

Common Tai and Archaic Chinese

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1. A number of scholars have discussed the problem of whether there is any relationship between the Thai and Chinese languages¹. Among them, K. Wulff has carried out the most comprehensive research. In his *Chinesisch und Tai*², Wulff first made detailed comparative studies of Tai dialects, and then comparing them with Karlgren's reconstructed form of Ancient Chinese. This work, while an excellent and enduring one, fails to establish regularities of phonemic correspondence between the two languages. The Thai and Chinese languages are very close to each other not only in phonemic inventory and syllabic pattern, but also in syntax, and show one-to-one correlations. Nevertheless it is not easy to find systematic correspondences between individual phonemes and morphemes of the two languages. Therefore, it is quite natural to pose the question of which family the Thai language should be said to belong to³.

2. It was previously proposed that the Sino-Tibetan language family, including Thai, should be brought into the Indonesian language family, and the whole incorporated into a larger group of languages.⁴ In his *Über das Verhältnis des Malayo-Polynesischen zum Indochinesischen*, Wulff again took up the question of the relationship between these two families. But this attempt, which proposed the existence of formal similarity between Thai and Indonesian, and the probability of certain co-relationships between them, can be endorsed only when further concrete comparisons have been made. In the same year, Paul Benedict suggested a new language family, "Kadai", which would consist of the following languages: Laqua and Lati in the Tonkin plateau, Kelao in southern China and Li in Hainan, whose proper placement in language families was so far unknown.⁵ By using Kadai, he tried to relate Thai to Proto-Indonesian.⁶ Benedict has summarized his assertion under the following headings:

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1. R. Shafer 1957: 163-166, 190-193.
2. K. Wulff 1934.
3. Among the articles treating this subject are: Hsing Kung-wan 1955a 1955b, Chang Kung-chin 1958.
4. Conrady, A. Eine merkwürdige Beziehung zwischen den austrischen und den indochinesischen Sprachen, *Kuhn Festschrift* (Munich, 1916: 475-504) *Neue austrisch-indochinesische Parallelen, Hirth Anniversary Vol.* (26-66).
5. P. K. Benedict 1942.
6. Haudricourt, independently of Benedict's research, compared the fourteen words of Lati, Laqua, Kelao and Dai (=Li) with the Common Tai which he himself had deduced, concluding that these languages had primitive forms before the Thai language suffered changes under the influence of Chinese and Khmer. Haudricourt 1948.

1. The true Indonesian substratum on the Asiatic mainland is represented by four scattered languages in southern China, northern Tonkin, and Hainan, all of which constitute a single linguistic stock (Kadai).

2. The recognition of the Kadai stock, which shows numerous points of contact with Thai, opens the way to a new interpretation of the latter as a more distant member of an archaic Thai-Kadai-Indonesian linguistic complex.

Despite his valuable research and its originality, which has drawn many anthropologists and linguists to accept his theory, Benedict fails to prove adequately the existence of his Kadai linguistic family.⁷

Besides larger linguistic groups with individual characteristics, such as Thai, Chinese, Burmese and Tibetan, there exist in Asia many languages which exhibit intermediary traits of several language groups but which cannot clearly be assigned to one. Most of these languages have not been investigated in detail. Benedict, using the restricted documents so far published, gave the name "Kadai" collectively to the four languages sharing Thai and Indonesian characteristics. Before recognizing these languages as one language family, however, further investigation should be made of languages which have similar traits. At the same time, their relationships to the Mak-Sui-Kam and Chuang language groups should be borne in mind. Also calling for further thorough study is the basis of Wulff and Benedict's argument that an Indonesian lexical layer should exist in the Thai language, whether their common elements be genealogical or borrowed. In any case, this possibility cannot be discarded prior to investigation.

3. On the relationship between the Thai and Chinese languages, A.-G. Haudricourt states as follows:⁸

On voit, d'après cette reconstitution des phonèmes de la langue commune, combien le thai est éloigné du chinois. Seul coïncide le système des consonnes finales et des tons; les voyelles et les initiales sont profondément différentes. Les mots de la langue commune incontestablement proches de mots chinois sont les noms de nombres, des techniques militaires (cheval, selle, éléphant, jouguet) et des techniques artisanales (métier à tisser, ouvrier, papier), bref un vocabulaire de civilisation susceptible d'emprunt. Au contraire le nom des parties du corps et le vocabulaire agricole ont peu d'affinité avec le vocabulaire chinois correspondant.

