

TIBETAN *SDUD* 'FOLDS OF A GARMENT', THE CHARACTER 卒, AND THE *ST- HYPOTHESIS

NICHOLAS C. BODMAN

Many years ago Professor Li Fang-kuei wrote a most penetrating study entitled "Certain Phonetic Influences of the Tibetan Prefixes upon the Root Initials"¹, part of which dealt with the function and distribution of the Tibetan prefix *s-*, and which therefore has some relevance to the subject of the present paper. His article greatly stimulated my interest in the morphology and morphophonemics of Classical Tibetan. However, my greatest indebtedness to Professor Li derives from his important contributions as a teacher and scholar in the field of Chinese linguistics. I am therefore very happy indeed to submit this article to the issue of this journal which honors him on the occasion of his sixty-fifth birthday.

The Tibetan form *sdud* is glossed as 'folds of a garment' and occurs in a closely related meaning in the compound *sdud-k'a* 'string for drawing together the opening of a bag, drawing-hem'. It is clearly connected with the verb *sdud-pa* 'to collect, gather, assemble'. Other meanings for this verb are 'to unite, join, combine, condense, comprise, contract, compress'. *sdud* 'folds of a garment' ['folds, wrinkles']² (= 'drawn together') is taken as a case of narrowing or specialization of the basic meaning 'gather, unite, draw together'. Here may be compared also a similar semantic parallel in the English word *gathers* which applies to folds or pleats in clothing, curtains, etc. The perfect tense form of *sdud-pa* is *bsdus* (from which is formed *bsdus-pa* 'to consist of'). The other forms of *sdud-pa* are the future *bsdü* and two imperatives, *sdus* and *bsdü*. The future form *bsdü* is said to be used likewise for the present tense.³ Another gloss for *sdud-pa* is 'to close, conclude, terminate', but the very different meaning here from 'to collect, gather, draw together' necessitates treating this as a separate item. This homophonous word will be discussed later in this paper.

sdud and *sdud-pa* belong with a fairly extensive group of morphologically

related forms which can all be seen to be members of a single 'word family'⁴ which includes:

' <i>du</i> -ba (pft. ' <i>du</i> s)	'to come together, assemble'
' <i>du</i> -ba, ' <i>du</i> s-pa	'a coming together, assembling, gathering'
' <i>du</i> s-pa	'to unite, join one another; be pressed or crowded together; to consist of, consist in; be drawn together, contract, shrink'
<i>gdu</i> -ba	'to gather, collect' (under this item, Jäschke says: "another form for <i>sdu</i> -ba" which, however, has no separate listing. He may intend here to set up an assumed form * <i>sdu</i> to go with <i>bsdu</i> , the future of <i>sdud</i> -pa)
<i>mdud</i> -pa, <i>dud</i> -pa	'a knot' (Like <i>sdud</i> 'folds of a garment', the basic semantic link seems to be 'to draw together')
' <i>dun</i> in ' <i>dun</i> -sa	'meeting place, assembly, union, association, society' (listed under ' <i>dun</i> -ma 'advice, counsel; consultation; council', but apparently belonging with the other members of this word family)
<i>sdud</i>	'folds of a garment'
<i>sdud</i> -pa	'to collect, gather, draw together'
<i>bsdu</i> s-pa	'to consist of, consist in'
' <i>t'u</i> -ba (pft. ' <i>t'us</i> , <i>btus</i> , fut. <i>btu</i> , imp. <i>t'us</i> , <i>btu</i>)	'to gather, collect, pick up (as firewood, flowers)'
' <i>t'u</i> -ba	'skirt, coat-flap' (for the meaning, compare <i>sdud</i> 'folds of a garment')
' <i>t'un</i>	'gatherer'(as of firewood)
' <i>t'un</i> -pa	'to gather' (listed as another form of ' <i>t'u</i> -ba)

The forms **du* and **t'u* can be set up as bases for all the above forms; the alternations exhibit the combination of prefixes, suffixes or both with these bases. Our word family is quite typical in its range of alternations. A similar variation with different prefixes where the initial of the base form is *d*- is illustrated in the following examples:

' <i>din</i> -ba	'to spread on the ground'
<i>gdin</i> -ba	'carpets'
' <i>dag</i> -pa	'clay; adhesive, sticky'

<i>mdag-pa</i>	'large unburnt bricks of mud or clay'
<i>'dum-pa</i>	'to reconcile oneself to'
<i>sdum-pa</i>	'to make agree'

The type of alternation between *t'* and *t* that we have in the paradigm of *'t'u-ba* forms the main substance of Professor Li's article mentioned in our opening paragraph⁵. A pair of examples is:

<i>'t'im-pa</i> (more commonly <i>t'im-pa</i> , also <i>gtim-pa</i>)	'to disappear by being imbibed, absorbed, to evaporate, be melted, dissolved'
<i>stim-pa</i> (pft. <i>bstims</i> , fut. <i>bstim</i> , imp. <i>stims</i>)	'to enter, penetrate, pervade, be absorbed in'

Li would reconstruct **g-thim*, **s-thim*, **b-s-thim-s*, etc., for *gtim*, *stim*, *bstim*, etc. Although our word family includes *sdud*, there is no case of **stud* occurring here. (*stud-pa* 'to repeat, reiterate' evidently does not belong with the others.) Our word family does not exhibit as extreme differences in the initial consonant alternation as do some:

<i>'dud-pa</i> (pft. <i>btud</i> , fut. <i>gdud</i> , imp. <i>dud</i> and <i>t'ud</i>)	'to bend, bow down, incline'
<i>'dzud-pa</i> (pft. <i>btsud</i> and <i>zud</i> , imp. <i>ts'ud</i>)	'to put, lay (as in a box, into the grave)'

Note that in both the examples above the final *-ud* persists throughout the paradigm, whereas in *sdud-pa* only the present form has *-ud*, where it is to be analyzed as the stem vowel *u* with the suffix *-d*.

