Reassessing the Position of Isinay in the Central Cordilleran Family

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1. Introduction

Isinay is spoken fluently only by post-middle-age people in three communities in Nueva Vizcaya, Northern Luzon: Aritao, Bambang and Dupax del Sur. The various names of the people are mentioned in Reid & Salvador-Amores (2016: 7), but apart from the name Isinay, the other traditional names given to the Isinay, Malaates and Inmeas, were not analyzed in that publication for their historical sources. The term Malaates is an exonym (a name given to a group by outsiders), and refers to people who live near the Magat river. The name Magat is a Cagayan Valley language reflex of Proto-Malayo-Polynesian (PMP) *maRá(t), probably from Ibanag, Itawis, or Gaddang, in which PMP *R is reflected as *g*. To someone speaking a Meso-Cordilleran language it would have been referred to as Malát, since all of the languages in that group have *l* as the reflex of PMP *R (see Reid 2013: 335). The name Inmeas (/ʔinmeyas/) was probably an endonym (a name given to a group by insiders), since the name is a regular reflex in Isinay of PMP *kálas 'forest' (Isinay /ʔeyas/ plus infix <in-m> 'perfective actor-voice infix', the combination probably meaning 'used to live in the forest'), cf. Keley-i Kallahan an ethnic group geographically close to Isinay, whose name originally meant 'forest people', also Batad Ifugao *inalāhan* 'a public forest' (Newell & Poligon 1993).[1]

Isinay has traditionally been considered to be a first order branch of Central Cordilleran (CCo), based on Reid (1974, 2006, see also 2015). The language supposedly has sister languages: Kalinga-Itneg and the Nuclear Cordilleran (NuCo) group, consisting of Balangao,

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[1] Blust & Trussel (Ongoing) reconstruct Proto-Western Malayo-Polynesian (PWMP) *ka-halas-an 'gloss uncertain', although the cited reflexes of Itbayaten, Ifugaw, Maranao, Binukid, and Old Javanese all suggest a PWMP reconstruction of *kalásan. Blust & Trussel also cite Ifugao *ála(h)* 'communal forest', suggesting that it is a reflex of PMP *halas from PAN *Salas 'forest', since PAN *S- developed as PMP *h-, and then typically became ʔ- in Northern Luzon languages. But given that PMP *k is reflected as /ʔ/ in Batad Ifugao (and in some other PCCo languages, such as Isinay), Ifugao forms could have come from *kálas with an initial PMP *k becoming /ʔ/.

the Kankanay-Bontok[2] languages and the Ifugao languages (see Figure 1). This has been accepted uncritically by both Filipino and non-Filipino linguists (Perlawan 2015, Himes 1990) who have done research on Isinay and is acknowledged in a number of works, such as Glottolog 3.3 (Hammarström et al.), Ethnologue (Eberhard et al. 2019). However, treating Isinay as a first-order branch of the family, is problematic, particularly in terms of its position in the Magat River valley. Reid has claimed (2013: 346–347) that CCo languages developed as early settlers ventured up the Chico River valley from the Cagayan River valley, so Isinay is out of place in the Magat River valley, according to the traditional analysis, since the Magat River valley was the probable route by which South Cordilleran languages moved into their present locations. Current work on the Isinay lexicon (see also Himes 1996), reveals a wide range of innovative material which suggests a closer relationship with NuCo languages, especially the Ifugao languages, rather than with Kalinga-Itneg. As Himes (1996: 84) says, "Innovations which Isinay shares with other CC [Central Cordilleran] languages… do provide some evidence of a closer relationship to the Nuclear Cordilleran languages than with Kalinga-Itneg. In fact there are no lexical innovations shared exclusively with Itneg, and only three shared exclusively with Kalinga."
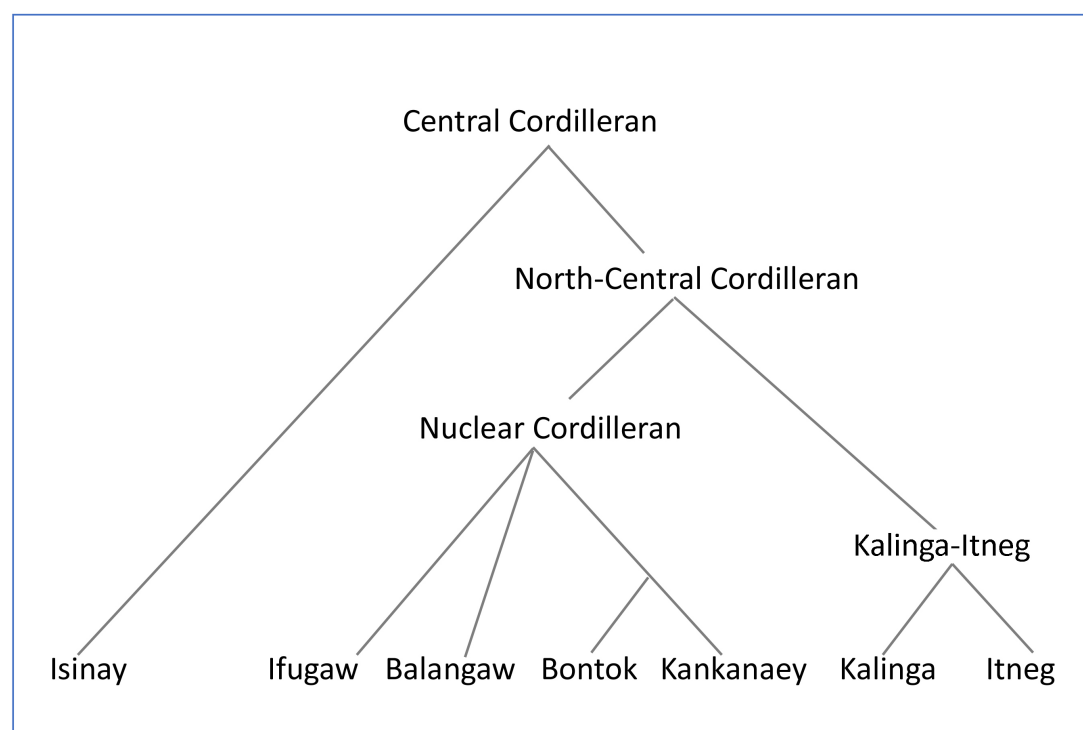

Figure 1: Internal relations of the Central Cordilleran Subgroup (Reid 1974: 574)

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[2] The language names Kankanay and Kankanaey are often substituted for one another. Kankanay is sometimes called Western Bontok and is spoken primarily in the Sagada municipality. Kankanaey is spoken primarily in Besao municipality, west of Sagada, and in municipalities in northern Benguet province. The languages are listed separately in *Ethnologue* and *Glottolog*. In this article, the names that are given correspond to the way they are referred to in the articles that are referred to, since both languages clearly have the same origin, and their mostly closely related languages are those of Bontoc province. See Reid (2019) for an origin of the Kankanaey name.

This paper reassesses the position of Isinay in relation to the other languages of the CCo family and claims that all these languages constitute a linkage (see Figure 2), rather than the tree that is currently used. In order to understand why a linkage is being considered, a considerable amount of introductory material is required. Section 2 discusses the material published in Reid (1974), particularly the phonology of Isinay. Section 3 deals with the morphological evidence discussed in Reid (2006), namely Isinay specifiers, demonstratives, the enclitic determiner =ad/ =ar, pronouns, and the ligature *an*. Section 4 discusses linkages and provides a review of the lexical material given by Himes (1996) and the other material that link Isinay to the other CCo languages. Section 5 deals with claims made by Himes (1996) and Keesing (1962) about where the Isinay and other Central Cordilleran people came from and the routes that they travelled to get to their present locations.
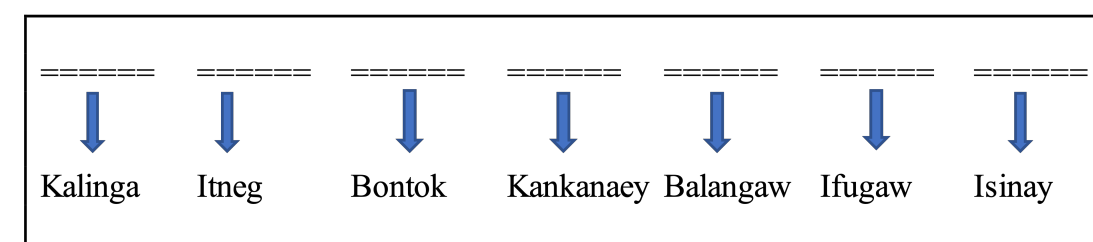

Figure 2: Central Cordilleran as a Linkage

2. Phonology of Isinay, and Reid (1974)

Isinay was not made distinct from other CCo languages on exclusive innovations in phonology but on what was perceived to be distinct lexicon (see Section 4). Isinay clearly has a very distinct phonology (as well as morphology) from other CC languages, as discussed below, but there is evidence that the distinctive phonology of Isinay is the result of local changes (see Himes 1990). Reid (1974: 511) says "Isinai shows the longest period of independent development, in that it does not share in a number of innovations which appear to be shared exclusively by the other languages, which may be labelled NORTH CENTRAL CORDILLERAN (NCC)," but this paper does not list the shared innovations. This was followed by a summary of lexicostatistical material from Dyen (1965), which delineated three groups of languages within the region, Ifugao (consisting of Kiangan, Mayaoyao, and Hanglulu), Igorot (consisting of Kankanay, Sagada, Bontok, and Bayyu), and Kalinga (consisting of Balbalasang and Pinukpuk). These Dyen linked coordinately with Isinay, Ilokano, and a Banagic cluster (consisting of languages to the north and east of Kalinga).