Now, is it proper to infer from this that these two languages belong to completely different families, or that, though belonging to the same family, they are both in rather remote kinship and that words showing structural similarity are Chinese loan words in Thai? Though I cannot present a definite answer to such a broad problem, I should like to discuss an aspect of this problem.

4. To begin with, the question to be proposed is whether it can be concluded, as

7. For example, J. H. Greenberg, *Historical Linguistics and unwritten Languages* (Kroeber, *Anthropology Today*, Chicago 1953).

8. Haudricourt 1948: 235-6.

Haudricourt does, that Thai vocabulary indicating parts of the body is derived from stems or roots other than Chinese. Choosing thirty words at random, let us examine the word forms of the two languages.⁹

	Common Tai	Archaic Chinese		Ancient Chinese
'head'	hrəu H1	śiōg	>	śiəu 首
'hair'	phrom H1	pīwăt	>	pīwət 髮
'ear'	hruu H1	ńiəg	>	ńízi 耳
'nose'	dang H1	bhīəd	>	bhji 鼻
'eye'	taa M1	mīōk	>	mīuk 目
'mouth'	paak, suup	khu	>	khəu 口
'tooth'	qhīəu H3, van L1	ťhiəg	>	tśhi 齒
'tongue'	lin L3	đhiat	>	dźhiät 舌
'face'	hnaa H3	ngan	>	ngan 顏
'neck'	Gəə L1	kǐəng	>	kǐäng 頸
'chin'	gaang L1	gǐəg	>	i 頤
'cheek'	kɛəm M3	kiap	>	kiep 頰
'hand'	mī L1	śiōg	>	śiəu 手
'finger'	niu L3	ťiər	>	tśi 指
'elbow'	səək	tīog	>	ťiəu 肘
'leg'	qha H1	kīak	>	kīak 脚
'knee'	khɛəng H3	ghieng	>	rieng 脛
'body'	ton M1	śiěn	>	śiěn 身
'waist'	'ew M1	'iəg	>	'iäu 腰
'shoulder'	Baa M2	kian	>	kien 肩
'belly'	puum M1	pīōk	>	pīuk 腹
'liver'	tap	kân	>	kân 肝
'heart'	caī M1	sīəm	>	sīəm 心
'lungs'	pəət	phīwăd	>	phīwəi 肺
'stomach'	dəəng L3	giwəd	>	jwɛi 胃
'flesh'	nīə L3	ńiōk	>	ńíziuk 肉
'blood'	liət	xiwet	>	xiwet 血
'muscle'	ŋen M1	kīən	>	kīən 筋
'skin'	phiu H1	plīwo	>	pīu 膚
'navel'	sai-Brii M1	dzhiər	>	dzhiēi 臍

Clearly, the words 'eye', 'nose', 'mouth', 'shoulder', and 'liver' are very different in form, while some of the other words show striking formal similarities, among which are 'waist', 'knee', 'lungs', 'muscle', 'skin' and 'navel'. These words

9. Below I will use Karlgren's reconstructed forms for Archaic and Ancient Chinese as in his *Grammata Serica Recensa*, Stockholm 1957, with the exception of the aspiration which will be denoted by 'h' instead of '. The Common Tai forms cited here are quoted from my own personal notes and other unpublished papers. Cf. T. Nishida 1954, 1955.

