C. *Sōdan ni mairimashita* (I have come for consultation.)

The Japanese people attach much importance to personal and collective consultations. According to a recent survey conducted by the Junior Executive Council of Japan and Japan Productivity Center, more than half of the respondents replied that they would ask their seniors and co-workers for advice, when they encountered problems. Japanese people too often approach a teacher, a priest, a person of experience, a superior or a colleague for consultation and advice.

Besides personal consultation, group consultation in conferences *kaigi* is equally and widely practiced by the Japanese. Almost all of the private and public institutions are obsessed with holding conferences, with the specific purpose of reaching a consensus after an amiable discussion. The usual pattern of such conferences is that a representative of the president puts forward the matter to be discussed and the attending members are asked to express their views one by one. Invariably, views expressed are in support of the proposals outlined by the initial representative. It provides an opportunity for the people to voluntarily conform and identify themselves with the ideas of the leader. This is Japanese style democracy in practice.

D. *go-shimpai o kakete sumimasen* (I am sorry for making you worried on account of me.)

It is a kind of greeting from a person who has been obliged for some favor to a superior. Socially, this expression is used to insure the continued favor and patronage of the benefactor, but on the emotional level, by recognizing such a human relationship, where one feels sorry for being the cause of anxiety, it is in itself indicative of Japanese sensitivity. Nothing should be taken for granted and good feelings of others must be duly acknowledged by the recipient.

E. *maitta* (I lost and you won. I surrender.)

This expression, though used very widely, long remained a puzzle to me. I wondered why Japanese people were so conscious of defeat and victory, until the central idea of the express-
ion was explained to me in the right perspective by one of my colleagues in the university. It is used in appreciation of the opponents skill, without any personal grudge. Children in particular enjoy using this expression, many times without understanding the exact meaning of it. Shopkeepers use it out of humbleness and to have a better relationship with their customers. In many situations people find it a very convenient expression to gracefully yield to an opponents point of view. It helps in smoothening many awkward situations, which may result in creating hard feelings.

There are many other expressions, depicting the Japanese genius in recognizing a situation pertaining to human relations—affective as well as operational—which need thorough study in order to establish their intrinsic and functional value.
SYSTEMATIC PLANNED DISTORTION OF TEXT AS A CLUE TO TRANSLATION PROBLEMS—A QUERY

KENNETH L. PIKE
University of Michigan

Translation is sometimes difficult, even for people who know both the source language and the target language very well. Our query: Is it possible to develop an experimental technique to supplement the competent translator's intuitive understanding where even a standard contrastive analysis has not shown the source of the problem?

The suggestion: That we should search for some of the more elusive differences between the two languages (a) by means of systematic planned distortion of a text, (b) with subsequent reworking of the text to restore the starting concepts, and (c) an analysis of the grammatical-lexical-phonological changes needed to accomplish (b); or, especially, of the constraints which prevent any kind of distortion-cum-rewrorking in the one language which are nevertheless permitted in the other. The assumption, unproved at the moment, is that the discovery of such constraints or blockages are likely to comprise a subtle translation difficulty.

Underlying the suggestion are various presuppositions:

(1) There is a norm, universally present in every language, which allows a story to be told such that an Event A which occurred in time before Event B can be told in the story before Event B is told. That is, there may be conformity (or isomorphism) between the event sequence and the telling sequence. If Abe found some food and then ate it, the assumption is that any language can say: Abe found some food. (Then) he ate it. (where the parentheses with 'then' imply that a connective may
or may not occur in a given language). Similarly, there is assumed to be universally present the possibility of conformity of sequence of cause and effect with the grammatical linear order: *Abe ate poison. He died.* where cause precedes effect both in time and in telling.

(2) Some languages but not all languages, allow simple (but offnorm) reversal of clauses or of sentences, plus suitable marking, to show this grammatical disconformity in the relation of the order of events (or of cause and effect) to the order of telling. Some languages, for example, can say *Abe ate some food after he found it.* or *Abe died because he ate poison.* Other languages do not allow this simple but marked reversal of telling. For example, many of the languages of the island of New Guinea require conformity of time and telling, except in special instances, e.g. of embedded quotations referring to past time (Westrum, in Suharno and Pike, 1976). I have also seen a Japanese translator re-arrange such sentences, finding it impossible to translate them in the English order.

(3) Such offnorm utterances occur, in languages which allow them, for special effects of focus, or of speaker attitude, or attitude elicited from the hearer by the speaker, or are used as conditioned by sequence in discourse. With a reversed syllogism, for example, protest can be registered against a prior denial of a simple conclusion: Commenting on *Socrates was surely immortal.*, English allows: *Of course Socrates was mortal! He was a man, wasn’t he? And aren’t all men mortal?*. This is in contrast to normal: *All men are mortal. Socrates was a man. Therefore Socrates was mortal.*, which would be inappropriate in the protesting context.

(4) Such changes from norms of various kinds can be studied systematically, by planned distortion in relation to a given system. In English, for example, normal relation of the form of an independent clause (declarative, interrogative, imperative) to its function (as statement, question, command) has statement manifested by declarative (*Abe got into my water-
question by interrogative (Why did Abe get into the melon patch?), and command by imperative (Get out of my melon patch!). But all of the offnorm pairs may occur (see Pike, 1975); e.g. statement manifested by interrogative (Don’t you realize you’re trespassing! meaning You’re trespassing.), question manifested by imperative (Get out of my own melon patch?!). Here special phonological effects, hinted at by the punctuation, clue the hearer into the offnorm presence of an offnorm meaning. For suggestions for reversal types of experiment, in English, see Pike and Pike 1972. For application to Sherpa see Schottelndreyer and Pike 1973, where intra-paragraph sentence reversals are more permissible than are interparagraph ones.

(5) But given a system in one language, with a series of norm and offnorm relationships of its parts, one can check systematically for degrees of greater or lesser or equal freedom of departure from the norm. Thus, for example, Sterner, Suharno, and Pike (1976) first listed a set of complex clauses, with certain stated role relations within a systematic attic statement of those role relations, and then attempted to translate them into Indonesian to check (a) for the possibility of such translation, and (b) for different structural formulas which had to be used to express these relations in Indonesian. Even when such translation between two languages is possible, the form of the structure in the two may differ markedly. And the basic suggestion here is that systematic search and planned distortion from a normal system might first help to discover such differences, and then to predict translation adjustments between the two.

(6) The translation difficulty will not be reciprocal. Given Language A which does not allow certain offnorm forms, and Language B which does, the problem in going from A to B is different from that in going from B to A. In going from A to B the problem might be to use effectively the extra offnorm forms of B; in going from B to A the problem would be to rework the ordering of offnorms of B to structures of A,
in acceptable style, and while retaining the same impact by other devices.

REFERENCES


THE TERMS NIYUKTA, ANIYUKTA, AND NIYOYA
IN SANSKRIT LEGAL LITERATURE

LUDO ROCHER

UNIVERSITY OF PENNSYLVANIA

I

Students of classical Hindu Law usually distinguish two different kinds of judges in the law courts of the ancient Indian kingdoms: judges who are *niyukta* "appointed (by the king)," and judges who are *aniyukta* "not appointed (by the king)." For instance, the "Index of the important Sanskrit words" in the *Dharmakośa* interprets *niyukta* as "appointed" (I. 1, p. 33), and, more explicitly, *aniyukta* as "not appointed, an assessor of a court who has not been formally appointed and is not entitled to vote" (I. 1, pp. 3-4; apparently from Monier-Williams' dictionary).

This distinction is based on information drawn from the Sanskrit commentaries. Thus, in his commentary on Yājñavalkya 2. 2, Vijñāneśvara quotes Kātyāyana 56 (*Dhko* 60a):

*sapr̥aśīvākaḥ sāmātīyaḥ sabr̥āhmaṇapūrчитaḥ*

*sasabhyaḥ prekṣako rājā svarge tiṣṭhata dharmataḥ*

To account for the simultaneous presence in this stanza of the two terms *brāhmaṇa* and *sabhya*, he draws the following distinction: *tatra brāhmaṇaḥ aniyuktāḥ sabhāsadas tu niyuktā iti bhedaḥ*. And, since different terminology presupposes different responsibilities, the author of the Mitākṣarā adds: *tatra niyuktānāṁ yathāvasthitārthakathaneḥpi yadi rājānyathā karoti tadāsaunīvāraṇiyo'nyathā doṣaḥ...aniyuktānāṁ punaranyathā-bhidhāne'ñabhidhāne vā doṣo na-tu rājān'ivārge*. This and similar distinctions are perpetuated in modern scholarly literature. Says Kane (*HDeś* 3, p. 274):
"The chief justice (prāṇāyāka) with the sabhyas constituted the Court, being appointed (niyukta) by the king. It was stated above that the king was to enter the Hall of justice with the chief justice, sabhyas and brāhmaṇas. The distinction is that sabhyas were appointed by the king as judges, while brāhmaṇas were persons who were well-versed in dharmāśāstra, who could attend the Court, though not appointed (aniyukta) and whose opinions on difficult points of law were respectfully received by the judges."

I shall show in this article that the distinction between niyukta and aniyukta drawn by the commentators and adopted by modern interpreters is a rationalization a posteriori, and that the terms niyukta and aniyukta originally referred to a basically different distinction.

Kātyāyana 63 (Dhko 57a) states:

\[ yadā na kuryān nṛpatiḥ svayam kāryavinirṇayam \]
\[ tadā tatra niyuṇjīta brāhmaṇaṃ śāstrapāragam. \]

Kane (kāty. p. 129) translates in the traditional way:

"When the king cannot himself decide the causes (of litigants), then he should appoint thereto (in the court) a brāhmaṇa learned in the various śāstras."

Viṣṇu 3. 72-73 (Dhko 26a) evidently refers to the same situation:

\[ svayam eva vyavahārān paśyed vidvadbhir brāhmaṇaiḥ \]
\[ sārdham ; vyavahāradarśane brāhmaṇṃ vā niyuṇjyāt. \]

Jolly (SBE 7, p. 20) does not use the expression "appoint" but the idea is the same:

"Let him try causes himself, accompanied by well-instructed Brāhmaṇas. Or let him entrust a Brāhmaṇa with the judicial business."

In reality, both texts clearly imply that the brāhmaṇa is not just "appointed" by the king; the important element is that the brāhmaṇa who is niyukta is designated by the king to act as his substitute. Reading Yājñavalkya 2.3 (Dhko 39a):
apasyatā kāryavāsād vyavadhārān nrpeṇa tu
sabhyaiḥ saha niyoktavyo brāhmaṇaḥ sarvadharmavit,
in conjunction with 2. lab (Dhko 38a):

vyavahārān nrpaḥ paśyed vidvadbhir brāhmaṇaiḥ saha, makes
it clear that, under normal circumstances, the court is com-
posed of:

the king + learned brāhmaṇa assessors,
but that, when the king is unable to attend, he appoints a
substitute, so that the court consists of:

the king’s niyukta + the same learned brāhmaṇa assessors.

Compare also Agnipurāṇa 253.32-33 (Dhko 65a):

vyavahārān nrpaḥ paśyet jñānaviprairakapanah
śatrumitrasmah sabhyā alobhāh śrutivedinah
apasyatā kāryavasāt sabhyair vipram niyojayet.

If more convincing evidence for the interpretation of niyukta
as “substitute” is needed, it is provided by the Manusmṛti
Manu 8.9 (Dhko 31b) corresponds closely to Kātyāyana 63
quoted earlier:

yadā svayaṃ na kuryāt tu nrpatiḥ kāryadarśanam

tadā niyuñjyād vidvamsam brāhmaṇam kāryadarśane;

Bühler (SBE 25, p. 254) again follows the traditional interpr-
etation:

“But if the king does not personally investigate the suits, then
let him appoint a learned Brāhmaṇa to try them.”

However, Manu 8. 10ab (Dhko 31b) says about the niyukta:

so’sya kāryāṇi sampāyet sabhyair eva trivhir vṛṭaḥ.

Bühler’s translation (SBE 25, p. 254):

“That (man) shall..., accompanied by three assessors, ...fully
consider (all) causes (brought) before the (king),” is based
on the commentators; for instance, Kullūka : sa brāhmaṇo’sya
rājñō draṣṭavyāni kāryāṇi...paśyey. In reality, Manu, 8.
10 states that, in the king’s absence, the three judges
are the same (sabhyair eva) as those who normally assist the
king according to Manu 8. 1; the difference is that the king's
substitute asya kāryāni sampāyeta. The genitive asya reminds
us in certain ways of the Pāṇinian use of the genitive, accord-
ing to sūtra 1. 1. 49: saṣṭhi sthāneyogā he (= the niyukta)
examines cases in his (= the king's) stead. The same substitute
for the king is again referred to in Manu 8. 11 (Dhko 32a), with
a synonym for niyukta but with a similar use of the genitive:

\[
yasmin deše niśidanti viprā vedāvidas trayah \\
rājñaścādhikṛto vidvān brahmaṇas tāṁ sabhāṁ viduḥ;
\]

Bühler's translation (SBE 25, p. 254) again misses the point:
"Where three Brāhmaṇas versed in the Vedas and the learned
(judge) appointed by the king sit down, they call that the court
of the (four-faced) Brahman."

Other cases in which the king's substitute is singled out by
means of the term niyukta can only be briefly referred to. One
such case is that of the sūcaka, as opposed to another type of
informant: the stobhaka. Says Kātyāyana 34 (Dhko 123b):

\[
nṛpeṇaiva niyukto yah paradoṣam avēksitum \\
nṛpāya sūcayej jñātvā sūcakah sa udāṛtah;
\]

Kane (Kāty. p. 124) translates:
"That man is declared to be a sūcaka who is appointed by
the king himself for discovering the wrong-doing of others and
who coming to know of it conveys it to the king."

II

The preceding interpretation of the texts on the king's
substitutes agrees well with a different use of the term niyukta
in legal literature: the substitution of a party to a lawsuit.
Numerous texts deal with this particular topic; I shall only
quote a few of them, and illustrate the implications of the
niyukta's activities.

The normal term for the substitute of a party to a lawsuit
is again niyukta; for example, in Brhaspati l. 142 (not SBE
33; Dhko 122b):
apragalbhaja\donnattavṛddhastribāla\rgi\n\n\npūrvottaram vaded bandhur niyukto 'nyo\'thavā naraḥ.

Also, Kātyāyana 92 (Dhko 130a):

dāṣāḥ karmakarāḥ śīyā niyuktā bāndhavās tathā
vādino na ca daṇḍyāḥ syuḥ yas tato 'nyah sa daṇḍabhāk.

where Kane (Kāty. p. 134) translates niyuktāḥ as "persons deputed," and a text by Vyāsa (Dhko 134b:

kulastrībhāla\konmattaja\rgartānām ca bāndhavāḥ
pūrvapakṣottare brūyur niyukto bhṛtakas tathā.

If a person is aniyukta, his word shall not be taken without additional evidence; thus Brhaspati I. 171 (not SBE 33; Dhko 123a):

yo\'dattavyavahāravād aniyuktāḥ pravartate
vacanam tasya na grāhyam likhitapreśitādṛte.

Whereas the judge who replaces the king is practically always called niyukta, when it comes to representatives of parties to a lawsuit there is a tendency also to use synonymous forms built on the root ni-yuj. Nārada (Mārka 2.33; Dhko 116a) uses niyogakṛt, translated by Jolly (SBE 33, p. 29) as "the appointed agent":

yo na bhṛtā na ca pita na putro na niyogakṛt
parārthavādi daṇḍyāḥ syād vyavahāreṣu vibruvam;

another stanza attributed to Nārada (Dhko 402a) refers to niyogasthāḥ, whereas the Śukranitisāra (Dhko 135b) has both niyogita (niyojita ?) and niyogin.

