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ON SANDHI IN THE IBANAG LANGUAGE

Ву

Carlos O. Drandes and Otto Scheerer,
Seminar of Philippine Linguistics,
U. P.

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!UXXXAVAIJABART-TET

Initurák mi təp-papél aw ik-kagí na Ibanán tək-kunng gəbbá tək-kevuyát na, kagittá nəp-pinangngiturák ni Dr. José Rizal twange kwani Dr. Pardo de Tavera, ənná nu mawáppagá inamungámmi gapá tət-tanakwán ira nga əngngiturák.

Aru maffugák im-mangebbót tet-tangslianákku tu talibáguammí iddán nga keturák nək-kagi na Ibaná ч. Ñgem arí tu yatun ig-gakkən mi. Awaiya na tu mataligapiá pagá ikketurák nek-kagí na Ibaná ч. ngem ip-papél mi innamúnuan na ipagalé y tommarudút tək-keruláy nək-kakevuyát něk-kagí na Ibanáy, tapenu magawát yaw, ay initurát mi taw ik-kurugá kakunnasí něk-kevuyát na; ari kunné gəbbá təp-pinangiturák nég-gagessílat.

Kayat ku pagá lagú nga kagián tu marigát im-maməddáy
təm-meggót nga regla nəg
gramáttika gafú ta arí metuddú ik-kagí na Ibanáa təppaggigiámmuan ira ənnək
keruláy na ipaguvovúa nəkkatággitádday im-mangiyáwat gapá ta ipáddumárumá
nək-kekagí nək-kagí na Ibanáa.

TO MY COUNTRYMEN!

We have written in this paper the Ibanág language just as it is pronounced, and in accordance with the orthography of Dr. José Rizal and Dr. Pardo de Tavera, and, when yet necessary, we have added also some special letters.

There will perhaps be a number of my countrymen who suspect that we want to reform the old writing of the Ibanág language. But that is not our purpose. It is possible to improve yet the writing of the Ibanág language, but our paper is only to present the results of a research into the majority of the phonetic peculiarities of that language and in order to do this we have graphically reproduced the exact manner of its articulation, and have thus not followed the Spanish orthography.

I wish to say also that it is difficult to formulate strict rules of grammar because, the Ibanág language not being taught in the schools, the peculiarity of each individual in speaking gives rise also to variation in the general mode of speaking the language.

Lagúd tək-kunnúd nu egga immélul nga mangipakánnəmmú tən-naliwatákku ay arriákku ammú nu kunnasí ipábbalobálot ku.

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For that reason, if there be one who desires to draw attention to my errors, I do not know how I shall express my gratitude to him.

CARLOS O. BRANDES.

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INTRODUCTION

In the present paper an exposition is attempted of the principal ones of those sound-changes in the Ibanág language which, in the formation of sentences, occur at the beginning or at the end of a word, and which are caused thru the influence of a preceding or a following sound. Sound-changes of this kind are termed 'sandhi', a name originally used by the ancient Indian grammarians for similar phenomena in Sanskrit. As is generally done, we widen the scope of this term somewhat, and consider under it also those sound-changes which in present-day grammar are observed in the building up of words thru the addition of formative elements.

The Ibanág language is spoken in Cagayán, a province occupying the whole northeastern corner of Luzón and extending from there in a narrow western strip along the greater part of the north coast of this island. Neighboring territories are, in the west, the districts of Apayao and Kalinga, both subdivisions of the Mountain Province, and, in the south, the province of Isabela where Ibanág is also spoken. Ibanág, meaning primarily 'people by the Bánnag' (i. e. by the Río Grande de Cagayán) is not the only language spoken in this province. The town of Clavería in the extreme northwest, as well as Alcalá and Faire in Central Cagayán speak almost exclusively Iloko, while the towns and barrios (i. e. outlying suburbs) of Amuluñg, Iguig.

Piat, Tuao, and Enrile, further the barrios of Tuguegarao, Solana, and Peñablanca use the Itawit, a dialect closely allied to Ibanág. The centers of the three last mentioned municipalities, however, speak a pure and uniform Ibanág. In fact, since Tuguegarao has already since Spanish times been the capital and intellectual center of the province, the Ibanág here spoken represents the most polished form of this language, and to it we principally refer in this paper.

Of existing literature dealing with, or touching upon, our subject we should mention the celebrated ancient work by Padre Fausto de Cuevas 'Arte nuevo de la lengua Ybanág' (first edition of 1826), which has in its first part (pp. 1-10) a review of the sounds and syllables of the language, and gives, in its second edition of 1854 (pp. 343-366 + 22), an interesting synopsis of verbal derivatives added by P. Ramon Rodriguez. Some notes on sounds and accentuations are found in the prologue to 'Diccionario Ibanag-Español' (hereafter cited as DIE) by the Dominican Fathers Bugarín, Lobato, Velinchon, and Rodríguez (Manila 1854), a work having its complement in 'Diccionario Español-Ibanág' by two Dominican ministers (Manila 1867; cited by us as DEI). In modern times the Ibanág language has been frequently drawn upon for demonstration by H. Kern and R. Brandstetter in their fundamental works on Indonesian linguistics, while certain points of Ibanág phonology have been treated by the late Prof. C. E. Conant in his 'The Pepet law in Philippine Languages (Anthropos VII, 1912; hereafter cited as 'Pepet law'), in his 'F an V in Philippine Languages (Bur. o. Sci., Div. o. Ethn. Publ., vol. V, part II, Manila, 1908, herein cited as 'F and V'), and in others of his monographs. It may be observed that we have maintained in our study a criterion quite independent from that of our predecessors, the priority of whose findings we acknowledge in all cases of special concurrence, while to those of their statements to which we would take exception, or which we would modify, we must, for lack of space, oppose ours without more than an occasional discussion. Our own information regarding Ibanág phonology, where not gained by comparative study, is derived mainly from the first of the present writers who speaks this language, his mother-tongue, in the form in which it is used in his native town, the capital Tuguegarao above mentioned. To him is due the basic material for the present paper.

For a better understanding of the proposed exposition of sandhi phenomena we begin with an inventory and brief description of the Ibanág sounds by themselves, followed, under the heading 'Inter-dialectic comparison', by notes in which we bring out several characteristic features of Ibanág phonology which, tho in part also resulting from the mutual influence of adjacent sounds, are not fully discovered by any internal study of the Ibanág but laid bare only thru a comparison with other Philippine languages. The treatment, then following, of the sandhi phenomena themselves we divided for practical reasons into a chapter on word-formation and another on syntax, well aware of the shortcomings of such a proceeding from a strictly phonetic point of view. The letter 'To my countrymen' prefacing the paper will speak for itself and will show, at the same time, the language in a coherent text.

§ 1.—Table of sounds:

Labial Dental Labio-dental Palatal Velar Larvngeal

Stops, voiced	b	d			g, 3	
" unvoiced	p	t			k	Cf. Note
Nasals (voiced)	m	n			ñg	
Lateral (voiced)		1				
Trill (voiced)		r				
Fricatives, voiced	w	z	v	у		
" unvoiced		S	f	-		h

Vourelet

, e, g, a, a o, u.

NOTE. The laryngeal or glottal stop (also called 'hamza') occurs in Ibanag only as a substitute of final p, t, or k of other Phil. languages. Instead of representing it, as usually done by this Seminary, by a grave accent on the preceding vowel, we follow here Conant's once established precedence, and use for it a small p, t, or k raised above the line. Spanish authors used the ordinary letters on the line but detached by a hyphen.

§ 2.—Description of sounds:

Consonants:

Voiced stops: Their articulation is, as a rule, similar to that of the corresponding English sounds tho with exception of a special case to be noted hereunder:

- b in balot, answer; 2bbót, suspicion; dob, law, command;
- d in dwa, two; daddóm, grief; gagéd execrate;
- g with the articulation as in English 'go, beget', occurs in Ibanág only in initial and medial position; e. g. gowang, space under the house; egga, there is;
- is a sound we can only describe as being intermediate between g and k. Our authority (mentioned in the introduction) believed to note in it some voice. It is of exclusively final occurrence as, for instance, in the word generally written *Ibanág*, but actually pronounced *Ibanáy*.

Unvoiced stops: p, t, k occur only in initial and medial position where they have a somewhat less energetic articulation than in English; e. g. $pig\acute{a}$, how much; $mapi\acute{a}$, good; tolay, person, people; $pat\acute{a}y$, death; $kag\acute{i}$, word; dakay, bad.

The laryngeal stop occurs in Ibanag only in final position; it is here audible less by itself than by the abrupt pronunciation it imparts to the preceding vowel. For its graphic representation see note to the table of sounds.

Nasals are not notably different from the corresponding sounds in English:

- m in matá, eye; amá, father; immamók, peace; doddóm, sorrow;
- n in nonot, thought; nnúng, office, obligation; laman, only;
- ng in ngem, but; vungá, fruit; bettáng grass-land; ng, being simply a nasal, has never the pronunciation of English ng in 'finger'.