may possibly be loan words as well as cognate words derived from the same stem. We must inquire, therefore, whether there are other words which show formal similarity of the type illustrated by the above examples. What concerns us in particular is the correspondence between vowels and finals, such as: the correspondence of 'waist'—Common Tai -ew: Chinese -iɔŋ>-iäu (hence abbreviated C. T. and Ch. respectively) is paralleled by 'cat'—C. T. mew L1: Ch. 貓 mɨɔŋ>mɨäu, and 'to finish'—C. T. lew L3: Ch. 了 lɨɔŋ(?)>lɨäu. Similarly, 'knee'—C. T. -ɛɛŋ: Ch. -iɛŋ>-iǎŋ is paralleled by 'hard'—C. T. khɛɛŋ H1: Ch. 勁 kiɛŋ>kǎŋ, and 'powder'—C. T. pɛɛŋ M1: Ch. 餅 piɛŋ(?)>piǎŋ: 'navel'—C. T. -ai: Ch. -ieg>-iei, -iər>-iei by 'fowl'—C. T. kai M2: Ch. 雞 kieŋ>kiei, 'ladder'—C. T. ʔdai M1: Ch. 梯 thiər>thiei, and 'to till'—C. T. thai H1: Ch. 犁 liər>liei. On the contrary we cannot find examples which parallel 'lungs'—C. T. -ɔɔt: Ch. -iɰwǎd>-iɰwɨ¹⁰, 'muscle'—C. T. -en: Ch. -iǎn>-iǎn, and 'skin' C. T. -iu: Ch. -iwo>-iɰ.¹¹ As a result of this we cannot but hesitate to treat these three words as loan words from Chinese. Besides the above-cited seven words, the five words: 'hair,' 'cheek,' 'belly,' 'leg' and 'flesh' bear formal resemblances between the two languages and, therefore, may possibly be cognate words. Out of these five examples, in the first three and the last two respectively there are similar correspondences. In 'hair,' 'cheek' and 'belly,' the Tai final nasal consonants correlate with Chinese stops, i.e. -m: -t, -m: -p, -m: -k. Other examples of this correspondence can be found: -n: -t 'to eat'—C. T. kin M1 (T.M.C. *krin): Ch. 吃 kiət>kjət; -n: -k 'stone'—C. T. hrin H1: Ch. 石 ɬiǎk>ʒiǎk; and -ng: -k 'force'—C. T. rɛɛŋ L1: Ch. 力 liǎk>liǎk. On the contrary, a Tai final stop sometimes corresponds to a Chinese final nasal; i. e. 'scale (fish)'—C. T. klet: Ch. 鱗 liɛn>liɛn, and 'whip'—C. T. vaat: Ch. 鞭 piǎn>piǎn. These final consonants, whose function cannot be clarified, may be regarded as a sort of suffix. We can explain that 'hair' has *phrwa~prwa(?) as its common form, suffix -m being suffixed in Tai and suffix -t in Chinese. Similarly it can be inferred that 'cheek' consists of the common root *kɛɛ- and suffix -m (Tai) or -t (Chinese); 'belly' of root *pu- or *pju- and suffix -m (Tai) or -k (Chinese); 'to eat' of root *kia- and suffix -n (Tai) or -t (Chinese); 'scale' of root *kle- and suffix -t (Tai) or -n (Chinese) and 'whip' of root baa- and suffix -t (Tai) or -n (Chinese).

On the other hand, the last two examples 'leg' and 'flesh' have this kind of suffix only in Chinese, and not in Tai. As for 'leg,' the Tai form qha H1 is identical with the common root, the Chinese form kɨak being suffixed by -k. Likewise, 'flesh,' whose root is almost equal to Tai nɨə L3, is suffixed by -k, forming Chinese níòk. On the contrary, in the following examples, only the Tai words retain suffixes -m, -ng and the Chinese forms have no suffix.

10. 'To take off' Ch. 脱 thwât—thuât: C. T. thoət is close to this.

11. For the other Tai forms corresponding to Ancient Chinese 虞韻 yu rhyme, see p. 8 and footnote 18 of this paper.

'ditch'	C. T. khum H1	:	Ch. 溝 ku	>	kəu	:	*khu-
'bitter'	C. T. khom H1	:	Ch. 苦 kho	>	khuo	:	*kho-
'drum'	C. T. klɔŋ M1	:	Ch. 鼓 ko	>	kuo	:	*klɔɔ-
'belly'	C. T. dɔŋ L3	:	Ch. 肚 dho (?)	>	dhuo	:	*dɔɔ-

In addition to the examples cited thus far, we can show more examples in which Tai words denoting parts of the body, in spite of the apparent lack of formal resemblance to the Chinese equivalents, may probably have common stems or roots. Let us take 'blood' as an example. The Tai *liət* and the Chinese *xiwet* have apparently no formal relation. But here we cannot completely deny the probability that these two forms are derived from the same *q^whliət.¹² Just as we cannot deny that Tai *khem* H1 ('needle') and Chinese 針 *t̪iəm* > *t̪s̪iəm* have a common stem, we cannot assert that *qh̃iəu* H3 ('tooth') has no relation at all with Chinese 齒 *t̪h̃iəg* > *t̪shi*. Again, Tai *mī* L1 ('hand') is formally very remote from Chinese 手 *ʃ̃iŋ* > *ʃ̃iəu*, but we may safely assume a correlation between *m-* (Tai) and *z-* (Chinese) in these two words.

