

# Some phonological criteria for Palaung subgrouping

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## Abstract

In this paper, the selected phonological changes shared by several Palaung dialects are discussed. The tentative subgrouping, based on innovations among the dialects, suggests that we recognize the primary split between Ta-ang and the Rumai-Darang groups. The Rumai-Darang group is further split into Rumai and the Darang groups, which include such dialects as Na-ang, Darang, Da-ang, and Dara-ang. This subgroup scheme implies that the center of early Palaung settlement is likely to be in the northern-Shan State, west of Salween as well as the adjacent areas of Yunnan. The Palaung settlements scattered further south in the southern-Shan State may have resulted from relatively more recent migrations, especially in case of the Darang group of dialects.

**Keywords:** Palaung, Ta-ang, dialect classification, phonological change, Mon-Khmer

## บทคัดย่อ

บทความนี้อภิปรายถึงการเปลี่ยนแปลงทางเสียงบางประการที่พบในภาษาถิ่นปะหล่อง การจัดแบ่งกลุ่มภาษาที่น่าเสนอในบทความนี้ แสดงให้เห็นว่ามีการแยกออกจากกันระหว่างกลุ่มภาษาตะอาง และกลุ่มภาษารูไม-คารังก่อน ต่อมากลุ่มภาษารูไม-คารัง จึงแยกออกมาเป็นภาษารูไม และกลุ่มภาษาคารัง ซึ่งกลุ่มภาษาคารังประกอบด้วยภาษานะอาง คารัง ดาอาง และดาระอาง จากรูปแบบการจัดแบ่งกลุ่มย่อยนี้ อาจกล่าวได้ว่าศูนย์กลางการตั้งถิ่นฐานในช่วงต้นนั้น น่าจะอยู่บริเวณทางตอนเหนือของรัฐฉาน ด้านตะวันตกของแม่น้ำสาละวิน และบริเวณใกล้เคียงในมณฑลยูนนาน การกระจายตัวและการตั้งถิ่นฐานของชาวปะหล่องทางตอนใต้ของรัฐฉานนั้น อาจเป็นผลมาจากการอพยพเคลื่อนย้ายในภายหลัง โดยเฉพาะอย่างยิ่งในกรณีของกลุ่มภาษาคารัง

**คำสำคัญ:** ปะหล่อง, ตะอาง, การจัดแบ่งกลุ่มภาษา, การเปลี่ยนแปลงทางเสียง, มอญ-เขมร

## 1. Introduction

Palaung varieties have been noted and described since the 19<sup>th</sup> century (for early sources, see, for example, Bigandet, 1858; Scott & Hardiman, 1900; and Davies, 1909). However, comprehensive materials did not become available until Milne's (1931)'s work on a Ta-ang dialect at Nam-Hsan, Shan State, Myanmar. In general, we may recognize at least three main Palaung dialects: Ta-ang (Milne, 1931; Shorto, 1960), Rumai (Milne, 1931; Davies, 1909; Diffloth, 1991), and Darang (Scott & Hardiman, 1900).

In China, the Palaung or De-ang language is divided into three dialects: Na-ang, Pu-le, and Ro-mai (Yan & Zhou, 1995). The first is similar to Darang, the second to Ta-ang, and the last to Rumai dialects.

In this paper, we trace the phonological development in various Palaung dialects and select ten rules of change that may imply shared innovation among the dialect groups. In the following section, five dialects with comprehensive materials available will be cited as representative. These are:

- Ta: Ta-ang dialect called Pu-le spoken in Yunnan (Yan & Zhou, 1995)
- Rm: Ru-mai dialect called Ro-mai spoken in Yunnan (Yan & Zhou, 1995)
- Na: Na-ang dialect spoken in Yunnan (Yan & Zhou, 1995)
- Da: Da-ang or Pale dialect of Kalaw, southern Shan State, Myanmar (Janzen, 1991)
- Dr: Dara-ang dialect of No-Lae, Chiang Mai, Thailand (Rattanapitak, Buakaw, this volume)

Other sources will also be cited when relevant; these include the Ka-ang, Rumai and Ra-ang dialects (Diffloth, 1991) and Luce's Ra-ang dialect (Luce, 1965).

