

VARIATIONS IN THE TSOU DIALECTS

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1. INTRODUCTION

Tsou is an Austronesian language spoken in the Mt. Ali 阿里山 area in southern Formosa.¹ There are seven Tsou villages in Wufeng hsiang 吳鳳鄉, Chiayi prefecture 嘉義縣: Tapangu 達邦, Nia²ucna 里佳 (or Nibiei), Saviki 山美, Sinvi 新美, Cayamavana 茶山, Dadauya 樂野 and Punguu 來吉 (or Dadangia), and one small Tsou village in Hsin-yi hsiang 信義鄉, Nant'ou prefecture 南投縣, i. e. Mamahavana 久美. The first four villages belong to the Tapangu dialect, the following three belong to the Tfuea dialect, and the last one belongs to the Duhtu dialect.

The total population of the Tsou speakers is around 3,000.

Previous investigators of the Tsou language include Ogawa and Asai (1935), Nevskij (1935), Lin (1955), Tung (1964), Starosta (1969, 1974) and Tsuchida (1972, 1976). Articles dealing with the language based on Tung's (1964) monograph include Dyen (1971a, b) and Ho (1976).

This paper is generally based on my own field notes in my two field trips to the native Tsou villages, Tapangu and Mamahavana (Duhtu), in

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the summer of 1978.²

The main purpose of this paper is to give a more detailed description of the dialectal differences in Tsou than what is available in print. It is my belief that variations in the different age groups and dialects all indicate that the language is in the state of flux. In addition, the discrepancies of transcription between Tung and me and their bearings on the Tsou phonology will be discussed.

2. DIALECTAL DIFFERENCES IN TSOU

Tsou used to have four dialects: Tapangu, Tfuea, Duhtu and Iimucu, but the last one is extinct (Tung 1964:2).

As noted in Tung (1964:3), the three extant dialects "differ from one another but very slightly" and the differences "are of some minor phonological and lexical features only, and there is scarcely any grammatical discrepancy being observed."

2.1 Ogawa and Asai (1935:671; hereafter OA) believed that there were two major dialects in Tsou and indicated their sound correspondences as below:

Duhtu	Mt. Ali	
	Tapangu	Tfuea
ɬ	j	j
ʒ	j	z/ʒ

2. I investigated the Tsou language in the Tapangu village during July 23-30, 1978. My main informant was Uongŭ Easiungu (An Chen-ch'ang 安振昌 in Chinese, 43 years old) for the Tapangu dialect, Motoyu Yaisikana (Mrs. An Shih Ying-chu 安石英珠 in Chinese, 39 years old) and Paicŭ Yaisikana (Mrs. An Shih Fang-chŭ 安石芳菊 in Chinese, 35 years old) for the Tfuea dialect. I also consulted Voe Tiakiantŭ (Cheng Mao-lin 鄭茂霖 in Chinese, 70 years old) for rare lexical items. I worked on the Duhtu dialect in the Duhtu village for three and half days, August 18-21, 1978. My main informant was Avai Tenayana (Chi T'ai-p'ing 吉太平 in Chinese, 74 years old), the only living Duhtu speaker who still preserved /r/ in his speech at the time. I checked all the lexical items given in this paper with a Tfuea speaker named Yusungu Piyungsi (Wang Ming-hui 汪明輝 in Chinese, 20 years old) in Taipei, May 27 and October 27, 1979.

The inverted j(f) in Duhtu is transcribed by Tung, Tsuchida and me as /r/, which is a retroflex continuant with slight friction. It is described by Tsuchida (1976:86), “/r/ is [ɾ], a voiced retroflex frictionless continuant as in English.” The phonetic symbols [z] and [ɹ] are two allophones according to OA’s description (p. 672), but three allophones [z, ʒ, ɹ] of the same phoneme /z/ in Tung’s (1964:8). The symbol /j/ is a semivowel [j], transcribed as the vowel /i/ or /e/ by Tung and Tsuchida. However, there is sufficient evidence for a phonemic distinction between the semivowel /y/[j] and the vowel /i/ or /e/; see Ho (1976).

Tung (1964:18) touched on the difference in the consonant system in the three dialects by listing six variant forms showing that Tapangu /i/ corresponds to one of /z/ positions in Tfewa and Duhtu. In another place, he (Tung 1964:20–21) discussed the problem of the Duhtu /r/ corresponding to /e/ in Tapangu and Tfewa, but left it unsettled.

It seems to me that neither Ogawa and Asai nor Tung has adequately revealed the dialectal differences in Tsou. By a more careful examination, I find that the correspondences among the dialects can be indicated more precisely below:

<u>Tapangu</u>	<u>Tfewa</u>	<u>Duhtu</u>
$\left. \begin{array}{l} i/C_ \\ _C \\ \phi/iC_ \end{array} \right\}$	(i)z	(i)z
$\left. \begin{array}{l} e \\ y/\left\{ \begin{array}{c} \# \\ V \end{array} \right\}_V \\ \phi/_e \\ _e \end{array} \right\}$	$\left. \begin{array}{l} e \\ y/\left\{ \begin{array}{c} \# \\ V \end{array} \right\}_V \\ \phi/_e \\ _e \end{array} \right\}$	r

There are two main dialectal differences in the Tsou dialects: (1) Tfewa and Duhtu /z/ or /iz/ corresponding to Tapangu /i/ or zero, and (2) Duhtu /r/ corresponding to /e/, /y/ or zero in both Tapangu and

Tfuea.

2.2 The Correspondence of /i/ to /i/

Tapangu /i/ corresponds to Tfuea and Duhtu /z/ in many forms, altogether more than 40 items in approximately 1,000 items I have collected; see List I below. In such a correspondence, Tfuea and Duhtu /z/ appears mostly after another consonant and before a vowel, except for the terms 'poisonous'³ (16) and 'omen bird' (37), in which it appears before a consonant. Tfuea and Duhtu /z/ appears intervocalically and corresponds to zero in Tapangu in three to four cases: 'accustomed' (21), 'hold up' (30), 'hit the target' (35) and 'pass' (39), in the environment i_a or i_i. In a couple of cases, i.e. 'wall' (13) and 'mole' (4), Tfuea and Duhtu /z/ corresponds to zero in Tapangu after a consonant, but the preceding syllable contains the vowel /i/.⁴ It can be inferred that the Tapangu /i/ corresponding to Tfuea and Duhtu /z/ has been lost. Cf. Tapangu *se²icha* and Tfuea *se²ichia* 'two hundred,' in which Tapangu lost /i/ following /i/ in the preceding syllable.