'time'	C. T. mīə L2	:	Ch. 時 d̪iəg	>	ʒi	md- (?)
'tree'	C. T. mai L3	:	Ch. 樹 d̪i	>	ʒiwo	md- (?) ¹³

These paralleled correspondences can not be entirely accidental. We must try to detect regular or systematic correspondences underlying the apparent irregularities between the two languages. In my opinion, out of the above-cited thirty words for body parts, some sixty percent may share common stems or roots. 5. In some cases the Tai form *abc* corresponds to the Chinese form *a'b'c'* when aligned with the Ancient Chinese rhyme divisions. For instance, Common Tai *aa* corresponds to the Ancient Chinese 果攝 *kuo* group Div. II 麻韻 *ma* yün.

'horse'	馬 mǎ	>	ma	:	maa L3
'tusk'	牙 ngǎ	>	nga	:	ngaa L1 ¹⁴
'value'	價 kǎ	>	ka	:	gaa L2
'tea'	茶 dhǎ	>	d̪ha	:	ʒaa L1

-ien and -ɛn correspond to 山攝 *shan* group Div. III 仙韻 (*siən* rhyme) and Div. IV 先韻 (*hiən* rhyme) respectively:

Div. III	'to be connected'	連 l̪ian	>	l̪iän	:	lien L1
	'to change'	變 pl̪ian	>	p̪iän	:	plien M2
	'to cut'	剪 ts̪ian	>	ts̪iän	:	cien M1

12. To this correspond Mak phjaat and Sui phjat, so I infer Labio-Vélaire *q^wh- as a common initial phoneme. See T. Nishida 1955: 34.

13. Apart from this *mth-* can be supposed for 'hand.' From the common forms *md-, *mth-, the shift into Tai and Chinese resembles that of *mth-, *md- in Tibeto-Burmese. *mdugs 'time', *mdong 'tree.'

14. To 'horse' correlate 'to ride' Ch. 騎 *ghia* > *ghjic* C. T. *khii* H1, *kh'ii* H1 and 'saddle' Ch. 鞍 *an* > *an*: C. T. *aan*, and to 'tusk' correlates 'elephant' Ch. 象 *dziang* > *zjang*: C. T. *jaang* L3.

Div. IV	'hard'	堅	kien	>	kien	:	kɛɛn M2
	'flat'	片	phian	>	phien	:	phɛɛn H2

In comparison with the vocabulary for parts of the body these examples have definite similarity and most of the Tai words coincide with the Ancient Chinese forms. Hence the strong possibility that these words were borrowed from Chinese into Tai, especially about the time when Ancient Chinese was current. Nevertheless there are no firm grounds to maintain this.

6. I have so far cited several examples which share the same roots or stems, but I do not think that examples of this kind can be increased so as to enable us to prove the relationship between the two languages. Intervention of various factors makes it hard to prove their kinship. At the same time, however, it should be emphasized that this research contains another significance. That is to say, firstly, as a result of comparing the two languages, the Tai form, be it a loan word or not, gives grounds to revise and modify the reconstructed form of Archaic Chinese, and then, Archaic Chinese forms present a foundation on which to construct the earlier stage of Common Tai.

7. To begin with, let us discuss the first matter. Under Div. I 歌韻 *ko* rhyme corresponding to the above-mentioned 果攝 *kuo* group Div. II 麻韻 *ma* rhyme come the following examples

'left'	Ch. 左	tsâ	>	tsâ	:	zaai L3	<	draai
'song'	Ch. 歌	kâ	>	kâ	:	gaai L1		
'that'	Ch. 那	nâr	>	nâ	:	naai L3		
'fire'	Ch. 火	xwâr	>	xwâ ¹⁵	:	vai L1	<	vaai?

The vowels of the four words, all belonging to *ko* rhyme in the Ancient Chinese, can be supposed to be *â*, but in the Archaic Chinese 'left' and 'song' belong to Class 35 (according to Karlgren's classification), while 'fire' and 'that' to Class 8. We take the former to be *â* and the latter *âr*. The assumption of *âr* in the latter is based upon the fact that in Shī king rhyme and Hie shêng characters the words of this group come into contact with the words of *-n* class and *-r* class. *xwâr* rhymes with *·jər* (Shī king 154) and *dhjər* (212), and 'that' rhymes with *gân*, *xjăn* and *ńjan* (215). As opposed to this, Class 35 has no relation with the class which has a final consonant. The assumed *-âr* in 'fire' and 'that' can be well supported by the fact that Tai *aai* corresponds to it. But also for the words in Class 35, at least, for 'left' and 'song', we may properly assume **-âr* as a result of the comparison with the Tai equivalents, though we have no direct support for this in Archaic Chinese documents. From the viewpoint of comparative linguistics, we would like to make up for the defect that the reconstruction of Archaic Chinese is only based upon Shī king and Hie shêng characters.

