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The RGH Law in Philippine Languages.—By CARLOS EVERETT CONANT, Professor in the University of Chattanooga.

THE attention of investigators in the field of Indonesian phonology was early attracted to the remarkable correspondence of *r, g, h,* and *y* seen in Toba and Malay *urat*: Tagalog *ugát*: Dayak *uhat*: Lampong *oya* 'vein, nerve, sinew'.

The first formal statement of this varied representation of an originally single phonic element was made by the Dutch scholar H. N. van der Tuuk in what is known as the first van der Tuuk law, the phenomena of which have been further examined and classified by others, notably Brandes, Kern, Adriani, and Brandstetter.

According to this law the IN¹ parent speech possessed a certain consonantal sound which, being lost in some languages,

¹ Abbreviations used in this paper:

Ach.	Achinese	Inb.	Inibaloi	NJav.	New Javanese
Bgb.	Bagobo	Iran.	Iranun	OFavor.	Old Favor-
Bis.*	Bisaya	Jav.	Javanese		[lang
Bkl.	Bikol	Klm.	Kalamian	OJav.	Old Javanese
Bon.	Bontok	Knk.	Kankanai	Pamp.	Pampanga
Btn.	Batan	Kuy.	Kuyunon	Pang.	Pangasinan
Bug.	Bugis	Lamp.	Lampong	Phil.	Philippine
Chro.	Chamorro	Mad.	Madurese	Sang.	Sangir
Day.	Dayak	Mak.	Makassar	S.-Bis.*	Samar-Leyte
Duz.	Duzon	Mal.	Malay		[Bisaya
Favor.	Favorlang	Mentw.	Mentawai	Sbl.	Sambal
Form.	Formosan	Mgd.	Magindanau	SForm.	Singkan For-
Ibg.	Ibanag	Mkb.	Minankabau		[mosan
Ilk.	Iloko	Mlg.	Malagasi	Sumb.	Sumbanese
IN	Indonesian	Mongd.	Mongondou	Sund.	Sundanese
	Tag.	Tagalog		Tir.	Tirurai

* Bis. includes the three great Bisaya dialects, Cebuan, Panayan, and that of Samar and Leyte, except on pp. 83, 84, and 85, where it includes only the first two named, the last being indicated by S.-Bis.

like Old Javanese, became in others variously *r*, as in Toba, Karo, Čam, and Malay; *g*, as in Tagalog, Bisaya, Formosan, Ponosakan, and Chamorro; *h*, as in Dayak, Sangir, and Bulu; and *y*, as in Lampong, Gayo, and Pampanga.

The following comparative table will illustrate the most natural operation of the law, that is, where the RGH consonant is intervocalic and hence least liable to the influence of secondary phonetic laws.

<i>R</i>	<i>G</i>	<i>H</i>	<i>Y</i>	<i>Zero</i>
Toba urat	OForm. ugat	Day. uhat	Lamp. oya	OJav. uwad
Mal. urat	Favor. oggach	Bulu ohad	Gayo uyöt	NJav. uwat
Ach. urat	Tag. ugät	Sang. iha	Pamp. uyát	Nias uwo
Mkb. urat	Bis. ugät		Batan úyat	Sumb. uwa
Mak. ura	Mongd. ugat			
Bug. ure'	Chro. gugat			

The languages of the OJav. type have developed a parasitic labial glide *w* between the two vowels thrown together by the loss of the RGH consonant. Chro. *gugat* has an initial parasitic *g*, as in *gunum* 'six'.¹ The phonetic changes seen in the other non-Philippine examples are due to the regular operation of secondary laws, and need not be detailed here. The Malagasi cognate *uzatra* shows *z* for RGH, as in Mlg. *zahitra* 'raft', beside Mal. *rakit*, Bis. *gakit*. This *z* is shown by Ferrand² to have evolved from a spirant *y* in Omlg. In Mlg. *vay*, *vey* 'burning coals', beside Mal. *bara*, Tag. *bága*, this spirant seems to have coalesced with the Mlg. *i*, the frequent representative of IN *a* in final position. The RGH consonant in final position is lost in Mlg., as in several other IN speech groups, e. g. Mlg. *uhi*, *uhu* 'tail', beside Mal. *ikor*, Toba *ihur*, Bis. *ikog*. Further it also becomes *r* medially, e. g. Mlg. *avaratra* 'North', beside Mal. *barat*, Tag. *habágat*, Bulu *awahat*. Čam has *r* initially and medially, but drops the RGH consonant finally, with compensatory lengthening of the preceding vowel; e. g. Čam *ratuh* 'hundred', beside Mal. *ratus*, Bis. *gátus*; Čam *barā* 'shoulder', beside Day. *baha*, Toba *abara*, Bis. *abága*; Čam *ulā*

¹ Compare my paper, *Consonant changes and vowel harmony in Chamorro*, pub. in *Anthropos* vol. v.

² *Essai de phonétique comparée du malais et des dialectes malgaches*, Paris 1909, p. 106.

'snake', beside Mal. *ular*, Ibg. *ulág*, and Jav. *ulā*, the Jav. showing the same loss and compensatory lengthening. Certain Phil. languages represent RGH by *l* (see below p. 73).

