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Origins of Suppletive Forms for Say in Bontok, Northern Luzon, the Philippines

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1. Introduction

Several Philippine languages in the Central Cordilleran language group (see Figure 1), particularly Bontok, Kankanaey, Balangao, Ifugao and Kalinga, show suppletive variants for the verb 'say' occurring as the main verb of quotation sentences, as in Central Bontok (1).

(1) Khinina-ang Bontok (Nuclear Cordilleran, Northern Luzon)

- a. *Ya kanan=cha=ay mangwáni=en, "Linpas cha Tomag-ong."*
and say=GEN.3PL=LIG saying=QM finished PL Tomag-ong

'And they said, saying "Tomag-ong and his companion finished it."' (Reid 1992: S09-66)

- b. *Kinwáni=na kano=wen, "Khawis tay inkali=yak, 'Ay into=kayo man,'*
said=gen.3SG EVID=QM good because call=NOM.1SG INT where=NOM.2PL STNC
ya kanak=en chakayo nan nangwáni=en, 'Á=ka=s na,' ya
and say.GEN.1SG=QUO 2PL SPEC said=QUO come=NOM.2SG=LOC DEM1 and
oméy=ak et faken ipokhaw, ay ótot.
go=NOM.1SG SEQ not person LIG rat

'She said, "It was good because I called out, 'Where are you,' and I thought you were the ones answering, 'Come here,' and I went and it wasn't a person, it was a rat.'" (Reid 1992: S01-39)

In Bontok the choice between the two forms is based on whether the form carries perfective aspect with the infix <in> (Bon. *kinwáni*), or whether it is unmarked for perfective aspect (Bon. *kanán*). Various other restrictions exist on the choice of form, such as only the former can occur as a gerundive nominalization, and only the latter can carry the meaning of 'mistakenly think'.

(2) Kankanaey (Nuclear Cordilleran, Northern Luzon)

- a. *kanáen* 'to say'
b. *kinwáni* 'said'
c. *menkawáni* 'to tell, say, announce, warn, inform, give notice.' (Vanoverbergh 1933: 213)

(3) Kiangan Ifugao (Nuclear Cordilleran, Northern Luzon)

- a. *kanán* 'say something' (*kanák, kanám, kanána, kanánta, kanánmi, kanántakú, kanányu, kanánda*)
b. *kinali* 'said' {< *kali* 'speech, language, word; to speak, to say, to tell something' (Lambrecht 1978:266, 271)

Similar forms occur in other Ifugao dialects, e.g., Batad Ifugao '*ali* 'voice, cry of an animal, voice, person; to call out, cry out'. (Newell 1993:120)

- (4) Balangao (Nuclear Cordilleran, Northern Luzon)
- ekat* ‘say’ (< *i-ka=t*), also ‘think, mistakenly think, the manner of doing something, what something is called or named’ (Shetler 1976:214-16).
 - ʔali-en* ‘say, tell, talk’
 - baga* say, tell (*ibaga, imbaga*)
- (5) Guinaang Kalinga (North-Central Cordilleran, Northern Luzon)
- Summanga pon si Kabunyan, ’ana,* “*Guminek=’ayu nan sissiwit...*”
became.angry SUB SPEC.PERS Kabunyan say.3SG be.quiet=2PL SPEC birds
‘Kabunyan was angry, saying, “Be quiet, you birds...”’ (Gieser 1987: 11.10)
 - Siya nan ’am=mi=on, “sapul”.*
3SG SPEC say.1EXPL=QM sapul
‘That is what we (ex.) call *sapul*. (Gieser 1987: 58.16)
 - Sit baka, imbagana, “...”*
TOP cow said.3SG
‘As for the cow, it said, “...”’ (Gieser 1987: 58.16)
- (6) Limos Kalinga (North-Central Cordilleran, Northern Luzon)
- kanána* ‘he/she says’
 - bagá* ‘say, tell’ (*ibagá, imbagá*)

2. What is Suppletion?

“Two word forms are in a suppletive relationship if their semantic relationship is regular but their morphological relationship is not.” (Juge: To appear)

- Two types of suppletion based on phonological similarity occur. In ‘weak suppletion’ there is some phonological similarity between the forms, as in Bontok *kanan* and *kinwani*. In ‘strong suppletion’ there is no phonological similarity between the forms, as in English *am* and *is*, *go* and *went*.
- Suppletion is regularly found with high frequency forms, common with verbs such as ‘go’, ‘come’, ‘be’, ‘do’ and ‘say’. Such forms are said to be highly susceptible to irregular sound change. English *say* [seɪ] / *said* [sed] (but note *pay* [peɪ] / *paid* [peɪd]). (Veselinova 2006)
- Various sources have been proposed to account for suppletive variants in languages of the world.