It is more difficult to specify the phonological condition of the correspondence in the Tapangu dialect than in Tfuea or Duhtu.

Historically it is left to us to determine whether the change *i > z or *z > i has taken place. To put the question in a different way, which dialect (or dialects), Tapangu or Tfuea and Duhtu, has the innovation? According to Tsuchida (1972:27), the change *i > z has taken place in the Duhtu dialect (and hence Tfuea also) of Tsou. The phonetic environment for the sound change as specified by him is, "When [*i is] preceded or followed by a consonant in an unaccented syllable," for example, PHN *taNiu[D] > tahzúcu 'mulberry.'

3. That /i/ is preserved in Tfuea *mahiz²o* is perhaps due to the general constraint of consonant clusters in Tsou, in which a combination of no more than two consonants is permitted, thus *hz² is not permitted. It can be stated that this item involved the changes iz > z > i after the consonant /h/.

4. Note the exception in the Duhtu form *kwafri²a* 'mole,' for which Tfuea has *kwafri²za*.

However, it is more difficult and hence less economical to state the phonetic environment of the correspondence in Tapangu (/i/ as the base and /z/ as derived) than in Tfuea or Duhtu (/z/ as the base and /i/ as derived). It is thus more economical to state the derivation $z > i$. By and large, Duhtu preserves the old forms better than the other dialects. In some Duhtu forms, /iz/ corresponds to Tfuea /z/ and Tapangu /i/, e.g., *tote²iza* 'plivy' (11), *ʔormiza* 'saw' (12), *emizo* 'correct' (17), *rohiza* 'frightened' (20). Then the historical derivations of these forms involve the following changes in Tapangu: $iz > z > i$. Tfuea preserves /iz/ only in a few forms, e.g., *mahiz²o* 'poisonous' (16), *amiza* 'accustomed' (21). Tapangu has gone even further not only in the change $z > i$ but also in the total loss of it, as in the forms *kwafei²a* 'mole' (4), *toyhifa* 'wall' (13).

In short, it is simplest to state the phonetic environments in terms of Duhtu as below:

1. (i)z > \emptyset /iC₀— (C₀ stands for a string of zero or more consonants.) e.g., No. 13, 35
- 2a. (i)z > i/C— e.g., No. 1, 2, 3
- 2b. /—C e.g., No. 37

Rule (2a) above applies in a majority of cases, and (2b) applies in only one case, i.e. No. 37, in the data available. Rule (1) applies in a few cases and there seems to be an exception in Tapangu *hihifia* 'den' (38), for which **hihifa* is expected; cf. the related Tapangu form *toyhifa* 'wall' (13). Let it be noted that the item 'dry by the sun' (29) is an exception to the rules above. In fact, it is also an exception to the rule order; see §2.5 below.

Should the phonetic environments be stated in terms of Tapangu, the rules would be very complex, and the item No. 29 would still be an exception. Furthermore, it would be difficult to restrict the rules from applying to the forms listed in II, No. 45-48.

The correspondence i-i-i in all the three dialects appears adjacent to

a consonant, i.e., 'friend' (45) and 'dry by sun' (46); see List II below. And the correspondence z-z-z appears only in the intervocalic position, e.g., 'fire' (49), 'wild pig' (50) and 'to swing' (51), or initially before a vowel, e.g., 57, 59, 66; see List III below. This is due to the phonotactic constraint in Tapangu. As Tung (1964:14) noted, "/z/ does not enter any consonant cluster in the Tapangu dialect."

I. Tapangu / ^o /i/	Tfuea /(i)z/	Duhtu /(i)z/	
1. tahía	táhza	tahíza	'beans'
2. tahiúcu	tahzúcu	tahzucu	'mulberry'
3. omía	ómza	ómza	'inland, above, upper side'
4. kwafei [?] a	kwafei [?] za	kwafri [?] a	'mole (small animal) 鼯'
5. hohiu	hohzu	hohzu	'type of small bee'
6. ciou	czou	czou	'name of a fish'
7a. cio [?] ə	czo [?] o	cizo [?] ə	'spittle'
b. suo-cio [?] ə	suo-czo [?] ə	suo-cizo [?] ə	'cough'
8a. meŋíu	ménzu	ménzu	'spear (n.), lance'
b. to [?] simeŋiu	to [?] simeŋzu	to [?] simeŋzu	'pierce with a spear (v.)'
9a. keŋiu	keŋzu	keŋzu	'crooked, curved'
b. mokeŋiu	mokeŋzu	mokeŋzu	'veer'
c. tikeŋiwa	tikeŋzwa	tikeŋzwa	'bend'
10. thotho [?] ia	thotho [?] za	thotho [?] za	'swing (n.)'
cf. toh [?] uzu	toh [?] uzu	tho [?] uzu	'swing (v.)'
11. tote [?] ia	tote [?] za	tote [?] iza	'plivy'
12. [?] oyomia	[?] oyomza	[?] ormiza	'saw (n.)'
13. toghifa	toŋhifza	toghifza	'wall'
14. yopuepia	yopuepza	roprepza	'fan (v.)'
15. duyamamia	duyamamza	duramamza	'lazy'
16. mahi [?] o	mahiz [?] o	mahiz [?] o	'poisonous'
17. emio	emzo	emizo	'correct'
18. amamio	amamzo	amamzo	'sick, having a cold'

