes a speaker has the choice of several possible markers. The verb *kanərkək*, 'hold', from example (163), usually takes *kə-*. But *to-* is also acceptable. The meaning then becomes something like 'picked up, lifted up in one's arms':

- (164) tapu? to-nərkək-w
 child PFT-hold-3s
 She picked up the child.

Verbs that do not require a specific orientation marker, or that do not express any sort of motion, are usually marked by *to-*, *na-*, *kə-* or *nə-* in the past tense. This is by far and away the largest group of verbs. In such combinations the markers do not indicate any orientation at all. A speaker's choice of an orientation marker not only signals past tense meaning but can signal many different shades of meaning related to tense, aspect and modality. A more detailed discussion of how orientation markers function in the marking of tense, aspect and mood can be found in sections 7.4 and 7.9 below.

Orientational adverbs may also be used in a more metaphorical sense, in expressions such as *rororiri kava*, 'run back and forth'. This expression is used, for example, when a waitress in a restaurant is very busy and constantly moves around from table to counter and back. Note that here the original meaning of the mountain-river contrast has largely disappeared, though still somewhat preserved in the notion of 'back and forth'. For more on the metaphorical use of orientational adverbs, see sections 5.1 and 6.1 on adverbs and expressives in the chapters above.

7.4 *Tense and aspect*

a. Introduction

The category of tense refers to the way a language marks the time at which the action or event denoted by the verb takes place. Aspect is concerned with the temporal relations within a situation rather than the temporal marking of the situation on a timeline. Tense and aspect markers occur before evidentiality markers and person prefixes but after mood markers, see the marker chart at the beginning of the verb chapter. Markers for aspect and tense occupy the same slot in Jiǎomùzú verb phrases, showing the close relationship between the two categories. For this reason I discuss aspect and tense in one section, though I describe each one in separate sub-sections. Section 7.4.b presents an overview of the basic workings of tense in the Jiǎomùzú dialects. Then, in section 7.4.c on aspect I look at marking for situation-internal time references. A description of marking for mood, which is often linked to temporal and aspectual shades of meaning, follows later in this chapter.

The Jiǎomùzú dialects distinguish three main kinds of tense, universal tense, absolute tense and relative tense. I start the section on tense with a short discussion and some examples of the use of universal tense marking. Universal tense is employed for statements that always hold true and is signalled by verbs in their citation form. Then follows a description of absolute tense, where the tense locus is the moment of speech. For absolute tense, Jiǎomùzú shows a basic split between past and non-past. Past is marked by prefixing a verb root with an orientation marker which doubles as past perfective marker. Irregular verbs have a past perfective marker and employ root 2 in past tense

forms. Non-past is not formally marked on the verb. The section concludes with an overview of relative tense. Jiǎomùzú marks past-in the-past, past-in-the-future, future-in-the-past and future-in-the-future, though examples of future-in-the-past are relatively rare.

The Jiǎomùzú dialects mark for past and present imperfective, terminative and prospective aspects. Past imperfective aspect has two different forms, a past progressive marked by *na-* and a past imperfective signalled by *to-*. Past progressive marking indicates an action that is ongoing over the duration of the time frame given in the sentence, whereas past imperfective marking signals a first action that overlaps with or in some way influences a second action. Past imperfective in Jiǎomùzú contrasts with past perfective. Since past imperfective is clearly marked by *na-* and *to-*, I gloss all orientation markers, when used to signal past tense, as past perfective throughout this study. Terminative aspect is inherently negative and is marked by a negation marker combined with a perfective marker on the verb. A special case is the aspectual use of viewpoint marker *və-* to mark impending or prospective action. Marking with *və-* does not occur in the normal slot for tense and aspect markers but after the person markers. Other aspectual meanings are expressed through the use of adverbials and other means that do not involve the verb phrase.

b. *Tense*

1. *Universal tense*

Universal tense, characteristic of all time, past, present and future, exists in the Jiǎomùzú dialects. This tense is used for general statements that always hold true. Universal tense is different from non-past tense forms which are used to express habituality or generic situations in that habituality or a general state of affairs is more limited in time and situation. They hold true most of the time, or often, or in certain seasons, but not across all time. Formally this difference is expressed by the use of infinitive forms in the universal tense, which are unmarked for person and number, whereas the non-past tense forms used to express habituality are marked for person and number only. The examples below show the use of verbs in their citation form, to express universal tense:

- (165) təndze ŋk^hu? kavətʃi kəhaʔw
 food after walk good
 It is beneficial [for one's health] to take a walk after one's meal.

- (166) tosanə tʃ^hambe tʃe dzoŋjoʔ kamoʔt
 beneficial cold LOC Chinese.medicine drink
 It is beneficial [for one's health] to take Chinese medicine when one has a cold.

Universal tense also often occurs in procedural texts such as recipes. Example (167) shows part of the answer to the question of how to prepare sour vegetables, a staple of the Jiăomùzú diet:

(167) tawo tʃe tʃam w-əŋgi karko
 early LOC pot 3s:GEN-inside put
 First, put [the dried sour vegetables] in a pot;

w-əmp^hro tʃe w-ərka na ju-stso kaleʔt
 3s:GEN-after LOC 3s:GEN-above downwards water-hot pour_i
 then pour hot water on them;

w-əmp^hro tʃe kəʃwet kanajo
 3s:GEN-after LOC a.while wait
 after that, wait for a bit;

w-əmp^hro mo kə bebe w-əŋgi sku kap^hət
 3s:GEN-after directly PR noodles 3s:GEN-inside upstream throw
 then put them in with the noodles straight after that.

2. *Absolute tense*

For absolute tense, Jiăomùzú shows a basic split between past and non-past. Anteriority of an event to a reference point on a time line is always marked on the verb, formally signalling past tense. Events that are simultaneous or posterior to a reference point in time, expressing 'present tense' and 'future tense' respectively, are not marked on the verb but are expressed in other ways. Generally speaking, the further in the future an event or action is, from the viewpoint of the speaker, the less marking, including marking for aspect, mood etc., occurs. Present and future events are not as clearly delineated from one another by formal marking as are past events from non-past events, but tend to partially overlap. I will therefore discuss expression of past events in one section under the heading 'past', and present and future events together in one section, under 'non-past'. The basic dichotomy between past and non-past, and the category of absolute tense, is validated by an opposing pair of aspectual marking: Jiăomùzú marks for past imperfective aspect as well as for present imperfective aspect. Past imperfective is marked by the prefix *na-*, which replaces the normal past tense marker. All other orientation markers that indicate a past tense situation can be considered as signalling perfective aspect. I discuss aspect marking in separate subsection 7.4.c on aspect below. As discussed in section 7.1 on verb formation, the Jiăomùzú dialects have irregular verbs, which use root 2 for past tense forms.

Marking of simple past tense

As described in section 7.3 on orientation, in the Jiǎomùzú dialects past tense is marked by prefixing an orientation marker to the verb root. The past tense markers occur after mood and attention flow markers but before evidentiality markers, see the overview of the verb phrase at the beginning of this chapter. There are seven orientation markers: *to-*, *na-*, *ro-*, *rə-*, *kə-*, *nə-* and *ji-*. Each marker carries a specific orientational meaning, which remains functional with motion verbs and other verbs that require marking for the geographical direction of the action, as in example (168). The verb *kaca*, 'shoo' implies movement of some sort from one place to another. The verb therefore needs marking for the appropriate direction in the past tense. In this case *rə-*, 'towards the river', signals which way the animals were turned out of the house. If they would have been let go through a window or door on another side of the house, the marker *ro-*, 'towards the mountain', might have been used:

- (168) patʃu narə lolo-ndʒ w-əmp^hi-j rə-ca-dʒ
chicken and cat-3d 3s:GEN-outside-LOC PFT:towards.river-shoo-1d
the two of us shooed the chicken and the cat out of the house.

Another example of a motion verb marked with a past tense marker that also signals specific geographic orientation is (169) below. Note the use of root 2 in the past tense form of *kavi*, 'come':

- (169) ɲa pəʃur mk^hono sku kə kə-vu-ŋ ɲos
I yesterday Kǒnglóng upstream upstream PFT:upriver-come₂-1s be
I came back up from Kǒnglóng yesterday.

Since *kavi*, 'come' is a general motion verb it requires an orientation marker in the past tense which indicates the direction of the movement. In the case of (169) the speaker was in Mǎěrkāng, a place upstream from Kǒnglóng. If there is no direction specified the general orientation marker *ji-* is employed:

- (170) ɲa pəʃur xwotʂebetsan^ʔ ji-rji-ŋ
I yesterday North.Railway.Station PFT:general-go₂-1s
I went to the North Railway Station yesterday.

The orientation markers *kə-* and *nə-*, originally meaning 'upstream' and 'downstream' respectively, can have the derived or secondary meanings of 'inward, converging, encompassing' and 'horizontal motion' respectively. They largely retain these secondary meanings in their capacity of lexicalised past tense prefixes for certain verbs. For more on geographically relevant orientation marking, see section 7.3 on orientation above.

With all other verbs the orientation markers no longer express geographical direction but have become lexicalised opaque markers that simply signal past tense. Each verb has one past tense prefix with which it normally occurs; it is not possible to use any which marker at whim. It cannot be deduced from the original meaning of the prefix and from the verb root which prefix is the

appropriate one - they have to be learnt. By far the most frequently used lexicalised past tense markers are *to-*, *na-*, *kə-* and *nə-*. They occur with a wide range of verbs, as can be seen from the many examples throughout this study and the narratives in the texts at the end of this study. Though most verbs have a fixed or preferred orientational prefix in the past tense, other prefixes can replace the commonly used one in cases where specific orientation marking is desired. For example, the verb *kaku*, 'buy' is normally prefixed by *to-*, which only signals past tense, not orientation. But when the speaker wishes to indicate a specific direction, other orientation markers can be used:

(171a) *nənjo bawbaw^ꜜ to-tə-ʃi-nə-ku-w me*
 you bag PFT-2-VPT-EREFL-buy-2s INTR
 Did you go and buy a bag for yourself? (Did you go to buy a bag for yourself?)

(172b) *nənjo bawbaw^ꜜ na-tə-ʃi-nə-ku-w me*
 you bag PFT:down-2-VPT-EREFL-buy-2s INTR
 Did you go down and buy a bag for yourself?

Note that the verb itself is not a motion verb. The possibility of motion is brought in by the viewpoint marker *ʃi-*, which informs us that the speaker perceives the action as moving in a direction away from him. The past tense marker *na-* then provides the orientation: away and downwards from the speaker.

Some verbs have more than one sense. The different senses may use different past tense markers:

(173)	<i>kasci</i>	<i>to-sci</i>	<i>na-sci</i>
	give birth; sprout	PFT-sprout	PFT-give.birth
		sprouted	gave birth

Arguably, in the case of *kasci*, the past tense prefixes appropriate for each sense retain their original orientational meanings to some extent.

Other examples of verbs with multiple senses that are expressed through different past tense markers are:

(174)	karaʔm	dry	a. dry off (a bowl); dry (in the sun)	to-
			b. parch, scorch (grain in the field)	na-
	kacəs	say	a. say, speak	to-
			b. remind, advise, exhort, instruct	na-
	kavavo	cry	a. cry, burst into tears	nə-
		cry	b. (of baby or small child) burst into tears after being startled	to-
	kavətʃi	walk	a. walk	depending on orientation
			b. walk for the first time (child)	to-

A speaker's choice of past tense markers can indicate subtle shades of meaning that are more modal than temporal or aspectual. Compare the following sentences. Example (175a) is the neutral sentence. The speaker and the hearer both know the stuff is at the hearer's place, but there is no further information as to the objects or what state they are in:

- (175a) ɲa pəʃnu laktʃe kə-vəja ji-vu-ŋ
 I today thing NOM-fetch PFT-come₂-1s
 I've come to fetch the stuff today.

But in sentence (175b) the speaker tells the hearer that he's there to pick up the stuff, but the stuff is not in the hearer's possession or under his care. It is around somewhere but the speaker does not hold the hearer responsible for the stuff, there is no relation between the hearer and the stuff.

- (175b) ɲa pəʃnu laktʃe kə-vəja kə-vu-ŋ
 I today thing NOM-fetch PFT-come₂-1s
 I've come to fetch the stuff today.

Sentence (175c) signals that the speaker comes to pick up the stuff, as agreed, from the hearer, who is prepared and has it ready to go:

- (175c) ɲa pəʃnu laktʃe kə-vəja nə-vu-ŋ
 I today thing NOM-fetch PFT-come₂-1s
 I've come to fetch the stuff today.

In these sentences *to-* and *na-* would simply signal geographical direction in past perfective, unless there is a situation in which aspect plays a role. Orientation markers *ɾo-* and *ɾə-* would only signal geographical orientation in past perfective.

Simple past tense suffix -s

Some of the Jiǎomùzú dialects mark simple past tense with a final *-s* as well as with the regular orientation markers. I have noticed the regular use of *-s* by speakers from Púzhì, but it does not occur commonly in the dialects of Kǒnglóng or Pàěrbá.¹⁷⁹ The final *-s* only occurs in intransitive verbs that end in an open syllable, and only for third person singular. All other forms have person and number markers that make it impossible for *-s* to appear:

- (176) pkraʃis pəʃurtɾə na-nəja-s
bKra.shis a.few.days.ago PFT-go home-3s:PST
bKra-shis went home a few days ago.

- (177) lhamo minjwanᳵ w-əŋgi kəbdu pa ʃi na-nu-s
lHa.mo Mínyuàn 3s:GEN-inside four year continuously PFT-live-3s:PST
lHa-mo lived at Mínyuàn for four years straight.

Final *-s* does not appear in sentences marked for non-direct evidential:

- (178) pkraʃis pəʃurtɾə na-^la-nəja
bKra.shis a.few.days.ago PFT-NEV-go.home
bKra-shis went home a few days ago.

Lin¹⁸⁰ remarks that the categorisation of *-s* as a past tense marker is not entirely correct, since it also occurs in non-past situations. The example she gives though is for a past-in-the-future relative tense, so the occurrence of *-s* there is actually in a past tense environment and not aberrant.

Non-past: absolute tense for present and future situations

The Jiǎomùzú dialects employ a sliding scale to express non-past events. Starting with events that are simultaneous with the moment of speech or in 'present tense', the scale moves through shades of meaning that are increasingly more future orientated, such as speaker's intent, possibility, impending action and immediate future, to events clearly in the future. All these meanings can be expressed by employing a verb root 1 marked only for person and number, without any prefixing. Often adverbials or other words that indicate time are used to specify the time frame of the situation:

¹⁷⁹ Lín Xiàngróng (1993: 233), Lin You-Jing (Lin 2003: 262) and Nagano (Nagano 1984: 61-62) all attest this type of marking with *-s* in the Zhuōkèjī dialect. It may well be that in Jiǎomùzú the use of final *-s* was more standard in the past, but that it has begun to lose its salience for native speakers. Some of my consultants acknowledge that it is still in use, but according to them it is a matter of speaker preference. Other consultants are not familiar with this feature in their dialects.

¹⁸⁰ Lin (2003: 262, 263).

(179a) pəʃnu pkraʃis lhamo pakʃu mbuʔ-w
 today bKra.shis lHa.mo apple give-3s
 Today bKra-shis gives lHa-mo apples.

(179b) soʃnu pkraʃis lhamo pakʃu mbuʔ-w
 tomorrow bKra.shis lHa.mo apple give-3s
 Tomorrow bKra-shis will give lHa-mo apples.

If there is no indication of the time frame, the sentence is ambiguous, as in (179c).

(179c) pkraʃis krəŋ lhamo pakʃu mbuʔ-w
 bKra.shis perhaps lHa.mo apple give-3s
 Perhaps bKra-shis gives/will give lHa-mo apples.

But unmarked root 1 verbs cannot occur with a time reference to a past situation, showing clearly the divide between past and non-past:

(179d) * pəʃur pkraʃis lhamo pakʃu mbuʔw

(179e) pəʃur pkraʃis lhamo pakʃu nə-mbuʔ-w
 yesterday bKra.shis lHa.mo apple PFT-give-3s
 bKra-shis gave lHa-mo apples yesterday.

Differences between present and future situations can be indicated by marking for aspect and other categories. For example, marking for present imperfective only occurs in present situations, and attention flow can be marked only in present and past frames, not in future ones.

Other meanings expressed by unprefix stem forms

Unprefixed stem forms often signal meanings other than straightforward non-past. The most common ones are habituality or general state of affairs, impending action or immediate future, a speaker's intent or the possibility of an event, and the solicitation of the hearer's opinion. Of these, only habituality or general state of affairs expresses a meaning that has no clear connection with futurity. The others all more or less deal with future events or actions, however tentative. Below follows a short description of each category.

1. general state of affairs

When an event or action routinely happens, say every day, it becomes part of the general state of affairs. This feeling of routine is often expressed by non-past tense forms. These forms are marked for person and number. Examples (181) and (182) below come from a conversation in which I asked someone to describe what normally happens in the course of a day. The speaker is a fourth grade primary school student:

(180) kaʃa-ndʒiʔ-no ʃeʔm-ŋk^hu? sto tajmok kə-ʒgu tʃ^hi-j
 REC-friend-p house-behind upwards mushroom NOM-gather go₁-1p
 My friends and I go to look for mushrooms in the hills above our house

(181) kəvəɾnit tʃe nəja-j
 dusk LOC go.home-1p
 At dusk we go home.

(182) kəkəc^hac^ha to-kə-nətʃ^ha-no tago-ma? va-jn
 sometimes PFT-NOM-drunk₂-p stupid-business do-3p
 Sometimes drunk people do stupid things.

Summer is mushroom season in Jiăomùzú. The children go out often to look for them. Although looking for mushrooms is not a routine event in other seasons, it is in summer and it is expressed as such by the use of unprefixd verb stem in (180) and (181). Example (182) makes a statement generally held to be true. For other forms signalling habituality or general states, see section 7.4.c on aspect.

2. impending action and immediate or near future

When an event is about to take place, or will happen in the near future, unprefixd stem forms are used. Acceptable time frames for near or immediate future are hard to pinpoint, but seem to cover at least the period of one day:

(183) k^horlo t^ham tə vi
 bus a.while C come₁
 The bus is about to arrive. (The bus will come shortly.)

(183) soʃnu vi
 tomorrow come₁
 He will come tomorrow.

(184) pəʃnu saksəŋk^hu? t^hi tə-va-w
 today afternoon what 2-do-2s
 What will you do this afternoon? (What are you going to do this afternoon?)

Impending action can also be marked by viewpoint marker *və-*. I discuss this derived meaning of the marker section 7.4.c on aspect below.

3. speaker's intent, possibility, solicitation of opinion

Unprefixd stem forms can be used to signal shades of meaning that have to do with a speaker's intent to perform a certain action. The difference in meaning here with constructions that signal

immediate future or impending action is the degree of certainty. Events with a sense of immediate future are certain to happen - or at least, give the impression of certainty. Constructions signalling intent are less certain to actually materialise, at least in the mind of the speaker. Constructions with unprefix root forms expressing these shades of meaning are thus linked both with mood, for intent or certainty, and with futurity.

- (185) ηa $bawbaw^{\text{ㄨ}}$ ki $ku-\eta$
 I bag IDEF buy-1s
 I want to buy a bag.

Since in example (185) the actual acquisition of the bag depends on many factors, such as the availability in the shop of the kind of bag desired by the speaker, and the negotiations about the price that are to follow, the speaker can only express intent, not certainty or impending action. There can also be a sense that the speaker expects the hearer to respond and give an opinion about the suggestion expressed, before the action will be undertaken, as in example (186) and (187). The speaker expresses his intent to come along with the listener, but it depends on the reaction of the listener whether the action will really take place.

- (186) ηa $n\eta\eta o$ $n-apsi$ $vi-\eta$
 I you 2s:GEN-together come₁-1s
 I'm coming with you.
- (187) ηa $ni-t\eta\eta s\eta^{\text{ㄨ}}$ $ta-v\eta-sco\eta-n$
 I 2p:GEN-dorm 1/2-VPT-see.off-2s
 I'm going to take you back to your dorm.
- (188) ηa $so\eta nu$ $t^hi-\eta$ $m\eta-'na-\eta os$
 I tomorrow go₁-1s Q-OBS-be
 I'll go tomorrow, is that right?

This kind of construction can be used to express the speaker's intent, without the expectation that the hearer will respond, though a response is theoretically possible. This is often the case in exchanges where the participants are of unequal ranking socially or otherwise, as in the case of a doctor who announces to the patient his diagnosis and intended treatment of a cold:

- (189) ηa $n-\eta\eta mi$ ki $natso-\eta$
 I 2s:GEN-tongue IDEF see-1s
 I'm going to look at your tongue.
- (190) ηa pu $n-ac\eta n^{\text{ㄨ}}$ ki $le\eta t-\eta$
 I now 2s:GEN-needle IDEF hit₁-1s
 I give you one injection now.

Even less certain are possible events that may or may not happen in the near future:

- (191) *pkraʃis vi me krəŋ ma-vi*
bKra.shis come₁ INTR maybe NEG-come₁
 Will bKra-shis come? Maybe he will not come.

- (192) *ŋa soʃnu nə-tʃiŋʂəʔ vi-ŋ n-əm̩ba-j k^ham mə-k^hut*
I tomorrow 2s:GEN-dorm come₁-1s 2s:GEN-vicinity-LOC give Q-can
 I'll come to your dorm tomorrow to give it to you, okay?

In all these examples the impending or future event or action is one the speaker intends to do, rather than a set course of action. The use of the non-past tense forms leaves room for the partners in the dialogue to raise objections, change the plan or bring a counter proposal. The fact that in most cases the listener might not object to the intended course of action is of less importance than leaving the room for him to object if he so chooses. Example (185) is used in a variety of situations. The speaker may inform a listener of the intent to go to the shop and buy a bag. Or he might be thinking to himself that buying a bag might be a good idea for a free afternoon. Or the speaker may actually be in a shop telling the shopkeeper what he wants to buy.

3. Relative tense

Relative tense forms are very common in Jiǎomùzú. Marking for relative tense employs tense markers, verb roots and distinctive stress patterns to signal the relationship in time between one event and another in the same sentence. Usually it concerns a complex sentence with two or more clauses each with one verb phrase. Not every form of relative tense uses all these means at once. The relative tenses past-in-the-past and present-in-the-past for instance consist of a simple combination of two clauses marked for perfective past. These relative tenses are thus interpretations of normal perfective past structures. But future-in-the-past and past-in-the-future employ structures, as shown below, that are specific for these relative tenses. In my data I do not have examples of future-in-the-future relative tense.

Past-in-the-past

The relative tense form past-in-the-past frequently occurs in the Jiǎomùzú dialects. Usually a sentence gives in the first clause the situation in the past to which the action in the second clause, also in the past, relates. Often adverbial clauses express the first situation which is anterior to the second situation in the main clause:

- (193) *pəʃur tʂ^haʔ to-moʔt-jn tʃe to-nəndza-jn*
yesterday tea PFT-drink-1p LOC PFT-have.a.meal₂-1p
 Yesterday we had a meal after we drank tea.

- (194) pəʃur-tɾə təndɾu to-raʔm tʃe wastop kərku na-va-w
 yesterday-front leather PFT-dry LOC very hard PFT-do-3s
 a few days ago, when the leather had dried, it became very hard.

Present-in-the-past

Also common is present-in-the-past, in which an event occurs during a situation or state of longer duration which is situated in the past:

- (195) lhamo peciŋ kə-ŋu na-ŋos tʃe
 lHa.mo Běijīng NOM-stay PFT-be LOC
 When lHa-mo lived in Běijīng,

 pkraʃis kəpa tʃe kənes c^ha ʃi wu-kə-natso na-'a-tʃ^hi
 bKra.shis year LOC two time always 3s:GEN-see-3s PFT-NEV-go₁
 bKra-shis went to see her twice a year.

- (196) pkraʃis tʃe-j kə-rə^ha na-ŋos tʃe jino ʒak tʃ^haʔ
 bKra.shis here-LOC NOM-study PFT-be LOC we:e time tea
 When bKra-shis studied here we often went to drink tea.

kə-moʔt na-rʃi-j
 NOM-drink PFT-go₂-1p

Future-in-the-past

Future-in-the-past occurs only infrequently in the Jiāomùzú dialects. The structure employs nominalised forms of verbs in the clauses, all covered by the scope of a linking verb in sentence final position:

- (197) pəʃur wuʃo ŋa ŋ-əmba-j djenhwa^ʔ kə-leʔt tʃe
 yesterday he I 1s:GEN-vicinity-LOC telephone NOM-hit₁ LOC
 Yesterday, when he called me, it was about to rain.

 təmu kə-və-leʔt na-ŋos
 rain NOM-PROSP-hit₁ PFT-be

In example (197) above it has not actually started to rain yet when he calls me. The second verb phrase is accordingly marked for prospective aspect with *və-* on root 1 *leʔt* rather than root 2, signalling futurity. A past tense equivalent of (197) would have root 2, *-laʔt*, as in (198):

- (198) pəʃur wuʃo ɲa ɲ-əmba-j djenhwa^ɕ na-laʔt tʃe
 yesterday he I 1s:GEN-vicinity-LOC telephone PFT-hit₂ LOC
 Yesterday, when he called me, it was raining.

təmu na-laʔt
 rain PSTPROG-hit₂

- (199) pəʃur wuʃo ɲa ɲ-əmba-j djenhwa^ɕ kə-leʔt tʃe
 yesterday he I 1s:GEN-vicinity-LOC telephone NOM-hit₁ LOC
 Yesterday, when he called me, it was raining.

təmu kə-leʔt na-ɲos
 rain NOM-hit₁ PSTPROG-be

Note that in (199) the root 1 form of *kaleʔt*, ‘hit’ occurs rather than root 2, *laʔt*, for past tense, while *ɲos*, ‘be’ is marked for past progressive.

Past- in- the- future

Past-in-the-future structures can signal two different kinds of events. One structure looks at two future events from the perspective of the second event, with the first event already completed. In this kind of construction a normal past perfective marker occurs with the verb that expresses the first event. Unlike marking for simple past, the past perfective marker is stressed and the verb root is root 1 (see example (204) below), as is normal for non-past situations. Marking for past-in-the-future thus combines aspects of past tense and non-past tense marking. The verb that signals the second event remains unmarked:

- (200) w-əŋk^huʔ təndʒu 'to-raʔm tʃe wastop kərku va-w
 3s:GEN-back leather FPFT-dry LOC very hard do-3s
 Afterwards, when the leather will have dried, it will become very hard.

- (201) soʃnu lhamo tʃ^ha 'to-moʔt-w tʃe nəŋʃo to-vənaro-n
 tomorrow lHa.mo tea FPFT-drink-1p LOC you 3/2-look.for-2s
 Tomorrow, after she will have drunk tea, lHa-mo will come to see you.

- (202) soʃnu pkraʃis cɔktse 'nə-k^hrət tʃe mentoʔk kataʔ k^hut
 tomorrow bKra.shis table FPFT-wipe LOC flowers put can
 tomorrow, when bkra-shis will have wiped the tables, we can put the flowers.

(203) pəʃnu tamaʔ 'na-səjoʔk-w tʃe nə tʃəno tʃʰi-dʒ
 today work FPFT-finish-3s LOC CON we go₁-ld
 Today, when we will have finished the work, we'll go.

(204) soʃnu tʃʰaʔ ka-moʔt 'kə-səjok-j caʔm tʃe
 tomorrow tea INF-drink FPFT-finish-1p about LOC
 Tomorrow about when we have drunk our tea

pkraʃis w-andʃiʔ ka-ʃikroʔs səjok-w
 bKra.shis 3s:GEN-friend INF-meet finish-3s
 bKra-shis will have met his friend.

The other past-in-the-future structure occurs when the speaker refers to two future events, from a perspective that looks back on both events, not only the first one. This type of structure combines two clauses, the first marked for future past perfective and the second inflected for normal past perfective:

(205) lhamo soʃi peciŋ 'ji-tʃʰi tʃe pkraʃis
 lHa.mo next.year Běijīng FPFT-go₁ LOC bKra.shis
 When lHa-mo has gone to Běijīng next year, bKra-shis

landzo ji-kə-rʃi stʃi
 Lánzhōu PFT-NOM-go₂ be:CD
 will surely have gone to Lánzhōu.

In (205) both verb phrases are marked for past perfective. The only references to future are the presence of *soʃi*, 'next year', and the future past perfective marking on the verb of the first clause. My language consultants absolutely refused to indulge in sentences that have a future time frame like 'next year', an action that occurs first on the time line in non-past tense with a second action that occurs after the first marked for past tense:

(205a) soʃnu pkraʃis coktse kʰrət-w w-aka-j nəŋʒo
 tomorrow bKra.shis table wipe-3s 3s:GEN-front-LOC you
 Tomorrow, before bKra-shis wipes the tables, you need to sweep the floor.

tərut nə-va-w ra
 dirt PFT-do-2s need
 need to sweep the floor.

(205b) * soʃnu pkraʃis coktse nəkʰrətw wakaj nəŋʒo tərut nəvaw ra

Constructions such as the English ‘...before bKra-shis has wiped the tables, you need to sweep...’ are not grammatical in Jiǎomùzú, because it is not logically possible to have an uncompleted event, such as the sweeping in example (206), follow a completed event, here the wiping of the tables. At best it is possible to say the wiping and sweeping occur at the same time:

- (206) soʃnu pkraʃis cɔktse kə-kʰrət-w tʃe nənʃo
tomorrow bKra.shis table NOM-wipe-3s LOC you
Tomorrow, during bKra-shis’ wiping of the tables, you need to sweep the floor.
- tərut tə-va-w ra
dirt 2-do-2s need
need to sweep the floor.

