

AGAINST THE NOTION OF UNIDIRECTIONALITY IN LEXEME GENESIS¹

Carl Rubino
University of California, Santa Barbara

ABSTRACT

The morphological continuum of grammaticization has been considered to be unidirectional, in which a lexical item undergoing the grammaticization process would become cognitively and phonologically bound to the root morpheme for which it specifies its inflection, but not vice-versa (Givón 1971, Lehmann 1986, Heine et al 1991). The trend is for these lexical items to lose their phonological and morphological weight along with their semantic integrity and become fused to the root, eventually losing their original lexical meaning, while acquiring a more grammatical meaning. Consider, for example, the Spanish future tense suffixes that have evolved from an independent verb of possession, now cognate with the present tense forms of the verb haber (Givón 1971). The independent verb forms now used to express future tense have fully grammaticized through a process of semantic bleaching and phonological reduction to the extent that native speakers cannot easily predict their lexical origin:

| | | | |
|--------|------------|-----------|--------------------|
| yo he | 'I have' | yo ser-é | 'I will be' |
| tú has | 'you have' | tú ser-ás | 'you will be' |
| él ha | 'he has' | él ser-á | 'he will be,' etc. |

As the majority of historical processes documented do in fact follow this pattern of development, grammaticization theory has been considered a unidirectional process. This paper will introduce data from three languages, Ilokano, Hebrew, and Hungarian, that will counter the notion that independent lexemes may not develop from phonologically bound affixes, and will review two similar cases of lexeme genesis in Irish (Bybee et al, in press) and Estonian (Campbell 1991).

1. MAJOR CLAIMS ABOUT THE NATURE OF GRAMMATICIZATION AND UNIDIRECTIONALITY

Our understanding of diachronic linguistic development in accordance with the general tendencies of unidirectionality has led to many claims about the nature of grammaticization in general. The classic claim that 'today's morphology is yesterday's syntax' (Givón 1971) has been sup-

¹ Special thanks to Robert Hetzron for the Hebrew and Hungarian data. I also thank Susanna Cumming, Steven Fincke, Marianne Mithun and Sandra Thompson for their comments on a previous draft of this paper. They are, of course, not responsible for any errors or shortcomings here within.

ported with evidence from many language families where lexical items undergo the process of grammaticization, thus becoming less lexical and more grammatical, and morphologically bound from a previous state of being free lexemes. Such widespread processes of phonological fusion in grammaticization have been useful to syntactic reconstruction, as the order of syntactic constituents in earlier stages of the language is thereby preserved in the later morphological structures.

The abundance of diachronic data supporting the hypothesis of unidirectionality in morphological evolution is therefore reflected in some traditional definitions of the term grammaticization² where the propensity for unidirectional change is accounted for:

'grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status.' (Kuryłowicz 1975)

'grammaticalization ... refers primarily to the dynamic, unidirectional historical process whereby lexical items in the course of time acquire a new status as grammatical, morpho-syntactic forms, and in the process come to code relations that either were not coded before or were coded differently. (Traugott and König, 1991, Givón 1991)

Givón (1979) diagrams the evolutionary cycle of grammatical patterning as a process of discourse/pragmatic structures grammaticizing into syntactic forms and then eroding into morphological structures that may then undergo phonological attrition:

(1) discourse > syntax > morphology > morphophonemics > zero

As shown in Givón's model above where lexical material becomes re-analyzed in the grammaticization process whereby it may undergo stages of semantic, morphological, and phonological attrition, grammaticization can be viewed as a unidirectional process of decline and decay (idiomatization and ossification) (Nichols and Timberlake 1991), or a process of morphological degeneration (Lehmann 1982; Heine and Reh 1984). This view is consistent with the unidirectional hypothesis of morpheme development in grammaticization, which specifies the following generalization about the nature of the development of morphological categories summarized in (2):

²I choose to employ the term grammaticization as interchangeable with the term grammaticalization to avoid any metaphors that may be associated with the term 'grammatical'.

- (2) The unidirectional cycle of the morphological development of grammaticized units: free lexeme > clitic > bound affix

This paper will focus on the morphological aspect of the grammaticization process, citing examples violating the unidirectional hypothesis outlined in (2), which may enable us to better our understanding of the nature of morphological development and diachronic linguistic change in general.

