

# Linguistics and Philippine Prehistory

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## INTRODUCTION

Linguistics, the study and science of language, has a very old and respectable history. The first steps in this field, as far as we can say, were undertaken by the Akkadians (2600-1700 B.C.) when they adapted the cuneiform writing of the Sumerians to the writing of their own, unrelated (Semitic) language. It was, however, Greek and Indian scholars who undertook the first scientific studies of their respective languages and literatures, in the process producing the first text editions as well as the first grammars and lexica of their languages. Nothing much was added to the basic stock of knowledge in this field until the end of the 18th century. Then things began to happen. European acquaintance with Sanskrit led to the discovery that the majority of European languages were quite obviously related to Sanskrit, the ancient sacred language of the Upanishads. With this discovery comparative linguistics was born. The old dream of finding the original language from which all existing languages were supposed to have descended

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seemed about to become a verifiable reality. Looking back on that dream today, we may well smile at the nativité of those scholars. Yet, in their eager pursuit of that dream, they made some of the most far-reaching and fruitful discoveries. One of the major beneficiaries, apart from linguistics itself, was prehistory. In its never-ending efforts to shed light on the undocumented part of the history of mankind — which as we know is by far the larger part — it could not but welcome comparative linguistics as a powerful, though at times tricky, instrument for its own purposes.

The major division of linguistics that primarily serves this function is known as *diachronic* linguistics, which studies language in its historic development. The other major division, *synchronic* linguistics, which takes for its subject a given language, either as a whole or in part, is of lesser interest to the prehistorian. *Comparative linguistics* is a subdivision of diachronic linguistics. It compares entire languages (or dialects) or certain aspects of languages with one another. It may, e.g., compare the entire structure of two or more languages in what is called a *contrastive study*. The latter presupposes an exhaustive analysis of the languages concerned, which is a task for synchronic linguistics. Where comparison turns on the so-called *cognates*, i.e., etymologically related words or morphemes, no recourse need be had to synchronic linguistics.

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It was the study of lexical cognates in the Indo-European language that led to the epoch-making discovery of the sound-shifts. Linguists define sound-shift as a change of a phonemerealization in a specific language. An example from Indo-European linguistics, may serve to explain this definition to the non-linguist. By a sound-shift occurring ca. 500 B.C. the tenues *p, t*, and *k* were changed to their corresponding spirants, viz. *f, th*, and *h*. Thus there were these sound-shifts: *p* > *f*, *t* > *th*, *k* > *h*.

Examples:

Latin	Gothic
<i>pater</i>	<i>fadar</i> 'father'
<i>tres</i>	<i>thries</i> 'three'
<i>canis</i>	<i>hunds</i> 'hound'

For the greater part of the 19th century, a school of German linguists, known as the neogrammarians, devoted their whole attention to the study of the laws governing sound-shifts. They were

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eventually able to prove that sound-shifts, far from being a random happening, obeyed certain recognizable "laws", which permitted of no exceptions. What appeared at first to be exceptions was eventually shown to be "controlled" by a sort of modification of the general rule, which got the name of "Verner's law"—after its discoverer, the Danish linguist Carl Verner.

Other linguists, inspired by the findings of the "Indo-Europeans," later on extended the search for sound-shifts to other groups of languages outside the Indo-European language family. It is now definitely established that sound-shifts are a phenomenon that has affected virtually all languages. In the Malayo-Indonesian languages, e.g., we find such a soundshift as the following: A phoneme /r/, realized as (r), underwent the sound-shift r > l; it affected not just some forms (including lexical items), but all of them. Not only did, e.g., *surat* become *sulat*, but also *ribu* > *libu*; Malay *arak* > Tagalog *alak*, etc. (This is not the place to go into greater detail. The interested reader is referred to Bloomfield (1950), where he will find a fuller explanation of the sound-shift laws.)

In this century linguistics underwent a "shift" of its own, away from historical and comparative studies to the synchronic, especially the structural, study of languages. The latter proved so promising and fruitful that it was able to hold the virtually exclusive attention of linguists until very recently. Only lately has historical linguistics been taken up again, but now developed and refined in many ways (see e.g. Hoenigswald 1960). But whatever may be said on the respective

merits of synchronic vs. diachronic linguistics, it is evidently the latter, with its historical, comparative study of languages, especially as concerns their soundshifts, which holds out the greatest promise to the prehistorian.