Present-in-the-future

Sentences expressing events relative to a point in the future usually make use of adverbial phrases with the locative *tʃe*, ‘at that time, at, when’:

- (207) soʃi lhamo peciŋ kə-tʃʰi tʃe pkraʃis landzo tʃʰi ra
next.year lHa.mo Běijīng NOM-go₁ LOC bKra.shis Lánzhōu go₁ need
Next year, when lHa-mo goes to Běijīng, bKra-shis will go to Lánzhōu.

Note that in (207) the adverbial clause uses a nominalised verb construction, literally ‘at the time of lHa-mo’s going to Běijīng’. The clause is marked for future by the presence of *soʃi*, ‘next year’. There is no tense marking on the verb root, since non-past is not marked. The verb root is root 1 for non-past.

c. Aspect

1. *Past imperfective aspect*

As discussed in section 7.4.b on tense, Jiǎomùzú marks simple past tense with a prefix derived from the orientation markers. These forms are best considered as perfectives, in contrast to differently marked past imperfective forms. Past imperfective aspect takes two different forms in the Jiǎomùzú dialects. The first form is past progressive aspect, which signals an action that started at some point in the past though there is no clear starting point, is ongoing and for which information as to its terminal point is not available. If there is a time reference in the sentence, the information concerning the action, in this case past progressive, is understood by native speakers to pertain to the time frame indicated by the time reference. The second form is past imperfective aspect, which indicates an action which has started and links to or influences a following action or event. The past imperfective then either continues simultaneously with the second action or is brought to completion

once the second action has started. Below I first give an overview of the past progressive aspect. After that is a discussion of the past imperfective aspect.

Past progressive aspect: na-

Past progressives are marked by *na-* prefixed to the verb root. The past progressive marker replaces the normal past perfective marking. Past progressive marking indicates an action which started at some point anterior to some other event or to the moment of speech and is still ongoing at the time of the second event or the moment of speech, as in the following examples. The verb is *kak^hrət*, ‘wipe’. The normal past perfective marker for this verb is *nə-*:

(208a) pkraʃis pəʃurtə cəktse nə-k^hrət-w
bKra.shis a.few.days.ago table PFT-wipe-3s
bKra-shis wiped the tables a few days ago.

(208b) pəʃurtə sənem ji-vu tʃe pkraʃis cəktse nə-k^hrət-w
a.few.days.ago bSod.nams PFT-come₂ LOC bKra.shis table PFT-wipe-3s
A few days ago, when bSod-nams came, bKra-shis wiped the tables.

(208c) pəʃur sənem ji-vu tʃe pkraʃis cəktse
yesterday bSod.nams PFT-come₂ LOC bKra.shis table
Yesterday bKra-shis was wiping the tables when bSod-nams came.

na-k^hrət-w
PSTPROG-wipe-3s

Sentence (208a) is the neutral form marked for simple past tense with *nə-*, showing bKra-shis involved in an action in the past which is now finished. In example (208b) bKra-shis started to wipe the tables after bSod-nams came. Perhaps he had been waiting for bSod-nams to help him with the work. The action of wiping was completed within the time frame given in the sentence, here *pəʃurtə*, ‘a few days ago’. Example (208c) is marked for past progressive aspect with *na-*. This indicates that bKra-shis started wiping the tables at some point in the past, before bSod-nams’ arrival. He was busy wiping when bSod-nams came. He may have finished the work, but the past progressive aspect marking, unlike the simple past tense marking, does not give an indication of completion. However, since the time reference in the sentence is *pəʃur*, ‘yesterday’, both the actions of wiping and coming are probably contained within the time frame of ‘yesterday’.

Past progressive aspect marking is also used to indicate intermittent or generally ongoing action that has started at some point in the past and will carry on into the future, without a clearly defined end, though not necessarily without breaks or halts. Compare the following sentences about sewing clothes:

(209a) pəʃur lhamo tənge ki to-tɕop-w
 yesterday lHa.mo clothes IDEF PFT-sew-3s
 Yesterday lHa-mo sewed a piece of clothing.

(209b) pəʃur lhamo tənge ki na-tɕop-w
 yesterday lHa.mo clothes IDEF PSTPROG-sew-3s
 Yesterday lHa-mo was sewing a piece of clothing.

In (209a) lHa-mo is done sewing. It may be that the piece of clothing she worked on is finished and there is no more to sew. Or it may be that the clothing is still unfinished, but she will not do anything more about it for now. Maybe at a later point in time she will pick it up again, or maybe someone else will finish it. All that is not important. The crucial information conveyed here by *to-* is that lHa-mo is done sewing. As in example (209a), sentence (209b) does not give any information about the clothing. We don't know if the clothing is finished or not. But, in contrast to (209a), the action of sewing is not finished as signalled by past progressive marker *na-*. All we know is that the action of sewing in (209b) is ongoing while in (209a) it is not. Note that Jiāomùzú does not require different marking for telic and a-telic events. The indefiniteness marker *ki*, 'a, one' shows that there is one piece of clothing being sewn by lHa-mo. But if lHa-mo is a seamstress and a speaker wants to express that lHa-mo did her normal work yesterday, that is to say, she sewed clothing, the indefiniteness marker does not need to appear. Still both the sentences with *to-* and *na-* are grammatical:

(210a) pəʃur lhamo tənge to-tɕop-w
 yesterday lHa.mo clothes PFT-sew-3s
 Yesterday lHa-mo sewed clothes.

(210b) pəʃur lhamo tənge na-tɕop-w
 yesterday lHa.mo clothes PSTPROG-sew-3s
 Yesterday lHa-mo was sewing clothes.

Telicity is not at issue in the marking with *to-* and *na-*, only the relation of an action to a time frame. Because past progressive aspect can signal intermittent but ongoing actions it can also be used to express habituality, as in example (210b) above, if lHa-mo is a seamstress.

Verb phrases marked for past progressive aspect can have non-direct evidentiality marking, just like verbs marked only for past perfective. The non-evidential forms of the sentences above are (210c) and (210d) respectively:

(210c) pəʃur lhamo tənge ki to-'a-tɕop-w
 yesterday lHa.mo clothes IDEF PFT-NEV-sew-3s
 Yesterday lHa-mo sewed a piece of clothing.

- (210d) pəʃur lhamo tənge ki na-^la-tʁop-w
 yesterday lHa.mo clothes IDEF PSTPROG-NEV-sew-3s
 Yesterday lHa-mo was sewing a piece of clothing.

Negation of verb phrases marked for past progressive aspect depends on the time frame for the action given by the speaker. A reference to a time in the past normally coincides with past perfective negation marker *ji-*, not negation marker *ma-* which occurs with non-past time frames. The negation marker replaces the past progressive aspect marker:

- (211a) pəʃur ɲa lhamo na-məto-ŋ tʃe ji-vavo * mavavo
 yesterday I lHa.mo PFT-see-1s LOC NEG/PSTPROG-cry
 When I saw lHa-mo yesterday, she was not crying.

- (211b) pəʃur tapu? ji-vavo * mavavo
 yesterday child NEG/PSTPROG-cry
 The baby was not crying yesterday.

The form *mavavo* occurs in future contexts, for example when a babysitter assures a mother who is on the point of leaving for a few hours, not to worry, the baby will not cry. In non-past situations that relate to a past action or event, negation marker *ma-* can occur in combination with observation marking. For example, a babysitter thinks she hears the baby cry. When she goes to look it turns out the baby is not crying, nor did it cry and has now stopped. For the babysitter this is new information contrary to what she had thought, marked with observation marker *na-*. She may say to herself:

- (212) tapu? ma-^lnə-vavo * jinəvavo
 child NEG-OBS-cry
 The baby isn't crying/hasn't cried.

Negation marker *ma-* occurs here because the babysitter's acquiring information about the crying occurs now, in the present. When the mother comes home and asks if the baby has cried or did cry, the babysitter will answer with a verb phrase marked by *ji-* for perfective: the baby was not crying when she looked in on him, or the baby did not cry while his mother was away. The same sort of marking can occur in situations that are entirely in the past:

- (213a) lhamo ji-^la-vi tʃe pkraʃis cɔktse na-^la-kr^hət-w
 lHa.mo PFT-NEV-come₁ LOC bKra.shis table PSTPROG-NEV-wipe-3s
 When lHa-mo came bKra-shis was wiping the tables, it is said.

 na-^la-cəs
 PFT-NEV-say

(213b) lhamo ji-'a-vi tʃe pkraʃis cɔktse ji-'a-krʰət-w
 lHa.mo PFT-NEV-come₁ LOC bKra.shis table NEG/PSTPROG-NEV-wipe-3s
 When lHa-mo came bKra-shis was not wiping the tables, it is said.

na-'a-cəs
 PFT-NEV-say

(213c) lhamo ji-'a-vi tʃe pkraʃis cɔktse ma-'nə-kʰrət na-cəs
 lHa.mo PFT-NEV-come₁ LOC bKra.shis table NEG-OBS-wipe-3s PFT-say
 When lHa-mo came bKra-shis was not wiping the tables, she said.

I discuss observation marking extensively in section 7.5 on evidentiality below.

Actions marked for past progressives, having started at some undefined point in the past, can be ongoing in the present, and can occur with non-past time references such as *pu*, ‘now’. Even so the negative form of such past progressives is marked with the perfective negation marker *ʃi-*:

(214a) tapu? pu na-vavo ji-vavo * mavavo
 child now PSTPROG-cry NEG/PSTPROG-cry
 Now the child is [still] crying. wasn’t crying

(214b) tapu? pu 'na-vavo * jivavo ma-vavo
 child now OBS-cry NEG-cry
 The child is now crying. isn’t crying

A useful test in distinguishing perfective marking from past progressive marking is to turn a verb phrase into an imperative. Imperatives employ the same orientation marker as past perfective. In verbs that have a marker other than *na-* this will show clearly in the imperative:

(215) ka-kʰrət nə-'kʰrət-w nə-kʰrət-w na-kʰrət-w....
 INF-wipe IMP-wipe-2s PFT-wipe-3s PSTPROG-wipe-3s
 wipe Wipe! He wiped. He was wiping...

An issue that can muddy the waters in distinguishing past perfective from past imperfective marking is the possibility for a verb to have one verb root but more than one sense, with each sense marked by a different past perfective marker, see the discussion in section 7.4.b on tense. One such verb is *kasəjoʔk*, which means either ‘finish’ or ‘stop’, depending on the past perfective marker it takes in different contexts. Compare the following examples:

(216a) kanəndze na-səjoʔk-w
 have.a.meal PFT-finish-3s
 He finished eating his meal.
 He stopped eating his meal.

(216b) kanəndze to-səjoʔk-w
 have.a.meal PFT-finish-3s
 He finished eating his meal.

Both (216a) and (216b) are grammatical. Example (216a) can mean that the eater finished his meal in the sense of completing it, from soup to desert, so to speak, or that the eater was interrupted and for some reason stopped eating. Sentence (216b) does not have both options. It can only mean that the speaker finished his entire meal. Not all contexts with *kasəjoʔk* allow for both options. In example (217) only *na-* can appear, while marking with *to-* is ungrammatical:

(217) karəth^a na-səjoʔk-w * karəth^a to-səjokw
 study PFT-finish-3s
 He finished his education.
 He stopped going to school.

Both meanings of (217) with *na-* are valid, and both are often used in daily life. The first sense indicates that a student successfully completed his schooling and is now ready to get a job. The second sense signals that the student stopped going to school, maybe for lack of school fees, even though his course was not finished.

Another example is the verb *kavavo*, ‘cry’. With past perfective marker *nə-* the sense is ‘to cry’ or ‘to burst out in tears’. With past perfective marker *to-* the verb means ‘to start crying suddenly when startled (used only for babies and small children)’. That gives the following possibilities in marking, all expressing different meanings:

(218a) pəʃur ɲa lhamo na-məto-ŋ tʃe nə-vavo
 yesterday I lHa.mo PFT-see-1s LOC PFT-cry
 When I saw lHa-mo yesterday, she burst into tears.

* pu (now) * soʃnu (tomorrow)

(218b) pəʃur ɲa lhamo na-məto-ŋ tʃe na-vavo
 yesterday I lHa.mo PFT-see-1s LOC PSTPROG-cry
 When I saw lHa-mo yesterday, she was crying.

* pu (now) * soʃnu (tomorrow)

- (218c) tapu? to-vavo kərek to-ʃi-na'tso-w
 child PFT-cry one IMP-VPT-see-2s
 The baby has started to cry, go and have a look.

pu (now), soʃnu (tomorrow) * pəʃur (yesterday)

- (218d) tapu? na-vavo kərek to-ʃi-na'tso-w
 child PSTPROG-cry one IMP-VPT-see-2s
 The baby is crying, go and have a look.

Past imperfective aspect: to-

Past imperfective aspect is marked by *to-*. It signals an action or event which started at some point in the past and pertains to a second action or event which partially overlaps with or closely follows the action or event marked for past imperfective. Consider the following examples for *kandru*, 'obtain, get, take'. The lexicalised past perfective marker for *kandru* is *na-*:

- (219) poŋeʔj na-kə-ndru-ŋ ŋos
 money PFT-NOM-take-1s be
 I've taken care of the money.

- (220) poŋeʔj to-kə-ndru-ŋ hoŋjon to-rʃi-ŋ
 money PSTIMP-NOM-take-1s Hóngyuán PFT:upwards-go₂-1s
 Having got the money, I went up to Hóngyuán.

In the sentence marked for perfective aspect, (219), the speaker simply states that he obtained a sum of money. For both the speaker and his audience the statement of the situation is complete. No more information about the money or the obtaining of it will follow. The first clause marked for imperfective in (220) shows that the speaker obtained a sum of money, and that another action or event is to follow the obtaining of the money, in this case the going up to Hóngyuán. These events are chronologically and logically linked, part of an ongoing situation. Along the same lines are the following sentences:

- (221a) ŋa varʃi kʰəza? ki na-ndre-ŋ
 I last.year bowl IDEF PFT-take-1s
 I took a bowl last year.

- (221b) ŋa pəʃnu kʰəza? ki to-ndre-ŋ
 I today bowl IDEF PSTIMP-take-1s
 I've taken a bowl today,....

Sentence (221a), the standard simple past form, gives the hearer only the information that the speaker took a bowl. But in (221b) the hearer expects there to be more to the story. The speaker announces that he has taken a bowl, perhaps because guests are coming and he is a bowl short in his own house. In any event, *to-* signals that the taking of the bowl has just started, and that it will go on to culminate in some other action of the speaker, probably pouring tea for a guest. In the following examples the verb *kasəso*, ‘think’ in sentence (222a) is marked for past imperfective aspect because the subject, after having thought the donkey lost, to his surprise finds it again. In sentence (222b) there is only the information that the subject lost the donkey. Marking for perfective aspect shows the subject thinks the situation completed, the donkey is lost for good, even though the speaker believes otherwise:

- (222a) wuʃo tarke to-¹a-mi? to-¹a-səso-w koronə ¹na-ndo?
 he donkey PSTIMP-NEV-not.have PSTIMP-NEV-think-3s but OBS-have
 He thought the donkey was lost but it turned out to be there after all.

- (222b) wuʃo tarke to-¹a-mi? na-səso-w koronə ndo? law
 he donkey PSTIMP-NEV-not.have PFT-think-3s but have MD:G
 He thought the donkey was lost but I’m guessing it will turn up.

Note that the examples with *to-* show actions that follow each other chronologically in time, not actions that are simultaneous, though the final stage of the past imperfective action can overlap with the second action in the sentence. These are not past progressives, but they can be labeled past imperfective, as opposed to the perfective aspect marked with *na-*.

Past imperfective marking should not be confused with past perfective marking with *to-* or with the occurrence of *to-* in past-in-the-future constructions. Compare the following examples for the verb *kamoʔt*, ‘drink’:

- (223a) saksəŋk^hwu tʃ^ha? ki ka-moʔt-j tʃe ka-nəndze
 Afternoon tea IDEF NOM-drink-1p LOC INF-have.a.meal
 In the afternoon, after we drink tea (after the drinking of our tea) we will have a meal.

- (223b) saksəŋk^hwu tʃ^ha? ¹to-moʔt-j tʃe ka-nəndze
 Afternoon tea PFT-drink-1p LOC INF-have.a.meal₁
 In the afternoon, after we we will have drunk our tea, we will have a meal.

- (223c) pu tʃ^ha? ki moʔt-j wurə ka-nəndze
 now tea IDEF drink-1p CON INF-have.a.meal₁
 We drink tea now and then we’ll have a meal.

(223d) pu/them tʂʰaʔ to-¹moʔt-j tʃe ka-nəndze
 now/shortly tea PSTIMP-drink-1p LOC INF-have.a.meal₁
 We will have dinner after we have finished drinking [the] tea [that we are
 (about) to drink now/shortly].

(223e) pəʃur tʂʰaʔ to-¹moʔt-j tʃe to-nəndza-j
 Yesterday tea PFT-drink-1p LOC PFT-have.a.meal₂-1p
 Yesterday we had a meal after we had drunk tea.

Example (223a) shows an event that is entirely in the future. Sentence (223b) gives a past-in-the-future structure, with stress on perfective marker *to-*. In (223c) the verb is unmarked. Most likely the company is not drinking tea yet but discussing how to best spend the next hour or so. Sentence (223d) signals that the company is sitting down to drink tea. The tea has been brought, the drinking even may have begun. But it is not yet finished. And finally example (223e) shows a normal past perfective, where the action took place and was completed in the past.

Narratives frequently make use of past progressive marking with *na-* and past imperfective marking with *to-*. The story teller will use sentences marked for past perfective aspect to give the frame of the story. Past progressive *na-* comes into play to indicate habituality or a general state of affairs. And past imperfective occurs when there is a change from the habitual situation to a specific action that carries the story forward. The following example is from the introduction of a story about a trader and his donkey. The first sentence provides the frame, marked for past perfective. The beginning of the second sentence starts in on the action:

(224) wuʃo kəʃe na-nətʃ^hitʃ^hi tə tarke tə w-apsi ʃi
 he where PFT-wander C donkey C 3s:GEN-with always
 Wherever he went, he always took the donkey along with him.

na-kə-ndʒu-w ¹nə-ŋos
 PRF-NOM-take-3s EV-be

tarke w-apsi to-kə-ndʒu-w rənə.....
 donkey 3s:GEN-with PSTIMP-NOM-take-3s CON
 Taking the donkey along.....

An example of past progressive to mark a habitual situation is found at the beginning of stories is below. Sentence (225a) and (225b) give the background, all marked with past perfective. But in (225c) past progressive is used to mark *kaməjkə*, ‘climb’, to indicate that the thief had climbing walls as his MO for getting away. The last sentence then switches to past imperfective to signal that climbing has started and culminates in a second action, namely falling:

(225a) kəsce-sce kəʃmo ki na-kə-ndoʔ 'nə-ŋos
 before-RED thief IDEF PFT-NOM-have EV-be
 Long long ago there was a thief.

(225b) kəʃmo ndə tə kəkətʃetʃe təʃmo na-va-w
 thief that C everywhere stolen.goods PFT-do-3s
 That thief went around stealing everywhere.

(225c) kə-p^ho tʃe zdi na-məjkə
 NOM-flee LOC wall PSTPROG-climb
 When he ran [from the scene of the crime] he would climb over walls (it was
 his custom to be climbing over walls to get away).

(225d) kəʃnu tʃe zdi ki to-məjkə tʃe na-mbət
 day LOC wall IDEF PSTIMP-climb LOC PFT/OR:down-fall
 One day, as he was climbing a wall, he fell down.

The narratives at the end of this study also beautifully show this kind of interaction between 'story telling time' - the outsider's perspective - and 'inside story time', the viewpoint inside a situation. Marking for past perfective and imperfective marking can interfere with normal past tense markers, especially for orientationally marked motion verbs. In sentence (225c) the expected past tense marker with 'climb' would be *to-*, for 'upwards'. Instead the past progressive *na-* appears. The past perfective variant of (225c) has the normal past tense markers for 'climb' and 'fall', *to-* and *na-* respectively:

(226) wuʃo zdi to-məjkə korənə na-mbət
 He wall PFT/OR:up-climb but PFT/OR:down-fall
 He climbed the wall but fell.

2. Aspect marking in non-past situations: present imperfective

The Jiāomùzú dialects mark events and actions that are currently ongoing in non-past sentences with the prefix *kə-* for first and second persons, and with the prefix *ŋa-* for third persons. Present imperfective markers occupy the slot after mood markers but before person markers in the verb phrase, as shown in (227a). The markers for first and second person are stressed, while the marker for third person is not:

(227a) nəŋʃo tascok 'kə-tə-leʔt-w me
 you letter PRIMP-2-write₁-2s INTR
 Are you writing a letter?

(227b) *ŋa laktʃe ki 'kə-ku-ŋ*
 I thing IDEF PRIMP-buy-1s
 I'm buying something.

(227c) *pkraʃis piʃe ŋa-rʃəʔk*
 bKra.shis now PRIMP-run
 bKra-shis is running now.

(227d) *lhamo-ndʒ haʃtsoʔ ŋa-səraʔm-ndʒ*
 lHa.mo-3d chili.pepper PRIMP-dry-3d
 lHa-mo and someone else are drying chili peppers.

Irregular verbs employ root 3 as well as the normal present imperfective marker *ŋa-* for third person. The following example for *katʰoʔ*, 'ask' show how the vowel change works.

(228) *ŋa pkraʃis ki 'kə-tʰoʔ-ŋ*
 I bKra.shis IDEF PRIMP-ask₁-1s
 I'm asking bKra-shis.

pkraʃis ŋa ki ŋa-tʰaʔ-w
 bKra.shis I IDEF PRIMP-ask₃-3s
 bKra-shis is asking me.

Jiāomùzú present imperfectives can occur with all action verbs, such as *kavəʔɿ*, 'walk', *kanəzoʔk*, 'lick', and *kanəʃup*, 'sleep'. This category includes a number of verbs that indicate actions of longer duration, rather of a state-like quality, such as *kanərgaʔ*, 'like', and *kavaro*, 'own, possess'. However, I found that native speakers disagree about some of these verbs, especially *kavaro*. Some thought it was too much of a state to allow for present imperfective marking. Others had no issue with it, finding the following examples perfectly acceptable:

(229) *ŋa tarke ki 'kə-varo-ŋ*
 I donkey IDEF PRIMP-possess-1s
 I have a donkey.

(230) *nənʃo pkraʃis 'kə-tə-nərgaʔ-w me*
 you bKra.shis PRIMP-2-like-2s INTR
 Do you like bKra-shis?

Most verbs that indicate a state rather than an action cannot be marked for present imperfective. Stative verbs use instead the observation marker *na-* in present tense situations, whereas situations in the future remain unmarked. Here is the abbreviated paradigm for *kənandʒok*, 'feel cold'. The non-

past forms consist simply of the verb root marked for person and number. The past tense constructions have *nə-*, the regular lexicalized past perfective marker for *kənandɔk*. Observation marking with *na-* indicates for all three persons that they experience cold. For third person an observer sees the person being cold – maybe he shivers. For first and second person the observation marking signals personal experience. For more on observation marking, see section 7.b.c below. The present imperfective forms are not grammatical:

(231)		non-past, OBS	past	non-past
	1s	'na-nandɔk-ŋ	nə-nandɔk-ŋ	nandɔk-ŋ
	2s	'na-tə-nandɔk-n	nə-tə-nandɔk-n	tə-nandɔk-n
	3s	'na-nandɔk	nə-nandɔk	nandɔk
		non-past, PRIMP		
(232)	1s	* 'kə-nandɔk-ŋ	[I'm feeling cold]	
	2s	* 'kə-nandɔk-n	[you're feeling cold]	
	3s	* ŋa-nandɔk	[he is feeling cold]	

Present imperfectives in the Jiăomùzú dialects do not occur in past tense situations. Example (233) shows a present progressive in a sentence with the time reference *pu*, 'now'. Example (234) demonstrates that first person and third person present progressives cannot occur in sentences with a past time reference such as *pəfur*, yesterday :

- (233) tapu? kəsam ɟnu ʒak na-vavo pu ʒik ma-'nə-sə-nəna
 child three day time PSTPROG-cry now also NEG-OBS-CAUS-stop
 The child has been crying for three days, and still hasn't stopped.

- (234a) tapu? pu ŋa-vavo
 child now PRIMP-cry
 The child is crying.

* pəfur tapu? ɟavavo

- (234b) ŋa pu 'kə-vavo
 I now PRIMP
 I'm crying now.

* pəfur ŋa 'kəvavo

The sentence in (235) is not in present imperfective aspect, since the first person present imperfective marker *kə-* does not occur, even though the action of waiting is still ongoing:

- (235) *ŋa tərts^hot kərek na-najo-ŋ koronə ma-^lnə-vi*
 I hour one PSTPROG-wait-1s but NEG-OBS-come₁
 I've been waiting for an hour, but he hasn't come;
- ŋa kə-vi najo-ŋ ra*
 I NOM-come₁ wait-1s need
 I'll have to wait until he comes.

- (236) *ŋa kəsam ʃnu nə-k^hrət-ŋ koronə ma-tsa ^lkə-k^hrət-ŋ*
 I three day PFT-wipe-1s but NEG-finish PRIMP-wipe1s
 I've wiped for three days, but it's [still] not finished, I'm [still] wiping.

The time frame given in the first clause of (236), 'three days', signals that three days of wiping are completed. The verb is accordingly marked with past perfective marker *nə-*. But more wiping is in order, in fact it is now going on, as marked by present imperfective *kə-*. Past progressive marking with *na-* is also possible in this situation, as demonstrated by example (233) above. In (236) the speaker emphasises the amount of time that has been spent on the wiping rather than on the ongoing nature of the action, while in (233) the emphasis is on the ongoing action of crying.

It is tempting to equate Jiāomùzú's present imperfective with progressive aspect, marking actions that are presently ongoing. But the Jiāomùzú dialects use present imperfective marking also in sentences that indicate an habitual situation or a state:

- (237) *ŋa stonʃnu ^lkə-ʃi-rjəʔk-ŋ ɲos*
 I daily PRIMP-VPT-run-1s be
 I run every day.
- (238) *nənʃo stonʃnu mə-^lkə-tə-ʃi-rjəʔk-n*
 you daily Q-PRIMP-2-VPT-run-2s
 Do you run every day?
- (239) *pkraʃis stonʃnu ɲa-ʃi-rjəʔk ɲos*
 bKra.shis daily PRIMP-VPT-run be
 bKra-shis goes to run every day.
- (240) *pkraʃis ʒak tə wucen^ᵛ mi^ᵛ ɲa-rjəʔk*
 bKra.shis time C 5000 metre PRIMP-run
 bKra-shis often runs the 5000 metres.

- (241) pkraʃis ʒak tʃe lhamo kamk^ha-j ɲa-naʒo-w
 bKra.shis time LOC lHa.mo gate-LOC PRIMP-wait-3s
 bKra-shis always (every day) waits for lHa-mo at the gate.

Examples (237) and (239) show the use of present imperfectives in habitual situations. Note that the habituality part of the meaning is expressed by adding adverbials of time such as *ʃi*, 'always' or *stonʃnu*, 'daily', to the sentence.

Use of present imperfective marking, especially for third person, often indicates professions or positions, emphasising the habitual sense of the present imperfective:

- (242) n-əmo t^hi ɲa-va-w ts^hoŋ ɲa-va-w
 2s:GEN-mother what PRIMP-do-3s business PRIMP-do-3s
 What does your mother do? She does business. (She is a trader).

Sentences (243a) and (243b) show both the present imperfective and habitual senses of marking with *ɲa-*:

- (243a) pkraʃis kəsce ɲos w-əŋgi-j təmpnok ɲa-va-w
 bKra.shis where be 3s:GEN-inside-LOC bread PRIMP-do-3s
 Where is bKra-shis? He's inside, making bread.
- (243b) pkraʃis t^hi ɲa-va-w təmpnok ɲa-va-w
 bKra.shis what PRIMP-do-3s bread PRIMP-do-3s
 What does bKra-shis do? He makes bread. (He is a baker.)

Note that present imperfective marking indicates that an action or event has been going on for a while already and is still ongoing at the moment of speech. The speaker emphasises the duration and continuity of the action rather than the fact that the action is taking place just now. For a more immediate sense of action usually a speaker selects observation marker *na-*. Observation marking cannot be used to signal habituality:

- (244a) təmpnok ɲa-va-w (244b) təmpnok ^lna-va-w
 bread PRIMP-do-3s bread OBS-do-3s
 He is making bread. He is making bread.
 He is a baker. * He is a baker.

Sentence (244b) can generate a meaning like 'he is a baker' but only in the sense of newly acquired or surprising knowledge. I discuss this function of observation marking extensively in section 7.5.c below.

3. Terminative aspect

The cessation of an action is expressed by prefixing *məto-* to a verb phrase:

- | | | | | |
|-------|-------|----------------------|-------|----------------------|
| (245) | karjo | məto-rjo-w | katop | məto-top-w |
| | speak | TER-speak-3s | hit | TER-hit-3s |
| | | He stopped speaking. | | She stopped hitting. |
-
- | | | | | | |
|-------|---|-------------------|-----|------------|----------------------------|
| (246) | sloppən | vi | tʃe | sloppma-ŋo | məto-ŋak ^h o-ŋn |
| | teacher | come ₁ | LOC | student-p | TER-shout-3p |
| | When the teacher comes, the students stop shouting. | | | | |

Terminative aspect marking is inherently negative. With verbs that carry the meaning of stopping or cessation, only *to-* occurs, since the marking of terminative aspect on such verbs is excluded on semantic grounds, as in example (247):

- (247) ɲ-əmɲok to-rtek tʃe kava to-sənəna-jɲ
3p:GEN-bread PFT-enough LOC do PFT-cease-3p
When they had enough bread, they stopped baking.