3. Proposed Sources for Suppletive Forms (from Juge To appear)

Incursion. The replacement of a form from one lexeme by a form from another lexeme. ‘went’ is historically related to English *wend* ‘go in a specified direction, typically slowly or by an indirect route.’ (with a regularized past tense ‘he wended his way home’). Some of these create ‘overlapping suppletion’, where the suppletive forms of two or more morphemes are shared (as in Bontok nonperfective *kanan* : *mangwani* and perfective *kinwani* / *nangwani*).

Coalescence. The creation of a single lexeme out of one or more previously distinct morphemes, e.g., Latin *esse* ‘be’, whose paradigm contains elements of PIE **es-* ‘be’ and **b^huH-* ‘become’, (e.g., Latin *es* 2SG Present Indicative, *fuiſtī* 2SG Perfect Indicative). In this case, two formerly distinct verbs provide the forms for a single verb.

Lexical merger. Lexical merger is the loss of forms from two or more lexemes with a single resulting lexeme, as in French *être* ‘be’, which features forms from Latin *esse* ‘be’ and *stāre* ‘stand’.

Sound change. Sound changes that result in a phonemic split, where one phoneme changes into two depending on environmental factors, can result in weak suppletion

Juge gives the following present indicative ‘say’ example from Spanish:

‘say’	Latin	Spanish
1s	dīcō [k] /k/	digo [ɣ] /g/
2s	dīcis [k] /k/	dices [θ] /θ/

Some sound changes can result in strong suppletive forms that have no phoneme in common, e.g., Eng *am* : *is* from PIE *h₁esmi and *h₁esti, by a sequence of regular sound changes.

Leveling. Sound change that does not reflect synchronic allophonic patterns but is a residue of an earlier sound change, can result in weak suppletion, e.g., Eng. *house* : *houses* (with medial /z/, the remnant of medial voicing in earlier stages of English).

The verb ‘to house’, as well as the noun ‘housing’, still maintain *s* as /z/.

Contamination. This term is commonly applied to one kind of analogical change, where items in a list (such as numerals, e.g., *four* with initial /f/ rather than /v/, under the influence of *five*), or in a paradigm (such as pronouns) are changed because of the phonological influence of other forms. In MP languages =*mu* is the reconstructible pronominal base for genitive 2SG, but in many languages (Yogad, Ibanag in the Northern Cordilleran group and Itneg, Kalinga and Balangao in the Central Cordilleran group) the form is =*nu* following consonants, because of the influence of the 3SG form =*na*, but retain =*m* following vowels. In Balangao the nominative 2EXPL form has changed from expected =*kami* to =*kani*, where the contamination has spread to a pronoun with a bilabial nasal, even though the 3PL form (=da) doesn’t have an alveolar nasal.

Proportional analogy. This is often seen as a regularizing process, such as the development of new words in the language of children, who construct regular plurals for forms that are suppletive and that they haven’t yet learned, e.g., dog : dogs :: man : X, X =mans. But Juge shows how it can also produce suppletive forms, e.g.,

		Latin		Galician
Infinitive	‘come’	venīre	>	vir
	‘go’	īre	>	ir
1s Imperfect	‘come’	veniam	>	viña
	‘go’	ībam	>	iba~ía
Indicative			>>	iña

A new, suppletive stem was created in the verb *ir* via the application of the proportion *vir* : *viña* :: *ir* : X, X = *iña*, rather than *iba* or *ía*.

4. The Bontok Suppletive Forms for SAY

In order to understand some of what has happened during the course of the development of these forms, we need to trace a variety of suppletive developments in the history of two forms: *kuwá and *kunú. These roots are semantically related, and probably originated from the same reconstruction, but both have undergone a number

of suppletive changes in the history of the language and now merge in the paradigm for ‘say’, as the result of **incursion**. The reconstructions are PMP *kuhá > *kuwá ‘quotation index, say; what’s-it, filler for word that cannot be recollected’ (possibly from PAN *kuSa / *kuwaS (?)),¹ and PMP kunú ‘evidential adverb, someone said, it is said’.

4.1 The source of Bontok kinwáni ‘said s.t.’

This form appears to be a development of *kuwá + <in> ‘perfective aspect’, from which the unstressed first vowel has been elided (forming *kinwa), and an added *ni ending. Where did *ni come from?