The Philippine Islands¹ form the center of the speech territory in which the consonant of the RGH series appears as *g*. Hence it is customary to classify as belonging to the Philippine group, not only languages of that archipelago, but such other speech groups as show the *g* of that series. Among the non-Philippine languages of this category are the Duzon and Iranun of N. W. Borneo, the Singkan Formosan and the Favorlang of Formosa, the Ponosakan and Mongondou of North Celebes, and the Chamorro of the Marianas. The following examples will further illustrate the *g* languages in non-Philippine territory.

Duz. *wagas* 'unhulled rice', Iran. *bugas*, Chro. *pugas*, beside Bis. *bugás*, Mal. *beras*, Day. *behas*.

Duz. *waig* 'water', Iran. *aig*, beside Mgd. *ig*, OJav. *er*, Mal. *ayer*.

Duz. *gamut* 'root', beside Tag. *gamút*, Ilk. *ramút*, Tonsea *amut*.

Duz. *niog* 'cocoanut', Chro. *niyo(g)*, beside Tag. Bis. *niúg*, Mal. *niyur*.

SForm. *pagig* 'ray fish', beside Tag. Bis. *pági*, Mal. *pari*, Day. *pahi*, where SForm. *pagig* shows final parasitic *g*, as in *wagiog* 'storm', beside Phil. *bagyu*.

OFavor. *tagga* 'blood', Chro. *haga*, beside Ibg. *dága*, Mal. and Čam *darah*, Bulu *raha*. The OFavor. *tagga* shows secondary gemination of *g*, as in *oggach* (Tag. *ugát*), and *t* for *d*, as in OFavor. *tarran* (Phil. *dalan*) 'way'. Chro. *haga* has *h* regularly for initial *d*.²

Ponosakan and Mongondou *dugi* 'thorn', beside Ibg. *dúgi*, Toba *duri*, Day. *duhi*.

Ponos. *gowii* 'night', beside Tag. Bis. *gab'i* and *gabi'i*, Ilk. *rab'i*, Sang. *hëbbi*, Nias *owi*.

¹ For the geography of the Philippine languages and dialects see Scheerer's sketch map in his work, *The Batán dialect as a member of the Philippine group of languages*, Div. of Eth. Pub. vol. v, part i, Manila 1908, p. 17.

² See Conant, *op. cit.*

Mongd. *doṅog* 'hear', beside Bis. *duñúg*, Mal. *deñar*, Sang. *dññihě*.

In the three great languages, Tagalog, Bisaya (with its many dialect variations), and Bikol, together constituting the speech of seventy per cent of the entire population of the Philippine Islands, the RGH consonant invariably appears as *g* in all positions, initial, medial, and final. The same is true of Ibanag (North Luzón), Magindanau (South Mindanao), Sulu, and several other speech groups of minor importance. There are, however, a number of Philippine languages in which the RGH consonant develops other sounds, particularly *r*, *l*, and *y*, as exemplified by the following table, showing the consonant in question in initial, medial, and final position.

<i>G languages</i>	Initial	Medial	Final
Tag.	gamót 'root'	ugát 'vein'	íkog 'tail'
Bis.	gamút	ugát	íkog
Bkl.	gamót	ugát	íkog
Ibg.	gamút ^t	ugát ^t	(niúg 'cocoa-
Mgd.	gamut	ugat	ikug [nut']
Sulu	gamut	ugat	ikog
Bgb.	ramot	ugat	ikog
<i>R languages</i>			
Ilk.	ramút	urát	(bibír 'lip')
Tir.	(rohok 'rib')	urat	igor
<i>L languages</i>			
Pang.	lamót	ulát	ikól
Knk.	lamót	uwat	
Inb.	damót	ulat	ikól
Bon.	lamót	őăd, wăd, uăd	
Klm.	lamot	(darala 'girl')	(bibil 'lip')
<i>Y languages</i>			
Pamp.	yamút	uyát	iki
Batan	yamot	úyat	(itioi 'egg')
Sambal	(yábi 'night')	(búyas 'rice')	(tolói 'sleep')

Remarks on the above table.—In the Ibanag examples *gamút*^t and *ugát*^t the final *t* has lost its original pronunciation, and, like the other surd stops *k* and *p*, has become a mere glottal stop (hamza) in Ibg. when final. I write the original surd

stop above the line, since it has its original value when supported by a suffix, *e. g.* *gamután*.

The intervocalic *rr* written by Bennásar¹ in his spelling of Tirurai words, *e. g.* *urrat* 'vein', *urrar* 'snake', is simplified to *r* in this paper, since it is not a case of gemination, but is a trilled *r* which would regularly be represented in the Spanish orthography by *rr* when intervocalic.

Tir. *rohok*, beside Mal. *rusuk*, Bis. Bgb. *gúsok*, has *h* for IN *s*, as in Tir. *liha* 'nit', beside Tag. *lisá*.

Tir. *igor* 'tail' shows *g* for IN *k*, as in Tir. *sigeu* 'elbow', beside Phil. *siku*.

The Kankanai *uwat* and Bontok *öäd*, *wäd*, *uäd*² show secondary loss of intervocalic *l*, the former with compensatory labial glide *w*, while the latter shows a tendency to reduce the initial *o(u)* to a labial semivowel, as appears from the variant *wäd*.