## 2. Discussions of selected phonological changes

Ten phonological criteria will be discussed in this section. Six concern the rime development, one each on final and medial consonants, and two on initial consonants. The PP reconstructed forms are mine. The inventories of consonants and vowels are basically the same as proposed by Mitani (1977).

### 1. \*ɔŋ > \*ɛŋ

		Ta	Rm	Na	Dr	Da
swallow, v.	*mɔŋ	mɔŋ	mɛŋ	mɛaŋ	mɛŋ	mɛaŋ
stair	*ndɔŋ	ndaŋ	nteŋ	nteaŋ	nteŋ	ʔin teŋ
beard	*rmɔŋ	mɔŋ	mɛŋ	mɛaŋ	---	---
back	*krɔŋ	kraŋ	kjɛŋ	---	---	---
hornet	*ʔɔŋ	ʔaŋ	ʔɛŋ	ʔɛaŋ	---	---

This first change applies to all dialects except Ta-ang. Rm /e/~ɛ/ in this context are variants of the same phoneme. Diffloth (1991) records /ɛ/ for all his corresponding Rumai forms. The reflex is typically glided in Na-ang and Da-ang; so is it in Ra-ang (Ra), namely, Ra /gɛaŋ/ 'back'. For the dialects that belong to the Ta-ang group, see Ka-ang /dɔŋ/ 'stair', /krɔŋ/ 'back', /ʔɔŋ/ 'hornet'; none shows the fronting of PP \*ɔŋ.

This fronting of \*ɔŋ > \*ɛŋ may be temporarily taken as part of the primary split criteria between the Ta-ang dialect group and what we may call the Rumai-Darang group, which includes the remaining Palaung dialects such as Rumai, Darang, Da-ang, Na-ang and Dara-ang.

Note that this newly developed Rumai-Darang \*ɛŋ did not merge with the original PP \*ɛŋ. The latter is known to have already diphthongized into \*iaŋ.

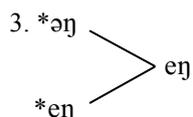
### \*ɛŋ > iaŋ

		Ta	Rm	Na	Dr	Da
drink	*teŋ	diaŋ	(coŋ)	diaŋ	diaŋ	diaŋ
excrement	*ʔɛŋ	ʔiaŋ	ʔiɔŋ	ʔiaŋ	ʔiaŋ	ʔiaŋ

2. \*uŋ > iŋ/ɤŋ

		Ta	Rm	Na	Dr	Da
horn	*nuŋ	nuŋ	nuŋ	nɤŋ	niŋ	nuŋ
drum	*kruŋ	kruŋ	---	grɤŋ	grɪŋ	grək
field	*kuŋ	kuŋ	kuŋ	---	---	---

This de-labialization of \*uŋ > iŋ (or ɤŋ, depending on dialects) also applies only to the Rumai-Darang dialects, and may be added as another innovation that defines the Rumai-Darang group. Ra-ang has -ɤŋ (e.g. /grɤŋ/ 'drum') and thus appears to adopt the same change.

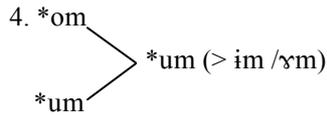


		Ta	Rm	Na	Dr	Da
foot	*ɟəŋ	dʒɤŋ	dʒan	tɕeiŋ	ceŋ	cen
yarn	*səŋ	sɤŋ	san	seiŋ	seŋ	sen
road	*rndeŋ	nteŋ	ndan	nteiŋ	nteŋ	ʔin ten
sky	*pleŋ	pleŋ	plan	bleiŋ	bleŋ	blen

The Rumai-Darang dialects have merged PP \*əŋ with \*eŋ, as can be seen above. Rumai must have first palatalized -ŋ to -ɲ after \*e, then -eŋ > -aŋ > an. The reflex of the representative Ta-ang dialect is somewhat lower, i.e. -ɛ-, but the Nam Hsan dialects recorded by Milne (1931) and Shorto (1960, 1963) show -e- (e.g. /rədeŋ/ 'road', /pleŋ/ 'sky'). The important point is that the Ta-ang group of dialects clearly distinguishes the two rimes while the Rumai-Darang group has merged them.