Many languages show a form *kuwan* (*kuan*, *kowan*, *koan*, *kwan*) with final *-n*. Wolff calls it a ‘back formation’ based on a following form marked by a genitive. There were two genitive forms in PMP: *ni ‘personal noun specifier’ and *na ‘common noun specifier’. *ni was also the form that introduced personal pronouns. *ni=kú ‘1SG’, *ni=mú ‘2SG’, *ni=yá ‘3SG’, etc. (Blust 1977). Variant forms also occurred, with *ni reduced to *=n following vowels, as Wolff notes.

In conversation and story-telling, ‘say’ is probably more often followed by a pronoun, than by a personal noun. ‘John said’ would occur when the story begins, but subsequently, ‘John’ would be replaced by ‘he’. In Northern and Central Luzon languages today,² only the pronominal bases occur, e.g., =ku, =mu, =na (reformed from *niyá), that is, the *ni has disappeared. Where did it go? There is evidence that it became attached to the form for ‘say’, a case of **coalescence**, where two forms combine to form a single form. In Bolinao Sambal, in which the form for *wá* ‘say’ is a reduced form of *kuwá, a reflex of the personal noun specifier *ni is still retained when it is followed by a personal name, as in (7)a, but when it is followed by a pronoun, as in (7)b, it carries a final nasal (from *ni), that assimilates to the initial consonant of the pronoun.³

(7) Bolinao (Sambalic, Central Luzon)

- a. *wá=ni* *Lita sin kapresán=rá=n* *mambuka?iten*
said=PERS Lita when duration=3PL.GEN=LG being-opened

‘...said Lita while (the book) was being opened.’

- b. *síti pa-yna?úd* *ʔaná=y* *way=ku kúmu*, ...
this polite-indeed, already=NOM say=1SG LOC-2SG

‘This is what I suggested to you, ...’ (Ehrman 1969: ex. 81)

The Bontok form *kinwáni* ‘said’ looks like the perfective aspect of a transitive verb, but there is no corresponding nonperfective verb *kuwani-ʔən. However, there are corresponding stative forms both non-perfective (*ma-*) and perfective (*na-*): *makwáni* ‘what will be said’, *nakwáni* ‘what was said’, and there are corresponding non-perfective and perfective gerundive forms: *mangwáni* / *nangwáni* ‘saying; the one who says/said’. Table 1 shows the allowable set of *kVwáni* ‘say’ forms, as compared to a regular transitive verb, *aráen* / ʔalá-ʔən/ ‘to get s.t.’.

¹ Blust and Trussel (Ongoing) reconstruct PWMP *kua ‘whatchmacallit, filler for word that cannot be recollected’; and PWMP *kua-n ‘quotative’.

² Many other PMP languages have both long forms with ni=, as well as short forms without ni=.

³ This is true if the pronoun begins with a non-nasal consonant, but otherwise the form is *wá*, just as in the locative pronouns (which in many languages are based on a homonym of the verb ‘to say’), *kuŋ-ku* ‘1SG’, *kun-ta* ‘1,2SG’, *ku-mu* ‘2SG’, *ku-na* ‘3SG’, *ku-mi* ‘1EXPL’, *kun-tamu* ‘1INPL’, *ku-muyyu* ‘2PL’, *kun-ra* ‘3PL’.

Table 1. Defective paradigm of Bontok ‘say’ compared to ‘get’

		active	stative	gerund
ʔála ‘get’	–perf	ʔála-ʔən	ma-ʔála	maŋ-ála
	+ perf	ʔ<in>ála	na-ʔála	naŋ-ála
kVwáni ‘say’	–perf	???	ma-kwáni	maŋ-wáni
	+ perf	k<in>wáni	na-kwáni	naŋ-wáni

The ‘say’ paradigm could be the result of one of a number of different historical developments, of which the following three are the most obvious.

- 1) The nonperfective, active form was simply lost, or replaced with an alternative form.
- 2) The only verb that occurred was the perfective, active form, and the stative and gerundive forms subsequently developed.
- 3) The stative and gerundive forms were part of the paradigm but were reformed following the fusion of the genitive ending /ni/ to the base.

Whatever the reason, the stative and gerundive forms must be the result of proportional analogical patterning with regular transitive verbs, such as *aráen* /ʔála-ʔən/ ‘to get s.t.’, as shown in (8).

(8) Proportional analogical development of Bontok ‘say’ verbs.

ʔ<in>ála	: na-ʔála	:: k<in>wáni	: X,	X=na-kwáni	<i>nakwáni</i>
ʔ<in>ála	: naŋ-ála	:: k<in>wáni	: X,	X=naŋ-wáni	<i>nangwáni</i>
naŋ-ála	: maŋ-ála	:: naŋ-wáni	: X,	X=maŋ-wáni	<i>mangwáni</i>
na-ʔála	: ma-ʔála	:: na-kwáni	: X,	X=ma-kwáni	<i>makwáni</i>

The reason these have to be the result of proportional analogical change is because the function of the ending *–ni* on the verb (as a specifier of a genitive pronoun or noun) is incompatible with the intransitive status of stative and gerundive nominalizations which do not allow genitive specifiers to mark their grammatical subjects.