2. PREVIOUS COUNTEREXAMPLES OF THE UNIDIRECTIONAL HYPOTHESIS IN MORPHEME DEVELOPMENT

Certain scholars have cited evidence violating the hypothesis of (2): many of these cases have been dismissed as examples of degrammaticization or regrammaticization and regarded as statistically insignificant (Heine et al 1991) or have been recognized as another controversial process, that of diachronic demorphologization, thus viewing unidirectionality in grammaticization as a 'prototypical' principle (Joseph & Janda 1988, Hopper & Traugott 1993). Yet counterexamples do occur, so it is particularly interesting to study their development and recognize them as problems for a the prototypical view of grammaticization.

Bound morphemes evolving into free lexemes are indeed quite rare in the world's languages but nevertheless have been attested. Jeffers and Zwicky (1980) show that Proto-Indo-European clitic particles have developed into roots of relative, indefinite, and interrogative words in the descendant languages. Yo Matsumoto (1988) exemplifies the change from bound grammatical markers to free discourse markers in Japanese. Richard Janda (1981) argues that the English inflectional genitive suffix *-(e)s* during the late Middle English period was reinterpreted by some speakers to be a reduced form of the free independent pronoun *his*, which eventually cliticized from a bound affix as it appears today in Modern English. Nevis (1985) traces the development of the Saame (Lappish) abessive suffix *-taga* which underwent morphological reinterpretation from affix to clitic in all dialects of Saame, except in Enontekiö where it has evolved from an affix into a unstressed postposition.

Affixal emancipation from affix to clitic has also been attested in certain regional dialects of New Mexico Spanish where the affix *-mos* has evolved into a subject clitic (Janda 1993).

The five cases studies herein will document the rather rare phenomenon of demorphologization and attest to affixal emancipation, an atypical path of morphological evolution.

3. THE CASE STUDIES

3.1 The Ilokano Case

Ilokano (Austronesian, Philippines) provides us with interesting evidence to question the unidirectionality hypothesis in the morphological development of grammaticized units. Our first example will deal with the inflectional future enclitic =*to* with two allomorphic variants: =*to*, after consonants, and =*nto* after vowels³:

Mapan=ak=*to*.
INTR:go =1sABS=FUT
'I'll go.'

Mapan=ka=*nto*.
INTR:go=2sABS=FUT
'You'll go.'

We can see from the following examples that the Ilokano future morpheme behaves as a second position enclitic. It may appear as a constituent of the verb:

Ag-luto=*da=nto*.
INTR-cook=3pABS=FUT
'They will cook.'

Saan=*da=nto* nga ag-luto.
NEG=3pABS=FUT LIG INTR-cook
'They won't cook.'

The future morpheme also may appear in non-verbal predications. (Note that the language is devoid of a copula):

Asino=*nto* dagiti artista nga usar-en=*na*?
Who=FUT ART:PL actor LIG use-TRANS=3sERG
'Who are the actors that he will use?'

The enclitic may also attach to a conjunction to specify that a subordinate clause is in the future (Vanoverbergh 1955):

G-in-atang=*mi* ti kayo, sa=*kam=to* ag-pa-takder iti balay.
buy-FST=1pEXCL ART wood then=1pEXCL=FUT INTR-CAUS-stand OBLART house
'We bought the timber and then we'll build a house.'

³Abbreviations used in the Ilokano data are as follows: ABS absolutive, ART article, CAUS causative, ERG ergative, EXCL exclusive, FUT future, INTR intransitive, LIG ligature (linker), NEG negative, OBL oblique, SUB subordinator, TRANS transitive.

No origin of the Ilokano inflectional future has been postulated. The language does have articles (*intono, inton, tonon, ton*) however, that specify the temporal frame of the nominal referent in the future, and conjunctions (*intono, no*) which specify the subordinate verb in the future, which have a similar phonological shape to the future enclitic $=(n)to$:

| | | |
|---------------------------------|---------|------------|
| Lutu-e=k | no | umay. |
| cook-TRANS-1sERG | FUT:SUB | come:3sABS |
| 'I will cook it when he comes.' | | |

| | | |
|-----------------------|---------|---------|
| Umay=ak | inton | bigat. |
| come=1sABS | FUT:ART | morning |
| 'I'll come tomorrow.' | | |