Proto-Central Cordilleran (PCCo) had a relatively simple phonology with 13 consonants, 4 vowels and distinctive stress. The following were reconstructed (Reid 1974: 513), but each of the daughter languages modified it in some way:

Table 1. Proto-Central Cordilleran phonemes

PCCo Consonants

*p	*t	*k	*ʔ
*b	*d	*g	
*m	*n	*ŋ	
	*l		
	*s		
*w	*y		

PCCo Vowels

*i	*ɨ	*u
	*a	

Stress

*V́

The current phonology of Isinay is as follows, but the distribution of the phonemes is very different between the dialects of Isinay, especially between Bambang and Dupax del Sur. Himes (1990: 3) notes that all of the daughter languages of PCCo have experienced phonological change, but none has done it to the extent that Isinay has, which in itself suggested a long period of independent development.

Table 2. Isinay phonemes[3]

Isinay Consonants

p	t	k	ʔ
b	d	g	
m	n	ŋ	
v	s	h	
	l		
	r		
w	y		

Isinay Vowels

i	u
e	o
	a

Stress[4]

*V́

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[3] In the practical orthography (agreed to by members of each of the communities of the language), /ŋ/ is written as *ng*. The glottal stop /ʔ/ is not represented at the beginning of a word, (e.g., *áyu* 'sun, as in Tagalog *mag-aral* 'to study'); an apostrophe (') occurs between vowels (e.g., *si'a* 'you sg.'), before a consonant (e.g., *ba'git* 'tusk of a pig'), and at the end of a word (e.g., *ána'* 'child'). An apostrophe is doubled when two glottal stops occur together (e.g., *ána''u* 'my child'). The letter *h* represents the sound that was written as *j* by Spanish missionaries and later as *x*. Place names and personal names with these and other letters are retained as traditionally spelled (e.g., *Dupax* and *Dupaj*) (See Reid & Salvador-Amores 2016).

[4] Dupax del Sur has lexical contrasts in stress (Himes 1990 refers to it as vowel length, as also does Reid & Salvador-Amores 2016: 20), e.g., /gáyaŋ/ 'crow, raven', /gayáŋ/ 'spear'. Bambang has variable stress on some words, sometimes agreeing with Dupax, sometimes on the opposite syllable, e.g., Dupax /ʔánaʔ/, Bambang /ʔanáʔ/ 'child'. Bambang appears to be losing contrast in lexical stress. In citation forms in Bambang, lexical stress is typically on the ultimate syllable, while in context, stress may sometimes appear on the penultimate syllable. Consequently, I do not mark stress on Bambang lexical forms in the examples in this paper.

There are two major changes in all Isinay dialectal reflexes of PCCo. These are PMP *k developing as /ʔ/ and PMP *ə as /o/. These changes are not unique to Isinay and will be discussed more fully in Section 4.2 below.

The changes in the phonology of Isinay from PCCo are primarily the result of the lenition of voiced stops, a very common change in languages and which could have happened after Isinay diverged from other languages in the family. These were originally allophonic variations, but with the influx of a wide range of borrowed forms from Ilokano and Tagalog, allophonic variation has become phonemic (see Reid 2005 for allophonic to phonemic change in Bontok through borrowing). Other changes, such as the spread of sound change across language boundaries (e.g., PMP *s > /t/ except before *i, and also PMP *t > s before /i/ in Bambang) from Ilongot and languages in the Cagayan valley are the result of relatively recent changes in the phonology of many words, but these are typically not shared by the Isinay dialect spoken in Dupax del Sur.

Some of the sound changes (including lenition) which distinguish the Isinay dialects from each other are as follows. Bambang and Dupax retain original voiced stops in syllable initial positions (Table 3).

Table 3. Initial voiced stops reflexes in Isinay.[a]

Gloss	*Reconstruction*	*Dupax*	*Bambang*
word	*baʔbaʔ	/baʔbaʔ/	/baʔbaʔ/
insert	*duʔduʔ	/duʔduʔ/	/duʔduʔ/
knife	*gípan	/gípan/	/gipan/

a. Reconstructions in this and subsequent tables, are pre-Isinay forms. Some are restricted to Isinay, and some have reflexes in other Philippine languages.

Intervocalically, voiced stops are lenited. Dupax has changed *-b-, *-d-, and *-g- to /-v-/, /-r-/, /-h-/ respectively; (/r/ is pronounced as a flapped [ɾ], /h/ is pronounced as a strong velar, uvular or pharyngeal fricative, [x], [χ], [ħ]). Bambang has changed *-b- and *-d- to /-v-/ and /-r-/ respectively, but intervocalically, Bambang *-g- has become /-k-/. In word- (and syllable-) final position, Bambang retains original voiced stops (*-b, *-d, and *-g become respectively /-b/, /-d/, and /-g/), while in word final position, Dupax reflects the lenited versions (*-b, *-d, and *-g became respectively /-v/, /-r/, /-h/) (Table 4).

Table 4. Intervocalic and final voice stop reflexes of voiced stops in Isinay.

Gloss	Reconstruction	Dupax	Bambang
weave (cloth)	*ʔabə́l	/ʔavé/	/ʔave/
steal	*ʔaldaw	/ʔéraw/	/ʔeyaraw/
bad odor	*ʔágub	/ʔáhuv/	/ʔakub/
slither	*luduluᵈ	/luríyur/	/luruyud/
knee	*púwəg	/púwoh/	/puwog/

Having the lenited forms /v/, /r/, and /h/ at the end of a word in Dupax is unusual since lenition is typically intervocalic, but is clearly the result of analogy, since all definite noun phrases are cliticized with Proto-Isinay =ad, so that original final voiced stops are typically intervocalic in Dupax (see Section 3.3 below).

One of the unique changes in Isinay is the development of PCo *l (see also Himes 1990). It is well-known that this proto-phoneme has a wide set of reflexes in Cordilleran languages. In many Central Cordilleran languages, for example, it is reflected as /l/ initially in citation forms, adjacent to a high front vowel, or an alveolar consonant (Reid 2005, Olson et al. 2010). In other positions, the reflexes of *l range from an (inter)dental or lateral approximant in some Kalinga languages, a lateral fricative [ɬ], [ɮ] or [ʎ], to a retroflex [ɻ] (not flapped or trilled, and similar to an English r) in some dialects of Central Bontok, Eastern Bontok and Batad Ifugao, to zero or a velar fricative in Kankanay (Reid 1973) and Ilongot. In some languages, such as Kiangan Ifugao, perhaps influenced by languages such as Ilokano (which don't have variants of /l/), variants of /l/ are not reported. In Southern Bontok (Talubin) the reconstructed sequences *al, *ul, and *əl are reflected as /o/ (for data, see Kikusawa & Reid 2003: 90). Isinay maintains /l/ in almost the same environments discussed in Reid (2005), as in Table 5. In forms in which these conditions are not met (that is in non-high positions) *al became /ey/ or /e/ (Table 6). In other environments, Dupax and Bambang have either /w/ or /y/ (Table 7), while the sequence *ulu has different reflexes, /iyu/ in Dupax and /uyu/ in Bambang (Table 8).

Table 5. Isinay reflexes of *l as /l/

Gloss	Reconstruction	Dupax	Bambang
come	*ʔáli	/ʔáli/	/ʔali/
bite down	*ʔutlab	/ʔutlav/	(/guʔlab/)ᵃ
walk	*lákad	/láʔar/	/laʔad/
roll up	*lúkut	/líʔut/	/luʔut/

a. Bambang /guʔlab/ has undergone subsequent changes, /ʔ/ has replaced /t/ and initial glottal stop has been replaced by /g/.