The following list of parallel alternations in the finals has been drawn up from bases where the vowel is *u*, like all the members of the word family *'du-ba*, *sdud-pa*, etc.,:

<i>nu-ba</i> (pft. and imp. <i>mus</i>)	'to suck'
<i>nud-pa</i>	'to suckle'
<i>smun-pa</i>	'to suckle'
<i>'k'ru-ba</i> (pft. <i>k'rus</i>)	'to wash, bathe'
<i>k'rus</i>	'bath, washing, ablution'
<i>'k'rud-pa</i> (pft. <i>bkrus</i> , fut. <i>bkru</i>)	'to wash, bathe'
<i>rgyu</i>	'matter'; also 'stuff for weaving'
<i>rgyus-pa</i>	'fine threads, fibres'

<i>rgyud</i>	'string, cord'
<i>rgyud-pa</i>	'to fasten, file on a string'
<i>rgyu-ba</i>	'to go, walk, move, wander'
<i>rgyud-pa</i>	'to pass, traverse'
<i>rgyun</i>	'the flow, current or stream'
<i>rdzu-ba</i>	'give a deceptive representation'
<i>rdzus-ma</i>	'something counterfeit, feigned, dissembled'
<i>rdzun</i>	'falsehood, lie'
<i>ṣu-ba</i>	'to take off, strip off, skin, peel, pare'
<i>ṣun-pa</i>	'bark, rind, peel, skin'
<i>lu-ba</i>	'to cough, throw up phlegm'
<i>lud-pa</i>	'phlegm, mucus'
<i>rku-ba</i> (pft. (b) <i>rkus</i> , fut. <i>brku</i> , imp. <i>rkus</i>)	
	'to steal, rob'
<i>rkun-ma</i>	'thief; theft'

Many more similar alternations can be found in works dealing with Tibetan morphology.⁶ There are, however, considerable differences of opinion among the various writers as to the precise meaning and function of the prefixes and suffixes—indeed sometimes the distinction of form and meaning is not at all clear—but the intention here is to list forms rather than to explain them in detail.

Many Tibetan verbs show variations of the vowel or ablaut in their paradigms. Characteristic is:

skyob-pa (pft. (b)*skyabs*, fut. *bskyab*, imp. *skyob(s)*)

'to protect, defend, preserve, save'

Yet others exhibit both ablaut and variations in the initial:

'gebs-pa (pft. *bkab*, fut. *dgab*, imp. *k'ob*)

'to cover'

Complex variation such as this within a verb paradigm adds greatly to the difficulty of finding cognates with regular correspondences in all features between Tibetan, for example, and any of the Sino-Tibetan languages. Fortunately, the word family of *'du-ba*, *sdud-pa*, *'t'u-ba*, etc., in which we are primarily interested, shows no ablaut variation. (All verb paradigms where the vowel *u* occurs likewise show no ablaut, although there are cases of presumably related words where vowel alternations are present: *'grub-pa* (pft. *grub*) 'to be made

ready', and *sgrub-pa* (pft. *bsgrubs*, fut. *bsgrub*, imp. *sgrub(s)*) 'to complete, finish, perform', but *grabs* 'preparation, arrangements, measures' illustrates this point.)

Let us now return to the word *sdud-pa* in the meaning of 'to close, conclude, terminate, a homophone of the word meaning 'to collect, gather, draw together'. One of the meanings of the character 卒 is 'to finish', and in this sense, the reading is *tsiwoṭ/tsiūṭ* (Item 490a of *Grammata Serica Recensa* by Bernhard Karlgren)⁷. This word is also a common euphemism for 'to die'; the third meaning 'utterly' which Karlgren gives for this reading probably also is connected with the basic meaning 'to finish'. In form and meaning the Tibetan *sdud-pa* and Archaic Chinese *tsiwoṭ* are fairly close, and I assume here a real genetic relationship. The case for their being cognates is much improved if we recognize that in this and similar cases the Chinese initial *ts-* results from an earlier cluster **st-*. The argument that earlier clusters of type **st-* were meta-thesized and assimilated into the *ts-* class of initials will be referred to here as the **st-* hypothesis.

As long ago as 1958, the writer read a paper entitled "Clusters of Type **st-* in Archaic Chinese"⁸, and in 1962 presented some examples supporting the **st-* hypothesis in a paper entitled "Observations on Proto-Chinese Morphology"⁹, but E. G. Pulleyblank was the first to publish on the subject in "The Consonantal System of Old Chinese"¹⁰. Although I do not agree with all of Pulleyblank's examples nor all of his particular reconstructions in this regard, we are mainly in agreement on general principles here. Pulleyblank sets up clusters with *s-*, such as *st-*, *sn-* and *sḍ-* and is not primarily concerned with examples of *s-* plus stop; he does however tentatively set up the following formulas (followed by a question mark):¹¹

(Karlgren's forms :)

st, sth, sd	ts, tsh, dz	ts, ts', dz'
stl, sthl, sdl	tʂ, tʂh, dz	tʂ, tʂ', dz'

He also posits a more limited number of similar clusters of *s-* plus velar and *s-* plus labial stops which follow a parallel line of development. There is, in my opinion, evidence to support the setting up of type **sk* > **st* > *ts* and possibly also of type **sp* > **st* > *ts*, but these and the more complex type of clusters like **stl*, **skl* and **spl* would require a great deal of space to exemplify and discuss, and are at any rate not strictly relevant for the purpose of this paper since such

initial clusters do not need to be set up for the particular correspondences under study here. Discussion will be limited to the triad of forms *st*, *sth* and *sd* which show the same kind of three-fold variation in manner of articulation as do the simple initials *t*, *th* and *d* (Karlgren's *t*, *t'*, and *d'*). The related initials of the sibilant series which Karlgren represents as *dzi*/*zi* and *zi*/*zi* alternate in phonetic series with each other and with *s-* (and fairly often with the plain dentals) but hardly at all with Karlgren's *ts*, *ts'*, and *dz'*.¹² These latter have two main sources: they either represent unchanged the 'original' affricates of type **ts-*, or derive from clusters of type **st-*. (There is yet another possible source, not pertinent here, **t+s-*, where a dental prefix can be posited).