* *nəmpok tortek tʃe kava mətosənənajn*

The meaning of these constructions can be glossed as 'stop doing....' or 'no longer do...'. Termination is different from completion in that an action may be stopped, for whatever reason, even though it is not yet completed. For example, I may stop reading my book because it is late, though I have not finished that book. There may be several chapters left. Alternatively, I may finish reading a book, even though there are still some chapters left in it. However, I am not going to read more of it. I'm finished with it. Such meanings of 'finish' are all expressed with verbs like *kasəjoʔk*, 'finish, complete', see above. The use of terminative aspect expresses that the subject stops doing a certain action, but it does not indicate whether that action is completed or not. After a pause or certain time interval, the action may be resumed.

Terminative aspect marking can be used to indicate that an action has to come to an end of necessity, due to circumstances beyond the speaker's control. The following fragment is from the A-m₁ Sg-oldong story (see Text 1 at the end of this study). An old couple finds that there is not enough food around to feed their son, and they are forced to stop bringing him up:

- (248) tapu? kəʃpət məto-^ha-ndʒ tʃe....
 child bring.up TER-able-3d LOC
 When they were no longer able to bring up the child,....

Compare also the following examples for the same verb *kac^ha*, ‘be able, can’. The situation is a discussion of whether family finances permit sending a child to school. Sentence (249a) is the neutral sentence. The family’s financial situation allows for the child to go to school. Sentence (249b) does not necessarily give an objective evaluation of the family’s circumstances, but rather expresses that the family feels unable, for whatever reason, to let the child go to study. It is a matter of personal attitude rather than of limiting circumstances. Perhaps the parents consider education a bad investment of their resources. In (249c) the verb is marked for observation, indicating that outside circumstances do not permit the parents to send their children to school. There is no sudden change, but all along their finances have been very poor and they can’t afford education for the child. Sentence (249d) shows that, though previously it was not possible to send the child to school, now it is. Example (249e) has the same meaning as (249d), but with an emphasis on the difficulties the family has had to overcome to get to the point where they can now send the child to school. In (249f) the circumstances of the family have changed. They were able to support a child’s education before, but for some reason, maybe a bad harvest, they are no longer able to do so. Sentence (249g), finally, is the non-past form of (249f). Note that the sending of the child is, in both sentences, a non-past event. But the terminative marking itself is for past in (249f) and non-past in (249g):

- (249a) tapu? ka-sə-rət^ha c^ha-j
 child NOM-CAUS-go.to.school can-1p
 We are able to send the child to school.

- (249b) tapu? ka-sə-rət^ha ma-c^ha-j
 child NOM-CAUS-go.to.school NEG-can-1p
 We [consider that we] are not able to send the child to school.

- (249c) tapu? ka-sə-rət^ha ma-^lnə-c^ha-j
 child NOM-CAUS-go.to.school NEG-OBS-can-1p
 We are not able to send the child to school [outside circumstances prevent us from being able to send the child.]

- (249d) tapu? ka-sə-rət^ha to-c^ha-j
 child NOM-CAUS-go.to.school PFT-can-1p
 [Though we were not able to do so before,] We are able to send the child to school.

- (249e) tapu? ka-sə-rət^ha na-c^ha-j
 child NOM-CAUS-go.to.school PFT-can-1p
 We are [after much difficulty] able to send the child to school.

(249f) tapu? ka-sə-rət^ha mətə-c^ha-j
 child NOM-CAUS-go.to.school TER-can-1p
 We are no longer able to send the child to school [because circumstances have changed for the worse].

(249g) tapu? ka-sə-rət^ha mata-c^ha-j
 child NOM-CAUS-go.to.school TER-can-1p
 [The circumstances are changing for the worse so that] We are not able to send the child to school.

Terminative aspect can signal what is at first glance an evidential meaning. Sentence (250) expresses that the speaker, while trying to drive a car, finds out he has lost the skill to do so. However, there is an equivalent of this sentence marked for observation. The difference between the two is that the driver in (250a) used to be able to drive. Only when he gets in a car after a long period of not driving, he notices that he has forgotten how to drive. The expectation is that he will regain his list skills again with practice. The issue marked by terminative aspect is not one of sudden awareness of an issue, but the changed circumstance itself. What was true in the past, the speaker knew how to drive, has stopped being true in the present. In sentence (250b) a person who has no previous experience of driving, but thought that it would be a piece of cake, climbs behind the wheel. He then finds out that he can't drive – he realises he does not have the necessary skills. The issue is not changed circumstance, but sudden realisation of an issue:

(250a) ŋa k^horlo kaleʔt mata-speʔ-ŋ
 I car hit₁ TER-able₃-1s
 I can't drive.

(250b) ŋa k^horlo kaleʔt ma-^lnə-speʔ-ŋ
 I car hit₁ NEG-OBS-able₃-1s
 I can't drive.

Marking for terminative aspect often occurs together with time references that give a clear cut-off point for an action, such as *ndə ŋk^huʔ*, 'after that' or *ndə sta tə*, 'from then on':

(251) tapu? poŋeʔj ra ʃi na-cəs kərek na-top-ŋ
 child money need continuously PFT-say one PFT-hit-1s
 The child asked for money all the time; I hit him squarely [and]

ndə sta tə poŋeʔj ra mətə-cəs
 that origin C money need TER-say
 from that time on he stopped asking.

Marking for terminative aspect clearly is a combination of two markers. The two can be split up to create a nominalised construction. I repeat here example (97) from section 7.1 on nominalisation:

- (252) wuɣo-ndʒ ʒik kəmtʃoʔk 'nə-ŋos-ndʒ kʰono kaʃpət mə-kə-to-tʃʰa-ndʒ
 they-3d also old EV-be-3d CON bring.up TER-NOM-TER-able-3d
 They were old too, so they were beyond being able to bring him up.

'nə-ŋos
 EV-be

Marker *mə-* in past terminative aspect marking is not a question marker. In example (253) the question marker occurs at the end of the sentence, indicating that the meaning of *mə-* in the verb phrase should not be confused with the question marker *mə-*:

- (253) pəʃur təmor rə məto-tə-natso-w me
 yesterday evening CON TER-2-see-2s INTR
 Did you stop reading last night?

A construction with *məto-* also should not be confused with a prohibitive, such as (254), even though there is clearly a link between terminative aspect and negation. Terminative aspect marking for non-past has negation marker *ma-*. Terminatives are inherently negative and use the marker *mə-* as part of the construction, as do prohibitives:

- (254) mə-tə-ŋaʰkʰo-jn
 PROH-2-shout-2p
 Don't shout!

It is not possible to negate a verb phrase marked for terminative aspect with either of the normal negation markers *ma-* and *ji-*. Imagine a man who is a driver talking to an acquaintance about driving his bus:

- | | |
|---|---|
| (255a) kʰorlo kə-leʔt ŋos
bus NOM-hit ₁ be
I still drive the bus. | (255b) nəŋʒo məto-tə-laʔt-n me
you TER-2-hit-2s INTR
Have you stopped driving? |
| (255c) pəʃnu ma-tə-leʔt-n me
today NEG-2-hit ₁ -2s INTR
Don't you drive? | (255d) varʒi ʒi-tə-laʔt-n me
last year NEG/PFT-2-hit ₂ -2s INTR
Did you not drive last year? |
| (255e) * matotəlaʔtn | (255e) * ʒotəlaʔtn |

Actually *mənotəlaʔtn* and *ʃotəlaʔtn* are possible forms, but they have nothing to do with driving. Rather they are negative forms of *kaleʔt*, ‘set free, let go’, meaning ‘will they let you go’ and ‘they have not let you go’ respectively. These constructions are not possible to negate terminative aspect.

4. Prospective: aspectual use of the viewpoint marker *və-*, ‘soon’

When an action or event is about to take place, the viewpoint marker *və-* can be used in a derived, aspectual sense meaning ‘soon’:

- (256) *tʃaʃ^{hi} və-tʃ^{hi} law*
bKra.shis PROSP-go₁ MD:G
bKra-shis will go immediately, I guess.

Both Lín Xiàngróng and Lin You-Jing write that in *Zhuōkèjī* the affix *po*, derived from the verb *kapo*, ‘come’, prefixed with an orientation or past tense marker, occurs in the verb phrase before the person markers to express the meaning of ‘impending action’.¹⁸¹ The diagnostic example, which I give here in Lín Xiàngróng’s transcription, is: *ʃo to-po tə-ʒdɛŋ*, ‘you (p) will soon be afraid’. For Jiǎomùzú I have not found a similar placement of *və-*. The marker, unlike normal aspect markers, retains its place in the viewpoint marking slot after the person markers:

- (257) *nənʃo tə-və-tʃ^{hi} me*
you 2-PROSP-go₁ INTR
Are you about to go?

When the urgency or immediacy of the impending action or event needs to be emphasised, the marker can be reduplicated:

- (258) *pʃu na-və-və-mbek*
log PFT-PROSP-RED-split
The log will split any second now.

Marking for prospective action often combines with past perfective marking, indicating that the completion of an action or event is impending:

- (259) *nənʃo to-tə-və-loʔ me*
you PFT-2-PROSP-set.out INTR
Are you about to head out? (Were you about to head out?)

¹⁸¹ Lín (1993: 265, 266), Lin (2003: 268, 269).

- (260) n-amaʔ mə-na-tə-və-səjoʔk-w
 2s:GEN-work Q-PFT-2-PROSP-finish-2s
 Is your work almost finished? (Were you almost done?)

- (261) pʃu na-və-mbek
 log PFT-PROSP-split
 The log is about to split.

Unlike verbs marked for past perfective, verbs that signal futurity with prospective aspect marking have root 1 in the verb phrase:

- (262a) ɲa karʔəʔk to-məndak-ɲ
 I run PFT-have.one's.turn₂-1s
 It's my turn to run.

- (262b) ɲa karʔəʔk to-və-məndek-ɲ
 I run PFT-PROSP-have.one's.turn₁-1s
 It is almost my turn to run.

The use of *və-* to express impending action or something about to happen is not restricted to action verbs. The following examples show prospective aspect marked on the stative verbs *kəts^ho*, 'fat' and *kəneʔk*, 'black':

- (263) pak tawo və-ts^ho
 pig early PROSP-fat-1s
 The pig will be fat soon.

- (264) nəŋʝo kəjam w-ək^ha-j kəɲi n-aɲi na-və-neʔk
 you sun 3s:GEN-mouth-LOC sit 2s:GEN-face PFT-PROSP-black
 If you sit in the sun your face will turn black soon.

Unlike *və-*, the viewpoint marker *ʃi-* cannot be used to express impending action. It only occurs in its literal meaning of something or someone going somewhere, expressing physical action. It should not be confused with the English 'going' in the sense of 'about to', as in 'I'm going to hit you'. The difference in use between the two viewpoint markers in this respect is demonstrated by the following examples:

- (265a) kəʃpət 'na-və-ʃu ɲos
 cow OBS-PROSP-die be
 The cow is about to die.

(265b) * kəʃpət naʃiʃu ɲos

(265c) * kəʃpət kajvij ʃitʃ^{hi} nəɲos

(265d) kəʃpət kajvi-j ji-^la-ʃi-tʃ^{hi}
 cow meadow-LOC PFT-NEV-VPT-go₁
 The cow went to the meadow.

Example (265a) states that the cow is in the process of dying, and that the actual death is about to happen. Example (265b) would indicate that the cow, while in the process of dying, is going somewhere to do the actual dying. The sentence is ungrammatical because the speaker cannot know what is in the cow's mind while she is in the process of dying. Sentence (265c) is ungrammatical for the same reason: the speaker cannot know what is in the cow's mind and therefore cannot say that she is about to go to the meadow. At most he can say, if he sees the cow ambling by in the general direction of the meadow, that the cow is walking in the direction of the meadow. Example (265d), of course, is fine. The speaker, even though he did not witness the cow going down to the meadow, knows this fact to have happened. The viewpoint marker here expresses the physical action of the cow's walking, not impending action.

The viewpoint marker *və-* can only carry one meaning, the literal or the figurative one, at a time. The hearer chooses the right interpretation based on context.

7.5 *Evidentiality*

a. *Introduction*

The concept that governs evidentiality marking in Jiǎomùzú is reliability. A speaker will mark his statement to indicate the degree of reliability he himself judges his statement to have. What counts here is the speaker's conviction that his statement is reliable, not the objective or factual truth concerning any given statement. The degree of reliability rests on the sort of authority a speaker invokes. Direct evidentiality conveys that the speaker has witnessed an action or event personally. This is the default position, conveying a speaker's conviction of reliability, and it is unmarked. If the speaker has not personally been present at a scene of action, his statement is marked accordingly for non-direct evidentiality with the marker *a-* prefixed to verb root 1. This marker is always stressed. A second sort of authority rests on knowledge of a situation, action or event that the speaker has acquired through personal observation or experience, though not necessarily by being physically present when the speaker gained his knowledge of the situation. This sort of evidentiality is marked by marker *na-* prefixed to the verb root. Lin You-Jing uses the term 'observational' for this category

In Jiǎomùzú evidentiality markers occupy a slot in the verb phrase after mood, tense and aspect markers but before person markers, as shown in the following examples:

- Modality and evidentiality are closely linked, since marking for the degree of reliability of a statement encompasses both evidentiality and more modal concepts such as a speaker's conviction or certainty.

Eye-witness and awareness: a-

¹⁸² Lin (2000: 76-81).

I go inside without actually seeing bKra-shis walk off with the horse, my statement will still not be marked for non-direct evidentiality. Though I did not actually see bKra-shis walking away with the horse, in my mind I am certain that he is taking the horse up and make my statement accordingly. Evidentiality marking in Jiăomùzú thus adheres to the general principle of firsthand knowledge but has fuzzy edges where a speaker's certainty, based on personal knowledge of a situation, comes into play.

Marking for non-direct evidentiality normally only occurs in sets with third person agents. First person agents imply eye witness evidentiality by the very fact of their being agents, and sets with second person agents imply a first person witness who asks questions or makes statements about the second person agent's actions, addressing the second person. Evidentiality for second person subjects becomes an issue only in questions, since in questions it is the hearer's knowledge that is relevant. A Jiăomùzú speaker will guess whether the hearer has firsthand knowledge of an action or event and mark the verb in his question accordingly. The Jiăomùzú dialects presuppose the speaker's firsthand knowledge of a situation, so direct evidentiality is the neutral or default form. There is no special marking for it in the verb phrase. In Jiăomùzú lack of firsthand knowledge or non-direct evidentiality, is marked on the verb with the prefix *a-*. Non-direct evidentiality is marked only on past tense forms. Example (267a) shows a neutral sentence. Sentence (267b) is a question unmarked for non-direct evidentiality, indicating that the speaker thinks the hearer has probably witnessed the hitting of the dog. If the speaker has reason to believe the hearer did not witness the hitting of the dog, he will mark the sentence accordingly with non-direct evidentiality marker *a-*, as in (267c). The expected answer to (267b) is *natopw*, 'he hit', without marking for non-direct evidentiality. But if the speaker guessed wrong, and the hearer did not witness the hitting of the dog, the addressee will mark his response accordingly with non-evidentiality marker *a-*. Along the same lines, the expected answer to (267c) is the marked form *na'^latopw*, 'he hit', but the unmarked form may be used when the hearer did see bKra-shis hit the dog:

(267a) pkraʃis k^həna na-top-w
 bKra.shis dog PFT-hit-3s
 bKra-shis hit the dog.

(267b) pkraʃis k^həna na-top-w me
 bKra.shis dog PFT-hit-3s INTR
 Did bKra-shis hit the dog?

na-top-w	na- ^l a-top-w
PFT-hit-3s	PFT-NEV-hit-3s
He did.	He did.

(267c) pkraʃis kʰəna na-^la-top-w me
 bKra.shis dog PFT-NEV-hit-3s INTR
 Did bKra-shis hit the dog?

na- ^l a-top-w	na-top-w
PFT-NEV-hit-3s	PFT-hit-3s
He did.	He did.

In sets with third person agents the first person may or may not have firsthand knowledge of the action or event, and so these forms are marked for evidentiality accordingly. Example (267d) is a statement which is marked for non-direct evidentiality:

(267d) pkraʃis kʰəna na-^la-top-w
 bKra.shis dog PFT-NEV-hit-3s
 bKra-shis hit the dog.

When an evidentiality marker combines with an aspect or tense marker in past tense sentences, as in (267d), phonetically the vowel of the non-direct evidentiality marker replaces the vowel of the preceding marker, while the consonant stays in place. The stress remains, leading to a heavily stressed first syllable. The examples throughout this study are all phonemic rather than phonetic. In normal speech, the dead giveaway for the presence of an evidentiality marker is the extra strong stress on the first syllable. Also the vowel of a syllable marked for non-direct evidentiality is always *a-*. In 268(a) below, the non-direct evidential version of (268b), the marker *a-* replaces the vowel of the preceding past tense marker. Phonetically, the verb phrase is pronounced [jətʰi], with heavy stress on the first syllable and the only indication of a merged extra syllable being the heavy stress. Non-direct evidentiality marked by *a-* occurs with verb root 1, while direct evidentiality, the default form, has root 2 forms.

(268a) pkraʃis malataŋꞰ kə-ndza ji-^la-tʰi [ʔjətʰi]
 bKra.shis spicy.soup NOM-eat PFT-NEV-go₁
 bKra-shis went to have spicy soup

(268b) pkraʃis w-əmp^ha-j ji-rʒi [ʔjirʒi]
 bKra.shis 3s:GEN-outside-LOC PFT-go₂
 bKra-shis went out.

(269a) pəʃur tak^hu na-moʔt-w [nəmoʔt]
 yesterday cigarette PFT-drink-3s
 She smoked yesterday.

- (269b) pəʃur tak^hu na-^la-moʔt-w [ˈna.moʔt]
 yesterday cigarette PFT-NEV-drink-3s
 She smoked yesterday.

A speaker's eye-witness perspective influences not just marking for evidentiality but also person and number marking. If a speaker has no first-hand information about a situation he will choose third person plural marking, even though the event he talks about may only have included two actors, to indicate that he is not able to give precise detail – he was not there after all. Example (270) below shows a set of two sentences (270a) and (270b), both describing an argument between two people that deteriorates into a fight. Sentence (270a) is marked for non-direct evidentiality with *a-*. The speaker did not see the altercation in person. From hearsay, he may know that there were only two people involved, but the speaker adds generality or vagueness to emphasize that he only heard about the fight by using third person plural marking. Sentence (270b) has no marking for indirect evidentiality. The speaker saw the brawl and knows there were only two people involved. This level of precise detail is expressed in the person marking, which is for dual, not for plural:

- (270a) wuvjot to-^la-ŋa-məcə-jn kə-məŋk^huʔ tʃe to-^la-ŋa-le-leʔt-jn
 much PFT-NEV-REC-say-3p NOM-after LOC PFT-NEV-REC-RED-hit₁-3p
 They talked back and forth and finally they started fighting.

- (270b) wuvjot na-ŋa-məcə-ndʒ kə-məŋk^huʔ tʃe to-ŋa-la-laʔt-ndʒ
 much PFT-REC-say-3d NOM-after LOC PFT-REC-RED-hit₂-3d
 They talked back and forth and finally they started fighting.

Logically, the presence of a speaker during an event or in a certain situation implies firsthand knowledge of that event or situation. But there are situations in which a speaker may be present, though unaware of what is happening. Jiǎomùzú distinguishes between situations in which the speaker is aware of what he is doing, and situations in which the speaker unwittingly performs an action. Since in by far the most situations the speaker is aware of his own behaviour, awareness is the default and does not get marked. Situations where the speaker is unaware of an event or action are also marked by *a-*:

- (271a) ŋa n-ascok to-cop-ŋ
 I 2s:GEN-letter PFT-burn-1s
 I burned your letter.

(271b) *ŋa nənjo n-ascok ʃokʃoʔk kə-plu-ŋ tʃe*
 I you 2s:GEN-letter paper NOM-burn-1s LOC
 When I was burning papers, I also [inadvertently] burned your letter.

w-apsi to-^la-cop-ŋ
 3s:GEN-together PFT-NEV-burn-1s

(272a) *ŋa bawbaw^ɕ ki na-ʃi-nə-ku-ŋ*
 I bag IDEF PFT:down-VPT-EREFL -buy-1s
 I went down and bought myself a bag.

(272b) *ŋa bawbaw^ɕ ki na-^la-ʃi-nə-ku-ŋ*
 I bag IDEF PFT:down-NEV-VPT-EREFL-buy-1s
 I went down and bought myself a bag.

In example (271a) the speaker was fully aware of what he was doing when he burned the letter. In (271b) he burned the letter unwittingly, because it was stuck in a pile of papers to be burnt. In examples (272a) and (272b) the buying of the bag is an active act of the will in (272a) and an event that seems to simply have happened to the speaker in (272b). When discussing this example with native speakers the possible situations were fairly farfetched, though not unthinkable by any means. The speaker might have been too drunk to know what he was doing, or there may be some sort of mental problem or illness, for instance. The need for a speaker to use non-direct evidentiality marking for first person after heavy drinking apparently is a fairly common occurrence. Note that in the last two examples phonetically the only difference is the placement of stress: on the verb root in the unmarked past tense in (272a), [nəʃinə'kuŋ], and on the past tense cum evidentiality marker in (272b), ['nəʃinəkʊŋ].

As mentioned above, Jiǎomùzú makes use of person and number marking in combination with *a-*, to convey information about an unknown agent of an action, if the speaker has not seen the action. In examples (267) above this sort of marking occurred to indicate that the speaker only knew about a situation from hearsay. In the examples (273b) and (273c) below the speaker has personally experienced, though not seen, the stealing. The difference in person marking indicates whether or not the speaker is aware of who the thief is:

(273a) *ŋa wu-kohon^ɕ to-^la-nəʃmo-ŋ*
 I 3s:GEN-lipstick PFT-NEV-steal-1s
 I stole her lipstick.

(273b) *ŋa ŋə-kohon^ɕ to-^la-nəʃmo-w*
 I 1s:GEN-lipstick PFT-NEV-steal-3s
 [Someone] stole my lipstick (My lipstick got stolen).

(273c) *ŋa ŋə-kohŋɔ̃ to-^la-nəʃmo-jn*
 I 1s:GEN-lipstick PFT-NEV-steal-3p
 My lipstick was stolen.

In (273a), the most neutral sentence, I unwittingly stole the lipstick. Somehow it got into my pocket or hand and I walked off with it, without consciously stealing it. The sentence is marked for first person subject. Note that the owner of the lipstick is only indicated by marking for third person on 'lipstick'. Both (273b) and (273c) are marked for non-direct evidentiality, indicating that the speaker was not aware of her lipstick being stolen, and did not see who did it. Accordingly, no names are mentioned. There is not even a subject in the sentence in the form of a noun phrase. But there is a significant difference in meaning between (273b) and (273c). In (273b) I did not witness the stealing of the lipstick, but I know who did it. The marking is thus for third person singular subject. The subject is implicit. The object is *ŋa ŋəkohŋ*, 'my lipstick'. Example (273c) indicates that my lipstick was stolen by someone, and I have no idea by whom. Accordingly, the verb is marked for a generic third person plural. Again 'my lipstick' is the object. As in (273b), the subject is implicit. This difference in marking also occurs in examples (270a) and (270b) above.

Awareness marking also occurs in sentences with verbs that can act as auxiliaries, for example when someone is cooking a meal:

<p>(274a) <i>bebe to-k^hut</i> noodles PFT-can The noodles are done.</p>	<p>(274b) <i>bebe to-^la-k^hut</i> noodles PFT-NEV-can The noodles are done.</p>
--	--

Example (274a) indicates that the person cooking the noodles is done preparing them. In (274b) the speaker looks in the pot and sees that the noodles are done. The noodles became ready to eat without the speaker necessarily watching them boil in their pot, though he may have been physically present at the scene of the cooking.

Degrees of reliability or certainty

A speaker may be convinced of the reliability of his statement concerning an action or event, even if he has not personally witnessed it. The certainty of the speaker can be based either on an outside but trusted authority, or on conventional views about the world held by the community of which the speaker is a part.

If a speaker's certainty rests on a trusted outside authority he can use a linking verb, most often a form of *ŋos*, 'be', at the end of a statement. The difference is clear from the examples below. In sentence (275a) a speaker makes a statement which he thinks or trusts or hopes is true. The hearer will judge it as such: fairly reliable. In example (275b), with the addition of *ŋos*, there is no room for doubt. The speaker is certain in his own mind that bKra-shis will give lHa-mo apples. Most often a speaker's use of *ŋos* to express his personal conviction about the reliability of a statement is based on a personal communication with one of the actors in the event. For example (275b), bKra-shis told the speaker he will give apples to lHa-mo, hence the speaker's certainty expressed by *ŋos*.

(275a) soŋnu pkraʃis pakʃu lhamo mbuʔ-w
 tomorrow bKra.shis apple lHa.mo give-3s
 Tomorrow bKra-shis will give lHa-mo apples.

(275b) soŋnu pkraʃis pakʃu lhamo mbuʔ-w ɲos
 tomorrow bKra.shis apple lHa.mo give-3s be
 Tomorrow bKra-shis will give lHa-mo apples.

If the speaker bases his conviction of reliability in the generally held beliefs of his community, he will use *nə-* prefixed to a linking verb. For example, imagine an outsider asking about a fruit that he has not encountered before. The speaker can answer in two different ways:

(276a) tʃəʔ pakʃu ɲos
 this apple be
 This is an apple.

(276b) tʃəʔ pakʃu 'nə-ɲos
 this apple EV-be
 This is an apple.

If the speakers answers with (276a), his use of *ɲos* indicates that he is entirely certain of the fact, that he has personal knowledge of the subject, and his statement is completely reliable. In (276b) the speaker conveys that his statement is based in traditional knowledge. In his community this sort of fruit has always been called 'apple', it is a truth passed on from generation to generation, and thus reliable. It is also possible to use *nə-* if the speaker enlists an outside authority whose word on the matter is reliable. Evidentiality marker *nə-* is always stressed, unlike other homophonous markers such as past tense marker *nə-*.

If indirectly obtained information is regarded as unreliable or the speaker is uncertain about its reliability, a form of *kacəs*, 'say' can be used in combination with marking for non-direct evidentiality:

(277) pkraʃis kʰəna na-'a-top-w na-cəs-jn
 bKra.shis dog PFT-NEV-hit-3s PFT-say-3p
 They said that bKra-shis hit the dog.

(278) poŋeʔj to-'a-nəʃmo-w 'na-cəs-jn
 money PFT-NEV-steal-3s OBS-say-3p
 They are saying that he stole the money.

Here is an overview of the different possibilities in evidentiality marking, giving different degrees of reliability to a statement. Sentence (279a) shows a speaker's conviction that Holland is not a very cold place, based on personal experience or firsthand knowledge. In (279b) a speaker emphasises his certainty of the fact. Example (279c) expresses that the speaker bases his statement not on personal experience of the Dutch climate but on an outside authority, maybe a book or a TV programme. And sentence (279d) gives the hearsay variant:

- (279a) xolan sok ma-məʃtak
 Holland manner NEG-cold
 Holland is not that cold.
- (279b) xolan sok ma-məʃtak ɲos
 Holland manner NEG-cold be
 Holland is not that cold.
- (279c) xolan sok ma-kə-məʃtak 'nə-ɲos
 Holland manner NEG-NOM-cold EV-be
 Holland is not that cold.
- (279d) xolan sok ma-məʃtak na-cəs
 Holland manner NEG-cold PFT-say
 Holland is not that cold, they said.

It is possible to combine several markers for evidentiality and certainty in one sentence. The effect is the layering of a speaker's convictions about the reliability of his statement, as in example (280) below. The verb *katʃ^{hi}i*, 'go' is unmarked, the default setting for eye-witness or firsthand knowledge of a situation. This expression of high reliability is qualified by *nakəɲos*, indicating the speaker's certainty of the fact that the subject indeed set out. The whole statement is once again qualified by *kacəs*, 'say', showing that the speaker has heard about the event rather than witnessed it. And marking with *nə-* on the last verb finally signals that the speaker considers the person who told him about the event to be a trustworthy outside authority:

- (280) kə-kə-r̥ji-jn na-kə-ɲos kacəs 'nə-ɲos
 PFT-NOM-go₂-3s:HON PFT-NOM-be say EV-be
 [And so] he set out, it is said.

c. *Observation*

Observation marker na-: function and occurrence

Observation is marked by the stressed prefix *na-*. This category encompasses several divergent meanings, for which different names have been coined in previous studies. One function of the observation marker is to label knowledge or certainty based on experience. The experience is not necessarily gained by actual presence of the speaker at the scene of the action or event. Lin noticed this function in her work on Zhuōkèjī and called the marker observational, defining it as indicating "that an imperfective situation is witnessed or perceived at a certain point of its interval. This

category always implies that the information is obtained directly from observed evidence."¹⁸³ In Jiāomùzú the same marker can also occur in perfective situations. Observation marking signals new or surprising knowledge or information as well. This function is called mirativity in DeLancey's work.¹⁸⁴ The use of observation marking also comes into play when speakers mark their positions as insiders or outsiders relative to a person or group. Observation marking thus not only expresses a speaker's knowledge based on experience of an action or event but also a speaker's authority to make a pertinent statement about that knowledge, based on his relation with the actors about whom the statement is made. Each of these functions will be discussed in separate subsections below. Observation marking has two variants, both stressed. The marker *na-* occurs in first position in the verb phrase, and in second position after question marker *mə-*. All other occurrences are marked with *nə-*, including the linking and existential verbs *ɣos*, 'be', *mi?*, 'not have' and *ma?k*, 'not be':

(281)	kəmem	'na-mem
	tasty	OBS-tasty
		tasty
	mə-'na-mem	ma-'nə-mem
	Q-OBS-tasty	NEG-OBS-tasty
	Is it tasty?	No, it isn't.