Liquids are clearly distinguished:

- t in lappat, dew; allok, symphathy, pity; dawál, poverty;
- r is supradental; e. g. marenu, clean; it does not occur

in initial position and is rare finally: makanonykor, what produces a rough scratching sound.

Fricatives, voiced:

- w as in English 'water'; e. g. watay, axe; atawa, spouse; taw. here;
- z as in English 'zeal'; e. g. zitá, south, upstream; bazzít, small; it is not found in final position;
- v as in English 'vain'; Conant ("F and V", pp. 137-138) states f and v to be in Ibg. pure labials. In Tuguegarao they are pronounced as labiodentals; v is found only in initial and medial position; e. g. vuling, blind; dəvvun, earth;
- y in yaya, he, she; yoye, this; ayat, love; tolay, person, people.

Fricatives, unvoiced:

- s as in English 'seal'; e. g. san, belly; si, thorn, issi, sugar; sulla, cigar; not found in final position.
- f as in English 'find', is a labiodental as stated above under v; e. g. funu, consume, finish; uffún, help. No instance of final f exists;
- h occurs only in a few exclamations as ha?, what?; ha?, is that so?

Gemination of consonants:

Geminated (that is, double) consonants in intervocalic position are a characteristic feature of Ibanág phonology. We can judge them only by ear, and compare them to such as occur in English 'bookcase, illegal, immoral', that is, they are consonants of such length as to give the muscular effort of articulation—thru a diminution first and a following renewed impulse—time for marking a break in the continuity of the sound, a break that constitutes the gemination of the latter (cf. Sweet, Primer of Phonetics, § 157). This description holds good also for cases of gemination arisen thru assimilation of adjacent dissimilar consonants.

Vowels

a equals that in English 'father'; it occurs long as the

first, short as the second vowel of the word awan, there is not, nothing;

- the indistinct vowel (or 'pepet') is of frequent occurrence, and may be described as an obscure or dull a; e. g. dapin, mat; akkin, other, different. Neither the Spanish authors nor Conant use a distinct symbol for this sound but write it as a, altho it is sufficiently distinct in pronunciation to merit here a special sign (cf. § 8); Cuevas calls it an "a oscura que se inclina al sonido de é, aunque tambien obscura".
- is an open e sound similar to the vowel in Engl. 'there';
 e. g. pεlot fondness, frankness; dεnu, oil; pεl, bitterness
 (cf. § 3-b, § 11);
- e is a close e sound similar to e in Engl. 'them'; e. g. egga, there is; addés, until;
- i is short in illók, thread; bibín, lip; long in pila, clay, loam; labbí, pouting mouth;

Note. e and i are always clearly distinguished one from the other.

- o is a quite open o sound occurring long in tolay, person, people; short in ollu, what is first; as final sound it occurs only in loanwords from Spanish.
- u is long in lupót, sterile; bagú, new; short in ulót, blanket; dəvvún, earth.

Note. As in the case of e and i, no fluctuation exists between u and o.

The abruptness of pronunciation of vowels, especially if stressed, as produced by a following glottal stop has already been mentioned.

Accentuation. As a rule we indicate, by an acute accent, only a stress on the ultima, giving it for the rest as understood that the weight of the voice falls, thru duration on the penult. In cases, however, where a change in the form of a word makes either the shifting or else the continuance of that weight of special interest we have used the acute accent to mark such emphasis also on the penult.

INTERDIALECTIC COMPARISON

§ 3.—A number of characteristic points of Ibanág phonology are best exposed by a comparison with the corresponding forms in other Philippine languages to which they form a strong contrast.

Ibanág is distinguished by a not inconsiderable number of monosyllables which not only appear—as happens mostly in the sister-languages—in the shape of roots, such as kan, kut, deg, etc., resulting from a dismemberment of existing word-forms, but which are words in actual use. Comparing such words with their cognates in the other languages, they appear as shortenings of fuller forms found in the latter; e. g.

a)	bay, loin-cloth dan, old or ancient	Ilk. baág	
	thing	" daan	
	biy, all, totally bit, at once, immedia-	" biig, all of one kir	nd
	tely was almost at hos	biít biít	
	li y, neck	Tag. liig	
	sit, thorns	" siit, bamboo thorn	ns
	vuk, hair	Ilk. book	
	fun, origin	" poón	
	ung, mushroom	" oóng	

More marked than in these instance of contraction of two adjacent like vowels appears the shortening in the following cases of coalescence of dissimilar vowels:

b)	wey, creek	Ilk. waig
	$p \in t$, bitterness	" pait
	pεd, fan	" naid
	pod, strap fixing warp to weaver's loins	" paód
	don, leaf	Tag. dahon
	dεk, track left in sand by turtle	Ilk. daik

§ 4.—Another peculiarity brought out by interdialectic comparison is the important fact that where other Phil. idioms have in the interior of a word two dissimilar contiguous consonants, Ibanág renders these uniform thru total regressive assimilation. Compare the following cognates:

aggu	gall	Pang.	apgó
siddút	tear out	Ilk.	$sipd \acute{o}t$
kakkáp	grope	Harry 11 Physics	kapkáp
vulláw	neck	Pang.	bekléw
illúy	egg	Ilk.	itlóg
kokkób (1)		militar of the	kobkób
kilckid (2)	rice sticking to pot	**	kidkid
	dear	"	ugsá
əddán	stair	"	agdán
assít	holding tight	**	agsit
aggaw	day	99	aldáw
uffú	thigh	Pang.	ulpó
kozzína	goat	Ilk.	kalding
$att \ge m$	acrid	","	alsem
sibbán	church	,,	simbaan
tadd 2 y	stand erect	Tag.	tindia
sissing	ear-ring		ngsing, ring
kikkít	shave	**************************************	kiskís
nonvivo	DILLAYO		10001000

in which examples p, k, t, b, d, g, l, m, n, \widetilde{ng} , and s, of other Philippine languages are found in Ibanág assimilated to different other consonants following them in this language.

- § 5.—The original phonetic equivalence of the word-forms compared in the preceding paragraph is made clearer, in this and the following paragraphs, by a detailed comparison of some of the individual sounds composing those forms:
 - z in above kəzzing is notable on account of its rarity in Philippine languages. Spanish works on Ibanág have it as j, writing thus the word just cited cajjing. A comparison of additional words having this initial, such as the cognates:

zigú	broth	Ilk.	digó
zilá	tongue	"	dila
zizzíl	lick	11	dildil
zizzíng	partition wall	Pang.	dingding
zivú	thousand	Ilk.	ribu
zigát	hardship	"	rigat

⁽¹⁾ Cf. § 10-b. (2) Cf. § 10-c.

would make it appear that this sound has been evolved from an original d or r followed by i. Some instances can be cited, however, where this z corresponds to an Ilk. s. Such are:

zipíñg zipát	twins distinguish from afar	- glialle emp. a chord	Ilk.	siping sipasip hardly discernible over the water
bazzít	small		,,,	bassit

to the last of which examples it may be observed that Tuguegarao now pronounces also baddi. (Cf. §§ 22 and 26).

§ 6.—t (cf. taddəy in § 4) is in Ibanág either an original sound, agreeing with the same sound in the sister languages:

a)	talaw, flee	Ilk. talaw
	tollu, three	Gen. Phil. tatlo
	matá, eye	" " mata
	batú stone	" " bato

or stands for general Phil. \$\frac{\delta}{e}\$, as in above utt\(\alpha\) and in:

b)	takít, pain	Gen.	Phil.	sakít
	takáy, mounting a conveyance	22	22	sakáu
	tanga-, prefix denoting a unit	"	93	sanga-
	turák, letter	,,	**	surat
	atawa, spouse	37	22	asawa
	autúk stomach	Ille	rosak	2000000

This substitution of general Phil. s by t does, however, not take place when that s is followed by i in which case Ibanág retains s:

c)	sikú, elbow sili, Capsicum minimum	Gen.	Phil.	siko sili
	sinit, tongs	"	"	eimit.

§ 7.—f and v are, in occurrence, generally conditioned upon the presence of an immediately following u and represent p and b respectively of other dialects; e. g.

a) fun, origin Ilk. poón b) vuk, hair Ilk. book uffú, thigh " ulpó vulláw, neck Inb. bukdou futú, heart Tag. puso zivú, thousand Ilk. ribu fulu, ten Ilk. pullo tuvu, grow Tag. tubó

There are, however, some words which—perhaps from a feeling for sound-symbolism—retain b before u; such are: bu-kul, a swelling like a tumor (Ilk. bukkél); busí, popping of roasted cereals (Ilk. busí); busilák, bursting open of a pod or seed-vessel of a plant (Ilk. busilak, a certain tree).