15. This Archaic Chinese form can be traced back to **xvar* or **xbar* < *sbar* (?). And Kachin *wân* 'fire' corresponds to this **xvar* or **xbar*.

Now, to discuss the second problem, let us begin with the following three words

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|-----------------|-----------------------|--------------|
| 1. 'nine' | Ch. 九 kǐŭg > kǐəu : | T. C. kau M3 |
| 2. 'old' | Ch. 舊 ghǐŭg > ghǐəu : | T. C. kau M2 |
| 3. 'to scratch' | Ch. 搔 sôg > sâu : | T. C. kau M1 |

These three basic words are, almost without doubt, derived from the same stems. We can give several examples which fall under the correspondences of Ancient Chinese k- (見母 *kien*): Common Tai k-; An. Ch. gh- (群母 *kün*): C. T. k-; and An. Ch. s- (心母 *sin*): C. T. k-. They are 'wide'—Ch. 廣 kwang: C. T. kwaang M3, 'to grow old'—Ch. 耆 ghji: C. T. kɛɛ M2, 'before'—Ch. 先 sien > siən: C. T. kɔn M2, etc. The vowel correspondence of Ancient Chinese ɐu (尤韻 *you* rhyme): C. T. au can be perceived not only in 'nine' and 'old', but also in 'pigeon'—Ch. 鳩 khǐəu: C. T. khau H1 and 'mountain'—Ch. 丘 khǐəu: C. T. khau H1. Besides 'to scratch', there are 'early'—Ch. 早 tsâu: C. T. ɲau L3 and 'liquor'—Ch. 醪 lâu: C. T. hlau H3 > *khlaɯ, which are in the correspondence of Ancient Chinese ǎu (豪韻 *hao* rhyme): Common Tai -au.

We may safely suppose that the above-mentioned correspondences of the three words show firstly that Common Tai k- has three origins, and secondly that Common Tai -au has two origins.

In my paper treating the comparative study of the Common Tai and the Mak and Sui languages, I assumed that Common Tai k- is derived from *k- and *kr-¹⁶. The *k- and *kr- show the following correspondences:

1. *k- (a) C. T. k- : Mak k- : Sui q-
e.g. 'fowl'—*kai, 'old'—*kau, 'before'—*kɔn
(b) C. T. k- : Mak ɬ- : Sui tš-
e.g. 'nine'—*kau, 'to grow old'—*kɛɛ, 'to collect'—*kep
2. *kr- C. T. k- : Mak s- : Sui ts-
e.g. 'to eat'—*krin, 'straw sandals'—*krĭək

Further comparison of these words with Chinese permit us to infer *k- in 'nine' and 'fowl', *g- in 'old' and 'to grow old', *kj- in 'before' and *kr- in 'to eat'. As for the correspondence Ch. s-: C. T. k-, we infer the transitions 'before' *kjon > kjən > siən 先, and 'each other' *kjang > sɿang 相 (C. T. kan). Here we cannot explain under what conditions the *g- of 'old' and 'to grow old', which was deduced from the comparison of Common Tai *g- (a phoneme presumed to exist in the Mak and Sui languages) with Chinese, later split up into g- and k-. In the paper already referred to, I inferred three kinds of *-au from Common Tai -au and the corresponding Mak and Sui forms, representing them by -au₁ -au₂ and -au₃.

1. -au₁ C. T. -au : Mak -au : Sui -ǎu

16. T. Nishida 1955: 36-37.

- e.g. 'to howl'—*hau, 'light (not heavy)'—*bau, 'master'—*cau
2. -au₂ C. T. -au : Mak -aau : Sui -au
e.g. 'to take'—*au, 'horns'—*qhau, 'pillar'—*sau, 'old', 'liquor'
3. -au₃ C. T. -au : Mak -u : Sui -u
e.g. 'nine'

When these words are compared with Archaic Chinese three kinds of correspondence in Common Tai -au can be found, regardless of the related Mak -au, -aau, -əu.¹⁷