Observation marker *na-* occurs before the person prefixes, as is clear from the example above, but after mood, tense and aspect markers:

(282)	nənɣo	kəkə	tə-ɣos-n	'na-tə-ɣos-n
	you	originally	2-be-2s	OBS-2-be-2s
	Oh, it's you!			It is you!

(283)	kəməca	many		
	na-məca		'na-məca	
	PFT-many		OBS-many	
	There were many.		There are many.	
	ma-'nə-məca		na-'a-məca	
	NEG-OBS-many		PFT-NEV-many	
	There are not many.		There were many.	

¹⁸³ Lin (2000: 76,77).

¹⁸⁴ DeLancey (1997: 36), quoted after Lin 2000.

Observation markers occur in past as well as in non-past situations, as demonstrated in the following sets of examples. The sentences in (284a) are the neutral set. The examples in (284b) are marked for observation in a non-past situation. The first sentence is the response of a speaker who thought he might not know bKra-shis, but when he meets bKra-shis in a group of people, it turns out that he does know him. The negative variant signals that the speaker thinks he knows bKra-shis, but when he meets him in a group of people it turns out to be a different person than he expected – he discovers that he does not know this bKra-shis. The examples in set (284c) give the speaker's comments after he has met a group of people, of which bKra-shis was one. The first sentence confirms that the speaker did not know bKra-shis, as he himself knew all along. The second sentence shows the speaker's surprise at finding out he did not actually know bKra-shis:

- | | | |
|--------|--|--|
| (284a) | <p> ηa pkraʃis ʃi-η
 I bKra.shis know-1s
 I know bKra-shis. </p> | <p> ηa pkraʃis ma-ʃi-η
 I bKra.shis NEG-know-1s
 I don't know bKra-shis. </p> |
| (284b) | <p> ηa pkraʃis 'na-ʃi-η
 I bKra.shis OBS-know-1s
 I know bKra-shis. </p> | <p> ηa pkraʃis ma-'nə-ʃi-η
 I bKra.shis NEG-OBS-know-1s
 I don't know bKra-shis. </p> |
| (284c) | <p> ηa pkraʃis ʃi-ʃi-η
 I bKra.shis NEG/PFT-know-1s
 I didn't know bKra-shis. </p> | <p> ηa pkraʃis ʃi-'nə-ʃi-η
 I bKra.shis NEG/PFT-OBS-know-1s
 I didn't know bKra-shis. </p> |

Futurity and observational marking are also mutually exclusive. Verb stems remain unmarked in non-past environments, especially in those signalling futurity:

- (285) kənandrok
 cold
- | | | |
|---------------------|--------------------|-----------------|
| 'na-nandrok- η | nə-nandrok- η | nandrok- η |
| OBS-cold-1s | PFT-cold-1s | cold-1s |
| I'm cold | I was cold | I'll be cold |

Knowledge or certainty based on personal experience

Compare the following sentences:

- (286a) * ηa wudienxwa^ʔ ʃo kələʔt η koronə mapu
 [I phoned him many times but he isn't home.]

(286b) *ŋa wu-dienxwa^ʔ ʃo kə-leʔt-ŋ koronə ma-¹nə-ŋu*
 I 3s:GEN-telephone often PFT-hit-1s but NEG-OBS-stay
 I phoned him many times but he isn't home.

The ungrammaticality of (286a) stems from the fact that the first clause shows the subject performing a certain action, 'phoned', implying that it is unknown to the subject whether 'he' is home or not, whereas the second clause, in itself a perfectly correct construction, implies the subject's knowledge of a certain fact: 'he' is not home, without the subject having taken any action to acquire this knowledge. The semantics of the first clause are not compatible with those of the second clause. In (286b) the presence of the observation marker makes all the difference. The marker refers to the speaker's action of making many phone calls. By doing this he gains a certain experience, since the calls go unanswered, which results in the speaker's knowing for a fact that 'he' is not home. By his actions the speaker learns something about the event or action described in the second verb phrase. The action undertaken by the speaker is what makes the use of observation marker *na-* different from non-direct evidentiality. Non-direct evidentiality simply indicates that a person was not physically present when the event took place. The observation marker *na-* emphasises a person's personal experience or observation of a fact, without implying anything about physical presence. In (287), for example, my knowledge that he is not home is gained from a distance, by phoning, without my having physically gone to his house to see for myself that he is not home. The following illustration may help to clarify this. Imagine I tell my friend lHa-rgyal that I want to go see dByangs-cin. lHa-rgyal may use either (287a) or (287b) to reply:

(287a) <i>jaŋtʃin ma-ŋu</i>	(287b) <i>jaŋtʃin ma-¹nə-ŋu</i>
dByang.cin NEG-stay	dByang.cin NEG-OBS-stay-3s
dByangs-cin isn't home.	dByangs-cin isn't home.

If lHa-rgyal uses (287a), he is sure that dByangs-cin isn't home. He has not found out by going to her house, but rather he ran into her somewhere, by coincidence. The absence of an observation marker in the sentence conveys this to me. If lHa-rgyal's reply is (287b), he tells me he went looking for dByangs-cin himself. He might have gone to her house or have phoned her. In any case, by his actions he found out that she isn't home, his knowledge is based on personal experience, and the presence of the observation marker conveys that to me.

Consider also the following sentences:

(288a) <i>kom kacu ma-k^hut</i>	(288b) <i>kom kacu ma-¹nə-k^hut</i>
door open NEG-possible	door open NEG-OBS-possible
The door can't be opened.	I can't open the door.

Example (288a) means that I am sure the door is impossible to open. Not only have I tried and failed, I am also positive that no one else will be able to open it. In (288b) I have tried to open the door, and failed. I know from experience that I myself cannot open the door, but I do not make a

blanket statement. There may be a person, somewhere, capable of opening the door. The listener, understanding my evaluation of the situation, can make up his own mind to try and open the door, or leave it as a probably unsuccessful venture. Though both sentences lack an overt agent, somehow (288b) has a much more active feel to it than (288a), which is best translated with a passive.

A few examples which illustrate the difference between non-direct evidentiality and observation round out this section:

(289a) jontan ji-vu
 Yon.tan PFT-come₂
 Yon-tan came.

(289b) jontan ji-^la-vi
 Yon.tan PFT-NEV-come₁
 Yon-tan came.

(289c) jontan ^lna-vi
 Yon.tan OBS-come₁
 Yon-tan has come.

In (289a) the speaker simply remarks that Yon-tan, at some time in the past, arrived. Example (289b) is marked for non-direct evidential, indicating that the speaker did not personally see Yon-tan come. Someone else told him that Yon-tan had arrived. In the last sentence, (289c), the speaker concludes from some personal observation that Yon-tan is around. Maybe he saw Yon-tan's bag, or heard his voice. Or maybe he met him somewhere on the street a while ago.

(290)	to-k ^h ut	^l na-k ^h ut
	PFT-can	OBS-can
	It's working!	It's working!

The difference expressed by the marking in the example above is one of personal involvement of the speaker. The phrase marked for past tense indicates that the speaker has been busy for a while to get something, maybe an overhead light, to work. When he is done and switches on the light, he is happy to see that it works. In the sentence marked for observation the speaker simply throws the light switch and finds that the light works - he does not need to do any repairs.

Mirativity

Mirativity indicates new or unexpected information. A few examples will show the kind of meaning expressed by mirativity:

- (291a) krəŋ kəmem ɲos (291b) wastop 'na-mem
 maybe tasty be very OBS-tasty
 Maybe it is tasty. Very tasty!

Example (291a) is said when the speaker has not tasted any of the food yet. Sentence (291b) is used after tasting, when the speaker has a personal, new experience of a new flavour.

- (292a) ɲa ɲ-əʃeʔm məntoʔk ndoʔ
 I 1s:GEN-house flowers have
 There are flowers in my house.
- (292b) ɲa ɲ-əʃeʔm məntoʔk 'na-ndoʔ
 I 1s:GEN-house flowers OBS-have
 There are flowers in my house.

The speaker in (292a) knows what is in the house for sure. It is his own house and he is certain that the flowers are there. In (292b) the presence of flowers in the speaker's house comes as a surprise. They were not there before, and the speaker did not put them there. He doesn't know how they came to be there or who put them there. The knowledge of there being flowers in the house is new and unexpected.

Or, when I knock on my friend's door there is no answer, but when I walk around the house, to my surprise, I find him in the garden:

- (293) o 'na-tə-ɲu
 oh OBS-2-live
 Oh, you *are* here!

So should observation marker *na-* be counted as signalling mirativity? One argument against this comes from example (290) above. Both the person who worked to repair the light and the speaker who simply tried the switch had no way of knowing that the light would work. It is new information for both, though maybe expected by the man who worked. So *na-*, since it occurs only in one of the two sentences, must mark something beyond newness of knowledge. Another example is (294):

- (294) pəzar 'ji-məndə tʃe tʃʰəŋdu wastop saʃki 'na-ɲos
 summer FPFT-arrive LOC Chéngdū very hot OBS-be
 Once summer has arrived, it will be very hot in Chéngdū.

Here the observation marker indicates knowledge of a situation - Chéngdū is hot in summer - acquired at some point in the past. The use of the marker shows that the speaker is sure of his statement, based on his experience with Chéngdū's hot season.

Lin remarks that mirativity as described above is limited to present tense, otherwise the information loses its newness or the element of surprise. Her Zhuōkèjī data show the occurrence of observation marking also in past tense and in habitual situations.¹⁸⁵ I have not found this distinction for Jiǎomùzú. Examples (284) above, about the speaker knowing or not knowing bKra-shis, clearly show past as well as non-past environments with observation marking. In fact, looking at the examples of mirativity above, they can easily be interpreted within the functions of observation described in this section. Examples (290) and (294) of course express knowledge based on experience, the first sense of observation. It does not really matter if the knowledge is newly acquired or not, the marking is the same. Mirativity in the sense used by DeLancey is not so much a separate category as a subdivision of observation marking in the Jiǎomùzú dialects.

Distinguishing outsiders from insiders

One more function of observation marking needs to be added here. When a speaker wants to indicate his social position as outsider or insider in relation to a group observation marking comes into play. Consider the following examples:

- | | |
|--------------------------|------------------------------|
| (295a) jontan mə-ndo? | (295b) jontan mə-'na-ndo? |
| Yon.tan Q-have | Yon.tan Q-OBS-have |
| Is Yon-tan home? | Is Yon-tan home? |

A person belonging to Yon-tan's House can ask the question as in example (295a). The person is an insider and is entitled to speak about Yon-tan with authority. Sentence (295b) however will be used by a person not belonging to Yon-tan's House, say a friend who comes looking for Yon-tan. The friend does not have the authority of close relationship or kinship and therefore must use observation marking. Note that it does not matter at all whether a person has knowledge based on personal experience or not. The friend may be sitting in Yon-tan's house, knowing that Yon-tan, who was chatting with him just now, has gone into the next room to fetch tea. If someone asks at that moment whether Yon-tan is home, the friend is still obliged to answer with (295c). But a person belonging to the House will answer with (295d).

- | | |
|-----------------|-------------|
| (295c) 'na-ndo? | (295d) ndo? |
| OBS-have | have |
| Yes, he is. | Yes, he is. |

In the friend's case answer (295c) arguably does not involve surprise or new knowledge: he knows full well that Yon-tan is there. One could argue that the statement is marked for observation because the friend has experienced that Yon-tan is home and bases his marking for reliability on that. However, as an eyewitness to Yon-tan's being home one would expect no marking at all for whoever has seen Yon-tan there and so has firsthand knowledge of the situation. Besides,

¹⁸⁵ Lin 2000: 77, 78.

observation marking does not occur if someone belonging to the House makes the same statement. Not even when someone belonging to the house is out in town and meets someone who asks if Yon-tan is home. The answer will be a simple *ndo?*, without observation marking, even though the speaker has not seen Yon-tan for several hours. What matters here is the basic difference between outsiders and insiders. People that belong to the in-group are entitled to make statements conveying certainty, based on the authority they derive from being insiders. People that do not belong to the in-group do not have such authority, whatever their personal level of knowledge about a certain fact or situation. In judging the reliability of a statement insider knowledge trumps an outsider's firsthand knowledge, whether it is gained as an eyewitness or from personal experience. Along the same lines, when someone asks if I have a pot, I will use (296a) if the pot is mine and (296b) if the pot belongs to someone else, say if the speaker is in someone else's house helping out in the kitchen:

(296a)	tajam	ndo?	(296b)	tajam	'na-ndo?
	pot	have		pot	OBS-have
	Yes, there is a pot.			Yes, there is a pot.	

Observation marking often replaces present imperfective marking to signal the outsider/insider distinction, especially when the present imperfective signals a state or an action of long duration. The examples below are the answers of a daughter to a question about her mother's profession. Sentence (297a) expresses that the daughter still lives at home, is part of the House, and thus entitled to use present imperfective marking because she is an insider. The same daughter, once she has moved out of the house, will use observation marking to signal that she is now an outsider:

(296a)	ŋ-əmo	ts ^h oŋ	ŋa-va-w
	1s:GEN-mother	business	PRIMP-do-3s
	My mother runs a shop. (My mother is a trader.)		
(296b)	ŋ-əmo	ts ^h oŋ	'na-va-w
	1s:GEN-mother	business	OBS-do-3s
	My mother runs a shop. (My mother is a trader.)		

Speakers use observation marking also to distance themselves from an action, event or person. For example, a person, when asked what is with all the noise going on outside, may answer with (297a) or (297b). Example (297a) indicates that the speaker genuinely does not know what the noise is about. Sentence (297b) implies that the speaker does not know and also that he does not want to know. He is not interested and does not want to get involved with the issue:

(297a)	ma-ʃi-ŋ	(297b)	ma-'nə-ʃi-ŋ
	NEG-know-1s		NEG-OBS-know-1s
	I don't know.		I don't know.

A special but very important function of the observation marker is to convey the sense that there is third or outsider party involvement and control over an action or event. This function can be illustrated most clearly in sentences with the auxiliary *ra*, which expresses futurity as well as meanings like 'need, want'. Compare the following sentences:

(298a) *sofnu* *pkraʃis* *wucən* *mi* *rʒəʔk*
 tomorrow bKra.shis 5000 metre run
 Tomorrow bKra-shis will run the 5000 m.

(298b) *sofnu* *pkraʃis* *wucən* *mi* *rʒəʔk* *ra*
 tomorrow bKra.shis 5000 metre run need
 Tomorrow bKra-shis has to run the 5000 m.

(298c) *sofnu* *pkraʃis* *wucən* *mi* *rʒəʔk* *'na-ra*
 tomorrow bKra.shis 5000 metre run OBS-need
 Tomorrow bKra-shis must run the 5000 m.

Example (298a) simply states that bKra-shis will run. Futurity is signaled by *sofnu*, 'tomorrow'. The verb *ra* in (298b) signals futurity as well as modality. The speaker conveys to a third party that bKra-shis will perform an action, 'run', in the future, as well as the speaker's own certainty that the event will take place. In example (298c) the presence of *ra* modified by *na-* signals that some outside influence compels bKra-shis to run, maybe bKra-shis' coach in track and field. In any case, bKra-shis will run because someone else requires him to, not of his own volition.

Compare also:

(299a) *ŋa* *kərama* *kəsam* *ʃnu* *ta-skoʔr-jn* *ra*
 I labour three days 1/2-hire-2p need
 I will hire you (p) to work for three days.

(299b) * *ŋa* *kərama* *kəsam* *ʃnu* *taskoʔrjn* *'nara*

Obviously, when the speaker controls the action, the auxiliary verb cannot be marked for observation, since observation marking signals the outsider, observer or non-participant perspective of the speaker. A sentence like (299b) is ungrammatical if the speaker is the one who decides whether to hire people or not. The sentence becomes grammatical only if the empathy of the hearer shifts away from the speaker to a third party, which somehow controls the speaker's action in the particular situation. A possible scenario is that I am the manager of an estate, and the landowner has told me to hire the people I'm speaking to for the period of three days. Example (299a) only conveys that 'I' will hire some labourers. In (299b) 'I' convey to the people to be hired that the hiring is on the orders of someone else. The same issue occurs in examples (300a) - (300c):

- (300a) ηa $\eta i-t\dot{\eta}i\eta s\partial^{\text{a}}$ $ta-v\partial-sco\eta-n$
 I 2p:GEN-dorm 1/2-VPT-see off-2s
 I'll come and see you to your dorm.
- (300b) ηa $\eta i-t\dot{\eta}i\eta s\partial^{\text{a}}$ $ta-v\partial-sco\eta-n$ ra
 I 2p:GEN-dorm 1/2-VPT-see.off-2s need
 I'll come and see you to your dorm.
- (300c) ηa $\eta i-t\dot{\eta}i\eta s\partial^{\text{a}}$ $ta-v\partial-sco\eta-n$ $'na-ra$
 I 2p:GEN-dorm 1/2-VPT-see.off-2s OBS-need
 I must come and see you to your dorm.

Example (300a), the most unmarked version, is the most neutral or open statement. It tells the hearer that the speaker intends to see him to the dorm. The statement leaves room for the hearer to protest or otherwise respond. The action is intended rather than certain to take place. In (300b) the speaker is decided on his course of action. The seeing to the dorm will happen, whatever the hearer thinks about it. There is no room for discussion, at least in the speaker's mind. Sentence (300c) shows a most likely rather unwilling speaker communicating that a third party has saddled him with the task of seeing the hearer back to the dorm. The use, in these cases, of the observational marker, is often perceived as unpleasant or negative, but not always. Outsider influence signalled through the use of observation marking differs from straight imperatives in that the stress in imperatives is on the verb root, not on the prefix. Marking for simple past tense also has a non-stressed prefix, as shown in example (301b) below. Sentence (301a) is the neutral form. Perhaps bKra-shis wants to obtain tickets for a rock concert, and therefore has to line up, with lots of other people, through the night. Sentence (301b) may be used when bKra-shis had his money stolen on the bus. He could not afford lodging, and therefore had to sleep outside on a bench. Example (301c), with the observation marking, signals that bKra-shis is compelled to sleep outside. Maybe it is his penance, given to him by his root lama. He may not object to sleeping outside, even be eager to in order to avoid accumulating bad karma. Nevertheless, the sleeping outside was brought upon him by an outside authority:

- (301a) $lakt\dot{\eta}^e$ $kaku$ $wu-t\dot{\eta}^e$ $kant\dot{\eta}^{\text{a}}k-j$ $kan\partial jup$ ra
 thing buy 3s:GEN-reason street-LOC sleep need
 He has to sleep on the street in order to buy something.
- (301b) $nd\partial$ $r\partial$ $wu\eta o$ $kant\dot{\eta}^{\text{a}}k-j$ $kan\partial jup$ $na-ra$
 that CON he street-LOC sleep PFT-need
therefore he had to spend the night outside.

- (301c)ndə rə wuʃo kantʃ^hak-j kanəʃup 'na-ra
 that CON he street- LOC sleep OBS-need
therefore he is compelled to spend the night outside.

Summing up

The three sets of examples below give an overview of evidentiality marking in Jiǎomùzú. For the first set, imagine a stove with a pot of noodles cooking on it. The first phrase (302a) below signals that the cook has been working on the noodles and that they are now done. The second phrase, (302b) tells us that the noodles are done, and that the speaker found out when he lifted the lid of the pot - he did not physically stand there to watch the noodles boil. The third phrase, (302c) indicates that the speaker was not involved in the cooking of the noodles in any way. Maybe he just now walked into the kitchen, looked into the pot and found that there are noodles there, and that they are done. Phrase (302a) marks physical presence of the speaker as well as awareness. Phrase (302b) marks lack of awareness of the speaker as to the cooking process. Phrase (302c) marks observed knowledge, which, in this case, is also new knowledge:

(302a) to-k ^h ut	(302b) to- ^l a-k ^h ut	(302c) ^l na-k ^h ut
PFT-can	PFT-NEV-can	OBS-can
Done!	Done!	Done!

The second set involving several kinds of evidentiality marking shows once more the differences as well as the overlap in meaning and function. Imagine that someone asks if I have a bike. I tell them that no, I don't have one, using the negative verb *mi?*, 'not have'. Depending on the context of the question, different answers are possible:

- (303a) mi?
 not.have
 No. [I don't have a bike, and I never had one.]
- (303b) to-mi?
 PFT-not.have
 No. [I had a bike in the past, but now I don't have one. Maybe I sold it.]
- (303c) to-^la-mi?
 PFT-NEV-not.have
 No. [I thought I had one, but it is gone. It disappeared but I don't know when and how. Maybe a friend told me it is not in its regular place.]

(303d) 'na-mi?

OBS-not.have

No. [I had a bike, but when I return to the place where I left it, it is no longer there. I see that the bike has disappeared, something beyond my control has happened to it.]

The final set has examples for the linking verb *stfi*, 'be'. This verb has a connotation of condescension or even contempt. Sentence (304a) shows a speaker's low opinion of bKra-shis' station in life. Sentence (304b) conveys that the speaker's certainty about bKra-shis' profession is based on some outside authority, perhaps to counter a statement that bKra-shis is doing well for himself. Example (304c) gives a simple past tense. And (304d) expresses that the speaker, maybe having held the belief that bKra-shis, being an important person, always held a high position, is surprised to find out he was only a soldier in the past.

(304a) pkraʃis makmə stʃi
bKra.shis soldier be:CD
bKra-shis is only a soldier.

(304b) pkraʃis makmə 'nə-stʃi
bKra.shis soldier EV-be:CD
bKra-shis is only a soldier.

(304c) kəsce pkraʃis makmə na-stʃi
before bKra.shis soldier PFT-be:CD
In the past bKra-shis was only a soldier.

(304d) kəsce pkraʃis makmə 'na-stʃi
before bKra.shis soldier OBS-be:CD
In the past bKra-shis was only a soldier.

7.6 Attention flow

Attention flow is a device to switch attention to or express empathy with an object. Normally, a hearer will view an action from the perspective of the subject. If the speaker wants his audience to direct their attention not to the subject but with the object of the sentence, the verb is marked for attention flow by *no-*. For example:

(305a) təmtʃuk pkraʃis 'na-cop-w
fire bKra.shis OBS-burn-3s
The fire is burning bKra-shis.

- (305b) təmtʃuk pkraʃis 'no-cop-w
 fire bKra.shis AF/OBS-burn-3s
 bKra-shis is being burned by the fire.

Both sentence (305a) and (305b) are grammatical. Sentence (305a) is the neutral form. Sentence (305b) directs the attention of the hearer to bKra-shis. Sentences marked with attention flow are often best translated as passives in English, though *no-* appears in many environments that are not conducive to passive interpretation. Both (305a) and (305b) above are fully active sentences in Jiāomùzú. I discuss passivity and attention flow marking more extensively at the end of this section. Like inverse marking, attention flow marking is sensitive to the animacy hierarchy, as shown in the following examples. Attention flow marking does not occur in transitive relations in which the grammatical subject ranks higher than the object. Sentence (306) has a first person subject and a second person object, and marking with *no-* cannot occur:

- (306) pəʃur ɲa na-ta-naʝo-n * pəʃur ɲa notanajon
 yesterday I PSTPROG-1/2-wait-2s
 Yesterday I was waiting for you.

But attention flow marking can occur if the subject ranks lower than the object on the animacy hierarchy. In (307) there is a second person subject with a first person object. Example (307a) is the neutral form, with the regular past tense marker *kə-* for *kanajo*, 'wait'. Sentence (307b) is marked for attention flow marking, directing the hearer's attention and empathy to the object 'I' rather than to the waiting 'you'. Note that for (307b) a translation with a passive in English would sound highly unnatural:

- (307a) pəʃur nəɲʝo ɲa kə-ko-naʝo-ɲ me
 yesterday you I PFT-2/1-wait-1s INTR
 Did you wait for me yesterday?
- (307b) pəʃur nəɲʝo ɲa no-ko-naʝo-ɲ me
 yesterday you I AF/PFT-2/1-wait-1s INTR
 Did you wait for *me* yesterday?

Though both forms are possible and are in use among native speakers, many speakers prefer to mark a sentence for attention flow if the object outranks the subject. Some consider the unmarked form ungrammatical:

- (308) nəɲʝo pakʃu ki no-ko-mbuʔ-ɲ me ? * nəkombuɲ
 you apple IDEF AF/PFT-2/1-give-1s INTR
 Did you give me an apple?

- (309a) təmtʃuk ɲa 'no-cop-ɲ * təmtʃuk ɲa 'nacopɲ
fire I AF/OBS-burn-1s
The fire is burning me.
- (309b) təmtʃuk nəŋɔ no-cop-n * təmtʃuk nəŋɔ ɲacopn
fire you AF/PRIMP-burn-2s
The fire is burning you.
- (309c) təmtʃuk pkrəʃis no-cop-w
fire bKra.shis AF/PRIMP-burn-3s
The fire is burning bKra-shis.
- təmtʃuk pkrəʃis ɲa-cop-w
fire bKra.shis PRIMP-burn-3s
The fire is burning bKra-shis.

However, attention flow marking cannot occur with inanimate objects. It makes no difference if the subject is inanimate so that both arguments are of equal ranking:

- (310) pkraʃis kʰəzaʔ na-¹a-cʰop-w *pkraʃis kʰəzaʔ no¹acʰopw
 bKra.shis bowl PFT-NEV-break-3s
 bKra-shis broke the bowl.

- (311) təmtʃuk təjeʔm 'na-cop-w * təmtʃuk təjeʔm 'nocopw
 fire house OBS-burn-3s
 The fire is burning the house.

Attention flow marking occurs with tense and aspectual markers for past and present tense situations. Example (307b) above shows simple past, while (309b) is marked for present imperfective aspect. But *no-* cannot appear in situations with future time reference, even in forms where attention flow marking is normally obligatory, as in 3/1 and 3/2 forms. The following shortened forms from the paradigm for *kanajo*, ‘wait’, serve as evidence. For the full paradigm, see section 7.2 on person marking above:

- | | | | | |
|-------|--------|-------------------------------|-------------|-----------|
| (312) | person | [tomorrow]...will wait for... | | |
| | 1/2 | ta-najo-n | * notanajon | * nonajon |
| | 1/3 | najo-ŋ | * nonajon | |
| | 2/1 | ko-najo-n | * nokonajon | |
| | 2/3 | tə-najo-n | * notənajon | |
| | 3/1 | wu-najo-ŋ | * nowunajon | *nonajon |
| | 3/2 | to-najon | * notonajon | |
| | 3/3 | (wu)-najo-w | * nonajow | |

Though native speakers reject the use of *no-* in future time frames, very occasionally attention flow marking does occur with time references that indicate futurity. I have only one example in my data:

- (313) nəŋʒo ŋa sofnu doŋmən^ʔ w-əp^ha tʃəʔ tʃe no-ko-məto-ŋ me
 you I tomorrow East.gate 3s:GEN-vicinity this LOC AF-2/1-meet-1s INTR
 Will you meet me tomorrow at the Eastgate?

The adverb *sofnu*, ‘tomorrow’ puts the time frame clearly in the future and still *no-* appears. I have no satisfactory explanation for this usage.

Attention flow is marked before person markers, as in (314b) where *no-* is prefixed to *ko-*, the person prefix that signals the transitive relation between a second person subject and a first person object:

- (314a) nəŋʒo ŋa pakʃu ki ko-mbuʔ-ŋ me
 you I apple IDEF 2/1-give-1s Q
 Will you give me an apple?
- (314b) nəŋʒo ŋa pakʃu ki no-ko-mbuʔ-ŋ me
 you I apple IDEF AF/PFT-2/1-give-1s Q
 Did you give me an apple?

Marking with *no-* can replace or merge with tense and aspect markers, retaining the stress patterns of the original markers. For example, in second person present imperfective aspect forms the aspect marker *kə-* remains. But third person imperfective marker *na-* merges with *no-*:

- (315) *nənʝo ɲa no-^lkə-ta-top-n*
 you I AF-PRIMP-2/1-hit-2s
 You are hitting me.
- pkraʃis ɲa ^lno-wu-top-ŋ* (no-ɲa-wu-top-ŋ)
bKra.shis I AF/PRIMP-3/1-hit-1s
bKra-shis is hitting me.