19.	mumíó	múmzo	múmzo	'trapped 套住'
20.	yohíə	yóhzə	rohíza	'frightened'
21.	amía	amíza	amíza	'accustomed'
22.	maʔtutumio	maʔtutumzo	maʔtutumzo	'worried'
23.	fæcəʔia	fæcəʔza	fərcəʔiza	'white'
24.	cohiona	cohzona	cohzona	'noon'
25.	tumio	tumzo	atutumzo	'because'
26a.	seʔconía	seʔcónza	seʔcónza	'hundred'
	b. ʔconía	ʔcónza	ʔcónza	'The First Month'
				(Tung 1964:18)
27.	mimía	mímza	mímza	'we (exclusive)'
28.	yuniou	yunzou	runzou	'burn'
29.	póei	póezi	pórzi	'dry by the sun'
30.	eepia	eepza	reepiza	'hold up'
31.	ʔosioyu	ʔoszoyu	ʔosizoru	'shout'
32.	toniovi	tonzovi	tonzovi	'wash utensils'
33.	somiə	somzə	somzə	'wither'
34.	tataʔia	tataʔza	tataʔza	'admire'
35.	smii	smizi	smizi	'hit the target'
36.	taʔmia	taʔmiza	taʔmiza	'hesitate'
37.	waimə	wazmə	wazmə	'omen bird'
38.	hihifia	hihifza	hihifza	'wild pig den'
39.	scaefia	scaefiza	scaefiza	'pass'
40.	smomio	smomzo	smomzo	'wake up'
41.	hio	hzoo	hzoo	'soul'
42.	ŋipía	ŋípza	ŋípza	'mildew' (Tung 1964:18)
43a.	amii	amzi		'boundary, burden'
	b. tamii, tamia	tamzi, tamza		'boundary'
44.	amiocni	amzocni	amzocni	'quiet'
II.	<u>Tapangu /i/</u>	<u>Tfuea /i/</u>	<u>Duhtu /i/</u>	
45.	naŋhia	naŋhia	naŋhia	'friend'
46.	poaoymiʔmia	poaoymiʔmia	poaormiʔmia	'dry by sun'

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47.	foinanna	foinana	foinana	'young man'
48.	nianuan ^o	nianuana ^o	nianuan ^o	'ancient'
III. <u>Tapangu /z/</u> <u>Tfuea /z/</u> <u>Duhtu /z/</u>				
49a.	puzu	puzu	puzu	'fire'
	b. pupuzu	pupuzu	pupuzu	'stove'
50.	fuzu	fuzu	fuzu	'wild pig'
51.	toh ^o uzu	{toh ^o uzu to ^o huzu	toh ^o uzu	'to swing (v.)'
52.	kukuzo	kukuzo	kukuzo	'grass'
53.	siaizonə		siaizonə	'waterfall'
54.	hiaemoza	hiaemoza	hiarmuza	'anteater'
55.	toezana	toezana	toezana	'a species of non-poisonous big snake 錦蛇'
56.	no ^o eoza	no ^o eoza	no ^o orza	'a species of non-poisonous snake living in water 水蛇'
57.	zomə	zomə	zomə	'bird'
58.	tujəoza	tujəoza	tujroza	'eel'
59.	zuu	zuu	zuu	'type of small bee'
60.	yoizomə	yoizomə	roizomə	'fly (insect)'
61.	huaeza		huarza	'mole (dark mark on skin)'
62.	nazua	nazua	nazua	'cloth, sheet'
63.	feézo, fézo	feezo	ferzo	'needle'
64.	kazu	kazu	kazu	'jar'
65.	aezuhu	aezuhu	arzuhi	'change'
66.	zotekcə	zoteəkcə	zotekcə	'compel 壓'
67.		covézoa	cvəroza	'pitiful'
68.	kos ^o oza	kos ^o oza	kos ^o oza	'shrimp'
69.	zou	zou	zou	'yes'

2.3 The Correspondence of /r/ to /e/

Historically speaking, /r/ (derived from PAN *1) is preserved only in the Duhtu dialect. As a matter of fact, it is preserved only in the old speakers over the age of seventy, and I found only one such a speaker surviving in 1978. The consonant /r/ has changed into /e/ (/y/ or lost) in the younger speakers in the Duhtu village; cf. Tsuchida's (1976:84-85) description of the three types of speakers in the village.⁵ Apparently the same change took place earlier in the other two dialects, Tapangu and Tfuea.

The examples in List IV below show that Duhtu /r/ corresponds to Tapangu and Tfuea /e/ adjacent to a consonant, e.g., 2, 4, 7, 8, or between i—i, e.g., 64, 65, 66, to /y/ intervocalically, e.g., 5, 16, 20, 22, 23, 48, 50, or initially before a vowel, e.g., 1, 37, 53. If /r/ occurs immediately adjacent to /e/, then it generally disappears or lengthens the vowel /e/, e.g., 27, 30, 38, 52, 55, 58, 60. In other words, /r/ is derived in the following ways in all Tsou dialects except in the speech of older speakers of Duhtu:

r > e/C—, —C, i—i
 > y/V—V(except i—i) ,#—V
 > ϕ /e—, —e

IV. $\begin{Bmatrix} \text{Tapangu} \\ \text{Tfuea} \end{Bmatrix} \begin{Bmatrix} /e/ \\ /y/ \phi \end{Bmatrix}$ Duhtu /r/

1. yaptə	raptə	'bark (of tree)'
2. beahci	brahci	'fruit'
3. ʔuŋyái	ʔuŋrái	'pineapple'
4. ehúfu	rhufu	'palm tree'
5. oyu	oru	'type of bamboo 綠竹'

5. As stated in Tsuchida (1976:84), "In the Duhtu village are found three types of speakers: (1) those who more or less constantly retain /r/; (2) those who do not have /r/, and thus a phonemic inventory that is the same as that in Tfuea; (3) those who have free variants with and without /r/. Only a few of the speakers belong to the first type above and are mostly older than sixty years of age."