Conant, 'F and V', p. 137, formulates the rule: "In Ibanág and its dialects original p invariably becomes f when immediately followed by u" and "an original b always becomes v before u." He indicates, however, by citing a few words, that this rule requires a modification to account for the fact that f is found also before i in certain words which, altho written by the Spanish authors with p, yet are generally pronounced with f: he cites as such mapiá 'good' and pinuffútan, 'thing bound', which he generally heard as mafiá and finuffútan: he adds that even in a word as gapá. 'also' he heard p before a pronounced as f, viz. $gaf \acute{a}$. Of both fricatives, f as well as v, he says that they are "pure labials". In order to keep within the bounds of our theme we refrain from discussing here the varieties of pronunciation to be found in different Ibanág localities (mafiá and gafá are heard in Aparri), and limit ourselves to stating that in Tuguegarao both f and v are labiodentals. .

- c) For the rest it must be observed that whenever words containing the syllable fu or vu receive in these the infix -in(indicating a perfected state) f and v remain unaltered; thus funu, 'consume, finish', and fuffután, 'thing bound' (compare Ilk. puspus) give with -in- finunu and finuffután respectively; vuná, 'leave over' and vuling, 'blind' give with the same infix vinuná and vinuling respectively. Words, however, containing the syllable pi or bi as original elements are always pronounced with the stop; e. g. piá, 'goodness'; pili, 'select'; bini, 'seed'; bilang, 'number'.
- d) For some words in which p and b in other dialects are followed by the falling diphthong uy an older Ibanág pronunciation is recorded which, according to the general rule, changes also here the stop to a fricative, converting at the

same time the following vocalic combination into a rising diphthong; e. g.

Ilk. kapuy, weakness Ibg. káfwi " apuy, fire " afwí " babuy, pig " bávwi

The present generation, however, pronounces these words as $k\acute{a}fi$, $af\acute{i}$, and $b\acute{a}vi$ respectively.

§ 8.— σ , the indistinct vowel or 'pepet', described before as an obscure a, changes this articulation to a clear open σ whenever followed by the glottal stop; e. g.

§ 9.—Unification of final p, t, k.—Words which in the sister languages end in one or the other of these stops are no longer differentiated thru these finals in spoken Ibanág since here all three become unified into the glottal stop (or'hamza') as a common substitute. For examples compare those given in the preceding paragraph where the Iloko forms are seen to end in one or the other of the three stops mentioned while these survive in Ibanág only in the written language.

For a better understanding of all later examples it may already here be stated that these quasi-mute final stops, be they preceded by the pepet or by another vowel, resume their full sound whenever they come into immediate contact-as thru a suffix or an enclitic-with a following a, a, o or u. Thus dakit, expressing the idea of crossing a water by a ferry. gives with suffix -2n: dakitán, what is ferried over; with suffix -an dakitán (or darakitán) place of ferrying over. In case the stop thus rendered audible is preceded by that o which in § 8 was said to be evolved from the indistinct vowel, the stop-like any other consonant in such case-is moreover doubled i. e. lengthened so that its release is carried over to the following vowel, the o just mentioned resuming at the same time its primitive form of an obscure a (our ?). Thus, atón, roof, if suffixed with -an gives atoppán, place covered with a thatch; the same stem followed by a descriptive

attribute linked to it by ligature a gives at ppa bagú, new thatch (cf. § 27).

- § 10.—Fluctuation of final b, d, γ .—These sounds are often interchanged in speaking, an unstableness which seems to indicate a tendency to arrive for them at a unification analogous to the one just shown to be already in existence for the corresponding surds.
- a) γ is the regular representative of final g of the sister-languages; e. g.

bay	loin-cloth	Ilk.	baág	wey	creek		
	all, totally			illúy	egg	"	itlóg
liy	neck	Tag.	liig	bibiy	lip	"	bibíg

Occasionally the place of γ is taken in this class of words by d; the word $ba\gamma$, for instance, is also heard as bad.

b) A class of words which are always written, and are sometimes also pronounced with final b, and which occur with this final in the sister languages, tend to be pronounced with final γ ; the latter sound is heard especially, altho not exclusively, in the mouth of the newer generation. Occasionally also final d is heard. E. g.

$\left\{ egin{array}{l} ag \hat{u}y \ ag \hat{u}b \end{array} ight\} { m smell,}$	odor II	lk. agub s	mell of w	et rice
aray pastur arab anim	ring of als	" arab		
ngaray } ci	utting edge	" ngarab	edge in	general
	igging up earth	" kobkob	digging hands	with
	mpaling, as of bieces of meat	" dalubdú	b piercin ching	g, stit-

c) Another class of words is regularly written with final d, but only occasionally so pronounced, the place of d being most often taken by γ . E. g.

alikáy	restless,	Ilk	alikád
alikád	wayward	11111	LOC OT D COLD

go.y god gob	} betle leaf	,,	gawéd
əllwá.y əllwád	guarding, caring for	,,	alwád
balu4 balud	tying of hands	,,	balud
anuy anud	be carried away by the current		anúd

For suffixed forms of the words dealt with in the present paragraph cf. §§ 23-c, 26, 27-a, d, 31-e, and 36-b.

Note. We fail to find in P. Cuevas' grammar anything to show that the fluctuation of b, d, g, (respectively 2), was in existence at his time. Of these sounds he says (Book I, p. 8): The b, d, g, n, comprised in this vocable BODEGON, if final and followed by another consonant, are converted into the latter. But if followed by a vowel which, as a rule, will be a, the four consonants mentioned, as likewise all others, form syllable with said vowel.

SANDHI IN WORD-FORMATION

§ 11.—Prefix ma-, generally denoting that which possesses the quality indicated by the stem, leaves consonantal stems unchanged (e. g. furáw, white, mafuráw, what is white; ngisít, black, mangisit, what is black, etc.) with the exclusion of stems beginning with d or z which sounds change after ma-(i. e. in intervocalic position) to r; e. g. $d \in nu$, cleanliness, marenu, what is clean; zigat, hardship, misery, marigat, who or what is miserable. An exception appears to be madenu from $d \in nu$, oil. Before vocalic stems beginning with a the prefix ma- merges its vowel with the initial of the stem which is thereby lengthened: e. g. awan, not existing, mawan, what is lacking; attem, sour, mattem, what is sour. With an initial i of the stem ma- changes into $m\varepsilon$ -; e. g. issi, sweetness, sugar, méssi, what is sweet. With initial u of the stem mabecomes mo-; e. g. ulú, head, mólu, who is brainy; uríng, dirt, móring, what is dirty.

The Spanish authors on Ibanág record for many maderivatives a plural form gained, in case of consonantal stems, thru gemination of the initial consonant, e. g. ma-

renu, what is clean, plur. maddenu, and, in case of a vocalic stem, thru reduplication of ma-plus following m, thus from a mi, sweetness, mami, what is sweet: plur. mammami. Since the sound-changes to be observed in the formation of such plurals have their origin in a modification of the meaning of the derivative their consideration in these and all similar cases is omitted.

§ 12.—The same principles of sound-change just established for ma- hold good also for such other prefixes ending in a as na-, pa-, pina-, ka-, kina, as illustrated by:

narénu népay	(from na + dénu)) what was clean) what has been placed
nolang	(from na + ulang	
pórian	(from pa + urián	
$p \not\in pay$	(from pa + ipáy) causing someone to put some- thing
kárian képay kólu	(from $ka + arián$) (from $ka + ipáy$) (from $ka + ulú$)	n) what is diminished manner of putting

§ 13.—Prefix mag-, forming generally nomina agentis, leaves vocalic stems as a rule unchanged; e. g. magatawa, who are marital partners; magela, who sing in chorus while working; maginúm, who drinks; maguvovuy, who tells stories. In the case of consonantal stems the same rule of total regressive assimilation of contiguous dissimilar consonants takes place that was established by us in '§ 4; thus:

			:	mabbiki, who selects	
mag	+	dela	:	maddela, who, being sick, walks st by step (1)	tep
mag		gub	:	maggu4, who breakfasts (2)	
mag	+	patáy	:	mappatáy, who commits suicide	
mag	+	tarón	:	mattarón, who controls	
mag	+	kebit	:	makkebit, who go hand in hand	
				mammimi, who chatters	
mag	+	nob	:	mannó¾, who distributes (2)	
mag	+	ngangngál	:	mangngangngál, who chews	
		limang	:	mallimang, who hides	

⁽¹⁾ Example taken from DIE.
(2) In this as in future similar cases the stem is given with the primitive, the derivative with the modified final.

mag + furáw	: maffuráw, what becomes white
mag + vuling	: mavvuling, who grows blind
mag + siri	: massirí, who tells lies
$mag + zig\hat{u}^{\dagger}$: mazzigút, who bathes himself

The two semi-consonants y and w are treated as a rule as consonants: yakayak, denoting certain shaking movements,: mayyakayak, who makes such movements; wagi, brother or sister: mawwagi, who are brothers or sisters. A different treatment is, however, given to yawai, give, which goes back to a stem awai and forms mayyawai, who gives.