There is a fair amount of evidence to support the **st-* hypothesis from the rare alternation in a phonetic series between forms with initial dental and forms with initial affricate. One of the best examples of this kind given by Pulleyblank is 戴 *tai* (G.S. 943e', *tæg|tâi-* 'carry on the head') which has as phonetic 才 *dzai* (G.S. 943a, *dzæg|dzâi* 'endowment, ability, talent').¹³ The initials in G.S. 575 are most varied, and include two possible cases of original **st-* type forms: 催 575j' *ts'wər|ts'uâi* 'to urge, repress' as against 推 575a' (first reading) *t'wər|t'uâi* 'to push'¹⁴, and 崔 575d', *dz'wər|dz'uâi* 'high, rocky' as against 隄 575b' *d'wər|d'uâi*: 'high, precipitous'. Other examples occur in G.S. 1031, and will be discussed later. Alternations like these latter in what are presumably related words suggest reconstructions of *sth-* and *sd-* for 575j' and 575d' respectively where *s-* may once have played a morphological role. This calls to mind the common prefix *s-* in Classical Tibetan; its meaning here is sometimes unclear, but it normally has a causative or transitivizing function. A comparable meaning difference cannot, however, be found in the Chinese forms. This is possibly to be explained by assuming that the original distinction in meaning in the Chinese forms became blurred and eventually lost together with the loss of the productive *s-* prefix. It is very likely that the lack of distinction in meaning is to be dated from the time when **st-* changed by metathesis into *ts-*, since from this time there would not have been any overt manifestation of the former prefix; however, it is also possible that clusters of type **st-* were maintained in the phonological system after the morphological force of *s-* had been lost. If the latter was true, the alternation of forms with initial *t-* and *st-* would be merely relics with little or no morphological importance, and forms with *t-* would by then have been separate lexically from forms with *st-*.

It would be very unsafe to assume that all *ts-* forms in a phonetic series that show the alternation *t-*: *ts-* derive from **st-* since it is very likely that original *ts-* forms could appear in such a series if they came to be represented in writing after the change of **st-* to *ts-*. By the same argument, a phonetic series that only had initials of type *ts-* might have some words with original **st-* and some words from original *ts-*. An origin of **st-* can be assumed for some words in a phonetic series which has only initials of type *ts-* because of the evidence of cognates from Tibetan or other Tibeto-Burman languages which have the *st-* type of initial cluster. Even in such a phonetic series, however, one should allow for the possible occurrence of other words from original *ts-*, since even if they have a phonetic of type **st-*, they might be represented in the writing system only after the change of **st-* to *ts-* had taken place.

It is impossible at the present state of our study to be at all definite about the date of the phonological change from **st-* to *ts-*. Further research may help to pin this down. I suspect that the change took place rather early in some Chinese dialects, but in others, the **st-* type of cluster may have been retained until much later.¹⁵

sdud has already been given as an example of a Tibetan form related to Chinese *tsiwat*. It is now time to list some further examples of this type of correspondence between the two languages. Some of these are sure to be real cognates, corresponding regularly phoneme by phoneme, but some stand in the less close relationship of members of a word family. It was stated earlier that the complex variation in Tibetan initials within the verb paradigm made direct comparison with Chinese forms very difficult. This is further complicated by the phonological variations that occur in related Chinese words. One very common alternation in Chinese word families is between Karlgren's voiceless unaspirated initials and his corresponding voiced aspirates, such as *t:d*' and *ts:dz*'.¹⁶ (Although I am using Karlgren's notation here for convenience, I prefer to consider the alternation here as *t:d* and *ts:dz*, etc., following Pulleyblank and others in their interpretation of the phonological contrast.¹⁷) In the correspondences listed below, Tibetan *sd-* and *st-* are each paired with the whole range of Chinese initials of the *ts-* type, i.e. *ts-*, *tsh-* and *dz-* which is of course only satisfactory as a first step in the comparative process. One should also note that Tibetan does not have the **sth-* initial cluster. Because of the regular alternation in Tibetan word families of *th-* and *st-*, Professor Li concluded that the latter derived from **sth-*¹⁸, but it is also possible that the triad **st-*, **sth-* and **sd-*

should be set up for Proto-Tibetan.

sdebs-pa	'to join, unite'	接 635e, ts̥iap/ts̥iäp	'connect, come in contact'
		接 635f	id. 'peg, tenon' (= 'connector')
sdiñs	'cavity, depression'	井 819 a, ts̥iëng/ts̥iäng:	'a well'
			(= 'pit dug for water')
		穿 819h, dz̥iëng/dz̥iäng:	'pitfall'
		阱 819i,	id. 'pit' 19
sdug	'affliction'	欸 1031e, ts̥iök/ts̥iuk	'grieved'
sdug-pa	'be afflicted, grieved'	戚 1031f, ts̥iök/ts̥iek	'intense feelings.
			affection, solicitous;
			grieved, to distress'
		感 1031x	id. 'anxiously thoughtful,
			solicitous'
cp. dug	'poison'		
gdug-pa	'poison, anything hurtful'	毒 1016a, d'ök/d'uok	'poison, poisonous; hate'
sdom-pa	'to bind, fasten, add, sum up'	綜 1003f, tsông/tsuong-	'bring together, collect, sum up'
cp. 'dom-pa	'to come together'	滯 cp. 1010f (three readings):	
		î̥ông/ts̥iung	'junction of two
		dz̥'ông/dz̥'uong	rivers'
		dz̥'ung/dz̥'ung	20
sdoñ-pa	'to unite, join'	叢 1178a dz̥'ung/dz̥'ung-	'to collect; thicket'
sdoñ	trunk of tree, stalk, tree'	*dz̥'ung/dz̥'ung	(in p'ing sheng; cp. Amoy cáng, 'classifier for trees and shrubs'
		同 1176a, d'ung/d'ung	'together, join, assemble'
sdib-pa	(equivalent to:)	緝 688b, ts̥'iep/ts̥'iep	
ldib-pa	'not clear, not intelligible, stammering'	ts̥'iep/ts̥'iep	'to babble'
		cp. also:	
ldab-ldib	'silly talk, tittle-tattle'	沓 677a, d'əp/d'əp	'to babble'
ston-mo	'banquet'	餐 154b, ts̥'ân/ts̥'ân-	'food'
		餐 154c, ts̥'ân/ts̥'ân	'eat, food, meal'
stim-pa	'enter into, penetrate'	侵 661c, ts̥'iam/ts̥'iam	'to invade, encroach, usurp'