Table 6. Isinay reflexes of *l as /e/ or /ey/

Gloss	Reconstruction	Dupax	Bambang
pestle	*ʔalʔu	/ʔéʔu/	(/bayu/)
fence	*ʔálad	/ʔéyar/	/ʔeyad/
weave cloth	*ʔabə́l	/ʔavé/	/ʔave/
unmarried woman	*balásaŋ	/bésaŋ/	/beyataŋ/
new	*balú	/beyú/	/beyu/
deep	*dáləm	/(ʔad)déyom/	/(ʔad)deyom/
blood	*dála	/déya/	/deya/
pathway, road	*dálan	/déyan/	/deyan/
hail	*dalálu	/déyu/	/deyayu/
wash face	*dal(ʔ)up	/déyup/	/deyup/
bone	*tuʔlaŋᵃ	/tuʔeŋ/	/tuʔeŋ/

a. The surrounding languages in the region do not reflect a glottal stop before /l/ apart from Ilongot /tuʔɣaŋ/ (Reid 1971: 55), and thus the reconstructed form here is probably a borrowing from Ilongot.

Table 7. Isinay reflexes of *l as /w/ or /y/

Gloss	Reconstruction	Dupax	Bambang
vein	*ʔúlat	/ʔuwet/	(/ʔolat/)ᵃ
earthworm	*kəláŋ	(/kolaŋ/)ᵇ	/ʔoyaŋ/
blanket	*ʔuləs	/ʔuwes/	/ʔuwet/
hail	*dalálu	/déyu/	/deyayu/

a. Bambang /ʔolat/ is probably borrowed from Kiangan Ifugao ulat (Lambrecht 1978: 507).
b. Dupax /koláng/ is probably borrowed from Kiangan Ifugao kolang (Lambrecht 1978: 289).

Table 8. Isinay reflexes of *ulu as /iyu/, /uyu/, or /eyu/

Gloss	Reconstruction	Dupax	Bambang
head	*ʔúlu	/ʔíyu/	/ʔuyu/
three	*tulú	/ tiyú/	/tuyu/
carabao wallow	*lusulus	/lusíyus/	/lutuyut/
slither	*ludulud	/luríyur/	/luruyud/
go upstream	*sulúŋ	/seyúŋ/	/siyuŋ/

3. Morphosyntax of Isinay, and Reid (2006)

In discussing the usually monosyllabic forms that introduce noun phrases (NP) in many Philippine languages, Reid (2006) distinguished between synchronic forms which mark case, labelled as prepositions, and those which mark, identify or agree with specific features of the following noun, which were labelled as nominal specifiers, and have been labelled by a variety of terms, including determiners, articles, and noun phrase markers. Such forms were considered EXTENSION nouns since they required a following complement (Reid 2002). Specifiers did not mark case and could occur immediately following prepositions which did mark case. Case could be morphologically unmarked but could be marked by clausal position, as is the case of most nominative NPs in Philippine languages. In this paper, for ease of presentation, I do not distinguish the two forms, referring to them only as specifiers.

3.1 Isinay specifiers

Table 9 provides the complete set of singular specifiers for Isinay. It will be noted that nominative and genitive NPs have the same basic form, *di*, while oblique and dative/locative NPs are distinguished by the form si. Genitive NPs, whether common or personal nouns, are always introduced by the enclitic =*n* (from earlier *ni*), but only when the preceding word ends in a vowel. Personal nouns have a three-way distinction in specifiers. Nominative personal nouns, like many Philippine languages, are introduced by the specifier *si*. Oblique common nouns are always non-specific, and never have an enclitic definite determiner attached to the phrase. Since personal names and pronouns are always definite, no such oblique form is found. Genitive personal nouns are unmarked,[5] and dative/locative personal nouns are introduced by the specifier *i*. Examples (1) to (7) illustrate the use of these specifiers in clauses.

Table 9. Isinay singular specifiers[6]

	Common	Personal
NOM	di/ri (=d/=r)	si (=t)
GEN[7]	(=n) di	(=n)
OBL	si (=t)	
DAT/LOC	si (=t)	i

(1) Common noun nominative specifier (Paz 1965: 116)[8,9]

nanagtag	*di*	*atúwad.*
naN-tagtag	di	ʔatú=wad
PFV.AV-run	SPCF	dog=the

'The dog ran.'

(2a) Common noun genitive specifier following a consonant (Constantino 1982: 142)

ot	*atdiyón*	*di*	*ána'nad,* …
ʔot	ʔatdi-yón	di	ʔánaʔ=na=d
then	say-PV	SPCF	child=her=the

'Then her child said, …'

(2b) Common noun genitive specifier following a vowel (Constantino 1982: 14)

bidán	*di*	*ba'ú'uwaron*	*si*	*Aráw*
bidá=n	di	baʔúʔu=war=on	si	ʔaráw
tale=GEN	SPCF	turtle=the=and	SPCF.PERS	Monkey

'A Tale of the Turtle and Mr. Monkey.'

(3) Common noun oblique specifier (Constantino 1982: 140)

mantuttura'	*si*	*apsi'óy*	*an*	*tuttud.*
man-tuttur=aʔ	si	ʔapsiʔóy	ʔan	tuttud
AV-tell.story=I	OBL.SPCF	shortness	LG	story

'I will tell a short story.'

(4) Common noun locative specifier (Constantino 1982: 146)

ni'ána'a'	*sitú*	*Bambang,*	*Nuwéva*	*Biskáya.*
ni-ʔánaʔ=aʔ	si=tú	bambaŋ	nuwéva	biskáya
PFV.ST-child=I	LOC=here	Bambang	Nueva	Viscaya

'I was born here in Bambang, Nueva Viscaya.'

(5) Personal noun nominative specifier (Constantino 1982: 146)

ta'on	*si*	*Narsisa*	*Tungpalán.*
taʔon	si	narsisa	tuŋpalan.
I	SPCF.PERS	Narcisa	Tungpalan

'I am Narcisa Tungpalan.'

(6) Personal noun genitive specifier following a vowel (Reid Ongoing: *amta*)

*inamta**n***	*Gina*	*an*	*dimmatóng-a*	*i*	*Tita*	*Jean.*
<in>ʔamta=n	jina	ʔan	<imm>datóŋ=ʔa	ʔi	títa	jin
<PFV>know=GEN	Gina	LG	<PFV.AV>arrived=you	LOC.PERS	Tita	Jean

'Gina knew that you arrived with Tita Jean.'

(7) Personal noun locative specifier (Paz 1965: 123)

nambeyoybeyóyan	*da*	*Pídru*	*i*	*Maríya.*
nan-beyoybeyóyan	da	pídru	ʔi	maríya
PFV.AV-play.house	SPCF.PL	Pídru	LOC.PERS	Maríya

'Pedro played house with Maria.'

In each of the cases, singular specifiers in Isinay are distinguished only by whether or not the following noun is common or personal, and the specifiers change for each case.[10] Nominative common nouns are marked by *di* (=*d*), and personal nouns by *si* (=*t*). Genitive common nouns are marked by *di*, while personal nouns are (typically) unmarked. Following a word ending in a vowel, genitives are all case marked with =*n*, as in every CCo language. Dative/Locative common nouns are marked by *si* (=*t*),[11] while personal nouns are marked by *i*.

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[10] Except for common noun specifiers in nominative and genitive cases (following a consonant-final word) where word order distinguishes the cases, genitive NPs expressing the Agent of a verb always precede nominative NPs. This is identical to Ilokano, where singular common nouns in both cases are marked with *ti*, or a demonstrative form, such as *diay*.

[11] The enclitic =*t* occurs following vowels in both Bambang and Dupax del Sur, and is apparently borrowed by Dupax from Bambang, which changes all reflexes of *s* to /t/, except before *i.

Isinay retains the use of several PCCo forms reconstructed by Reid (2006: 60), although the functions are somewhat modified. The claim is made that "A contrast existed [in PCCo] between definite and indefinite specifiers, a claim that is found in all the languages of the group." Of particular interest is a change in the function of PCCo *di* 'indefinite specifier'. Since all definite common noun NPs in Isinay are currently specified by a definite determiner enclitic following the final form in the NP, *di* no longer carries an indefinite meaning, it simply marks the following noun as a common noun. The reconstructed definite common noun specifier PCCo *nan* is no longer reflected in Isinay. Oblique NPs which occur with actor voice verbs, as in (3), are obligatorily indefinite, never have pronouns or personal names and are never marked with the definite enclitic. Singular common nouns are marked with *si*, which is a reflex of PNuCo *si* 'oblique NP case marker', which has reflexes in Balangao, Bontok-Kankanaey and Ifugao languages.