The *d* of Inibaloi *damót* is also secondary for Inb. *l*, with which it interchanges. Cf. Inb. *ulat* and *ikól*, and see Scheerer, *The Nabaloi Dialect*, p. 102.

Bagobo properly belongs to the *g* languages, as will appear below, *ramot* being one of the few anomalous examples of *r* representation of RGH to be found in that language.

Ibg. *niüg* is cognate with Mal. *niyur*, Tag. *niüg*; and Ilk. *bibir*, Kalamian *bibil* 'lip', with Mal. *bibir*, Ibg. *bibíg*.

Klm. *darala* 'girl' is identical with Bis. *dalága*, a reduplicated form of Mal. *dara*, Mgd. *laga*, *raja*.

For Btn. *itioi*, beside Tag. *itlug*, Mal. *telur*, see below (p. 81). With Sambal *yábi* compare Tag. *gab'i* and Ilk. *rabi'i*, and with Sbl. *búyas* and *tolói* compare Bis. *bugás*, Mal. *beras*, and Bis. *tulóg*, Mal. *tidor*, Jav. *туру*.

The r, l, and y languages in detail. Unlike the Tagalog, or pure *g* type, the *r, l, and y* languages show some irregular-

¹ *Diccionario Tiruray-Español*, Manila 1892, and *Diccionario Español-Tiruray*, Manila 1893. This rule of orthography is, however, not consistently adhered to by Bennásar, *e. g.* he writes *biarung* 'a kind of tree' in his *Observaciones Gramaticales sobre la lengua Tiruray*, Manila 1892, p. 3, while the same word appears as *biárrung* in the *Diccionario Tiruray-Español*.

² The Bontok examples throughout the paper are taken from Seidenadel, *The language spoken by the Bontoc Igorot*, Chicago 1909, Open Court Pub. Co.

ities, their characteristic consonant often interchanging with *g*. They therefore require individual examination.

The r languages. These are the Iloko, spoken on the N.W. coast of Luzón, and the Tirurai, spoken by a mountain tribe of South Mindanao. Bagobo, also spoken in South Mindanao, is very similar to Bisaya in many respects, and generally has *g* like that language. It is possible that the sporadic cases of the *r* representation in Bagobo may be due to the influence of some neighboring mountain dialects, or to Malay. The inconsistencies of its vocalism, doubtless due to the same influence, have been pointed out in my paper on the pepet law.¹ It will appear from the following comparative table that the interchange of *r* and *g* follows different norms in the two *r* languages, and that *r* is more persistent in Tir. than in Ilk. It will also appear that Bgb. is properly a *g* language, as above stated.

	<i>Iloko</i>	<i>Tirurai</i>	<i>Bagobo</i>	
Mal. rebah 'to fall'	rebbá	rebá and gebá	gobbá	Tag. gibá
Mal. rusuk 'side'	rósok	rohok	gosok	Bis. gúsuk
Mal. rakit 'raft'	rákit	gakit		Ibg. gákit
Pamp. ayán 'light, quick'		raán	gaan	Tag. ga'án
Toba abara 'shoulder'	abága	wará		Ibg. abagá
Mal. duri 'thorn'	dúri	durai	dugi	Bkl. dúgi
Toba uras 'to wash'	úgas	urah(en)	horas	Sulu hugas
Mal. bara 'hot coals'	bára	bará	baga	Bis. bága
Mal. barat 'west wind'	abágat	barat	habagat	Tag. habágat
Day. besoh 'satiated'	bussúg	besar	bossog	Bkl. basóg

The vocalism of the first syllable of Ilk. *rebbá*, Tir. *rebá*, *gebá*, Bgb. *gobbá*, Tag. *gibá*, and that of Ilk. *bussúg*, Tir. *besar*, Bgb. *bossog*, Bkl. *basóg*, is according to the pepet law, and the consonantal doubling in the Ilk. and Bgb. examples, according to the law of gemination of a consonant following original pepet.² Tir. has both *rebá* and *gebá* with slightly different meanings, while Ilk. has only *rebbá*, and Tir. has *g* in *gakit* beside the Ilk. *r* of *rákit*. But in three of the examples Tir.

¹ *The Pepet Law in Philippine languages*, to appear in an early number of *Anthropos*, to which journal it was sent for publication several months ago.

² Cf. Conant, *Pepet Law*, and Brandstetter, *Wurzel und Wort in den Indonesischen Sprachen*, Luzern 1910, p. 41, who has independently discovered the same law for Ilk.

has *r* where Ilk. has only *g*, namely *wará*, *urah(en)*, and *besor*. The *h* of Tir. *rohok* and *urah(en)* has been treated above (p. 75).

An examination of the Iloko vocabulary reveals a large number of *r:g* variants. The following are selected from a long list:

Ilk. *ríbak* 'fragment of pottery', beside the later, but less common *gíbak* (Ibg. *gíba^k*); Ilk. *baró* 'new', beside *bágo*, in the sense of 'newcomer' (Mal. *baru*, Tag. *bágu*); Ilk. *darás* 'quick, prompt', beside *dagás* (Toba *doras*, Day *dāhes*, Tag. *dag'ás*); Ilk. *bekkór* 'convex', beside *bekkóg* 'concave'; Ilk. *bibir* (obsolete) 'lip', beside the modern *bibíg* (Mal. *bibir*, Ibg. *bibíg*). Ilk. *girái* 'notch' shows this interchange by metathesis in the reduplicated *rig-rigáyan* 'thing notched, leaf with notched edge'.