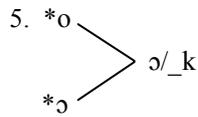
The Ra-ang forms provided by Diffloth (1991) also distinguish these two rimes (cf. Ra /cɤŋ/ 'foot', /sɤŋ/ 'yarn', but /ʔanteŋ/ 'road', /ʔleŋ/ 'sky'). Thus, if this merger of \*əŋ and \*eŋ into \*eŋ is a valid shared innovation that implies subgrouping, Ra-ang must have split off before the Rumai-Darang clade. In fact, since Ra-ang has adopted the preceding change of \*uŋ > ɤŋ, it has merged instead PP rimes \*uŋ and \*əŋ (cf. /grɤŋ/ 'drum' < \*uŋ versus /cɤŋ/ 'foot' < \*əŋ).

Luce's Ra-ang, however, seems to show the merger similar to Rumai and must be a distinct dialect from Diffloth's Ra-ang.



		Ta	Rm	Na	Dr	Da
water	*ʔom	ʔom	ʔɛm	ʔɣm	ʔim	ʔum
below	*k(h)rum	khrum	khjɛm	khɣm	khɣim	khɣum
pus	*kdum	dum	dɛm	tɣm	---	---

PP \*om and \*um have merged, again, in the Rumai-Darang dialects. The vowel was de-labialized into im/ɣm in most dialects, parallel to the change PP \*uŋ > iŋ/ɣŋ. Rumai has further lowered and fronted the vowel to -ɛ-. The Darang dialect of Kengtung, however, still retains the rounded vowel -u- (cf. /um/ 'water', /i-krum/ 'below').



		Ta	Rm	Na	Dr	Da
fox	*brok	broʔ	bjɔk	prɔuʔ	prouʔ	pr <u>o</u>
toad	*rok	---	ɣɔk	rɔuʔ	rouʔ	r <u>o</u>
corner, room	*kdok	doʔ	---	tɔuʔ	touʔ	t <u>o</u>
full	*nɔk	nɔʔ	nɔk	nɔuʔ	nouʔ	n <u>o</u>
cough	*kʔɔk	ka ʔɔʔ	ka ʔɔk	ka ʔɔuʔ	ka ʔouʔ	ka ʔ <u>o</u>

The merger of \*o and \*ɔ has also occurred before \*-h in Na-ang, Da-ang, and Dara-ang (we will hereafter refer to these dialects as the Darang dialect group). Rumai has kept the distinction in this case.

		Ta	Rm	Na	Dr	Da
beard	*moh	moh	---	mɔuh	mouh	mux(?)
flower	*poh	poh	poh	bɔuh	bouh	boux
language	*krɔh	krah	kjah	grɔuh	grouh	groux
taro	*dɔh	dah	dah	tɔuh	touh	toux

6. \*o > ua/\_C [alveolar]

		Ta	Rm	Na	Dr	Da
four	*phon	phon	phon	phuan	phuan	phuan
melon	*klon	klon	klon	gluan	kluan	gluan
knife	*bot	bot	(bo)	puat	puaʔ	pu <u>a</u>
granary	*krol	---	kjo	grua	---	---
barking deer	*pos	poih	---	buah	buah	buax

This change is unique to the Darang dialect group. We may also note that this \*o > ua change must have preceded the change of final \*-s > h. Compare the word 'barking deer' /\*pos/ with flower /\*poh/, we can see that the vowel breaking \*o > ua only applies to the former root, which used to have an alveolar-final rime \*-os.