Locative NPs are typically definite when they refer to place names and frequently have demonstratives attached, as in (4). The same forms are used for temporal NPs. Past time always has a distal demonstrative attached (see (11) below). The personal dative/locative form, *i* is unique to Isinay (but see explanation in Section 4.3).

Isinay also has a form marking fronted topics, but since such forms are always definite and are marked with the definite enclitic determiner, only demonstratives marked with a reflex of PCCo *sa* occur in the fronted position. As explained in Reid (2018b), the topic marking form *sa* in Isinay occurs only on demonstrative forms, since the definiteness of fronted NPs is marked by the enclitic pre-Isinay *=ad (/=d/, /=ar/, /=r/), as in (8) (see Section 3.3 below). A prenominal definite specifier on fronted NPs, such as Tagalog *ang*, is unmarked in Isinay.

(8) Nominal predicate (Bambang) (Paz 1965: 117)

atúwad	*ya'*	*nanagtag.*
ʔatú=wad	yaʔ	naN-tagtag
dog=the	SPCF	PFV.AV-run

'The one that ran was the dog.'

3.2 Isinay demonstratives

Isinay retains the basic demonstratives of PCCo (see Table 10, and examples (9) to (11)). A demonstrative adverb, *udi* is also used in Isinay, cognates of which are found in various languages throughout CCo.

Table 10. Isinay (Bambang) basic demonstratives

PROX	tu
MED	na
DIST	di

(9) Proximal demonstrative (Constantino 1982: 146)

ni'ána'a'	situ	Bambang,	Nuwéva	Biskáya.
ni-ʔánaʔ=aʔ	si=tú	bambaŋ	nuwéva	biskáya
PFV.ST-child=I	loc=here	Bambang	Nueva	Viscaya

'I was born here in Bambang, Nueva Viscaya.'

(10) Medial demonstrative (Constantino 1982: 148)

Siran	di	in-awaramad	sina?
siran	di	ʔinʔawara=m=ad	si=na
why	SPCF	PFV.CV-exist=you=the	LOC=there

'Why are you there?'

(11) Distal demonstrative (Constantino 1982: 276)

Siriyen	pitu	ri	sinaw-on-uwad...
si=ri=yen	pitu	di	<in>sawʔon=ʔu=wad
LOC=DIST=yen	seven	SPCF	<PFV>age=my=the

'When I was seven years old...'

3.3 The definite noun phrase enclitic in Isinay

Isinay is distinct from other Central Cordilleran languages in requiring a definite enclitic attached to every common noun phrase and definite nominal predicate in the language (Conant 1915, Scheerer 1918, Paz 1965). This enclitic is =ad in Bambang (with phonologically defined variants =d, =wad and =yad), and =ar in Aritao and Dupax del Sur (variants =r, =war and =yar). The base forms =ad and =ar occur following consonants, as in (12) to (13). The variants =d and =r occur following the vowel a, as in (14) to (15); variants =wad and =war follow u and o, as in (16) to (17); and variants =yad and =yar follow i and e, as in (18) to (19).

(12) Definite enclitic =ad (Bambang) (Constantino 1982: 148)

immoy	si	baporad.
<imm>ʔoy	si	bapor=ad
<PFV.AV>go	LOC.SPCF	boat=the

'She went to the boat.'

(13) Definite enclitic =ar (Dupax) (Constantino 1982: 102)[12]

...miliyu'uy	si	avu'avúng	di	danúmar.
...mi-liyuʔuy	si	ʔavuʔavuʔ	di	danúm=ar.
...ST.CV-swept.along	LOC.SPCF	current	SPCF	river=the

'... that was being swept along by the current of the river.'

(14) Definite enclitic =d (Bambang) (Constantino 1982: 140)

nakottong	di	uyunad
na-kottoŋ	di	ʔúyu=na=d
PFV.SV-cut.off	SPCF	head=his=the

'His head was cut off.'

(15) Definite enclitic =r (Dupax) (Constantino 1982: 104)

ináwis	di	ba'ú'uwar	si	Aráw	si	beyóynar.
<in>ʔáwis	di	baʔúʔu=war	si	ʔaráw	si	beyóy=na=r.
<PFV>invite	SPCF	turtle=the	SPCF.PERS	monkey	LOC.SPCF	house=his=the

'The turtle invited Mr. Monkey to his house.'

(16) Definite enclitic =wad (Bambang) (Paz 1965: 116)

nanagtag	di	atúwad.
naN-tagtag	di	ʔatú=wad
PFV.AV-run	SPCF	dog=the

'The dog ran.'

---

[12] The third word in this example has a typographical error in Constantino (given as *anu'avung* instead of *avu'avúng*).

(17) Definite enclitic =*war* (Dupax) (Constantino 1982: 104)

ináwis	*di*	*ba'ú'u**war***	*si*	*Aráw*	*si*	*beyóynar.*
<in>ʔáwis	di	baʔúʔu=war	si	ʔaráw	si	beyóy=na=r.
<PFV>invite	SPCF	turtle=the	SPCF.PERS	monkey	LOC.SPCF	house=his=the

'The turtle invited Mr. Monkey to his house.'

(18) Definite enclitic =*yad* (Bambang) (Paz 1965: 116)

bokátad	*ya'*	*in-atód*	*di*	*bavayí**yad***	*si*	*mampalpalemúsad.*
bokát=ad	yaʔ	ʔin-ʔatód	di	bavayí=yad	si	mampalpalemús=ad.
rice=the	TOP.SPCF	PFV.CV-give	SPCF	woman=the	DAT.SPCF	begging.person=the

'The rice was given to the beggar by the woman.'

(19) Definite enclitic =*yar* (Dupax) (Constantino 1982: 106)

inatdín	*di*	*ambuvussi**yar***	*i*	*Aráw…*
<in>ʔatdí=n	di	ʔambuvussi=yar	ʔi	ʔaráw…
<PFV>say=GEN	SPCF	ambuvussi=the	LOC.SPCF.PERS	monkey…

'The *ambuvussi* said to Mr. Monkey…'

Personal nouns and pronouns are inherently definite and do not themselves carry the enclitic. However definite common nouns having a possessive enclitic suffix are followed by the definite enclitic (20), as are personal nouns that modify a head word (21), since the definite enclitic is a phrasal enclitic, and has the whole phrase in its scope.

(20) Definite enclitic =*war* following a possessed noun (Dupax) (Scheerer 1918: 12)

neyír	*ri*	*ána"u**war***.
neyír	ri	ʔánaʔ=ʔu=war
NEG.EXIST	SPCF	child=my=the

'My child is not here.'

(21) Definite enclitic =*wad* following a modified noun (Bambang) (Paz 1965: 120)

sinilá'	*di*	*tumbuk*	*an*	*Pedrú**wad***.
<in>silá=ʔ	di	tumbuk	ʔan	Pedrú=wad
<PFV>lose=I	SPCF	key	GEN	Pédru=the

'I lost Pedro's key (the key of Pedro).'

3.4 Isinay pronouns

The personal pronouns of Isinay are given in four sets (Table 11) (cf. Constantino, Paz, and Posoncuy 1967). The first three are straightforward reflexes of the pronouns that are reconstructed for PCCo, with expected phonological changes, *k > /ʔ/ and *ə > /o/, and in Bambang, *s > /t/, except before *i, with expected lenition of *d to /r/ between vowels. Set 1 (nominative/absolutive) pronouns occur as the actors of actor-voice verbs and predicate nouns (but see Section 4.1.3 for combination pronouns). Set II (genitive) pronouns occur as agents of non-actor voice verbs, and as post-nominal possessors. Set III (neutral, that is, not case-marked) pronouns occur primarily as predicate nouns and as topicalized or fronted pronouns. Set IV (dative/locative) pronouns are unique to Isinay in that they are attached to the case-marking specifier /ʔi=/ (see Section 4.1.3 for its source).