Sound-shifts are historical events. They occur in a certain geographic area and within a definite period of time. It may often not be possible to fix these dimensions in an absolute fashion, but, by a careful

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study of all pertinent data, one may at least arrive at a relative chronology and an approximate location in geographic space. By these means one may then 'date' lexical items, at least in a relative fashion. Since words are symbols of either perceptual or conceptual items, they tell us of the presence of the things, practices, and ideas designated by them in a given culture at a given time. We are thus put in a position to say at approximately what time such items may have put in their first appearance

in a particular society. By a careful weighing of available linguistic and extra-linguistic data, it will at times also be possible to identify the ethnic groups involved. One class of words, the so-called loan-words, deserve special mention in this context. They are words imported from another culture together with the thing or idea or practice they designate. They are thus prime indicators of contacts between different cultures and ethnic groups. Dating them by means of sound-shift will help to date the contact.

the foregoing should suffice to show how important comparative linguistics can be for the prehistorian, especially in areas where other sources of information, such as artifacts, monuments, etc. are scarce.

#### PHILIPPINE COMPARATIVE LINGUISTICS

This brings us to the question: What, if anything, has been done in the field of linguistics that may have a bearing on Philippine prehistory and protohistory? Most of the recent work on Philippine languages has been in synchronic linguistics; grammatical, lexical, and structural studies dominate the field. It was not always that way. Earlier in this century, a number of scholars working in the field of Malayo-Indonesian languages produced a substantial body of writing in what we would now call diachronic linguistics. Four of them will be mentioned here.

a) Herman Neubronner van der Tuuk (1825-1894), a Dutch linguist, produced the monumental *Kawi* -

Balinesesch - Nederlandsch Woordenboek (1897-1912). The four-volume work contains an immense wealth of data. It is a work for experts in Indonesian linguistics; the main entries are in Javaese script; the numerous examples are not translated. The work thus presupposes extensive knowledge of different Indonesian languages. The four volumes are of uneven value. The author was able to complete only the first volume, and not all of that. After his untimely death, another capable scholar, J.L.A. Brandes, continued editing the work. Vols. 2 and 3 had been compiled from the disorganized notes and jottings left by van der Tuuk when Brandes in turn was overtaken by death. The fourth volume, which was eventually put together by D.A. Rinkes, is not up to the standard of the preceding volumes.

It was van der Tuuk who discovered the two most important sound-shifts in the group of languages to which the majority of Philippine languages belong, viz., the  $r \rightarrow g$  and the  $r \rightarrow l$  sound-shifts.

b) The second name to be mentioned here is that of Hendrik Kern (1833-1917), an outstanding Dutch Indologist and linguist. His "Verspreide Geschriften" (Miscellaneous Writings), which fill 16 volumes of text (forming, with the index volume, 17 volumes in all), contain much important material on Philippine languages, especially in vols. X, XI, and the Supplement. He shares with the first mentioned scholar the misfortune of having written many of his contributions in Dutch and German, languages which very few in this country are able to read.

c) Otto Dempwolff (1871-1938), a German linguist, set himself the ambitious task of reconstructing the 'original' Malayan language. Despite much that is valuable in the three volumes (1934-38) in which he published the results, the

work is seriously flawed by two basic methodological mistakes: (1) He made use of only three modern languages, viz., Tagalog, Toba-Batak, and Javanese. This is an insufficient basis for such an undertaking. For a reconstruction that carries at least a minimum of probability, it would have been necessary to compare a far greater range of related languages. (2) He appears to have had no inkling of the relative chronology of the different sound-shifts. So he is led to conclude from the two sound-shifts  $r \rightarrow g$  and  $r \rightarrow l$  the  $g$  and  $l$  represent two different sounds (phonemes?) in the original Malayan language.