4.2 The source of Bontok *kanán*

There are at least two hypotheses. Either *kanán* developed as a transitive verb from the base **kuwá*, or it developed from the evidential adverb **kunú*, via Ilokano *kuná* ‘say’. Let us examine the second hypothesis first, and then comment on the problems with it.

4.2.1 PMP **kunú*

John Wolff (2010) reconstructs PMP **kunu* ‘quotative’ with reflexes from the Bashiic languages in the far north of the Philippines, such as Itbayaten (Yamada 2002:148), Inibaloi *konó* (Ruffolo 2004) (9), Tagalog (slang) *kunó* (Rubino 1998), Malay *konon* and Malagasy *hono* (Wolff 2010), and even in Oceanic languages, such as Sa’a, a language of the Solomon Islands.

(9) Inibaloi (Southern Cordilleran)

inon ‘an=to *kono* *i* *ebadeg* *ya* *oleg*.
 < PFCT > see-LOC=GEN.3SG EVID NOM STAT. PFCT-big LIG snake

‘It is said that he saw the big snake.’ (Ruffolo 2004: 43)

In various Formosan and Philippine languages (Reid 1978), *nu* occurs as an empty noun, meaning ‘something’, ‘somebody’, e.g., Tagalog *ano* ‘what’, *sino* ‘who’. The

sequence *ku=nu ‘it is said, someone said’ possibly developed as a result of coalescence of the two forms, *kuwa + *nu.

In Mamanwa the evidential adverb is *koni* (10), possibly a development of *kun ‘say’ + *ni ‘personal genitive specifier’, with regular degemination of the nasal sequence.

(10) Mamanwa (Central Philippines)

Nabahaw di koni iza.
well already EVID 3SG

‘It is said that he is well now.’ (Miller and Miller 1976:43)

Apparent reductions of *kunu as *kun* are found in many languages (Wolff 2010: 283), some with the evidential meaning, as in Chamorro (11), others as ‘quotative indexes’ with the meaning ‘say’, for example, several of the languages of the Cagayan Valley, such as Atta, Isneg, Itawis, Ibanag and Ga-dang (12-13). *kun* occurs with this meaning also in Ratahan (a northeast Sulawesi language) (Himmelmann and Wolff 1999), or with related meanings, as in Mamanwa, where it is used as an interrogative marker (14a), a conditional form ‘if’ or ‘whenever’ (14b), as well as part of certain temporal adverbs, such as *konsilem* ‘tomorrow’ and *kon?isa* ‘day after tomorrow’ (Miller and Miller 1976: 35). Similar forms and functions occur in other Central Philippine languages, such as Tagalog *kung* and Cebuano *kun*. The full form occurs as a verb meaning ‘to say, to speak’ in a few languages, such as Hanunóo *magkunkunu?* ‘to speak’ (Conklin 1953).

(11) Chamorro (Mariana Isl.)

a. *Humanao=gue’ hun para i gipot.*
went=NOM.3SG EVID to SPEC party

‘He said he went to the party.’ (Topping, Ogo, and Dungca 1975)

(12) Ga’dang (Northern Luzon, Cagayan Valley)

Massapit kanu i dagga, “Totoloke, mesabban na ino tafu
said EVID SPEC turtle wash drift FUT this one

na abat sikwak,” kun=na kanu
LG banana.plant LOC-1SG say=3SG.GEN EVID

‘The turtle said, “As I wash my hair, let a banana plant drift into me.”’ (Walrod 1979: 83)

(13) Atta (Northern Luzon, Cagayan Valley)

“Kuán, Kuán,” kun=na kano ni Kurusipin,
Juan Juan say=3SG EVID GEN.PERS Kurusipin

‘“John, John,” Kurusipin reportedly said.’

(14) Mamanwa (Central Philippines)

a. *Kon an-init hao ka sapa?*
INT heat 1SG OBL water

‘Shall I heat the water?’ (Miller and Miller 1976:43)

b. *Kon manga dowá ka siran andalagan gazed siran.*
if PL two only 3PL run indeed 3PL

‘If they had only been two, they indeed would have run.’ (Miller and Miller 1976:137)

4.2.2. The development of kanú / kan ‘evidential adverb’

While reflexes of *kunú are widespread, reflexes of *kanú are limited to a geographically connected set of languages, primarily Ilokano, the Cagayan Valley languages of Northern Luzon (such as Atta and Ga-dang, see (12-13) above), the Central Cordilleran languages of Northern Luzon (but not the Southern Cordilleran languages which maintain reflexes of PMP *kunú), and at least some of the Central

Luzon languages, such as Kapampangan (Mirikitani 1972: 443) (see Figure 2 for a subgrouping diagram of Northern Luzon languages). All of these languages are heavily influenced by Ilokano, the *lingua franca* or trade language of all of northern Luzon and the form may have spread from this language to the others.