In this kind of replacement too, it is clear that the niyukta does not act in his own name but rather as a substitute for the party he represents. Thus, Nārada (Mārka 2.22; Dhko 116a = Kātyāyana 91; Dhko 130a):

arthi\na saṃniyukto vā pratyarthiprahito\'pi vā
yo yasyārthe vivadate taylor jayaparājayau;

Jolly (SBE 33, p. 29) translates:

"If one deputed by the claimant, or chosen as his representative by the defendant, speaks for his client in court, the victory or
defeat concerns the party (himself and not the representative), and, similarly, Kane (Kātya. p. 133):

“For whomsoever a man carries on a dispute (in a law court) whether the latter be appointed by the plaintiff or deputed by the defendant, the victory or defeat belongs to the former (and not the representative).”

With a note: “This verse contains the germs of the modern profession of pleaders.”

Equally characteristically, Bṛhaspati 1.138 (not SBE 33; Dhko 123a) compares the niyukta to the priest who performs a sacrifice in the name and for the benefit of the yajamāna:

ṛtvig vāde niyuktasca sāmau sāmparikirtitau
yajñe svāmy āpnyāt pūnyaṁ hānim vāde 'thavā jayam.

And Pitāmaha (Scriba 6; Dhko 133a) lays down the general principle that any act performed by a niyukta is considered not performed by himself but by the person he represents:

yah kaścit kārayet kimci niyogād yena kenacit
tat tenaiva kṛtam jñeyam anivartyam hi tat smṛtam;

Scriba’s translation: “in seinem Auftrag,” fails to do justice to the real meaning of the term niyoga.

Even as the king can eventually be replaced in other ways than as the judge in a law court, so can a private individual be represented in other ways than as a party to a lawsuit. The first of these cases is still connected with legal procedure: individuals can be replaced by substitutes in ordeals. Kātyāyana 430 (Dhko 460a) states in connection with certain kinds of accused:

etair eva niyuktānām sādhunām divyam arhati
nechchandi sādhavo yatra tatra sōdhyah svakair naraiḥ;

Kane (Kātya. p. 200) translates:
“The king should offer ordeal (in the case of these men) to good men appointed by these (to undergo the ordeal); where good men do not desire (to undergo ordeal for them), the king should test their innocence by (offering ordeal) to their own men (i.e. relatives and friends).”
Another text is also generally quoted in connection with the rules of legal procedure, but it “might also have been inserted in the chapter on Master and Servant” (Jolly SBE 33, p. 298 note). I refer to Brhaspati 9.29 (= SBE 33 : 6.7 ; Dhko 562b):

\[ yah svamin niyuktas tu dhanayavayapalane \\
\quad kusadakṣīvānijye nisṛṣṭārthas tu sa smṛtah ; \]

Jolly translates (SBE 33, p. 298):

“One appointed by his master to look after his expenses and to superintend (transactions regarding) tillage, loans, and trade, is called a manager.”

Brhaspati 9.28 (= SBE 33 : 6.8, ; Dhko 562b-563a) at the same time clearly defines the impact of the acts of this kind of niyukta:

\[ pramāṇam tatkṛtam sarvam labhālabhavyayodayam \\
\quad svadeśe vā videśe vā svāmī tan na visamvadet ; \]

according to Jolly’s translation (SBE 33, p. 298):

“Whatever has been transacted by him is valid, whether relating to receipt, non-receipt, expenses or income, and whether it may have been transacted at home or abroad. The master must not annul such transactions as these.”

Finally, the father is bound by debts contracted by his son, provided the latter acted as his niyukta. Says Nārada 1.11 (Dhko 696a):

\[ pitur eva niyogād vā kutumbhabharanāya vā \\
\quad kṛtam vā yad ōnam kṛcchre dadyāt putrasya tat pitā ; \]

once again Jolly (SBE 33, p. 45) reflects the traditional interpretation:

“Such debts of a son as have been contracted by his father’s order, or for the maintenance of the family, or in a precarious situation, must be paid by the father.”

III

A few words must also be added about a third type of substitution: the well known case of the deceased husband being replaced by his brother in the levirate. Among the many
passages dealing with this institution a few will be selected to illustrate, first, the regular use of niyukta in this situation: the devara acts as a substitute for his deceased brother.

One of the clearest examples is Manu 9. 60 (Dhko 1065b):

\[ \text{vidhavāyām niyuktas tu ghṛtākto vāgyato niśi} \\
\text{ekam upādayet putram na dvitiyam kathāṇcana :} \]
in this case too Bühler (SBE 25, p. 338) uses the English term “appointed”:

“He (who is) appointed to (cohabit with) the widow shall (approach her) at night anointed with clarified butter and silent, (and) beget one son, by no means a second.”

Compare also Manu 9.58 (Dhko 1064b):

\[ \text{jyeṣṭho yavīyaso bhāryām yavīyān vāgrajastriyam} \\
\text{patitaubhavatogatvā niyukīvāpyanāpadi :} \]
according to Bühler (SBE 25, p. 337);

“An elder (brother) who approaches the wife of the younger, and a younger (brother who approaches) the wife of the elder, except in times of misfortune, both become outcasts, even though (they were duly) authorised.”

The term niyukta is used in the same way be it with regard to different people by Kauṭilya, first in 3.6.24 (Dhko 1288a):

\[ \text{kṣetre vā janayed asya niyuktaḥ kṣetrajam sutam} \\
\text{mātr̥bandhuḥ sagotro vā tasmai tat prādised dhanam ;} \]
Kangle (2, p. 246) follows the traditional translation:

“Our, a person appointed, either a mother’s kinsman, or a person of the same gotra, may beget on his wife a kṣetraja son; to him he shall allot that property.”

And in 3.7.6 (Dhko 1288a):

\[ \text{sagotreṇānyagotreṇa vā niyuktena kṣetrajātoḥ} \\
\text{kṣetrajāḥ putraḥ :} \]
in Kangle’s translation (2, p. 247):

“A (son) begotten on the wife (of a man) by a person appointed,
whether of the same gotra or of a different gotra, is a kṣetraja son."

Occasionally the term niyoga is used specifically to indicate the activity of the devara. For instance, in Manu 9.62 (Dhko 1066a) the beginning of which corresponds to that of Manu 9.60 quoted earlier:

\[
\text{vidhavāyāṁ niyogārthe nirvṛtte tu yathāvidhi}
\]
\[
guruvacca snuṣāvacca varteyātāṁ parasparam ;
\]

Bühler translates (SBE 25, p. 338):

"But when the purpose of the appointment to (cohabit with) the widow has been attained in accordance with the law, those two shall behave towards each other like a father and a daughter-in-law."

However, it is clear from this and similar verses that the line between niyoga as the activity solely of the substitute of the deceased husband and as the combined activities of the two parties involved is a thin one. Not only is the devara the substitute of the husband; the act which he performs together with the widow is in itself a substitute for the marriage that has come to an end by the death of the husband. The latter substitution is clearly implied in Manu 9.65ab (Dhko 1067b):

\[
\text{nodvahikesu mantreśu niyogah kīrtyāte kvacit ;}
\]

in Bühler’s translation (SBE 25, p. 339):

"In the sacred texts which refer to marriage the appointment (of widows) is nowhere mentioned, …"  

Once so far, it is only natural that the term niyukta becomes applicable simultaneously to both participants in the single act of niyoga. Hence Manu 9.63 (Dhko 1066a):

\[
niyuktāyau vidhiṁ hitvā varteyātāṁ tu kāmataḥ
tāvubhau patitau syātāṁ snuṣāgogurutalpagaṇu ;
\]

Bühler translates (SBE 25, p. 338):

"If those two (being thus) appointed deviate from the rule and
act from carnal desire, they will both become outcasts, (as men) who defile the bed of a daughter or of a Guru,”

but, what is really meant, immediately after 9.62—quoted earlier—, is that they become “like a man and a woman who defile the beds of a daughter-in-law and a father, respectively.”

Finally, the widow being as much part of the niyoga, as the substitute for her husband, the term niyuktā, in the singular, is often applied to her alone. Thus, Manu 9.59 (Dhko 1065a):

\[ \text{devarād vā sapinḍād vā striyā samyaḥ niyuktayā} \]
\[ \text{prajepitādhigantavyā samtānasya parikṣaye ;} \]
Bühler (SBE 25, p. 337):

“On failure of issue (by her husband) a woman who has been authorised, may obtain, (in the) proper (manner prescribed), the desired offspring by (cohabitation with) a brother-in-law or (with some other) Sapiṇḍa (of the husband).

What is true for the past participle niyuktā is equally true for other forms of ni-yuj, applied solely to the widow. (Notice that Bühler erroneously introduced this concept in his translation of Manu 9. 65ab, above.) For instance, Manu 9.64 (Dhko 1066b):

\[ \text{nānyasmin vidhavā nāri niyokta vyā dvijātibhiḥ} \]
\[ \text{anyasmin hi nivijājanā dharmaḥ hanyuh sanātanam ;} \]
Bühler (SBE 25, p. 338) again uses the verb “appoint”:

“By twice-born men a widow must not be appointed to (cohabit with) any other (than her husband); for they who appoint (her) to another (man), will violate the eternal law.”

Also, Manu 9.68 (Dhko 1068b):

\[ \text{tataḥprabhṛti yo mohāt pramitapatikām striyam} \]
\[ \text{niyojāyatī apatyārtham tam vigharhanti sādhavaḥ ;} \]
Bühler (SBE 25, p. 339):

“Since that (time) the virtuous censure that (man) who in his folly appoints a woman, whose husband died, to (bear) children (to another man).”
The semantic development outlined in the preceding pages shows that the translations "authorised" or "appointed" for *niyuktā*, "he appoints" for *niyojayati*, etc., miss an important point when they are used with reference to widows who participate in a levirate. In reality, *niyuktā* indicates "a widow who performs *niyoga,*" *niyojayati*—or even the non-causative *niyunakti*—refers to him "who makes a widow undergo *niyoga,*" etc. These equations are obvious from two successive sūtras in the *Vāsiṣṭhadharmaśāstra* (17.56-67, *Dhko* 1022b):

*ārdhvaṁ saḍbhyo māsebhyaḥ...pitā bhrātā vā
niyogatī kārayet;
na sṛnādāṁ avaśāṁ vyādhitāṁ vā niyuṇjita.*

The simple verbal form *niyuṇjita* corresponds to the compounded form *niyogatī kārayet*, and should be interpreted as such. It means that he makes the widow participate in a substitution; in this case: the substitution, a levirate to replace the original marriage.

The central place occupied by the institution itself in all forms derived from *ni-yuj* to indicate participants in it— even of the *devara* who is the sole "substitute" in the original sense of *niyukta* as it is used elsewhere in legal literature—is finally, illustrated by the fact that even the deceased husband is, in some way, considered to be connected with it. Again to quote *Vasiṣṭha* (17.63-64; *Dhko* 1022b);

*aniyuktāyāṁ utpanna utpādayituḥ putro bhavatity āhuh; syāc cen niyoginoḥ.*

To Bühler's translation (*SBE* 14, pp. 90-91):

"They declare that a son begotten on (a widow who has) not been (duly) appointed, belongs to the begetter. If she was (appointed, the child belongs) to both the males connected with the appointment,"

I prefer: If a man begets a son on a woman, the son is his and his alone, unless the woman was performing *niyoga* with him. If that was the case, the son belongs to both men connected with the *niyoga.*
THE HISTORY OF SANSKRIT IS A PROBLEM OF
THE HISTORY OF THE ANCIENT INDIAN CULTURE

WALTER RUBEN

The development of speaking and thinking influences the
development of the whole culture and vice versa. The perfec-
tion of the Sanskrit of kāvya-literature and of sūtra and bhāṣya
texts of all kinds of learning and especially philosophy is fairly
well known. The problem of this paper is the beginning of the
technical language of Indian philosophers in the five oldest
Upaniṣads about 600 B.C. In a paper about the debates in
these Upaniṣads some years ago I dealt with a syntactical
problem. Philosophy could begin only when in the discussions
a new type of polemical thinking began, when reasoning with
convincing arguments became necessary and arguments had to
be pronounced in the new form of adverbial clauses denoting
causes, of subordinate sentences beginning with a relative
pronoun like yasmāt\textsuperscript{1}. Here I deal with problems of lexico-
graphy.

In the Specimen Fascicule of the Dictionary of Sanskrit on
Historical Principles (Poona 1973) the authors propose that the
different meanings of the words shall be arranged historically
and that cultural, historical, mythological and other informa-
tion shall be given if called for (9). Thus, they enumerate
twenty meanings of ‘nidāna’ and propose that “an attempt has
to be made to see whether they can be regarded...as develop-
ment from each other...” (18). The third meaning of ‘nidāna’
is cause, the fourth is primary cause, the eleventh is one of the
causes in the chain of causation and the fourteenth is the
diagnosis of a disease. The chain of causation means probably
the Buddhist twelve nidānas. It’s origin is a difficult problem
of the development of old Indian Philosophy\textsuperscript{2}. Nidāna occurs
already in two late Rgvedic mythological hymns, probably in
in the sense of a cause (X, 114, 2 ; 130, 3). Philosophy began only in the five old Upaniṣads but in these *nirñāna* is not used.

Instead, one can begin analysing the use of the word *rasa* meaning juice in the *Ṛgveda*, especially that of *soma*. In the Chānd. Up. I, 1 it occurs in a series of nine members. This text is the first of this Upaniṣad and may therefore be regarded as its oldest text; in this paper the sequence of all the single texts of this Upaniṣad (but not of the Brāh Up.) are regarded as a chronological one, a point of controversy, of course. According to Ch I, 1,2 the *rasa* (essence) of “these bhūtas” (1) is earth (2), that of earth is water (3), that of water are the plants (4) ... man (5), speech (6), ṛc (7), sāman (8) and the *rasa* of sāman is the udgītha (9). In this way the udgītha is regarded as the essence of essences, as the last product and the most sacred phenomenon of this series of nine items. *Rasa* here means mostly result or product, but not always. As regards the beginning of the series we cannot imagine the earth to be the product of “these bhūtas”, of all existing things which have become. On the contrary, they may have become out of earth, of their *rasa* which in this case may mean cause. Or the bhūtas here may mean especially the three worlds: earth, atmosphere and sky; of these three the earth is in this context perhaps regarded as the most valuable one (the *rasa*) for mankind and offering.

The *rasa* of earth is water. Here also the primeval water may be the cosmogonical cause, not the product of earth. Water certainly is meant here as one of the biological causes of the plants, but the other one, in reality, is earth. Water was the cause of earth and together with earth the cause of the plants. In the case of the plants *rasa* means product and does so also in the following items of his line of items: Man is the product of plants on which he lives, and speech is due to his effort. But ṛc is only in a restricted sense the result of speech, it is mainly its most valuable part. Sāman is not the result of ṛc but is more valuable than ṛc, at least for the udgātṛ, the singer of the Sāmaveda to which this Upaniṣad
belongs. And the udgītha is for him the most valuable of all reality.

Thus, we must confess that we do not yet quite understand this series. We would f. i. prefer a line of water-earth-plants instead of that of earth-water-plants. The archaic religious and theological thinker could not yet construct a more systematic series of items when he wanted to show that OM is the highest value and the climax of all reality. This line of essences, thus, is neither scientific nor mythical-cosmogonical or rational-logical, it is scarcely understandable for us and was perhaps so even for many learned Brahmins of these old times or for the commentators.