Sentences (316a) and (316b) show simple past tense forms. Attention flow marker *no-* replaces the regular past tense marker *kə-*. Example (316c) and (316d) are marked for non-direct evidentiality. The stress remains on the first syllable when the verb phrase is also marked for attention flow, as in (316d):

- (316a) *təwaʔm nənʝo kə-tə-najo-n* [kəʔəna^lʝon]
 bear you PFT-2-wait-2s
 The bear waited for you.
- (316b) *təwaʔm nənʝo no-tə-najo-n* [noʔəna^lʝon]
 bear you AF/PFT-2-wait-2s
 The bear waited for you.
- (316c) *ts^hoŋpe pkraʃis na-^la-nəvla-w* [^lnaŋəvla^w]
 trader bKra.shis PFT-NEV-cheat-3s
 The trader cheated bKra-shis.
- (316d) *pkraʃis ts^hoŋpe kə no-^la-nəvla-w* [^lnoŋəvla^w]
 trader bKra.shis PR AF/PFT-NEV-cheat-3s
 The trader cheated bKra-shis.

However, when a speaker wants to stress the importance of the point he is making, all appropriate markers can occur. In the following sentence the verb phrase is marked for attention flow as well as past imperfective aspect. The hiring that took place last year is evidently an issue in ongoing or ensuing events:

- (317) *nənʝo varʝi no-to-ko-skoʔr-ŋ stʃi*
 you last.year AF-PSTIMP-2/1-hire-1s be:CD
 [But] you hired me last year!

It is to some extent the speaker's preference that decides which shades of meaning are emphasised by the choice of markers.

Attention flow marking in modally marked verb phrases such as imperatives also replaces the mood marker. The normal imperative marker for *kambu?*, 'give' is *nə-*. If the imperative is marked for attention flow *nə-* disappears:

- (318) pakʃu pakʃis nə-¹mbuʔ-w
apple bKra.shis IMP-give-3s
Give bKra-shis the apple!

- (319) pakʃu ŋa no-¹mbuʔ-ŋ
apple I AF/IMP-give-1s
Give me the apple!

With ditransitives there are often two possible forms of imperative, one unmarked for attention flow, and a marked form. Compare the following imperatives. Example (a) gives the neutral form, marked by *kə-*, the normal imperative marker for *kanajo*, 'wait':

- (320a) pakʃis kə-na¹jo-w
bKra.shis IMP-wait-2s
You wait [here] for bKra-shis.

In (320b), which is inverse with a second person subject and a first person object, the marker *kə-* appears. Sentence (320c) shows that attention flow marking replaces the imperative marker entirely:

- | | |
|--|--|
| <p>(320b) kə-na¹jo-ŋ
IMP-wait-1s
Wait for me!</p> | <p>(320c) no-na¹jo-ŋ
AF/IMP/1/2-wait-1s
Wait for <i>me</i>!</p> |
|--|--|

Topicalisation can trigger marking for attention flow and in some cases makes it obligatory. A Jiāomùzú neutral sentence has the subject in the first slot with the object in the second. Topicalisation puts the object in the first slot, giving it more prominence. In a topicalised sentence prominence marker *kə-* occurs with the subject to mark it for ergativity. Topicalisation does not trigger attention flow marking for subjects with lower ranking objects, as shown in (321a), (321b) and (321c). The first sentence of each example gives the neutral form, the second sentence is topicalised:

(321a) *ηα nənʝo kə-ta-naʝo-n*
 I you PFT-1/2-wait-2s
 I waited for you.

nənʝo ηα kə kə-tə-naʝo-n
 you I PR PFT-2-wait-2s
 It is you I waited for.

* notənaʝon

(321b) *ηα pkraʃis kə-naʝo-η*
 I bKra.shis PFT-wait-1s
 I waited for bKra-shis.

pkraʃis ηα kə kə-naʝo-η
 bKra.shis I PR PFT-wait-1s
 It is bKra-shis I waited for.

* nonaʝon

(321c) *nənʝo pkraʃis kə-tə-naʝo-n*
 you bKra.shis PFT-2-wait-2s
 You waited for bKra-shis.

pkraʃis nənʝo kə kə-tə-naʝo-n
 bKra.shis you PR PFT-2-wait-2s
 It is bKra-shis you waited for.

* notənaʝon

In sentences with a second person subject and a first person object *no-* can occur in the neutral form as well as in the topicalised sentence, but it is not obligatory. Though first person clearly ranks higher than second person, since attention flow marking is prohibited in 1/2 forms, 2/1 forms apparently are somewhat ambivalent:

(322a) *nənʝo ηα kə-ko-naʝo-n*
 you I PFT-2/1-wait-2s
 You waited for me.

ηα nənʝo kə kə-ko-naʝo-n
 I you PR PFT-2/1-wait-2s
 It was I you waited for.

(322b) *nənʝo ηα no-ko-naʝo-n*
 you I AF/PFT-2/1-wait-2s
 You waited for me.

ηα nənʝo kə no-ko-naʝo-n
 I you PR AF/PFT-2/1-wait-2s
 It was I you waited for.

In 3/1 and 3/2 forms attention flow marking is obligatory both in neutral sentences and in topicalised forms, as expected since the subject ranks higher than the object:

(323) *pkraʃis ηα no-naʝo-η*
 bKra.shis I AF/PFT-wait-1s
 bKra-shis waited for me.

ηα pkraʃis kə no-naʝo-η
 I bKra.shis PR AF/PFT-wait-1s
 It was me bKra-shis waited for.

- (324) pkraʃis nənʝo no-to-najo-n
 bKra.shis you AF/PFT-3/2-wait-2s
 bKra-shis waited for you.

nənʝo pkraʃis kə no-to-najo-n
 you bKra.shis PR AF/PFT-3/2-wait-2s
 It was you bKra-shis waited for.

Note that in the 3/1 forms the inverse marker *wu-*, which normally would appear before the verb root, is missing. There are actually forms with both inverse marking and attention flow marking in 3/1 forms, but they have slightly different meanings. I discuss these forms in section 7.2.d on inverse marking above.

In forms with a third person subject and a third person object, the occurrence of attention flow marking in topicalised forms depends on the animacy hierarchy as well as on the preference of the speaker. In a neutral sentence with a third person animate (including human) subject attention flow marking does not occur on the verb. But in a topicalised sentence, *no-* may appear, though the preferred form is unmarked. In the following sets of examples, the preferred form is listed first in a sentence, with the alternative, less preferred form to the right hand side:

- (325) pkraʃis lhamo kə-najo-w * nonajow
 bKra.shis lHa.mo PFT-wait-3s
 bKra-shis waited for lHa-mo.
- lhamo pkraʃis kə kə-najo-w no-najo-w
 lHa.mo bKra.shis PR PFT-wait-3s AF/PFT-wait-3s
 It was lHa-mo bKra-shis waited for.

The only exception here is a sentence with an inanimate object, since attention flow marking cannot occur with inanimate arguments:

- (326) təwaʔm ʝarə kə-najo-w * nonajow
 bear meat PFT-wait-3s
 The bear waited for the meat.
- ʝarə təwaʔm kə kə-najo-w * nonajow
 meat bear PR PFT-wait-3s
 It is the meat the bear waited for.

In sentences with an inanimate subject and a human object, the preferred form is marked for attention flow, though it is not obligatory. It makes no difference whether the sentence is topicalised or not:

- (327) *təmtʃuk pkrəʃis* *no-cop-w* *na-cop-w*
fire bKra-shis *AF/PFT-burn-3s* *PFT-burn-3s*
The fire burned bKra-shis.
- pkrəʃis təmtʃuk kə* *no-cop-w* *na-cop-w*
bKra.shis fire *PR AF/PFT-burn-3s* *PFT-burn-3s*
It was bKra-shis the fire burned.

For inanimate subjects with animate objects the preferred form in neutral sentences is unmarked, while the preference in topicalised sentences is marked for attention flow:

- (328) *təmtʃuk kʰəna* *na-cop-w* *no-cop-w*
fire dog *PFT-burn-3s* *AF/PFT-burn-3s*
The fire burned the dog.
- kʰəna təmtʃuk kə* *no-cop-w* *na-cop-w*
dog fire *PR AF/PFT-burn-3s* *PFT-burn-3s*
It was the dog that the fire burned.

Attention flow marker *no-* is similar to inverse marker *wu-* in that it is sensitive to the animacy hierarchy, including the prohibition on co-occurrence with inanimate arguments. But there are also plenty of differences. First of all, inverse marking concerns the subject: it occurs when a subject is outranked by an object. Attention flow marking is concerned with objects. It can, and sometimes must, occur when an object is outranked by a subject, as demonstrated amply above.

Second, inverse marking occurs in past as well as non-past situations. Attention flow marking is restricted to past and present. It is never marked in future tense situations. Third, inverse marking is part of the person and number prefixes while attention flow marking appears before the person and number prefixes, see examples (322) and (324) above. And fourth, attention flow marking and inverse marker *wu-* can occur together in one verb phrase. Attention flow marking can be used to mention a speech act participant as an object in a non-direct speech situation. In example (329) inverse marking appears to signal that bKra-shis gave apples to a person otherwise unmentioned by the speaker:

- (329) *pkrəʃis pakʃu* *no-wu-mbu?-w*
bKra.shis apple *AF/PFT-INV:3/3-give-3s*
The apples were given by bKra-shis [to an unmentioned person].

The inverse marker signals that bKra-shis, the subject, in the mind of the speaker ranks higher than the person he gave the apples to. Attention flow marker *no-*, on the other hand, puts the empathy of the hearer with the recipient of the apples, even though it is not clear who that recipient is. Note that *no-* cannot refer to *pakʃu*, ‘apples’, since attention flow marking with an inanimate object is

ungrammatical. The same sentence is also ungrammatical if the recipient is known, as in the direct speech situation of (330). The recipient, I, ranks higher than the subject, so inverse marking with *wu-* is expected. But it cannot occur:

- (330) pkraʃis pakʃu no-mbuʔ-ŋ *pkraʃis pakʃu nowumbun
bKra.shis apple AF/PFT-give-1s
The apples were given to me by bKra-shis .

Note that in (330) the number marking-*ŋ* on the verb shows that the recipient is a first person, ‘I’. Since a first person is clearly known as a participant in the transaction, inverse marking cannot occur here.

The presence of *no-* indicates that the speaker or hearer looks at an action or event from the perspective of the grammatical person which occupies the object slot. It is a foregrounding technique much like topicalisation and passivisation. I have demonstrated above that though topicalisation and attention flow marking can co-occur, marking with *no-* does not automatically appear in topicalised sentences. Attention flow marking is not inherently linked to topicalisation. Passivisation is understood as focusing the attention of the hearer on the object by use of special markers in the verb phrase.¹⁸⁶ Could *no-* classify as a passive marker in Jiǎomùzú? Even though most topicalised sentences with attention flow marking are best translated in English with passives, there are some arguments against designating *no-* as a passive marker. A very strong argument of course is that *no-* occurs in all kinds of obviously active sentences, as amply demonstrated above. Attention flow marking does not change the valency of the verb; ditransitives remain ditransitive and *no-* cannot occur with intransitive verbs. Both subject and object marking remain on verbs also marked for attention flow, as shown in many of the examples above. Also, attention flow marking can occur together with passive marker *no-*. Note that sentence (331a) below is active and has person and number marking, whereas sentence (331b) is passive and does not have number marking. There is really no good way to paraphrase sentence (331a) in English without using topicalisation or turning the sentence into a passive. Neither does justice to the effect of attention flow marking, which draws attention to the object without making any other changes to the morphology or sentence structure:

- (331a) k^hapri kə no-mtʃuk-w
snake PR AF/PFT-bite-3s
A snake bit *him*. (Him the snake bit.)
- (331b) k^hapri kə no-ŋo-mtʃuk
snake PR AF/PFT-PAS-bite-3s
He was bitten by a snake.

¹⁸⁶ Keenan (1996: 243-246).

Somewhat less pertinent maybe but still interesting is that Jiāomùzú voice markers all occur in a slot right before the verb root, but after person prefixes. Attention flow marking occurs before the person prefixes. If *no-* marks for passive it is in a morphologically aberrant position. A last argument is that *no-* can occur in environments normally alien to passives, such as imperatives, see (320). For these reasons I have opted to call *no-* an attention flow marker rather than a passive marker.

7.7 Viewpoint: *ʃi-* and *və-*

Jiāomùzú employs two markers that indicate the direction in space or time in which a person or object is moving at the time of an action, from the perspective of the speaker. I call this set 'viewpoint' markers. They simply mark the notions 'away from' and 'toward', from the perspective of the speaker. The markers derive from the verbs meaning 'come' and 'go', *kavi* and *katʃʰi*. In the verb phrase they take the form of *və-* and *ʃi-*. Their use is comparable to the English usage of 'come' and 'go', in sentences such as 'I go to buy vegetables' and 'I come to buy vegetables'. However, unlike their English directional counterparts, these markers are part of the verb phrase, as demonstrated in the examples with the verb *kascoʔ*, 'see off', below.

- (332a) ɲa nənʃo ta-scoʔ-n
I you 1/2-see.off-2s
I'll see you off.

- (332b) pəʃur lhamo kə pkraʃis-ni ji-'a-scoʔ-w
yesterday lHa.mo PR bKra.shis-p PFT/OR:general-NEV-see.off-3s
Yesterday lHa-mo saw bKra-shis and his party off.

- (332c) pkraʃis lhamo ji-'a-və-scoʔ-w
bKra.shis lHa.mo PFT/OR:general-NEV-VPT-see.off-3s
bKra-shis came and brought lHa-mo.

- (332d) pkraʃis lhamo ji-'a-ʃi-scoʔ-w
bKra.shis lHa.mo PFT/OR:general-NEV-VPT-see.off-3s
bKra-shis went to see lHa-mo off. (bKra-shis went and saw lHa-mo off).

In (332b) only a general direction is indicated by *ji-*: movement took place. In (332c) bKra-shis saw lHa-mo off in a very specific direction: he came to the place where the speaker was, with lHa-mo, and left lHa-mo at that place. He himself, after having thus seen her off, went away - he did not stay at the place where the speaker was. This concept of 'seeing off' is a generally accepted one in rGyalrong as well as Tibetan, but it is a bit more encompassing than the meaning of the English verb. Example (332d) specifies that bKra-shis went away to some place or other in order to see lHa-mo off. He might take her to the train station, to a friend's house, or to the next place on her

itinerary, hours away from bKra-shis' own home. In any case, he saw her off, and to a place where the speaker was not.

Viewpoint markers are in a different category from orientation markers. Orientation markers indicate objective, geographical directions, as plotted from the house of the speaker. They do not move or change with the movements of a speaker. The generic orientation marker *ji-* is used only when a speaker cannot refer to his normal set of markers for lack of landmarks. The use of viewpoint markers, however, depends on the position of the speaker. Usage changes with the shifting position. Viewpoint is marked after the person slot, whereas orientation markers occur in the tense and aspect slot before the person slot:

- (333) *nənjo bawbaw^ꣳ tə-ʃi-ku-w me*
 you bag 2-VPT-buy-2w INTR
 Are you going to buy a bag? (Will you go and buy a bag?)

- (334) *nənjo bawbaw^ꣳ to-tə-ʃi-nə-ku-w me*
 you bag PFT-2-VPT-EREFL-buy-2s INTR
 Did you go and buy yourself a bag?

- (335) *soʃnu smonbe-j ji-ʃi-na'tso-w*
 tomorrow doctor-LOC IMP-VPT-see-2s
 Tomorrow you go to the doctor!

It might be tempting to consider *ʃi-* and, to a lesser extent, *və-* present imperfective markers. Especially *ʃi-* can often be glossed conveniently with the English 'going', as in 'bKra-shis was going to see lHa-mo off'. But viewpoint and present imperfective aspect markers can occur in the same verb phrase. In example (336) there is the first and second person present imperfective aspect marker *kə-*, which indicates that the action is happening right now, as well as a viewpoint marker expressing the direction in which the person addressed is moving: away from the speaker.

- (336) *nənjo bawbaw^ꣳ ki 'kə-tə-ʃi-nə-ku-w me*
 you bag IDEF PRIMP-2-VPT-EREFL-buy-2s INTR
 Are you on your way to go and buy yourself a bag?

Because adverbs are usually placed right before the verb phrase it can be tricky to distinguish the adverb *ʃi*, 'always' from the viewpoint marker *ʃi*, 'away from the speaker', which is marked on the verb. However, often the presence of an aspectual or tense marker shows the difference:

- (337) *lhamo minjuwan^ꣳ w-əŋgi kəpdu pa ʃi-ju ra 'nə-ŋos*
 lHa.mo Mínyuàn 3s:GEN-inside four year VPT-live need EV-be
 lHa-mo will go and live at Mínyuàn for four years.

(338) lhamo minjuwan^ᄃ w-əŋgi kəpdu pa ʃi na-ju
 lHa.mo Mínyuàn 3s:GEN-inside four year always PFT-stay
 lHa-mo lived at Mínyuàn continuously for four years.

(339) ŋa bawbaw^ᄃ ʃi-ku-ŋ
 I bag VPT-buy-1s
 I go to buy a bag.

(340) ŋa ʃnu-ʃnu bawbaw^ᄃ ʃi 'kə-ku-ŋ
 I day-day bag always PRIMP-buy-1s
 Every day I buy a bag.

The viewpoint marker *və-* can have an aspectual meaning. When *və-* is used in this way it forms verb phrases marked for impending action or prospective aspect, indicating that something is about to happen. The difference between viewpoint marking and aspectual marking with *və-*, morphologically, is the use of an aspect marker as well as the viewpoint marker, as in example (b):

(341a) nəŋʃo tə-və-rʃəʔk-n me
 you 2-VPT-run-2s INTR
 Are you coming to run?

(341b) nəŋʃo 'na-tə-və-rʃəʔk-n me
 you FPFT-2-PROSP-run-2s INTR
 Are you about to run?

Example (341a) indicates that the speaker is already running and is asking if the hearer will join him, in the sense of 'coming along with'. In (341b) the speaker inquires at what point in the near future the listener will run, while the speaker, when asking the question, is not in the process of running. I discuss impending action and the use of *və-* more extensively in section 7.4.c on aspect.

Jacques mentions the use of viewpoint markers in the Northern dialect of Japhug.¹⁸⁷ There the marker for 'go' fits after negation markers and before the tense and aspect slot. But the marker for 'come' slots in after the tense and aspect markers. Jacques does not discuss a possible aspectual meaning for this second marker.

¹⁸⁷ Xiàng (2008: 258-259).

7.8 Voice

a. *Introduction*

Crystal defines voice as “a category used in the grammatical description of sentence or clause structure, primarily with reference to verbs, to express the way sentences may alter the relationship between the subject and the object of a verb, without changing the meaning of a sentence. There will be certain differences in the emphasis or style of these sentences, which will affect the speaker’s choice but the factual content of the two sentences remains the same.”¹⁸⁸ This is a definition of voice in the narrow sense, in which the derived form preserves all semantic roles which are present in the neutral sentence. Even when some of them are not expressed, their presence is implied by the meaning of the sentence.¹⁸⁹ The Jiǎomùzú dialects mark voice in this narrow sense on the verb of sentences in the passive voice, while active voice remains unmarked. The category voice in the broader sense of the word includes syntactic changes which preserve the inventory of semantic roles but impose certain operations on them, as well as syntactic changes which do not preserve the inventory of syntactic roles. Voice in this broader sense encompasses reflexive, reciprocal and causative structures.¹⁹⁰ In this study I use the broad definition of voice.

The category voice in the Jiǎomùzú dialects is marked on the verb by inserting prefixes directly before the verb root but after the person prefixes. This distinguishes the voice markers from marking for tense, aspect and mood, which is prefixed before the person markers. Concepts that are marked in the category voice are passivity, reciprocity, reflexivity and causality. Passives are formed with the marker *ŋo-*. Reciprocity is marked by *ŋa-* or *wa-*, often in combination with a reduplicated verb root. Jiǎomùzú marks for two kinds of reflexive. The marker *bja-* signals canonical reflexivity. The second form, emphatic reflexivity, is marked by *nə-*. In some cases *nə-* signals autobenefactive meaning. I discuss these cases in the subsection on reflexivity. The causality markers come in four sets: *va-* and *və-*, *ra-* and *rə-*, *ʃa-* and *ʃə-* and finally *sa-* and *sə-*. The first two sets of markers, *va-/və-* and *ra-/rə-* are used for verbs indicating direct action by an agent. The *sa-/sə-* set occurs in verbs that mark indirect action through an agent, as it were, at one remove. The markers *ʃa-* and *ʃə-* are very rare and should not be confused with the viewpoint marker *ʃi-* or with *kafa-* and *kafi-*, which mark some forms of reciprocity. Adding or removing a causality marker changes the valency of the verb and so influences transitivity. I have not found why a certain verb takes a marker with *a-* or with *ə-*. Though both markers in a set apparently have the same meaning, they are lexicalised in that they cannot be used interchangeably.

(350)	kasəva	cause to do	* kasava
	kaɕaŋki	burn, scorch	* kaɕəŋki

¹⁸⁸ Crystal (1991: 357).

¹⁸⁹ Kulikov (2010: 374).

¹⁹⁰ Kulikov (2010: 384-393).

Slightly different in character are the prefixes *na-* and its variant form *nə-*, and *mə-*. Prefixing *na-* or *nə-* to the verb adds a patient or direct object to the clause or sentence, thus forming applicatives. The prefix *mə-* signals non-volitionality. Changing a verb from volitional to non-volitional changes the valency of that verb. In many verbs with these markers are highly lexicalised and cannot be removed from the verb root. Also, other voice markers cannot be inserted between *na-* or *mə-* and their respective roots. However, *na-/nə-* nor *mə-* takes part in reduplication of roots such as occurs in verb phrases marked for reciprocity. This may be an indication of their former status as prefixes. Many of the verbs with *na-/nə-* and *mə-* are formed not from other verb roots but from nouns or other words outside of the verb category. Because both markers change the valency of the verb in which they occur and because of their placement, directly in front of the verb root and after the second person marker *tə-*, I include them in the category voice.

In the following subsections (b) and (c) I first discuss applicative and volitionality markers *na-/nə-* and *mə-* respectively. Then I give an overview of passives in subsection (d). Reflexivity marking is described in subsection (e), followed by an overview of reciprocity in subsection (f). The section after, (g), discusses reciprocity while (h) describes causativity. My discussion of voice marking concludes in subsection (i) with an overview of how voice markers can be combined, creating a wonderfully flexible system with which very subtle shades of meaning can be expressed by simply adding or deleting a small marker.

b. *Applicatives: adding direct objects*

The markers *na-* and *nə-* form applicatives by adding a direct object to a verb when inserted before the verb root. The verb changes from intransitive to transitive. In example (351) the subjects of the intransitive verbs all behave as agents of the transitive forms, not as patients:

(342)	vi		vt	
	kəʒdar	be scared	kanəʒdar	fear something or someone
	karmbat	draw near (in time)	kanarmbat	encroach, creep up on someone
	kap ^h o	flee, run away	kanap ^h o	detour, go around something

When the markers *nə-* and *na-* modify an verb that is already transitive, they signal individuated referential status of an implied object, creating an increased awareness or greater definition of an implied object. When a speaker uses the unmarked form of the verb, he is thinking in general terms, without a specific object in mind. An example of this kind is the pair *kap^hət*, ‘throw’ and *kanəp^hət*, ‘lose [something]; throw away [something]’. Example (343) shows forms of the transitive verb for ‘steal’ with and without *nə-*. Sentence (343a) is a straightforward generic statement of a value judgment: it is not good to steal. But in (343b), in which *kaʃmo*, ‘steal’ is marked with *nə-* the

speaker has an object in mind, though it is implied. The speaker in effect admonishes a hearer that it is not good for the hearer to go and steal things. This sentence may be used by a teacher addressing his students after he has heard rumours that some of them plan to steal sausages which are hanging temptingly on the neighbours' porch to dry:

(343a) ka-ʃmo ma-haʔw
 INF-steal NEG-good
 Stealing is not good.

(343b) ka-nəʃmo ma-haʔw
 INF-steal NEG-good
 It is not good to steal things.

A fair number of verbs in Jiǎomùzú have the component *nə-* or *na-* as a lexicalised part of the verb root. Removal of the marker from these roots usually leads to non-existing forms:

(344)	kanəzoʔk	lick	* kazoʔk
	kənəʃit	comfortable	* kəʃit
	kanənts ^h ok	gnaw	* kants ^h ok
	kanəja	go home	* kaja

Some of the verbs with a lexicalised marker *na-* or *nə-* derive from nouns rather than verbs:

(345)	tazor	crack	kanazor	crack, split
	saksə	noon	kanəsaksə	have lunch

It is tempting to think of some verb roots as having a merged lexicalised marker:

(346)	kanɲa	lose, be defeated [by someone]
	kasənɲa	conquer (cause someone to lose)

The first verb in (346) looks like a contracted form of *kanəɲa*, 'lose [a fight] oneself'. However, when I tested this hypothesis with native speakers they all felt that it was impossible to stretch the *n-* into *nə-*. If there ever was such a combination of marker and root, now there is only the fully lexicalised form in *-nɲa*.

While *na-* and *nə-* both add direct objects that are separate entities from the subject, *nə-* occurs also when the subject is co-referential with the direct object to form emphatic reflexives, generating the meaning 'to do something oneself'. There is no verbal affix in Jiǎomùzú to form benefactives, in which an indirect object rather than a direct object is added to the structure. To form meanings like 'do something for someone or on behalf of someone' locatives are used. But when the subject is co-referential with the indirect object the verb is marked, once again, with *nə-* to form autobenefactives

with the meaning ‘to do something for oneself or on behalf of oneself’. I discuss emphatic reflexives and autobenefactives in 7.8.e, the subsection on reflexivity.

c. *Volitionality*

Volitionality is an overarching concept that covers a number of meanings or attitudes pertaining to the subject who performs an action. Pairs of terms often used in connection with the concept of volitionality or intentionality in previous literature are 'controllable' and 'uncontrollable'; 'causative' and 'non-causative'; 'consciously' and 'unwittingly'; and 'volitional' or 'active' and 'involuntary'. All these terms indicate the contrast between an action that the subject can control and an action that the subject cannot control. I use 'volitional' and 'non-volitional' to cover all the shades of meaning within the category of volitionality. Volitionality is not normally discussed in terms of the category voice. I include it here because, as shown below, marking for non-volitionality changes the valency of a verb. Some verbs have completely different forms to express volitional and non-volitional meanings:

(347a) lhamo kə kʰəzaʔ na-tʃʰop-w
 lHa.mo PR bowl PFT-break-3s
 lHa-mo broke the bowl.

(347b) lhamo kə kʰəzaʔ na-ʃlaʔk-w
 lHa.mo PR bowl PFT-break₂-3s
 lHa-mo broke the bowl.

The use of *kaʃʰop*, 'break', in (347a) means that lHa-mo intentionally broke the bowl, maybe in a fit of anger, or at least that lHa-mo was the cause for the breaking. The verb *kaʃleʔk*, 'let go, drop away' in example (347b) means that she accidentally, unintentionally broke the bowl - maybe while she was doing the dishes, the bowl dropped from her hand. Other such pairs are:

(348)	volitional		non-volitional	
	kaməsem	listen, understand	karəkna	hear
	kanaro	look for	kaməto	see
	kascit	move	kamənmu	move

The difference in volitionality can also be marked in the verb root itself, with the volitional verb using voiceless consonants, and the non-volitional form employing voiced consonants as initials. Often non-volitionality is marked by the prefix *m-* in such verbs. Marking with *m-*, and the alternation between voiced and unvoiced initials also indicate voluntary and involuntary actions and processes:

(349)	volitional		non-volitional
	kanəscar	frighten	kaʒder fear
	katɕap	push down, cause to fall	kandɕaʔp tumble; stumble
	kap ^h ət	pull down; throw	kambət fall
	kap ^h ek	split in two (vt)	kambek split in two (vi)
	kapjoʔt	fill up	kəməjot full

Note that non-volitional verbs do not have an agent. Changing a verb from non-volitional to volitional changes the valency of the verb and can change it from transitive to intransitive. In example (349) all the examples of volitional verbs are transitive, while all examples of non-volitional verbs are intransitive.

In the Jiāomùzú dialects there are a few dozen verbs that have the often lexicalised marker *mə-* prefixed to their roots. According to Nagano, who follows Wolfenden in this,¹⁹¹ the marker *mə-* in Tibetan carries the meaning of 'neuter subject' as opposed to *b-* and *'*,¹⁹² which indicate 'acting subject'. In other words, *mə-* indicates non-volitional or spontaneous action. Many of the verbs in my data fit this analysis. Some verbs have only *mə-* or *m-*, while others have both for the non-intentional form:

(350)	kap ^h ət	throw (vt)	volitional
	təmp ^h ət	vomit (noun)	
	təmp ^h ət kaleʔt	throw up, vomit	non-volitional
	kaməmp ^h ət	throw up, vomit	non-volitional

Interestingly, the compound verb shows that the root of the noun already has the non-intentional marker in the form of *m-*. The regular verb form adds *mə-* to the root and so doubles the marker for non-volitional action. Nagano remarks that this may indicate different strata in the language, one older than the other.¹⁹³ Or it may simply indicate that non-volitionality marking with *mə-* in a verb form disregards the origin of the verb root, in this case the noun *təmp^hət*, 'vomit', which is already marked for non-volitionality. Another set of verbs that has a reduplication of *mə-* is:

(351)	kaməto	see (non-volitional)
	kaməmtə	run into, meet (non-volitional)

However, the marker *mə-* in *kaməto* contrasts with the unmarked form for 'intentionally look or see', *kanatso*. If unintentionally looking turns into unintentionally meeting a person, an extra marker *m-* is required.

¹⁹¹ Nagano (1984: 155).

¹⁹² In the Wylie transcription of literary Tibetan an apostrophe (') represents the Tibetan letter ཨ *a chung*, 'small a'.