1. a) C. T. -au : Archaic Chinese -ŭk, -uk
C. T. khau 'rice' : Ch. 穀 kuk > kuk
khau 'horns' : Ch. 角 kŭk > kāk
'au 'to hold' : Ch. 握 ŭk > 'āk
- b) C. T. -au : Archaic Chinese -jŭg
above-cited 'nine', 'old', 'pigeon', 'mountain'
2. C. T. -au : Archaic Chinese -ôg
above-cited 'early', 'to scratch', 'liquor',
'to howl' C. T. hau < khrau (?) : Ch. 叫 kiôg > kieu
3. C. T. -au : Archaic Chinese -jŭ¹⁸
C. T. sau 'pillar' : Ch. 柱 dhjŭ > dhjŭ
C. T. cau master' : Ch. 主 tŭjŭ > tŭjŭ

The final stem form of the words belonging to the correspondence 1. a) was -ŭk or -uk in Archaic Chinese, while in Proto-Tai it was -ug, e.g. Proto-Tai 'rice' *kug, 'horns' *khug, 'to hold' *ug. From this we can infer that there was no difference between the final form of Proto-Tai in 1. a) and that in 1. b).

Ancient Chinese 虞韻 *yu* rhyme (-jŭ) is divided into two Archaic Chinese forms -jŭg (Class 31) and -jŭ (Class 34) according to whether it comes into contact with -uk, -ok or not in Shī King rhymes and Hie Shêng characters. The 'master' and 'pillar' which fit under 3 above have no contact with the rhymes of -uk or -ôg class; hence we can infer that they are Archaic Chinese tŭjŭ and dhjŭ. Taking into consideration the result of the comparison with Common Tai, however, it seems more suitable to put the two words under -jŭg class (Class 31), in parallel with the above-stated 1.a.) and 1.b.). At least *cjŭg and *sjŭg must be accepted as their Proto-Tai equivalents. In other words, as in 1.b), opposed to 1.a), these forms are the stem belongs to Div. III rhyme.

What is of greater interest is the vocabulary with correspondence in 2) above.

17. On the development of final stops, the forms of Tushan and Sek dialects are very suggestive. Li 1971, Gedney 1970, Haudricourt 1963.
18. Besides this, for 虞 *yu* rhyme, there are examples which correspond to Common Tai -ɔɔ. 'Father'—Ch. 父 bhjwo > bhjŭ: C. T. ɔɔ L2; 'magician'—Ch. 巫 mjwo > mjŭ: C. T. hmɔɔ H1. Hence it can be said that this dichotomy in Archaic Chinese is correct in view of the corresponding of Thai. These two examples agree with the Archaic Chinese forms, while the above example 'skin' coincides with Ancient Chinese form.

These words appear to possess the stem form of Div. I rhyme, but in fact, in parallel with 'to cry' *kiôg*, they were the forms which should be classified under Div. III rhyme with medials -l-, -r- of -lôg, -rôg. 'Liquor' was originally **khîôg*, as compared with its Tai equivalent **khîau*. 'to cry' *kiôg* was derived from **krôg*, and 'to scratch' *sôg* from **khjôg*. 'Early' *tsôg* is assumed to have been originally **drôg* or **trôg* by the analogy of 'left' *tsâ*: Tai *zaai* < *dzaai* < *draai*. Karlgren invested the main vowel *ô* of *ôg* in those words with the force of closed *o* near *u*¹⁹. Therefore it can be assumed that the main vowel of the Ancient Chinese forms corresponding to the Tai -au was *u*. But this main vowel -*u*- does not correspond to -*u* of the Tai -au. The latter -*u* can be regarded as the form derived from final -*g*. It can be assumed that the main vowel *u* was changed through *ə* into *a*. This shift is paralleled with the transition from Archaic to Ancient Chinese.

'rice'	* <i>khug</i>	>	<i>khəu</i>	>	<i>khou</i>
'master'	* <i>ciug</i>	>	<i>ciəu</i>	>	<i>cau</i>
'to scratch'	* <i>khjug</i>	>	<i>khjəu</i>	>	<i>kau</i>
'liquor'	* <i>khlug</i>	>	<i>khləu</i>	>	<i>khîau</i>

8. These words correspond to the Archaic Chinese forms rather than the Ancient Chinese ones. Hence there is less probability that these words were borrowed into Tai from Chinese. Nevertheless, even words with these conditions may have been borrowed Chinese words. It can thus be inferred from the following fact. It is almost certain that the series of words indicating terms of the twelve-year cycle were borrowed from Chinese, among which are:²⁰