We know that from our earliest records of the Ilokano language dating back to pre-Hispanic times, the enclitic $=(n)to$ has been extensively used, with no traces of it in non-cliticized form (Yabes⁴ 1935):

| | |
|-------------------------------------|--|
| <i>Ket ti tandaanam.</i> | And for a sign for you (that I've been eaten up) |
| <i>agsalanto ti agdan</i> | the staircase will dance. |
| <i>marbanto ti kasuuran</i> | the bamboo stove frame will collapse |
| <i>mapispisangto ti dalikan</i> | the stove will break to pieces. |
| <i>no agsublinto ni Lam-ang</i> | When I (Lam-ang) come home |
| <i>denggenyonto nga imdengan</i> | I shall fire a salvo |
| <i>ta agsalbaakto idia Sabangan</i> | when I sail into the port of Sabangan |

Modern Ilokano has created a lexical particle out of the inflectional enclitic $-to$ used in colloquial speech to designate that an aforementioned action will take place, usually in an affirmative response to a question or request for an action to be done in the future. Although semantically the particle is bound to the action of the verb, the enclitic is now used unbound:

| | | |
|-----------------|-----------------|----------------------|
| Um-ay-ka | no bigat, a? | Come tomorrow. Okay? |
| INTR-come-2sABS | FUTmorning PART | |

| | |
|-----|---------------|
| To. | I'll do that. |
|-----|---------------|

(Data from Chan 1981: 561)

3.2 The Hungarian Case

The Hungarian enclitic $=is$ also offers evidence against the claim of unidirectionality in lexeme development. Although in the majority of cases, the morpheme $=is$ can be glossed as the English adverb 'also' with nouns,

⁴The data below is from the epic *Biag ni Lam-ang*, and the translations are by Yabes.

further inspection reveals a wide semantic range for this rather versatile enclitic particle (all Hungarian data from Robert Hetzron, p.c.).

Jancsi=**is** tudja ezt.
 Johnny also knows:it this:ACC
 'Johnny also knows this.'

With the preverb⁵ *meg-*, *=is* carries the meaning of 'more' or 'even':

MégJancsi =**is** tudja ezt.
 'EvenJohnny knows this.'

=Is can also be used in expressions of incredulity or as an emphatic marker in expressions with truth value focus when applied to verbs (Hetzron, p.c.):

Tudja=**is** Jancsi, hogy mit akar?
 knows Johnny that what:ACC he:wants
 'Does Johnny know what he wants?'

Tudja=**is** a választ.
 know:past the answer:ACC
 'He did indeed know the answer.'

Although modern Hungarian orthography treats the clitic *=is* as a separate word, it is an unstressed element with no inherent meaning outside of the context to which it is phonologically and semantically bound.^{6, 7} Interestingly enough it is able to break the weak phonological bonds of the Hungarian pre-verbs (*meg-* for example) which appear in Hungarian orthography as prefixes:

Jancsi meg =**is** érkezett.
 'Johnny did indeed arrive.'

Modern Hungarian has established a meaning for independent *=is*, a clitic originally devoid of semantic substance when uttered out of context. In reduplicated form with stress on the final syllable, *=is* is used to affirm both conjuncts of 'or' questions:

⁵The term preverb is used in Hungarian linguistics to refer to a class of words occurring in verbal compound constructions which may also exert syntactic behavior. Many preverbs are used to alter the semantics of the verb to which they are compounded (Károly 1972:156).

⁶Vowel harmony does not apply to the clitic *=is*, as the vowels {i, e, ɛ} are neutral to vowel harmony in Hungarian (Hetzron, p.c.).

⁷The enclitic *=is* does appear as a suffix in early Hungarian orthography around the sixteenth century.

| | | | |
|---|------------|----------|---------------------|
| Külföldröl | hozzák, | vagy itt | gyártják? |
| abroad:from | they:bring | or here | they:manufacture:it |
| 'Do they import it or manufacture it here?' | | | |

Is-ís.

REDUP PART

'Both.'

3.3 The Estonian Case

Estonian, like Ilokano and Hungarian, offers another example of decliticization, the development of an independent emphatic particle *ep* 'yes, indeed' that has developed from the unproductive affirmative suffix with the forms *-p*, *-ap*, *-pä* (Campbell 1991:291)⁸.