¹⁹³ Nagano (1984: 169, 170).

Sometimes nouns or other verbs point to the original meaning of the root without *mə-*:

(352)	təskru?	body	kəməskru?	pregnant
	kəzdək	sad	kəməzdəkpe	pitiful, poor

In the case of *kəməskru?*, 'pregnant', one probably needs to think along the lines of '(another) body non-intentionally growing or developing'. The verb *kəməzdəkpe*, 'pitiful, poor', indicates that a person is involuntarily in a state of sadness, literally 'a sad state'.

There are also quite a few verbs that have *mə-* but where the indication of non-volitional action is ambiguous or entirely missing. For example, the verb *kaməze?k*, 'jump, pulse, beat', is marked for non-volitional action by *mə-*. This sense of the word is used in such combinations of 'a pulse beating fast'. But the same verb is used in such sentences as 'he jumped over the fence', which is clearly volitional, and in 'the fleas jumped around the carpet', which is maybe an ambiguous case. Some other verbs that fit this category are *kaməle?k*, 'swallow' and *kaməndə*, 'arrive', though for both these verbs probably their non-volitional meaning is more prevalent than the volitional meaning.

d. *Passive: ɲo-*

Jiāomùzú has a passive marker *ɲo-* which relegates the subject of the neutral sentence to the background and foregrounds the direct object. Verbs marked for passive do not have person and number marking. Marking for other categories such as tense and aspect does occur with passives. In example (353), which consists of three clauses, the agent of the three actions remains the same: the police, marked with *-ɲo* for plural, come, catch bKra-shis and put him in prison. But only *kavi*, 'come' in the first clause is marked with person and number for plural. The actions that follow in the other clauses, *kavəja*, 'catch' and *karko*, 'put' are marked for passivity with *ɲo-*. The agent *koŋanɲuɲo*, 'police' is deleted, no person and number marking appears on these verbs, and the object from the first clause, bKra-shis, is foregrounded:

(353)	koŋanɲu ^ɲ -ɲo	ji-'a-vi-jn	pkraʃis	kə-ɲo-vəja
	police-p	PFT-NEV-come ₁	bKra.shis	PFT-PAS-fetch
	The police came, bKra-shis was caught and he was put in jail.			
	k ^h rəŋk ^h e	kə-ɲo-rko		
	prison	PFT-PAS-put		

Passive marking with *ɲo-* occurs in past as well as in non-past time frames. In 3/1 transitive relations the normal inverse marker *wu-* appears in active sentences. But many speakers prefer the passive form with *ɲo-* because it is a way to give a high ranking object more prominence. For other transitive relations in which the arguments are less far from each other on the animacy hierarchy passive marking is less prevalent.

Though example (353) is an example of an agentless passive, both agent and object can be present in passive sentences. In this respect Jiǎomùzú differs from the Northern dialect of Cǎodēng, which has an agentless passive:¹⁹⁴

- (354) soŋnu pkraʃis ŋa wu-naʝo-ŋ
 tomorrow bKra.shis I 3/1:INV-wait-1s
 Tomorrow bKra-shis will wait for me.

- (355) pu pkraʃis ŋa ŋo-naʝo
 now bKra.shis I PAS-wait-1s
 I'm being waited for by bKra-shis just now.

- (356) təmtʃuk ŋa ŋo-sat
 fire I PAS-kill
 I will be killed by the fire.

Topicalisation does not influence marking for passivity. Compare the passive non-topicalised form of (356) with its topicalised counterpart in (357):

- (357) ŋa təmtʃuk kə ŋo-sat
 I fire PR PAS-kill
 I [am the one who] will be killed by the fire.

Passive marking can occur with attention flow marking. In sentence (358a), marked for attention flow, the hearer's empathy is directed to bKra-shis, even though it normally would be with the agent who performs the action of deceiving. The object bKra-shis also gains prominence by being in the first slot of the sentence, which is normally the subject slot. In English this sort of construction is best glossed with a passive construction, even though the Jiǎomùzú sentence is active:

- (358a) pkraʃis ts^hoŋpe kə no-nəvla-w
 bKra.shis trader PR AF/PFT-cheat-3s
 bKra-shis was cheated by the trader.

The passive equivalent of (358a) is example (358b). The object is prominent because it is in the first slot; bKra-shis has empathy because of the attention flow marking; and on top of all that *ŋo-* turns the sentence into a passive, highlighting the object even more and causing the trader, the actual agent of the action, to be hardly noticeable:

¹⁹⁴ Sun and Lin (2007: 13).

- (358b) pkraʃis ts^hoŋpe kə no-ŋo-nəvla
 bKra.shis trader PR AF/PFT-PAS-cheat
 bKra-shis was cheated by the trader.

Passive marking can also be used to highlight an object that is otherwise absent from the sentence, though perhaps known from the context. Compare the following clauses, used in a situation where three sons find their father unharmed after an attack by wolves. Note that the negation marker for perfective past *ʃi-* merges with attention flow marker *no-*. The attention flow marker loses its consonant while the vowel of the negation marker is replaced:

- (359a) tʃəʔpu j-apa na-məto-j spjaŋkə nə ʃo-ndza-jn
 now 1p:GEN-father PFT-see-1p wolf CON NEG/AF/PFT/-eat-3p
 Now we've seen our father, he did not get eaten by the wolves.

- (359b) tʃəʔpu j-apa na-məto-j spjaŋkə nə ʃo-ŋo-ndza
 now 1p:GEN-father PFT-see-1p wolf CON NEG/AF/PFT/-PAS-eat
 Now we've seen our father, he did not get eaten by the wolves.

Sentence (359a) is a simple statement with *kandza*, 'eat' marked for attention flow because the father, a human being, ranks higher on the animacy hierarchy than an animal such as a wolf. The hearer's empathy is with the father, even though the wolf is the agent. The implied meaning of the sentence is that the wolves did not eat the father of their own accord. Maybe there was something nicer to eat nearby and they lost interest in father. In any case, the initiative and the action and the decision making are all on the wolves' side. In sentence (359b) the passive marker *ŋo-* signals that the father, who is unmentioned in the clause, somehow played an active part in not being eaten. He probably defended himself stoutly and made it impossible for the wolves to eat him, forcing them to give up. The active argument here is the object, not the actual agent.

e. *Reflexivity*: bja- and nə-

Reflexivity encodes the referential identity of the main argument of the neutral sentence and some other argument.¹⁹⁵ Jiǎomùzú has two markers for reflexivity, the canonical reflexivity marker *bja-* and the emphatic reflexivity marker *nə-*. Canonical reflexivity proper, marked by *bja-*, occurs in constructions where the subject is co-referential with the direct object,¹⁹⁶ forming constructions with the meaning 'to do something to oneself' or 'to allow something to happen or be done to oneself'. Marking for emphatic reflexivity signals that its referent "is to some degree unexpected in the

¹⁹⁵ Kulikov (2010: 384).

¹⁹⁶ Kulikov (2010: 384).

discourse role or clausal role where it occurs”.¹⁹⁷ Emphatic reflexivity marking occurs in constructions where the subject is co-referent with the direct object. When *nə-* marks co-referentiality of the subject and the indirect object it forms autobenefactives with the meaning ‘to do something for or on behalf of oneself’. Since Jiǎomùzú uses the same marker for both emphatic reflexivity and autobenefactive I discuss them in one section and mark all occurrences for emphatic reflexivity.

Reflexivity markers are prefixed to the verb root, after the person and number prefixes. In this section I first give an overview of reflexive constructions marked with *bja-*, followed by a discussion of emphatic reflexivity marking with *nə-*. The section concludes with a description of constructions in which both markers occur.

The following shortened paradigm for *katop*, ‘hit’, shows the formation of reflexive verb phrases marked with *bja-* for different grammatical persons. The paradigm is marked for past perfective with *na-*:

(360)	1s	ŋa na-top-ŋ I PFT-hit-1s I hit.	ŋa na-bja-top-ŋ I PFT-REFL-hit-1s I hit myself.
	2s	nəŋjo na-tə-top-w you PFT-2-hit-2s You hit.	nəŋjo na-tə-bja-top-w you PFT-2-REFL-hit-2s You hit yourself.
	3s	wuŋjo na-top-w he PFT-hit-3s He hit.	wuŋjo na-bja-top-w he PFT-REFL-hit-3s He hit himself.

The emphatic reflexivity marker *nə-* is used to express the meaning ‘to do something oneself’. With emphatic reflexives there is a sense that the role or action of the referent is somehow surprising. For example, in (361) the marking for emphatic reflexivity indicates that the speaker would not necessarily expect the subject of (361) to make their own clothes. In (362) the context may be one in which the expectation is for the speaker to go. His response, marked by *nə-* for emphatic reflexivity, indicates that contrary to the expectation, he will not go – the task of going is put on the hearer instead. Below are a few examples that show the placement of the emphatic reflexivity marker in constructions which are also marked for tense, aspect and mood:

¹⁹⁷ Kemmer (1995:57), quoted after Kulikov (2007: 1416).

- (361) tʃəʔ tə tange tə nənjo-ɲo to-tə-nə-tʃop-jn me
 this C clothes C you-p PFT-2-EREFL-sew-2p INTR
 Did you make these clothes yourselves?

* tonətətʃopjn

- (362) to-tə-nə-^htʃi-n ne * tonətətʃ^hin
 IMP-2-EREFL-go₁-2s MD:CON
 You go yourself!

- (363) pkraʃis w-ascok na-kə-nə-laʔt-w tə tʃəʔ tə ^hna-ɲos
 bKra.shis 3s:GEN-letter PFT-NOM-EREFL-write₂-3s C this C EV-be
 This is the letter that bKra-shis himself wrote.

Emphatic reflexivity marking with *-nə-* can be used in wider, more modal senses to express a range of feelings that would not be clear from a neutral sentence without the marker:

- (364a) ɲ-amaʔ ndəmomomo na-səjoʔk-ɲ
 1s:GEN-work just.now PFT-finish-1s
 I just finished my work.

- (364b) ɲ-amaʔ ndəmomomo na-nə-səjoʔk-ɲ
 1s:GEN-work just.now PFT-EREFL-finish-1s
 I just finished my work.

The neutral form of the sentence, (364a), simply expresses that my work is finished - in fact, I just got done with it. The meaning of (364b) is the same as in (364a), but with an added emotional value: I am happy or relieved that I am done with my work. This satisfaction about having finished the work is conveyed by the emphatic reflexivity marker. Another example of this slightly wider sense of *nə-* occurs in the pair *katʃ^hi* and *kanətʃ^hi*. Both verbs mean 'go', but the one marked with the emphatic reflexivity marker conveys a sense of urgency, or maybe focus on the subject, as in '*I am going*', for instance if the subject is not enjoying himself and is happy to leave. Yet another sense, wider than the normal meaning of emphatic reflexivity, occurs when *nə-* is reduplicated, as in *kanənətʃ^hi*, 'go' or *kanənəva*, 'do'. When a speaker uses a double emphatic reflexivity marker he signals that the action or event so marked will be exceedingly pleasant or good. He tries in this way to entice a listener to go along with him in whatever the intended action is. However, not all speakers agree that this is valid usage of the emphatic reflexivity marker.

When emphatic reflexivity marking occurs in a verb and the subject is co-referent with an implicit indirect object it generates autobenefactives with the meaning 'do something for or on behalf of oneself'. The referent of *nə-* in (365) is an implied indirect object co-referent with the subject *nənjo*, 'you'. The direct object is *bawbaw*, 'bag':

- (365) nənʃo bawbaw^ꞑ to-tə-ʃi-nə-ku-w me
 you bag PFT-2-VPT-EREFL-buy-2s INTR
 Did you go and buy a bag for yourself?

Note that such sentences can be ambiguous, because Jiǎomùzú does not distinguish between autobenefactive and emphatic reflexivity marking. In (366b) the verb marked with *nə-* can mean either that the subject buys the bag for himself, in which case the subject is co-referent with the indirect object, or that the action of buying is done by himself, with *nə-* signalling the co-referentiality of subject and direct object:

- (366a) ŋa bawbaw^ꞑ ki ku-ŋ
 I bag IDEF buy-1s
 I buy a bag.
- (366b) ŋa bawbaw^ꞑ ki nə-ku-ŋ
 I bag IDEF EREFL-buy-1s
 I myself buy a bag.
 I buy a bag for myself.

Often it is clear from context which is the right meaning. Example (367a) below will normally be interpreted to mean that the owners of the livestock did the breeding themselves, while (367b) implies that the breeding may have been outsourced to hired hands. In both sentences the livestock of course belongs to the owners:

- (367a) kəʃput ndə tə-ŋo na-kə-nə-ʃput ŋos
 livestock that C-p PFT-NOM-EREFL-breed be
 They themselves bred the livestock.
- (367b) kəʃput ndə tə-ŋo na-kə-ʃput ŋos
 livestock that C-p PFT-NOM-breed be
 They bred livestock.

When a speaker wants to make a clear distinction between the senses of ‘doing oneself’ and ‘doing for oneself’, the antecedent can be marked for person:

- (368a) ŋ-ascok na-nə-səjoʔk-ŋ
 1s:GEN-letter PFT-EREFL-finish-1s
 I finished my own letter.

- (368b) *ŋa tascok na-nə-laʔt-ŋ*
 I letter PFT-EREFL-write₂-1s
 I wrote the letter myself.

The grammatical subject of (368a) is 'I', though it does not appear. First person marking on the verb shows clearly that 'I' am the one who finished the letter. Furthermore, *ŋascok*, 'my letter' is marked for genitive by first person singular *ŋ-*. It is not 'I' that gets finished, it is the letter, by my action. The antecedent for the marker *nə-* here is the direct object 'letter': it is *my own* letter that I finished. In (368b) the grammatical subject *ŋa*, 'I' is explicit. There is no head marking for first person on 'letter'. The antecedent of *nə-* is the subject rather than the direct object: *I myself* wrote the letter. Another example is the pair *kaskoʔr*, 'hire labour', and *kanəskoʔr*, 'hire labour for oneself'. Again, in (369a) there is head marking on the object showing the antecedent of the emphatic reflexivity marker, while the person marking on the verb is for subject. Note that in this pair the main difference is not who is doing the hiring, since I may hire labour on behalf of a friend or relative, but whether the hiring is for my personal purpose or not. The referent in (369b) is 'my house' rather than the implied subject 'I'.

- (369a) *tərmu kəsam ŋ-əʔeʔm kə-va to-nə-skoʔr-ŋ*
 person three 1s:GEN-house NOM-do PFT-EREFL-hire-1s
 I hired three people to build my own house.

- (369b) *tərmu kəsam pkraʃis w-əʔeʔm kə-va to-skoʔr-ŋ*
 person three bKra.shis 3s:GEN-house NOM-do PFT-hire-1s
 I hired three people to build bKra-shis' house.

It is not possible to use emphatic reflexivity marking with an object or patient as antecedent to generate such sentences as 'bKra-shis gave an apple to lHa-mo herself' or 'I hired people to build bKra-shis' own house'.

Sentences (370a) - (370e) further illustrate the use of reflexivity marking. Example (370a) is the unmarked sentence, in which the subject, the child, smears mud on something other than himself. The direct object is not explicit in the sentence. Sentence (370b) is marked for emphatic reflexivity, with *nə-* referring to the agent, and indicating that it is the child himself who performs the action of smearing mud onto an object different from himself. In (370c), marked by *bja-* the subject 'child' is co-referent with the direct object and smears mud onto himself. Example (370d) shows that emphatic reflexivity and marking for reflexivity proper can co-occur, with *bja-* signalling the co-reference of the subject 'child' and the direct object, also 'child', generating 'smears himself' and *nə-* linking the subject 'child' to the direct object in the sentence, 'mud', generating the meaning 'his own mud'. Sentence (370e), in which emphatic reflexivity marker *nə-* precedes *bja-*, is ungrammatical:

(370a) tapu? scokp^{hi} ʒale 'na-leʔt-w
 child mud layer OBS-hit₁-3s
 The child is smearing a layer of mud (on sth.).

(370b) tapu? scokp^{hi} ʒale 'na-nə-leʔt-w
 child mud layer OBS-EREFL-hit₁-3s
 The child himself is smearing mud (on sth.).

(370c) tapu? scokp^{hi} ʒale 'na-bʒa-leʔt-w
 child mud layer OBS-REFL-hit₁-3s
 The child is smearing himself with a layer of mud.

(370d) tapu? scokp^{hi} ʒale 'na-bʒa-nə-leʔt-w
 child mud layer OBS-REFL-EREFL-hit₁-3s
 The child is smearing himself with a layer of his own mud.

(370e) * tapu? scokp^{hi} ʒale 'nanəbʒaleʔtw

Reflexivity marking and emphatic reflexivity marking can be used to distinguish between different semantic roles of the subject. If a subject allows something to happen to himself, and that subject is at the same time the person who is the perpetrator of the action, the action is unintentional and subject is perceived as instrumental rather than agentive in bringing the action about – there is no outside agent or instrument. This often occurs when an action is non-intentional and the subject is, as it were, the unwitting tool the actions of which have unintended effects. However, a tool is not aware of the action it performs but the subject in sentences signalling non-intentional action is aware. The action is just not of his own volition. In these cases marking with *nə-* is required. If the subject has the goal or beneficiary role *bʒa-* appears. In some cases both options are possible. It depends on the perspective of the speaker which marker occurs. The role of a subject of a certain action can be perceived by a speaker either as beneficiary or goal or as instrumental:

(371a) ŋa ʒale to-laʔt-ŋ
 I layer PFT-hit₂-1s
 I smeared a layer (of something unto....).

(371b) ʒale ŋa to-nə-laʔt-ŋ
 layer I PFT-EREFL-hit₂-1s
 I myself smeared a layer (of something onto....)

(371c) ʒale ŋ-əmp^ha-j to-nə-laʔt-ŋ
 layer 1s:GEN-vicinity-LOC PFT-EREFL-hit₂-1s
 I smeared myself with a layer (of something).

- (371d) ʒale to-bʒa-laʔt-ŋ
 layer PFT-REFL-hit₂-1s
 I smeared myself with a layer (of something).

Example (371a) is the neutral sentence. Sentence (371b) shows the common use of emphatic reflexivity marker *nə-*, referring to the subject in the agent role as doing something himself. The interesting examples are (371c) and (371d). In (371c) the layer of mud was supposed to be applied to some surface, but quite unintentionally it ended up being smeared all over the subject, by the subject. The subject unintentionally became the instrument through which the smearing happened. The use of emphatic reflexivity marker *nə-* here indicates action by the subject himself, presumably towards some outside object. Note the use of the locative *ŋəmp^haj*, 'towards myself' to show the direction of the mud flow as it were. Together *nə-* and *ŋəmp^haj* convey a sense of unintentional action towards the subject, by the subject. Note that the unintentional nature of the action does not require marking for indirect evidential here, which would be used if the subject was unaware of his own action. All this in contrast to (371d), where there is no question about the intentionality of the act of smearing. The use of *bʒa-* here clearly implies action by the subject towards the subject. I smear myself with a layer of mud quite intentionally. The subject *ŋa* 'I' is co-referent with the implicit direct object *ŋa*, resulting in the meaning 'I smear myself'. But the direct object *ŋa* here has the role of beneficiary or recipient: I myself am the recipient of my own smearing.

As example (370d) shows, two reflexivity markers can co-occur. On a syntactic level such constructions can be considered 'heavy' reflexives, structures in which a simple or 'light' reflexive is reinforced by the emphatic marker.¹⁹⁸ From a semantic point of view both emphatic reflexivity and reflexivity marking are required to express the roles of the subject:

- (372) ŋa ŋ-ascok nə-bʒa-leʔt-ŋ
 I 1s:GEN-letter EREFL-REF-hit₁-1s
 I write a letter to myself.

The emphatic reflexivity marker *-nə-*, as said above, indicates 'do something myself'. In (372), I write a letter myself. There is no unintentionality here: the marker refers to the agent role of the subject. The second marker, *bʒa-*, shows that the letter is to myself, indicating that the subject also has the role of beneficiary. Note that in this construction *nə-* is placed before *bʒa-*, or agent before beneficiary. This is in keeping with the logic of Jiǎomùzú sentence structure, in which generally speaking the subject occupies the first position and the objects the second and third. The same logic applies in (370d), where the markers *nə-* and *bʒa-* also occur together, but in reverse order. In (370d) the child, the subject, smears himself with mud. The subject is co-referent with the direct object 'child' and the referent of *bʒa-*. The emphatic reflexivity marker refers to the direct object *scokp^hi*, 'mud' in the sentence, indicating that the mud is the boy's own, not that the boy is the agent of the smearing of mud. Since *bʒa-* refers to the subject 'child' here, and *nə-* to the object 'mud', and

¹⁹⁸ Kulikov, personal communication.

because subject is marked before object, *bja-* occurs before *nə-*. This explains the ungrammaticality of (370e): object cannot be marked before subject.

The sense of 'allowing something to happen to oneself' occurs in verbs such as *kabjasənəfmo*, 'allow someone to steal from oneself', which derives from the transitive verb *kafmo*, 'steal'. The construction might be used by a friend of someone who finds out a thief has made off with his wallet. In such a case the friend's attitude implies that one is rather stupid to let the thief get away with the wallet. Other examples along these lines are:

- (373) *kʰapri kə no-mtʃuk-w*
 snake PR AF/PFT-bite-3s
 He was bitten by a snake.

- (374) *kʰapri kə kə-'a-bja-sə-mtʃuk-w*
 snake PR PFT-NEV-REFL-CAUS-bite-3s
 He allowed himself to be bitten by a snake.

The presence of the causative marker *sə-* in both (374) and verbs such as *kabjasənəfmo* indicates that the subject, either through carelessness or intentionally, causes or allows an outside agent like the thief or the snake to perform a harmful action to him- or herself. Without causality marking the verb phrase in the examples would not express the fact that there is an outside agent to perform these actions. Note that the reflexivity marker occurs before causative marker *sə-*.

Some verbs are inherently reflexive and marked with *bja-* for action by the subject towards the subject:

- (375) *kabjamgu* *nənjo ndə sok* *tə-bjamgu* *ma-haʔw*
 be self satisfied you that manner 2-self.satisfied NEG-good
 It is not good that you are so self-satisfied.

Other reflexive verbs derive from existing verbs:

- (376) *kasat* *kabjasat*
 kill kill oneself; commit suicide

Reflexivity markers can occur in nominalised verb phrases:

- (377) *kə-bja-sat-w* *w-əza* *tə ŋa ma-ʃi-ŋ*
 NOM-REFL-kill-3s 3s:GEN-male C I NEG-know-1s
 I don't know the man who killed himself.

- (378) η a k^hapri kə na-kə-bja-sə-mtʃuk-w w-ərmu ki na-məto- η
 I snake PR PFT-NOM-REFL-CAUS-bite-3s 3:GEN-person IDEF PFT-see-1s
 I saw a person who had allowed himself to be bitten by a snake.

f. *Reciprocity: η a- and wa-*

For the purposes of this study I define reciprocity as a term that expresses the meaning of mutual relationship between arguments.¹⁹⁹ The most important and common type of reciprocal expresses a mutual relationship between a subject and its direct object.²⁰⁰

Reciprocity in Jiǎomùzú is expressed either by *η a-* or by *wa-*, often followed by a reduplicated verb root. Reduplication of the root does not take place if the root consists of more than one syllable. Reciprocity marked by *η a-* signals canonical reciprocity in the sense of a mutual relationship between the subject and the direct object in a clause or sentence. The action is strictly mutual, with an act of the subject matched by an act of the object, as in the following examples:

- (379) kasat kill η a k^həna sat- η 'na- η a-sa-sat -jn
 I dog kill-1s OBS-REC-RED-kill-3p
 I'll kill the dog. They are killing each other.

- (380) kargaʔ like; love η a kafe rgaʔ- η
 I coffee like-1s
 I like coffee.

'na- η argaʔ-rgaʔ-jn
 OBS-REC-RED-like-3p
 They love each other.

- (381) kaməmtə meet, see
 ts^hots^ho mə-'kə-tə- η a-məmtə-ndʒ
 often Q-PRIMP-2-REC-see-2d
 Do the two of you see each other often?

¹⁹⁹ The definition is based on Crystal (1991: 291).

²⁰⁰ Kulikov (2010: 385).

(382) karjo talk

wuʃo-ŋo stonʃnu na-ŋa-mərjo-jn
 he-p the.whole.day PFT-REC-converse-3p
 They conversed the entire day.

The closed circuit between the participants in a reciprocal act may be emphasised by adding a locative to a personal pronoun, which makes the arguments involved in the reciprocal relation more explicit:

(383) wuʃo ɲi-ŋgi-j tascok na-ŋa-la-laʔt-jn
 he 3p:GEN-inside-LOC letter PFT-REC-RED-hit₂-3p
 They wrote each other letters.

(384) wuʃo ɲi-ŋgi-j na-ŋa-t^hoʔ-t^hoʔ-jn
 he 3p:GEN-inside-LOC PFT-REC-RED-ask₁-3p
 They asked each other questions.

This sort of structure is also used with reciprocal verbs like *kaŋaleleʔt*, 'fight'. The verb is derived from the normal transitive verb *kaleʔt*, 'hit'. When people hit each other repeatedly, they fight. Expression of reciprocity on the pronoun by locative marking is required to render meanings more specific than simply 'they fought':

(385a) wuʃo-ŋo na-ŋa-la-laʔt-jn
 he-p PFT-REC-RED-fight₂-3p
 They fought.

(385a) wuʃo ɲi-ŋgi-j na-ŋa-la-laʔt-jn
 He 3p:GEN-in-LOC PFT-REC-RED-fight₂-3p
 They fought with each other. (They fought among each other.)

Inherently reciprocal verbs do not derive directly from non-reciprocal verbs. Some are derived from nouns rather than verbs. Attempts to remove the reciprocity marker from such verbs may result in non-existent forms:

(386)	kaŋavəzde	meet, get together	* kavəzde	kazdə	collect (v)
	kaŋasŋoʔ	quarrel	* kasŋoʔ	tasŋoʔ	scolding (n)
	kaŋamərjo	converse	* kamərjo	karjo	talk (v)

In Jiāomùzú reciprocity also can be marked with *wa-*. The use of *wa-* indicates a form of collective reciprocity where there is not necessarily a one on one correlation of mutuality in the actions

between the subject and the direct object. This marking occurs in situations when the direct object is collective, in the sense that it consists of a group of people, of which not each one will necessarily enter into a reciprocal relationship with the subject. But the group, as a collective, will. For example, *kaṇambəmbəm*, ‘give each other gifts’ implies action of which it is certain that all persons are equally involved. Each person gives and receives in equal measure. But when the speaker wants to indicate a more general or broader notion of exchange he uses *kawambəmbəm*, ‘give each other gifts’. Giving of gifts goes on among a number of people, but perhaps not everyone gives a gift to each other person, nor does everyone necessarily receive a gift from all other participants :

- (387) loser wu-ʒak-j ji-p^hambəm na-wa-mbə-mbəm-j
 New.Year 3s:GEN-time-LOC 1p:GEN-gift PFT-REC-RED-give-1p
 At New Year’s we gave each other gifts.

- (388) nəŋʝo ni-ŋgi-j ka-wa-le-leʔt ma-haʔw
 you 2p:GEN-inside-LOC INF-REC-RED-hit_i NEG-good
 It’s wrong of you to fight among yourselves.

- (389) cəno kəʃtɾə wa-məmtə-dʒ
 1d when REC-meet-1d
 When will we see each other?

Some forms of reciprocity can be marked on the verb, see section 3.1.f of the chapter on pronouns.

g. *Impersonal constructions:* ɲa-

“The notion of impersonality is a broad and disparate one” writes Anna Siewierska.²⁰¹ Based on Siewierska’s discussion, I describe impersonalisation from the functional perspective as agent defocusing, not from the structural point of view in which impersonalisation is associated with the lack of a canonical subject. I define impersonal constructions as those in which the agent, in the sense of the causal participant - the actor, instigator or initiator - of an event is defocused. The notion ‘defocused’ is used in the sense of ‘diminishing the prominence or salience from what is assumed to be the norm’.²⁰² Impersonality in this view is not associated solely with elements of or operations on argument structures but is conceived of more widely as involving speaker-choice with respect to the construal of an event and is seen to be sensitive to the effects of discourse.²⁰³

The Jiāomùzú dialects employ an impersonalising marker *ɲa-*, which is homophonous to the reciprocity marker *ɲa-*. However, marking with impersonalising *ɲa-* prohibits person and number

²⁰¹ Siewierska (2008).

²⁰² Siewierska (2008: 121).