Archaic Chinese	Ancient Chinese	Pa-po	Ahom	Tai-lü
'ox' 丑 <i>thnîôg</i>	> <i>thîəu</i>	<i>pao</i>	<i>plāo</i>	<i>pau</i> ₃ < <i>plau</i> < * <i>thlau</i> (?)
'hen' 酉 <i>ziôg</i>	> <i>îəu</i>	<i>rao</i>	<i>rāo</i>	<i>hrau</i> ₄ < <i>hrau</i>
'hare' 卯 <i>mlôg</i>	> <i>mau</i>	<i>mao</i>	<i>māo</i>	<i>mau</i> ₃ < <i>mau</i>

We cannot determine when these Chinese words were first introduced into the Tai language, but since their process of change is very close to that of the words treated under 1.b) and 2, there is the possibility that, if these are clearly Chinese loan words, the latter were also borrowed from Chinese. But I should like to refute this hypothesis. I think it more appropriate to suppose that a series of cyclic terms was borrowed and then incorporated into Tai, and suffered the same change, because they were equal in their syllabic patterns to words with original Tai stems. Tai and Chinese are quite alike in their syllabic patterns, so that words borrowed from one language into the other followed the same process of shift as the native words did. This fact complicates the work of comparison of these two languages.

Concerning the history of the Tai language, there exist no documents which

19. Karlgren 1954: 246.

20. T. Nishida 1961, F.K.Li 1945.

date back earlier than the thirteenth century. However if, from the argument so far advanced, the correspondence between Tai forms after the thirteenth century and Chinese ones can be qualified and the parallelism of changes thereafter can be perceived, then it is not impossible to deduce pre-thirteenth century Tai (or Proto-Tai) forms from the Archaic Chinese ones. Loan words too, at that stage, can offer grounds to support these hypotheses.

9. In comparing languages, the parallelism perceived in semantic opposites such as 'near' and 'far', 'left' and 'right' makes by far a greater contribution to the proof of kinship between two given languages than the fact that both of them possess a certain type of phonemic combination such as gl-, gr-, pl-.

'near'	Ch. 近	ghjən	>	ghjən	: C. T. klaī M3	<	*g ^w hla-
'far'	Ch. 遠	giwǎn	>	jjwǎn	: C. T. klai M1	<	*gla- ²¹
'left'	Ch. 左	tsâ(r)	>	tsâ	: C. T. zaai L3	<	draai < *draar
'right'	Ch. 右	giüg	>	jjəu	: C. T. khwaa H1	<	*q ^w hua < *g ^w u-

Both members of each pair are seldom borrowed at the same time, which fact can be regarded as one of the stronger bases on which to prove the relationship between the two languages. We should search for examples to demonstrate that they consist of the same root plus different suffixes, rather than seek mere formal coincidence between the two languages. For this reason, words such as 'hair', 'cheek', 'belly', 'leg', 'flesh', 'to eat', 'force', 'scale' and 'ship' can prove the relationship between the Tai and Chinese languages because these words need the above-mentioned corresponding conditions. To cite another example, apparently there is no formal relation between 來 *lai* (Ancient Chinese) and *maa* L1 (Common Tai) 'to come', but it cannot be determined for this reason alone that *lai* and *maa* derive from different roots. If the Archaic Chinese form of *lai* was *mləg²², then for the Tai *maa* there is a strong probability that it was *mlaa in Proto-Tai. To this corresponds Lolo-Burmese *laa.

In my opinion, the problem of whether the Tai languages belong to the Sino-Tibetan family allows room for further discussion by additional compilation of words of this kind. I do not think that Tai belongs to a different language family from that of Chinese, nor can I determine that Tai words structurally similar to Chinese are all borrowings from it, though a considerable number of words are in fact borrowed from Chinese. As to whether the two languages are remotely related or not, questions still exist and will not be easily resolved.²³

21. Both 'near' and 'far' have suffix -n in Chinese. Common Tai -ai and -ai can be supposed to have been derived from -ar, etc.
22. It is possible to set up *mləg to 'to come' based on an assumption that 來 *lag and 麥 *mwək 'wheat' were cognate words.
23. We can find other linguistic phenomena in Tai parallel with Chinese, as, for instance, the production of labio-dental consonants from the bilabials, but on the correlation between the change of initial consonants and tonal development, we cannot say Tai and Northern Chinese evolved in the same direction. These problems I shall discuss in another paper.