cp. tim-pa	‘be absorbed, dissolved’				
star-ba	‘to clean, polish’	磋 5j,	ts’â/ts’â,		to file, polish’
cp. bdar-ba	‘to rub, file, polish’	磋 5i	id.		‘white and brilliant’
ster-ba	‘to give, bestow, grant, aid, contribute’	濟 593o,	tsiər/tsiei-		‘help, save, benefit, contribute’
		齋 593u	tsiər/tsiei		‘furnish, give, bestow’
ston-s-pa	‘to accompany’	从 1191a,d	dz’iung/dz’iwong		‘follow’
		從 1191d	dz’iung/dz’iwong-		‘follower, attendant’

Note that several examples from the phonetic series of 未, G.S. 1031, occur in the preceding list. This phonetic series contains many most diverse initials including some of type *t-* as well as of type *ts-*. (In the bronze inscriptions, 弔 GS1165a, *tiog/tieu-* and *tiok/tiek* is used in the sense of G.S. 1031a, *šî^hk/šîuk*). Yet another alternation of type *t-* and *ts-* occurs in G.S. 1031 for which there is less direct evidence from the Tibetan side, in words whose basic meaning seems to be ‘wrinkled’. We have 薇 1031r, *d’î^hk/d’iek* ‘dried up, wizened (sc. plants)’ as against 顯 1031v, *tsî^hk/tsiuk* and *ts’î^hk/ts’iek* ‘wrinkle (the brow)’ (and perhaps also 蹙 1031t *tsî^hk/tsiuk* in the meanings ‘press, compress’). With these may be compared Tibetan *mt’ug* in the word *’jur-mt’ug* ‘wrinkled (as the skin in old age)’. *’jur-* means ‘tangled (as yarn)’ and the usual meaning of *mt’ug-* and the related form *t’ug-* is ‘thick, thickness, dense, heavy (of sounds)’. Another related form is *stug(s)* in *stug(s)-pa* ‘thickness, density, thick’ and *stugs-po* ‘thick, dense, heavy (of sound)’. Perhaps this points to a lost meaning of ‘wrinkled’ in a word family of type *t’ug* and *stug* to correlate with our Chinese examples, but *’jur-mt’ug* might merely be etymologized as ‘tangled+thick’= ‘wrinkled’. (Perhaps a more direct Chinese cognate to the above is 篤 1019g *tôk/tuok* ‘firm, reliable, solid, staunch, massive, heavily.’) In Gloss 997, ²¹ Karlgren relates 菽 1031r *d’î^hk/d’iek* to 滌 1077x, a homophone meaning ‘to wash, cleanse; (swept clean:) denuded, bare, dried up’ which looks very good—and this phonetic series is one in which *s-* alternates with dentals—but we may actually have in *d’î^hk* two homophonous items, one meaning ‘bare’, the other ‘wash, cleanse’. Karlgren’s further connection of *d’î^hk* with 濯 1124h *d’ôk/d’âk* ‘wash, moisten, sleek, glossy, brilliant, fine’ also seems very reasonable, but I would prefer to relate the last at least rather with Tibetan *dag-pa* ‘clean, pure; cleanness, purity’ and *’dag-pa* ‘to clear, wash away, wipe off’.

Other examples of the *t* : *ts* type of alternation can be found in Chinese word families where the word pairs are written with different phonetic elements. Without graphic evidence for their relatedness, such cases are on a less sure basis than those that are written with the same phonetic, or the cases where cognates with type **st-* can be adduced. The fact that examples of this kind occur in different phonetic series points to their having been regarded as separate lexical items when they were first represented in the writing system; this is certainly a good argument for the general very early loss of a productive morpheme *s-*, and seems as well to indicate an early date, in many dialects at least, for the change of **st-* to *ts-*. Of the very many cases exemplifying the *t* : *ts* alternation that are included by Karlgren in his word families, I have selected a small number of the more convincing examples that vary in the phonological feature of type *t-* as against type *ts-*:²²

K 62-3 : K 64-5 'to soak'

沾	G.S. 618c	tɕiam/ɕiäm	'to moisten'
霑	618d	id.	'to moisten, soak through'
漸	611f	tsiam/tsiäm	'moisten'
漬	620g	id.	'moisten, enrich, benefit'

B203 : B205 'steps, pile up'

等	961 l'	təng/təng:	'step of a stair, class, degree, rank'
曾	884a	tsəng/tsəng	'add, accumulated, double'
			(='to place layer on layer')

B153 : B167 'blame, criticize'

謫	877r	tək/ɕək	
		d'ək/d'ək	'blame, punish'
責	868m	tsək/tɕək	('demand payment, exact), 'blame, reprove'

B465 : B467 'to wait'

待	961g'	d'æg/d'äi:	'wait, await'
俟	976m	dɕ'æg/dɕ'i:	'wait'

A tone difference is also exemplified between B203 and B 205, and B467 shows dɕ'i rather than dz'i. Note also that the more refined definitions in *Grammata Serica* throw doubt on some of the pairings. Karlgren does not give examples of forms with open syllables in his word families, but the following is a good example of a similar alternation in the initials:

徒 G.S. 62e d'o/d'uo 'go on foot, foot soldier', etc.