It appears from a study of all the material for Ilk. that the original representation of the RGH series in that language was *r* unless disturbed by secondary laws. This *r* has been preserved in a large number of the most common words, e. g. *rósok*, *ramút*, *urát*, *bára*, *dúri*, *busór*, *tíker*. In other cases the *r* and *g* forms exist side by side, sometimes with different shades of meaning, as seen in the above examples, while in some cases the new *g* has entirely replaced the older *r*. Furthermore some *g* words have crept in from pure *g* languages, chiefly Ibg. and Tag.

The most striking difference between Ilk. and Tir. in the RGH representation is perhaps the treatment of the RGH consonant in final position. It is more commonly *r* in Tir., while *g* prevails in Ilk., e. g. Tir. *besor*: Ilk. *busság* of the above table; Tir. *běwěr* 'lip', beside Modern Ilk. *bibíg*; Tir. *igor*, beside Bis. *íkug*; Tir. *sawer* 'scatter', beside Bis. *sábweg*; Tir. *rěer* 'neck', beside Bis. *lí'og*, Tag. *lí'ig*, Mal. *leiher*; Tir. *urar* 'snake', Ilk. *úleg*.

But for the *g* of this last Ilk. example, see below p. 77.

As a general rule both languages have *g* when preceded by original pepet and followed by a non-pepet vowel; e. g. Tir. *begás* 'rice', Ilk. *bagás*, Tag. *bigás*, Bis. *bugás*, Mal. *beras*, Toba *boras*, Day. *behas*; Tir. *tegás* 'hard', Ilk. *sagát* (metathesis), Tag. *tigás*, Bkl. *tagás*, Bis. *tugás*, Bgb. *tuggás*, Mgd. *tegás*, Mal. *teras*, Toba *turas*; Tir. *begat* 'weight', Tag. *big'át*, Bis. *bug'át*, Toba *burat*, Day. *behat*. Both languages have *r* between the two

pepet vowels in Tir. *feres* 'to press out', Ilk. *perrés*, Sund. *peres*, Day. *pehes*, Sang. *pēhasě*.

An examination of the vocabularies of these two languages during the preparation of the present paper has revealed the following special law for the liquids *l* and *r*: *Iloko and Tirurai, like Toba and Dayak, do not admit both l and r in the same Grundwort.*¹

In Ilk. this is avoided by the *g* representation of RGH in words having an *l*; e. g. *úleg* 'snake', beside Mal. *ular*. In Tir. it is avoided either in the same way, e. g. Tir. and Ilk. *láyag* 'sail', beside Mal. *layar*, or, and this is by far the more common, by an assimilation of liquids in which the *r* of the RGH series generally assimilates the neighboring *l*, e. g. Tir. *urar* (Mal. *ular*), as is regularly the case in Toba and Day., e. g. Toba, Day. *rayar*, beside Mal. Sund. *layar*, Tag. Bis. Ibg. *láyag*. But exceptionally the RGH *r* is assimilated to the neighboring *l*, e. g. Tir. *lilei* 'post' (Tag. *halígi*, Mal. *diri*), where the Tir. *l* of the RLD series prevails. The following tabulation will show at a glance how the law affects the two languages.

<i>Iloko</i>	<i>Tirurai</i>	<i>Other languages</i>
láyag 'sail'	láyag	Mal. Sund. Ach. <i>layar</i> , Toba, Day. <i>rayar</i> , Tag. Bis. Bkl. Ibg. Bgb. Sulu <i>layag</i>
búlig 'bunch of bananas'	bulik(?)	Mal. bulir, Toba burir, Bis. Bkl. búlig
ribuk 'roil, disturb, confuse'	rebur, ribur	Mal. lebur, OJav. labū, Mak. laboro', Mgd. lebug, lebuk, Bis. lubúg, Bgb. lobbog, Pamp. labúg
úleg 'snake'	urar	Mal. ular, OJav. Cam ulā, Mak. ulara', Toba uluk, Pang. ulég
	rarei 'run'	Mal. Mak. Bug. lari, Mgd. Bgb. lagui, Bis. Bkl. lagiú
	rëër 'neck'	Mal. leiher, Sang. lehe, Kuyunun liëg, Bis. Bkl. Sulu li'ug, Ibg. Mgd. lig, Bgb. alig
arígi or adígi 'post'	lilei	Mal. (ber)diri, Day. jihi, Sang. dihi, Bulu arihi, Tag. Bis. halígi, S.-Bis. Bkl. harígi, Mlg. andri

¹ As the question whether IN roots are to be regarded as dissyllabic or monosyllabic has not yet been settled, I employ the convenient term *Grundwort* following the terminology of Brandstetter, *Wurzel und Wort*, p. 3 *et passim*.

For further *l* assimilation in Tir., compare Tir. *lual* 'except', Mal. Sund. *luar* 'outside'. The *r* prevails in the Ilk. cognate *ruar*, in which it agrees with Toba, Day. *ruar*. Compare also Tir. *lalañ(en)* 'prohibit', beside Mal. Sund. Mak. *larañ*, Toba, Day. *rarañ*, Sulu *lāñ* (for **lalañ*).