Śankara interprets rasa in this text in the case of the earth as the way (gati, cfr. below in ChU I, 8), the ultimate support (parāyaṇa), the abode (avaṣṭambha) of the moving and not moving beings, and water as that (the world) in which earth is “woven”. He regards man and speech as results of the changing (pariṇāma) of plants and man respectively. Speech is according to him the most valuable part (anga) of man; still more valuable is ṛc, sāman and OM. Ānandagiri explains Śankara’s gati as cause for birth (utpattikāraṇatva), parāyaṇa as cause for being (sthitiḥetutva) and avaṣṭambha as cause for decaying (pralayanidānatva). This interpretation of earth as what the old Greek philosophers called the archē is quite ingenious; in Ch I, 8 ākāśa is regarded as such an archē of the world8 but neither in Greece nor in India earth was regarded as such. Ānandagiri was no historian of Indian philosophy. He did not mention or consider the facts that (1) gati is used in Ch I, 8 in the sense of a chain of causality (cfr. below), that (2) Yājñāvalkya used parāyaṇa for the ātman as the “ultimate cause” of the spirit (puruṣa) in the earth, in desire, in space and other things which are animated according to the animist Vidagdha (BU III, 9, 10 sqq.), and that (3) Gārgī used the cosmological term ‘woven’ in the same discussion with Yājñāvalkya (ib. III, 6). Śankara certainly was a better interpreter of the Upaniṣad than Ānandagiri.
The anonymous theologist of Ch I, 1 was not even conscious of his own inconsistency that he pretended in this phrase that rca is the *rasa* of vāc, and sāman that of rca while only a little later he identified vāc with rca and sāman with breadth (I, 1, 5).

The historian of old Indian philosophy has under these circumstances to do his best to come step by step to a better and better understanding of this archaic way of thinking and speaking of such an ancient anonymous theologist in the revolutionary period of the society and culture in the Gangā region presumably in the seventh century B.C. when Āryan and pre-āryan gentile societies there decayed, class society, struggle of classes in the form of competition of the four ranks (varṇa), ancient oriental despotism in its Indian form, several religions of rebirth and salvation with corresponding morals of quietism, and several philosophies, mixed with some sciences, especially physiology and psychology, but also grammar, phonetics and metrics were just beginning.

The conception of the first phrase in BU VI, 4, 1 is very similar: Earth is the *rasa* of “these bhūtas”, water of earth, plants of water, flowers of plants, fruits of flowers, man of fruits and semen of man. Prajāpati created the woman as the base (pratiṣṭhā) for semen. This mythical anthropogony intends to explain some sexual rituals; therefore this series of items ends with semen, not with OM. In analogy to ChU I, 1 we would prefer here a line: Primeval water, earth, all these bhūtas, amongst them plants....

It is nor certain that the author of this text which belongs to the Brh. Up. and the Yajurveda has quoted the idea of *rasa* from the Ch.Up. of the Sāmaveda, or vice versa. It is possible that this archaic idea of *rasa* was common to many ritualistic thinkers of this period. A third one, Satyakāma, the teacher of Upakosala in ChU IV, 17 (if 17 really belongs to 15 sq.) taught his pupil his variant of the cosmogonical myth: Prajāpati brooded on the (three) worlds (cfr. above) and produced in this way out of earth the fire (agni), out of air the wind (vāyu) and out of the sky the sun (āditya),

HISTORY OF SANSKRIT IS A PROBLEM OF ANCIENT INDIAN CULTURE 181
i.e. out of the three worlds came their respective goddesses into being. Satyakāma said: Prajāpati extracted the respective essences (rasa), fire, wind and sun. He had no better word for "to produce" or "product" at hand. In the same way Prajāpati extracted from these three goddesses as their rasas the three vedas: from agni the ṛcś, from vāyu the yajus and from āditya the sāmans, then he extracted from this trayī vidyā as the respective essences the three Sylabs bhūḥ, bhuvaḥ and svaḥ. With these a priest can make good failures which have happened in the offerings. Here the line from earth via fire and ṛc to bhūḥ corresponds to that from earth via water etc. to OM in Chu I, 1; OM and bhūḥ are sylabs which were the highest magical values of these ritualistic thinkers. But Satyakāma in Chu IV which according to our chronology is later than Chu I, 1 taught something new when he defined rasa as virya of these sylabs; the essence is the magical power.

Another fairly wide spread type of old thinkers was the magician who believed in the macrocosmic wind and in the microcosmic breath as the two basic realities. One of these magicians at the end of a long version of the widely spread myth of the competition of the prāṇas, the vital forces, declared the breath as the essence of the limbs of the body in BU I, 3, 19. He repeated his conception three times perhaps because it was so important for him, and he added that from whatever limb the breath departs (utkram) that, just or only (eva) that dries up, because this one (the breath) verily is the rasa of the limb. He does not explain on what occasion he has observed this departing of the breath and drying up of the limb. This type of magicians had relatively great interest in physiological problems, but they used according to tradition the word prāṇa in the sense of breath and life without distinction. We can therefore not understand whether he meant that breath or life left the limb, whether he understood the term rasa as life or breath. Certain is only that he did not deal with a soul.

In Chu VI, 11 Uddālaka, son of Aruṇa (cfr. below), taught
that the tree, stuck (by an axe), living, lets stream (his rasa ?); when the life leaves a branch then it dries up....This relatively late and scientific, biological thinker and philosopher used Jiva instead of rasa, the sap of the tree, and spoke of the tree and his branches instead of a man and his limbs as did the author of BU I, 3, 19. The progress in thinking and speaking between these two thinkers, the magician and the philosopher, thus becomes clear.

Uddālaka used the word rasa in the sense of the sap of flowers which, gathered by bees become honey (VI, 9). He follows here perhaps his father Aruṇa (cfr. above) who adored the sun and in ChU III, 1 sqq. (earlier than Ch VI according to our chronology) explained the sun as the honey of the gods in heaven, the Vedic hymns etc are the bees and the four Vedic Samhitās are the flowers. These brooded (in the cosmogony ?) on these flowers. Thus, from these flowers as their essence (singular) came into existence fame, splendour, vigour of the senses, virility, food and health. He regarded the “hidden teachings” (the Upaniṣads) as something higher than the Vedic Samhitās; these “hidden teachings” brooded as bees on the brahman as the flower and produced in this way the essence of the essences of the Vedas (ChU III, 5).

Another magician of the wind and breath, who was in the same time an adorer of the sun and a follower of Yājñavalkya’s mystics taught in BU II, 3 that there are two forms of brahman, the formed and the formless (what cannot be seen) is the wind and the atmosphere, the formed brahman is whatever is different from wind and atmosphere (whatever can be seen). The essence of the formed brahman is the sun, that of the formless is the (invisible) man (genious, spirit) in the sun. To the macrocosmic brahman corresponds the microcosmic man; he also is formed and formless; formless is his (invisible) breath and the space in himself; formed is the (visible) rest of him. The essence of the formed man in his eye, that of the formless man is the (invisible) spirit in the eye. He who knows this attains splendour like a sudden flash of lightning.
Therefore (thereupon ?) is the teaching (of Yājñavalkya in BU IV, 5, 15), he (ātman) is not this, not this (undescribable).

Yājñavalkya and Uddālaka were nearly contemporaneous; this text of BU II, 3 was therefore relatively late. So was the text of TU II, 1 sqq. which begins with a cosmogonical series of nine members; from ātman came space, wind, fire, water, earth, plants, food and man, this one is the essence of food. This series begins with ātman according to Yājñavalkya’s idealism. Then follow the five elements and finally the old triads: plants, food and man which we met in our first and oldest text, in ChU I, 1 in the similar, but more archaic and ununderstandable series of nine members. In TU II, 1 sqq. this passage is only the introduction of a long text which distinguishes the body, consisting of food, as the lowest ātman from four higher ātmans inside the body, ātmans which consist of breath, of thinking (maṇas), consciousness (vijñāna) and bliss (ānanda). This is a late compromise between materialism (ātman is body) and idealism (ātman is vijñāna and ānanda) inside the old Upaniṣads, probably only a short time before Buddha.

Yājñavalkya was the first Indian philosopher who taught the group of the five senses and among these used rasa as the term for taste (BU II, 4, 11; III, 2; IV, 5, 13). Thus the use of rasa in the sense of essence went on in everyday language, but the period came to its end when thinkers, mostly Vedic theologists of different types or schools had to make use of this word as a technical term for something like cause product because a better word and a scientific-philosophical theory of causality was not yet developed.

Let us go back to our starting point. Rasa was used in the oldest text of ChU I, 1 in a series of nine items which was intended as an (illogical) combination of a series of theological values and a chain of causality which in part was a cosmogonical one. This archaic series was improved in one of the latest texts of the old Upaniṣads, in TU II, 1. Before that, Pravāhaṇa Jaibali in ChU I, 8 which according to our chronology was only a little later then I, 1, taught a series of
eight items which were in part similar; sāman, sound, breath, food, water, sky, earth and space (ākāśa). Space is according to him that, out of which every thing has come, consists and into which it will go back. These three points characterise the original matter of the world, the archē according to the ancient Greek or Ionian hylozoists who belong to the same time as the old Upaniṣads. Pravāhaṇa, therefore, was a Vedic theologist of the Śāmaveda who came quite close to philosophy in its oldest, hylozoistic form which began a little later with Uddālaka in ChU VI. Pravāhaṇa did not use the term rasa but spoke of a gati, of the movement of the sāman and the other items besides space. From space come all these items, into it they go back. Probably gati means this circulation of the archē, the cosmogonical becoming of the four macrocosmic items earth, sky, water and food, and the microcosmical becoming of breath and sound (singing) which produces sāman.

Both these Śāmavedic theologists were magicians. According to ChU I, 1 the Brahmin who reverses the OM, knowing this doctrine of sāman, becomes a fulfiller of all desires. Pravāhaṇa promised that he will become the highest and best in the highest and best world. But his main interest was not in OM but in space as the climax or the ultimate support (parāyaṇa; cfr. above: Śāṅkara) of all reality and of thinking (ChU I, 9, 1). With this conception of space he came much nearer to natural science and materialistic philosophy according to which space and time are forms of matter, then his predecessor in ChU I, 1 with his conception of all things becoming out of earth. A technical term for product was not yet found by either of these theologists.

Pravāhaṇa was a predecessor of Uddālaka. According to ChU V, 3–BU VI, 2 Pravāhaṇa wanted to teach Uddālaka the wandering of the soul. This text precedes that of Uddālaka in ChU VI. Uddālaka was no more interested in reaching happy worlds on earth or in heaven by magic "knowledge", he was no theologist but a hylozoistic philosopher. He taught that the
sat, the being, the real is the world-matter, the arché. He found this technical term sat in old, even in Rgvedic cosmogonies, meaning there the primeval matter and in some doctrines in Brāhmaṇas and Upaniṣads in the same time meaning the eternal power which made a creator unnecessary, just as his two predecessors in ChU I, 1 and I, 8 had no use for such a god. From this sat according to Uddālaka came heat (tejas), water and food as, what we would call three elements, and these developed on prephysical ways into the macrocosmos and on prephysiological ways into the microcosmos. He was no more interested in rasa-evaluation but used rasa only for the sap of flowers which become honey (cfr. above). In contrast to Pravāhaṇa he did not speak of gati but of vikāra (changing) as the development of everything empirical out of the sat. Instead of vikāra Sāmkhya later on used the term pariṇāma.

As synonyms of vikāra Uddālaka used vācārambhane and nāmadheya which go back to the Rgvedic hymn in honour of the goddess Vāc, speech (RV X, 125) who created (ārabhamāṇā) all worlds. By using these three words, changing, creation of speech and giving of names he “defined” the empirical products of the sat according to his philosophical possibilities. He used the words mūla and śunga, root and offshoot, for the material cause and its product. For these there were still no better terms. All these words, archaic as they are were not sufficient to make his hylozoism, his materialism clear enough to his contemporaneous thinkers. His teaching was regarded by all Indians with the exception of Jayanta Bhaṭṭa6 as something like pantheism and as such as idealism up to some Sanskritists in the 20th century who discovered the deep contrast between Uddālaka and the idealist Yājñavalkya7.

After Uddālaka, “Sanatkumāra” in ChU VII taught two phantastic causal series combined into one, first an ontological (?) one of fifteen items of which every following one is “more” (bhūyas) and in the same time some kind of source of the preceding one. The first is name (nāman), explained as the Vedas and other texts. In an analogous way in ChU I, 1 OM
had been the rasa of sāman, this one that of ṛc. "More" than
name is speech (2) whilst in ChU I, 1 ṛc had been the rasa of
speech, its higher value. "More" than speech is thinking
(manas, 3), is will (samkalpa, 4), is thought (citta, 5),
contemplation (dhyāna, 6), understanding (vijñāna, 7),
strength (8), food (9), water (10), heat (11), space (12), memory
(13), hope (14) and breath (15). Breath-life was the ultimate
reality according to the breath-wind-magicians (cfr. above).
The first part of this series, the items one up to seven, are
relatively understandable, as is also the second part from the
eighth up to the twelfth. But the third part of the last three
items and the combination of the three parts into one series is
not rational, scientific, logical or philosophical, neither idealistic
nor materialistic.

After breath follows a line of eight gnoseological,
psychological and magic-moral items: Who "knows" this
(preceding series and the high place of breath ?) becomes
victorious in disputes because he speaks the truth (1) as the
result of his understanding (vijñāna, 2), thinking (manas, 3),
faith (4), success (5), activity (6) and lust (7) which is
abundance (plenty, bhūman 8), the substantive of the adjective
bhūyas—"More". This conception of abundance is defined as
the eternal mystic-idealistic "understanding" (consciousness,
spirit), a technical term of Yājñavalkya. This series may mean:
A magician has a wish which as such is good and will be
successful; he acts according to his wish, gets its good result
and, thus, strengthens his faith. Thinking over his experience
he comes to the still deeper understanding of the breath-wind-
magic, comes to the truth; then he defeats his opponents.

The words "abundance" and "more" are a new version of
the idea of rasa in ChU I, 1. The items 9-11, food, water and
heat are borrowed from heat, water and food, these three
elements of Uddālaka which go back to man, plants and water
in ChU I, 1. The conceptions of understanding (vijñāna) and
happiness (sukha) come from Yājñavalkya (vijñāna, ānanda),
the role of breath comes from the breath-wind-magicians, the
space from Pravāhaṇa. The combination of the two lines into one made this series of 23 items illogical, unscientific, robs it of its unity and shows how archaic the theological thinking at the end of these old Upaniṣads still was.

Buddha taught his chain of causation with its twelve nidānas perhaps only a little more than one generation after “Sanatkumāra”. He regarded himself as a spiritual physician of mankind⁶. Among his four truths the first is the diagnosis of the spiritual illness, the suffering. The second is the aetiology described as the twelve nidānas, the causes of the suffering. The technical term nidāna was introduced into the medical theory by physicians perhaps just before Buddha’s time⁹. The 12 nidānas are a series of products and of their causes, starting from beginningless avidyā, a dharma which has no ātman as its substratum and is followed by will (samskāra) and consciousness. This one creates name and form (distinguishing the psychical and physical elements ) which become the six spheres (the five senses plus thinking and their six respective objects). These subjective and objective phenomena touch each other, from touch comes sentiment, from that one thirst, then grasping (of the objects, respectively of the new body after death), the becoming (growing of the embryo), birth and finally old age-illness-death.

This chain of causes is still a queer mixture of physiological, psychological, moral, logical and even cosmogonical elements. It is not so very much higher developed than “Sanatkumāra”-s series. But the influence of medicine which was perhaps the first science which really developed in old India is clear. In this chain the idealistic-cosmogonical step from consciousness, to name and form can be derived from Pratardana, a follower of Yājñavalkya who had taught in KU III that from consciousness (vijñāna) come speech and the other physico-psychological forces like the five senses, and from these their objects, names, smells etc. The first group he called prajñāmātrās (elements of knowledge), the second bhūtāmātrās (elements of what has become)¹⁰.
In the same time or some time later the, so-called epical Sāmkhya conceived its doctrine of evolution as testified in the epics, the Bhagavadgītā and some Upaniṣads like Kath. I, 3, 11 sq. according to which the line from the objects of the senses up to the puruṣa is a line of higher (para) items. This para is a late offspring of rasa and bhūyas in ChU I, 1 and VII. And when from buddhi come both the senses and their objects, this resembles Buddha’s nidānas and Pratardana\textsuperscript{11}. Thus, one can observe how ideas of the old Upaniṣads came into some later systems of philosophy. But from the point of view of science all this thinking was relatively archaic.