The Estonian evidence presented by Campbell, however, has phonology playing an important role in the morphological development of the affirmative adverb. According to Campbell, the emphatic clitic **-pa* began to decliticize as a result of the Estonian final vowel apocope in which all final vowels were lost:

päällä 'on top of' > *pääll*

With the attachment of the enclitics, however, final vowels were protected from apocope:

päällä 'on top of' + *-pä* > *päällä-p*.

With the eventual loss of vowel harmony, the clitic vowel *ä* became *e*, and the morpheme boundary was reinterpreted, with the vowel as part of the clitic (Campbell 1991: 291):

peale-p > *peal-ep*

It is with the loss of vowel harmony that the clitic, in its reinterpreted environment, evolved into an independent emphatic particle, phonologically and lexically independent from the root, whose morphological and lexical reinterpretation is attributed by Campbell to its frequency and salience.

3.4 The Hebrew case

The long tradition of Semitic writing affords us the chance to view priceless evidence of language development and grammaticization pro-

⁸Campbell also outlines the development of an independent Estonian question particle '*es*,' evolving from the informal question affix *-[ko]-s* (*-[question]-informal speech*) which develops under similar lines. (Campbell 1991)

cesses. The Hebrew evidence that will help establish the claim against unidirectionality is the birth of the Hebrew definite accusative preposition (all data reconstructed by Robert Hetzron, p.c.).

Proto Semitic utilized a suffix *-Vt* to mark the accusative case on nominals. It shows up as *-ât-i* in Akkadian, appearing only in pronouns:

| | |
|---------|-------|
| yâti | 1SACC |
| k(u)âti | 2SACC |

and appears in Kemant (Central Cushitic) as *-æt*, attaching to pronouns and definite nouns to mark accusative case:

| | |
|--------|---------------------------|
| -yæt | 1SACC |
| -kæt | 2SACC |
| N + -t | definite accusative nouns |

Hebrew has developed a definite accusative preposition, *ʔet*, from the aforementioned suffix *-Vt*, which precedes nouns for which it now specifies definite accusativity. Its limits of distribution in modern Hebrew include nouns preceded by the definite article *ha-*, definite direct objects with possessive suffixes, proper names, compound nouns in which the second noun is definite, and interrogatives and demonstratives (Reif and Levinson 1965):

| | | |
|------------------|---------|---------|
| raʔiti | et | ha-iš |
| I:saw | DEF:ACC | the:man |
| 'I saw the man.' | | |

| | | |
|-------------------|---------|----------|
| sgór | et | hadélet. |
| close | DEF:ACC | the:door |
| 'Close the door.' | | |

Reif and Levinson (1965) report that the combination of the definite accusative preposition *et* and the definite article *ha-* contract in speech to *ta-*. This would then characterize the evolutionary development of the preposition as a suffix that has broken the phonological bonds of the host word to the left, and, at least in contracted forms, has phonologically fused to the host word to the right, another rarely attested phenomenon in grammaticization which has nevertheless been shown to have occurred in Japanese (Matsumoto 1988):

sgór et hadélet > sgór tadélet 'Close the door.'

3.5 The Irish Case

Historical evidence of the development of the modern Irish present tense paradigm offers yet another example of affixal emancipation (all Irish data from Bybee et al. 1994).

Modern Irish has lost its person/number agreement verbal suffixes and has replaced them with obligatory subject pronouns following the verb in all persons except first plural⁹:

Modern Irish Present tense paradigm:

| <i>moi</i> | 'praise' | singular | plural |
|------------|----------------------|----------|--------------------|
| 1 | <i>molann mé</i> | | <i>molaimid</i> |
| 2 | <i>molann tú</i> | | <i>molann sibh</i> |
| 3 | <i>molann sé, sí</i> | | <i>molann siad</i> |

According to Bybee et al., the first person plural suffix in non-palatalized form, *-muid*, occurs in Modern Irish as an independent pronoun¹⁰, with the emphatic suffix *-e* attached to it. It has replaced the earlier independent pronoun *sinn*:

Is muid a rinne é.
 be 1p.EMP who do:PAST it
 'It's we who did it.'

Osclaíonn tusa an geata agus imríonn muid cluifi.
 open:PRES 2sEMP the gate and play:PRES 1pEMP game.PL
 'You open the gate and we play games.'

Speakers of Modern Irish perhaps were able to establish a more salient semantic interpretation of the first person plural pronoun by analogy to its paradigmatic sisters by altering its morphological status.