The *g* of Ilk. Tir. *lāyag* may also be explained as a case of stereotyped Phil. *g* to be treated below (p. 82). The surd *k* replaces the sonant *g* in final position in Ilk. *ribuk*. This wavering between final surds and sonants is not uncommon, not only in this language, but elsewhere in the Philippines and in Chamorro.¹ It is possible that Tir. *bulik* 'a kind of wild banana' is to be connected with Ilk. *búlig*, in which case we should have, instead of the regular Tir. assimilation, an example of final RGH *g* becoming *k* just as in Tir. *ribuk*; cf. also Tir. *tanuk* 'sound', beside Mgd. *tanuk*, Tag. *tunóg*, Pang. *tanól*.

The l languages. In Kalamian (North Palawan), Pangasinan, and the related Igorot dialects Inibaloi, Kankanai, and Bontok, the RGH consonant appears regularly as *l*, exceptionally as *g*, which sometimes becomes the surd *k*. The *l* of these languages is considerably more constant than the *r* of the *r* languages, as will appear from the following table and the additional examples given below.

<i>Kalamian</i>	<i>Pangasinan</i>	<i>Inibaloi</i>	<i>Kankanai</i>	<i>Bontok</i>	<i>G languages</i>
lamot 'root'	lamót	damót	lamót	lamót	Bis. gamút
labii ² 'night'	lâbi	kalbian	lafí	lafí	Tag. gab'í
kabala 'shoulder'	abalá	awáda	abála		Ibg. abagá
	ulát 'vein'	ulat	uwat	öäd	Bgb. ugat
bibil 'lip'	bibil				Bis. bibíg
tenal 'voice'	tanól				Bkl. tanóg

The Inb. secondary *d* for *l* in *damót* and *awáda*, and the loss of intervocalic *l* in Bon. *öäd* are explained above (p. 5).

Klm. *kabala* has an initial parasitic *k* as in *kolo* 'head', beside IN *ulu*. This *k* may also appear medially, as in *takon*

¹ Cf. Conant, *Consonant changes and vowel harmony in Chamorro*.

² Corrected spelling for the Span. orthography *lavii* of Father Jerónimo de la Virgen de Monserrate in his *Vocabulario Castellano-Calamiano*, pub. by Retana in the *Archivo del Bibliófilo Filipino*, vol. ii, Madrid 1896. On this spelling and the whole subject of Span. confusion of *b*, *v*, and *u*, see my *F and V in Philippine languages*, p. 2, note.

'year', beside Tag. *ta'ón*, and finally, as in *polok* 'ten', beside Bis. *puló*, and generally, perhaps always, stands in the place of the glottal stop (hamza).

As the *r* languages avoid the concurrence of *l* and *r* in the same word, so the *l* languages do not allow two *l*'s in the same word when such would be the result of the *l* representation of RGH. In such cases RGH generally appears as *g*, e. g. Pang. *ulég* 'snake', Ibn. *úleg*, Knk. *eweg*, Bon. *üwüg*, beside Mal. *ular*, Tir. *urar*, the Knk. and Bon. examples showing regular loss of intervocalic *l* (see above, p. 74); Klm. and Pang. *ilog* 'river', beside Tag. *ilog*, Mal. *alur*.

The correspondence of Klm. *kilog* 'egg' with its Pang. cognate *iknól* (Tag. Bis. Ilk. *itlug*, Mal. *telor*) is interesting as showing the different evolution in the two languages of the RGH consonant in the same word with an original *l*. In Klm. *kilog* RGH appears as *g* and the original *l* remains unchanged, while the slightly pronounced *t* of Phil. *itlug* degenerates to hamza, which shifts, as often in Klm., to the other side of the vowel *i* and there appears regularly as *k* (see above). In Pang. *iknól*, the RGH consonant persists as *l*, and by a dissimilation of liquids the original *l* becomes *n*, to which the *t* is then partially assimilated, becoming *k*. Precisely the same evolution as to liquids is seen in Pang. *moníl* 'bunch of bananas' (Bis. *búlig*, etc. See table p. 77). In this example, furthermore, the *n* produced by dissimilation acts in turn on the initial labial sonant stop *b*, changing it by partial assimilation to the labial nasal *m*. In Klm. the persistence of final *l* of the RGH series in a word beginning with an original *l* is shown by *dikel* 'neck', beside Tag. *lí'ig*, Bis. *lí'ug*, Mal. *leiher*, Tir. *rëër*. Here the repetition of *l* is avoided by changing the original initial *l* to its corresponding sonant stop *d*. The vocalism of the last syllable follows the pepet law, and the parasitic *k* takes the place of the hamza seen in the Tag. and Bis. cognates.

While the *r* languages generally have *g* for RGH when this is preceded by a pepet vowel and followed by any other vowel, Pang. shows *l* under the same circumstances, e. g. Pang. *belás* 'hulled rice', beside Tir. *begás*, Ilk. *bagás*; Pang. *belát* 'weight', beside Tir. *begát*.

The material at hand for the other *l* languages is not sufficient to permit of classification in this particular.