barking deer	*pos	poih	---	buah	buah	buax
flower	*poh	poh	poh	bΛuh	bouh	boux

7. \*-r > -n

		Ta	Rm	Na	Dr	Da
wind	*khur	khur	khu	khun	khun	---
seven	*pul	pur	pu	bɣu	m bu	ʔim bu
moon	*ker	kiar	kiu	gian	gian	gian
cucumber	*kel	kiar	kiu	gia	gia	gji
lead by hand	*dǎr	dar	dau	tΛn	tǎn	---
mix, stir	*wǎl	var	vau	vΛ	ka və	(ka vΛr)
crawl	*mər	mɣr	mɣ	mɣan	mən	muan
vomit	*həl	hɣr	hɣ	hΛ	həu	həu
wild cat	*sǎr	sǎr	sau	sǎn	---	---
fire	*ŋǎl	ŋal	ŋau	ŋo	ŋo	ŋΛu
field	*mar	mar	me	man	man	man
seed	*mal	mar	me	ma	---	---

This change is also a shared innovation among the Darang dialects. From the preceding examples, we can see that Ta-ang and Rumi dialects have merged PP finals \*-r and \*-l. Ta-ang has /-r/ for both while Rumi has /-u/, which becomes lost

after certain vowels. Without evidence from the Darang dialect group, all the listed words would have been reconstructed with final \*-r. Such pairs as 'moon' /\*kɛr/ and 'cucumber' /\*kɛl/ or 'field' /\*mar/ and 'seed' /\*mal/ would be indistinguishable.

The Darang dialects in fact do not preserve any liquid endings in their present system. However, the change \*-r > -n in these dialects has created distinct correspondence sets that make the reconstruction of \*-r and \*-l possible.

8. \* -r- > -j-

		Ta	Rm	Na	Dr	Da
old, ancient	*prim	prim	pjim	brim	---	---
sour	*braŋ	braŋ	bjaŋ	praŋ	praŋ	praŋ
crab	*kres	kriaih	kjuh	griah	gliah	griax
below	*khrum	khrum	khjəm	khɾɿm	khɾim	khrum
knee	*groŋ	---	gjoŋ	krəŋ	kroŋ	krəŋ

This is the change so far found only in the Rumai dialects and may be used as a diagnostic test for the unity of the Rumai group.

9. C (alveolar) > C (alveo-palatal)/\_ia < \*-ɛ-

Another development that seems to be an innovation within Rumai is the palatalization of alveolar initials before -ia- < \*-ɛ-. The velar nasal seems to be also palatalized in this same environment, but not k- (cf. 'moon' kiw < \*kɛr).

		Ta	Rm	Na	Dr	Da
flea	*tɛr	tiar	tʃu	dian	---	---
small	*det	diat	dʒiʔ	tet	tɛʔ	teat
ginger	*sɛŋ	siaŋ	ʃoŋ	siaŋ	siaŋ	siaŋ
green	*ŋɛr	---	ŋiw	ŋian	ŋian	ŋian

10. PP \*p-, t-, c-, k- > \*b-, d-, j-, g-  
 PP \*b-, d-, j-, g- > \*p-, t-, c-, k-

		Ta	Rm	Na	Dr	Da
seven	*pul	pur	pu	bɣu	m bu	ʔim bu
nine	*tim	tim	tim	dim	n dim	ʔin dim
deer	*cak	tɕaʔ	tʃaʔ	dʒaʔ	ʃăʔ	zɿʔ
moon	*kɛr	kiar	kiu	gian	gian	gian
bamboo shoot	*bǎŋ	bǎŋ	bǎŋ	pɔŋ	pɔŋ	pɔaŋ
taro	*dɔh	dah	dah	tɿuh	touh	toux
foot	*jəŋ	dʒɤŋ	dʒan	tɕeiŋ	ceŋ	cen
old, aged	*gǎt	gǎt	gǎʔ	kǎt	kǎt	kɿt

These changes of stop initial consonants, which occur in a Darang dialect, apparently caught anyone's eye and have been noted very early in the history of Palaung studies (cf. Shafer 1952). It appears that they apply to all dialects of the Darang group. The relative chronology of the changes must have been as follows:

1. PP voiceless stops > implosives      PP \*p-, t-, c-, k- > \*ɓ-, ɗ-, ʃ-, ɠ-
2. PP voiced stops > voiceless stops      PP \*b-, d-, j-, g- > p-, t-, c-, k-
3. Implosives (from 1) > voiced stops      \*ɓ-, ɗ-, ʃ-, ɠ- > b-, d-, j-, g-

Diffloth (1991) has also suggested this line of development and noted that some dialects are in the midst of the changes. The situation may be demonstrated as follows (Diffloth did not mention the palatal stops (\*c- and \*j-), but examples he provided for Ka-ang and Ra-ang reveal the pattern as shown here for \*j-):

PP	*p-, t-, c-, k-	*b-, d-, j-, g-
Ta-ang, Rumai	p-, t-, c-, k-	b-, d-, j-, g-
Ka-ang	ɓ-, ɗ-, (c-?), k-	b-, d-, j-, g-
Ra-ang (Diffloth's)	ɓ-, ɗ-, (?), g-	p-, t-, c-, k-
Darang dialects	b-, d-, j-, g-	p-, t-, c-, k-

Luce's Ra-ang shows a pattern similar to Ka-ang, but the implosivization of \*p-, \*t- > \*ɓ-, \*ɗ- applied conditionally in this dialect. Typically they are not implosivized when occurring in clusters such as \*pl-, \*pr-, \*kl-, \*kr-. As a single

initial, they seem to have developed into implosives only when the rimes end with a vowel or -h (< \*-h/\*-s). This does not include the vowel-ending rime that have resulted from the loss of early liquid finals \*-r and \*-l.

In the Darang dialect recorded in Scott and Hardiman (1900), there are variants of initials d-, l-, and n- for PP \*t- in some words. These variants may suggest that Darang (\*t>) d- used to be implosive d̥-. Such variations of d̥~l~n- are known to have occurred in Shan dialects in the words whose initial would go back to Proto-Tai preglottalized stop \*ʔd̥-.

The situation is thus more complicated than what it first looks like. Though the Darang group of dialects mostly show the complete changes of initial voicing property, what we may note from Darang of Kengtung seems to suggest the early system that included implosive stops similar to that of Diffloth's Ra-ang. The Ka-ang dialect, which is otherwise more closely related to Ta-ang, also adopted the implosivization - the change that does not occur in the Ta-ang proper. Luce's Ra-ang, on the other hand, adopted similar change to Ka-ang (with its own conditioned details), and is different from Diffloth's Ra-ang.

The dividing line is not always clear. The changes, especially the implosivization of early voiceless stops, seem to constitute a continuum of ongoing processes which could have occurred independently in each dialect and may be better taken as an areal or a parallel development. Such initial shift, therefore, may not be an ideal criterion for subgrouping purposes, though coupled with other criteria it may be still useful to a certain extent.

### **3. A tentative subgrouping of Palaung dialects**

The changes discussed in the preceding section may be summarized with respect to the dialect groups and their phonological innovations as shown in Table 1.

Table 1. Phonological innovations and Palaung dialect groups

Phonological changes	Dialect groups
1. *ɔŋ > *ɛŋ	Rumai-Darang innovation
2. *uŋ > iŋ/ɣŋ	Rumai-Darang innovation
3. *əŋ <div style="display: inline-block; vertical-align: middle;"> <math>\begin{array}{l} \diagup \\ \text{*eŋ} \end{array}</math> <math>\begin{array}{l} \diagdown \\ \text{eŋ} \end{array}</math> </div>	Rumai-Darang innovation
4. *om <div style="display: inline-block; vertical-align: middle;"> <math>\begin{array}{l} \diagup \\ \text{*um} \end{array}</math> <math>\begin{array}{l} \diagdown \\ \text{*um (&gt; im /ɣm)} \end{array}</math> </div>	Rumai-Darang innovation
5. *o <div style="display: inline-block; vertical-align: middle;"> <math>\begin{array}{l} \diagup \\ \text{*ɔ} \end{array}</math> <math>\begin{array}{l} \diagdown \\ \text{ɔ/_k} \end{array}</math> </div>	Rumai-Darang innovation
6. *o > ua/_C [alveolar]	Darang group innovation
7. *-r > -n	Darang group innovation
8. *-r- > -j-	Rumai innovation
9. C (alveolar) > C (alveo-palatal)/_ia < *-ɛ-	Rumai innovation
10. PP *p-, t-, c-, k- > *b-, d-, ʃ-, g- PP *b-, d-, ʃ-, g- > *p-, t-, c-, k-	Darang group innovation?