Of all the cases in this study, this is the only one in which the liberated affix retains the same meaning in its independent form, showing how the semantics can be maintained in the midst of morphological restructuring.

⁹Bybee et al. report that the first person *-mid/muid* is the only Irish suffix forming a complete syllable, and is thus perhaps less prone to phonological decay.

¹⁰Nick Kibre (p.c.) reports that a similar development has occurred in Welsh, where the third person plural independent pronoun, *nhw*, has seemingly evolved from the third person plural affix.

CONCLUSIONS

This paper has attempted to counter claims that lexemes cannot evolve from phonologically bound affixes. The five languages examined in this study all address the issue of the seemingly unidirectional process of grammatical evolution—grammaticization. The data of this study suggest that as the morphological structures of language evolve, languages may in fact use inflectional affixes to assume a new role in the syntax, or morphologically reinterpret pre-existing bound morphemes without altering the semantic structure.

Our knowledge of diachronic phonological change maintains that morpho-phonological morpheme boundaries, and even phonemic distinctions may change in the course of time, leading to reinterpretation of morphological structures. Take for example the English word *newt* which derives historically from the improper interpretation of the lexeme boundary between the Old English word *ewt* and the indefinite article *an* (*an ewt* > *a newt*).¹¹ We must bear in mind that changes like these due to phonological reanalysis or conditioning do occur and may in fact play an important role in processes of demorphologization; a morpheme becoming independent, as long as it has full syllable structure, may in fact demorphologize on phonological grounds alone.

Although the cases of demorphologization are relatively rare, the attested cases are significant enough to show that the inflectional morphology of a given language is not an impossible source for new words. Phonologically fused, productive inflectional morphemes do not alter the inherent semantics of the root morpheme as much as non-productive derivational affixes are known to do. Inflectional affixes are made obligatory by the syntax of a language, have predictable, often bleached, meaning, and occur towards the outer edges of words (Payne 1985). They may therefore have more semantic salience than their derivational counterparts which accompanies the morphemes as they break their phonological bonds.

A similar argument for morphological liberation may apply to clitics, which although phonologically bound, prototypically have greater semantic weight than inflectional affixes. Their syntactic behavior as phrasal affixes has lead some scholars to believe that clitics are actually words

¹¹This morpheme boundary reinterpretation in English abides by the claim by Langacker (1977: 66) that there is a general tendency in grammatical change to bring morpheme boundaries into line with syllable boundaries.

(Nevis 1985). The morphological liberation and lexicalization of clitics may therefore be assumed to be merely a process of phonological reinterpretation and may be justified by their semantic substance, often lexical, when they evolve into independent lexemes.

REFERENCES

- BENKÖ, LORÁND & SAMU IMRE, (eds). 1972. *The Hungarian Language*. The Hague/Paris: Mouton.
- BYBEE, JOAN, R. PERKINS & W. PAGLIUCA. 1994 (to appear). *The Grammaticization of Tense, Aspect, and Modality in the Languages of the World*. University of Chicago Press.
- CHAN, SONJA A. 1981. Beyond Syntax and Semantics via Ilokano adverbial particles. *Saint Louis University Research Journal, Baguio, Philippines*: XII, 4: 507-577.
- CAMPBELL, LYLE. 1991. Some grammaticalization changes in Estonian and their implications. In Elizabeth C. Traugott & Bernd Heine (eds.), *Approaches to Grammaticalization*, vol. 1. Amsterdam / Philadelphia: John Benjamins, 285-300.
- GIVÓN, TALMY. 1971. Historical syntax and synchronic morphology: an archaeologist's field trip. *Papers from the Seventh Regional Meeting of the Chicago Linguistics Society, CLS 7*: 394-414.
1979. *On Understanding Grammar*. New York: Academic Press.
- HAMMOND, MICHAEL, & MICHAEL NOONAN. 1988. *Theoretical Morphology: Approaches in Modern Linguistics*. San Diego: Academic Press.
- HEINE, BERND, ULRIKE CLAUDI & FRIEDERIKE HÜNNEMEYER. 1991. *Grammaticalization: A Conceptual Framework*. University of Chicago Press.
- HEINE, BERND, & MECHTILD REH. 1984. *Grammaticalization and Reanalysis in African Languages*. Hamburg: Helmut Buske.
- HOPPER, PAUL & ELIZABETH CLOSS TRAUOGOTT. 1993. *Grammaticalization*. Cambridge University Press.
- JANDA, RICHARD D. 1981. A case of liberation from morphology to syntax: the fate of the English genitive marker *-(e)s*. In B. Johns & D. Strong

(eds.), *Syntactic Change (Natural Language Studies 25)*. Department of Linguistics, University of Michigan, 59-114.