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6. ɲéi	ɲríi	'hemp fibre'
7. seoŋə	sroŋə	'pine tree'
8. éçɲi	rcíɲi	'type of beans 樹豆'
9. f́ésə	fərsə	'husked rice'
10. náveu	návru	'cooked rice'
11. hohʔəca	hohʔərca	'glutinous rice'
12. fʔúe	fʔúre	'sweet potato'
13. ucéi	úcri	'taro'
14. ɲáceə	ɲácrə	'stalk of taro plant'
15. (e)misi	(r)misi	'root'
16. hioyapo	hiorapo	'seed (of grains)'
17. háeɲu	harɲu	'cogan grass 白茅'
18. véiyo	vriyo	'thin miscanthus'
19. kəyupa	kərpa	'cotton, algae'
20. koyu	koru	'mushroom'
21. ket́e	kret́e	'edible fungus 木耳'
22. knuyu	knuru	'knot in wood'
23. taemoyu	tarmoru	'Discorea rhipogonioides Oliv. 薯榔'
24. yuvahi	ruvahi	'sprout from the stump'
25. hofu	rhofu	'Asplenium nidus 鐵角蕨'
26. ʔeu	ʔruu	'Laportea tree nettle 毒樹'
27. tezo, teezo	terzo	'Alocasia macrorrhiza 小姑婆芋, harpoon'
28. teofɲa	trofɲa	'Allium odorum 韭菜'
29. féufe	frúfru	'smoke'
30. veɲi, veeɲi	verɲi	'torch'
31. hapuyu	hapuru	'lime'
32. feóŋo	froŋo	'cave'
33. meipeípi	mriprípi	'mist'
34. mviecə	mvərcə	'fog'

35.	céowa	crówa	'earth'
36.	fuefuʔu	furfuʔu	'sand'
37.	Tp. yompuhu	ronpúhu	'dust'
	Tf. yonpuhu		
38.	hie	hire	'sun'
39.	feohə	frohə	'moon'
40.	coŋeoha	coŋroha	'star'
41.	fueŋu	furŋu	'mountain (with forests)'
42.	eŋʔə	rŋʔə	'mountain (with bushes)'
43.	hcuyu	hcuru	'hill'
44.	ecuu	rcuu	'pond'
45.	cʔóeha	cʔórha	'river'
46.	fofeohva	fofrohva	'ditch'
47.	twaphoyu	twaphoru	'shore'
48.	moyiʔhocə	moriʔhocə	'lightning'
49.	hioyu	hioru	'rainbow'
50.	tnəyə	tnərə	'rainstorm'
51.	síyu	síru	'salt'
52.	meeméno	mremréno	'iron'
53.	yúho	rúho	'snow'
54.	káceo	kácro	'a flint'
55.	poepe	porepe	'wind'
56.	motóevi	motorvi	'earthquake'
57.	piepiya	pirpira	'spirit'
58.	eepa	reepa	'centipede'
59.	eobako	reobako	'hit'
60.	kei	krei	'eye excreta'
61.	emi	remi	'wine'
62.	eʔe	reʔe	'word, language'
63.	eduna	reduna	'beat the drum'

64. f ^ʔ iei	f ^ʔ iri	'goiter'
65. piŋei, pŋiei	pŋiri	'pestle'
66. takiéiŋi	takiriŋi	'spoon'
67. ^ʔ ieisi	^ʔ irisi	'big water jar'
68. sapiei	sapiri	'shoes'

2.4 Variations in Different Age Groups

Younger speakers of the Tapangu and Tfuea dialects tend to drop out the initial vowel /e/, which may have been historically derived from /r/ plus a vowel. For example, *e^ʔuho* 'leopard' in the older speakers' speech is *^ʔuho* in the younger speakers' speech. In fact, the latter may have both variants. Tung (1964: 439-620) simply listed the variant forms in the Glossary, but gave no explanation. Further examples for the variants in the dialects:

<u>Tapangu & Tfuea</u>	<u>Duhtu</u>	
1. ehəŋə~həŋə	həŋə	'leaf'
2. hofu	rhofu	'Asplenium nidus 鐵角蕨'
3. etəpə~təpə	təpə	'sea'
4. esəə	rsəə~səə	'tears'
5. e ^ʔ epi~ ^ʔ epi	r ^ʔ epi	'scar'
6. eməfŋə~məfŋə	məfŋə	'hide'
7. emucu~mucu	mucu	'arm'
8. evisi	visi	'bowstring'
9. emoo~moo	rmoo	'house'
10. eyopoepe~yopoepe	ryoporepe	'fan'
11. emisi~misi	rmisi~misi	'root'
12. efucu~fucu	fucu	'scrotum, sack'
13. evasəzə~vasəizə	rvasizə	'walking together'
14. ehufu~hufu	rhufu	'palm tree'
15. ecuu~cuu	rcuu	'pond'

The fluctuation between /r/ and /e/ in the speech of the Duhtu speakers, as noted in Tung (1964:20-21), clearly indicates that the language is in the state of change. We can gain a better view from a historical perspective. It is not really "an unsolved problem," as Tung said.

2.5 The Chronology of $z > i$ and $r > e$

If the directions of the two sound changes (1) $z > i$ and (2) $r > e$ are inferred correctly, the next problem to be considered is the order of their application. There are three possibilities: (1) before (2), (1) after (2), and (1) and (2) simultaneously.

By examining the forms Duhtu *huarza*: Tapangu *huaeza* 'mole (dark mark on skin),' Duhtu *ferzo*: Tapangu *fe(e)zo* 'needle,' it is clear to us that the change $r > e$ must have taken place before $z > i$. The rules apply to these forms in the following order:

huarza	ferzo	
↓	↓	
huaeza	feezo	($r > e$)
↓	↓	
huaeza	fezo	($z > i/C_$ does not apply)

Should the order of rules be reversed, the ill forms **huaria* and **ferio* would be derived.⁶

There is some problem when we consider the forms Duhtu *porzi*: Tfuea *poezi* (or *poyzi*): Tapangu *poei* (or *poey*) 'dry by the sun.' By first applying the rule $r > e$ to the Duhtu form *porzi*, we can derive the Tfuea form *poezi* (or *poyzi*) correctly. Then the rule $z > i$ can only apply to the form *poyzi* (but not to the form *poezi*) to derive **poyii*, which is not exactly the same as the Tapangu *poei* (or *poey*) that we want. Should we first apply the rule $z > i$, we would derive **porii*, which is neither Tfuea nor Tapangu. If we further apply the rule $r > e$ to **porii*, we can then derive **poeii*, which is very close to the Tapangu form, even though

6. I am indebted to Gong Hwang-cherng for pointing this out to me at the seminar.

we can never derive the Tfuea form this way.

How do the rules apply to derive all the variant dialect forms correctly? This is the problem that requires further investigation.

At any rate, the on-going sound change $r > e$ (see §2.3 and Tung (1964:20-21)) in the Duhtu dialect, in which z does not change to i , confirms the chronology of these two sound changes, i.e. (1) $r > e$ precedes (2) $z > i$.