The Rumai and Darang dialects thus appear to share a number of rime innovations (Changes 1-5) that we may first separate them from the Ta-ang group of dialects. This is the first time that Rumai is shown to be closer to the Darang group of dialects. In previous studies on Palaung, the Ta-ang, Rumai, and Darang groups are usually put on the same par.

The unity of the Darang dialects (Na-ang, Da-ang, Darang, Dara-ang) is confirmed by several shared developments in vowels, final and initial consonants (Rules 6, 7, and perhaps 10). And all the known Rumai dialects seem to adopt Changes 8 and 9. The scheme reached by these rules is shown in Figure 1.

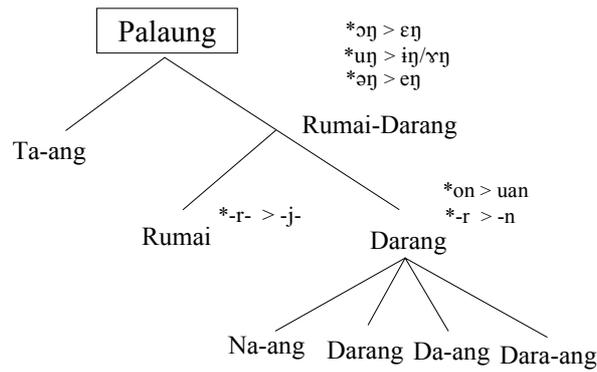


Figure 1. A tentative classification of Palaung dialect

The position of Diffloth's Ra-ang remains uncertain due to the lack of relevant data. Only limited forms with velar nasal ending are available, thus only certain rules are applicable. Nevertheless, we may make the following comments. Ra-ang has adopted Changes 1 and 2 but not Change 3. This suggests that Ra-ang may have been among the common group distinguished from Ta-ang by the first two rules (we may assign to this a Ra-ang-Rumai node), but does not belong to the Rumai-Darang group because of its failure to adopt the third change. If this assumption is true, Ra-ang may be added to the scheme as shown in Figure 2.

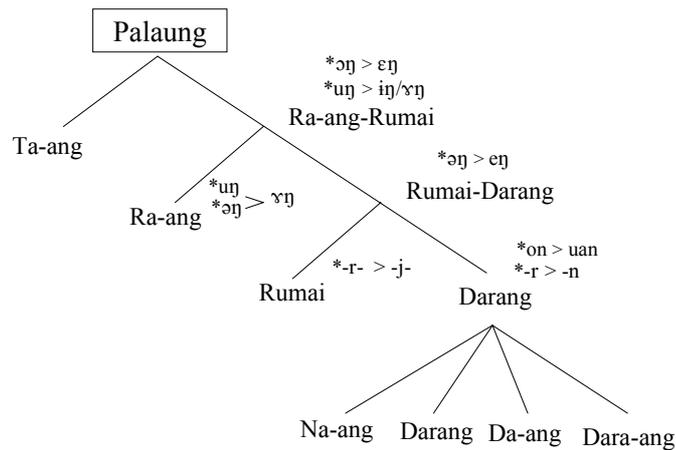


Figure 2. A tentative classification of Palaung dialect, with Ra-ang added (1)

On the other hand, if we take the changes of stop initials (Rule 10) as more crucial, Ra-ang may then have to be put closer to the Darang group (Figure 3). In this case, we will have to assume that the merger of \*əŋ and \*eŋ into \*eŋ (Change 3) shared between Rumai and the Darang group is an areal or a parallel development.