Scholarly thinking developed in these times among others in phonetics. In the Rgvedapratisākhya we find the differentiation between the subject, i.e. the speaker (prayoktr instead of kartṛ), his action (karman) which uses the wind (instead of breath) according to his will (iḥa) in order to shape sounds in different places (stāna) in the mouth with different modes of pronunciation (karaṇa) of the sounds\textsuperscript{18}. But the sounds are not regarded as products (kārya)\textsuperscript{18}. According to Pāṇini sounds cannot be “changed” when they appear to be changed, but they are “replaced” by others because metaphysically they are regarded as eternal as it is taught in Mīmāṁsā\textsuperscript{14}. Here the high development of technical terms of causality in this branch of theological scholarship is testified. The time of this phonetical text is not yet certain. Pāṇini belongs to the 5th century. According to his grammar the verb in a phrase describes an action (kriyā) or a being (bhū). The independent agent (svatanra kartṛ) of the action is the subject of the verb with the accusative ending (II, 3, 2) and the most effective (sādhakatama) instrument (karaṇa) of the action gets the ending of the instrumentalis (I, 4, 42). The Instrumentalis is also the case of the agent (in passive construction II, 3, 18). The dative is the case of the person for whom the action is intended (I, 4, 32). The genitive and the vocative are not directly connected with the action\textsuperscript{18}.

In the Arthaśāstra II, 9, 3 sqq. Kauṭīlya mentions the kartṛ,
his karman, kārya and karaṇa when he deals with the officer
who shall act according to the order of the king.

Some time after the Buddhist Nāgasena and the grammarian
Patañjali Kaṇḍa composed the Vaiśeṣikāsūtra in the last
century B.C. or in the first century A.D. Basic for this system of
philosophy were the six categories (padārtha): 1. substratum,
2. its quality, 3. movement, 4. general and 5. especial character
and 6. the relation of the categories 2-5 to the first one. The
first three categories were philosophical transformations of the
grammatical categories, of the three types of words, of the
nomen, the adjective and the verb. But when one describes a
cow to somebody one must say also whether one means an
individual cow or the type of the cow. Patañjali in the
introduction to his commentary on Pāṇini and Kātyāyana has
distinguished these five categories. Thus, grammar became an
essential source of Vaiśeṣika philosophy. From the great
scholars of grammar the Vaiśeṣika philosophers may have taken
also the system of technical terms of causality, that of the
agent, his instrument, his object, his action and his product or
result (kārtr, karaṇa, karman, kārya). But as philosophy it
had to go far beyond grammar and started combining its
doctrine of categories and of causality: The clay e.g. becomes
the inherent cause of the pot, and the qualities of the clay
become the noninherent cause as the colour of the clay
changes into that of the pot when this one is burned. The pot
is “not yet existent” in the clay and it is “no-more-existent” in
the broken pot. Only the first three categories can become
cause and effect, a substratum can become only another
substratum and a quality another quality, but a movement can-
not create another movement and so on. The Vaiśeṣika was
more interested in natural science than the other old Indian
philosophies. It went into a lot of remarkable details and
formulated e.g. the rule that a product comes into being only
when its cause exists. This is similar to the Buddhist conception
of nidāna, of cause and effect: What becomes when what
exists. The Vaiśeṣika went on: Sometimes something does
not become although its cause is there; this happens when
some hindrance is also there, as wind hinders the beginning of rain although clouds are there. Uddālaka had already taught something like a law of physical becoming; he has dissolved salt in water and got the salt back when the water evaporated. On this occasion he had said: This happens always (tacchaśvat samvartate: ChU VI, 13,2).

Comparing and contrasting Uddālaka and Kaṇāda one can recognise that both were strongly interested in science but that philosophy in the course of six centuries has developed enormously, especially because grammar had done some important grammatical, syntactical research work which helped Vaiśeṣika to understand causality.

But Sāṃkhya philosophy also is to be derived from Uddālaka. His “vikāra” (change) became pariṇāma in Sāṃkhya. The eternal qualitative changing of sat and the three (elements) heat, water and food became the changing prakṛti with her three guṇas which are not qualities but constituents of prakṛti. Thus, there was some line of development from the archaic chain of causality in the theological text ChU I, 1 via that of Pravāhaṇa and Uddālaka to the twelve nidānas of Buddhism and the evolution of prakṛti in Sāṃkhya.

In this way, two lines of philosophical development as regards the theory of causality can be found, both starting from Uddālaka, but one ending in Sāṃkhya, the other in Vaiśeṣika. The satkāryavāda of Sāṃkhya taught that all material products are existing already in their material causes, finally in the one material cause, the prakṛti, and material being is becoming and decay, is the changing, the circulation of prakṛti into her products and their coming back into her. This doctrine is historically connected with that of Uddālaka that the sat changes into all material reality and that its products dissolve again in the sat, that being is becoming, is eternal circular change of the one matter, of sat.

The Vedānta doctrine of vivartavāda, that the becoming of the empirical world is irreal, is an illusion, is a change of the
real brahman which in reality cannot change, testified for the first time in the Gupta period by Bhartṛhari, can be derived from Yājñavalkya18. That the Buddhist causal nexus had the chain of causality in Ch I, 1 as its root, has been shown above.

In this way the historian of old Indian philosophy can draw several lines of development. Of course, there are a lot others also. All these philosophical developments show some important developments of language, of technical terms which were basic for and interconnected with the development of philosophical and scientific ideas. It will be necessary to make use of the knowledge of such mental developments in the historical dictionary of Sanskrit as far as is possible in our period.

It is a strange matter of fact that the old Indians including their philosophers have found or created no technical term for matter, not even the materialists. These taught that the world consisted of the four (!) elements (bhūta) but they knew no word which meant the one (!) matter, a word of much higher abstraction than element. In Sāṃkhya prakṛti means matter in contrast to puruṣa, but a lot of Hindus did not accept this Sāṃkhya conception, and prakṛti means in itself etymologically only the first cause out of which every material thing developed, not matter. Neither does puruṣa etymologically mean consciousness. Some Vedāntins identify prakṛti with māyā. Pudgala in Jinism means some thing like atom, not matter. This deficiency of Sanskrit was of great importance for the history of Indian philosophy and in the same time depended on it. In old Indian society religion was strong, but science was underdeveloped; materialism therefore could not flourish, nor could it help science to become strong because it was weak itself. Therefore old Indian scholars or educated people could not learn to understand that the ideological struggle between scientific and scholarly thinking on the one hand and religious faith and common sense opinion of the uneducated on the other hand was essential and that the analogous struggle between
materialism and idealism was basic for the cultural development. Instead, the Brahmins pretended through all the old times from the sixth century B.C. on that the fundamental difference was that of Brahmanical religion and philosophy on the one hand and Buddhist, Jaina and Lokayata philosophies on the other hand.

In contrast to matter a word for consciousness was found already by Yajnavalkya in vijnana. But the word vijnanavada later on was not used for idealism but only for the Buddhist school of idealists who believed in the alayavijnana, vehemently repudiated by the great idealist Sankara on account of its subjective idealism in contrast to his own objective idealism. For materialism Lokayata, Barhaspatya and Carvaka were in common use but for idealism and even for philosophy there were no Sanskrit terms. Brahmin religion and theology were so strong that philosophy was regarded as a servant of theology, although this was not said so clearly as in European Christian feudalism, scholastics and mystics. Only very few courageous and well trained political and juridical teachers like Kautilya and Gautama dared to distinguish between trayi and anviksiki which here means philosophy as it seems. The history of such important words shows again that it is intimately connected with the history of culture, of the ideological fight, with class struggle and the development of the base of society.

In ancient Greece philosophy began nearly in the same time as in India although there the mode of production and the type of society were different. But in both societies in some towns some well-to-do merchants organised a similar type of commodity production and lived in circles in which highly trained courtesans helped the rich and educated men to a life of sublime pleasures as it is described in the Kamasutra. These circles may have been the similar social base of a similar philosophy. For the Greek philosophers also it was difficult to find a word for matter. Anaximandros spoke of the apeiron, of that which has no ends, instead, and when Parmenides used
the word "on" which means sat and is etymologically the same as sat, historians of Greek philosophy even today do not agree whether he meant matter or consciousness just as in the case of Uddalaka. In the generation of Platon and Demokritos the contrast of idealism and materialism was recognised fairly well in Athens, but there were still no words for matter and materialist. According to modern research Aristotle was the first to use the word hy'leo for matter^{8}, Hyle originally meant wood and the conception that the world consists of wood presupposes a similar cosmogonical myth as the Rgvedic one of Viśvakarman, the carpenter god who made the world out of wood (tree) (RV X, 81, 4)^{8}, or at least Aristotle or some unknown predecessor has imagined nature as shaped out of wood by some force which worked in similar ways as the Carpenter. Wood was not regarded as arché of the world by any Indian or Greek hylozoist.

NOTES


4. Ruben 1. c. 94; 94 sqq.: Uddalaka.


10. Ib. 120 sq.


12. Ib. 722.

13. Ruben 1. c. VI, 146.


15. Ruben 1. c. IV, 158 sq.

16. Ruben IV, 163 sq.

17. Ib. 230 sqq.


19. Ruben 1. c. IV, 7 sq.


23. Ruben 1. c. IV, 43.
SOME MUTUAL BORROWINGS IN INDO-ARYAN
AND INDO-TIBETAN
NILMADHAV SEN
UNIVERSITY OF POONA & DECCAN COLLEGE, POONA

I
a. QIA tóya-túya: In 1957 I published in the Indian
Linguistics, 17 (Taraporewala Memorial Volume), p. 50, a short
note on the etymology of tóya¹ ‘water’, deriving it from Tibeto-
Burman (Boro) sources (though earlier scholars, e.g. KITTEL,
p. XXVII, entry No. 155, BLOCH, 1928-30, BURROW, 1947-8,
suggested Dravidian etymology). That short paper drew the
attention of a few scholars, some of whom seem to have
accepted the etymology proposed by me. But my esteemed
friend, the late Professor T. N. Srikanthaiya of Mysore, in a
private discussion with me long ago, differed and stuck to the
older view of Dravidian etymology in view of the Dravidian
words for ‘to bathe, become wet or moist, dip, soak’ etc. (Tamil
tóy. Malayalam tóyuka, Kannada tuy, toy, Telugu tógu, Toda
twi-y, etc.). But the same Professor Srikanthaiya did NOT
accept the Dravidian etymology, as suggested by BURROW,
1955, for Sanskrit śava ‘corpse’ in spite of the Dravidian roots
and words like Tamil cā ‘to die’, cāvū ‘death’, Kannada sāy ‘to
die’, sāvū ‘death’, etc. That is to say, Professor Srikanthaiya
applied two different methodologies for these two different
words.

I would now try to show with more evidences that Skt. tóya
—túya must have been loanwords from the IT branch of the
Sino-Tibetan family of languages.

1. It may be noted here that this vocable (along with tūya) is listed not
only in the Nighantu, 1. 12, but actually occurs in a rather late Vedic text,
the Taิตtīrīya-Āraṇyaka, x. 1.1, in the forms -toya- and -toyada- and, as
is well known, becomes very frequent from the Epics onward (Sen,
N. 1975).
Almost all the Sino-Tibetan languages have the reflexes of the same proto-word for ‘water’. Thus, Chinese (Mandarin) shui (shwei); Tibetan, Balti, Ladākhi, etc. chu; Abeng, Koch, Garo, etc. ci; Vāyu, Kanāwarī, Kanāshi, Mānchāṭi, (Lahul) Chamba Lāhuḷī, Mijū Mishmi, etc. tī; Ātong tai; Tīprā tui; Kolren, Kom, Pūrum (all of Manipur), Thādo (Naga Hills), etc. tāi; Magar (of Nepal), Lalung, Dimāsā, etc. dl; Chairel (of the Kuki-Chin group) dl; Anāl (of Manipur) da; Kabui and Khoirāo Naga dū; Mech (of Jalpaiguri), Arung dol; Boro (of Kamrup) doy; Angāmi Naga, Rengmā dzū, etc. Many compounds are formed with this basic word for ‘water’ to express other liquids and objects associated with water, e.g. Chinese yī/shui ‘rain-water’, tzu/lai/shui ‘running water’, ch’üan/shui ‘spring of water’, shui/tzu ‘water-closet’, etc.; Tibetan mig-chu ‘tears’ (lit. ‘eye-water’), bab-chu ‘water-fall’, chu-nō ‘water-vessel’, etc.; Garo mik-ci ‘tears, ci-dare ‘water-fall’, etc.; Boro dōy-mu ‘spring of water’, dōy-lan ‘flood’, mā-dōy ~ mi-dōy ‘tears’, etc. Tipra muk-tui ‘tears’, khuk-tui ‘saliva’ (lit. ‘mouth-water’), tui-ma ‘river’ (lit. ‘water-large’), etc.

There cannot be any doubt whatsoever that this basic (and only) word for ‘water’ in practically all the Sino-Tibetan languages is a native (and not a loan) word of their own. BENEDICT reconstructs *tiy/*twiy for Tibeto-Burman (this is only slightly different from my reconstruction of Proto-Boro) and the early Chinese is usually reconstructed as *wēd ?.

The Dravidian words on the contrary are NEVER used in the sense of ‘water’ or any other ‘liquids’. If Sanskrit tōyatūya were really derived from Dravidian sources, they would have rather meant ‘washing, bath, soaking, washerman’, etc., than ‘water’. There can therefore be hardly any doubt that Skt. tōya-tūya are loanwords from an Indo-Tibetan source.

The close phonetic resemblance between the Sanskrit and Dravidian words may, in the present state of our knowledge, be explained as accidental. Or, can the borrowing, if any, be in the opposite direction (i.e. from Sanskrit to Dravidian)?
The fact that cognates of Tamil ṭōy, etc. are confined only to the Southern Dravidian languages highly influenced by Sanskrit makes such a proposition worth considering.

b. OIA dātyāha (older from dātyauhā) ‘gallinule’: This word has a queer variant nātyāha in both the Epics. The authenticity and antiquity of this variant are shown by Pāli nājuha, ‘gallinule’. The etymology of dātyāha (dātyauhā) is unknown. As pointed out by MAYRHOFER, it can scarcely be related to dātyauh ‘two-year-old steer or cow’, in spite of Pāṇini vii. 3.1. An etymological relationship with Indo-Tibetan explains at least the free variation of dā- - na- in these vocables. In a large number of Indo-Tibetan dialects the words for ‘bird’ or ‘fowl’ are reflexes of Sino-Tibetan *tow- *dow (BENEDICT, p. 192, f n. 491) or Boro-Garo *daw; thus: Boro (of Kamrup) da‘w; Dimā-sā dao; Garo do‘o, Garo (of Jalpaiguri) twau; Hozai, Atong tao; Tipa tok, etc.; in some others the words for ‘bird’ or ‘fowl’ have an initial n- or ṇ-, e.g. Yakka (of Darjeeling) nu-wa; Gurung nemya; Murmi nyame (all ‘bird’); Bunap (of Lahul) ṇaŋ-pa; Ladakhī ṇur-va; Maring Naga, Meithei, Anāl, Hiroi-Lamgang ṇanu (all ‘duck’). These elements (daw, na, ṇa etc.) can be prefixed as classifiers before words for various species of birds: cf. Boro da‘w-kātlā ‘a kind of small green woodpecker’ dáw kurka a kind of eagle, dáw-guldub ‘a kind of aquatic bird’, na‘ kakra ‘a kind of eagle’, ná tiya ‘kingfisher’, na‘ lanỹka ‘a kind of spotted kingfisher’, etc.; Meithei ṇa-rakpi ‘kingfisher’, ṇa-hōybi ‘spur-winged plover’, ṇoṃk ‘peasant’, ṇoŋgā ‘golden plover’, etc.