Pang. also shows *l* as the first element of a consonantal group following any vowel, e. g. Pang. *ulsá* 'deer', beside Ilk. *ugsá*, Toba *ursa*, Mal. *rusa*; Pang. *belwás* 'alzar ó coger lo que está dentro del agua', Tag. *bigwás* 'tirar el anzuelo'; Pang. *pelsá* 'boil, carbuncle', Tag. *pígsá*, Bis. Bgb. *pugsá*. The last two examples have pepet vocalism of the penult. The exceptional *g* of Pang. *begsái* 'paddle', beside Pamp. *bagsái*, Bis. Sulu *búgsai*, Bgb. *bugse*, Chro. *pogsai*, is probably to be explained as a case of stereotyped *g* (see below, p. 82).

The y languages. As in Gayo and Lampong, the RGH consonant appears as *y* in the Phil. languages, Pampanga, Batan, and Sambal, where it also appears exceptionally as *g*, though most of the exceptions may here be referred to the stereotyped class. The regular representation for Pamp. and Btn. is shown by the following examples:

Pamp. *uyát* 'vein', Btn. *úyat*, Gayo *uyöt*, Lamp. *oya*, Tag. *ugát*, Day. *uhat*.

Pamp. *dáya* 'blood', Btn. *rayá*, Ibg. *dága*, Chro. *haga*, Day. *daha*, Pang. *dalá*, Ilk. Tir. *dára*, Čam, Mal. *darah*.

Pamp. *payáu* (modern *payó*) 'hoarse', Gayo *payo*, Mal. Ilk. *parau*, Tag. *págau*, Day. *pehau*.

Pamp. *yamút* 'root', Btn. *yamot*, Tag. *gamút*, Pang. Klm. *lamót*, Ilk. *ramút*, Tonsea *amut*.

Btn. *itioi* 'egg', Lamp. *telui*, Mal. *telor*, Bgb. *tollog*, Tag. *itlúg*?

Pamp. *iki* 'tail', Lamp. *ikui*, Gayo *uki*, Mal. *ikor*, Toba *ihur*, Tir. *igor*, Pang. *ikól*, Tag. Bis. *íkog*, Day. *ikoh*, OJav. Čam *ikū*, Mlg. *uhi*, *uhu*.

When final, the *y* becomes *i* and coalesces with a preceding *i* in both Pamp. and Btn., as in Btn. *bibí* 'lip', Ibg. *bibig*, Mal. *bibir*; Pamp. *búli* 'cluster of bananas', Bis. *búlig*, Mal. *bulir*, Jav. *wuli*, Mlg. *vulí*, *buli*. With a preceding *a* it forms the diphthong *ai* in both languages, as it does in Lampong, e. g. Pamp. *tikái* 'reed-mace, cattail', Bis. Bkl. *tikog*, Ilk. *tíker*, Mal. *tíkar*, Mlg. *tsihi*, *tíhi*, *šihí* (the examples showing regular pepet vocalism of the ultima); Btn. *vudái*, *budái*¹ 'snake', Lamp. *ulai*,

¹ The Batan word may now be included under Brandstetter's *Variation 3* under *Schlange*, (*Mata-Hari*, p. 34), since the only difficulty it presents is the prefixed *v* or *b*, which can easily be explained as an initial parasitic labial glide before the labial vowel *u*. In fact it is pronounced much like the Span. *b* in *bullir*.

Ibg. *ulág*, Pang. *ulég*, Mal. *ular* (pepet in ultima). With a preceding *o* (*u*) the *i* (<*y*) forms the diphthong *oi* (*ui*) in Btn. as in Lamp., *e. g.* Btn. *itioi* 'egg', Lamp. *telui*; Btn. *busoi* 'enemy', Ilk. *búsor*, Pang. *busól*. In Pamp. the final diphthong *oi* (*ui*) thus formed contracts to *i*, *e. g.* Pamp. *iki* 'tail' (but Lamp. *ikuí*). Other examples for Pamp. are *ápi* 'lime', Tag. *ápog*; Pamp. *atní* 'sound', Tag. Bis. *tunóg*, Bkl. *tanóg*, Ibg. *tannúg*, Pang. *tanól* (pepet in penult); Pamp. *absí* 'sated', Tag. Bis. *busog*, Bkl. *basóg*, Ilk. *bussúg*, Bgb. *bossog*, Ibg. *battúg*, Tir. *besor*, Day. *besoh* (pepet in penult). The Pamp. examples *atní* and *absí* show a very common characteristic of Pamp. pointed out in a previous paper,¹ namely, the metathesis of initial consonant + vowel.

In Pamp. RGH regularly appears as *y* when preceded by a pepet vowel, whatever be the character of the following vowel, *e. g.* Pamp. *báyat* 'weight', Pang. *belát*, Tir. *begat*; Pamp. *abyás* 'rice', Pang. *belás*, Ilk. *bagás*, Tir. *begás*; Pamp. *asyád* 'sting (of insect)', Tir. *seged*, Tag. *sigíd*, Bkl. Bis. *sugúd* (pepet in both syllables).