徂 46i' dz'o/dz'uo 'advance, go to; pass away'

G.S. 62e is very likely a cognate of Tibetan 'da-ba 'to pass over, travel, depart this life, to die'. 46i' could be a *sd-* in origin, but this type is not exemplified in Tibetan. By itself, this kind of alternation in word families in Chinese would not be at all conclusive. For one thing, semantic comparison, however suggestive, is not subject to the same kind of rigor that is necessary in phonological comparison. Taken together with the examples of cognates with type **st-* in Tibetan and the cases that point to the *t-*: *ts-* alternation within a phonetic series, however, we find that the word family assumption with a similar alternation adds some credibility to the **st-* hypothesis.

Although it would be beyond the limits of space to present comparative data on all the finals of the Tibetan and Chinese cognates given above, it is possible to adduce some more examples of the particular correspondence in the finals of Tibetan *sdud* and Chinese *tsiwət* 'to finish':

'bud-pa 'to blow' (of wind, trumpets) 弗 G.S. 500a p_iwət/p_iuət 'gust of wind'
pft. bus, p'u(s) (the latter form probably
transitive, the former intransitive), fut.

dbu, imp. p'u(s)

'bud-pa 'to put off, pull off, take off, 弗 500a p_iwət/p_iuət 'eliminate' (loan for
pull out, tear out, uproot' 500h)

pft. and imp. p'ud, fut. dbud 拂 500h p_iwət/p_iuət 'brush off, wipe off,
(cp. also 'p'ud-pa 'to lay aside, put shake, beat off'
away, separate')

弗 500k p_iwət/p_iuət 'clear away dense
vegetation'

'dud-pa 'to bend, bow down, incline' 紬 490g t_iwət/t_iuət 'to bend'

pft. btud, fut. gdud, imp. dud and t'ud

rgyud-pa 'to pass through, traverse' 汨 304f g_iwət/j_iuət 'to flow'

滴 507o g_iwət/īuət 'to flow'

rgyud 'cord'

纆 507h g_iwət/īuət 'well-rope'

In G.S. 500a, 500h and 500k, all of which have meanings similar to 'bud-pa 'to pull out', etc., we have a Chinese initial alternation of *p-* and *p'-*, and the Tibetan paradigm shows *b-* and *p'-* in alternation; these examples clearly show the difficulty of establishing one-to-one correspondences in the initials. In the Chinese forms meaning 'to flow' we have the one form *g_iwət* reconstructed for

Archaic Chinese, but different Ancient Chinese forms. Perhaps the difference here is one of dialect. To complicate the issue, 507o 'to flow' has a variant reading *kiwət/kiwət* and 507h 'well-rope' has a variant reading *kīwət/kīwət*.

It is not claimed that there are not other correspondences in Chinese to the Tibetan final *-ud*. (Other forms suggest also correspondences with the Chinese finals *-wât* and *-iwăt*, but since these latter correspond more often to the Tibetan final *-od*, we may have here a case of variation in Chinese dialects or else a reflex of ablaut variation in the proto-language. Forms with final labial in Tibetan after *u* and *o* have correspondences with final dental in Chinese; thus Tibetan *-wō* and *-ob* have Chinese cognates with *-wət* and *-iwət* and *-wât* and *-iwăt*. Such correspondences point to finals of the type **-up* and **-op* in Proto-Chinese which were dissimilated to dental finals and merged into the Archaic categories of *-wət*, *-iwət* and *-wât*, *-iwăt*. A similar change is assumed for **-um* to *-wən* and **-om* to *-wân*.²³ Yet other types of correspondence with Tibetan *-ud* probably occur, as witness the frequently cited example of Tibetan *'krud-pa* per. *bkrus*, and *'kru-ba*, per. *k'rus*, 'to wash, bathe' with 概 G.S. 515i *kəd/kəi-* and *xjəd/xjəi-* 'to wash, scour, scrub'.)

Let us now consider other meanings of the character 卒. The most common meaning is 'soldier.' It is also glossed in *Grammata Serica* 490a as 'group of men or families or states'. In these meanings, the form has been reconstructed as *tswət/tsuət*. A form related to the latter meaning appears in *Kuang Yün*: 倅, also read *tsuət* and defined as '100 men are (a)倅' and relating this character to the use of 卒 in the Chou Li. It appears from this and other older glosses²⁴ that the simple character 卒 might have had a general meaning of 'group'. If so, it is not improbably connected with the first definition we gave of Tibetan *sdud-pa* 'to collect, gather, draw together'. Whether the form meaning 'soldier' is also related to this is more dubious. Karlgren in *Analytic Dictionary*²⁵ 1105 gives other meanings 'licitor, servant' which follow the definition in *Shuo Wen*. To link the latter with a possible basic meaning of 'group' would be to make the further assumption that 'soldier, servant' was earlier a collective term 'group of men subject to forced labor' and that seems to be carrying speculation too far.