It is, therefore, quite likely that at least the dā- and na-elements in the Sanskrit words for ‘gallinule’, if not the whole words as such, are loans from Indo-Tibetan sources.

II

The etymology of a very large number Indo-Aryan words technically known as deśi is still very obscure. Though some of them have ultimately been traced to Old Indo-Aryan sources, most of them belong to Austro (Mundari), Dravidian, Sino-
Tibetan' or some other unknown stocks. Only a few of the many words which are found in both Indo-Aryan and Boro, but the exact etymology of (some of) which is still unknown, are listed below. In most of them Boro is likely to be the borrower (from Asamiya and Bangla), but in a few cases the reverse also may be true.

a. Bangla inay-binay (in iniye-biniye + kād 'to lament or wail continuously [complaining against fate]'): cf. Boro inay-binay 'complaining', root nay as in kānay 'to worry, to sigh', Manipuri na-ba 'complaint, ailment', Tibetan nyu-wa 'to cry, to sob', nye-pa 'pain (punishment by fine)'. Sukumar Sen takes binay as denominative from Skt. vanaya 'plaiting, weaving.' Perhaps veni 'braid of hair' is a more likely source.

b. Bangla ebro-khebro 'uneven, rough, not smooth': cf. Boro ebro 'to prick unconsciously; a person with pock-marks' and keb [kheb] 'to pinch'.

c. Bangla kxbla '(feigning to be) silly or stupid': cf. Boro kawbla 'wicked'. However, the Bangla word may perhaps be derived from Skt.*kevalaka, cf. Skt. kevalin 'a meditative ascetic'.

d. Asamiya-Bangla-Oriya goja 'to grow (as hair, beard), sprout': CHATTERJI, § 636, includes it among the roots 'of which the origin has not been found out' and which 'appear to be dēśī'. Now cf. Boro gaza 'sprout', gazay 'to make to sprout', gazi 'to sprout' (intr.), paza 'to wake up', Chinese jan 'to grow'. But it is quite likely that Boro gaza, etc. are loanwords from Asamiya.

e. Boro atēn 'leg' is probably a loanword from Asamiya-Bangla theṇ 'leg' which itself is prob. of Austric origin, cf. Santali theṇa 'cudgel, stick', Bonda ten 'stick'. For other NIA cognates and semantics, see TURNER, entry No, 5500.

f. For Boro dalay 'branch' cf. Asamiya-Bangla dal(a)


SOME MUTUAL BORROWINGS IN INDO-ARYAN AND INDO-TIBETAN
‘branch’, prob. of Austroic Origin (KUIPER, entry No. 34, TURNER, entry No. 5546).

g. Boro ḍubey ‘to sink’ (tr.), ḍubi ‘to sink’ (inter.) : cf. Asamiya-Bangla ḍub ‘to sink, to take a dip in water’ (Metathesis from MIA bud-). TURNER, entry No. 5561, explains it as onomatopoetic, cf. budabuda.

h. NIA ḍoṇ(g)a, ḍiṇ(g)a, etc. ‘trough, dug-out canoe, boat’: TURNER, entry No. 5568, remarks: “Though probably of non-Aryan origin, it may have affected the meaning of DRONA-1”; CHATTERJI, § 271, hesitatingly associates ḍoṅgā with droṅ, but remarks ‘probably dēśi’. Now cf. Boro tiṇga ‘nose of a boat’, Chinese tiṇ ‘boat’ with NIA ḍiṇ(g)a, and then ḍoṇ(g)a may be a contamination of droma > ḍoṇa and ḍiṇ(g)a. ḍhon(g)a-ḍoṇ(g)a no doubt occurs in some Mundari languages, but BODDING seems to regard it as a loan from Hindi.

i. Asamiya ḍhou, Bangla-Oriya ḍheu ‘wave (especially in water)’: CHATTERJI, § 212 takes it to be deśi ; KAKATI, § 426 hesitatingly suggests an Indo-Aryan etymology from dhava + ku (sic) (dhava- > ḍhaya- > ḍhe + u (< uka) ) which is most unlikely ; TURNER, entry No. 5580, lumps it with other words for ‘lump’ (NIA ḍhipi, ḍhep, ḍhepa, etc.) but does not name the source language (ḍheo ‘wave’ occurs in Santali as a loanword, the native word being ‘buhidak’). But now cf. Boro dāy-haw ‘(water-) wave’, Tankhur Naga phaw ‘wave’, Chinese po* ‘wave’ hai*hsiao* ‘tidal wave’, pyau*yan*, pyau*dan* ‘to wave, to flutter’.

j. Bangla tiriṇ-birin- tiriṇ-birin (as in tō-bō kore + lapha ‘to jump and fret or hop’): cf. Boro tiriṇ birin ‘shaky (as the walking of one drunk)’. Though likely to be onomatopoetic, connection with Dravidian cannot be ruled out, cf. Tamil tiri ‘to turn, revolve, be twisted’ ; Kannada tiri ‘to turn round, a turn’ ; Tulu tirgamarṇa ‘topsy-turvy, pell-mell’.

200

SUNITI CHATTERJI COMMEMORATION VOLUME
REFERENCES


Chatterji, Suniti Kumar. 1926, *The Origin and Development of the Bengali Language*, University of Calcutta.


SOME MUTUAL BORROWINGS IN INDO-ARYAN AND INDO-TIBETAN 201

13 (a)


**COLOPHON**

I am much obliged to Professor A. C. Barnes of the School of Oriental Studies, University of Durham, Durham, U. K. for the early Chinese reconstructed form and to my former pupils Dr. Pushpa Karaputkar (Mrs. Prabhu) for some Tipra and to Sri N. Singh for some Meithei data.
A PHONOLOGICAL ANALYSIS OF
LADAKHI NUMERALS

UDAYA NARAYAN SINGH
DEPARTMENT OF LINGUISTICS,
M. S. UNIVERSITY OF BARODA

O. 1. The purpose of the present paper\(^1\) is to examine the phonological component of the number grammar of Ladakhi. It is hoped that such an analysis would be of some interest for the typologist classifying the numerical expressions into different types\(^2\). An exercise like this would also be helpful in constructing a universal model for numerical analysis, which, in turn, is very important in understanding the nature of the language as a whole.

O. 2. Ladakhi numerals range from gorgor "zero" to tonkh\(h\)ur\(c\)cu "one hundred crores". Although one can construct still higher number names, but such possible constructions have not taken into consideration, since these are not functional. Ladakhi has a basically decimal and fairly regular and rigid system of counting. This paper deals only with the cardinal numbers and all other rational and non-rational numbers have been excluded.

O. 3. Mr. Nawang Tsering of Leh, the capital of Ladakh, served as an informant during the summer of 1973. The data-collection period was 70 hours in total.

1. 1. The phonetic representations for the Ladakhi numerals are as follows:

<table>
<thead>
<tr>
<th>NUMERAL</th>
<th>VERBAL</th>
<th>NUMERAL</th>
<th>VERBAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>cik</td>
<td>4</td>
<td>ži</td>
</tr>
<tr>
<td>2</td>
<td>(η^ν)is</td>
<td>5</td>
<td>(शη)a</td>
</tr>
<tr>
<td>3</td>
<td>sum</td>
<td>6</td>
<td>(कु)t(r)uk</td>
</tr>
<tr>
<td>NUMERAL</td>
<td>VERBAL</td>
<td>NUMERAL</td>
<td>VERBAL</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
<td>--------</td>
<td>-----------</td>
</tr>
<tr>
<td>77</td>
<td>duncuto&lt;sub&gt;n&lt;/sub&gt;dun</td>
<td>98</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;bg&lt;sub&gt;r&lt;/sub&gt;at</td>
</tr>
<tr>
<td>78</td>
<td>duncuto&lt;sub&gt;n&lt;/sub&gt;ng&lt;sub&gt;r&lt;/sub&gt;at</td>
<td>99</td>
<td>gupcuko&lt;sub&gt;r&lt;/sub&gt;gu</td>
</tr>
<tr>
<td>79</td>
<td>duncuto&lt;sub&gt;n&lt;/sub&gt;gu :</td>
<td>100</td>
<td>cigg&lt;sub&gt;v&lt;/sub&gt;a : /</td>
</tr>
<tr>
<td>80</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acu : (thamba :)</td>
<td></td>
<td>g&lt;sup&gt;v&lt;/sup&gt;athamba</td>
</tr>
<tr>
<td>81</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;ak&lt;sub&gt;š&lt;/sub&gt;ik</td>
<td>200</td>
<td>ɣ&lt;sup&gt;r&lt;/sup&gt;ibg&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>82</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;ag&lt;sub&gt;v&lt;/sub&gt;is</td>
<td>300</td>
<td>sumg&lt;sup&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>83</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;aksum</td>
<td>400</td>
<td>žibg&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>84</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;abži :</td>
<td>500</td>
<td>ɟŋabg&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>85</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;aŋa :</td>
<td>600</td>
<td>ʈruŋg&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>86</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;aŋruk</td>
<td>700</td>
<td>dung&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>87</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;abdun</td>
<td>800</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;abg&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>88</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;abg&lt;sub&gt;r&lt;/sub&gt;at :</td>
<td>900</td>
<td>gubg&lt;sub&gt;v&lt;/sub&gt;a :</td>
</tr>
<tr>
<td>89</td>
<td>g&lt;sup&gt;v&lt;/sup&gt;acuk&lt;sup&gt;v&lt;/sup&gt;argu :</td>
<td>1000</td>
<td>sto&lt;sub&gt;v&lt;/sub&gt;, ncik / ciksto&lt;sub&gt;v&lt;/sub&gt;n</td>
</tr>
<tr>
<td>90</td>
<td>gupcu : (thamba :)</td>
<td>10000</td>
<td>thi : / thicik</td>
</tr>
<tr>
<td>91</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;kšik</td>
<td>100000</td>
<td>bum/bumcik</td>
</tr>
<tr>
<td>92</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;ŋw&lt;sub&gt;v&lt;/sub&gt;is</td>
<td>1000000</td>
<td>ce&lt;sub&gt;v&lt;/sub&gt;wa : / ce&lt;sub&gt;v&lt;/sub&gt;wacik</td>
</tr>
<tr>
<td>93</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;ksum</td>
<td>10000000</td>
<td>saya : / sayacik</td>
</tr>
<tr>
<td>94</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;bži :</td>
<td>100000000</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;ŋa :</td>
<td></td>
<td>to&lt;sub&gt;v&lt;/sub&gt;nkh&lt;sub&gt;v&lt;/sub&gt;u :</td>
</tr>
<tr>
<td>96</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;ŋruk</td>
<td>1000000000</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>gupcuko&lt;sub&gt;o&lt;/sub&gt;bdun</td>
<td></td>
<td>to&lt;sub&gt;v&lt;/sub&gt;nkh&lt;sub&gt;v&lt;/sub&gt;uršcu :</td>
</tr>
</tbody>
</table>

1.2. The structure of the functional relations that exist between the basic units in the construction of higher numerals could be summarized as:

(A) $\# \text{Ten} \# \ (\text{xero to ten})$

(B) $\# \text{ten} \# \text{one} \ldots \text{Ten} + \text{nine} \# \ (\text{eleven to nineteen})$

(C) $\# \text{Two} \times \left\{ \begin{array}{c} \text{Ten} \\ \text{Hundred} \end{array} \right\} \# \ (20, 30\ldots\ldots90 \ ; \text{and} \ 200, 300\ldots\ldots900)$.

(D) $\# \text{Two} \times \text{Ten} - \text{Two} - \text{one} \# \ (21-29, 31-39\ldots\ldots91 - 99)$.
It is evident from the structural description of the functional relation of the numerals that the reverse relations (like 'subtraction' and 'division') are not used in Ladakhi. It could be mentioned here that some Indo-Aryan languages (e.g. Hindi: unnis 'nineteen' cp. Beng. unis, etc.) do use such reverse relations. Structurally, the most interesting of these is the fourth one. Here in between the tens and the basic number, a 'reflective' structural element, is obligatorily placed. This is invariably a reflection of the number name to be multiplied by ten. Thus, the structure of this functional element changes, when the first number changes, e.g.,

(D1) # Three × Ten—THREE—One # ...  
(D2) # Nine × Ten—NINE—one # etc.

Since these reflectives are structurally required elements, these are either void of meaning or these function as a special type of conjunctive, meaning 1 + 1.

1.3. The hypothesis regarding the systematic phonemic representation of the basic number names could be stated before presenting the rules that map them onto the systematic phonetic representation of the numerals presented in 1.1. The underlying as well as different surface forms of the basic numerals could be listed in a table such as follows:
<table>
<thead>
<tr>
<th>GLOSS</th>
<th>UNDERLYING FORMS</th>
<th>SURFACE FORMS (principal)</th>
<th>REFLECTIONS</th>
<th>OTHER ALTERNATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>kick</td>
<td>cik</td>
<td>—</td>
<td>-šik~-kšik~</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>cig</td>
</tr>
<tr>
<td>Two</td>
<td>rgṣṇis</td>
<td>.νis</td>
<td>-rsa-</td>
<td>-gνis~νi-</td>
</tr>
<tr>
<td>Three</td>
<td>ksau</td>
<td>sum</td>
<td>-soν-</td>
<td>ksum</td>
</tr>
<tr>
<td>Four</td>
<td>bži</td>
<td>żi</td>
<td>-ža-</td>
<td>bži</td>
</tr>
<tr>
<td>Five</td>
<td>rsarna</td>
<td>śna</td>
<td>-ṛṣṇa-</td>
<td>ṇa</td>
</tr>
<tr>
<td>Six</td>
<td>trok</td>
<td>ṭruk</td>
<td>-ra-</td>
<td>ṭrug</td>
</tr>
<tr>
<td>Seven</td>
<td>bdun</td>
<td>dun</td>
<td>-toνn-</td>
<td>bdun</td>
</tr>
<tr>
<td>Eight</td>
<td>bgiat</td>
<td>gva</td>
<td>-kva-</td>
<td>bgva</td>
</tr>
<tr>
<td>Nine</td>
<td>rgu</td>
<td>gu :</td>
<td>-koν-</td>
<td>rgu : ~gu-</td>
</tr>
<tr>
<td>Ten</td>
<td>pco</td>
<td>rścu :</td>
<td>—</td>
<td>cu~ <del>šu</del> ~pcu</td>
</tr>
<tr>
<td>Hundred</td>
<td>bgia</td>
<td>gva</td>
<td>—</td>
<td>bgva</td>
</tr>
<tr>
<td>Thousand</td>
<td>ston-</td>
<td>stον-</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ten Thousand</td>
<td>thi-</td>
<td>thi-</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Lakh</td>
<td>bum</td>
<td>bum-</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ten Lakh</td>
<td>ceua-</td>
<td>ceοwa-</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Crore</td>
<td>saia</td>
<td>saya</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ten Crore</td>
<td>tonkihui</td>
<td>toνnkʰυu-</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Zero</td>
<td>gorgor</td>
<td>goνrgονr</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

1.4. Many of the basic numbers start with consonantal clusters, whenever these are preceded by vowels. When these occur alone, the clusters are simplified. Almost the same thing happens, when consonants precede these numbers. Thus, it is easy to understand why such clusters were posited in the underlying representations for ‘one’, ‘three’, ‘four’, ‘seven’, ‘eight’, ‘hundred’, etc. In case of ‘two’ and ‘five’, the reflectives provided important clues. Therefore, it would be better, if the nature of reflective-formation is understood clearly. The
structure of the (D)-type construction could be described as:

\[(D3) \quad Y_1 \times \text{Ten} - Y_2 - Y_3,\]

where \(Y_3\) marks the relation of addition and is a reflection of \(Y_1\). \(Y_2\) generally shows the first one or two consonants of the basic numbers, a low back vowel (and a dental nasal, if present in the basic number). If one jumps to the conclusion, after one finds a \(\eta^{\text{ris}} - g\gamma\) is alternation that the underlying form for ‘two’ is \(g\gamma\) is, one would have to have an ad hoc rule such as:

\(g\gamma\) is \(\rightarrow\) \text{ris} / \(Y_1 \times \text{Ten} - Y_3\).