Table 11. Isinay personal pronouns (Reid Ongoing)

	Set I (NOM)	Set II (GEN)	Set III (NEUTRAL)	Set IV (DAT/LOC)
1sg	=aʔ	=ʔu (following C) =ʔ (following V)	sáʔon (Dupax) taʔon (Bambang)	ʔisáʔon (Dupax) ʔitaʔon (Bambang)
1dl	=ta	=ta	dita	ʔiríta
2sg	=ʔa	=mu (following C) =m (following V)	siʔa	ʔisiʔá
3sg	---	=na	siyá	ʔisiyá
1pl.ex	=ʔamí	=mi	daʔmi	ʔiraʔamí / ʔiraʔmi
1pl.in	=taʔú	=taʔú	ditaʔú	ʔiritaʔú
2pl	=ʔayú	=yu	daʔyu	ʔiraʔayú / ʔiraʔyu
3pl	=da (following C) =ra (following V)	=da (following C) =ra (following V)	dira	ʔiríra

3.5 The Isinay ligature

The form of the ligature linking head words to their dependent structures is *an*, for example, an adjectival noun and its dependent predicate noun (22), or a verb phrase and its dependent complement clause (23).

(22) Ligature between a noun and its complement (Constantino 1982: 140)

mantuttura'	*si*	*apsi'óy*	*an*	*tuttud.*
man-tuttur=aʔ	si	ʔapsiʔóy	ʔan	tuttud
AV-tell.story=I	OBL.SPCF	shortness	LG	story

'I will tell a short story.'

(23) Ligature between a VP and its complement (Reid Ongoing: *amta*)

inamtan   Gina an dimmatóng-a   i   Tita Jean.
<in>ʔamta=n   jina ʔan <imm>datóŋ=ʔa   ʔi   títa jin
<PFV>know=GEN Gina LG <PFV.AV>arrived=you LOC.PERS Tita Jean
'Gina knew that you arrived with Tita Jean.'

4. Central Cordilleran as a linkage

A linkage, also referred to as a network, occurs when a proto-language breaks up into a network of dialects that eventually developed as separate languages. This was first proposed by Ross (1988: 8) for problems in establishing the subgrouping of some of the Admiralty Islands of western Oceanic and has been used also for Central Pacific networks, summarized by Kikusawa (2018: 165) from Schmidt (1999). Ross (1988) used an unbroken double line for a linkage. I have modified Ross' format, by breaking a double line when sections of the linkage are now defined as separate languages.

The possibility that Philippine languages form a network was first proposed in a conference in 2013 (published in Reid 2018a) where it was claimed that because of the rapid spread of PMP through the Philippines, there could not have been time to develop what has been called 'Proto-Philippines', so that the different microgroups in the Philippines and to the south are the result of the breakup of a PMP dialect chain which spread from the north of the Philippines all the way to western Oceania (see Figure 3). Reid (2018a: 97) claims:

> The rapid spread of speakers of PMP from the north of the Philippines into western Oceania is confirmed by lexicostatistical studies done by Blust (1993:245), in which he compared reconstructed basic lexicon (the Swadesh 200 list) of PMP with that of Proto-Oceanic and found that they share 88% of their reconstructed basic lexicon. They probably also shared much of their morphology and syntax. This implies that there must have been a chain of mutually intelligible dialects across the Philippines and into Oceania by 3,500BP. This dialect chain ultimately developed into multiple languages with adjacent languages forming subgroups with fuzzy borders. This is modeled in Figure 3 by a broken double line, with vertical lines marking the subgroups that are distinguished today by uniquely shared innovations. Figure 3 also models what was probably the situation in Taiwan some 4000 years ago. There would not have been the discrete languages that we find today, but probably a set of dialect chains, here labeled Northern, Central, Southwestern and East Formosan, each of which eventually dispersed into relatively discrete subgroups of languages. Since there is no current language in Formosa that can be uniquely identified as PMP, its ancestral state, here identified as Pre-PMP, is indicated as the source from which PMP developed.

While Smith (2017: 461-472) discusses the problem of the relationship among Philippine language groups, and suggests that they may prove to be an innovation-defined linkage (Zorc pers. comm. calls it an 'axis'), he confirms the claim from archaeological reports that the first migrants from Taiwan spread rapidly south, after a period, possibly in Northern Luzon, when the innovations that are shared by all non-Formosan languages, and which characterize PMP, developed.
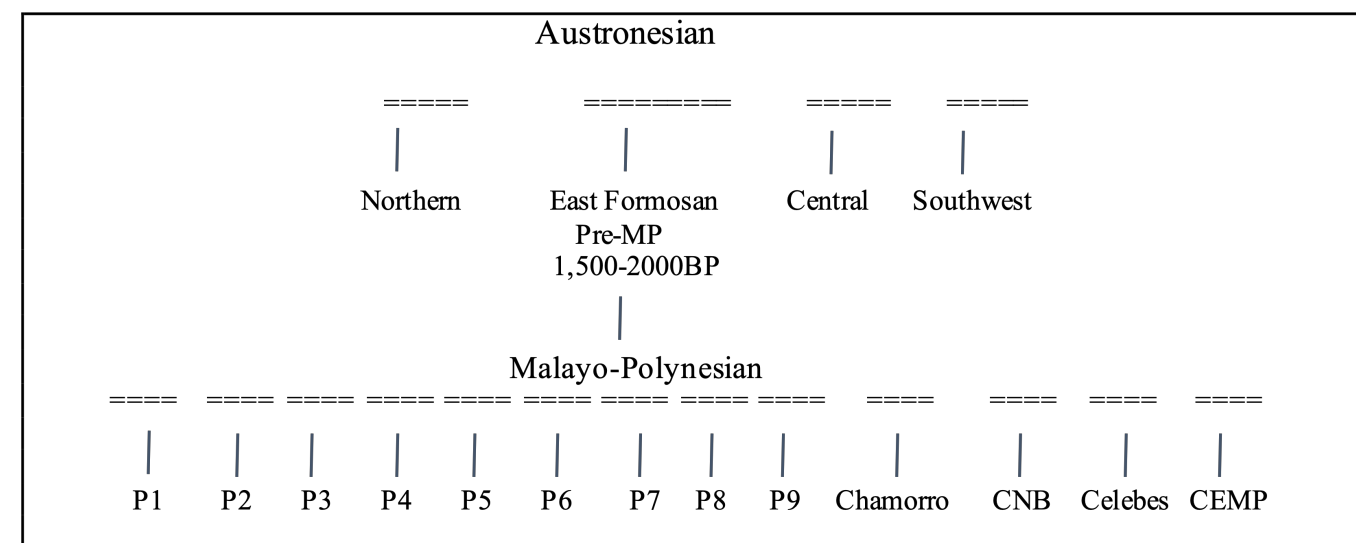

Figure 3: The Malayo-Polynesian language network

P1	Bashiic	P7	Bilic
P2	Northern Luzon	P8	Sangiric
P3	Central Luzon	P9	Minahasan
P4	Inati	CNB	Central North Borneo
P5	Kalamian	CEMP	Central-Eastern Malayo-Polynesian
P6	Greater Central Philippines		

In this section, I discuss why CCo is now considered a linkage, rather than viewed as a cladistic representation with Isinay as the first language that split from the group. Section 4.1 deals with the lexicon of Isinay as evidence for a linkage. Section 4.2 deals with phonological evidence, and 4.3 discusses morphosyntactic evidence for a linkage.

4.1 Lexicon

Although Philippine languages and those to the south of the Philippines have been claimed to form a linkage or network developing from a dialect chain, this is the first paper to suggest that one of the subgroups of Philippine languages, actually forms a linkage. Central Cordilleran is distinct from Southern Cordilleran languages in a number of features that have been

described elsewhere, apart from the fact that there are a number of apparently exclusively shared innovations among the group, as listed in Table 12.

Table 12. Innovations exclusively shared by CCo languages (adapted from Reid 2015)

PCCo	Gloss	Distribution
*ʔátuŋ	hot	Isi, Kla, Itg, Bon, Knk, Blw, Ifg
*ʔíla	see	Isi, Kla, Bon, Knk, Blw
*dalít	eel	Isi, Kla, Bon, Knk, Blw, Ifg
*dugí	husk of rice	Isi, Kla, Itg, Bon, Knk, Blw, Ifg
*kəláŋ	worm	Isi, Kla, Itg, Knk, Blw, Ifg
*kiyát	swim	Isi, Kla, Bon
*waŋwaŋ	river	Isi, Kla, Itg, Bon, Knk, Blw, Ifg

As noted above, Himes (1996: 84) says, "Innovations which Isinay shares with other CC [Central Cordilleran] languages… do provide some evidence of a closer relationship to the Nuclear Cordilleran languages than with Kalinga-Itneg. In fact there are no lexical innovations shared exclusively with Itneg, and only three shared exclusively with Kalinga." The lexical innovations he provides for NuCo languages and Isinay are given in Tables 13 to 15.