§ 14.—Prefixes nag- and pag-, forming the perfect and the causative respectively of the mag- derivatives, agree with the latter as to the influence they exercise upon the stem initial; e. g.

nallatán $(nag+lat+\acute{a}n)$, who has gone to a middle or intervening space $nattudd\acute{u}$ $(nag+tudd\acute{u})$, who has taught $pattuddu\acute{s}n$ $(pag+tudd\acute{u}+\imath n)$, who is made to teach others

§ 15.—The rule of assimilation of adjoining dissimilar consonants, as illustrated in the preceding two sections, taken together with the fact that may- is apt to add the sense of a 'becoming' to that of the stem (compare maffuráw and mavvuling in § 13, and cf. also Cuevas, Arte, p. 115) leave no doubt that also in the compound prefixes mappa- and makka, which likewise embody that sense, we have instances of an assimilation of consonants of original * magpa- and * magka- respectively. The following examples are taken from Cuevas, with certain changes in orthography:

dakál, big, large,: dumakál, mapparakál, or mappakarakál, becoming large what was small

alinnak, what is low,: umalinnak, magalinnak, or mappalinnak, becoming low what was high (Tuguegarao has stem alinnók)

kabatuán, stony place,: kumabatuán or makkabatuán, what is becoming a stony place

karagatan, sandy place,: kumaragatan, or makkaragatan what is becoming a sandy place (stem dagat, sand)

§ 16.—Prefix um-, expressing generally an inner motion or process, a becoming, or a taking up of a bodily or mental attitude, changes its position according to the initial sound of the stem; while appearing as prefix before vocalic stems, it becomes an infix with consonantal ones; e. g. ulúg: umulúg, who descends; lákad: lumákag, who walks. If however, it finds itself, in either of the two cases before the pepet vowel with following geminated consonant, it loses the m, and the remaining u displaces the pepet; e. g.

abbing, child, ubbing, who becomes childish **anyngán, exhale,** ungngán, what exhales steam, etc. **kəddán, shrink,** kuddán, what shrinks duvvún, what becomes earth duttál, arrive** duttál, who arrives

That the short forms illustrated in this table have arisen thru syncopation is shown by the occurrence of such alternative forms as uməbbing, umənyngán, kuməddán, duməvvún, etc.

§ 17.—If the stem has as first vowel *i*, whether initial or not, the *u* of affix *um* becomes accordingly assimilated; e. g.

inúm, drink: iminúm, who drinks immí, please: iminmí, who gives way to what pleases gikkáng, leave behind: gimikkáng, who leaves behind ligád, cross-eyed: limigán, who is cross-eyed

§ 18.—The same assimilation of u to i takes place when, in the formation of the perfect, -in- is added to infix -um- in consonantal stems: $lum\acute{a}ka\gamma$, (of § 16) giving thus perfect $limin\acute{a}ka\gamma$; $limig\acute{a}\gamma$ (of § 17): $liminig\acute{a}\gamma$. In the case of vocalic stems the compound infix -imin- here shown appears shortened to a prefix min-; $umul\acute{u}\gamma$ (of § 16) giving thus perfect $minul\acute{u}k$; $imin\acute{u}m$ (of § 17): $minin\acute{u}m$; $iminm\acute{u}$ (§ 17): $minin\acute{u}m$. The um- derivatives with pepet vowel mentioned at the end of § 16 appear in the perfect as

mibbing with alternative minəbbing
mingngák " " minəngngák
kimiddán " " kiminəddán
zimivvún " ziminəvvún
zimittál " " ziminəttál (Cf. § 22: Affix in)

§ 19.—Prefix mange, forming nomina agentis with certain shades of meaning indicating generally some intensification of the action, is placed integrally and with its last sound as a glide before vocalic stems which likewise remain unchanged: atawa: mangatawa, who takes a wife; ivūng: mangivūng, who preserves meat or fish by salting; ubá: mangubá, who denudes another (but magubá, who denudes himself). Before consonantal stems the velar nasal of the prefix produces the following sound-changes which, altho they occasionally have the outward effect of total regressive assimilation shown for the mag-derivatives in § 13, appear in the main as products of partial progressive assimilation and constitute what may be called prenasalization rules:

mang- before labials:

- a) the velar nasal of the prefix and the labial stops b, p, merge into the sound that represents parts of the character of both, namely the labial nasal m; e. g. $bab\acute{a}y$: $mamab\acute{a}y$, who sins with women; $pir\acute{a}^k$; $mamir\acute{a}^k$, who makes silver-plated ware;
- b) the velar nasal of the prefix is assimilated to a following m; e. g. $man \hat{u}k$: $mamman \hat{u}k$: who breeds chicken; $man \hat{u} \hat{u} \hat{u}$: $mamman \hat{u} \hat{u} \hat{u}$, who sows maize. Words of this class are in their formation alike to and thus not distinguishable from those formed with prefix mag- before an m- stem; cf. § 13, mammimi;
- c) stems beginning with the labial fricative w remain unchanged but seem to call for an intervening a after the prefix; e. g. watay: mangawatay, who uses the ax. However, for this and other stems beginning with w the prefix mangi- is more often found used in which i is probably of semantic origin and denotes instrument or motive;

mang- before labiodentals:

d) mang- produces here the same phenomenon as was described for labial stems under a); e. g. vugáw: manugáw, who scares away birds from rice-fields; fugabón, supper, stem fúgab: manúgan, who takes supper;

mang- before dental stems:

- e) the velar nasal of the prefix merges with a following d, t, z, or s, forming the dental nasal n representative of part characteristics of both constituents; e. g. denu: manenu, who extracts oil; te:: manet, who sharpens by grinding; zizzing; manizzing, who makes partition walls; sit: manit, who removes thorns;
- f) the final sound of the prefix is assimilated to an initial l or n of the stem; e. g. libagu (or lubagu), tree whose bark is used for ropes: mallibagu (mallubagu), who looks for such trees; nwang, water-buffalo: mannwang, who herds water-buffaloes. This assimilation produces the same formal equalization with mag- derivatives mentioned above respecting labial stems under b). However, as shown for vocalic stems at the beginning of this paragraph (cf. manguba and maguba), the semantic value of both classes of derivatives keeps them distinct. So also in the case of an n- stem like navu, meaning 'be thrown down from a height', where mannavu, from mang + navu, means one who throws down another, while the outwardly identical form mannavu, from mag + navu, means one who throws down himself:

mang- before the palatal y:

g) y forms, like vocalic stems, a simple juxtaposition with preceding mang-; e. g. yut, the carnal act,: mangyut, who commits such act;

many- before velars:

- h) stems beginning with g or k lose such initial after mang-; e. g. gob: mangog, who gathers bettle leaves; kwa, expressing the idea of doing (with different specializations),: mangwa, who does, acts, etc.; stem kum-pis gl (the Spanish confesar, to confess): mangumpis gl (Aparri: mangumfis gl), who confesses another i. e. takes his confession, but makkumpis gl (from mag + kumpis gl), who makes confession; Sp. confesarse;
- i) stem initial \widetilde{ny} remains intact after $ma\widetilde{ny}$; e. g. $\widetilde{ny}itu$, a certain black fiber used in manufacturing fine strawhats and similar articles,: $ma\widetilde{ny}\widetilde{ny}itu$, who manufactures such articles. Also in this class of derivatives the final \widetilde{ny} of $ma\widetilde{ny}$ is often not readily distinguished from an assimilated final g of prefix mag-.

20.—There are in Ibanág two prefixes which, due to the somewhat involved phonetic phenomena accompanying their combination with stems of various kinds, appear not to be clearly recognized or distinguished from one another by the language, and thus to give rise to a certain confusion. These prefixes are \$2g\$- and \$2\tilde{ng}\$-.

Padre Cuevas, writing at a time when the phonetic phenomena occurring in word-formation had as yet been little studied, treats the derivatives here concerned in his Lib. II. § 72. as follows. All verbs, he says, of whatever class, have certain derivatives which, being nouns substantives, connote, under various aspects, the action of the verbs from which they originate. One species of these derivatives consists of the "abstractos" which are of two kinds, "actuales" and "habituales". The "actuales" (§ 73) are formed by converting into p the m of the mang-derivatives, while the "abstractos habituales" (§ 78) are the "actuales" with the initial p taken away, and with the consonant immediately following the a of the prefix geminated, provided this consonant were not already geminated thru the very composition of the verb ("por la misma composición del verbo"). Thus, according to P. Cuevas, of pamisag comes ammisag, and of pattuddú (with the consonant following a already geminated) attuddú.

P. Cuevas, it would appear to us, fails to recognize here in the forms $\partial mmis\partial q$ and $\partial ttudd\hat{u}$ (as we write them), as also in other examples elsewhere, the presence of two different prefixes, both having for first sound the indistinct vowel which we distinguish by the symbol ∂ while in our quotations from Cuevas and Conant it appears as a, used by both authors indiscriminately for the clear and also for the obscure a.

The stem of the first of the examples just cited is pisignize pi

going back to mang, but at a primary simple prefix mg-which, besides subjecting its final ng to similar phonetic rules as established by us for mang- in § 19, is characterized moreover by a doubling of the resultant sandhi consonant.