The alternative of positing \(r_s\)- in the underlying representation is also supported by comparative evidence. Chinese, as well as Khāmti, a sister language of Ladakhi have \(r_i\) for ‘two’ (Grierson, 1908 :). Moreover, in some cases, Ladakhi permits four-consonantal clusters. These \(Y_2\)-generation rules would precede the cluster—simplification rule for obvious reasons. So far as the underlying form for ‘five’ is concerned, one can argue that the retroflex consonants in Ladakhi come from a different source, as it has been shown elsewhere (Singh, 1974 :). Thus, the cerebral sibilant (like the cerebral stops) comes from its corresponding non-cerebral sibilant plus a ‘\(r\)’. The underlying form is \(sr\gamma\), instead of \(sr\gamma\), because the reflectives shows a \(rs\)-combination. The semi-vowels \(y, w\) come from vowel combinations, and hence could not be taken as systematic phonemes. Palatalization is an important feature of Ladakhi phonology and it is evident even from this closed corpus grammar.

2. 1. Reflectives are generated by a set of rules that could be written as:

\((Y_2 - \text{rule 1})\)
\[ Y_2 \rightarrow [ \langle C_1 \rangle_x \beta \text{Nasal} \langle C_8 \rangle_x \beta \text{Voice} \] 
\[ + \text{continuant} ]_1 - \text{continuant} \]

if, \( Y_1 = [C_1 C_2 \langle C_8 \rangle_1 V \langle C \rangle_2 + \text{Nasal} + \text{Coronal} ]_2 \)

\( Y_2 \rightarrow [c_1 c_2 \langle V \rangle_1 \text{(c)} ]_2 \), if \( Y_1 = [c_1 c_2 c_3 c_4 V(c)] \)

\( Y_2 \rightarrow [c_1 c_2 \langle V \rangle_1 \text{(c)} ]_2 \), if \( Y_1 = [c_1 c_2 c_3 c_4 V(c)] \)

(\( Y_2 \)-rule 3)

\[ \text{SD}: \begin{bmatrix} \text{C (c)} \text{(c)} \left[ \begin{array}{c} \text{V} \\ +\text{high} \\ +r\text{back} \end{array} \right] \end{bmatrix} \]

\[ \times \text{Ten-} \begin{bmatrix} \text{C (c)} \left[ \begin{array}{c} \text{V} \\ +\text{LOW} \end{array} \right] \end{bmatrix} \]

\[ -Y_2 \]

\[ \text{Sc}: \begin{bmatrix} +\text{back} \\ -\text{low} \\ -\text{high} \end{bmatrix} \]

In case of \( Y_2 \)-generation, only these rules would operate and resultant structures would not be altered by any other phonological rule. The first rule accounts for the devoicing of d, g’ and g of dun, gyat and rgu in the reflectives, while ŭ of ŭi is not devoiced. Moreover, it explains why only in the seventies, one has a consonant ‘n’ after the vowel. The second and the third rule explain why in reflectives ‘a’ changes to ‘o’ in the case of sum, dun and gu : .

2. 2. The phonological rules that generate and account for all alternations in the number names other than the
reflectives can now be presented. These rules are ordered (part ) and a change of order in an arbitrary way might result in generating ungrammatical forms.

(PR 1) SD: 

\[
\begin{array}{c}
+ \text{Coronal} \\
+ \text{Anterior} \\
\alpha \text{Voice} \\
\alpha \text{Sibilant} \\
\hline \\
+ \text{Vocalic} \\
+ \text{Consonantal} \\
- \text{Lateral} \\
\end{array}
\]

SC: [ —distributed ] [ —\alpha segment ]

A cerebralization rule such as (PR 1) is a general rule of Ladakhi. t, d, s etc. are cerebralized before r and the latter is dropped, if the former happens to be either voiced or a Sibilant. It operates on *r\eta\eta a and *trok to change these to r\eta\eta a and t\eta k.

(PR 2) SD: 

\[
\begin{array}{c}
- \text{Continuant} \\
+ \text{Back} \\
\hline \\
- \text{Consonantal} \\
- \text{Back} \\
\end{array}
\]

SC: [ + Palatal ] [ < -Segment > ]: V_1 \neq V_2

This is a palatalization rule and it changes k, kh, g, \eta to K\nu, kh\nu, g\nu, \eta\nu before i.e., and drops the conditioning vowels, if these are followed by dissimilar vowels. It operates on *rsg\eta is, *bgiat, *bgia and *tonkhiu to generate rsg\nu is, bg\nu at, bg\nu a, tonkh\nu u respectively.

(PR 3) SD: 

\[
\begin{array}{c}
+ \text{Vocalic} \\
- \text{Consonantal} \\
\hline \\
+ \text{Vocalic} \\
- \text{Consonantal} \\
- \text{Low} \\
\end{array}
\]

SC: [ —Vocalic ]: V_1 \neq V_2

This glide-formation rule generates saya and cewa fro *sai a and *ceua.

(PR 4) 

\[
\begin{array}{c}
- \text{Coronal} \\
+ \text{Anterior} \\
- \text{Voice} \\
\hline \\
+ \text{Consonantal} \\
- \text{Lateral} \\
\end{array}
\]

\# —c(v)(c) #
(PR 4) is a numeral-specific rule and it changes p, ph to r initially before a consonant, but within the same morpheme and word boundary. *pco becomes rco by this, but remains -pco when zi, gi or gu: preceede it. In between r and c, a transitory sibilant is introduced by a rule like:

\[
(PR \cdot 5 \; \phi \rightarrow \left[ \begin{array}{c} + \text{Strident} \\ + \text{Constituant} \\ + \text{High} \\ - \text{Voice} \end{array} \right] / \left[ \begin{array}{c} + \text{Consonantal} \\ + \text{Vocalic} \\ - \text{Lateral} \end{array} \right] \right) \left[ \begin{array}{c} + \text{Strident} \\ - \text{Constituant} \\ + \text{High} \\ - \text{Voice} \end{array} \right]
\]

applies on rco to generate rsco.

(PR 6) SD: \{ \# \} c_1 \; c_2 \; c_3 \; c_4 \; X
\downarrow \downarrow
SC: \phi \; \phi

This applies on *rs\eta\gamma\text{is} to simplify the four-consonantal cluster and generates g\gamma\text{is}. However (PR 6) does not generate *r\gamma\text{a} from *rsr\gamma\text{a}, because the latter has already been changed to r\gamma\eta\text{a}, a three-consonantal cluster by (PR 1). One needs another cluster—simplification rule that would simplify the two-consonant structures, while in certain conditions these would be retained.

(PR 7) SD:
\[
\left\{ \left[ \begin{array}{c} \# \\ C \\ [+ \text{Coronal}] \end{array} \right] \right\} \left[ \begin{array}{c} + \text{Consonantal} \\ + \text{Distributed} \\ - \text{Continuant} \\ + \text{Vocalic} \\ [+ \text{Voice}] \end{array} \right] \]
\[
\left[ \begin{array}{c} + \text{Consonantal} \\ - \text{Vocalic} \\ [+ \text{Voice}] \\ [+ \text{Nasal}] \\ [+ \text{High}] \end{array} \right]
\]

A PHONOLOGICAL ANALYSIS OF LADAKHI NUMERALS 211
This rule needs to be explained in a greater detail. After a word boundary or a consonant plus a morpheme-boundary and before a glide or a true consonant, the non-retroflex stops and liquids are dropped. The application of this rule could be seen in Kcik, g\(\eta\)is, Ksum, b\(\ddot{z}\)i, bdhun, bg\(\ddot{a}\)at, ru\(g\), which become cik, \(\eta\)is, \(\ddot{z}\), dun, g\(\ddot{a}\)at, gu when these occur alone or after a consonant plus a morpheme boundary, e.g. dun + cu + ton + cik “71”, dun + cu + ton + \(n\)is “72”, etc. It does not affect \(\ddot{t}\)rok, because \(\ddot{t}\) is a non-distributed sound. It also changes r\(\ddot{s}\)a to \(\ddot{s}\)a. The angled brackets tell that, if after the non-nasal coronals s, z, t, th, d plus a morpheme boundary, the consonants following are voiced, the latter would not be dropped even if the conditions are met and that rather these coronals would be dropped, e.g. g\(\eta\)is + bg\(\ddot{a}\)a and bg\(\ddot{a}\)at + bg\(\ddot{a}\)a would become \(\eta\)i + bg\(\ddot{a}\)a “200” and g\(\ddot{a}\)a + bg\(\ddot{a}\)a “800” by (PR 7). But in case of a coronal nasal, duncutong\(\ddot{a}\)at or duncutong\(\ddot{y}\)is would be the form and not *dounco-tobg\(\ddot{a}\)at or *duncutog\(\ddot{y}\)is. Lastly, r\(\ddot{c}\)u does not become \(\ddot{s}\)c\(\ddot{u}\) by (PR 7), because the third segment is neither a non-consonantal nor ‘n’. There are few other rules that show either assimilations or ‘Sandhi’ and these are:

(PR 8) \[
\left[ \begin{array}{l}
-\text{Consonantal} \\
+ \text{Vocalic} \\
+ \text{Back} \\
- \text{High} \\
- \text{Low}
\end{array} \right] \rightarrow [ + \text{High} ] .
\]

\begin{align*}
\text{a.} & \quad \left[ \begin{array}{l}
+ \text{Consonantal} \\
- \text{High}
\end{array} \right] \rightarrow \left[ \begin{array}{l}
\# \\
Y_{s}
\end{array} \right] \\
\{ & \quad \left[ (c) (c) [V \text{low}] \right] \\
\text{b.} & \quad \left[ + \text{Consonantal} \right] \rightarrow \left[ + \text{High} \right]
\end{align*}

(PR 9) \[
\left[ \begin{array}{l}
+ \text{Strident} \\
- \text{Distributed}
\end{array} \right] \rightarrow [\phi] / [ + \text{Segment} ] ( + ) \rightarrow [ + \text{Nasal} ]
\]
(PR 10) \[+ \text{Delayed release} \]
\[- \text{Aspirated} \]
\[- \text{Voice} \] → \[+ \text{Continuant} \]
\[+ \text{High} \] /
\[\{ + \text{Continuant} \]
\[+ \text{Back} \] \}
\[+ \text{Strident} \]
\[+ \text{Coronal} \] + \}

(Pr 11) \[- \text{Nasal} \]
\[+ \text{Coronal} \] →[φ]/→ + \[+ \text{Strident} \]
\[+ \text{High} \]
\[- \text{Voice} \]

(PR 12) SD : \[- \text{Continuant} \]
\[- \text{Nasal} \]
\[\tilde{\alpha} \text{ Voice} \]
SC : \[\tilde{\alpha} \text{ Voice} \]

(PR 8) is an assimilation rule that changes o to u, either before a high consonant like c, k or after these consonants and before a boundary, a Y₂ – construction or a non-low vowel in the next syllable. Thus, ṭrok, (ṛś)co become ṭruk and (ṛś)cu. However (ṛś)co remains as it is in coγa “15” and cobγa “18”, because the next syllable across the boundary has a low vowel. It would also avoid the generation of *ṭroγγa, because ‘r’ is not a high consonant. (PR 9) drops s of sγa in all sandhi forms, but does not operate when it occurs alone. (PR 10) generates (V+) KṣiK and ɣ'is+s̆u from (V+) KciK and ɣ'is+c̆u. But it does not affect ṭruKcu, because a morpheme boundary between ṭruk and cu is not allowed by (PR 10). t, s are dropped before c, s by (PR 11), e.g. ɣ'is + s̆u and g'at + cu become ɣ'+ s̆u and g'a + cu. (PR 12) is a common rule to be found in many languages and it makes the preceding stop voiced, if the one that follows is voiced, e.g. cig+ g'a “100” and trug+ g'a “400” from cĩK+ g'a and truk + g'a.

A PHONOLOGICAL ANALYSIS OF LADAKHI NUMERALS
3. 1. Interestingly, these rules, which generate number names for 'One' to 'Nine hundred and ninetynine' correctly, do not apply to numbers higher than that. Otherwise, one would come across ungrammatical forms like *thiKsiK, *cewaKsum and *tonKh’upcu. There seems to be no phonological constraint which can hinder the application of these rules. This is the reason why E-type constructions were separated from all other constructions in 1.2. It is guessed that like Y₂, and additive relation of special kind blocks the application of the Sandhi rules.

3. 2. Conclusively speaking, this paper has not only presented the phonological component of Ladakhi number grammar, it has also shown that there could be alternates of functional relations which are overtly manifested or which may block the application of certain phonological rules. It is also clear from this analysis that all number grammars do not need morpholexical substitution rules, as proposed by Brainerd (1967). Lastly, it has shown that the traces of historical developments could be found in such closed-corpus grammars. The system of initial consonantal clusters is the best proof of it.

NOTES

1 Sincere thanks are due to Mr. Nawang Tsering, who kindly served as an informant of Ladakhi.

2 Types of numerical expressions do not mean the labels like binary, quinary, decimal, duodecimal, vigesimal and sexagesimal systems. Such typologies would be established on the basis of the production-generative rules, the transformations and the phonological rules of different numerals.
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Source/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brainerd, B.</td>
<td>1967</td>
<td>&quot;A grammatical framework for the discussion of numerical expressions&quot; (Abstracts of papers for the 10th International Congress of Linguists, Bucharest).</td>
</tr>
<tr>
<td>Francke, Rev. H.</td>
<td>1900</td>
<td>&quot;Sketch grammar of Ladakhi&quot; (Journal of Asiatic Society of Bengal, Vol. 70, Pt. 1, extra 2)</td>
</tr>
</tbody>
</table>
DERIVATION IN LEPCHA

PRABHAKAR SINHA

UNIVERSITY OF BIHAR

1.0. Lepcha is a Tibeto-Burman Language spoken in Sikkim, Darjeeling district of West Bengal, part of Nepal and Bhutan. According to the census report of 1961, speakers of this language living in Sikkim and Darjeeling district number a little over 25,000.

1.1. Phonologically, a word in Lepcha is a minimal free form preceded and followed by potential pauses. Thus, by definition a word usually does not consist of more than one free form, though the number of bound forms may be more than one. In addition to these, there are some words which are not fully covered by this definition, as their ICs themselves are free forms. However, there are formal basis to consider them words rather than phrases, and as such are treated as compound-words.