2.6 Effect of the Sound Changes on Stress

Stress regularly falls on the penultimate syllable in Duhtu, e.g., *rápta* 'bark (of tree),' *bávna* 'flower,' *mori²hócə* 'lightning.' The regularity of stress is preserved in so far as stress automatically shifts its position to the penult when a sound change (such as from a consonant to a vowel $z > i$) occurs in the last two syllables, e.g., Duhtu *tahíza*, Tfuea *táhza*, Tapangu *tahíia* 'beans;' Duhtu *fársə*, Tapangu and Tfuea *fə́əsə* 'husked rice;' see List I for further examples, such as No. 3, 8, 23, 26.

The regularity of stress can generally be maintained if a phonemic contrast between a semiconsonant and vowel is set up in Tapangu and Tfuea. Or else the sound change $r > e$ may disrupt the stress pattern. For example,

Duhtu	Tapangu and Tfuea		
	I	II	
1. kóru	kóyu	kóeu	'ear, mushroom'
2. návru	návew	náveu	'cooked rice'
3. símro	símew	símeo	'fat meat'
4. pórzi	Tp. póey	póei	'dry by the sun'
	Tf. póyzi	póezi	
5. ɲáro	ɲáyo	ɲáeo	'mouth'
6. tʔórɲa	tʔóyɲa	tʔóeɲa	'chest'
7. svérə	sváyə	svéeə	'earring'

8. ezórá ezóya ezóea 'swidden field'

Cf. the transcriptions in Columns I and II above. The former recognizes the phonemic status of the semiconsonants, whereas the latter does not. While stress is still on the penult in I, it shifts to the antepenut in II, which destroys the regular pattern of stress.

However, what has been derived historically from *r phonetically sounds more like the vowel *e* than the semiconsonant *y* in most environments, including those occurring next to a consonant, such as *póezi* 'dry by the sun' and *tʰóeya* 'chest' given above. If the *e* is interpreted as *y* in these forms, it will violate the rules $r > e / _C, C _$; $y / V _ V, _ V$, as stated in §2.3. If we stick to these rules, then stress will fall on the antepenult for these forms in Tapangu and Tfuea. A good number of forms are involved in this problem of transcription, e.g., Dh. *píryi*: Tp. & Tf. *píeyi* 'nit,' Dh. *cárcā*: Tp. & Tf. *cáecā* 'low.' For further examples, see List IV, No. 14, 17, 18, 29, 35, 45, 54, 56, 64, 66, 68.

2.7 Miscellaneous Variations between Dialects

Some irregular correspondences are manifested in a few lexical forms:

<u>Tapangu</u>	<u>Duhtu</u>	
1. <i>yompuhu</i>	<i>ronpuhu</i>	'dust' cf. Tfuea <i>yonpuhu</i>
2. <i>edapdoʔko</i>	<i>edakdoʔko</i>	'Adam's apple'
3. <i>biebiimi</i>	<i>birbiyi</i>	'seek'
4. <i>mviecā</i>	<i>mvārcā</i>	'fog'
5. <i>evasāzā</i>	<i>rvasīzā</i>	'companion, walking together'
6. <i>iifi</i>	<i>sfii</i>	'type of snake 龜殼花'
7. <i>teoyāta</i>	<i>tronāta</i>	'whet stone'
8. <i>esbābukya</i>	<i>esbābuka</i>	'spring (of water)'
9. <i>tonciʔu</i>	<i>tonciɾu</i>	'mouse'
10. <i>ɳtāsā</i>	<i>ɳtāsā</i>	'gray hair'
11. <i>yoicāɳhā</i>	<i>rocāɳhā</i>	'fishing pole'

12. hiaemoza	hiarmuza	'anteater'
13. monoiei	monoyuri	'sheath'

Assimilation may have operated on the form in one dialect, but not on the same form in another, resulting in the variant forms between the dialects. For example, the nasal may have been assimilated to the following adjacent stop in Tapangu *yompuhu*, and the labial stop may have been assimilated to the following velar stop in Duhtu *edakdo²ko*.

The velar nasal in Duhtu *birbiyi* 'seek' is a late innovation in the dialect; cf. Tapangu *biebiimi* and the cognate forms in the rather distantly related Tsouic languages Kanakanabu *k-um-irimi* and Saaroa *u-a-kirimi*.⁷

3. DISCREPANCIES OF TRANSCRIPTION AND THEIR RELATED PROBLEMS

Transcription of the same dialect even based on the same informant by different investigators may vary to a certain extent. Some of the variations in transcription are minor and phonologically insignificant; some are significant for phonological interpretation.

As Tung's transcription for the Tsou dialects is compared with mine, the following main differences are noted: (1) ʔ or ø, (2) v or b, (3) u or ʉ (or ə), (4) glottal stop and preglottalized, (5) miscellaneous. Tsuchida's transcription of the Duhtu dialect generally agrees with mine rather than Tung's in these respects. I checked with various Tsou speakers in the various Tsou dialects when my transcription differed from Tung's, and found that the speakers were rather consistent.

3.1 As Starosta (1969:443) pointed out in his review of Tung's work on Tsou, "One problem of transcription.....is that of the glottal stop, which is written consistently by Tung in some words and omitted just as

7. The Kanakanabu and Saaroa forms are cited from Tsuchida (1976:290). The hyphen indicates morpheme boundary.

consistently in others.” Generally speaking, the glottal stop is written by Tung if it occurs adjacent to a consonant, but omitted if it occurs intervocalically or initially before a vowel.⁸ Phonetically there is little difference between the two grades of glottal stop. Historically it is a reflex of Proto-Austronesian *k in both types of phonetic environment: Cf. the following different transcriptions for the same lexical items by Tung and me:

<u>PAN</u>	<u>Tung</u>	<u>Li</u>	
(1) *aku	áo	aʔo	‘I’
*biCuka	cfúo	cfuʔo	‘stomach’ ⁹
*kiRim	iíma	iʔima	‘to seek’
*kaRaC	eoeóca	Tp. yoʔeoca	‘to bite’
		Dh. roʔroca	
*bəRək	feúu	Tp. feəʔə	‘pig’
		Dh. frəʔə	
(2) *kiTaʔ	áto	a-ʔto	‘we (inclusive)’

The last item given above is an example for the omission of the glottal stop by Tung which occurs adjacent to a consonant.