However, his tables suggest that exclusively shared innovations between Isinay and NuCo languages are reconstructable to PCCo, which they are if Isinay is considered to be a first order branch of the family, but with the claim that CCo languages formed a network, with Isinay forming close ties with Ifugao languages, then the forms given were locally innovated and shared between the appropriate languages. All forms need to be double-checked for accuracy and distribution.

4.2 Phonology

Many of the changes that Isinay phonology has undergone are shared also by other languages of the group and are not unique to Isinay.

Isinay reflects PMP *ə with a mid-back vowel /o/, but it is also reflected as /o/ in Ifugao languages (Lambrecht 1978, Newell & Poligon 1993) and in Eastern Bontok (Fukuda 1997). The same reflex occurs in Kalinga languages (Brainard 1985, Gieser 1987, Limos Kalinga 1981), forming a contrast between /o/ and /u/ in each of these languages (Liao 2004: 128). While Southern Bontok (Talubin) typically reflects PMP *ə as /ə/, a few forms show an /o/ reflex (Kikusawa & Reid 2003). This change also occurs in a number of non-Philippine

languages, such as Dusun in Borneo (Harrison 2013).

Isinay does not share the development of PCCo *-aw as /-əw/ that occurs in Bontok and Kankanaey languages. It is retained in Ifugao (and Kalinga) as the sequence /-aw/.

Isinay also reflects PCCo *k as /ʔ/. This change also occurs in Balangao (Shetler 1976), Southern Bontok (Talubin) (Kikusawa and Reid 2003), and Batad Ifugao (Newell & Poligon 1993), as well as in Guinaang Kalinga, although in this language, the reflex of PCCo *k varies between /ʔ/ and /k/ (Gieser 1958, 1987). It is also a frequent change in some of the dialects of Isneg in northern Luzon, such as those villages on the Apayaw river below Kabugaw, or on tributaries of the river north of Kabugaw such as Lako or Baliwanan (Vanoverbergh 1972: 6), and in some languages of negrito groups of the north-east coast of Luzon, such as Northern Alta (Reid 1991).

Table 13. Innovations exclusively shared by Isinay and NuCo languages (adapted from Himes 1996: 98)[a]

PCCo	Gloss	Distribution
*ʔaʔəw	shadow	Isi, Bon, Blw, Ifg
*ʔapis	to fight	Isi, KnkN, Ifg
*ʔiba	sibling	Isi, Bon, KnkN, Ifg
*dipag	to lie on the back	Isi, Bon, KnkN, Ifg
*dika	dirty	Isi, Bon, Ifg
*kəpət	wet	Isi, Bon, Blw, Ifg
*kugut	to sew	Isi, Bon, Blw, Ifg
*kupkup	skin	Isi, Bon, KnkN, KnkS, Ifg
*ləgab	to burn	Isi, KnkN, KnkS, Ifg
*laman	deer	Isi, KnkS, Blw
*(l)ind[əu]m[b]	G-string	Isi, Bon, Ifg
*mu	if	Isi, Bon, KnkN, KnkS, Ifg
*puknas	to wipe	Isi, KnkN, Blw, Ifg
*putu	belly	Isi, Bon, KnkN, Blw, Ifg
*s[aə]ʔəd	to wait	Isi, Bon, KnkN, KnkS, Blw, Ifg
*təkən	different	Isi, Bon, KnkN, KnkS, Blw, Ifg
*tuyu	regret	Isi, Bon, KnkN, Ifg

a In this and the following tables from Himes (1996), his PCC (i.e., PCCo) phonemes have been changed to make them more readable. *ə is used for *ɨ (which is often copied without the crossbar). A sequence of forms in square brackets is provided when neither is clearly reconstructible, they are ambiguous. Forms in parentheses are optional (Himes 1996: 105).

b This form is listed in Himes (1996) with a final -N, suggesting an ambiguous nasal.

Table 14. Innovations exclusively shared by Isinay and Bontok-Kakanaey (adapted from Himes 1996: 99)

PCCo	Gloss	Distribution
*ʔagis	to slice	Isi, Bon
*ʔaklaŋ	clothes	Isi, Bon
*ʔalintayuk	summit	Isi, KnkN
*ʔaptikəy	short	Isi, KnkS
*ʔud(d)u	summit	Isi, Bon
*gabgab	to rub	Isi, KnkN
*galasugas	rough	Isi, Bon, KnkN, KnkS
*gamayugəy	finger	Isi, Bon, KnkN
*guwab	below, low	Isi, Bon, KnkN, KnkS
*l[aə]məw	to swim	Isi, KnkN
*liwa	long (time)	Isi, Bon
*pikut	to turn, bend	Isi, Bon, KnkN
*sana	that (near)	Isi, Bon, KnkN, KnkS
*tugʔək	to stab, stick in	Isi, KnkN

Table 15. Innovations exclusively shared by Isinay and Ifugaw (adapted from Himes 1996: 100)

PCCo	Gloss	PCCo	Gloss
*ʔalatəy	liver	*sədəl	strong
*ʔan	what	*sagiʔit	wild pig
*ʔəpwat	to bring, carry	*sanət	exchange
*ʔigwas	to wash (object)	*tayaban	meteor
*datʔəŋ	flood	*tilak	to lose
*gandəw	rat	*waw(w)an	right (side)
*kapya	to make, do		

The only changes that are unique to Isinay within the CCo family are the lenition series. That these are relatively recent is evidenced from the fact that Bambang still maintains final voiced stops, while Dupax del Sur has lenited them (probably following the development of the enclitic specifier that occurs on all definite NPs). Further evidence that the lenition series is relatively recent is the intervocalic reflex of *-g- as /-k-/ in Bambang, which must have taken place after the loss of PMP *k > /ʔ/. This Bambang reflex of *-g- must have been shared by Dupax that subsequently further lenited the form to /x/, a velar fricative that is now written as *h*.

One other major change in the phonology of Bambang is the adoption of *s to /t/ except before *i, and *t to /s/ before *i. These are borrowed rules probably from Ilongot given the close

relationship of Bambang to Ilongot reported on in Constantino (1982). These changes are typically not shared with Dupax or Aritao, so are relatively recent (see Footnote 10 above).

4.3 Morphosyntax

Close ties of morphosyntax, including the specifiers are found in each of the languages of the group (see Table 9). Examples are given in (24) to (26) from Guinaang Kalinga and Batad Ifugao. In Kalinga, the nominative and genitive common noun specifiers have an added -*t*. The oblique specifier *si* is obligatorily indefinite, as in Isinay (see (3) above). The Ifugao example also shows genitive case-marking with =*n*. As in Isinay and other CCo languages there is no specifier if the agent of the verb is a personal name. Similarly, the marker of a future time phrase is a cognate of the Isinay dative/locative specifier /si/.

(24) Kalinga specifiers (Gieser 1987: 30)
Nangala   dit bubai si   tongo…
PFV.AV-get SPCF woman OBL.SPCF kindling
'The woman took kindling…'

(25) Kalinga genitive and nominative specifiers (Gieser 1987: 30)
Inalan   dit bubai dit giduy on tola'.
ʔ<in>ala=n   dit bubaʔi dit giduy ʔon tolaʔ.
<PFV>get=GEN SPCF woman SPCF blanket LG k.o.plant
'The woman got the bark blanket made of *tola'*'

(26) Batad Ifugao genitive and nominative specifiers (Newell & Poligon 1993: 215)
Imbāyun   Bahenta di himboto'   di pāguy hi   ihāangna.
ʔim-báyu=n   bahenta di him-botoʔ   di páguy hi   ʔi-háʔaŋ=na.
PFV.CV-pound=GEN Bahenta SPCF one.unit-bundle SPCF rice   LOC.SPCF CV-cook=she
'Bahenta pounded one bundle of rice that she will cook.'

It was noted above (Section 3.1) that the personal dative/locative specifier *i* is unique in Isinay. In Ifugao languages, the form is *kay* (as also in Tagalog). I assume that the Isinay *i* is a reduced form of the Proto-Ifugao *ka=y (Batad Ifugao /ʔay/, see (27)). Elsewhere in CCo languages the form with the same function is a reflex of PCCo *ka=n (see Reid 2006: 57).

(27) Batad Ifugao personal DAT/LOC specifier (Newell & Poligon 1993: 152)

Hi	*Bumullātung*	*di*	*nanaplat*	*ay*	*ha"in.*
hi	bumullátung	di	naN-aplat	ʔay	haʔʔin
PERS.SPCF	bumullátung	SPCF	PFV.AV-hit	PERS.LOC.SPCF	I

'Bumullātung is the one who hit (on) me.'

With reference to the topic marking form *sa*, in Isinay, it is also found in Ifugao and other CCo languages, although in Isinay it only occurs on fronted demonstratives.