But why did **kunú* change to *kanú*? This question requires an examination of Ilokano *kuná* ‘say’ that commonly occurs as a quotative index. The claim here is that *kanu* developed as a result of its position in relation to a common Ilokano sequence ***kuná=na + kunú* > *kunána kanú* ‘he reportedly said’ as a result of the spread of the vowel /a/ of *kunána* to minimize articulatory effort (e.g., Blevins 2004, Pulleyblank 2002, Lloret 2007), with a subsequent generalization of the modified (‘contaminated’) form to follow other lexical contexts.

4.2.3 Ilokano *kuná* ‘say’

The similarity in form and meaning between ILK *kuná* ‘say’ and the reconstructed PMP **kunú* ‘it is said’, suggests the possibility that this reconstruction is the source of the Ilokano form. The forms appear to be related in some way, although it is not entirely clear. Various possibilities suggest themselves, but none is satisfactory. In fact as will be discussed below (sec. 4.3), PMP **kunú* is probably not the source of ILK *kuná*. Regardless of how *kuná* ‘say’ developed, it is clear that it must have occurred frequently concatenated with *kunú* ‘evidential adverb’, especially in the sequence *kuná=na kunú* ‘he reportedly said’.

Synchronic analysis of ILK *kuná* ‘say, utter, believe, suppose, mean’ and its various pronominal endings (15), show that it is a nominal form when occurring as a quotative index both preceding and following a quotation, in that it regularly occurs unaffixed and carries genitive enclitics.

(15) Ilokano (Northern Luzon)

1SG	<i>kuná=k</i>
2SG	<i>kuná=m</i>
3sg	<i>kuná=na</i>
1DL	<i>kuná=ta</i>
1PLIN	<i>kuná=tayó</i>
1PLEX	<i>kuná=mi</i>
2PL	<i>kuná=yo</i>
3PL	<i>kuná=da</i>

As an intransitive verb however, it carries regular affixation, with prefix *ag-* ‘intransitive, tense-aspect unmarked’ / *nag-* ‘intransitive, perfective aspect’. It can also carry C₁VC₂- continuative aspect affixation, e.g., *kunkuná* ‘saying’. ILK *kuná* also has a regular transitive form, with a perfective infix <*in*>: *kinuná* ‘said s.t.’. But while the non-perfective form *kunaén* appears in Gelade’s (1993) dictionary, it does not appear in either the Rubino (2000) or Vanoverbergh (1956) dictionaries, and is apparently rare. The non-perfective transitive verb *saw-en* </saʔú + -en/ ‘to say s.t.’ is regularly used, as in (16).⁴

⁴ In my Ilokano database of 31 short stories (8200 lines of text, 123,034 morpheme concordance records), while there are 273 instances of the perfective *kinuná* ‘said’ there are only 6 instances of the non-perfective *kunaén* ‘say’. (Similarly there are 75 instances of the perfective form of the involuntary or stative *nakuná* ‘happened to say, said’, but only 5 instances of the non-perfective form *makuná*.) The usual form for non-perfective ‘say, tell’ is *saw-en*, which appears 48 times in the database.

(16) Ilokano (Northern Luzon)

Saw-em no ania ti masapul=mo.
 say.GEN.2SG if what SPEC need=GEN.2SG

‘Say what you need.’ (ILK DB SK106)

With an *i-* prefix, *ikuná* ‘do like this (showing how)’, combines semantic changes common with SAY verbs, carrying both a DO meaning, as well as a similitude sense.

4.2.4 *Vowel spread*

The claim that the sequence *kuná=na kunú* ‘he reportedly said’ became *kuná=na kanú* by vowel spread, brings a number of different types of vocalic change into focus. The first is vowel harmony, typically described as a productive process by which vocalic features are shared across syllables or morphemes (Archangeli and Pulleyblank 2007). A similar change is characterized as vowel spread, either to make the articulatory performance easier or to enhance perception (Blevins 2004, Lloret 2007). Local changes of this type, especially when consonants are involved are commonly referred to as assimilation (Baković 2007). Such synchronic changes can become frozen, leaving their effects on the diachronic phonology of the languages. We find such processes in forms that occur in paradigms (like pronouns), as in many Austronesian languages that have changed =*mu* to =*nu* ‘genitive 2SG’, because of the alveolar nasal initial of ‘genitive 3SG’ =*na* (or *niya*). Syntagmatic changes of the same type occur in constructions, such as forms that introduce NPs in a sequence in some Philippines languages (that I have referred to as vowel grades, Reid 2006), in which oblique and locative markers with different vowels agree in vowel quality in a single language or dialect (Table 2). Similar assimilatory changes also occur across sequences of words, such as *kuná=na kanú*. In this case the vowel change involves a spread of the most sonorant, open, stressed vowel to replace a following unstressed, rounded back vowel. These are all analogical changes, in that morphemes and the phonological segments that compose them become more like one another in terms of their articulation.