If he had been the first to undertake the study of these phenomena, we could forgive him his simplistic explanation. But he had before him the splendid studies of the neogrammarians which could have saved him from this blunder. What aggravates the situation, as far as Philippine linguistics is concerned, is the fact that his work is, thanks to his onetime student, Prof. Cecilio Lopez, relatively well known in this country and is, moreover, still considered a safe guide in its field.

d) The fourth and last name to be mentioned here is Jan Gonda (1905). Being by profession a Sanskritist, he restricted his work on the Indonesian languages to the study of Sanskrit influences (1952). But his contributions in this field, which he extended to the Philippine languages, are both comprehensive and thorough.

We pass over more recent work in comparative Philippine linguistics. Such as there is, does not contribute significantly to prehistoric and protohistoric studies.

There is a new kind of comparative linguistics which has in recent times received an increasing amount of attention, viz., *glottochronology*. It tries, by means of lexico-sta-

tistics, to compile lists of basic words in the different languages. By a comparative study of these basic words according to a mathematical formula, it hopes to establish the degree of relatedness between the languages concerned. The present writer shares the misgivings and criticisms of some other linguists, like Knut Bergsland and Hans Vogt (1962) and C. Douglas Chrétien (1962) about the whole method. But whatever may be the final verdict on glottochronology, it cannot take the place of the "older" style of comparative linguistics for purposes of the prehistorian.

### SOUND-SHIFTS IN PHILIPPINE LANGUAGES

As has been stated above in the introduction, H.N. van der Tuuk discovered the two most important sound-shifts affecting Philippine languages:  $r \rightarrow g$  and  $r \rightarrow l$ . What is significant from the prehistorian's viewpoint is the classes or types of words affected by the one or the other. Loanwords from the Sanskrit, which abound in Philippine languages (see e.g. Francisco 1964; Kuizon 1964), underwent exclusively the  $r \rightarrow l$  sound-shift. Let us give a few examples:

Sanskrit (diacritical signs are omitted!) Tagalog

<i>wrtta</i>	<i>balita</i> 'news'
<i>bhattāra</i>	<i>bathala</i> 'God'
<i>dhara</i>	<i>dala</i> 'to carry'

Other words, which are clearly not Sanskrit loanwords, belong to either of two groups, one undergoing the sound-shift  $r \rightarrow g$ , the other the sound-shift  $r \rightarrow l$ . Here follow some examples of both:

a)  $r \rightarrow g$  sound-shift

Malay	Tagalog
<i>arus</i>	<i>agus</i> 'current'
<i>bara</i>	<i>baga</i> 'glowing ember'
<i>baru</i>	<i>bago</i> 'new'

b)  $r \rightarrow l$  sound-shift

Malay	Tagalog
<i>arak</i>	<i>alak</i> 'wine'
<i>djarang</i>	<i>dalang</i> 'scarce'
<i>dēras</i>	<i>dalas</i> 'thick, full'

These two sound-shifts did not occur at the same time, nor are they evidence of different phonemes in the language of origin, as Dempwolff had mistakenly assumed. Rather they are linguistic events occurring at different times, with the result that one and the same original phoneme came to acquire too different realizations. The question that presents itself then is this: Can we say which of these sound-shifts came first?

The answer is: It is quite certain that the  $r \rightarrow g$  sound-shift preceded the  $r \rightarrow l$  sound-shift in time. Sound-shifts do not originate at just any old place; they take their origin in the so-called speech-centers. The latter are places or areas whose speech habits are considered the model for others. Changes in speech habits occurring in the center will in the course of time diffuse outward. This process is well-attested for civilized societies in historical times, but it holds equally true for the more primitive societies in prehistoric and protohistoric times. As Johannes Schmidt (1872) was able to show, the sound-shifts, after having been initiated in a speech-center—which is often identical with the cultural center for a given population—spread in more or less concentric circles outward to the "provinces". It follows that the more wide-spread a sound-shift is, the earlier it must be in time. (All of this is supported by indubitable examples in the Indo-European family of languages).