3.2 The second type of discrepancy between Tung’s transcription and mine involves the consonants /b/ and /v/:

<u>Tung</u>	<u>Li</u>	
húbʔo	huvʔo	‘orange’

8. The glottal stop is written by Tung intervocalically or initially before a vowel in some forms, e.g., *húʔo* ‘finger nail’ (p. 476), *eosuʔúku* ‘to trace’ (p. 463), *ʔiataueuŋána* ‘clan name’ (p. 547). It is omitted by Tung when occurring adjacent to a consonant in a few forms, e.g., *súku* ‘claw’ (p. 529), which is *suʔku* ‘animal legs, claws’ as recorded by me. Also cf. Tung *smoet&eu*: Li *smoeʔt&ea* ‘to hang,’ Tung *toivovúu*: Li *toivaʔvaʔa* ‘dragonfly.’ Tung’s transcription is, therefore, not so consistent as Starosta stated.

9. Note the metathesis of the first two consonants in Tsou; see Li (1972:332).

abʔú	ávʔu	'dog'
poaabʔú	poaʔávʔu	'to hunt with a dog'
Dh. cúbru	cuvru	'hot'
ecbúhʉ	ecvəhə	'heavy'
toebósʉ	toevosə	'pheasant'
meʉsbútʉ	meəsvətə	'to measure by hand'
eʉsbútʉ	eəsvətə	'to tell'

The phonetic different between the two consonants is conspicuous in Tsou since /b/ is preglottalized [ʔb], whereas /v/ is not. The /b/ in the first three items listed above as transcribed by Tung might be explained as influenced by the following glottal stop.

3.3 The third type of discrepancy is that between the high back rounded vowel /u/ and the high back unrounded /ʉ/ (or /ə/):

<u>Tung</u>	<u>Li</u>		
kélʉ	kedu	'testicles' ¹⁰	
smupéu	smupeə	'to count'	
fuecʉʔia	fəcəʔia	'white'	
ŋóhcʉ	ŋohcu	'to flow or wash away'	
fúesʉ	Tp. fəesə	'husked rice'	Cf. PAN *bəRas
	Dh. fərsə		

The phonetic difference between the two vowels is slight and often negligible. However, if Tung's transcripion were accurate, there would be at least one irregular reflex of PAN *ə, i. e. PAN *bəRas > *fúesʉ* 'husked rice.'

3.4 One problem of transcription is consistency. Tung phonemicized the two preglottalized voiced stops [ʔb] and [ʔd] as /b/ and /l/ respective-

10. The consonant /l/ in Tung's transcription is equivalent to the preglottalized dental stop /d/[ʔd] in mine.

ly. Nevertheless, he failed to phonemicize some forms containing one of these two consonants. Thus he ended up with the sequences /ʔb/ and /ʔl/. These would be phonetically interpretable as [ʔʔb] and [ʔʔd] respectively, but such sequences do not seem to occur in Tsou.¹¹ For example, Tung (1964:508) listed *paʔbobochioa* 'to teach,' *paʔbónu* 'to feed,' *paʔbutáso* 'to cause to work hard.' Similarly, he (Tung 1964:495) listed *moʔlu* 'fine day.' Cf. the following discrepancies of transcription:

<u>Tung</u>	<u>Li</u>	
luʔlúku	dudku, duduku	'finger'
eoeluʔlúku	yodudku	'ring'
káʔli	kadi	'knee'

3.5 Miscellaneous discrepancies between Tung's transcription and mine:

<u>Tung</u>	<u>Li</u>	
petúta	petheta	'window'
topúku	topuyu	'lake'
teóeu	Tp. ceoyu	'wasp'
	Dh. croru	
tfáʔa	tfwaʔa	'crow'
ocmóeu	ocmæə	'thick'

11. Tung took a positive position with regards to such sequences. In the section discussing the preglottalization of the voiced stops, he (Tung 1964:12) stated,

"Care must be taken to distinguish the preglottalized /l/ and the consonant cluster /ʔl/. Witness:

/lulunána/ '(a clan name)': /luʔlúku/ 'finger.'

No combination of /ʔ/ and /b/ has been found in our material except in a few complex and compound words (I-9)."

In discussing the distribution of consonant clusters, he (Tung 1964:17) listed /káʔli/ for the cluster /ʔl/. Interestingly enough, he did not list any example for the cluster /ʔb/ in the same tabulation, even though he did have some of these forms in his Glossary. I do not think either of these consonant clusters exists in Tsou. A phonetically weak vowel is clearly audible between consonants in a consonant cluster in the language. I do not hear such a phonetic vowel in the clusters /ʔb, ʔl/ that appear in the forms as given by Tung.

Dh. f ^h ŋna	f ^h ŋna	'evening'
Dh. fmi	remi	'wine'
Dh. f ^h úr	f ^h ure	'sweet potato'

I checked the above lexical items with speakers of various dialects and found that they were consistent in producing the forms as I transcribed them. Here I shall make remarks on only some of them.

All the stops /p, t, c, k/ are generally unaspirate in Tsou. Tung (1964:10-11) is quite correct in pointing out that "that /h/ is structurally independent of its preceding stops is evident in certain inflectional processes as:

/mhíno/: /phíni/ 'to trade' (IX-6)"

Apparently Tung missed the consonant /h/ in the form for 'window.'

The form /f^hŋna/ 'evening' as transcribed by Tung appears to violate the general constraint of having no more than two consonants in sequence in Tsou. The form /f^húr/ 'sweet potato' as transcribed by Tung appears to allow a consonant in the final position and stress in the final syllable, the only exceptions in the distribution. However, Tung (1964:20) treats /í/ as an apical vowel special to Duhtu, so there is neither violation nor any exception in his system. His apical vowel /í/ phonetically sounds [re] to me in these forms. Adopting my alternative transcription can avoid misunderstanding and allow no "exceptions."