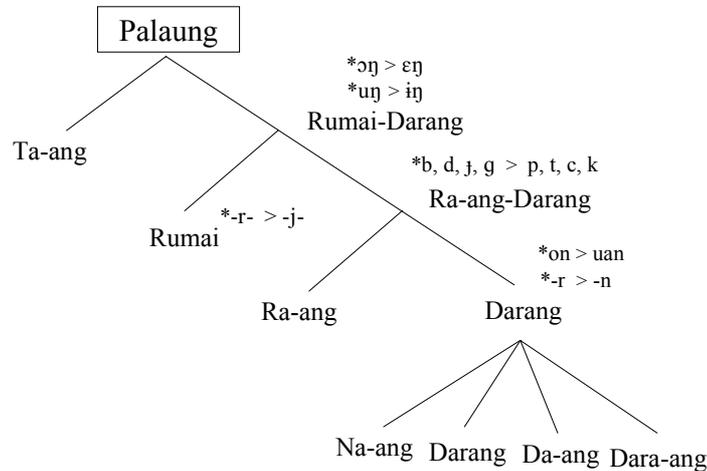
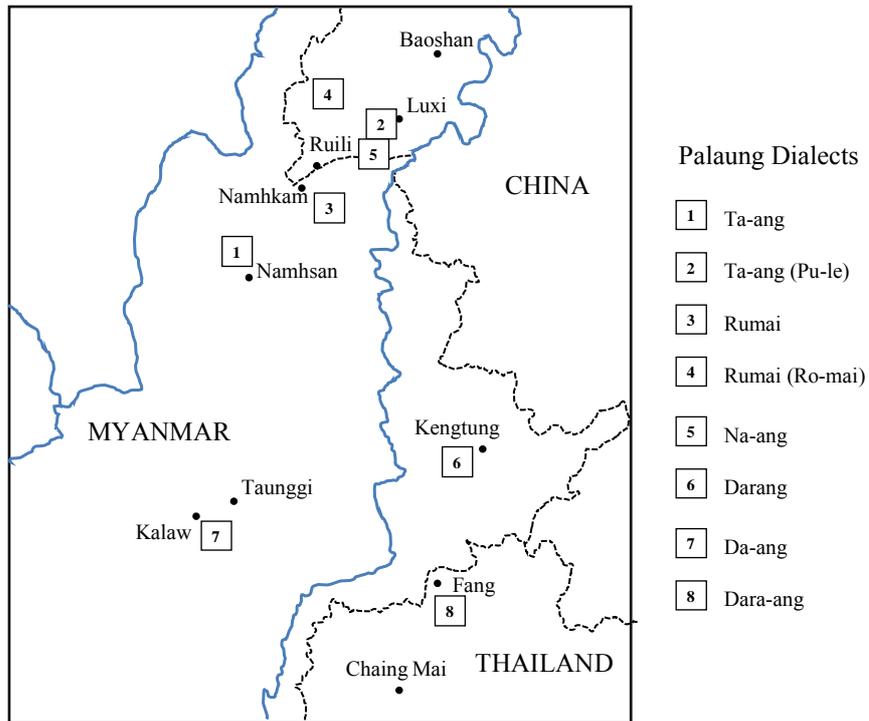


Figure 3. A tentative classification of Palaung dialect, with Ra-ang added (2)

The geographical distribution of the dialect groups we propose seems to suggest that the center of the greatest diversity be in the northern Shan State areas, west of the Salween River. The Rumai group appears to cluster around Nam-Kham, extending north into Yunnan, with Ta-ang being found nearby but mainly further downstream. Despite their linguistic closeness, the Darang dialects are geographically most diverse, with Na-ang in the north in Yunnan, Darang in Kengtung, Da-ang in Kalaw of Shan States, Myanmar, and Dara-ang in Chiangmai, northern Thailand. It is possible that the original center of the common Darang group might be in the areas of current Na-ang settlement, with later migrations mainly following the Salween River southward. The Dara-ang of Thailand now marks the southernmost Palaung settlement.



Map 1. Geographical distribution of Palaung dialects

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