Whether ILK *kanú* from **kunú* diffused into the Central Cordilleran languages or was a parallel development in Proto-Central Cordilleran is not clear, but we can be fairly sure that the sequence **kuná=na kanú* ‘he/she reportedly said’ probably occurred at an early stage of the development of these languages, in that they all give evidence of the change from **kunú* to ***kanú*. This change is considered an instance of forwards vowel spread, in that it is triggered by a previous form **kunána*. Instances of backwards vowel spread also occur and are considered to be responsible for the change of **kuná* to ***kaná* in the Central Cordilleran languages.

4.2.5 *Backwards vowel spread*

Kankanaey, a close sister language of Bontok, shows forms that have not undergone all the changes that are found in Bontok. Vanoverbergh (1933) lists KNK *kaná* ‘say’, this (he claims) is the base for non-perfective instances of the verb ‘say’. He also cites *kanáen* ‘to say’, although no examples of these forms are given. The relationship of these forms with ILK *kuná* and *kunáen* is fairly obvious. They appear to have developed from ILK *kuná* with backwards vowel spread, that is **kuná=na kanú* became **kaná=na kanú* ‘he/she reportedly said’.

Kankanaey retains other clear cases of backwards vowel spread involving the suppletive forms of the verb ‘to say’. While Bontok only retains the perfective form of a transitive verb, *kinwáni* (< **kuwá* + *ni*) ‘said’, KNK *menkawáni* ‘to tell, say, announce, warn, inform, give notice’ (Vanoverbergh 1933: 202), retains a form with a nonperfective intransitive prefix /*mən-*/, and an irregular vowel /*a*/ in the first syllable

of the base, the result of backwards vowel spread. In this case, the trigger for the change, the stressed /á/ in the second syllable of the base, follows the changed vowel.

One example of KNK *kaná* is found in the name of the language *Kankanaey* (< C₁VC₂- ‘continuative’ *kana* ‘say’), an exonym meaning ‘those who say *ey*’ (Kankanaey and Bontok reflect all inherited *ay sequences as *ey* /əy/).

Other cases of backwards vowel spread are found with forms that are phonologically and semantically related to ‘say’, such as the Kallahan exonyms *Kamankeley* ‘those who say *keley*’ and *Kamanyattuka* ‘those who say *yattuka*’ (Afbale 1989: 70), in which Kallahan (Southern Cordilleran) *kama-n* < **kumá ‘say’ + -n ‘LIG’. The same form, possibly the result of backward vowel spreading, is found in BON *kanán* ‘be like’. Reflexes of *kumá ‘hopefully’, without vowel spreading, are found in many languages influenced by Ilokano, including Bontok and Kankanaey.

4.2.6 Reanalysis of ‘say’ as a model for person-marking on the verb in some Central Cordilleran languages.

A synchronic analysis of BON *kanán* ‘to say’ shows that it is currently a monosyllabic base *kan* ‘say’ with a locative applicative suffix *-an*.⁵ With regular pronominal developments the forms are given in (17):

(17) Khinina-ang Bontok (Nuclear Cordilleran, Northern Luzon)

1SG	kaná=k
2SG	kaná=m
3SG	kaná=na
1DL	kanán=ta
1PLIN	kanán=taku
1PLEX	kanán=mi
2PL	kanán=yu
3PL	kanán=da

In Reid (2001) I provided an analogical account for the development of person-marking on the verb in the Central Cordilleran (CCO) languages. But there were problems with it. In the conclusion (2001: 255), I suggested that my account may be wrong, because of certain facts that did not properly fit. I now think that the analogical process described above may have been the source of the regular development of person-marking on the verb.

In most of the Northern Luzon languages, the loss of the final vowels of the first and second person genitive pronouns, =*ku* and =*mu* is regular following vowels, whether nouns (e.g., ILK *ásuk* (< *ʔásu=*ku*) ‘my dog’, *ásum* (< *ʔásu=*mu*) ‘your dog’), or verbs (e.g., ILK *inálak* (< *ʔinála=*ku*) ‘I got it’, *inálam* (< *ʔinála=*mu*) ‘you got it’). Vowel loss does not occur with the third person genitive pronoun =*na* following vowels, whether noun or verb (e.g., ILK *ásuna* ‘his/her dog’, *inálana* ‘he/she got it’).