V. Comparison of Tung's (1964) Transcriptions and Li's

<u>Page</u>	<u>Tung</u>	<u>Li</u>	<u>Glosses</u>
475, 590	húb ^h o	huv ^h o	'orange'
480, 590	kél ^h	kédu	'the male organ'
494, 563	mokvó ^h	mokvó ^h ə	'a dark day, dizzy'
511, 619	petáta	pethəta	'window'
528, 549	sosóea	sósya, Dh. sosora	'ants'

534, 557	teoúa	teoʔúa	'chicken'
540, 555	tokueúya	tokeúya	'butterfly'
553, 488	meamóu	meaemóʔə	'blow apart'
558, 529	{súku 'claw' suʔkúsi	suʔku 'animal legs' suʔkusi	
560, 526	smupéu	smupéə	'count'
564, 444	abʔú	ávʔu	'dog'
570, 502	ŋóhcu 'float'	ŋóhcu 'adrift, flow away'	
571, 541	tooféihni	toʔoféihni	'follow'
572, 500	nosiíŋi 'in front of'	nosiʔiŋi 'beside'	
574, 491	meusbútu 'grobe'	meəsvátə 'to measure by hand'	
575, 525	smoetúe	smoeʔtəeə	'hang, tie to'
576, 458	ecbúh	ecvəhə	'heavy'
576,	tmáfŋ	məfŋə	'hide'
577, 454	cúbru 'hot'	Dh. cuvru 'hot (thing)'	
577, 495	múei	múʔey	'hot'
578, 512	poaabʔú	poaʔávʔu	'hunt with a dog'
579, 478	iúpu	iʔúpu	'join, participate'
583, 477	iima	(ʔ)iʔima	'look for'
592, 539	toebósu	toevósə	'pheasant'
598, 471	fúesu	fəesə	'rice'
608, 527	sŋúcu	səŋcə	'straight'
611	ekiék	ekiéki	'tear to break'
614, 519	pueueúa	pueueuʔa	'trap'
446, 578	ao	aʔo	'I'
614	smoueúe	smoʔəeəʔəeə	'tremble'
617, 534	teóeu	ceóyu	'wasp'
617, 445	aiiihosi	aiʔiʔihosi	'wear clothes'
618, 495	moʔtóu	moʔtoʔə	'to weed in the field'

Variations in the Tsou Dialects

620	titpósu 'write'	tmopsə 'write', titposə 'use a book or stationery'	
545, 597	ue	ʔue	'rattan'
541, 580	topúku	topúŋu, tópn̄u	'lake'
562, 544	ua	ʔua	'deer'
527, 562	snəmáso 'a kind of deer'	snumaso 'male deer'	
470, 592	feáŋ	feáʔə	'pig'
544, 555	uachúmu	ʔuachumu	'buffalo'
535, 561	tfáʔa	tfwaʔa	'crow'
540, 570	toivováa	toivaʔvaʔa, toivaʔvaha	'dragonfly'
493, 586	moeócə	moʔeócə	'mosquito'
449, 574	bái	báʔi	'grandmother'
503, 597	oáhŋ	ʔoahŋə	'relatives'
482, 569	luʔlúku	dudku, duduku	'finger'
452, 608	cfúo	cfúʔo	'stomach'
471, 596	fəə	fəʔə	'pus'
477, 558	iihósa	ʔiʔihósa	'clothings'
462, 599	eoeluʔlúku	eoedudúku	'ring'
462, 553	eoeóca	yoʔeóca	'bite'
462, 555	eohóə	eohóʔə	'call'
516, 551	poéŋn̄	poʔéŋn̄ə	'bark (of dog)'
483, 562	máe	máʔe	'dig'
503, 567, 582	oefáŋ	oefəʔə	'fall down'
547, 594	zotpúu	zotpúʔu	'pound grains'
543, 598	tueóh̄	tueʔóh̄ə	'remove'
{ 496, 594 461	{ (e)m̄áa em̄íi	{ (e)máʔa eməʔi	'plant'

468, 611	$\begin{cases} \text{eusbútu} \\ \text{eusbubútu} \end{cases}$	$\begin{cases} \text{eəsvátə} \\ \text{eəsvəsvátə} \end{cases}$	'tell'
490, 510, 608	meoeóí (peoeóza)	meoʔeóí (peoʔeóza)	'steal'
543, 610	tusiŋi	tusiʔŋi	'sweep'
465, 610	euoféu	yuoféoʔə	'swell'
494, 616	motéo	mooteo	'wait for'
516, 617	poecáŋ	poecáʔo	'wake up'
484, 553	máem	maeámə	'bitter'
443, 555	aapaecŋ aapapaecŋ	aapaecóʔə aapapaecóʔə	'broken, disappear'
451, 563	cái, cáʔi	cáʔi	'dirty'
500, 606	noínʔi	noeʔínʔi	'soft'
553, 548	tatáe	tatáʔe	'admire'
499, 583	noaná	noanáʔo	'long (time)'
480, 594	koéi	koéʔi	'polite, shy'
502, 595	$\begin{cases} \eta\eta\eta\acute{h}\acute{o}u \\ \eta\acute{h}\acute{o}u \end{cases}$	$\begin{cases} \eta\eta\eta\acute{h}\acute{o}\acute{?}\acute{a} \\ \eta\acute{h}\acute{o}\acute{?}\acute{a} \end{cases}$	'pregnant'
503, 612	ocmóe	ocmóyə	'thick'
481, 553	kuaóŋa	kuaʔóŋa	'black'
471, 618	fuecŋʔia	fəecəʔia	'white'
503, 588	óa	oʔa	'no'
503, 588	oamócu	oʔamócu	'not yet'
448, 617	áto	áʔto	'we (inclusive)'
444, 579	aemóna	aʔeumóna	'inside'
20	frŋna	fréŋna	'evening'

VI. Corrections of Tung's (1964) Glosses

Page	Tsou	Tung	Li
463, 549	eósku	'ankle'	'heel'

Variations in the Tsou Dialects

471, 586	fuefúʔu	'mud'	'sand'
536, 584	timéo	'louse on the body'	'flea'
547, 603	zotáeo	'to shoot with a rifle'	'to wait in hiding to hunt animals'
524, 548	skúfu	'above'	'under'
551	tvofúesa	'damboo tube for storing grains'	'bamboo...'
	tvosíeva	'damboo...salt'	'bamboo...'
554	tʔóeŋa	'breast'	'chest,' cf. nunʔu 'breasts'
569, 470	fóra	'find'	fóea 'to check'
573	akʔeŋúca	'gods'	'thunder'
599, 464	euási	'roof'	yuwa-si 'beam'
605, 449	bumemeálɥ(a)	'skillfully'	'cautiously, carefully'
607, 544	tvóeɥ	'squeeze'	tvaʔóeə 'crowded'
609	ŋóveo	'stupid'	'difficult'
614	aotʔotʔóu	'tremble'	'shake'
616, 541	toŋsóeɥ	'to wait for'	'to wait in anxiety'
616, 542	toupupcíeo	'wait in anxiety'	'to walk in quick steps'