In a form like the above quoted $attudd\hat{u}$, on the other hand, whose stem $tudd\hat{u}$, 'teaching', would after mang-give $manudd\hat{u}$ (cf. § 19-c: $man\hat{\epsilon}^i$ from $t\hat{\epsilon}^i$), we are inclined to recognize a prefix ∂g , and to attribute the doubled t to the general rule of regressive assimilation of adjacent dissimilar consonants (§§ 4 and 13) as a first cause, not necessarily excluding the possible concurrence of another cause.

That such a concurrent cause really exists, and that the two prefixes ∂g - and $\partial \widetilde{ng}$ -, so far only postulated by us, actually occur in the language becomes evident upon an examination of the same sound-groups if found before vocalic stems. Radical words as $\partial ll \delta k$, compassion, $iri\eta$, low temperature, usir, cutting hair, give:

aggallók, usual time or angngallók, individual mode mode of bestowing mercy ing mercy

əggiriy, cool season əngngiriy, mode how the cold affects us individually

aggusir, ordinary duration, angingusir, individual mode mode or instrument of cutting hair ment of cutting (sometimes also hair the agent)

where the two prefixes under consideration present themselves in their original form of ∂g - and $\partial \widetilde{ng}$ -, and with their final sounds geminated.

The cause, now, for this gemination, which was so far left here unexplained, resides in a peculiarity of the preceding indistinct vowel (generally called the pepet) as expressed by Conant in his 'Pepet law', p. 927, as follows:

"It is especially worthy of note that the geminating languages, Ilk. (Iloko), Ibg. (Ibanág), and Bgb. (Bagobo), show frequent doubling in this class, that is, of a consonant following the pepet vowel... It may therefore be set down as a working rule that: THOSE PHILIPPINE LANGUAGES AND DIALECTS WHICH

PERMIT OF CONSONANT GEMINATION DOUBLE A SINGLE INTERVOCALIC CONSONANT PRECEDED BY A VOWEL REPRESENTING ORIGINAL PEPET, WHATEVER BE THE NATURE OF THE FOLLOWING VOWEL; but this gemination does not take place between two vowels of different origin, the second of which is a pepet vowel."

The main provision of this rule finds full application to the case of the two prefixes established by us; it explains the geminated m in $\partial mmis\partial q$, and it points out the concurrent cause mentioned above in the case of doubled t in $\partial ttuddu$. It finds at the same time full confirmation by the gemination of the last sound of each prefix before the vocalic stems above cited.

§ 21.—The confusion, now, mentioned at the beginning of last paragraph is brought about partly by the occasional morphologic identity of the derivatives formed with ∂g - and $\partial \widehat{n} g$ -, and partly by that similarity of their semantic character which may already have been observed in the two groups of examples last given.

In § 19 it was already said that the derivatives with mang- and mag- are often not readily distinguished from one another in their sound-form. Altho each of these two classes follows, in the process of affixation, its own peculiar phonetic rules, these rules, in certain cases, happen to give the same morphologic result; cf. § 19, b, f, i. Thus prefix mag-, finding itself before a stem beginning with n, as for instance nwang, water-buffalo, gives, according to the general rule of assimilation of adjacent dissimilar consonants (§§ 4 and 13), in the example cited the derivative mannwang. Prefix mang-, in its turn, following for n- stems the special rule established in § 19-f, arrives likewise at the form mannwang but gives to this a different signification. Thus the sentence Mannwang yaya, taken as containing an ag-derivative, means 'He rides on a water-buffalo', while, if built with a mang- derivative. it means 'He herds water-buffaloes'. Similarly in Mallibaddák tek-kayu oue (stem libéd, hiding) the form mallibed as a mag- derivative gives the meaning 'I hide myself under this tree', while the same (tho in its final sound differently pronounced) form maliby as a mang-derivative in the sentence Ik-kayu oue im-mallibóy niaken goes to bring about the sense 'This tree is that which hides me.'

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The uniformity here shown of mag- and $ma\widetilde{n}g$ - derivatives in the case of certain stems is observed in an analogous manner among the ∂g - and $\widetilde{n}\widetilde{g}$ - derivatives. The final sounds of these latter prefixes, being identical with those of mag- and $ma\widetilde{n}g$ -, have to obey the same rules of sandhi as these. The equivocal forms thus arising become, however, for ∂g - and $\partial \widetilde{n}g$ - so much more confusing as these latter are kept less distinct by their respective spheres of meaning.

The range of meaning covered by ∂g - is 'ordinary mode of action, usual time for action, instrument' while $\partial n g$ - imparts the sense of 'habitual mode of action of an individual' and forms also names of instruments. As these meanings partly overlap, it would frequently be difficult, if not impossible, to trace the composition of certain of these derivatives, in view of the twofold possibility of their origin, to a definite prefix.

Selecting stems with verbal and such with objective meaning, we give in the following examples of such equivocal forms:

org + lakay }ollakay	usual time or ordinary man- ner of walking, individual pe- culiarity of walking
$\widehat{sng} + labba \}$ əllabba	usual time, or- dinary mode, of making individual rice-baskets manner
$\left\{ egin{array}{ll} rac{\partial g}{\partial ng} + mimi \\ mimi \end{array} ight\} \left\{ egin{array}{ll} \partial mmim \\ mimi \end{array} ight\}$	i sual time, or- dinary mode, in dividual of reporting manner
$\partial g + mani \} \partial mman$	i dinary mode, of planting in dividual peanuts manner
ong + nono }onnono	epoch of deve- lopment, indi- vidual mani- festation cience
og + ñginá }ongngin ong + ñginá }ongngin	usual time, or- dinary mode, individual manner of paying

To emphasize or bring out especially the seasonableness of some action the first syllable of the stem is duplicated in which case the above cited əllákan and əllábba, for instance, would appear as əllalákan and əllábba.

Coming back to the criticism made above of P. Cuevas' theory of the 'abstractos habituales' being formed with a reduced prefix a and following consonant gemination, we must repeat that the nature of the prefixes 2g- and 2ng- was found by us the most intricate of the phonetic problems dealt with in the present essay. We have presented their character and interrelation as they appeared to us in the light of all available facts, but admit that a different interpretation is not excluded. For one thing it must be considered that a development of a from a is not without example in this language (cf. § 25, end, and § 28), while, on the other hand, gemination of consonants occurs in it not alone as a phonetic phenomenon but is, as already noted in § 11, and further on in § 31-e, also a means of semantic distinction. In various classes of derivatives groups of words are formed in which gemination expresses a high intensity of action, a superior degree of efficiency, such as excellence, propensity, infallibility, etc. Besides a simple makapatáy, meaning 'what causes death' there is makáppatáy, 'what causes death infallibly': besides mangwá, who acts (in different senses), mangnawá. 'obrero excelente' (Cuevas, p. 347), and a number of other similar examples. Considerations of this nature would seem to hold the character of the two prefixes in question open for further investigation.

§ 22.—Affix *in*-, generally expressive of a perfected action or event, appears with vocalic stems as a prefix, with consonantal stems as an infix after the first consonant. In either case it is apt to bring about certain phonetic changes in the ensuing word-forms as specified in the following.

With stems having the pepet as a first vowel, initial or not, and having this pepet followed, according to Conant's rule, by a geminated consonant, affix in may take its place in full sound-form before the pepet, as in:

inappót, perfect of appattán, what is disdained, stem appót

inmnía, perfect of ənnigən, what is emulated, stem ənnig binəbbók, perf. of bəbbəkkən, what is ground, stem bəbbók sinəddanán, perf. of təddanán, who is advised, stem təddán

or the incorporation of affix in into the stem may present itself simply in the form of a conversion of the first pepet vowel into i, as in:

ippót, alternative of inəppót innin, " inənnin (see above)

ibbót, perf. of əbbəttən, what is suspected, stem əbbót biggawán, perf. of bəggawán, what is washed, stem bəggáw

In the case of consonantal stems beginning with t or d a following infix -in- changes these sounds to s and z respectively; e. g. $tuddu\acute{a}n$, one to be taught, gives perfect $sinuddu\acute{a}n$; $d^{2}dd^{2}mm\acute{n}n$, what is to be remembered, gives perfect $zin^{2}dd\acute{s}m$; compare also $sin^{2}ddan\acute{a}n$ in above group of examples (cf. § 5).

- § 23.—Suffixes -\(\theta\)n and -an. The sound-changes occurring when these suffixes are added, singly or together with others, to radical words may here be treated together. A demarcation of their semantic values being a somewhat intricate matter, it must suffice here to say that the object suffering a transformation in the sense of the stem is most often characterized by suffix -\(\theta\)n, while the object to wich the idea expressed by the stem is only extended, or which is looked upon as a place to which something is applied, is denoted by -an. This distinction can, however, not always be maintained rigorously or is, at least, not always quite obvious. We consider the stems grouped by their final sounds.
- a) Stems with vocalic ending add -n or -an without other change than that stems ending in a merge this with the vowel of either of the two suffixes, giving as a result a lengthened clear -an:

atáwa, consort, + ->n: atawən, woman as object of marriage (perf. inatáwa)

áya, cord used for fish-hooks, + -an: áyan, hook to which cord is to be fixed (perf. ináyan)

kagi, word, + -∂n: kagiźn, what is to be said (perf. kinagi)

sílu, trap, + -an; siluán, animal to be trapped (perf. siniluán)

b) Stems ending in the hamza (cf. § 9) recover before the two suffixes under review their primitive final sound; e. g.

pəllúr, drying by smoke, + -an: pəllupán, what is thus to be dried

rught, tax, + -n: rughtin, what is given in lieu of tax + -an: rughtin, what is taxed

lattúk, hole, + -an: lattukán, where a hole is to be made.