In most Central Cordilleran languages, verbs that end with either of the two suffixes *-an* or *-en*, similarly are treated as though they end with a vowel when the agent is first, second or third person, the final nasal is deleted and the post-vocalic pronominal form is added (e.g., BON *punásak* (< *punásan=*ku*) ‘I’ll wipe it’, *punásam* (< *punásan=*mu*) ‘you wipe it’, *punásana* (< *punásan=*na*) ‘he/she’ll wipe it’; ILK *aláek* (< *ʔaláʔen=*ku*) ‘I’ll get it’, *aláem* (< *ʔaláʔen=*mu*) ‘you get it’, *aláena* (< *ʔaláʔen=*na*) ‘he/she’ll get it’). It is important to note that the deletion of *-n* before post-vocalic forms of the pronoun in Central Cordilleran languages occurs only on

⁵ The base form *kan* is homophonous with the base of the transitive verb *kanen* ‘to eat s.t.’, that carries an *-en* suffix.

verbs with the suffixes *-an* and *-en*. If a noun ends in such a sequence, the final nasal is not deleted, and the full post-consonantal forms of the pronouns occur, e.g., BON *pongan=ko* (*pongak) ‘my pillow’, *pongan=mo* (*pongam) ‘your pillow’, *pongan=na* (*pongana) ‘his/her pillow’.

The question that needs to be answered is what were the conditions that brought about such an irregular situation, where a morphophonemic alternation depends not on the phonology, but on the morphology? What is apparent is that the alternation began with a commonly occurring nominal form that ended with a vowel, such as we see in ILK *kuná* (17) and KNK *kaná*. These forms were then reanalyzed as verbs with an *-an* suffix, possibly by analogy with other *kan* forms, such as those which occur as part of interrogative sequences such as in (18).

- (18) Khinina-ang Bontok (Nuclear Cordilleran, Northern Luzon)

Ay ne kan nan ngáchan=mo?
INT what polite SPEC name=2SG

‘What is your name?’

While this provides an account of the Central Cordilleran languages, such as Bontok and Ifugao that have developed verbal forms such as *kanan*, it does not account for the Guinaang Kalinga forms *'am-mi* (< *kan=mi) ‘we (excl.) said’ and *'ana* (*kan=na) ‘he said’, unless these are subsequent developments from *kanán=mi and *kaná=na.

4.3 An alternate proposal

The discussion above (sec. 4.2.1, exs. (13-14), and 4.2.3) has assumed that *ku* and *kun* forms are, in many languages, probably shortened forms of *kunú ‘evidential adverb, it is said’, and that ILK *kuná* possibly developed from *kunú by an as yet unidentified route. But in Philippine and other Malayo-Polynesian languages, we find *ka* and *kan*, as well as *ku* and *kun*, all with ‘say’ and related senses.

Many Austronesian languages have forms for ‘say’ and related senses, such as ‘go’, that have developed from PAN *kuwaS (?). We also have evidence from different dialects of Puyuma (a Formosan language) that reflexes of such a form can appear as either *kua* or *ka* (19-22).

- (19) Katripulr Puyuma (Formosan)

mukua=ku i Valrangaw.
AV.go=NOM.1SG LOC Taitung

‘I went to Taitung.’ (Stacy Teng p.c.)

- (20) Nanwang Puyuma (Formosan)

muka=ku i Valrangaw.
AV.go=NOM.1SG LOC Taitung

‘I went to Taitung.’ (Stacy Teng p.c.)

- (21) Katripulr Puyuma (Formosan)

kinakuakua i-kuakua
‘as it is said’ ‘thus called’ (Cauquelin, ex Sagart p.c.)

- (22) Nanwang Puyuma (Formosan)

“*idri i, nu=ka-la-ladram-an m-u-ruma*
this.NOM TOP POSS.2SG=STAT-RED-know-NMLZ INTR-go-home

i ruma'?” *tu=ka-aw i,....*
LOC house GEN.3=tell-TR TOP

“‘These, are these your signs for going home?’” he said to her, ...’ (Teng 2008:256-7)

A problem arises when we consider data from Binongan Itneg, a sister of the Kalinga languages, which is spoken in areas where Ilokano is also spoken and which has been heavily influenced by the language (21).