²⁰³ Siewierska (2008: 124).

marking, whereas reciprocity marking does not. The impersonal argument can be overt in the sentence or it can be deleted. Consider the following examples for *kasətak*, ‘pile up, pile on’. Example (390a), the neutral sentence, has as subject *ŋa*, ‘I’. The sentence gives no information on whose books I piled up. They may be mine, or someone else’s. The genitive construction in (390b) marks the head, *tət^ha*, ‘book’ for first person singular, showing that subject ‘I’ stacked his own books. Both (390a) and (390b) are marked for first person singular subject on the verb. In (390c) and (390d) the verb lacks person and number marking for the subject but is marked for impersonal with *ŋa-*, indicating an impersonal argument somewhere in the sentence. In this case the impersonal argument is the subject, which is covert. The sentence means that I piled books that were not my own; I did the piling on behalf of someone else. The lack of genitive marking on *tət^ha*, ‘book’ makes clear that it does not concern the speaker’s own books. Whoever ordered the books to be stacked is not mentioned. Sentence (390d), also marked by *ŋa-* for generic argument, has genitive marking for first person singular on *tət^ha*. This shows that my own books were piled for me by someone else, an argument not mentioned in the sentence. Note that in (390c) in the English gloss a generic ‘they’ appears, while the best translation for (390d) is a passive construction:

- (390a) *ŋa tət^ha to-sə-taktak-ŋ*
 I book PFT/OR:upwards-CAUS-pile-1s
 I stacked the books.
- (390b) *ŋa ŋ-ət^ha kəzu tə to-sə-taktak-ŋ*
 I 1s:GEN-book all C PFT/OR:upwards-CAUS-pile-1s
 I piled up all my books.
- (390c) *ŋa tət^ha to-sə-ŋa-taktak*
 I book PFT/OR:upwards-CAUS-IMPS-pile
 They had me pile up books.
- (390d) *ŋa ŋ-ət^ha kəzu tə to-sə-ŋa-taktak*
 I 1s:GEN-book all C PFT/OR:upwards-CAUS-IMPS-pile
 I had all my books piled up.

At first glance examples (390c) and (390d) show suppression of impersonal subjects in Jiāomùzú. But in sentences like these it is possible to have an overt subject and agent, and an overt object and instrument. Example (390e) shows the sentence with all arguments overtly present. The instrument here is *bKra-shis*. The agent, the person who got *bKra-shis* to do the stacking, in this case *ŋa*, ‘I’, is the impersonal argument. The agent can be overt but usually does not appear. Sentence (390e) puts prominence on *bKra-shis* as the actual stacker of the books with the marker *kə*. The instigator of the action, *ŋa*, is defocused, that is, diminished in prominence or salience, by impersonalising marker *ŋa-* and the lack of marking for subject on the verb:

- (390e) [ŋa] pəʃurtə pkrəʃis kə ŋa ŋ-ət^ha
 [I] a.few.days.ago bKra.shis PR I 1s:GEN-book
 The other day one had all one's books piled up by bKra-shis.
- to-sə-ŋa-taktak
 PFT/OR:upwards-CAUS-IMPS-pile

Note that the Jiāomùzú dialects do not use the generic or indefinite pronoun *təʃo* ‘oneself’ in these contexts. The indefinite pronoun is only used to give prominence to ‘self’, not to impersonalise an argument. For more on the use of *təʃo*, see section 3.1 of the chapter on pronouns.

Defocusing of an actor, unlike the presence or absence of a subject, is a matter of degree. Siewierska gives the following order, from most to least focused: focal argument > under-elaborated argument > demoted obligatory argument > demoted optional argument > demoted non-argument > no argument.²⁰⁴ The examples in (391) illustrate the gradual defocusing of an actor through marking for impersonalisation.

An object or patient can be overt, as in sentences (391). In these examples *wandʒi?* ‘friend’ is the general expression for one out of the students’ midst, in this case the one that the students chose to be their class monitor. Sentences (391a), with a covert object, and (391b) with a topicalised object, give non-direct evidential versions, indicating the speaker was not personally present at the choosing of the monitor:

- (391a) slopma-ŋi kə bandzaŋ^ʔ to-^la-sə-va-jŋ
 student-p PR monitor PFT-NEV-CAUS-do-3p
 The students made [the friend] their monitor. (The students chose him to be their monitor.)
- (391b) w-andʒi? slopma-ŋi kə bandzaŋ^ʔ to-^la-sə-va-jŋ
 3s:GEN-friend student-p PR monitor PFT-NEV-CAUS-do-3p
 The students made the friend their monitor. (The students chose him to be their monitor.)

As discussed in section 4.3.e in the chapter on nouns, the agent *slopmaŋi*, ‘the students’ is marked for prominence with *kə*, to balance the hearer’s empathy which is with the object. Example (391c) shows a sentence with all arguments overt, the verb is marked for impersonal by *ŋa-*, and there is no marking for non-direct evidentiality:

²⁰⁴ Siewierska (2008: 125).

- (391c) w-andʃiʔ slopma-ni kə bandzaŋꞌ to-ŋa-sə-va
 3s:GEN-friend student-p PR monitor PFT-IMPS-CAUS-do-3p
 The students made the friend their monitor. (The students chose him to be their monitor.)

The lack of marking for non-direct evidentiality in (391c) signals that the speaker was included in the company of the students that chose the monitor, or at least was an eye-witness. Impersonalising marking here marks *slopma-ni*, ‘the students’ as an impersonal argument. Though marker *kə* gives the subject prominence to balance the object *wandʃiʔ*, the subject becomes somehow less elaborated. The effect in (391c) is to distance the speaker from the event. Though he took part in the election, the perspective he presents is that of the student body in an abstracted, formal sense rather than as the group of people, including himself, that chose the monitor. Instead of ‘we the students chose him’ the meaning generated and presented by the speaker is ‘the student body chose him’. The subject undergoes a gradual defocusing from a referential human argument to a not fully specified group of individuals.

Impersonalising marking is often used to signal a non-specific or habitual situation rather than linking a specific person with a specific action:

- (392) kalaʔ kanəvlo kə-cʰa tə mbərtʃu kərek na-ŋa-ndoʔ kacəs 'nə-ŋos
 rabbit deceive NOM-able C thrush one PFT-IMPS-have say EV-be
 It is said that there once was a thrush who managed to gain the upper hand over a rabbit.

The issue in example (392) is not that there once, historically, existed one very smart thrush, but rather that in the realm of existence it is possible for a thrush to get the better of the rabbit, the smartest of animals in the Tibetan world view. Marker *ŋa-* defocusses the actor from a specific agent *mbərtʃu* to a non-specific agent *mbərtʃu*. Here is another example along the same lines:

- (393) ndə sta tə pak-ʃa kandza na-ŋa-ngrel
 that origin C pig-meat eat PFT-IMPS-be.used.to
 From then on [they] used to eat pork.

Sentence (393) has a covert impersonal subject, ‘they’, in the sense of the non-specific ‘people’. The marking with *ŋa-* for impersonal argument shows that the speaker does not have specific pork-eaters in mind, but is talking about the habit of eating pork and its advent in a general way. In (394) however there is no impersonaliser *ŋa-* marked on the verb phrase. The speaker refers to a specific group of people who got into the habit of eating pork at some point, even though the subject ‘they, those people’ is implicit:

- (394) ndə sta tə pak-ʃa kandza na-kə-ngrel 'nə-ŋos
 that origin C pig-meat eat PFT-NOM-be.used.to EV-be
 From then on they got into the habit of eating pork.

If it concerns a habitual situation in the present, impersonalising marking occurs in nominalised structures. Note that often the best way to translate impersonal constructions is with a passive, though the Jiăomùzú sentence is active:

- (395) taju tʃe-j ŋos mənə tʃe-j ʃo kə-ŋa-ta? ŋos
 key here-LOC be CON here-LOC always NOM-IMPS-put be
 The keys are here, or?? – They are always put here.

Though the keys in (395) are specific, the putting of the keys is habitual and the covert subject of the action of putting is impersonal. A good paraphrase of *tʃej ʃo kəŋata? ŋos* would be ‘One always puts keys in this spot’.

In structures such as (393) and (395) the agents are defocused but they are to some extent known to the speaker, even if they are non-specific subjects such as ‘people’ or ‘they’. If a speaker wants to indicate that the agent of an action is unknown to him, that is to say if he has no idea who or what the referent may be, impersonalisation I marked with *ŋa-* and no subject occurs in the sentence. This is the farthest extreme on Siewierska’s order of defocusing as quoted above. Consider the following examples:

- (396a) ŋa kam nə-po-ŋ
 I door PFT-shut-1s
 I shut the door.

- (396b) ŋa kam nə-¹a-po-ŋ
 I door PFT-NEV-shut-1s
 I shut the door.

- (396c) kam nə-ŋa-po
 door PFT-IMPS-shut
 The door shut.

- (396d) k^halu kə-va nə kam zbək nə-ŋa-po
 Wind NOM-do CON door EXP PFT-IMPS-shut
 Since there was a breeze, the door slammed shut.

In sentence (396a) the subject and agent ‘I’ is clearly the person who knowingly and intentionally performed the action of closing the door. In sentence (396b), which is marked for non-direct evidentiality, the subject ‘I’ closed the door unwittingly. But it is still clearly ‘I’ who did the closing,

though he himself did not know he did so at the time. Example (396c) is marked for impersonal, there is no person and number marking on the verb and there is no overt subject. The speaker indicates that he does not know who the agent was that performed the action of shutting the door. In (396d) there was a breeze, but the breeze is not perceived as the instigator or actor here. Wind as cause is defocused while the slamming shut of the door is the main event. The verb is accordingly marked by *ŋa-*. If the wind is the agent, not just the cause, the sentence would be (397). In this sentence the wind is marked for prominence by *kə*:

- (397) *k^halu kə kam nə-po*
 wind PR door PFT-shut
 The wind shut the door.

It is not possible to have an agent, prominence marking with *kə* signalling agent and also impersonalising marking with *ŋa-*. That is to say, *kə* can track prominence of a subject relative to an object, as in (391c), and the subject and agent can still be defocused. But if the prominence marker does not apportion relative prominence to balance the relation between subject and object but rather gives prominence to the subject as the causer of an action, as in (397), trying to defocus that agent with *ŋa-* leads to ungrammatical structures. Marking with *kə* indicates a known agent while marker *ŋa-* indicates an unknown agent. The semantics clash:

- (398) **k^halu kə kam naŋapo*

Sun has written about impersonalising marker *ŋa-* as a marker for generic human arguments in Căodēng.²⁰⁵ Sun does not give information about the use of *ŋa-* in sentences with non-human arguments, such as (396d).

h. *Causatives: adding subjects*

Causatives can be defined as verbs or verbal constructions which refer to a causative situation, i.e. to a causal relation between two events, one of which is believed by the speaker to be caused by the other. In other words, a causative is a construction meaning ‘cause someone to do something’. Adding a new subject is the salient feature of causatives.²⁰⁶ As a result, the initial subject is degraded to the position of an object or remains unexpressed in the causative construction.

In the following example the subject of the original intransitive verb *kanəjup*, ‘sleep’ in (399a) is *tapu?*, child. In (399b) the form *kasənəjup*, ‘put to bed’ which is marked for causativity with *sə-*, a new subject *amo*, ‘mother’ is added, while *tapu?*, the original subject, becomes an object:

²⁰⁵ Sun (2005: 13, 14).

²⁰⁶ Kulikov (2010: 386).

(401)	noun	gloss	causative verb	gloss
	tapuʔ	child	karapuʔ	give birth
	tascok	letter	karascok	write
	k ^h arme	packload	karak ^h arme	load [onto sb.'s back]
	tət ^h a	book	karət ^h a	study, go to school

The original noun then takes the position of direct object of the causative verb. In example (401b) the original noun is *tət^ha*, ‘book’. The causative verb is *karət^ha*, marked with *rə-* for direct causativity. The verb means ‘read books’ in the sense of ‘study’, and by extension has come to mean ‘go to school, have class’. The subject added by causativisation performs the action of reading on the book, which has become the direct object. For some verbs marked with a causative there is no noun or verb as a basic form. In (401c) the involuntary reciprocal verb *kaŋapʃupʃu* means ‘grinding against each other’, as stones in a river do. The verb has a subject but not an agent. The verb *kavazdor* has direct causativity marker *va-* in front of the verb root. The subject is also the agent and grinds his own grain, with mill stones of some sort:

- (402a) tət^ha book
 * kat^ha
 karət^ha go to school, have class, study
- nənʃo saksə-ŋk^hu-j tə-rət^ha-n me
 you noon-behind-LOC 2-have.class-2s INTR
 Do you have class in the afternoon?
- (402b) kaŋapʃupʃu grind, involuntary, vi
 * kazdor
 kavazdor grind [something], vt, voluntary
- ŋa tət^ho 'kə-vazdor-ŋ
 I grain PRIMP-grind-1s
 I'm grinding grain.

Note that the verbs with the causativity markers in (402) do not have a non-causative equivalent verb. The causativity markers are lexicalised and cannot be removed from the root. Generally speaking, in Jiāomùzú the set *sa-/sə-* is very productive while *ra-/rə-* and *va-/və-* occur more often in lexicalised forms.

Jacques mentions that the equivalents for *ra-* and *sa-* in Japhug are argument demoting affixes which suppress the object and the agent, respectively, of the original transitive verb. The resulting intransitive verb ends up with an indefinite agent or object which cannot be overt.²⁰⁷ I have not

²⁰⁷ Jacques (2010 : 154).

found this for Jiăomùzú. Compare the following sentences with the transitive verbs *kakro*, ‘divide, distribute’, *kavəja*, ‘fetch, take’, *kava*, ‘do’ and *kata?*, ‘put’. The first sentence in each set shows the normal inflection for second person singular in transitives with a third person object. The second sentence of the set has an added causativity marker *sa-* or *sə-*. If these verbs would become intransitive through adding a causative marker, the expected form of the verb phrase would have *-n* in final position, for second person singular intransitive. But *-n* does not occur. All verbs remain marked for transitive by final *-w*:

(403a) tət^ha kəʒu tə tə-kro-w me
 book all C 2-distribute-2s INTR
 Will you distribute all the books?

tət^ha kəʒu tə tə-sə-kro-w me * təsəkron
 book all C 2-CAUS-distribute-2s INTR
 Will you have all the books distributed?

(403b) nəŋʝo tascok kəʃtɾə tə-vəja-w
 You letter when 2-fetch-2s
 When will you pick up the letter?

nəŋʝo tascok kəʃtɾə tə-sə-vəja-w * təsəvejan
 you letter when 2-CAUS-fetch-2s
 When will you have the letter picked up

(403c) nəŋʝo təmpɔk mə-tə-va-w
 you bread Q-2-do-2s
 Will you make bread?

nəŋʝo təmpɔk mə-tə-sə-va-w * mətəsəvan
 you bread Q-2-CAUS-do-2s
 Will you have bread made?

(403d) tət^ha tʃe-j mə-tə-te?-w
 book here-LOC Q-2-do₁-2s
 Will you put the books here?

tət^ha tʃe-j mə-tə-sa-te?-w * mətəsətan
 book here-LOC Q-2-CAUS-do₁-2s
 Will you have the books put here?

It is possible to add a covert agent of a causative structure to the sentence. The covert agent will become an overt object or patient. In example (404) the subject *ŋa*, ‘I’ is also the agent of (404a), performing the act of grinding grain himself. The verb is marked by *va-* for direct causativity. Adding *sə-* for indirect causativity as in (404b) adds a covert causee who does the actual grinding for the subject ‘I’. In (404c) the covert agent bKra-shis, who does the actual grinding, is made explicit:

- (404a) *ŋa tətʰot 'kə-va-ndzor-ŋ*
 I grain PRIMP-CAUS-grind-1s
 I’m grinding grain.
- (404b) *ŋa tətʰot 'kə-sə-va-ndzor-ŋ*
 I grain PRIMP-CAUS-CAUS-grind-1s
 I’m having my grain ground.
- (404c) *ŋa pkraʃis tətʰot 'kə-sə-va-ndzor-ŋ*
 I bKra.shis grain PRIMP-CAUS-CAUS-grind-1s
 I’m having bKra-shis grind my grain.

The finding of Sun and Jacques for Northern rGyalrong dialects that *sa-* is used when the patient is human and *ra-* when the patient is non-human²⁰⁸ also largely holds for the Jiāomùzú sets of *sa-/sə-* and *ra-/rə-*, as well as *va-/və-*, though not entirely. For example, *kanŋa*, ‘lose (in a fight or game)’ marked for direct causative with *rə-* results in *karənŋa*, ‘be conquered’. Arguably the patient there can be human, and in fact, in most cases will be. Also, *karazdek*, ‘maltreat’ can have patients that are human or non-human. And *kafəʃapki?*, ‘get someone to hide something’ has two causative markers that refer one to a human agent and one to an inanimate object. Adding or deleting a causativity marker from a verb changes the valency or transitivity of a verb.

In verbs derived from verbs, the markers do not necessarily transform intransitives into transitives, but they do signal agentivity or at least activity of the subject in one way or another. For example, in (405) the stative verb *kəmni?* is intransitive and has no agent. Adding the direct causativity marker *va-* leads to the dynamic verb *kavamni?*, which be used either in a transitive or intransitive sense. The intransitive version expresses such meanings as ‘becoming less by itself’, such as water in a pond that evaporates. The transitive version involves a subject that is also the agent of the action, for example a person decreases the amount of water in an irrigation ditch by opening a sluice. Note that the first form is unintentional, the second is intentional. Addition of *sa-* to the verb indicates a third party actor, as when the person who wants less water on his fields gets his neighbour to decrease the amount of water in my irrigation ditch by opening the sluice for me:

²⁰⁸ Jacques (to appear); Sun 2006.

(405)	kə-mni?	ka-va-mni?
	INF-little	INF-CAUS-little
	few, little (vi)	decrease, diminish, become less (vi)
	ka-sa-mni?	
	INF-CAUS-little	
	decrease (vt)	

I have not found a difference in usage or meaning of the set in *v*- and the set with *r*-. In fact, in a few verbs the markers can be used interchangeably:

(406)	kavameʔk	extinguish; turn off
	karameʔk	extinguish; turn off
(407)	kəmpja	luke-warm
	karampja	make luke-warm
	kavampja	make luke-warm

Both forms of (406) probably come from the root *maʔk*, 'not be'. An action by an agent results in something becoming extinguished, to 'not be'. I also have not found a difference in meaning between the markers with *a*- and those with *ə*-, yet these markers are not interchangeable. They have become lexicalised and it has to be learned which verb root selects which marker. If, historically, the vowel alternation signalled different meanings, these differences have now become obscured. Here are some examples for each set:

(408)	kanja	lose (a fight)	karanja	be conquered
	kazdək	have difficulty	karazdək	maltreat
	kəraʔm	dry	karəkraʔm	dry in the sun
	kəmaʔk	messy; wrong	karəkəmaʔk	make a mess
(409)	kaji	plant, sow	kavaji	augment, increase
	kəskriʔn	long	kavaskriʔn	make long(er), stretch
	kəsca	early, before	kavəsca	arrive early; be early
	kəsuk	dense	kavasuk	tighten
	kəmni?	few, little	kavamni?	become less, decrease

The rGyalrong dialects differ in which marker can occur with a certain verb. Combinations possible in one dialect are ungrammatical in another. Take for example the verb *kakʃok*, 'unplug; take out'. In the Pàërbá dialect this verb takes the marker *ra*-: *karakʃok*, 'cause to be unplugged'. In Kǝnglǝng this marker is not allowed. Instead, *sə*- is needed: *kasəkʃok*, 'cause someone to unplug (something)'. One can argue that the difference here is the human versus non-human patient distinction. But if that is

the case it is remarkable that only one form exists in each dialect, rather than both. Another example is *kətshoʔ*, 'fat'. The meaning 'fatten' in Xiǎojīn dialect²⁰⁹ is arrived at by adding *ra-*: *karaktschoʔ*. However, in Jiǎomùzú *sə-* is used: *kasətschoʔ*. In both cases the patient is non-human.

Both *sa-* and *sə-* occur frequently in Jiǎomùzú verbs to form causative structures. Adding one of these markers adds an implicit or explicit agent:

(410)	kəvaksəru	clean (vi, ADJ)	kasaksəru	clean; delete (vt)
	kəpsəʔt	alike, similar	kasəpsəʔt	compare
	kat ^h əru	connect (vi)	kasat ^h əru	connect (vt)
	kanəna	rest	kasənəna	stop, cease
	kaɲu	sit; live	kasəɲu	entertain; seat
	kawaʔt	dress, put on clothes	kasəwaʔt	dress (someone)
	kajoʔk	finish, run out	kasəjoʔk	finish something
	kəscit	comfortable	kasəscit	make sb. comfortable
	kənkəʔr	dirty	kasənkəʔr	make sth. dirty
(411)	kanəɲup	sleep	kasənəɲup	put to bed
	kasat	kill	kasəsət	have someone killed
	kaɣmo	steal	kasəɣmo	have someone steal sth.
	kalok	graze livestock	kasəlok	have someone graze livestock
	katseʔp	take	kasətseʔp	send (with someone)

Rather rare, at least in my data, is the occurrence of the causative markers *ʃə-* and *ʃa-*. As with the other sets, there seems to be no difference in meaning between the two markers, nor between this set and the set in *s-*. Jīn Péng²¹⁰ notes that these causative markers occur in verbs that express motion and are assistives, that is, have the added meaning of 'helping someone to do something'. In my data I do not find much evidence for either assumption. Jīn gives two examples, *kaɣirwas*, 'help to get up' and *kaɣivətɕi*, 'help to walk'. In checking these examples, I found the following:

(412)	kavətɕi	walk
	kaɣivətɕi	go to walk
	kasəvətɕi	make [someone] walk
(413)	karwas	get up
	kaɣərwas	make [someone] get up

²⁰⁹ Professor Āwàng, personal communication.

²¹⁰ Jīn (1958: 83).

In my own data I have examples such as:

- | | | |
|-------|---------------------------------|---|
| (414) | kaʃəptaʔk
kaʃavlu
kaʃapki | memorise
make someone go slower; delay someone
hide something |
|-------|---------------------------------|---|

For these verbs motion is clearly not an issue, and the notion of 'helping' is also absent. Obviously, there may be dialect differences to be taken into account. But for now it seems reasonable to posit that Jiǎomùzú does not morphologically distinguish between indirect causatives and other types of causatives such as permissives, assistives and declaratives.²¹¹ Permissives express a situation in which a causer permits a causee to bring about an event. An example of this is the verb *kasəjok*, 'allow someone to do something'. Declaratives express the meaning of 'speak about someone as if he were bringing about an action'. An example of a declarative in Jiǎomùzú is the verb *kasəso*, 'consider'. All are marked by the *sa-/sə-* and the *ʃa-/ʃə-* set.

Causative markers should not be confused with viewpoint marker *ʃi-*. The difference is clear in forms such as *kəʃiʃmo*, 'go to steal' as opposed to *kasəʃmo*, 'get someone to steal'. Quite interesting is the form *kasəʃiʃmo*, 'get someone to go and steal', where the viewpoint marker is inserted directly before the verb root, after the causative marker. Normally the viewpoint markers are affixed before the voice marker slot. Forms such as *kasəʃiʃmo* are acceptable to some speakers, but not to all. Another marker that might cause confusion is *kəʃa-* or *kəʃə-*, used to signal some forms of reciprocity, usually in nouns but in some verbs as well, such as *kəʃawandʒiʔ*, 'be [each other's] friends'. That aside, both of the verbs quoted by Jin seem best understood as general causative verbs. Addition of a causative increases the valency of a verb by one. The following examples show an intransitive verb that increases its valency. Note that the subject of the original verb becomes the object or patient of the verb phrase marked for causativity:

- (415a) hajtsəʔ 'na-raʔm
pepper OBS-dry
The peppers are drying.

- (415b) kəjaʔm kə hajtsəʔ 'na-sə-raʔm
sun PR pepper OBS-CAUS-dry-3s
The sun is drying the peppers (the sun is causing the peppers to dry).

Here is an example of a transitive verb that increases its valency by adding a causative marker:

- (416a) slopma tətʰa 'na-ndon-w
student book OBS-read-3s
The student is reading a book.

²¹¹ Kulikov (2001: 892).

- (416b) sloppən kə sloppma tət^ha 'na-sə-ndon-w
 teacher PR student book OBS-CAUS-read-3s
 The teacher makes the student read a book.

And finally examples of ditransitive verbs marked for causativity:

- (417a) pkraʃis lhamo poŋeʔj 'na-mbuʔ-w
 bKra.shis lHa.mo money OBS-give-3s
 bKra-shis is giving lHa-mo [some] money.

- (417b) taroʔ kə pkraʃis lhamo poŋeʔj 'na-sə-mbuʔ-w
 boss PR bKra.shis lHa.mo money OBS-CAUS-give-3s
 The boss makes bKra-shis give lHa-mo some money.

- (418a) ʃarpo kə pkraʃis təmɲa 'na-ʃi-rŋaʔ-w
 king PR bKra.shis field OBS-VPT-lend-3s
 The king leases a field to bKra-shis.

- (418b) taʒi kə ʃarpo pkraʃis təmɲa 'na-ʃi-sə-rŋaʔ-w
 queen PR king bKra.shis field OBS-VPT-CAUS-lend-3s
 The queen makes the king lease a field to bKra-shis.

Note that in the last example it is not possible for 'the king' and 'bKra-shis' to change slots in the sentence without arriving at a totally different meaning:

- (418c) taʒi kə pkraʃis ʃarpo təmɲa 'na-ʃi-sə-rŋaʔ-w
 queen PR bKra.shis king field OBS-VPT-CAUS-lend-3s
 The queen makes bKra-shis lease a field to the king.

Valency can be decreased by removing the causative marker from the verb phrase. This is, as said before, possible in many cases, with the exception of those verb roots in which a causative marker has become a lexicalised morpheme.

It is possible to use more than one causative marker in one verb, stacking them as it were:

- (419) kaji plant
 ka-va-ji increase, add
 ka-sə-va-ji cause [someone] to add [something]
- (420) ka-nŋa lose
 ka-ra-nŋa conquer
 ka-sə-ra-nŋa make [someone] conquer [somebody]

- (421) kə-skriʔn long
 ka-va-skriʔn lengthen
 ka-sə-va-skriʔn make [someone] lengthen [something]

So far in my data I have found that, if there are two causative markers, it is most often a combination of *sa-/sə-* and one of the other markers, with the marker for indirect causativity appearing before the marker signalling direct causativity:

- (422) kə-raʔm dry (stative verb)
 ka-sə-raʔm dry something
 ka-rə-kraʔm dry something in the sun
 * kakraʔm
 * karəsəkraʔm
 ka-sə-rə-kraʔm make someone dry something in the sun

It is also possible to have two markers of the *sa-/sə-* set in one verb, though so far I have only one example in my data:

- (423) kə-najen a pity, too bad (stative verb)
 ka-sa-sə-najen hate to part with (literally ‘cause [oneself] sadness by
 [being obligated to] give up [something]’)

i. *Combinations of voice markers*

Voice marking in the Jiāomùzú dialects is wonderfully versatile. For many verbs change of meaning is achieved by a quick switch from one voice marker to another. It is also possible to combine several voice markers in one verb phrase. The markers are prefixed to the verb root one at the time, adding layered meaning. This layering of meanings onto a root allows for considerable freedom in the order of the prefixes. I have found that *na-* and *mə-*, the mostly lexicalised prefixes that add patients and express non-intentionality respectively, have to be prefixed straight to the root. Other prefixes cannot be placed between *na-* or *mə-* and the root. The marker for involuntary action also occurs together with impersonalising marker *ŋa-*:

- (424) təskruʔ body
 kəməskruʔ pregnant
 kasəməskruʔ make pregnant; knock up
 * kaməsəskruʔ

- | | | |
|-------|------------------------|----------------------------|
| (425) | kap ^h ət | throw |
| | kanəp ^h ət | lose something; throw away |
| | kaŋamp ^h ət | disperse, spread |
| (426) | kənagnat | ill at ease |
| | kasənagnat | make someone uncomfortable |
| | * kanasəgnat | |

Reflexivity markers and reciprocity markers can combine with causative markers in a sort of voice marker hopscotch that allows native speakers to express a wide range of meanings. The following examples show the 'layering' of meanings onto the verb roots *sco*, 'ride', *sat*, 'kill' and *pkiʔ*, 'hide':

- | | | |
|-------|-------------|---------------------------------|
| (427) | kasco | ride |
| | kanəscō | ride (implied object) |
| | kasənəscō | make someone ride |
| | kaʔasənəscō | carry someone piggyback |
| (428) | kasat | kill |
| | kanəsāt | kill someone oneself |
| | kasəsāt | have someone kill |
| | kasənəsāt | have someone kill somebody |
| | kaŋasatsāt | kill each other |
| | kasəŋasasāt | get [people] to kill each other |
| | kabʔasāt | commit suicide |
| | kasəbʔasāt | get someone to kill himself |
| (429) | kaŋapkiʔ | hide oneself |
| | kanapkiʔ | hide [something] from someone |
| | kaʃapkiʔ | hide something |
| | kaʃəʃapkiʔ | get somebody to hide something |
| | kasəŋapkiʔ | get somebody to hide himself |

The semantics of a verb provide the limits for the possible combinations of markers. Consider the following example:

- | | | |
|-------|--------------|--------------------------------|
| (430) | kəmniʔ | few |
| | kavamniʔ | decrease; become less (vi) |
| | * kanəvamniʔ | |
| | kasəvamniʔ | lessen; cause to decrease (vt) |

The verb *kavamni?*, 'become less', is non-intentional and intransitive. Adding *nə-* to add a patient generates an ungrammatical structure, since the act of decreasing is intransitive here and cannot have an object or patient. However, it is possible to add *sə-* which adds an agent. In generating strings of voice markers that attach to a root, there are no strict rules for marker order. Rather, the semantics of the verb root and the meaning the speaker wishes to express decide the order of the markers in the string. The order of the prefixes reflects the scope of the different elements, with further distance from the stem indicating a higher scope. For example, the verb *kafmo*, 'steal' can be marked for viewpoint with *fi-*, leading to *kafismo*, 'go and steal'. When the root verb *kafmo* is marked for causativity by *sə-* the derived verb is *kasəfmo*, 'cause to steal, get someone to steal something'. Combining viewpoint and causativity marking gives two options:

- (431) *kafisəsmo* go and get someone to steal something
 kasəfismo get someone to go and steal something

In the first verb, *kafisəsmo*, the subject goes to perform the action of inciting someone to steal. The causativity marker *sə-* covers the scope of *-fmo*, steal, while viewpoint marker *fi-* covers the scope of *səfmo*, 'cause to steal'. In the second verb the viewpoint marker only covers *-fmo*, 'steal', while *sə-* covers the scope of *-fifmo*.