1993. From Affix to subject- 'clitic' and bound root: *nos-otros, nos, and -mos > -nos* in New Mexico and other regional Spanish dialects. Paper presented at the Chicago Linguistics Society Conference CLS 29.

JEFFERS, R. & A. ZWICKY. 1980. The evolution of clitics. In Elizabeth C. Traugott, Rebecca Labrum & Susan Shepherd (eds.), *Papers from the Fourth International Conference on Historical Linguistics*. Amsterdam: John Benjamins, 221-231.

JOSEPH, BRIAN D., & RICHARD D. JANDA. 1988. The how and why of diachronic morphologization and demorphologization. In Michael Hammond & Michael Noonan (eds.), *Theoretical Morphology: Approaches in Modern Linguistics*. San Diego: Academic Press, 193-210.

KÁROLY, SÁNDOR. 1972. The grammatical system of Hungarian. (Translated by Ágnes Jávör.) In Loránd Benkő & Samu Inre (eds.) *The Hungarian Language*. The Hague/Paris: Mouton, 85-169.

KURYŁOWICZ, JERZY. 1975. The evolution of grammatical categories. *Esquisses linguistiques II*. Munich: Fink, 38-54.

LANGACKER, RONALD W. 1977. Syntactic reanalysis. In Charles N. Li (ed.), *Mechanisms of Syntactic Change*. Austin: University of Texas Press, 59-139.

LEHMANN, CHRISTIAN. 1982. *Thoughts on Regrammaticalization: A Programmatic Sketch, vol. 1*. Arbeiten des Kölner Universalien-Projekts 48. Cologne: Universität zu Köln, Institut für Sprachwissenschaft.

1986. Grammaticalization and linguistic typology. *General Linguistics* 26, 1: 3-23.

MATSUMOTO, YO. 1988. From bound grammatical markers to free discourse markers: history of some Japanese connectives. *Berkeley Linguistics Society, Proceedings of the Fourteenth Annual Meeting*, 340-351.

NEVIS, JOEL. 1985. Language-external evidence for clitics as words: Lappish particle clitics. *Chicago Linguistics Society* 21: 289-305.

1987. Decliticization and deaffixation in Saame: Abessive *taga*. *Ohio State University Working Papers in Linguistics* 34: 1-9.
- NICHOLS, JOHANNA & ALAN TIMBERLAKE. 1991. Grammaticalization as retextualization. In Elizabeth C. Traugott & Bernd Heine (eds.), *Approaches to Grammaticalization*. Vol. 1. Amsterdam: John Benjamins, 129-146.
- PAYNE, DORIS L. 1985. Inflection and derivation: is there a difference? In Scott DeLancey & Russell S. Tomlin (eds.), *Proceedings of the First Annual Meeting of the Pacific Linguistics Conference*. Eugene, Oregon: University of Oregon, 247-260.
- REIF, JOSEPH A., & HANNA LEVINSON. 1965. *Hebrew Basic Course*. Washington D.C: Foreign Service Institute.
- TRAUOGOTT, ELIZABETH C. & BERND HEINE (eds.). 1991. *Approaches to Grammaticalization*. Volumes 1 &2. Amsterdam: John Benjamins.
- TRAUOGOTT, ELIZABETH C. & EKKEHARD KÖNIG. 1991. The semantics-pragmatics of grammaticalization revisited. In Elizabeth C. Traugott & Bernd Heine (eds.), *Approaches to Grammaticalization*, vol. 1, Amsterdam: John Benjamins, 189-218.
- VANOVERBERGH, MORICE. 1955. *Iloko Grammar*. Catholic School Press: Baguio.
- YABES, LEOPOLDO. 1935. *The Ilocano Epic: a critical study of the life of Lam-ang, ancient Ilocano popular poem, with a translation of the poem into English prose*. Manila: Carmelo & Bauerman, Inc.