If this final hamza is preceded by the pepet, which latter appears in such cases as o (cf. § 8), the restored primitive stop is doubled according to Conant's rule, and the o assumes the ordinary form of the pepet in Ibanág which is that of an obscure a (our θ); e. g.

atór, thatch, $+ - \partial n$: $at\partial pp\partial n$, what is made into a thatch + - an: $at\partial pp\partial n$, where a thatch is placed

dokkót, adhering, + -an and doubling of first syllable:
dorokkottán, place of frequent sticking

tənnök, pricking, + -an: tənnəkkán, where something is stuck into.

Note. The gemination here shown is not restricted to the case of revived final stops but occurs, in accordance with Count's rule (§ 20), whenever final consonants preceded by the pepet become intervocalic thru addition of the suffixes here under review.

c) Stems ending originally in b, d, or g, but which were shown in § 10 to tend towards unifying these sounds in \mathcal{H} , restore their final before -n and -an to the original sound-form, excepting d, which as a rule becomes r; e. g.

fúgay, afternoon, $+ \rightarrow n$: fugabón, supper (stem fúgab)

 $ba\eta$, loin-cloth, + - ∂n : $bar\partial n$, what is to be made into such (also $bad\partial n$ and $bay\partial n$ sometimes heard; stem bad)

kurakúγ, excavating soil by hoof-beats,: kurakurán, place so excavated (also kurakugán heard; stem kurakúd)

kwių, rice-ladle, + -ən: kwigźn (also kwirźn), rice to be ladled out; same stem kwid + -an: kwigán, kwidán, or kwirán, place where rice-ladles are made;

If in this class of stems the final is preceded by the

the pepet the corresponding rule of gemination obtains, final d, however, not changing to r; e. g.

ອກທູກທູສ່າ, felt-louse, + -an: ອກທູກທູສbbán, what is bitten by such (stem ອກທູກທູສ່b)

lib∌d, hiding, + -an: lib∌ddán, place of hiding (stem lib∌d)

 $dap\delta y$, allowing to disappear or pass,: $parap \delta y g \delta n$, downpour allowed to pass (stem $dap\delta y$ + prefix pa+ suffix $-\partial n$);

d) Stems ending in *l*, *m*, *n*, *n* call for no other remark but that also these finals are subject to Conant's rule of gemination when standing between the pepet and one of the suffixes under review; e. g.

kəbbəl, touching, + -ən: kəbbəllən, what is to be touched

silóm, vinegar, + -on: silómmón, what is to be made into vinegar; same stem + -an: silómmán, object to which vinegar is to be applied

aripón, slave, $+ - \partial n$: ariponnón, who is to be made a

slave

batáng, hunting net, + -an: batángngán, place for such net; same stem + -an: batángngán, what is to be caught in such net.

The application of stress or quantity in the forms arising thru the affixation of -9n or -an is not governed by any uniform rule. A comparison of the accentuation of such derivatives with that of the corresponding stems shows the following.

As seen in above examples, in a majority of cases the affixes in question draw the accent upon themselves, and this from whatever syllable of the stem. Yet there are radical words accented on the penult which, after the addition of either of these suffixes, change their accent so as to have it upon the new penult; e. g. $\acute{a}war$, necessity, and $al\acute{a}wat$, receive, give with suffix $-\imath n$: $aw\acute{a}g\imath n$ and $alaw\acute{a}t\imath n$, while others leave their original accent unchanged; thus $bib\acute{b}id$, viewing with attention, and $al\acute{e}d$, search, give with $-\imath n$: $bib\acute{b}ir\imath n$ and $al\acute{e}r\imath n$; above $\acute{a}ya$, cord for fish-hook, +an gave $\acute{a}yan$.

The derivatives in $-\partial n$ and $-\alpha n$ are apt to have their final

sound -n assimilated to the first sound of certain enclitics and pronominal suffixes as stated hereafter in §§ 26, 31-g, and elsewhere.

SANDHI IN SYNTAX

- A. Sandhi in the use of particles of relation
- \$ 24.—The articles introducing definite objects of thought as topics of discourse or as predicate nouns is i. Other articles of similar kind but special use exist but do not call for treatment here. The particle characterizing the associative relation (the 'possessive case') is na, that one serving for the demonstrative relation is ta. With few exceptions i, na, and ta remain unchanged before nouns with vocalic initial, as seen in the sentence Natáy i atawa na iloko ta ili mi, 'the wife of the Iloko in our town is dead'. Exceptions are amá, iná, and afú, father, mother, grandfather, which, with said particles, and with a corresponding change of accent give yáma, náma, táma; yéna, néna, téna, and yáfu, náfu, táfu, respectively.
- \$ 25.—Finding themselves before nouns with consonantal initial, the three particles of relation i, na, ta, are attached by the language to such nouns in the manner of proclitics, in which process the affected consonant is doubled in such a way that, besides being initial to the stem, it now becomes also final of the syllable newly prefixed to the noun. In order to show more clearly the composition of the sentence, we separate in this study these particles plus accrued consonant from the noun by a hyphen, and thus write, for instance, Ik-kəzzing nál-lakalákay nəppalágyu təm-mabit tək-karagátan, 'The goat of the old man ran with celerity over the sandy stretch', where ik, nəl, təm, tək are the particles of relation i, na, and ta plus the attracted initial of the following noun and with the clear vowel of na and ta changed to the indistinct one.
- § 26.—In conformity with the table given in § 5, the article *i*, without ceasing to be a proclitic to a following consonantal stem, reacts on a *d* immediately preceding so as to change this to *z*, and since this reaction involves a process similar to

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the one described in the foregoing paragraph, namely a doubling of the consonant affected, the result is an additional attachment of article i to an immediately preceding word ending in original d. Thus, in the sentence 'Do, then, what I have told you', Kwammu lagúz-zik-kinagik nikáw, 'Action-thy (Kwammu) (be) then (lagúz, from original lagúd) the (zik) bidding-my (kinagik) to-thee (nikaw), the article i appears, thru the accretion of sounds explained in this and the preceding paragraph, in the accidental form of zik, and is pronounced, as stated, in close connection both with the word preceding and the one following it: lagúz-zik-kinagík. Analogous to this double liaison of i is that which na and ta enter into by assimilating, in addition to their proclitic character, a final b, d, g, or n of a preceding word to their own consonant. Thus in 'the ten commandments of God', mafulú a-ronnod-Dios, the particle na, besides having attracted the d of Dios, has assimilated the final b of original dob, command, (after a: rob) to its own n. Similarly in the sentence 'I do not eat meat', Ariák kumát-tod-dumága (Not-I eater-of-meat) the particle ta, besides the change of its vowel to 2, shows not only an attachment to the following dumága thru the corresponding consonant gemination, but at the same time to the preceding kumán thru an assimilation to its own initial of the latter's final n. (1)

§ 27.—The ligatures', i. e. copulative particles destined to unite terms in designating and describing one object of thought, are in Ibanág a and nga. Nga is distinguished from a by often having an amount of assertive force which gives it the value of what in English would be a predication introduced by a relative pronoun (of which latter class of words already P. Cuevas said very properly that it does not exist in the Ibanág language). While ligature nga retroacts only on stems ending in m or n, as for instance in afutangnga Dios, our Lord God, and dalangnga matunung, straight road, from afu tam nga Dios, and dalan nga matunúng respectively, ligature a, taking its place, like nga, between the two terms that are to be joined in function, shows a more pronounced tendency to attach itself in the manner of an enclitic to the word that precedes. As such enclitic it gives to a preceding consonantal final that intervocalic position of which the offects have been shown in previous paragraphs, so especially with respect to suffixes -an and -an (cf. § 23).

For a clearer exposition of the sandhi phenomena ensuing in the case of enclitic a we group our examples by vocalic and by consonantal stem-endings, and the latter again by stems containing the pepet vowel in the last ayllable, and by such having some other vowel in that place,

Ligature a after vocalic stem endings:

atawa a malappot, or, with merging of the two adjaatawa malapnot, industrious wife gabí a maribbót, or, with development of a glide, gabiya maribbót, sombre night futú a na masikkál, or, with glide, futúwa na masikkál, faithful heart dayaw a dakál, or, more often, dayawa dakél, great honor, diphthong aw not becoming o before ligature a, but: babau a malappot, or with contraction of ay babe a malappot, diligent woman

Ligature a after consonantal stem endings:

Stems with pepet in final syllable:

- a) Original final b, d, g are restored and doubled: gatók, cliff: gatóbba atennang, high cliff futáky navel: futádda dakál, big navel abbák? oblique: abbágga tetay, oblique bridge
- b) Original final p, t, k are restored and doubled, and pepet is changed: tagenor, dream: tagenoppa makaánassíng, fearful abbót, suspicion: abb átta lubbét, awakened suspicion allók, pity: allakka marénu, sincere pity
- c) Other stem endings are doubled: dawil, poor: dawilla tolay, poor man silóm, vinegar: silómma ngisít, black vinegar dapín, mat; dapínna bagú, new mat

⁽¹⁾ dumaga and kumán are -um- derivatives from stems daga, blood, and kan, idea of eating.