When a word is stripped of all its inflectional affixes what remains is a stem (Hockett : 1958). Stems in Lepcha, as defined here are potentially free forms and can on the basis of their morphological behaviour be divided into three broad classes, namely, (a) noun (b) verb and (c) indeclinable. Nouns inflect for cases and are further divided into (a) substantives and (b) pronouns; the former inflect for a maximum of eight and a minimum of seven cases, whereas the latter do not inflect for more than three cases. The verbs of the language inflect for tense and occur with the negative marker which is both prefixed and suffixed to them. The indeclinables do not inflect. The following diagram presents a broad morphological classification of Lepcha stems:
### STEMS

<table>
<thead>
<tr>
<th>NOUN</th>
<th>VERB</th>
<th>INDECLINABLE</th>
</tr>
</thead>
</table>

#### SUBSTANTIVE  PRONOUN

1.2. In terms of internal structure, stems in Lepcha, are of the following types:

(i) Simple stems
These stems consist of a single morpheme. Examples:

| /γꞌn /  | 'and' |
| /liꞌ : / | 'house' |
| /kūŋ /  | 'tree' |

(ii) Derived stems of the following types:

(a) Secondary derivatives, in which one of the ICs is itself a stem, the other IC is a derivational affix.

| /pyꞌ : t / | 'Tibet' | /pyꞌ : t-mù / 'Tibetan' |
| /gyàp/   | 'to be' | /agyꞌap/ 'much' |
| /lèm/    | 'toward' | /alèm/ 'here ; towards this' |

(b) Stem-compounds, in which both ICs are themselves stems.

| /pò : / | 'bamboo' | /pò : gi : / 'bamboo-tap' |
| /gi : / | 'tap' |
| /moꞌ : n/ | 'medicine' | /moꞌ : nli : / 'hospital' |
| /li : / | 'house' |

(c) Primary derivative, in which none of the ICs is a stem.

| /sbà : / | 'where' |
| /smà : / | 'why' |
| /aré : / | 'this' |

1.3.0. Secondary derivatives: stems from all form classes participate in derivation of new stems. The morphological processes involved in derivations are prefixation, infixation and
suffixed. Details of derivation from each morphological class are as follows.

1.3.1. Derivations from substantives: Forms are derived from substantives by either prefixation or suffixation. The derived forms are also substantives.

(a) Forms derived by prefixation: / a- / is prefixed to a substantive to derive another substantive with identical meaning.

/ pó : t/  ‘fruit’  /apó : t/  ‘fruit’
/ khù :/  ‘bread’  /akhù :/  ‘bread’
/ bò : /  ‘father’  /abó : /  ‘father’
/ lỳ’t/  ‘heart’  /alỳ’t/  ‘heart’

Besides, /t- / is a morpheme devoting location above which is prefixed to /ure / ‘that one’ to derive /ture : / ‘that one’ above.

(b) Forms derived by suffixation: There are a few suffices which are added to substantives denoting animals to obtain their masculine or feminine forms. Without these suffixes the words are neutral with regard to the sex of the animals concerned. The following are used to obtain the masculine form:

/ -cð : / is suffixed to the name of small animals to obtain the masculine forms:

/ saár/  ‘goat’  /saárcð : /  ‘he-goat’
/ lò’k/  ‘sheep’  /lò’kcð : /  ‘ram’
/ shð : /  ‘monkey’  /shð : cð /  ‘monkey (M)
/ Skø : /  ‘deer’  /Skø : cð : /  ‘stag’
/ m’c : n/  ‘pig’  /m’c : nð : /  ‘pig’ (M)

/ -bð : / is also used to obtain the masculine forms of the names of the animals. However, they have a wider range of distribution and are used for both big and small animals:

/ m’hí’ /  ‘buffalo’  /m’hí’ bð : /  ‘buffalo(M)
/ tyànmù/  ‘elephant’  /tyànmù : bð : /  ‘elephant’
/ skø : /  ‘deer’  /skø : bð : /  ‘stag’
/ saár/  ‘goat’  /saárbð : /  ‘he-goat’

1. Stands for front back high vowel with lip-spreading.
/-l'øy/ is suffixed to the names of big animals only and expresses the same meaning:

/ ún/ 'horse' /ún'l'øy/ 'horse'
/ tyàŋmù/ 'elephant' /tyàŋmù'l'øy/ 'elephant'
/ tè :/ 'mule' /tè : l'øy/ 'mule'
/ k'øyos'əŋì :/ 'lion' /k'øyos'əŋì : l'øy/ 'lion'

The suffix /-gù :/ is added to the names of animals which have given birth to their young ones. It expresses femininity and may be added to the names of big as well as small animals:

/ scàk / 'leopard' /scàkgù :/ 'leopard'
/ ún/ 'horse' /úngù :/ 'mare'
/ alyò :/ 'cat' /alyò : gù :/ 'cat'
/ lò'k / 'sheep' /lò'kgù :/ 'sheep'
/ saár/ 'goat' /saárgù :/ 'she-goat'

/-m'ɔ : t/ is used with the names of animals, the word /hì'k/ 'hen' and also in the context of human beings. It, too, yields the feminine counterpart of the word to which it is suffixed.

/ scàk/ 'leopard' /scàkm'ɔ :t/ 'leopard'
/ kàžò :/ 'dog' /kàžò : mɔ :t/ 'bitch'
/ skɔ :/ 'deer' /skɔ : m'ɔ :t/ 'deer'
/ saár/ 'goat' /saárm'ɔ : t/ 'goat'

The suffix also occurs with / təyɔ :/ 'woman' and / hi'k/ 'hen' yielding /təyɔ : m'ɔ : t/ 'woman' and /hikm'ɔ : t/ 'hen' respectively.

/-'mu'/ is suffixed to names of places or words denoting a location to derive words meaning the inhabitants of the places concerned.

/ pə :t/ 'Tibet' /pə : tm'u/ 'a Tibetan'
/ gyà : gár/ 'India' /gyà:gàrmù/ 'an Indian'
/ k yö / 'village' /ko'ŋmù/ 'villager'
/ phù :/ 'corner' /phù : mù/ 'one who lives in a corner away from the market.'
/-m'it/ is the feminine counterpart of the suffix /-mù/. However, it is also suffixed to some other substantive to obtain their feminine counterparts.

/-m'it/ occurring as the feminine counterpart of /-mù/:

/ pγ’ : tmu/ ‘a Tibetan’ /pγ’ : tmit/ ‘a Tibetan woman’

/ tì : η mù/ ‘one lives in’ /tì : ηmit/ ‘a woman from the plains’

/-m'it/ occurring with some other substantives:

/ rɔ : η/ ‘a Lepcha’ /rɔ : ηmit/ ‘a Lepcha woman’

/ rγ’m/ ‘a god’ /rγ’m mit/ ‘a goddess’

1.3.2. Derivations from verbs: substantives, indeclinables and other verbs are derived from verb-stems by prefixation, infixation and suffixation.

(a) Forms derived by prefixation. /a’/- is prefixed a number of verb-stems to derive substantives. Many of the stems ending in a vowel take a consonant at the end while occurring after this prefix. Long vowels in these stems become short.

/ lı :/ ‘to speak’ /al’in/ ‘speech’

/ it’/ ‘to create’ /ai’t/ ‘creation’

/ màk/ ‘to die’ /amàk/ ‘death’

/ dı : / ‘to come’ /ad’ıt/ ‘coming’

A number of indeclinables are derived from verbs by prefixing /a8/- to verb-stems. The vowel-ending stems which take a consonant at the end occur in their full forms after /a8/-

/ ryù :/ ‘to be good’ /aryûm/ ‘good’

/ gyàp/ ‘to be much’ /agyàp/ ‘much’

/ tì :/ ‘to be good’ /at’ìm/ ‘good’

/ kr’ı :/ ‘to be bitter, /akr’ım/ ‘bitter’

/ hrù :/ ‘to be hot’ /ahrùn/ ‘hot’

/KA/- is prefixed to a verb to derive an indeclinable.

/ Kɔ’ : m/ ‘to clot’ /KAKɔ’ : m/ ‘clotted’

/ kyàk/ ‘to be wet’ /Kakyàk/ ‘wet’
(b) Forms derived by infixation: The causal of some verbs are derived by infixing /-y/ to the verb-stem. When infixed to a stem, it occupies the position immediately before the first vowel in it.

/màk/ ‘to die’ /myàk/ ‘to kill’

/lây/ : m/ ‘to fly’ /lyy/ : m/ ‘to make fly’

/idà/ ‘to lie’ /dyà :l/ ‘to put to sleep’

/bù :l/ ‘to explode’ /byù :l/ ‘to explode’ (Tr)

(Int)

In some cases, the causal is formed by the replacement of the vowel in the verb-stem. In such cases, the vowel is replaced by /e/ and /-t/ is added to the stem if it ends in a vowel.

/glù :l/ ‘to fall’ /glēt/ ‘to drop’

/b’y :l/ ‘to carry’ /b’ēt/ ‘to load’

/tyū :l/ ‘to fall’ /tyēt/ ‘to make fall’

(c) Derivations by suffixation: The following are derived by suffixation:

/-₁bù/ is suffixed to verb stems to derive substantives (meaning the door of the action concerned). When it occurs immediately after a stem ending in a vowel, the verbs which take an increment occur in their full forms. It may be preceded by a tense-suffix.

/thēn/ ‘to laugh’ /thēnbù/ ‘one who laugh’

/ù :l/ ‘to fry’ /ùnbù/ ‘one who fries’

/ŋū :l/ ‘to cook’ /ŋūdbù/ ‘one who cooks’

/màk/ ‘to die’ /màkšibù/ ‘one who will die’

/Zò :l/ ‘to eat’ /ɔmbù/ ‘one who eats’

/-₂bu/ is added to verb-stems to obtain the substantives of the following types:

/Zò :l/ ‘to eat’ /Zò : bù/ ‘one that may be eaten’

/sɔ : t/ ‘to kill’ /sɔ : t bù/ ‘one who may be killed’

/b’i :l/ ‘to give’ /b’i : bù/ ‘one that is good to be given’
/-thù/ or /lhùm/ is suffixed to a verb-stem to derive a substantive. However, they are always followed by /-bù/.

/p'i:/ ‘to write’ /p'i: thùbù/ ‘that which is written’
/zò:/ ‘to eat’ /zò: thùbù/ ‘that which is eaten’
/nêt/ ‘to show’ /nêtthùbù/ ‘that which is shown’

Substantives derived by using /-thùm/:
/p'i:/ ‘to write’ /pl: thùmbù/ ‘that which is written’
/zò:/ ‘to eat’ /zò: thùmbù/ ‘that which is eaten’

Gerunds are derived from verbs by suffixing /-šù/.
/fà:/ ‘to swim’ /fà: šù/ ‘swimming’
/zò:/ ‘to eat’ /zò: šù/ ‘eating’
/dγ̃η/ ‘to run’ /d̃γ̃šù/ ‘running’

Many indeclinables are derived by adding some suffixes to verb-stems. The following are derived:
/-lə/ is suffixed to verb-stems to derive indeclinables.
/zò:/ ‘to eat’ /zò: lə/ ‘manner of eating’
/η̃ñ/ ‘to sit’ /η̃nlə/ ‘manner of sitting’
/mat̃/ ‘to do’ /matlə/ ‘manner of doing’

Indeclinables are also derived from verbs by the suffixation of /-lə~ -lə/.
/ryù:/ ‘to be good’ /ryù: lə~ lə/ ‘well’
/gl’i/ ‘to divide’ /gl’i: lə~ lə/ ‘separately’
/ph’i:/ ‘to be late’ /ph’i: lə~ lə/ ‘late’

1.3.3. Forms derived from pronouns: Indeclinables may be derived by suffixing /-lə~ -lə/ to interrogative pronouns /šù:/ ‘what’ and ‘tù’:/ ‘who’

/šû:/ ‘anybody’
/šû: lə/ ‘anybody’
/tù:/ ‘anybody’
/tù: lə/ ‘anybody’
/sbà :/ ‘where’ /sbà : la/ ‘wherever’
/sbà : la/ ‘wherever’

1.3.4. Forms derived from indeclinables: Pronouns and indeclinables are derived from indeclinables by prefixation and suffixation.

(a) /a-/ , the morpheme expressing proximity is prefixed to a number of indeclinables to derive other indeclinables and pronoun indeclinables:

/lèm/ ‘towards’ /alèm/ ‘here’

/bɔn/ ‘side’ /abɔn/ ‘this side’
/lɔn/ /alɔn/ ‘after this’
/lɔm/ /alɔm/ ‘this way’

Pronoun:
/ty’et/ ‘till’ /aty’et/ ‘now’
/t’et/ /at’et/ ‘this much’

/u-/ , the morpheme expressing remoteness is prefixed to indeclinables to obtain the following:

Indeclinables:
/lèm/ ‘towards’ /ulèm/ ‘there’ towards that
/bɔn/ ‘side’ /ubɔn/ ‘that side’
/lɔn/ /ulɔn/ ‘that way’

Pronoun:
/ty’et/ ‘till’ /uty’et/ ‘till then’
/t’et/ /ut’et/ ‘that much’

Indeclinables and pronouns are also formed by prefixing /pi-/ or /pe-/ , morphemes of remoteness to many indeclinables.

Indeclinables:
/pilèm/ ‘there’
/pibɔm/ ‘that side’
/pipn/ ‘there’ (far)

Pronoun:
/pit’et/ ‘that much’

forms derived by prefixing /pe-/
Indeclinables:
/pelêm/ 'there'
/peb'on/ 'that side'

Pronoun:
/pet'et/ 'that much'

The interrogative prefix /s-/ is added to indeclinables to derive indeclinables and pronouns.

Indeclinables:
/Sîêm/ 'where'
/Sb'on/ 'which side'
/slôm/ 'how'

Pronoun:
/st'et/ 'how much'

(b) Forms derived by suffixation:
Indeclinables are derived from other indeclinables by suffixation.

/-la/ is suffixed to an indeclinable to derive the following:
/ sdɔː / 'slow' /sdɔː : la/ 'slowly'
/ ty' : k/ 'immediate' /ty' : kla/ 'immediately'

/-lɔ/ and /-la/ are suffixed to obtain the indeclinable of the following type:
/ sthâ : / 'when' /sthâ : la 'whenever'
/sthâ : lɔ/ 'whenever'

/-ba/, a morpheme denoting time, is suffixed to indeclinables to obtain the following indeclinables:
/ yà : / 'long ago' /yà : ba/ 'long ago'
/kà:t/ 'one' /kà:ta/ 'once'

1.3.5. Stem-compounds: The ICs of stem-compounds are themselves stems. Substantives, verbs and indeclinables participate in such constructions. The following combinations are found in the language:

(a) A substantive followed by another substantive.
/ avɔ : / 'husband' /avɔ : yɔ́ / 'husband-wife'
/yɔ́ : / 'wife'
/mù : / 'mother' /mù : bò : / 'parents'
/ bò:/ ‘father’
/ p'yː t/ ‘Tibet’
/ lyàη/ /pr' : tlyaη/ ‘Tibet’
/ ž'et/ ‘gold’ /ž'ēpar'it/ ‘golden axe’
/ pari't/ ‘axe’
/ pò : / ‘bamboo’ /pò : gi :/ ‘bamboo-tap’
/ gi : / ‘top’
/ mo' : n/ ‘medicine’ /mo' : nli'/ ‘hospital’
/ li' / ‘house’
/ fàt/ ‘earth’ /fàtfiyò'k/ ‘pitcher’
/ fìtyò'k/ ‘pot’

(b) A substantive followed by a verb.
/ co'η/ ‘arrow’ /co'ηp/ ‘archery’
/ ò'p/ ‘to shoot’
/ mi'k/ ‘eye’ /mi'kšap/ ‘blind’
/ šàp/ ‘to be blind’

(c) A substantive followed by an indeclinable.
/ úη/ ‘river’ /úηp'in/ ‘that-side of the river’
/ p'in/ ‘that side’

(d) An indeclinable followed by another indeclinable.
/ hàn/ ‘before’ /hànlon/ ‘not simultaneously’

/lôn/ ‘after’

1.40. Primary Derivatives: The stems of this group consist of ICs which are bound forms. The derived forms of this group include substantives, pronouns, indeclinables and verbs. The details are as follows:

(a) Many words belonging to various morphological classes are derived by prefixing /a-, the morpheme denoting proximity, to other bound forms.