Applying this principle to Philippine languages, it is clear that of the just mentioned two basic sound-shifts, the one from  $r \rightarrow g$ , being the more widespread, must also have been the first to take

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place. The second one,  $r \rightarrow l$ , is not as widespread and common as the former. It must thus have been a later development. The  $r \rightarrow g$  shift seems to have originated somewhere in the Bisayan-speaking area. It affected such languages as Waray and Maranaw, and also, but to a slightly lesser extent, Tagalog. In Ilocano the g-feature is definitely weak. There we often encounter doublets, i.e., pairs of words that are etymologically identical, differing only in the alternative presence of the  $r$  or  $g$ -feature.

Examples: *nadaŕas, nadaŕas* 'quick'  
*bibír, bibíg* 'lip'  
*rau-ab, gay-ab* 'to rip'  
 to tear'  
*idassaag, idassaar* 'to  
 let go down'

The  $r \rightarrow l$  sound-shift, being of later date, is often absent in those languages less under the influence of the Bisayan speech-center. In Waray and Maranaw, to mention just two examples, there is in many instances an  $r$  where Cebuano Bisayan has an  $l$ . Clearly, this sound shift must be rated a later event than the one from  $r \rightarrow g$ . This relative chronology is also borne out by the fact already mentioned that in loan-words from the Sanskrit one finds exclusively the latter sound-shift.

By means of the chronological differentiation of the two basic

sound-shifts, it is possible to ascertain the relative chronology of the other sound-shifts.

Here are the sound-shifts as they occurred in Tagalog in their chronological order:

$r \rightarrow g, VdV \rightarrow r, Vlf \rightarrow x', VdV \rightarrow r$ .  
 ( $VdV$  means  $d$  between vowels;  
 $VlV \rightarrow x'$  means  $l$  between vowels  
 disappears)

$r \rightarrow g$

Malay	Tagalog
<i>bēras</i>	<i>bigas</i> 'rice'
<i>tēras</i>	<i>tigas</i> 'hard'
<i>bērat</i>	<i>bigat</i> 'heavy'

$VdV \rightarrow r \rightarrow l$  (a succession of two sound-shifts!)

Malay	Tagalog
<i>dalam</i> 'inside'	<i>*maralim</i> $\rightarrow$ <i>mala-</i> <i>lim</i> 'deep'
<i>tidur</i>	<i>*turug</i> $\rightarrow$ <i>tulug</i> 'sleep'

(Note: The  $g$  in *tulug* is a result of the preceding sound-shift  $r \rightarrow g$ ).

*kamudian* 'later' *\*huri*  $\rightarrow$  *huli* 'late'

$VlV \rightarrow x'$

Malay	Tagalog
<i>bulan</i>	<i>buwan</i> 'moon'
<i>djalan</i>	<i>daan</i> 'road'
<i>talinga</i>	<i>tainga</i> 'ear'

For the last of the sound-shifts,  $VdV \rightarrow r$ , the comparison made is between Tagalog and Ilocano. The latter speech-area was not reached by this last sound-shift, which is otherwise quite widespread in the Philippines. (It is found in Tagalog, most of the Bisayan dialects, Gaddang, Ibanag, but *not* Apayao)

$VdV \rightarrow r$

Tagalog	Ilocano
<i>aral</i> 'to learn'	<i>adal</i>
<i>baro</i> 'native dress'	<i>bado</i>

*larawan* 'picture' *ladawan*

*Ilocano* is one major speech-community which did not experience the foregoing sound-shifts except in a few isolated instances. In general it may be said that cognates of those words which underwent the earlier sound-shifts, especially the  $r \rightarrow g$  shift, have to be looked for in languages outside the Philippines, while in the case of words undergoing the later sound-shifts, these will be found in other Philippine languages and dialects.

### SOUND-SHIFTS AS EVIDENCE OF EXTRA-LINGUISTIC DEVELOPMENTS

The information about prehistoric and protohistoric developments that may be gained by a study of sound-shifts are of two kinds, viz., those relating to the habitat and movements of ethnic groups and their culture, and those pointing to particular items in a given culture.

As has already been stated sound-shifts originate in a speech-center, which in the majority of cases is identical with the cultural and often also the political center of a speech community. Sound-shifts spread outward from the center, never the other way around. The reason for this is fairly obvious: the pronunciation of a language in the cultural center is considered refined and cultured, serving as the model for the rest of the language area, while the speech habits of the 'province' and the more remote areas is considered coarse and uncultured. Thus, innovations such as sound-shifts originate in the culture center to be eventually adopted by the 'provincianos'.