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baténg, hunting net: baténgnga apiddú, long hunting net

Stems without pepet in last syllable:

- d) Original final b, d, g restored:
 fúgan, evening, afternoon: fugába manawag, bright
 afternoon
 sllan, leaf: sllára dakál or sllára rakál, large leaf
 ban, through: baga aralám, deep water-trough for
 chicken
- e) Original p, t, k restored:
 usíþ, hair-cut: usípa mapiá, good hair-cut
 ayát, love: ayáta nagukíð, limited love
 billák, stick: billáka maláray, weak stick
- f) Other stem endings unchanged:

 dippal, ointment: dippala makoru, healing ointment
 ayam, quadruped animal: ayama lawin, such animal
 at large
 kalan, native stove: kalana pagafian, cooking stove
 nwang, water-buffalo: nwanga atinnang, tall waterbuffalo
- § 28.—The coordinating particle *nna, 'and', which before vocalic initials shows no change, as in atawa enna anák, spouse and child, attaches itself before consonants to these thru the process of gemination, as seen in: Hwan *nn**\sigmas.sok*, Juan and I; d*\svun *nn*\sigmal.langit*, earth and heaven; langit *nn*\sigmal.d*\svun*\sigma. heaven and earth, which examples at the same time show this particle liable to a change in its ending from a to *s.
- B. Sandhi in postposition of personal pronouns.
- § 29.—The postpositive forms of the Ibanág personal pronoun are:

1st. P. S. a^k 1st. P. Pl. incl. $itt \not= m$ $(t \not= m)$ 2d. "" ka 1st. "" excl. kami 3d. "" yaya (ya) 2d. "" kami ita (ta) 3d. "" ira (ra) or da)

Note. The form ya is used only in reference to impersonal objects of thought; ta, t
ildet m, and ra, da, are otherwise restricted in use and have also possessive sense.

- 30.—With a noun ending in a the postposition of these forms appears as follows:
 - 1. S. attá ngak I am Negrito 1. Pl. incl. attá ittím \ We are 2. " attá ka thou art N. 1. " excl. attá kamí \ Negritos 3. " attá yaya he is N. 2. " attá kamí you are N. Dunl attá ittá we two are N. 3. " attá irá they are N.
- # 31.—For nominal forms with other endings than a no full paradigms are here given but only those cases are pointed out in which sound changes occur:
 - a) Words ending in ay tend to change this diphthong to ϵ before all personal pronouns; e. g. $t\delta lay \ ka$ or $t\delta l\epsilon \ ka$, thou art a human being; after ay the pronoun of the 1. P. S. is, however, attracted by a glide to the preceding word so that besides $t\delta l\epsilon \ nga^k$ we have $t\delta layya^k$, I am a human being;
 - b) Words ending in aw either attach ak thru the corresponding glide or change aw into o, or else take ngak without change; e. g. kitáwwak or kitó ngak or kitáw ngak, I am a cat; the change to o may occur before all other persons;
 - c) A preceding final i gives for the 1. P. S. such forms as e.
 g. páriyak or pári ngak, I am a priest;
 - d) Final o and u similarly may attract following ah by a glide; e. g. merikanowáh besides merikáno ngah, I am American; mapátuwah besides mapátu ngah, I am hot;
 - e) Final b, d, and g, whose inclination to become unified in final γ was pointed out in § 10, show this tendency also before the personal pronouns. Thus we find:
 - after b: maróbak or maróy ngak, I am ordered; marób ka or maróy ka or, with complete assimilation, marókka, thou art ordered; similarly before kamí and kamú;
 - after d: mapálad, lucky, mapálarak or mapálay ngak, I am lucky; mapálak ka or mapálakká, thou art lucky, etc.
 - after g: magiggógak or magiggóð ngak, I pick betle leaves (cf. § 10-c); magiggóð ka or magiggókka, thou pickest betle leaves, etc. (The doubling of the second g is here semantic; cf. Cuevas, p. 360: prefix magi before names of objects of hunting or gathering)

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- f) Final -p, -t, -k are, in the l. S., either followed by nyah, or ah becomes a suffix and restores to those finals their original sound-form which is doubled after a preceding pepet. Thus magatóp, one who roofs, gives in the l. S. magatóp nyah or magatoppák; mabbálot, one who thanks or otherwise makes recognition,: mabbálot nyah or mabbálották. None of the other persons, including those beginning with k, gives rise to affixation.
- g) Final m, n, \widetilde{ng} are in the l. S. either followed by $\widetilde{ng}ak$, or they take ak as a suffix; e. g. $mananum \, \widetilde{ng}ak$ or $mananum \widetilde{ak}$, I put water; $Ilagán \, \widetilde{ng}ak$ or $Ilagan \widetilde{ak}$, I am a man from Ilagán; $Yamulung \, \widetilde{ng}ak$ or $Yamulung \, \widetilde{ng}ak$ or $Yamulung \, \widetilde{ng}ak$ or $Yamulung \, \widetilde{ng}ak$ or $Yamulung \, \widetilde{ng}ak$. I am a man from Amulung. A pepet in the last syllable of the stem produces, in the case of affixation, the regular gemination of the intervening consonant; thus stem $mar\partial dd \partial m$ gives $mar\partial dd \partial mm \, \widetilde{ak}$, I am sorry; with stem $arip \partial n$ we get $arip \partial n \, \widetilde{ak}$, I am a slave; with stem $am \partial \widetilde{ng}$: $am \partial \widetilde{ng} \, \widetilde{ng} \, \widetilde{ak}$, I am a ghost.

In the 2. S., besides simple postposition, we find after m and n, but not after ng, affixation of ka with the corresponding total assimilation, altho custom restricts the choice in certain cases to either one or the other form; e. g. mananim ka or, rarely, mananikka; llagán ka or llagákka, aripikka (rarely aripin ka). A similar affixation, with accompanying phenomena, is observed in the case of kami and kamu. Note also: aripin yaya or aripiyyaya. The assimilation of final n to added consonants is found consistently in all $-\partial n$ and -an derivatives.

- h) Final l is, in the l. S., either followed by \widetilde{ngak} , or it is doubled taking ak as affix; e. g. $daw\mathcal{H}\widetilde{ngak}$ or $daw\mathcal{H}lak$, I am poor.
- § 32.—Summing up the results of the foregoing paragraph we we have: a^k of the l. S. in no case appears in its original independent form but is either prefixed with \widetilde{ng} supposedly for euphonic reasons- or it becomes a suffix to the preceding word.

The suffixation is made in some cases, after syllabic or nonsyllabic vowels, by means of a glide (tolayyak, etc.), while in other cases it affects the stem-ending in various

ways that are either in accord with general Philippine rules of sandhi (map'atar'a'k) or of typically Iban'ag character (ma-yat*pp'a'k). The pronoun of the 2. S., ka, as in fact all those beginning with k are, after consonants, excepting the hamza, mainly treated as suffixes, and thus produce as a rule total assimilation of the preceding sound.

- C. Sandhi in postposition of possessive pronouns.
- § 33.—The possessive pronouns of the Ibanág are:

1st. P	S.	ku		1st.	P.	Pl	incl.	tem
2d. "	22	mre		1st.	7.7	,,	excl.	mi
3d. "		na	*	2d.	22	"		nu
Dual		ta		3d.	2.2	"		ra, da (1)

34.—After nouns ending in *l* these particles are postponed without change:

dukkial	lou	my	cleaver	dukkial	tom	our	cleaver
dukkial	mu	thy	17	dukkial	mi	our	,,
dukkial	na	his	"	dukkial	nu	your	,,
dukkial	ta	our	"	dukkial	da	their	"

- \$ 35.—A similar simple postposition is observed after the hamza, that is, after nouns ending in -p, -t, -k; e. g. atóp ku, my roof; takú ku, my pain; pirák ku, my money, etc.
- \$ 36.—Sandhi phenomena in postposition of possessive pronouns occur as follows:
 - a) After words ending in vowels (including ε and o contracted from ay and aw) ku and mu lose their vowel and the remaining consonant is affixed to the preceding noun, in consequence of which change of place the k of ku becomes, however, converted into the hamza in accordance with the rule laid down in § 9; e. g. $am\acute{a}^k$, my father; atawam, thy wife, $wag\acute{k}$, $wag\acute{k}$, my, thy brother; $wat\acute{k}$, $wat\acute{k}$, my, thy ax; $day\acute{o}^k$ or $d\acute{o}yaw$ ku, my honor; $fut\acute{u}^k$, $fut\acute{u}m$, my, thy heart. As far as the mere fact of suffixation of -k and -m to vocalic stems is concerned, this is a sandhi phenomenon characterizing the languages of northern Luzon in general.