The material for Sambal is meager, but sufficient to enable us to classify that language here: Sbl. *yábi* 'night', Tag. *gab'i*, Pang. *lábi*, etc.; Sbl. *búyas*, *búya* 'rice', Tag. *bigás*, etc.; Sbl. *ráyo*, *láyo* 'run', Bis. Bkl. *lagiu*, etc.; Sbl. *tolói* 'sleep', Tag. *túlog*, Mal. *tidor*, Day. *tiroh*, Mlg. *turi*, *turu*. It appears from the last example that final *y* is treated in Sbl. as in Btn. and Lamp.

In Pamp. RGH frequently appears as *g*, but more often in final position than initially or medially, *e. g.* Pamp. *gatús* 'hundred thousand', but Btn. *yatús* 'hundred', Mal. *ratus*; Pamp. *abágat* 'west wind', Pang. *abaláten*, Bulu *awahat*; Pamp. *sagáp* 'to skim', Tag. *sagíp*, Toba *sarop*, Mal. *sarap*, Day. *sahep* (pepet in ultima); Pamp. *ilúg* 'river', Tag. *ilog*, Mal. *alur*; Pamp. *amóg* or *amíg* 'dew of morning', Tag. *hamóg*, Ilk. *ámor*, Pang. *amól*. The *g* of these examples is anomalous, and an explanation of its irregular appearance in place of the natural *y* is impossible at this stage of our investigation, as is the case with many *g*'s of the RGH series in the *r* and *l* languages. Pamp. *gatús* is probably to be explained as a borrowed word originally taken into the language with the meaning of an

¹ *Pepet Law.*

indefinitely large number, just as in Tag., where the same word means million according to the dictionary of Noceda and Sanlucar. 'Hundred' is *dalan* in Pamp. (*limain dalan* 'five hundred'), and the same word in Tag. *daan*, with secondary Tag. loss of intervocalic *l*. It is quite possible that Pamp. *ilúg* and *sagáp* are cases of stereotyped Phil. *g*, but *abágat* and *amóg*, together with a considerable number of other *g* examples of unmistakable RGH origin, remain to be explained. On the other hand, the RGH *g* is doubtless rare in Btn. The available material for that language is not copious, and I have noted but one certain example in point, namely, Btn. *agsa* 'deer', beside Ilk. *ugsá*, Pang. *ulsá*, Toba *ursa*, Mal. *rusa*. The *g* frequently seen in Rodríguez's *Catecismo* corresponding to IN *l*, e. g. Btn. *ogo* 'head', beside IN *ulu*, is replaced by the modern *h* (Span. orthography *j*), and is the regular treatment of IN *l* in that language. Sambal has *ilug* 'river' (Mal. *alur*), but shows the regular *y* in *tolói* 'sleep,' where Pamp. (*tulúg*) and the *r* and *l* languages show persistently *g*, which in the last two types may be due to the laws of liquids (see above, pp. 77, 79).

The three-fold origin of the Philippine g. The *g*'s of the Phil. languages may be divided into three classes according to their origin, namely original *g*, the *g* of the RGH series, and that of the RLD series.

In a considerable number of words *g* persists uniformly in the languages of the archipelago unless affected by some secondary law. In order to determine whether the *g* in such cases is original or belongs to the RGH series, comparison must be made with material from other IN languages. Thus the word for 'rayfish' is *pági* in Tag. Bis. Bkl. Mgd. Ibg. Pamp. Pang. Ilk., and *fági* in Tir., where *f* is regular for IN *p*¹, and it is only by comparison with the non-Philippine cognates Mal. Sund. *pari*, Day. *pahi*, that the *g* of the Phil. words is shown to be of RGH origin. We have here what may be termed a stereotyped Phil. *g* of the RGH series.

On the other hand, the *g* of Tag. Mgd. Sulu, Pamp. Pang.

¹ Conant, *F and V in Philippine languages*, Division of Ethnology Publications, vol. v, part ii, Manila 1908, trans. into Japanese by Mr. R. Torii, *Journal Anthropol. Soc. of Tōkyō*, vol. xxiv, No. 283, Tōkyō, Oct. 1909.

lúgi 'loss' is original, as evidenced by Mal. Jav. Sund. Toba, Mak. Bug. Day. *rugi*. Other examples of original *g* are Tag. Pamp. Tir. Bgb. Mal. Jav. Sund. Toba, Day. *dagañ* 'trade, merchant', and Mgd. Mal. Jav. Sund. Day. *getas* 'cut (as string)', Toba *gotas*, Bis. *gutas*, Ilk. *gessát* (metathesis and gemination), Pamp. *agtás* (metathesis), Ibg. *gattát*, these last cognates showing regular pepet vocalism of the penult.

Some words show one stereotyped form running through one group of Phil. languages while a stereotyped variant appears in another. An example in point is the IN word for 'indigo', which shows a medial RGH consonant in Mal. Sund. Čam *tarum* (cf. Bahnar *trum*, Khmer *tróm*), Mak. *taruñ*, Day. *tahun*, Jav. *tom*, while Toba has *tayum* where we should expect **tarum* according to the RGH law. Now the Luzón languages Tag. Pamp. Pang. Ilk. have *táyum* following the Toba variant, while the languages of the southern Philippines, Bis. Bkl. Bgb. Mgd., have *tágum* following the RGH type. Further investigation of such variants would doubtless throw additional light upon the history of Malayan migrations to the Philippines.