The Isinay basic set of demonstratives is the same set reconstructed for the parent of the Ifugao languages, the parent of the Kalinga-Itneg group of languages, and for pre-Balangao (Reid 2006: 29, 38, 52). Each constituent language has modified the set in various ways, but the same basic forms are found throughout the family.

All Isinay pronouns are expected forms, except Set IV (DAT/LOC) pronouns which as noted above are encliticized to the personal specifier *i*, whereas in Ifugao they are preceded by /kay/.[13] As in Ifugao languages (and also Ilokano), combination pronouns involving a second or third person genitive pronoun and a first person singular nominative, require a combination pronoun =*nak* for a singular genitive pronoun, as in (28) to (29), or =*dak* for a plural genitive pronoun. In Ilokano, the sequence of a LV suffix plus a combination pronoun requires a geminate *n* (-*an*=*nak*). However, in CCo languages, a LV suffix is reduced to -*a* and a third person genitive pronoun (-*na*) is affixed to it (30) (cf. Reid 2019). Ilokano requires a zero first person genitive pronoun when a second person nominative pronoun is also involved (31).

(28) Isinay combination pronoun (Dupax) (Reid Ongoing)

Opasána'		*man.*
ʔopás-a=naʔ		man
put.down-LV=GEN.2SG/NOM.1SG		please

'Please help me put down my load.'

(29) Kiangan Ifugao combination pronoun (Lambrecht 1978: 11)

Adúganak.
ʔádug-a=nak
watch-LV=GEN.3SG/NOM.1SG

'He watches me.'

(30) Guina-ang Bontok with 3rd person singular agent

As	*forowána*	*nan*	*límana.*
ʔas	furu-wá-na	nan	líma=na
fut	wash.hand-LV-GEN.3SG	SPCF	hand=GEN.3SG

'He will wash his hands.'

(31) Ilokano combination pronoun with absent genitive pronoun (Rubino 2000: xliv)

Kayatka	*a*	*manúgangen.*
kayát=ka	a	manúgaŋ=ən
LV-watch=(GEN.1SG)/NOM.2SG	LG	son/daughter.in.law=now

'(I) want you to be my son/daughter-in-law.'

Another morphosyntactic feature that is the same in Isinay and Ifugao is the ligature. In both languages the form is *an*. Compare (32) and (33) below.

(32) Bambang Isinay ligature (Constantino 1982: 140)

mantuttura'	*si*	*apsi'óy*	**an**	*tuttud.*
man-tuttur=aʔ	si	ʔapsiʔóy	ʔan	tuttud
AV-tell.story=I	OBL.SPCF	shortness	LG	story

'I will tell a short story.'

(33) Batad Ifugao ligature (Newell & Poligon 1993: 489)

madamot	*heten*	*ongol*	**an**	*batu.*
ma-damot	heten	ʔoŋol	ʔan	batu
SV-heavy	DEM.PROX	big	LG	stone

'This big stone is heavy.'

---

[13] An earlier form to which DAT/LOC forms were attached is suggested by the barangay name Aritao, which is popularly defined as 'King of the people', supposedly from when early Spanish priests conducted a Mass on the day of Christ, the King (Constantino 1982: 92-94). However, there are a couple of problems with this. The term *tao* 'person' (*tattao* 'people') is Ilokano, not Isinay. In Aritao, 'person' is *táhu*, a regular reflex of PCCo *tágu 'person'. The second problem is that if the structure was a possessive noun phrase, there would be a genitive -*n* attached to *Ari*, as explained in the text: *arin diyé lom-an di táhuwár dari* 'king of all the people'. The popular definition doesn't consider the fact that there is a reflex of the Isinay first person plural pronoun in the form Aritao. The current DAT/LOC pronominal form is /ʔiritaʔú/. If the DAT/LOC form in Isinay was *ka* at an earlier stage, then with normal sound changes (*k to /ʔ/, *-d- to /-r-/), *ka=ditakú 'our place' would regularly become Isinay /ʔaritaʔú/.

5. Isinay origins

As noted in Section 1, Isinay is out of place in the Magat River valley, given the claim that Isinay is a first order branch of CCo. Kalinga-Itneg, as cousins of the Isinay, are a long way from the Isinay. Regarding the route by which the Isinay reached their present locations, we need to consider two published positions, that of Himes (1996: 95-96) and that of Keesing (1962: 334-339).

Himes (1996) suggests three possible routes by which Isinay came to be located in their present position in the Magat River valley. The first, he says, is possible, though unlikely, that the Isinay people diverged from other CCo people while on the western side of Luzon and took a path south of the Cordillera Central through the Balete Pass. If this were so, he claims, we would expect more innovations of contact with Southern Cordilleran languages. This route is based on my early claim (Reid 1974) that Isinay is a first order branch of the CCo family of languages.

Himes' second possible migration route, citing Keesing (1962), is a route he says is 'more likely' than his first suggestion. This would be a route south along the Cagayan River to where the Magat River empties into it, and then presumably up the Magat River to their present location. But Himes (1996: 95) says:

> "Since it is generally accepted that the Itneg-, Bontok- and Kankanaey-speaking peoples entered the Cordillera Central from the western coast, and given the close linguistic relation among Bontok/Kankanaey, Balangaw and Ifugao, we would have to posit a very early distribution of CC [CCo] speaking peoples from the Ilocos coast to the northern shores of Luzon prior to this later dispersal. This is not an impossibility although there is no evidence to substantiate this position."

While there is no evidence to support the route ("a very early distribution of CC [CCo] speaking peoples from the Ilocos coast to the northern shores of Luzon"), there is also no evidence that the "Itneg-, Bontok- and Kankanaey-speaking peoples entered the Cordillera Central from the western coast". Himes was probably influenced by Keesing who said (without evidence) that Bontok and Lepanto (Kankanay) appear to have their origins in lowland populations on the Ilocos side (Keesing 1962: 339). The Ilocos coast is the location of some Ilokano-speaking peoples, but it was not necessarily their home nor the home of the Bontok-Kankanaey peoples. An alternate possibility is that Ilokano developed from the parent of the Northern Luzon family specifically on the northern shores of Luzon.

Himes' third possible migration route of Isinay is that which passes through the Central Cordillera north of the Ibaloy-speaking area through the portions now occupied by speakers of Kankanaey, Bontok and Ifugaw. He says, "We cannot know what forces may have motivated a people, so long ago, to penetrate the agriculturally unattractive mountains, and to persist in an eastern direction until the Central Valleys were located" (Himes 1996: 96). By "Central Valleys," Himes probably refers to the Cagayan River and Magat River Valleys. Himes further claims that this central route then presents the possibility of a more or less continual contact with speakers of Nuclear Central Cordilleran peoples (i.e., Kalinga-Itneg, Kankanay-Bontok, Balangao and Ifugao) until recent times. That there has been continual contact between Isinay and other CCo peoples forms the basis of the present claim of a dialect chain between the groups forming a linkage. It is the water-courses, not the mountains that are the key to the continual contact.

Keesing (1962: 334-5) discusses the routes by which the Ifugao and the Kalinga reached their present locations. Regarding the Ifugao, "…it seems a fair hypothesis that this ethnic group [Ifugao] had its prior cultural base in the Paniquy-Ituy area of the Cagayan lowlands…. This could account for the fact that the Ifugao are so distinct from the Bontok and Lepanto" (Keesing 1962: 339). He clarifies where this "Paniquy-Ituy area of the Cagayan lowlands" is when he claims the Ifugao may have their origin in the "Paniquy" valley area around Bagabag, "into which the Lamut river system drains directly from Ifugao subprovince, together with the adjacent Ibulao system…as the departure point for the original migrations into Ifugao." He also suggests the possibility that the Ifugao fled into the mountains only during post-Spanish warfare. A most tempting hypothesis, Keesing says, is to consider that the Magat population may have provided the original ethnic pool from which the numerically largest group of Mountain Province people, the Ifugao, took form (Keesing 1962: 322-323, 338-339). We need to note that Keesing's claim that the Ifugao are distinct from the Kankanay-Bontok people is related to village size. Typically, the Ifugao have small groups of houses, scattered among their rice fields, whereas Bontok and Kankanaey people have much larger villages. But we do not know the size of Bontok and Kankanaey villages during the times when the ancestors of the Ifugao moved to their present locations. We must assume that they were also small, with scattered houses located near water sources. Culturally (and linguistically), the Ifugao have much in common with the Bontok and Kankanaey people, despite the difference in village size.