If *tswət* in a meaning 'group' is relatable to Tibetan *sdud-pa* and *tsiwət* 'finish' to a homophone *sdud-pa* of similar meaning, we are faced with the problem of a dual correspondence in Chinese, i.e. *sdud* corresponds in one case to *tswət* and in the other case to *tsiwət* which has the *yod*, medial *-i-*. I

have listed several forms that point strongly to the valid correspondence of Tibetan *-ud* to Chinese *-iwət*, but I cannot adduce any very good examples of *-ud* with *-wət*. It is certainly true that one and the same phonetic element frequently stands for finals that vary only as to the presence or absence of *yod*, and there are not a few cases where a single character has readings with or without *yod*, often with no ascertainable meaning difference. There is no doubt that in Ancient Chinese, *yod* after sibilants which were always placed in Division IV of the Rhyme Tables, was a high front glide for which *-i-* is an adequate symbol. This must have been its value too in many cases at least in Archaic Chinese. As for Karlgren's *-iwət* in the words under discussion, it may be that a Proto-Chinese **-ut* had the regular reflex *-iwət* or that there were two reflexes, *-wət* and *-iwət* in different dialects of Archaic Chinese time.²⁶ It is equally possible that Tibetan *-ud* represents two originally distinct finals. However, Classical Tibetan has no clusters of the type *ty-*, *dy-*, *sty-*, *sd y-*. We must let the problem rest here for the present.

The character 卒 has a third reading *ts'wət/ts'wət* 'brusque'; in this sense the enlarged character 猝 is also used. This is similar to 突 489a in its first reading of *t'wət/t'wət* in the meaning 'brusquely, suddenly'. The pair of examples *ts'wət:t'wət* shows the same alternation in the initials as several others discussed previously which stand in a word family relationship, and there is a possibility of reconstructing a cluster **sth-* for the character in this meaning. In fact, we find a reference in *Fang Yen* that 突 *t'wət* is used in the sense of 卒 or 猝 in the Chiang and Hsiang areas.²⁷ While this could be taken to mean merely that one member of the word pair was used in one area and the other member in another area, it might also indicate that in the Chiang-Hsiang area the regular development of **sth-* was to *th-* rather than to *tsh-*.²⁸

Karlgren's gloss 550 discusses the loan use of 卒 for 萃 490c *dʒ'iwət/dʒ'iwət* and *ts'iwət/ts'iwət* 'high-pointed' (of craggy cliffs).

We shall not further discuss the other words in the phonetic series of 490 except for 萃 490m *dʒ'iwəd/dʒ'wi-* 'collect, assemble; assemblage, crowd' since the meaning of this is so obviously like that of *sdud-pa* 'to collect, gather, draw together'. The alternation of the initials, *tsi-* and *dʒ'i-* is a very common one in Chinese word families and in phonetic series. Likewise the alternation of final *-t* and Ancient Chinese *ch'ü sheng* is extremely common in both word families and phonetic series. Where this occurs, Karlgren reconstructs *-d* for the Archaic

Chinese corresponding to later *ch'ü sheng*. Pulleyblank, following up work done by A. G. Haudricourt and R.A.D. Forrest, has instead reconstructed **-ts*.²⁹ All these scholars see a connection between the Chinese final and *-s* in Tibetan which frequently turns up as a formal marker in the perfect of the verb. Tibetan verbs which have *-d* in the present often lack it in other tenses; if the verb has a perfect in *-s*, it has been assumed that it sometimes represents earlier **-ds* (which does not occur in Classical Tibetan). It thus seems reasonable to equate this **-ds* with Archaic Chinese **-ts*. If this is true, 490m *dz'iwəd* would correspond with **sduds* (compare the perfect of *sdud-pa, bsdus*).³⁰

Karlgren in his word family K 150-153 groups together the following:

屯 K150 d'wən 'to collect, mass, group of soldiers', etc.

隊 151 d'wəd 'a group of soldiers, a regiment'

最 152 dz'wād 'to collect, assemble, accumulate'

萃 153 dz'iwəd 'to collect, numerous, dense, thicket'

These show about the same degree of alternation as that exhibited in the Tibetan word family discussed at the beginning of this paper. In the last two examples we have a possible case of the kind of ablaut variation between *-wət* and *-wât*, etc. (Cp. footnote 23). A similar varied vocalism appears in:

撮 K109 ts'wât 'to pinch, pick, gather'

摔 111 dz'wət 'grasp, seize'

The latter example, in the phonetic series of 卒 is, however, glossed in 490b as 'grasp by the hair; collide, combat' so the semantic connection with *ts'wât* appears doubtful. Indeed because of the gloss 'combat', one might equally well pair 490b *dz'wət* with 卒 490a *tswət* in the sense of 'soldier'. One can draw no certain conclusions from these kinds of data.

Karlgren has cautiously refrained from including forms with open syllables in his word families. We have seen, however, the alternation within the Tibetan word family of such forms as *'du-ba* and *sdud-pa* which suggests that similar alternations may have occurred also in Proto-Chinese. An obvious candidate is the pair:

聚 GS 131k dz'iu/dz'iu:

/dz'iu- 'collect, bring together, store'

萃 490m dz'iwəd/dz'wi- 'collect, assemble', etc.

where the former could have had the initial **sd-*, resembling in form Tibetan *bsdu*, the future, also used as a present, of *sdud-pa*. However, there are very

few examples besides the above of minimal pairs showing an alternation of an open syllable with Karlgren's *-t* or *-d*. Nevertheless, compare:

垢 G.S. 112d ku/kəu: 'filth'

澀 G.S. 496o kwət/kuət

g'wət/xuət 'dirt, to sully'

憊 103j miwo/mi:u:

惚

503p ɣmwət/ɣuət 'confused,

ɣmwə/ɣuo 'taken aback,

stupefied'

stupefied' 昧

531n mwəd/muəi- 'blindly,

bewildered'

Having now pursued at length the case for connecting the Tibetan and Chinese word families involved in our comparisons, of which not a few of the cited forms are presumed to be direct cognates, and having discussed some of them in the light of the **st*-hypothesis, it is now time to come full circle and close this paper with a further remark on *sdud* 'folds of a garment', our first example.