Armed with this principle we are in a position to pinpoint the culture center for prehistoric Philippines, at least since the time when the present population had established itself on the major islands, especially along the coasts and in the plains. A detailed study of the  $r \rightarrow g$  and the  $l \rightarrow +$  sound-shifts makes it highly probable that the Cebuano-

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speaking area was the speech-center for a rather long time, and that, e.g., the pronunciation of the ancestors of the modern Tagalogs was considered backward and 'provincial'.

The different sound-shifts and the way they spread through Northern Luzon allow some tentative inference about the movements of the different tribal groups there. Thus, contrary to general belief, the Pangasinan people 'originally' (in a relative sense) lived in the mountains and only later on moved down to the lowlands. The Ifugao must 'originally' have lived along the Magat river, the Apayao along the Cagayan river. (These are only a few examples; for more on this, and the supporting evidence, see Verstraelen 1962).

The other kind of information, viz., that pertaining to certain components of a given culture, is yielded by a comparative study of individual words. As has been made clear, it is possible to establish the relative 'age' of a given

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word by means of the sound-shifts it may have undergone. Words that have undergone the earliest sound-shifts evidently belong with the oldest stock of words forming a given language. The things or ideas designated by them must then likewise have been known and—in the majority of cases—used by the speech-community. By the same token, where words were affected only by later sound-shifts, we may rightly infer that they point to later accretions to the culture of a community.

Let us look at some examples of both classes of words. There is Tagalog word *luksa* 'mourning'. The Sanskrit cognate is *rukṣa*, which means 'dry'. On account of the great difference in meaning one might doubt that *luksa* and *rukṣa* are really cognates. But in Old Javanese the Sanskrit loanword *rukṣa* has the meaning 'dry, unkempt, going unwashed' (as a sign of mourning) (cf. Rāmāyana VI, 34). It is clear that Tagalog *luksa* is a Sanskrit loanword. But it is also clear that here the Sanskrit influence is not direct but indirect only, viz. via Old Javanese. It is probable that the Tagalogs and the Javanese of those days shared the same mourning practices, if not always, at least on some occasions.

The cognates in the following examples all exhibit the early sound-shift  $r \rightarrow g$ .

Malay	Tagalog
<i>beras</i>	<i>bigas</i> 'rice'
<i>telur</i>	<i>itlog</i> 'egg'
<i>niyur</i>	<i>niyug</i> 'coconut'
<i>diri</i> 'to stand'	<i>haligi</i> 'post'

The Tagalog term *alipin* 'slave' underwent a double sound-shift, first the relatively early one  $VdVr$ , then at a much later date,  $r \rightarrow l$ , thus *\*adipin* *\*aripin* *alipin* (cf. Ilocano *adipen!*).

Tagalog *hagdan* 'ladder' also involves the early sound-shift  $r \rightarrow g$  (*\*hagdan* < *hardan*, cognate with Javanese *anda*.)

In the following examples we have cases of a more recent sound-shift,  $VdV \rightarrow r$ . As has been pointed out above, when giving the relative chronology of the various sound-shifts in Tagalog, there are actually two sound-shifts  $VdV \rightarrow r$ . In the examples given below it is the second one which is involved. If it had been the first  $VdV \rightarrow r$  shift, the  $r$  would meanwhile have changed to  $l$  by the subsequent  $r \rightarrow l$  shift.

Ilocano: *tadi* Tagalog: *tari* 'metal spur' (put on fighting cocks)

Waray: *hadi* *hari* 'king'

Ilocano

Waray: *bado* *baro* 'native dress'

The next example is particularly instructive for it clearly shows the chronological differentiation between the  $r \rightarrow g$  and the  $r \rightarrow l$  sound-shifts. To the old Javanese *surat* 'to scratch; to write' there is an early Tagalog cognate *sugat* wound. The  $r \rightarrow g$  sound-shift shows that *sugat* belongs with the oldest stock of T. But there is also a second cognate in T.: *sulat* 'to write' (cf. Cebuano *suwat*, *sulat*; Waray - *surat*). The  $r - l$  correspondence shows that *sulat* is a younger word, a loanword from another Indonesian speech-community, from which the Tagalogs presumably learned the art of writing.