Regarding the Kalinga, Keesing says, "Linguistically, Pangasinan, Ibaloi, Isinai, Ifugao, Tinguian, and Apayao all appear to be specialized along distinctive lines, while the Lepanto and Bontok, Kalinga and Gaddang dialects are relatively alike" (Keesing 1962: 341). Clearly Keesing did not have any understanding of the linguistic relatedness of these languages. All of these languages are specialized along "distinctive lines" that is why they are currently considered distinct languages. Pangasinan and Ibaloi (Ibaloy) are related to each other (and to a number

of other languages that Keesing doesn't mention) in the Southern Cordilleran branch of Northern Luzon languages. Isinai (Isinay), Ifugao and Tinguian (Itneg) are members of the Central Cordilleran branch of Northern Luzon languages, with Bontok and Balangao. Apayao is a member of the Cagayan valley branch of Northern Luzon languages, now called Isneg or Isnag. It is true that Lepanto (Kankanay) and Bontok are "relatively alike", but it is not true of Kalinga and Gaddang. Kalinga is closer to Itneg, than it is to Gaddang which is a member of the Cagayan valley group of languages.[14]

Keesing (1962) suggests a number of routes that Kalinga people could have taken to get them into their present locales. He says that Kalinga might have moved westward over rugged country from the middle Cagayan. This ignores the ready availability of the Chico waterway, which he then recognizes. He suggests the possibility that Kalinga may have come down it, by crossing east from what is now Abra province. He finally suggests that the Kalinga could have come up the Chico River from the Cagayan Valley. He says (Keesing 1962: 335):

> "The soundest frame of ethnohistorical reference seems to correspond to the obvious geographic one, namely, to look to the lower Chico area as the departure place for Kalinga entry into the mountains… First mobile ranging parties, and then permanent settlers, can easily be visualized as entering the upland valleys of the Matalag, Saltan, Mabaca, and Bananid, and also working their way higher up the Chico itself."

This is similar to the view of Kroeber (1919: 62), who claimed, "The original affiliation of the Kalingas as a whole seem to have been with the Cagayan, as might be expected from their residence on streams which drain directly into the Cagayan River." There are several problems with both Himes' and Keesing's claims. The primary problem is that they both assume that Isinay (in the case of Himes) and Kalinga (in the case of Keesing) did not begin their migrations until they were separate languages, distinct from other members of the CCo group. But we know that all currently spoken languages developed from earlier stages. Kalinga and other languages ultimately developed from the parent of the CCo group, or Proto-Central Cordilleran. Keesing is right in that he sees the group of which Kalinga is a member, moving up the Chico River. But he is wrong in that he claims the people who moved up the Chico were speaking Kalinga, rather than that Kalinga languages are the current languages of the ancestors who settled down in their valleys and stayed behind, while those who moved on and settled the upper regions of the Chico River and its tributaries, were the ancestors of what are now called Bontok and Kankanaey languages.

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[14] Gaddang is the name of the language spoken in the Bagabag and Bayombong areas. The name Ga'dang is given to the group living in the mountains, especially around Paracelis, in the eastern part of Mountain Province, CAR, which was probably the source of the migrants brought down to live "under the bells" in Bagabag by Spanish priests (see Keesing 1962: 265, Walrod 1988).

My claim is that some members of the group (after reaching the Bontok area) moved up the Wangwang River tributary heading south from Bontok and Samoki to Talubin (/tóvəŋ/) and Caneo (/kanʔəw/). They then moved following what is called on the map Apap Stream to Ambayoan or Bayyo (/vayyəw/) (a dialect of Southern Bontok that shows clear influence from Ifugao). They then passed over the Mt. Polis pass (1597 m.) to Ifugao territory. They gradually settled all the water valleys in the area where the language became Ifugao. Finally, they moved down to settle the Ituy area in the upper Magat and became what are now called Isinay. This probably happened over at least 2000 years, since the ancestral CCo people first moved up the Chico River. At that time, they were probably dry rice swidden farmers and hunter-gatherers, and only later, with the introduction of wet rice did they develop the rice terraces that Bontok and Ifugao are currently known for (Reid 1994). Given the similarity in the languages and the shared innovations that we find among the groups, there must have been visiting back and forth among the groups, giving evidence of a linkage between them. Eventually, as groups protected their territories, enmity between them developed and separate languages developed. As we know, intermarriage took place, even among groups that were enemies, ultimately bringing about the institution of the peace pact (Bontok *pechén*) (Bacdayan 1969, Prill-Brett 1987), which had the purpose of restoring the relationship between villages and the languages that each spoke.

6. Conclusion

This paper began with two goals in mind, stimulated by Himes (1996) which claims that there is evidence that Isinay has a closer relationship to the Nuclear Cordilleran languages (Bontok-Kankanaey, Balangaw and Ifugao) than with Kalinga-Itneg languages, despite the claim that Isinay is a first-order branch of the CCo family (Reid 1974). Himes (1996) closes with a set of claims about how the Isinay came to live in their present location, which were primarily based on the claim that Isinay is a first-order branch of CCo. The goals of the paper then are to reexamine the relationship of Isinay to the other CCo languages and to examine claims about how they got to where they are. Given the claim that Isinay is a first-order branch of CCo, they are out of place in the upper Magat River valley, while their Kalinga-Itneg cousins are found in the Chico River valley and its tributaries.

The claim that Isinay was a first-order branch of CCo was based primarily on the extensive sound changes that are found in Isinay. Some of these changes are not found in other languages of the group, and it was assumed such changes could only have taken place over a long period of time. However, this was not a solid foundation for subgrouping. The basic theoretical basis

of a subgrouping hypothesis is exclusively shared features among the languages of a subgroup, but there are no such features found in the North-Central Cordilleran group consisting of all the languages of CCo except Isinay.

A reevaluation of the phonological evidence shows that two of the sound changes found in Isinay (PMP *k to /ʔ/, and PMP *ə to /o/) are found also in other languages of CCo, and that the only sound changes unique to Isinay are the lenition series (PMP *-b- to /-v-/, *-d- to /-r-/, *-g- to /-k-/ (Bambang) and later /-h-/ (Dupax)) which are commonly found in other languages of the Philippines. The lenition series differs in distribution from one dialect of Isinay to another. They were originally allophonic differences but have become fully phonemic because of the influence of borrowed forms from both Ilokano (since early Spanish times) and Filipino/Tagalog, which is now the language of education in the schools. It is clear then that the lenition series developed relatively recently. They are clearly related to the prevocalic changes to PMP *b, *d, and *g, found in other languages of CCo.

A reevaluation of the morphosyntactic evidence (in connection with Reid 2006) dealt with Isinay specifiers, demonstratives, the definite noun enclitic (unique to Isinay), pronouns, and the ligature, much of which is shared by Ifugao, and other languages within the family.

That much of the phonology and morphosyntax of Isinay are clearly shared by Ifugao and other languages of CCo, suggests that these languages form a linkage rather than a well-defined tree, and are better represented by a linkage diagram. The uniquely shared lexicon cited by Himes (1996) between Isinay and Ifugao, and between Isinay and Bontok-Kankanaey languages is listed as the first evidence for a linkage. Many features of morphosyntax, including specifiers, pronouns and the form of the ligature are similarly shared by some CCo languages.

The final section of the paper deals with examining the claims of Himes (1996) and before him, Keesing (1962) about how the Isinay arrived at their present location in the "Ituy" section of the Upper Magat river valley. Keesing's claim that Kalinga moved up the Chico River valley is found to be most similar to the claims made in Reid (2013), except that Keesing restricted his movement to Kalinga, whereas it should refer to the parent language of CCo. The claim being made here is that Isinay is the end point of the migrations starting at the Chico River and moving up to the upper reaches of that river, then over the Mt. Polis pass to Banaue and Ifugao and eventually down to the upper Magat River where the people, who called themselves Inmeyas 'the ones who used to live in the forest', became the Isinay. Although Isinay today are wet rice farmers, they were probably traditionally a hunter-gathering society, living in the forested areas of the river valleys and subsequently became swidden farmers as other groups in the Philippines still are.

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List of Abbreviations

AV	Actor voice
Blw	Balangaw
Bon	Bontok
CV	Comitative voice
DIST	Distributive
dl	dual
ex	exclusive
Ifg	Ifugao
in	inclusive
Isi	Isinay
Itg	Itneg
Knk	Kankanay/Kankanaey
KnkN	Northern Kankanay
KnkS	Southern Kankanay
Kla	Kalinga
LG	Ligature
LV	Locative voice
PERS	Personal
PV	Patient voice
PFV	Perfective
SPCF	Specifier
TOP	Topic