⁽¹⁾ Used either indiscriminately or according to cuphony.

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b) After words ending in b, d, or g there is either simple postposition as, for instance, in:

dorob ku or doroy ku or dorob mu or command palay ku palay ku palay mu or gog ku (rare) or goy ku goy mu my, thy betle leaf

and so forth thru all persons S. and Pl., as shown here for the 2. S.; or an assimilation of the finals in question to the following initial of the possessive particle takes place in certain persons as exemplified by

dorokkú palakkú gokkú dorottá palattá gottá (rare) doroddá palattam gottam (rare) goddá (rare)

Note that the alternatives for doroddá and goddá, namely doro y ra, their command, and go y ra, their betle leaf, never give rise to such assimilation as *dororra an *gorra; also that the forms with assimilation above recorded may be supposed to be due to the influence of the Itawit language in which the corresponding assimilation extends to still other persons.

c) After words ending in m, n, or \widetilde{ng} the assimilation treated in the preceding section becomes more frequent; true that, as usage treats individual words variously, the following paradigms cannot be taken as setting an absolute standard; the nouns ayam, quadruped, batalan, sort of open porch; nwang, water-buffalo, give:

	batalámmi	nwang ku nwámmu nwánna nwang ta or nwátta nwang təm (nwát- təm)
ayám da (ayádda)	varaiaaaa	nwámmi nwang da (nwádda)

Note. Forms in parenthesis are rarely heard,

D. Sandhi in the use of demonstratives, and in that of various particles.

§ 37.—Among the considerable number of Ibanag demonstratives there are some characterized by their tendency to attach themselves to the words which they determine if these are of consonantal ending or beginning. The sandhi phenomena accompanying such attachments will be easily recognized in the following examples.

Postpositive to the noun they determine, and thus of enclitic tendency, are oye, this here, and uzze, that yonder, as in: it- $tur\acute{a}koye$, this letter here (from $i+tur\acute{a}k+oye$); it- $lub\'{i}ruzze$, that rope there (from $i+lub\'{i}d+uzze$); true that uzze is becoming antiquated in Tuguegarao and is now mostly replaced by its equivalent uri so that, for instance, for ib- $bannag\'{u}zze$, that river there, now ib- $bannag\'{u}zz$ is said.

Prepositive and therefore proclitic are yari and yatun, both meaning 'that one near you', and yuri, 'that over there'; the prefixed article y (from i) gives them substantival character and their attachment takes place chiefly by means of gemination; e. g. yaribbaláy, that house; yatull ppáw, that flower (from yatun + l ppáw); yurinnwáng, that buffalo over there.

§ 38.—There are finally a number of words of accessory meaning which, in the form of monosyllabic particles or of aggregates of such, help to adjust the sense, or sometimes only the color, of the speech, and contribute to form it into strings of syllables closely interwoven by any number of the different types of sandhi set forth in the preceding paragraphs.

To such words belong lagúd, 'then', of which an example was given in § 26; further lad, stated to be a shortening of lamang, 'only, just', or of lagúd just mentioned; $\partial kk \partial n$, 'not'; pagá, 'also'; ga, 'indeed'; bit, 'first'; pabba, 'really', and others.

The following examples show words of this character contained in sentences the component parts of which are once given as grammatical individuals in analytical order, and again so as the usual flow of speech crowds them together in groups of syllables interlaced by such typical forms of sandhi as may now be taken to be already familiar to the reader:

akkán ku lagúd ginappót i lubíd ari, I did not then cut that rope

əkkəkkullaggipót illubírari.

Note, lagud being syncopated to lad assimilates its final to fol-

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lowing g; ginappôt gives gippôt according to § 22. Grave accents mark secondary stress.

arián ku pagá mábba linikurán (stem likúd) yáya, I did not yet turn my back upon him ajàkkuppammallinikuráyaya

Note. pagá+mábba=pánna.

yaya bit ganaláman (immediately) gapá ik-kiminán sa (it), He was also the one who, as the first, immediately ate of it.

yaya bigganalàmaggapá ikkiminássa

Note. For kiminán cf. § 18.

*nní pábba yuri ik-kinagí na? What was really that which
he said?
*nní pabbayùkkinagína?

Note. yuri ik contracted to yuk.

SUMMARY

A revision of the sandhi phenomena detailed in the preceding paragraphs gives the following results:

In Word-formation:

- 1. d and z, as stem initials, change to r after a of a prefix; a, beginning a stem, merges with a preceding a of a prefix; a+i, and a+u merge into ϵ and a, respectively, if meeting in interconsonantal position; §§ 11 and 12.
- 2. Certain prefixes with consonantal ending have their final sound assimilated by a following consonant; §§ 13, 14, 15.
- 3. Affix um takes its position either as a prefix to vocalic, or as an infix to consonantal stems, following in this a general rule of Philippine word-formation. With stems containing the pepet it gives rise to syncopation, § 16; with stems having i as first vowel the u of the affix becomes also i, § 17; the same assimilation takes place before infix -in- (of the perfect) of consonantal stems, while with vocalic stems um loses before that infix its u, § 18.
- 4. Prefix many- governs, in regard to phonetic changes in the derivatives formed by it, a set of special rules ('of prenasalization') which, being chiefly characterized by partial progressive assimilation, thus deviate from the ge-

neral Ibanág tendency towards regressive assimilation; § 19.

- 5. The operation of two different rules of sandhi, namely that of assimilation of adjacent interior consonants, and of prenasalization, are apt to produce, in the case of the prefixes mag- and mang-, and ∂g and ∂ng -, forms that are morphologically alike, but differ in grammatical origin and in signification, and thus give rise, at least theoretically, to a certain amount of confusion; §§ 20 and 21.
- 6. Affix in takes its position either as prefix or infix in accordance with general rules of Philippine word-formation. A following pepet is apt to become replaced by i of the affix which latter loses in that case its n. The peculiar influence of i on neighboring sounds (already instanced above under um) manifests itself before affix in by the change of t and d to s and z respectively; § 22.
- 7. Suffixes -*n and -an, in adding an open syllable to those radical words of various consonantal endings which are being given a common final sound (hamza or γ) restore to these words their primitive ending; words the consonantal ending of which is preceded by the pepet are brought by the added syllable under the operation of Conant's rule regarding the doubling of intervocalic consonants. The final of these -*n and -an derivatives lays them open to ulterior modifications of their ending; § 23.

In Syntax:

- 8. The article i and the relational particles na and ta are attached to following nouns with consonantal initial thru gemination of the latter. Under special circumstances all three particles may at the same time form a liaison also with the word preceding them; na and ta, if attached, change their a to a; §§ 24-26.
- 9. The two ligatures a and nga show themselves, the former more than the latter, inclined to become enclitic to the preceding word. Especially noteworthy is the attachment of a to consonantal finals on account of the sandhi phenomena accompanying this constitution of an additional syllable; § 27.
- 10. The coordinating particle **nna* is attached to following consonantal initials thru gemination of the latter; like *na* and *ta* it changes over this process its a to *; (Note

that in the case of Conant's rule it is, on the other hand, the pepet that determines the gemination.) § 28.

- 11. The postpositive personal and possessive particles give frequently rise to their suffixation to the preceding noun. Typical among the ensuing sandhi phenomena are the changes of ay to ε, of aw to o, the total regressive assimilation of adjacent dissimilar consonants, and the operation of Conant's rule, these two last mentioned productive of consonantal gemination: §§ 29-36.
- 12. Certain demonstratives are attached to a consonantal final or initial of the word which they determine, becoming according to their position after or before such word, either enclitic or proclitic. In the first case the attachment of an additional group of sounds produces upon the consonantal ending that effect which goes with the conversion of a final consonant into an intervocalic one; in the second case the demonstrative is fastened to the following noun thru a gemination of the latter's initial consonant; § 37.
- 13. Speech is often interspersed with certain subsidiary words of more or less definite meaning which are subject not only to the ordinary rules of sandhi but to yet other substantial modification of their sound-form, destined, seemingly, to make possible the admission of such words into the sentence without much burdening the latter; § 38).

Upon discussing with an Ibanág the why and wherefore of the manifold sandhi phenomena occurring in his language the answer will probably be given—as it actually has been given—that a disregard of those sound-changes would make the speech sound very badly to Ibanág ears, and that they must therefore have sprung from a desire for euphony, a judgment which is as hard to gainsay in its premise as it is problematic in its inference. Looking simply at the facts brought out by our study they appear to us to show very clearly that the majority of the sound-changes have as a result to shorten, to contract, to syncopate the word-forms, and to more closely bind the syllables together thru assimilation and gemination of consonants.