This may be the place to correct an erroneous view which, thanks to its being found in the generally used Talalog reader, *Ang Ating Panitikan* (1950), is still widely believed and held. According to the *Panitikan*, *sulat/surat* is a loanword of Arabic origin. A more recent 'authority', the *Diksyunaryo-Tesaurus Pilipino-Ingles* (Panganiban 1972, s.v.), once more mentions Arabic *surat* as a cognate. Now the most common Arabic term for 'writing' has the radicals k.t.b. There is no possible correspondence with *sulat/surat*. The Arabic word *surat* has the meaning of 'chapter' in the Qor'an. One may grant that this could have acquired the somewhat related meaning of 'writing' (in general). But there is no need to seek that far from home. *Surat* in the precise meaning of 'to write' is found at least twice in the old Javanese translation of the *Ramayana*, which is definitely pre-Islamic. Thus *surat* must be an original Indonesian word which entered the various Philippine languages as a loan word together with the art itself it designates. Its adoption from an

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Indonesian togue also suggests that writing was introduced to this country before the coming of Islam (as is also suggested by the forms of writing evolved here).

Similarly *tuli* 'circumcised' from *turi* (cf. Waray), exhibiting as it does the later  $r \rightarrow l$  sound-shift, reflects a late 'import' from some other culture-area.

From the foregoing, the following inferences as regards the culture of the early Tagalogs may be drawn: They cultivated rice, kept chickens for eggs, planted coconut trees, had houses built on posts, which could be entered by means of a ladder, and slaves (or at least servants). But they had not yet evolved big political units (no 'king'), they wore only G-strings, they did not practice cockfighting, were not circumcised, and had not yet acquired the art of writing. Some of these inferences are, by the way, supported by other, non-linguistic evidence. E.g., cock-fighting is even now unknown among the more remote tribes, like the Bontocs and Ifugaos. Also, circumcision is not practiced among these tribes, and even the Ibanag in the lowlands are generally not circumcised. The limited extent to which these practices have spread indicates their recentness. The art of writing was indeed quite widespread in the Philippines at the time of first contact with the Spaniards. This argues for its introduction some time before the event. On the other hand, as shown by the linguistic evidence, it could not have been introduced very much before that time.

Linguistic evidence may also help

to lay the ghost of one still widely held view, viz., that the name *Bisaya* is somehow derived from the name of the Sumatran empire, Sri Vijaya. According to the laws of sound-shift, Vijaya should have become either Bidaya or Biraya, but not Bisaya. This was pointed out by Juan R. Francisco (1961). His article shows also that all the other evidence seems to point in the same direction: Bisaya and Vijaya have nothing to do with each other.

Having said this, we hasten to add that there is a good deal of linguistic evidence for a close relationship between Java and the Philippines. While the  $r \rightarrow g$  sound-shift is a purely Philippine affair and must thus have originated in a Philippine speech-center, the  $d \rightarrow r$  sound-shift is widely spread over the Indonesian archipelago. It is already found in Old Javanese, but is absent in Malay. According to N.J. Krom (1931), for a certain period the whole eastern part of the Indonesian Archipelago and probably also the Philippines were more or less under the influence of Java, while the western part (!) was under the control of Sri Vijaya, with Malay as its official language. Towards the end of the 14th century, the king of Java, Hayam Wuruk (with the adopted Sanskrit name of Rajasanagara), greatly increased his power and influence with the help of his famous prime minister, Gajah Mada. It is to be expected that the various trade centers established or flourishing at that time exerted a good deal of linguistic influence. Indeed, we observe the  $d \rightarrow r$  sound-shift in the chief trade centers of the Philippines, viz. Manila, Cebu, and Jolo. (I did not have the opportunity to look for old trade centers outside the Philippines. Was Larantuka, on the island of Flores, one of them? In any case, we do find in that area the  $d \rightarrow r$  sound-shift).

With these few examples we must rest our case. It should by

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