The small seal character form for 卒 as given in *Shuo Wen* is, 𠂔 which is the seal form for 𠂔 the, modern 衣 'clothes, garment' modified by an added stroke. In *Analytic Dictionary* 1105, Karlgren explains the graph in this way: "a 衣 dress cut short"; he also connects this analysis of the graph with an etymology of the form *tsuət* by saying: "*tsuət*: (short-cut dress:) soldier; lictor, servant; cut short, finish, die; finally, entirely". His remark may have been partly motivated by an item in *Fang Yen* on various words for 'lictor' of which one is 卒. The third century commentator, Kuo P'u, says that this term for 'lictor' derives from his costume.³¹ Aside from this one reference, which may have been pure speculation on the part of Kuo P'u, there is no attested case in any text which imparts a meaning of 'clothing' to the graph 卒. Karlgren's etymology also links the meanings 'soldier', etc. and 'finish', etc. with the one reading *tsuət* which is surely a mistake. In *Grammata Serica* he recognizes the different readings *tsuət* for 'soldier' and *tsi'wət* for 'finish, die' and limits his explanation of the graph to an admirably cautious: "The Seal has 衣 garment with a stroke on the skirt", a statement with which no one could possibly disagree. Aside from the seal form of the graph, Karlgren identified no older form from the oracle bone or bronze inscriptions; however, it has just come to my attention that a graph occurring in the oracle bone inscriptions has been identified as 卒, where it either has the meaning of a place name or stands for *ts'wət* 'brusque'.³²

Since it is obvious that the graph 卒 must have originally referred in some way to clothing, one must assume that the word in this meaning has been lost,

since the graph applies only to other words where it functioned as a phonetic loan character, *chia chieh*, for homophones or near-homophones. However, it is my thesis that this word referring to clothing can also be related semantically to some of the attested senses of the graph, a feature which adds considerable interest to the matter. My conclusion, which may not be unexpected, is that the lost sense of 卒 is 'folds of a garment', and that the additional stroke in the graph represents the 'folds' or 'pleats'; this explanation could not have been arrived at without the evidence afforded by the Tibetan cognate *sdud* in the same meaning. Just as the Tibetan word is related to the verb *sdud-pa* 'to collect, gather, draw together', so it appears is the Chinese word a member of a word family of similar semantic range. It is probably most closely connected with *tswət* in the sense of 'group'. We cannot of course be sure that 卒 meaning 'folds of a garment' had the pronunciation *tswət* as do the *chia chieh* forms meaning 'soldier' and 'group'; it might have had the reading of *ts'wət*, the same as that for 'to finish' which we connect with the Tibetan word of similar meaning, *sdud-pa*. We can certainly exclude the reading *ts'wət* 'brusque' which does not belong to the word family of 'to collect, gather, draw together'. Chinese graphs often show in their structure that particular restricted sense from a range of diverse meanings that is most easily representable: thus the phonetic compound 裏 G.S. 978e, *liag/lii*: is written with the clothes radical to stand for the restricted meaning 'lining' of a word whose meaning is basically 'inside'. The case of 卒 in the meaning 'folds of a garment' seems to be analogous in its origin, forming an excellent parallel to Tibetan *sdud* and *sdud-pa*.

FOOTNOTES

1. Academia Sinica, Bulletin of the Institute of History and Philology Vol. 4, Part 2 (1933) pp. 135-157.

2. Unless otherwise noted, the definitions of Tibetan forms are taken from H. A. Jäschke, *A Tibetan-English Dictionary*, London, 1881, repr. 1958. In this instance, the elucidation within brackets comes from Sarat Chandra Das, *A Tibetan-English Dictionary with Sanskrit Synonyms*, Calcutta, 1902.

3. Both Jäschke and Das (see footnote 2 above) have similar remarks.

4. Bernhard Karlgren's work "*Word Families in Chinese*", *BMFEA* 5 (1933), pp. 5-120 was a pioneer in the field of Chinese studies. Here he collected a great number of potentially related forms; one of his motives was to facilitate linguistic comparison of Chinese and Tibeto-Burman languages. He felt that in general it was too early to make specific comparisons of individual items and preferred to compare word families in Chinese with word families in Tibetan, etc.

This was largely the view also of Stuart N. Wolfenden in several valuable articles: "On Certain Alternations Between Dental Finals in Tibetan and Chinese", *JRAS* (1936), pp. 401-416; "Concerning the Variation of Final Consonants in the Word Families of Tibetan, Kachin and Chinese", *JRAS* (1937), pp. 625-655; "Concerning the Origins of Tibetan *brgiad* and Chinese *pwât* 'Eight'", *TP* 34 (1938), pp. 166-173. Professor Walter Simon has used the word family approach in his articles on Tibetan, among which are: "The Range of Sound Alternation in Tibetan Word Families", *Asia Major (New Series)* 1 (1949), pp. 1-15, "Tibetan *GSEB* and Cognate Words", *BSOAS* 20 (1957), pp. 523-532, and "Tibetan Lexicography and Etymological Research", *Transactions of the Philological Society* (1964), pp. 85-107.

5. Where the unaspirated stop occurs in verb forms it follows prefixes such as *g-*, *b-* and *s-* which Prof. Li believes caused the change of aspirated stop to unaspirated.

6. In addition to Professor Li's article (footnote 1), the following are useful: Stuart N. Wolfenden "Outlines of Tibeto-Burman Linguistic Morphology", London, 1929, especially pp. 58-64, the section entitled "The Suffixes -s and -d of the Perfect Root"; Jacques A. Durr, "Morphologie du verbe tibétain", Heidelberg, 1950, who critically discusses Wolfenden's views; Hans Nordewin von Koerber, "Morphology of the Tibetan Language"—A Contribution to Comparative Indosinology, Los Angeles, 1936. This latter contains much good material among much wild speculation. A recent article by E. G. Pulleyblank "Close/Open Ablaut in Sino-Tibetan" *Lingua* 14 (1965), pp. 230-240, has a very good account of ablaut in Tibetan. Further references to Tibetan morphology can be found in Robert Shafer, "Bibliography of Sino-Tibetan Linguistics" in two volumes, Wiesbaden, 1957 and 1963. See also the publications listed in Footnote 4 on word families and Robert Shafer, "Studies in the Morphology of Bodic Verbs" (I) Bulletin of the School of Oriental and African Studies, University of London (BSOAS) Vol. XIII Part 3 (1950) pp. 702-724 and BSOAS Vol. XIII Part 4 (1951) pp. 1017-1031.