Pang. Ilk. and Ibg., like the non-Philippine languages Toba, Karo, and Mentawai, have also a *g* representing the consonant of the RLD series.¹ This correspondence is shown by the following comparative table.

<i>R</i>		<i>L</i>	<i>D</i>		<i>G</i>
'rice (unhulled)'					
Jav.	pari		Mal.	padi	Karo page
Sund.	pare		Čam	padai	Toba page
Mak.	pare		Mkb.	padi	
Day.	parái				
Tir.	farei	Tag.	pálai		Pang. pagéi
Bkl.	pároi	Pamp.	pálai		Ilk. págai
S.-Bis.	párai	Sulu	pāi (<*palai)		
Btn.	parái				

¹ This *g* has been pointed out for Ibg. and the non-Phil. languages by Kern, *Taalvergelijkende verhandeling over het Aneityumsch, met een Aanhangsel over het klankstelsel van het Eromanga*. Amsterdam, 1906, p. 11, *et passim*, and by Brandstetter, *Prodromus zu einem vergleichenden Wörterbuch der malaio-polynesischen Sprachen*, Luzern 1906, p. 61; *Mata-Hari*, Luzern, 1908, pp. 22, 26.

<i>R</i>		<i>L</i>		<i>D</i>		<i>G</i>	
‘how much?’							
Jav.	pira			Bali	pidá	Mentw.	píga
Day.	pirä						
Mlg.	firi						
Tir.	firoi	Tag.	ila				
Bgb.	pira	Pamp.	pila			Pang.	pigá
Bkl.	pirá	Bis.	pila				
S.-Bis.	pira	Mgd.	pila			Ibg.	píga
Kuy.	pirá	Sulu	pila				
‘nose’							
Jav.	iruñ	Mad.	eloñ	Mal.	hiduñ	Karo	iguñ
Sund.	iruñ			Čam	iduñ	Toba	iguñ
Day.	uroñ			Ach.	hiduñ		
Mlg.	uruñ, uruna			Mkb. (h)	jiduañ		
Tumb.	ñiruñ			Duz.	idoñ		
Sumb.	uruñ						
Tir.	iruñ	Tag.	ilón	Bgb.	idoñ	Ilk.	agón
Mgd.	hiruñ, ñiruñ	Mgd.	hiduñ	Mgd.	hiduñ	Ibg.	igúñ
Klm.	aron	Bis.	ilón				
Kuy.	irón	Sulu	ilón				
S.-Bis.	irón						

Further examples of this conspicuous *g* in Pang. Ilk. and Ibg. are the following:

Pang. Ilk. Ibg. *magá* ‘dry’, beside Tag. Pamp. Bis. *malá*, Bkl. S.-Bis. *mará*.

Pang. Ibg. *lagá*, Ilk. *lága* ‘weave matting’, beside Tag. Pamp. Bis. *lála*, S.-Bis. *lára*, Bkl. *rára*, where Bkl. assimilates the original initial *l* to the *r* of the RLD series.

Pang. Ilk. Ibg. *sigi* ‘throw grain into sieve’, beside Tag. Pamp. *silí*, Mgd. *siri*.

Pang. Ilk. *suga* ‘thorn’, Ibg. *tugá*, Toba *suga*, beside Tag. Bis. *sula*, Mal. *suda*.

Pang. *sogód* ‘comb’, Ilk. *súgud*, Ibg. *tugúd*, beside Bis. *súlod*, Tir. Bkl. S.-Bis. *surud*, Mgd. *surut*.

Ilk. *agék* ‘sniff’, Ibg. *agó^k*, beside Tag. *halík*, Mgd. *alek*, Bis. *halók*, S.-Bis. *harók*, Tir. *árek*, Bkl. Bgb. *hadók*. This last example shows regular pepet vocalism of the ultima throughout.

In Pang. an interesting exception to this *g* representation of an intervocalic RLD consonant is to be noted. By a special law of Pang. and its related Igorot dialects, an intervocalic

consonant of the RLD series does not become *g* in a *Grundwort* whose initial or final consonant is the velar nasal *ŋ*. In Pang. the RLD consonant becomes a liquid, *l* or *r*, in such words, while Ilk. and Ibg. show the regular *g*. This is illustrated by the following examples.

Pang. *elén* 'nose', Knk. *elén*, Bon. *íleñ*, Inb. *idón*, but Ilk. *agón*, Ibg. *igún*, Karo and Toba *iguñ*, beside Jav. *irun*, Tag. *ilón*, Čam *idun*, etc. (see table p. 84).

Pang. *orín* 'charcoal', Inb. Bon. *úliñ*, but Ilk. *ógin*, Ibg. *ugin*, beside Tag. Bis. Pamp. Mgd. *úliñ*, Bgb. *úrin*.

Pang. *ńarán* 'name', Inb. Knk. *ńáran*, Bon. *ńáčan*, *ńádan*, but Ilk. *ńágan*, Ibg. *ńagán*, beside Tag. Bis. Mgd. *ńálan*, Bkl. S.-Bis. *ńáran*, Kuyunon *aran*, Isinai *ńaron*, Bgb. *ńadan*, Chamorro *naan*, Jav. *ńaran*, Mlg. *ańaran*, *anaran*, *anaranã*.