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鄒語方言的差異*

(摘 要)

李 壬 癸

鄒族(或稱曹族)住在臺灣中南部阿里山區：一在嘉義縣吳鳳鄉的七個村子(達邦、里佳、山美、新美、茶山、樂野、來吉)，一在南投縣信義鄉望美村的久美。前四村說達邦方言，後三村說特富野方言，望美村有三十多戶說久美方言。鄒族人口約三千。

從語言的觀點而言，鄒語在整個南島語族中佔有特殊重要的地位。它的語言結構跟許多現象都跟臺灣北部地區的泰雅語羣以及南部及東部地區的排灣語羣都有顯著的不同。

以前對於鄒語做調查研究的學者包括淺井惠倫、Nevskij、林衡立、董同龢、Starosta、土田滋(Tsuchida)等幾位先生。根據董先生的專書所做的研究報告有Dyen跟何大安君。本文主要根據作者的田野資料撰寫而成。民國六十七年夏天，作者到達邦村與久美共調查了兩週。

董先生的專書的確很够國際學術水準，只可惜有一些遺漏與缺點，例如漏收一些很常用或對於研究語言的歷史有重要意義的詞彙。董先生雖注意到鄒語有方言的差異(p. 3, 18, 20-21)，但並沒有很明白很有系統地指出這些方言的差異。它們之間的詳細對應關係為何？它們對歷史演變的意義是什麼？方言之間的親疏關係又怎樣？他把久美方言的 r 與 e 的關係當做未解決的問題(p. 21)。這些問題都是促成我補充調查鄒語及寫本文的動機。此外，董先生對於音韻系統的解釋以及記音方面，也有商榷的餘地。從實際語音的聽覺上以及鄒語對於古南島語的反映上，本文所提出的改

* 本報告由行政院國家科學委員會補助研究完成。何大安君與陳秀雲小姐都協助校稿。特此申謝。

進系統似乎更合理、更有一致性 (consistency)。

鄒語三個方言的主要差異如下：

達邦	特富野	久美
$\left. \begin{array}{l} i/C_, _C \\ \phi/iC_, _ \end{array} \right\}$	(i)z	(i)z
$\left. \begin{array}{l} e \\ y/\left\{ \begin{array}{c} \# \\ V \end{array} \right\} _V \\ \phi/_e, e_ \end{array} \right\}$	$\left. \begin{array}{l} e \\ y/\left\{ \begin{array}{c} \# \\ V \end{array} \right\} _V \\ \phi/_e, e_ \end{array} \right\}$	r

鄒語方言的主要差異有兩個：(一)特富野與久美的 z 或 iz 對應達邦的 i 或零，(二)久美的 r 對應達邦與特富野的 e, y 或零。事實上，久美方言只有七十歲以上的老頭子才保存 r，較年輕的發音人跟特富野的沒什麼差異。在我所收集的約一千個詞彙當中，只有四十多個含有第一種對應關係。至於含有第二種對應關係的字就很多了。

不但不同地區有方言的差異。不同年齡也有方言的差異：在久美方言而言是 r 的有無，例如 rmisi~misi ‘根’，在其他兩方言而言是 e 的有無，例如 emisi~misi。久美方言所表現的 r 與 e 之間的不穩定，顯示一種語音正在演變過程當中。

久美方言常保存較古的形式，達邦方言演變最多。換言之，鄒語的方言有以下的演變方向：(一) $r > e$ (y, 或 ϕ)，(二) $(i)z > i$ (或 ϕ)。進一步觀察‘鼯鼠’‘針’等詞彙，這兩條演變的時間有先後： $r > e$ 在 $z > i$ 之前。

久美方言的重音很規則，都在倒數第二音節。在其他兩方言，因為有的字的輔音已變成元音，如果重音自動調整位置還是規則的；但有的重音並沒有調整位置，因此重音就落在倒數第三音節。如果承認半元音的音位地位，重音就更規則，但仍有一些字形構成問題。

我的記音跟董先生的一些出入，可分以下幾方面來說：

一、喉塞音董先生有的記，有的不記。一般說來，他只在輔音旁出現的喉塞音才記，在元音之間或字首元音之前的喉塞音他就不記。但這兩種喉塞音在音值上似乎沒什麼差別，在歷史上都是來自 k。如果不記出，就埋沒了歷史的痕跡了。

二、有些字董先生記 *b*，我記的却是 *v*。就這兩個輔音的差別而言，在鄒語是相當明顯的，因為塞音 *b* 前有喉塞音，而擦音 *v* 沒有。

三、元音 *u* 與 *u* (或 *ə*) 的出入。因為主要的差別只是圓唇與否，所以很容易誤記。按照我的記法，至少有的字有古語可以證明是規則的演變。

四、鄒語的兩個帶前喉塞音 [*ʔb*] 與 [*ʔl*] 董先生分別歸音位記作 /*b*/ 與 /*l*/，但有些字形仍保有 /*ʔb*/ 與 /*ʔl*/，是未歸音位所致。這就造成語音系統的問題了，/*ʔb*, *ʔl*/ 語音上可解釋為 [*ʔʔb*, *ʔʔl*]，但鄒語實際上似乎沒有這種音串。在討論輔音的分布時，董先生居然也列出 /*ʔl*/ (p. 17) 來。還好他並沒列出 /*ʔb*/，然而在他的單字表中却有！董先生是認為鄒語有 /*ʔb*/ 與 /*ʔl*/ 的音串，但我對此表示懷疑。

五、其他。

凡是跟董先生記音有出入的地方，我大多都覆核多次，包括核對不同方言以及不同發音人，他們都相當的一致。按照本文提出的記音方式，可以避免一些難以解釋的方言差異或歷史的不規則演變。