(23) Binongan Itneg (Central Cordilleran, Northern Luzon)

- a. “...,” *kun kan man nit issa nga taowen*
 say EVID again GEN.PERS one LIG person

“...,” said the person again, reportedly.’ (Walton 1971: 321, 12.3)

- b. “...,” *kun=na kano.*
 say=3SG EVID

“...,” said the child, reportedly.’ (Walton 1971: 320)

Here we find unaffixed *kun* as a quotative index ‘say’, immediately followed by evidential *kan* or *kano*. The same is true of the Ilokano sequence *kuná=na kanú* ‘he/she reportedly said’. It seems unlikely that ITG *kun* (and ILK *kuná*) originated in the same proto-form as the immediately following evidential form, since it would imply a sequence of **kunú kunú*, in which the first developed the meaning ‘say’, while the second retained its evidential meaning. Rather ITG *kun* and ILK *kuná* are probably developments of **kuwá.n(i)* ‘say’.

Notice that this form and meaning are found in Ivatan (a Bashiic language), as well as in each of the major branches of Northern Luzon: Ibanag (Northern), Bontok (Central) and Inibaloi (Southern), among other languages in Luzon (such as Bolinao). While a reflex of **kuwá* is still retained as a hesitation form (among other meanings) in Ilokano *kuá*, it seems to have developed its verbal functions independently, resulting in the present day Ilk *kuná*.

Bontok, similarly, retains a reflex of **kuwá*, not as a hesitation marker, but as the base of possessive pronouns, BON *kowák* ‘mine’, *kowám* ‘yours’, etc. (again probably the result of influence from Ilokano), as well as in the perfective form *kinwáni* ‘said’.

5. Conclusion

In many languages of the world, the SAY verb is suppletive. This is true also in many Austronesian languages. Why? Probably related to the fact that until a few hundred years ago, when printing was developed, most if not all societies were oral societies, with intensive story-telling and reporting interaction. Irregular changes develop primarily in forms that are commonly used (Bybee 2007), especially general verbs like *say*, *do*, *get*, *go*, *come*, and the like.

While suppletion has been described as the result of a number of factors, such as incursion, coalescence, lexical merger, sound change, leveling, contamination and proportional analogy, the factors that have resulted in the Bontok suppletive verbs are probably **coalescence**, by which **kuwá* + **ni* developed as **kuwáni* ‘say’ and ultimately *kinwáni* ‘said’. **Analogical change** has spread this development to other paradigmatically related lexical items, such as statives and gerunds. The actual source of the non-perfective *kanan* ‘to say’ is traced by **incursion** to ILK *kuná*, followed by backward vowel spread or **contamination**, as maintained in KNK *kaná* ‘say’. Vowel spread is also considered to be the cause of the change of the evidential form in Ilokano and geographically contiguous languages, from **kunú* to *kanú*.

The apparent fusion of some genitive pronouns as pronominal features on transitive verbs ending in the suffixes *-an* and *-en* in Central Cordilleran languages, suggests a reanalysis of forms in which the pronouns were originally attached to bases that ended in a vowel, such as *kaná*, and which were then reformed as verbs. Whether this change first occurred in Ilokano and then spread to other languages by borrowing,

or whether a process of drift occurred resulting from the phonological conditions for the change were inherited, still requires further research.

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**TABLE 1. SOME CASE-MARKING FORMS
IN CENTRAL CORDILLERAN LANGUAGES**

	OBLIQUE	LOCATIVE
KALINGA	ʔus	ʔud
BALANGAO	ʔas	ʔad
KANKANAAY	ʔis	ʔid

**FIGURE 1. THE CENTRAL CORDILLERAN SUBGROUP
OF PHILIPPINE LANGUAGES**

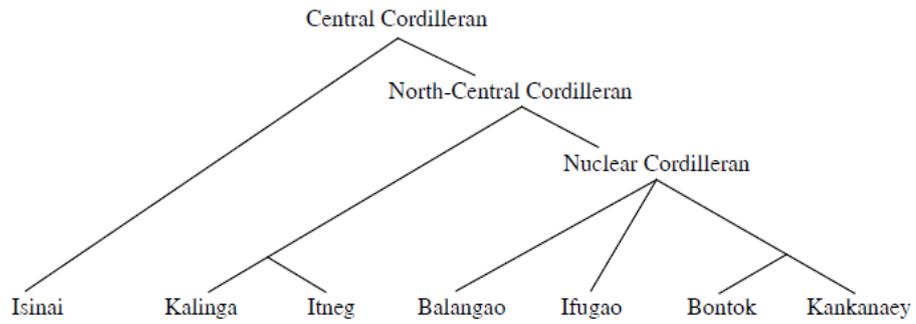


Figure 2. Some Northern Luzon languages (from Reid 2007:28)