7. Bernhard Karlgren, *Grammata Serica recensa*, BMFEA 12 (1957), pp. 1-471, Forms will be cited in his reconstructions for Archaic and Ancient Chinese; the abbreviation G.S with Karlgren's item number will be used.

8. Read December 29th, 1958 at the annual meeting of the Linguistic Society of America in New York.

9. An abstract of this to be found on p.593 of *Proceedings of the Ninth International Congress of Linguists, Cambridge, Mass., August 27-31, 1962*, The Hague, 1964.

10. E. G. Pulleyblank, "The Consonantal System of Old Chinese", Part 1: *Asia Major (New Series)* 9 (1962), pp. 59-144; Part 2: *Asia Major (New Series)* 9, (1963), pp. 206-65.

11. Pulleyblank, op. cit. p. 143 (especially Section III).

12. Pulleyblank, op. cit., p. 126.

13. Pulleyblank, op. cit. List from top of page 134.

14. It is the group with 崔 as phonetic, a sub-group of 佳 that have the type *ts-* initials.

15. Certain Min forms suggest a possibility of type *st- in this dialect group evolving not to *ts-* but rather to *t-*. Possible examples include Amoy *tūi* "matter, affair" (事 G.S. 971 dɛ' iəg/dɛ'i-) and Amoy *tāng* "window" (窗 G.S. 11991 ts' ũng/ts' āng).

16. See Karlgren, "Cognate Words in the Chinese Phonetic Series", *BMFEA* 28 (1956), especially Alternation A, pp. 9-11.

17. Pulleyblank, op. cit. Note 4 on p. 66. However, the present writer has discovered that for Proto-Min it is necessary to reconstruct unaspirated and aspirated stops for items in both the high and low tone registers, i. e. *p* and *ph*, *P* and *Ph*, where the first pair correspond to Karlgren's *p* and *p'* and the latter to his one voiced category of type *b'*. If this Proto-Min contrast is not specifically a Min development, i. e. a phonemic split within Min, which I regard as doubtful, then something like initial contrasts of *b* and *bh* would have to be set up for Proto-Chinese. If so, one would assume the merger in the non-Min dialects of type *b* and *bh* into one voiced initial. I hope to publish a paper on the Proto-Min system of initials shortly.

18. See Footnote 1.

19. Although the words for "well" and "pit" may stand in a word family type of alternation, it is also possible that a dialect variation was involved in some cases such as this. This seems a reasonable assumption especially when there is little or no difference in meaning, as in the present instance.

20. The Chinese forms may rather be related to the next item, *sdoh-pa*. The phonology of the finals poses a problem too, since if the final were Proto-Chinese *-m*, I would assume a regular development to *-n*. See Footnote 23 and the text to which it relates. (p. 12, line 14).

21. Karlgren, "Glosses on the Ta Ya and Sung Odes", *BMFEA* 18 (1946), p. 119.

22. Karlgren, "Word Families in Chinese", *BMFEA* 5 (1933). Also see our Footnote 4.

23. It is well-known that Chinese *-m* and *-p* are limited in distribution, occurring only after non-back or non-rounded vowels, and never occurring when a main vowel *u* or a high back glide, *-w-* has been posited for Archaic Chinese. For Proto-Chinese, or perhaps for early Archaic Chinese, I assume a full distribution of labial finals after all vowels. I hope to present my analysis of the phonological system of the finals of this period in a future paper.

24. Ssu-ma Piao, the third century commentator on the Chuang-tzu, Section 17, 秋水, glosses 卒 in 人卒九卅 as 衆 "crowd, numerous".

25. Karlgren, *Analytic Dictionary of Chinese and Sino-Japanese*, Paris, 1923.

26. Assuming that a Proto-Chinese *-ut* had a reflex *-iwt* in Karlgren's system implies that the glide developed later from a process of diphthongation of **u* to *iu*. There is further evidence of this from other possible cognates as well. In that case, *-iwt* is either a reflex in other dialects of **-ut* or there was an actual difference in vowel here in the proto-language.

27. *Fang Yen*, Section 10, number 19.

28. An evolution similar to that suggested for Proto-Min in Footnote 15.

29. Pulleyblank, op. cit. pp. 216-225, especially pp. 216-221. This develops also from A. G. Haudricourt "Comment reconstruire le chinois archaïque", *Word* 10 (1954), pp. 351-364, and two articles by R. A. D. Forrest: "Les occlusives finales en chinois archaïque" *Bulletin de la Société Linguistique de Paris* 55 (1960), pp. 228-39, and "Researches in Archaic Chinese", *ZDMG* 111 (1961), pp. 118-138.

30. Wolfenden first mentioned the possibility of **-ds* > *-s* in his *Outlines of Tibeto-Burman Linguistic Morphology*, London, 1929, in note 1 of page 19; he discusses the matter most fully on page 648 of his article "Concerning the Variation of Final Consonants in the Word Families of Tibetan, Kachin and Chinese", *JRAS* (1936), pp. 625-655.

31. *Fang Yen*, Section 3, number 4.

32. Li Hsiao-ting 李孝定 Chia-ku Wen-tzu Chi Shih 甲骨文字定集釋 Vol. 8, p. 2725. Academia Sinica, Institute of History and Philology, Special Publication 50, Taipei, 1965.