BIBLIOGRAPHY

Benedict, Paul K.

- 1942 "Thai, Kadai and Indonesian: new alignment in south-eastern Asia", *AmA* 44, 576-601.
- 1945 "Chinese and Tai kin numeratives", *JAOS* 65, 33-37.
- 1966 "Austro-Thai", *Behavior Science Notes* 1, 227-261.
- 1967 "Austro-Thai studies", *Behavior Science Notes* 2, 203-244, 275-336.

Chang Kung-chin (張公瑾)

- 1958 "The origin and usage of the verb ?au in the Tai language" (在與漢語比較分析中看傣語動詞 ?au 的來源和用法), *A collected papers on the national language* 1, (少數民族語文論集第一集) 64-73 (Peking).

Gedney, William J.

- 1965 "Yay, a Northern Tai language in North Vietnam", *Lingua* 14, 180-193.
- 1970 "The Sack language of Nakhon Phanom Province", *JSS* 58, 67-87.

Haudricourt, André-G.

- 1948 "Les phonèmes et le vocabulaire du thai commun", *JA* 236, 197-238.
- 1950 "Les consonnes préglottalisées en Indochine", *BSLP* 46, 172-182.
- 1960 "Notes sur les dialectes de la région de Moncay", *BEFEO* 50, 161-177.
- 1963 "Remarques sur les initiales complexes de la langue sek", *BSLP* 63, 156-163.
- 1965 *Le vocabulaire Be* de F.M. Savina (=Publications de l'École Française d'Extrême-Orient vol. 57). (Paris: École Française d'Extrême-Orient).

Hsing Kung-wan (邢公畹)

- 1955a "A comparative study of word-formation in the Chinese and Tai languages", (漢台語構詞法的一個比較研究), *Selected reference material on the Chinese language* (叔重編 中國語文研究參考資料選輯) 143-153.
- 1955b "A tentative comparison of Chinese êrh and tzu and Tai luk" (漢語 '子' '兒' 和台語助詞 luk 試釋), *ibid.* 154-168.
- 1962 "The importance of tones in the comparative study of the Chinese and Tai languages" (關於聲調的重要性在漢語與傣語比較研究), *CKYW* (中國語文) 111, 15-27.

Karlgren, Bernhard

- 1954 "Compendium of phonetics in Ancient and Archaic Chinese", *BMFEA* 26, 211-367.

Li Fang-kuei (李方桂)

- 1945 "Some old Chinese loan words in the Tai languages", *HJAS* 8, 333-342.
- 1947 "The hypothesis of a pre-glottalized series of consonants in primitive Tai", *BIHP* 11, 177-188.
- 1954 "Consonant clusters in Tai", *Lg.* 30, 368-79.
- 1959 "Classification by vocabulary: Tai dialects", *AnL* 1, 15-21.
- 1971 "The final stops in Tushan", *BIHP* 43, 195-200.
- 1973 "Some dental clusters in Tai", *BSOAS* 36, 334-339.

Nishida, Tatsuo (西田龍雄)

- 1954 "Tonematic Historica, a comparative study of tones in Tai languages" (トネームによるタイ諸語比較研究), *GK* (言語研究) 25, 19-46.
- 1955 "Mak-Sui languages and common Tai" (マック・スイ語と共通タイ語), *GK* 28, 30-62.
- 1961 "A study of the 16th century Pai-i-Chinese and Chinese-Pai-i vocabularies" (十六世紀におけるバイ・イ語—漢語, 漢語—バイ・イ語単語集の研究), *Toyogakuho* (東洋学報) 43:

3, 01-048.

1969 Review of *Le vocabulaire Be* by A-G. Haudricourt, *Toyogakuho* 52: 1, 01-014.

Shafer, Robert

1957 *Bibliography of Sino-Tibetan languages* I, II (1963) (Wiesbaden: Otto Harrassowitz).

1966 *Introduction of Sino-Tibetan* pt. 1 (1966), pt. 5 (1974). (Wiesbaden: Otto Harrassowitz).

Wulff, K.

1934 *Chinesisch und Tai, Sprachvergleichende Untersuchungen*. (=Danske Vidensk. Selskat. Hist. filol. Medd. 20). (København: Munksgaard).

1935 "Musik" und "Freude" im Chinesischen. (=Danske Vidensk. Selskat. Hist. filol. Medd. 21). (København: Munksgaard).

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