7.9 Mood

a. Introduction

The Jiāomùzú dialects distinguish a number of different moods. Some are expressed by marking on the verb exclusively. Some make use of adverbs, and some require a combination of both. In subsections (b)-(h) I give an overview of negation, imperatives, interrogatives and irrealis constructions. Mood markers are prefixed to the verb root. They occupy the first slot in the verb phrase, before the slot for tense and aspect. Though in most situations only one mood marker occurs in a verb phrase, it is possible to have two. In these cases an interrogative and a negation marker occur together, generating polite imperatives or past tense real conditionals.

b. Negation

Jiāomùzú employs three negative markers, *ma-*, *mə-* and *ɬ-*. Generally speaking, *ma-* is used in non-past tense and imperfective aspect situations, *mə-* occurs with imperatives, resulting in prohibitives, and *ɬ-* negates past perfective sentences. Prohibitives marked with *mə-* are distinguished from interrogatives by stress on the verb root. Negation markers always take first position in the verb phrase, unless they are combined with interrogative *mə-* to form polite imperatives or past tense real

conditionals. Negation markers are mutually exclusive. Below are some examples of the use of these markers:

- (432) soŋnu jontan krəŋ ma-vi
 tomorrow Yon-tan maybe NEG-come₁
 Yon-tan might not come tomorrow. (Maybe Yon-tan will not come tomorrow.)

- (433) nəŋʝo mə-tə-^htʃi-n
 you PROH-2-go₁-2s
 don't go!

- (434) pəŋfir sloppən ki ʃi-vu
 yesterday teacher one NEG/PFT-come₂
 Yesterday one of the teachers did not come.

Jiǎomùzú also has two negative verbs, *mi?* and *maʔk*. The negative existential verb *mi?* is the opposite of *ndo?* 'have', and can be paraphrased as 'S does not have x'. The negative linking verb *maʔk* is the opposite of the existential verb *ɲos* 'be', and means 'S is not x':

- (435a) wuʝo kəpaʔ maʔk
 he Chinese not.be
 He is not Chinese.

- (435b) wuʝo pəŋeʔj mi?
 he money not.have
 He doesn't have money.

I give a more extensive description of negation in Jiǎomùzú in section 8.1 of the chapter on sentences below.

c. *Interrogatives*

Jiǎomùzú has three different means for forming interrogatives. Polar questions are constructed by prefixing *mə-* to the verb phrase or by employing question marker *me* in sentence final position. The two forms of interrogative marking differ in scope, with *mə-* covering the verb phrase only while *me* covers the scope of the sentence. The two markers can occur in one sentence. In this section I only give an overview of interrogatives formed with *mə-*, since they are part of the verb morphology, but here is just one example to demonstrate the use of *me*:

- (436) pkraʃis ma-vi me
 bKra.shis NEG-come₁ INTR
 Is bKra-shis not coming?

The use of the question marker *me* is described in section 8.1 of the chapter on sentence types. Constituent questions make use of interrogative pronouns. A description of interrogative pronouns can be found in section 3.4 of the chapter on pronouns.

The interrogative prefix *mə-* appears in first position in the verb phrase. It can occur with all persons and numbers:

- (437) ɲa tascok mə-leʔt-ɲ
 I letter Q-write₁-1s
 Do I write the letter?

- (438) nəŋʝo-ndʒ mə-tə-tʃ^hi-ndʒ
 you-2d Q-2-go₁-2d
 Will the two of you go?

- (439) jini wuʝo-ɲo mə-mbuʔ-j
 we:e he-p Q-give-1p
 Shall we give it to them?

d. *Imperative and exhortative constructions*

Imperatives in Jiǎomùzú occur with second person as well as third person logical subjects. I first discuss second person imperatives. Jussives or third person imperatives are considered further down in this subsection.

Second person imperatives are formed by prefixing the appropriate orientation marker to the verb root, replacing the normal second person marker *tə-*. Some verbs are irregular. Such verbs use root 3 rather than the citation form or root 1 in imperatives. One example is *kat^hoʔ*, 'ask', which has *-t^haʔ* in imperatives, as in example (442). The stress in imperatives is always on the root, which helps distinguish between imperatives and, e.g., past perfectives with similar orientation markers. Person and number marking remain the same, with *-n* for second person singular in intransitive verbs and *-w* in transitives. Second person dual is marked by *-ndʒ* and *-jn* is used for second plural in all verbs. The subject is often left out, but it can appear. Some examples of normal imperatives:

- | | | | |
|-------|--------------------------------|--|--------------------------|
| (440) | kak ^h rət | tə-k ^h rət-w | nə-'k ^h rət-w |
| | wipe | 2-dig-2s | IMP-dig-2s |
| | | You wipe. | Wipe! |
| | | | |
| (441) | kat ^h i | tə-t ^h i-n | kə-'t ^h i-n |
| | go | 2-go ₁ -2s | IMP-go ₁ -2s |
| | | You go. | Go! |
| | | | |
| (442) | kat ^h o? | tə-t ^h o?-w | to-'tha?-w |
| | ask | 2-ask ₁ -2s | IMP-ask ₃ -2s |
| | | You ask. | Ask! |
| | | | |
| (443) | ja, tʃə? | wu-rgambə rə-və-'jok-w | |
| | come.on this | 3s:GEN-box IMP-VPT-lift-2s | |
| | | Come on, shift this box this way! | |
| | | | |
| (444) | kəsam har | ji-ʃi-'rʒəʔk-n rənə ji-'vi-n | |
| | three lap | IMP-VPT-run-2s CON IMP-come ₁ -2s | |
| | | Go run three laps, then come back here. | |
| | | | |
| (445) | pkraʃis k ^h alet | to-'ndza-w | |
| | bKra.shis rtsam.pa | IMP-eat-2s | |
| | | bKra-shis, eat your rtsam-pa! | |

Some irregular verbs employ alternation of vowels in their root to express modal meanings. For example, the verb *kataʔ*, ‘put’ is an irregular verb with root 2. That means that the past tense forms are regular and that the expectation would be for the root to be root 2 in a past tense situation as in (446a). However, in (446b) the verb phrase employs root 1:

- | | | | |
|--------|---|--|----------------------------------|
| (446a) | praʃis kə ɲa bawbaw ^ɕ | təʃeʔm w-əŋgi-j | no-sə-taʔ-ŋ |
| | bKra.shis PR I bag | house 3s:GEN-inside-LOC | AF/PFT-CAUS-put ₂ -1s |
| | | bKra-shis had me put the bag in the house. | |
| | | | |
| (446b) | praʃis kə ɲa bawbaw ^ɕ | təʃeʔm w-əŋgi-j | no-sə-teʔ-ŋ |
| | bKra.shis PR I bag | house 3s:GEN-inside-LOC | AF/PFT-CAUS-put ₁ -1s |
| | | bKra-shis forced me to put the bag in the house. | |

Sentence (446a) is the neutral form, while (446b) expresses a very strong imperative. Whether the speaker likes it or not, bKra-shis is forcing the issue: the bag must be put in the house, no matter what. Not all irregular verbs can use this sort of alternation. For example, *kaleʔt*, ‘hit’, which has root 2 *laʔt* for past tense, does not:

- (447) tascok to-sə-laʔt-ŋ * tascok to-sə-leʔt-ŋ
 letter PFT-CAUS-write₂-1s
 He made me write a letter.

But then again, some verbs that do not have any vowel change in the normal paradigm do have a vowel change to signal this sort of imperative. Compare the following sentences with *kava*, ‘do’. This verb is regular so no vowel change is expected. Sentence (448a) is the neutral form, simply stating that the speaker hired labour to build a house, of his own volition. Example (448b) indicates that there was an outside need, requirement or motivation for the speaker to have the house built. Perhaps he needed to provide for his elderly parents:

- (448a) ŋa təjeʔm to-sə-va-ŋ
 I house PFT-CAUS-do-1s
 I had a house built.

- (448b) ŋa təjeʔm to-sə-ve-ŋ
 I house PFT-CAUS-do-1s
 I had to have a house built.

The sentences below all show imperatives formed with orientation markers as required by the semantics of the verb and the direction of the action. As indicated above, the stress marking, with heavy stress on the verb root, makes clear that these are imperatives and not past tense constructions. Lin, in her study of Zhuōkèjī, remarks on the possibility to form imperatives with a present imperfective aspect for actions indicating a posture, generating sentences such as ‘keep standing’. All such constructions take the marker *ko-*.²¹² This kind of construction is not possible in Jiǎomùzú. All imperatives for actions with ongoing duration, whether expressing posture or activity, are formed with the normal orientation markers and the addition of *manjuʔ*, ‘still, again’:

- | | | |
|-------|------------------|--------------------------------|
| (449) | manjuʔ na-ʼju-n | manjuʔ na-ʼrdzwa-w |
| | still IMP-sit-2s | still IMP-dig ₁ -2s |
| | keep sitting! | keep digging! |

Polite imperatives, often used in requests and invitations, are formed with a combination of interrogative marker *mə-* and negation marker *ma-*:

- (450) tət^ha ŋ-əp^ha-j məma-tə-ʼk^ham-w
 book 1s:GEN-locus-LOC IMP:polite-2-give-2s
 Please give me the book.

²¹² Lin (2000: 82, 83).

- (451) pkraʃis w-əp^ha-j lhamo tʃe vi məma-tə-¹cəs-n
bKra.shis 3s:GEN-vicinity-LOC lHa-mo LOC come₁ IMP:polite-2-say-2s
Please tell bKra-shis to come to lHa-mo's.

Note that the second person marker *tə-* does not disappear in these constructions. This kind of construction is reminiscent of English soft imperatives like 'Why don't you stay for a while', or 'Won't you sit down'. The same marker can be used in instances where the speaker emphasises the need to do something rather than the polite request, as in the examples below:

- | | | |
|--------|-------------------------|-------------------------------|
| (452a) | na- ¹ ju-n | məma-tə- ¹ ju-n |
| | IMP-sit-2s | IMP:emp-2-sit-2s |
| | (please,) sit down | (will you) sit still, please! |
| | | |
| (452b) | to- ¹ ndza-w | məma-tə- ¹ ndza-w |
| | IMP-eat-2s | IMP:emp-2-eat-2s |
| | (please) eat | (will you) eat up, please! |

The meaning of *məma-* thus depends on the social context in which it is used.

When exceedingly polite expressions are required, in the case of visiting incarnations, for example, the polite imperative marking is prefixed to an honorific verb root, or the politeness marker *məmasano* is used with an uninflected verb:

- | | | | |
|-------|----------------------|-------------------------------|------------------------------|
| (453) | kandza | to- ¹ ndza-w | məma-tə- ¹ ndza-w |
| | eat | IMP-eat-2s | IMP-2-eat-2s |
| | | Eat! | Please eat! |
| | | | |
| | kaksor | məma-tə- ¹ ksor-jn | |
| | eat, HON. | IMP-2-eat:HON-2:HON | |
| | | Please eat! | |
| | | | |
| (454) | kaɲu məmasano | | |
| | sit HON | | |
| | Please, have a seat. | | |

Note that in the honorific form of 'eat', *kaksor*, politeness is expressed in the person marking as well, using second person plural *-jn* instead of singular *-w*.

Distal or postponed imperatives convey the command or desire of a speaker that the listener do something after something else has happened. This kind of imperative makes use of irrealis marking in combination with the normal imperative marker, but note that the second person marker *tə-* remains in place:

- (455) traʃi kə nə poŋeʔj 'nə-k^ham-w tʃe nə tak^hu a-to-tə-'ku-w
 bKra.shis PR CON money FPFT-give-3s LOC CON cigarette IRR-IMP-2-buy-2s
 After bKra-shis has given you the money, go and buy cigarettes.

Jussives or third person imperatives exhort a listener to demand action of a third person. As for distal imperatives, Jiāomùzú employs irrealis constructions to form jussives:

- (456) tamt^hem ŋ-əci a-kə-'ksər-w
 dish 1s:GEN-younger.sibling IRR-IMP-stirfry-3s
 Let my brother cook the food!

I discuss irrealis structures and the range of meanings they can express in section 7.10.f below.

Prohibitives or negative imperatives consist of the negation marker *mə-* prefixed to the verb root, while the second person marker *tə-* remains in place. The orientation markers normally used to express imperative mood do not occur. Stress is on the verb root, as in all imperatives:

- (457) mə-tə-'tʃ^hi-n poŋeʔj mə-tə-'jmə-w je
 PROH-2-go₁-2s money PROH-2-forget-2s MD:R
 Don't go! Don't forget the money!

Polite prohibitives are formed by adding *məmasano*, the polite request form, to a nominalised verb phrase modified by negation marker *ma-*:

- (458) ma-ka-tʃ^hi məmasano poŋeʔj ma-ka-jmə məmasano
 NEG-NOM-go₁ HON money NEG-NOM-forget HON
 Please, don't go. Please don't forget the money.

The Jiāomùzú dialects have no special marking to express exhortative meanings. Usually exhortative type meanings are expressed by imperatives or prohibitives:

- (459) mə-tə-na'srak
 PROH-2-shy
 Don't be shy!

Sentences in which a speaker exhorts the addressee to participate in realising an event along with the speaker usually take simple declarative form, sometimes with an emphatic marker in sentence final position. The verb in these constructions consists of the root, marked for person and number, but not for tense, aspect etc:

- (460) cəno tambat w-əp^ha sto t^ho-dʒ
 we mountain 3s:GEN-vicinity upwards ascend-1d
 Let's go up the mountain.
- (461) tʃ^hi-j la
 go₁-1p MD:SA
 Let's go!
- (462) jiji ɲi-sloppən w-əp^ha-j t^hoʔ-j o
 we:i 1p:GEN-teacher 3:GEN-vicinity-LOC ask-1p MD:CF
 Let's ask the teacher.

Within Jiǎomùzú Township there is one village, Shíjiāng²¹³ that uses the prefix *ta-* for exhortatives rather than straight imperatives. Example (463) shows the difference between exhortatory and imperative marking. In a context where one person rides a horse while a second one refuses to ride, say after a fall, but walks beside his horse, the rider may lose patience with the slow progress and use an imperative, as in (463a), demanding immediate action. Or he might use example (463b) to try and coax the hearer back onto the horse. Sentence (463a) is marked for imperative with *to-*; the root is stressed. The hortative in (463b) has *ta-*, while the verb root is not stressed:

- | | |
|---|---|
| (463a) nə-mbro to-nəʃco-n
2s-horse IMP-ride-2s
Ride your horse! | (463b) nə-mbro ta-nəʃco-n
2s-horse EXH-ride-2s
How about riding your horse. |
|---|---|

e. *Real conditionals*

Real conditional constructions consist of the question marker *mə-*, prefixed to a verb marked for past perfective and verb root 1 or 2, and a clause connector *nə*, *rənə* or *rə*. The choice of verb root 1 or verb root 2 depends on the perceived time sequence of the clauses. If the real conditional signals a situation that occurs before a result or consequence, root 2 for past tense occurs, as in (464). If the first and second clause have the same time reference root 1 occurs, as in (465). The usual gloss is 'if':

- (464) təmu mə-na-laʔt rə jino w-əmp^hi ma-tʃ^hi-j
 rain COND-PFT-hit₂ CON we:e 3:GEN-outside NEG-go₁-1p
 If it rains, we won't go out.

²¹³ 石江, ལྷགས་འཛེར་ lCags-'ndzer.

- (465) nənʃo tʃike kamoʔt nə-si mə-na-vi rə nənʃo
 you something drink 2:GEN-heart COND-PFT-come₁ CON you
 If you want something to drink, please help yourself.

na-ʃi-nə-^lrko-w
 IMP-VPT-EREFL-pour-2s

- (466) nənʃo ndə w-apuʔ mə-na-top-w rə ɲa w-əmo
 you that 3:GEN-child COND-PFT-hit-2s CON I 3:GEN-mother
 If you hit that child, I will tell his mother.

w-əmp^ha-j cəs-ɲ
 3:-vicinity-LOC say-1s

- (467) ndə mə-na-ɲos rənə na-^ltʃ^ha-w
 that COND-PFT-be CON IMP-slaughter-3s
 If that's the case, then slaughter it!

Note that the conditional part of the sentence is marked for past tense, even if the hypothetical event is completely future. The consequence of the condition, should it pertain, is in present tense. The following examples show this clearly by their use of *ʃ-*, the negation marker used in past perfective situations:

- (468) so mə-ʃi-vu nə k^horlo ma-ʃep ^lnə-ɲos
 tomorrow COND-NEG/PFT-come₂ CON car NEG-catch EV-be
 If he has not come by tomorrow he will not be able to catch a ride.

- (469) kawʃəʔ mə-ʃi-tə-c^ha-n nə koŋtswoʔ kanaro ma-tə-c^ha-n
 exam COND-NEG/PFT-2-able-2s CON work find NEG-2-able-2s
 If you fail the exam, you will not be able to find a job.

- (470) təmu mə-ʃi-laʔt nə w-əmp^hi katʃ^hi k^hut
 rain COND-NEG/PFT-hit₂ CON 3s:GEN-outside go can
 If it does not rain, we can go out.

- (471) mə-ʃi-rʃi rə ka-nəmbri k^hut
 COND-NEG/PFT-go₂ CON NOM-play possible
 If he has not left yet, we can go out.

Interestingly, Běnzhēn, a village in the Mǎěrkāng valley, uses *ʃi-* in this sort of conditional, making no distinction between real conditionals and irrealis constructions.

This kind of real conditional, in which a hypothetical future situation is expressed by marking for perfective aspect, is different from conditionals that refer to a situation that actually did occur in the past, but that would have better been avoided. Since something did actually happen these structures are not marked with real conditional *mə-* or irrealis *a-* but by a simple present tense negation, usually on a nominalised verb, with the past tense marked elsewhere in the sentence. Semantically these forms reflect an irrealis: the speaker wishes for a condition not in the future but in the past that is unattainable, since something else than the wished for already occurred:

- (472) c^he ma-kə-tə-moʔt-w 'na-ŋos tʃe ma-tə-bja-sə-top
 liquor NEG-NOM-2-drink-2s OBS-be LOC NEG-2-REFL-CAUS-hit
 If you had not drunk liquor (been drunk) you would not have been hit.

f. *Irrealis*

The Jiāomùzú dialects distinguish between those situations that are firmly grounded in reality or have at least, in the estimation of the speaker, a decent possibility of being realised, and hypothetical situations. Actions and events that, in the mind of the speaker, belong to the realm of the hypothetical, are all marked for irrealis. This construction covers a wide range of modal meanings, including some forms of debitive, optative, jussive and conditional. Irrealis constructions mirror the possibilities for mood marking in realis situations. Irrealis marking consists of the marker *a-* prefixed to a verb phrase. The verb phrase can inflect for all the usual categories such as mood, tense and aspect, as demonstrated in the examples below. Many irrealis forms have a perfective marker, expressing that the speaker looks at the hypothetical situation as if it were completed. In these situations the irrealis works like a past-in-the-future relative tense, with stress on the past perfective marker and verb root 1 or root 3. But it is possible to have non-past marking as well. Jiāomùzú irrealis structures are in this respect different from marking for irrealis in Cǎodēng, a Northern rGyalrong dialect. Sun reports that irrealis structures there all consist of irrealis marker *a-* plus the appropriate orientation marker prefixed to verb root 1 or root 3.²¹⁴ Sentence (473a) is a debitive. In the second clause of (473a) the verb phrase is marked with *mə-* for prohibitive as part of an irrealis structure. Sentence (473b) shows an irrealis structure in a non-past situation, with (473c) as its hypothetical past tense equivalent:

- (473a) poŋeʔj pkraʃis w-əmba-j a-¹nə-tə-teʔ-w raŋraŋ
 money bKra.shis 3s:GEN-vicinity-LOC IRR-PFT-2-put₁-2s other
 You should put the money at bKra-shis', don't take it elsewhere.
- a-mə-tə-¹tsep-w
 IRR-PROH-2-take-2s

²¹⁴ Sun (2007: 802).

(473b) *ŋa ŋə-poŋeʔj a-'na-ndoʔ tʃe hoŋjwɛn tʃʰi-ŋ*
 I 1s:GEN-money IRR-OBS-have LOC Hóngyuán go₁-1s
 If I have money, I'll go to Hóngyuán.

(473c) *ŋa ŋə-poŋeʔj a-to-ndoʔ tʃe hoŋjwɛn tʃʰi-ŋ*
 I 1s:GEN-money IRR-PFT-have LOC Hóngyuán go₁-1s
 If I had money, I would go to Hóngyuán.

The marker *a-* can be prefixed to any verb phrase in the sentence without altering the general meaning of the sentence, though the emphasis may change slightly:

(474) *nənʃo jontan w-əmpʰa-j kə-tə-cəs-n a-'nə-ŋos ʃi*
 you Yon-tan 3:GEN-vicinity-LOC NOM-2-say-2s IRR-EV-be MD:HON
 You should talk to Yon-tan.

(475) *nənʃo jontan a-to-tə-'cəs-n mənə*
 you Yon-tan IRR-IMP-2-say-2s CON
 How about you talk to Yon-tan....

(476) *a-'nə-ŋos tʃe poŋeʔj kəməca tsa kʰam kə-ra w-əspe ŋos*
 IRR-EV-be LOC money much little give NOM-need 3s:GEN-material be
 He ought to give some more money.

(477) *pkraʃis poneʔj kəməca tsa a-'nə-kʰam-w ra*
 bKra.shis money much little IRR-PFT-give-3s need
 bKra-shis must give some more money.

The clause connector *mənə* in (475) indicates that the speaker has not quite finished his speech or, if he is not going to say more, that there is more in his mind, pertaining to the matter at hand, than he will say. Native speakers agree that (476) and (477) are the same in meaning, regardless of the position of *a-*. In (476) and (477) the difference between 'ought to' and 'must' is caused by the presence of *ra*, 'must' in (477), rather than by the difference in placement of *a-*. In (476) *kʰam kəra wəspe ŋos* expresses 'need to give', with *anəŋos* signalling 'ought or should'. The meaning is something like 'it should be that he sees the need for giving'. But (477), where *ra*, 'must, need' covers the scope of the sentence, the speaker's statement is stronger.

Below are some more examples of irrealis structures for optatives, debitives, jussives and conditionals.

Optative constructions

Optatives usually combine irrealis marking with the noun *smonlam*, 'wish, desire, prayer' added at the end of the sentence:

- (478) nə-ʃatʃ^hiɿ a-nə-nəʃit wu-smonlam
2s:GEN-holiday IRR-PFT-comfortable 3s:GEN-wish
Have a good holiday!

- (479) ʃiswanʃiɿ kawʃəɿ kava a-nə-tʃ^ha-ŋ wu-smonlam
computer exam do IRR-PFT-can-1s 3s:GEN-wish
Let me pass the computer exam!

- (480) pkraʃis tanbe w-amaʔ kəmtsoŋ kə-miʔ kaməndə
bKra.shis Dānbā 3s:GEN-work trouble NOM-not have arrive
May bKra-shis get to Dānbā safely (without any problems).

a-nə-tʃ^ha wu-smonlam
IRR-PFT-can 3:GEN-wish

- (481) nə-mʏpitsi n-əngo 'na-maŋam a-nə-miʔ wu-smonlam
2s:GEN-lifetime 2s:GEN-illness OBS-pain IRR-REFL-not.have 3s:GEN-wish
May you always enjoy good health!

Debitives

Debitives cover a range of meaning in English usually covered by auxiliaries like 'should' and 'ought to'. A mild debitive has only an irrealis construction. A speaker can add pressure by combining the irrealis construction with modal auxiliary *ra*, 'must' in sentence final position. Emphatic markers and adverbs can be used to further increase pressure on the addressee to perform the action required by the speaker.

- (482) nəŋʂo rgambe-ŋo h-ardo tʃe kə-tə-rit-w a-'nə-ŋos ʃi
you box-p D-towards.river LOC NOM-2-move-2s IRR-EV-be MD:HON
You should move the boxes over there.

- (483) nəŋʂo rgambe-ŋo h-ardu tʃe rə-'tseʔp-w ra
you box-p D-towards.river LOC IMP-move-2s must
You have to move the boxes over there.

Jussives

Jussives that exhort a listener to demand action of a third person are formed with irrealis marking prefixed to a verb marked for imperative:

- (484) ʃu lhamo a-nə-ʃi-'p^hot-w jo
 firewood lHa.mo IRR-IMP-VPT-chop-3s MD:R
 Come on, make lHa-mo go and chop the firewood!

- (485) pakʃu pkraʃis a-to-'ku-w
 apple bKra-shis IRR-IMP-buy-3s
 Get bKra-shis to buy the apples!

Conditionals

Note that in (487) the going to Chéngdū early, regrettably, did take place. The irrealis here, though linked to the past, is entirely hypothetical, since the event can't be undone. This structure is similar to example (472) above. Note that hypotheticals in the past can have marking for irrealis somewhere in the sentence, as in (487), but it is not obligatory. In example (472) there is no irrealis marking at all:

- (487) nəŋɔ tʃ^həŋdu ndə nəstamc^he tawo ma-kə-tə-rʃi-n a-'nə-ŋos tʃe
 you Chéngdū that like.that early NEG-NOM-2-go₂-2s IRR-EV-be LOC
 If you would not have gone to Chéngdū that early,

 ndə nəstamc^he j-ama? ma-məca
 that like.that 1p-trouble NEG-much
 we would not have so much trouble (now)!

g. Quotative

Quotes in Jiāomùzú are always direct, though they cannot always be translated as such. As in Tibetan, a quotation consists of a main clause, in which the subject usually is marked for ergative by prominence marker *kə*, and an embedded clause consisting of the direct speech being quoted:

- (488) pkraʃis kə sonam soʃnu tʃe vi na-cəs
 bKra.shis PR bSod-nams tomorrow here come₁ PFT-say
 bKra-shis said that bSod-nams will come tomorrow.
- (489) pkraʃis kə lhamo təŋgli 'na-va-w na-cəs
 bKra.shis PR lHa.mo lie OBS-do-3s PFT-say
 "lHa-mo is lying," said bKra-shis.

- (490) sonam kə ɲa ɲ-əp^ha-j nənɲo n-əp^ha-j
 bSod-nams PR I 1s:GEN-vicinity-LOC you 2s:GEN-vicinity-LOC
 bSod-nams told me to come see you.

ji-^lvi-n na-cəs
 IMP-come₁-2s PFT-say

Note that the direct speech being quoted retains the normal marking on the verbs, as in (490), where *jivin* is marked for imperative and second person singular. This refers to the moment in time where bSod-nams said to me: "You come and see....", with the object here being the person bSod-nams told me to go and see. More on embedded clauses in section 8.2 of the chapter on sentence structure.

h. *Submode*

Submodes express a person's ideas, thoughts or beliefs about an event or fact. The Jiăomùzú dialects, to my knowledge, have no special marking for submodes in the verb morphology, but use a main clause with a verb such as *kasəso*, 'believe' or 'think', in combination with an embedded clause which expresses the contents of the subject's thoughts:

- (491) ɲa to-səso-ɲ tʃe pkraʃis wastop kəts^ho?
 I PFT-think-1s LOC bKra.shis very fat
 I thought that bKra-shis is very fat.

- (492) pkraʃis pecin ji-kə-rʃi kə-ɲos 'na-səso-jn
 bKra-shis Běijīng PFT-NOM-go₂ NOM-be OBS-believe-3p
 They believe that bKra-shis went to Běijīng.

- (493) ɲa ɲə-kpjeɲ tʃe pumo katʃ^hi ma-tso-ɲ o
 I 1s:GEN-guess LOC now go NEG-free-1s MD:CF
 I guess it's too late to go now.

The use of pronouns distinguishes between the subject's thoughts about himself and things he thinks about others. Normally when the subject of the sentence is also the subject of the thought no pronoun appears in the embedded clause. Example (494a) shows *nats^hoɲ*, 'fat' marked for first person singular with *-ɲ*. The direct quote form here would be 'I am fat, bKra-shis thinks [about himself]'. A speaker can add a personal pronoun to make sure the hearer understands bKra-shis thinks he himself is fat. In (494b) *wuɲo*, 'he' occurs for that reason, even though 'fat' is still marked for first person. In sentence (494c) the third person subject of the main clause is not co-referent with the subject of the embedded clause *ɲa*, 'I', which is a first person pronoun. bKra-shis thinks that the

speaker is fat. Note that still the verb is marked for first person singular. But here the verb refers to *ŋa*, which refers to the speaker, not to bKra-shis:

(494a) pkraʃis 'na-ts^ho-ŋ 'na-səso-w
bKra.shis OBS-fat-1s OBS-think-3s
bKra-shis thinks that he [himself] is fat.

(494b) pkraʃis wuʃo 'na-ts^ho-ŋ 'na-səso-w
bKra.shis he OBS-fat-1s OBS-think-3s
bKra-shis thinks that he [himself] is fat.

(494c) pkraʃis ŋa 'na-ts^ho-ŋ 'na-səso-w
bKra.shis I OBS-fat-1s OBS-think-3s
bKra-shis thinks that I am fat.