Pronouns:

The following pronouns are derived by prefixing /a-/ to morphemes denoting location.
/ a-bā :/  ‘here’
/ a-bi :/  ‘here’

Substantive :
/ a-ré :/  ‘this’

Indeclinables :
/ a-lōl/  ‘this side’
/ a-thàŋ/  ‘this above’
/ a-lō /  ‘like this’

(b) Substantives, pronouns and indeclinables are formed by prefixing /u-/, a morpheme denoting remoteness, to many other bound forms :
/ u-ré :/  ‘that’

Pronouns :
/ u-bā :/  ‘there’
/ u-bi :/  ‘there’
/ u-f’i :/  ‘there’

Indeclinables :
/ u-lōl/  ‘that side’
/ u-thàŋ/  ‘that above’
/ u-lō /  ‘like that’

(c) /ɔ-/, a morpheme denoting remoteness, is prefixed to yield /oré :/ ‘that’

(d) / pi- / is a prefix denoting remoteness which is used to derive substantives pronouns and indeclinables.

Substantives :
/ pi-ré :/  ‘that’

Pronouns :
/ pi-bā :/  ‘there’
/ pi-fì :/  ‘there’

Indeclinable :
/ pi-lō :/  ‘like that’
/ pi-lōl /  ‘that side’
(e) The prefix /pe-/ has the same meaning and range of occurrence as /pi-/ . In addition, a form /pe-pe/ is found to occur whose counterpart /pipi/ is not found.

(f) /mi-/ is a morpheme denoting a location situated below:

/ mi-bà :/  
'there below'

(g) /s- / is an interrogative morpheme used to form pronouns, indeclinables and a substantive.

Pronouns:

/ sbà :/  
'where'

/ sbì :/  
'where'

Indeclinables:

/ smà :/  
'why'

/ sthà :/  
'when'

Substantive:

/ sré :/  
'which'

-la/ is suffixed to the following to derive indeclinables

/ ŋ-en-la/  
'but; further'

/ n'γ : la/  
'always'

REFERENCES

Benedict, P. K.  
'Secondary Inf ixation in Lepcha'. Studies in Linguistics. i., No. 19, 1943.

Bloomfield, L.  

Campbell, A.  
'A Note on Lepcha of Sikkim' Journal of Asiatic Society of Bengal. i. 9, 1940.

Grierson, G. A.  
'Linguistic Survey of India'

Grunwedel, A.  
'A Rong-English Dictionary' TP 7, 1896.

Hockett, C. F.  
Lyons, John  

Mainwaring, G. B.  
*Dictionary of Lepcha, A Grammar of Lepcha Language*.

Shafer, R.  

Sinha, Prabhakar  

The field-work for the present study was done in the Kalimpong area of Darjeeling district of West Bengal.
THREE BENGALI COMPOUND MAKERS

W. L. SMITH

UNIVERSITY OF STOCKHOLM

According to S. K. Chatterji, the verb āch-(to be) as a compound maker indicates progressive or continuous action. Dušan Zbavitel equates it with rahā / raoyā and thākā (to remain). "In modern texts", he writes, "all three seem to be used with any verb indiscriminately....All of them express the continuity of the verbal action and form compounds with both transitive and intransitive verbs." In the face of this one asks oneself why Bengali should possess three distinct verbs with identical functions. There are, moreover, a number of other verbs—such as jāoyā (to go), āsā (to come) and calā (to go)—which can also express continuity. To obtain a more precise notion of the function and distribution of these three compound makers, ten 10,000 word sections, drawn at random from ten different modern Bengali fictional prose texts were examined. These texts represent both sādhu and calit bhāṣā and are written in a wide range of different styles. Each directing verb occurring with the three compound makers was recorded and the following results were obtained.

<table>
<thead>
<tr>
<th>directing verb</th>
<th>āch-</th>
<th>rahā</th>
<th>thākā</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>basā (to sit)</td>
<td>30</td>
<td>14</td>
<td>25</td>
<td>69</td>
</tr>
<tr>
<td>haoyā (to be)</td>
<td>9</td>
<td>12</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>dārāno (to stand)</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>caha (to look)</td>
<td>3</td>
<td>16</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>tākāno (to look)</td>
<td>3</td>
<td>13</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>cup karā (to be quiet)</td>
<td>1</td>
<td>12</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>paraph (to fall)</td>
<td>11</td>
<td>2</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>bācā (to live)</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>lukāno (to hide)</td>
<td>7</td>
<td>-</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>other</td>
<td>4</td>
<td>7</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>88</td>
<td>112</td>
<td>283</td>
</tr>
</tbody>
</table>
Only three verbs in the "other" category occurred as many as three times: ghumāno (to sleep), jāgā (to awake) and soyā (to lie down). While compound makers cannot be indiscriminately paired with any directing verb, the above data indicates that the directing verbs these three compound makers combine with are apparently not very numerous. They have one obvious feature in common: they are stative. Bengali statives are ambiguous; when unqualified by auxiliaries they can describe either an action or process, or the state which results from that action. Basā corresponds to both "to seat oneself" and "to be sitting" i.e. "to be in the state of having seated oneself", dārāno to "to stand (up)" and "to be standing", parā "to fall" and "to be lying" and hāoyyā "to became" and "to be".

Statives are an inheritance from Old and Middle Indo-Aryan. In Pali statives reveal themselves by their distinctive semantic behavior; unlike verbs of action their past participles and absolutes do not describe an action or process concluded prior to that of the main verb but duration, i.e. simultaneity rather than anteriority. This can be seen in the following example with the stative nipanno < ni-pad "to lie down".

\[
\text{tasmiṃ samaye corarājā alaṃkatasirīgabhhe sīrasyanapīṭhe nipanno niddāyati. Jataka 1/119/31}
\]

At this moment the robber king is sleeping, lying in his richly decked bedroom.

Stative verbs in Pali include ōthā (to stand), ni-sid (to sit), ni-pad (to lie down), bhū (to become), and su (to sleep). All of these have lexical equivalents among Bengali statives. As in Pali perfective participles of statives express duration in Bengali and Hindi. Thus in Hindi we have forms like baithā hūṁ, "I am sitting". The geminated perfective participles of Bengali statives describe duration (as baite baite "while sitting") rather than repeatedness (as tunā tunā "having listened again and again") as is the usual case with action verbs.
The use of these three compound makers is certainly an old one. In the Śrīkṛṣṇakīrttana⁸, the oldest Middle Bengalī text, we find thākilā kānhāni basi (p. 106), “Krishna remained sitting”, basi thāke kadamari tale (p. 44), “he remains sitting at the foot of the kadam tree” and sutīṁ āchilom āmhi (p. 125), “I was lying down”. Perhaps the chief difference between the employment of these verbs in Middle and Modern Bengalī is that in the latter their tense range is far more restricted. In the stilted sāduh bhāṣā of the last century some writers preferred equivalent non-finite tatsama forms for stative compounds. In the Mahārāṣṭra Jīban-Prabhāt⁴, for example, the author uses lukkāyita rahila “remained hidden”, daṇḍāyamāṇ rahil, “remained standing”, sāyita rahiyāchen, “has remained lying” and upabeśan kariyā āchen, “is sitting”.

By combining the perfective participles of these verbs with āch- their stative aspect is marked and ambiguity is avoided, as base āche, “is sitting” as opposed to the simple base, “is sitting/is sitting down”. As these verbs describe a certain state, one that either does or does not exist, the auxiliary āch- cannot be considered as expressing progressivity or continuity, for there is no motion towards completion; the directing verbs are static, not dynamic.

The same directing verbs can combine with other auxiliaries, paṭā (to fall) and oṭhā (to rise), to mark their non-stative forms. Thus the following set of contrasts can be produced.

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Meaning</th>
<th>Verbs</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>base āche</td>
<td>“is sitting”</td>
<td>base pāre</td>
<td>“sits down”</td>
</tr>
<tr>
<td>ghumiye āche</td>
<td>“is sleeping”</td>
<td>ghumiye pāre</td>
<td>“falls asleep”</td>
</tr>
<tr>
<td>āye āche</td>
<td>“is lying”</td>
<td>āye pāre</td>
<td>“lies down”</td>
</tr>
<tr>
<td>jege āche</td>
<td>“is awake”</td>
<td>jege oṭhe</td>
<td>“wakes up”</td>
</tr>
<tr>
<td>haye āche</td>
<td>“is”</td>
<td>haye oṭhe</td>
<td>“becomes”</td>
</tr>
</tbody>
</table>

Āch- then serves as a device for indicating the stative aspect. A defective verb, it is only found in the simple present and simple past tenses.⁸ The lexical equivalents rahā and thākā on the other hand, indicate the prolonged existence of the state. The following examples illustrate this use.
Jeman bhābe base chila base raila. AV 25
He remained sitting the way he was.
Tomrā cupcāp base thāka gārīte! CM 56
You stay sitting quietly in the cart!

The fact that these two verbs are employed for the same purpose is understandable in view of rahā's tense limitations. While not formally a defective verb, as a compound maker it is functionally defective for it seems to occur only in the simple past and present perfect tenses. In the above samples rahā was found 15 times in the present perfect tense and in all other cases in the simple past. No example of thākā was found in either tense. It occurred 44 times in the simple present and this was followed in frequency by the future, imperative and past habitual. Most commonly, however, it was non-finite. Thus in terms of the verbal forms these two compound makers assume, they are in complementary distribution. While other compound makers can also occur non-finitely, thākā seems especially prone to be so employed. It appears regularly in almost all non-finite verbal forms. This versatility can be seen in the following examples.

perfective participle
...kichukṣaṇ māṭir dike cup kariyā cāhiyā thākiyā...
balila...GD 20
After looking at the ground silently awhile...he said...

imperfective participle
...tākiye thākte thākte...āmi sab dekhte pelum. CM 72
As I looked...I got to see everything

infinitive
...base thākte pārba nā. PP 237
I will not be able to stay sitting.

present verbal noun
...bēce thākāta asahya haye uṭhechila or kāche. AV 110
It had become unbearable for him to remain alive.

future verbal noun
... jā lukiye thākbāri yogya. GB 115
That which deserves to remain hidden.
conditional participle
Lakṣmi rāstār nardamāy pārē thākleo...KDK 206
Even if Lakṣmi lies in the gutter of the road...

Unlike āch- and rahā, thākā also regularly forms compounds with action verbs. S. K. Chatterji includes two of these compounds in the Bengali tense system: in the future it forms the future perfect tense (as cale thākba, “I may or might have walked”) and in the habitual, the habitual or conditional perfect tense (as cale thāktām, “I would have walked, if I had walked”). Most commonly, however, thākā is in the simple present tense when compounded with such verbs. Very often such compounds with thākā in the present are accompanied by adverbs such as anek samay (often), sarbadā, barābar (always), sabsamay (all the time) etc. which indicate that the frequentative or habitual aspect is expressed. Examples make it clear that this is the case.

...ţrene caţile ebaṁ cenāsonā lok kāche nā thākile āmi
galā chāriyā gān gāhiyā thāki. BP 169
When I get on a train and there are no known people around, I sing aloud.
(i.e. this is something I habitually do)

...māţrstaneyer saṅge saṅge je sahay bhāṣājānān āmrā
paţiā thāki tāhāi jatheśṭa baliyā bibecita haiyā
thāke. Chat.10

That natural knowledge of language which we get along with our mother’s milk is deemed sufficient.
(i.e. this is normally, generally the case)
Śiber gājaner madhye Śib-samparkita kataguli laukik
charā ābrtī karā haiyā thāke. Bhat.11

During Śiva’s gājana festival several popular verses connected with Śiva are recited.
(i.e. this is a traditional practice)

In a few other contexts thākā neither forms statives nor describes a habitual action. Most commonly in this case it is found in the subordinate clause of a conditional sentence.

THREE BENGALI COMPOUND MAKERS

15 (a)
The following examples can be considered.

bau yadi māke apamān kare thāke, tāro śāsti karā darkār. PP 238.

If (my) wife insults mother, she too has to be punished.

...lakṣmīdir saṅge yadi galpa karei thāki, tāte ki doṣ hayeche ? KDK 212

...what harm is it, if I merely chat with Lakṣmīdi ?

Neither apamān karā nor galpa karā are statives and the contexts provide no pretext for thinking the compounds describe a habitual action. Another though less frequent case, in the use of thākā compounds in the “optative”, i. e. when accompanied by jena.¹²

Īśvarer kache prārthanā karchi, Rāmkāli kabarejer bicāre jena bhulai haye thāke. PP 59

I pray to the Lord that there be a mistake in Dr. Ramkali’s judgment.

(One notices the difference in structure here, not the usual stative one of adj. + haye + auxiliary but noun + haye + auxiliary.)

In both cases the verbal element describe a potential, hypothetical or optative situation. Thākā seems to have a tendency to be employed in such contexts, this can be seen in the habitual and future perfect “tenses”. Perhaps the influence of the past habitual tense in-ś- which also serves as a conditional is a factor too.
NOTES


3. These texts are the following:
   Banaphul, Banaphuler Galpa-Saṅgraha, I, Cal. 1955, (ab. BP).
   Bibhūtbhūṣan Bandyopādhyāya, Aparājita 9th ed., Cal., 1374 BS.
   Tārāśakar Bandyopādhyāya, Gaṇadēvata, rev. ed., Cal., 1374 BS.
   Śaracandra Caṭṭopādhyāya, Grhadāha in Śarat-Sāhitya-Saṅgraha, Vol. 7, Cal., 1375 BS. (ab. GD).
   Āśāpūrṇa Devī, Pratham Pratiśruti, Cal., 1372 BS. (ab. PP).
   Nārāyana Gangopādhyāya, Ācārmatir Abhīyān, Cal., 1972. (ab. CM).
   Rabindranāth Thākur, Ghare Bōire, Cal., 1969, (ab. GB).

   These texts have been used to compile a data base sufficient to give a general idea of the type of directing verb which occurs with the compound makers under consideration. The conclusions in this paper have not, however, merely been based on these textual selections or on these texts alone.

4. This material is from Hans Handriksen, Syntax of the Infinite Verb-Forms of Pali, Copenhagen, 1944, p. 13.

5. Hence Zbavitel in op. cit. p. 70 wonders why the geminated imperfective participles of verbs of such a high frequency as basā and sōyā are not found (they do occur but are very rare), while their geminated perfective participles are quite common and, moreover, describe simultaneity. The same is the case for other common statives.

6. Śṛtṛśāṅkṛttana, ed., Basantaraṇjan Rāy, 9th ed., Calcutta, 1380 BS.


9. Ibid., p. 130.


12. In *The Origin and Development of the Bengali Language* § 645, Chatterji notes that in Middle Bengali the optative is expressed by the indicative with the conjunction *jena* (so that) which has no fixed place in the sentence. The same is the case in Modern Bengali, *jena* being used to introduce a clause in the simple present or future. In some cases, however, *jena* seems to mark the “optative” rather than function as a conjunction, as *ār kakṣaṇo bāṛ jena dhukite nā hay*, “May (you) never enter (this) house again!”. One notes that when such clauses are negated, *nā* precedes rather than follows the verb. The same is the case with conditionals using the present tense, as *tumi yadi sekhane nā jao*, “if you don’t go there”. This preverbal position of *nā* seems to indicate the “imreal” use of the simple present tense. In both these sentence types *thaka* compounds occur.
THE LINGUA-AESTHETIC APPROACH TO ART SYMBOL

R. N. SRIVASTAVA

UNIVERSITY OF DELHI

The lingua-aesthetic approach (to Art Symbol) attempts to solve philosophical problems (related to aesthetics) by analyzing the meanings of words and by scrutinizing logical relations between the words we employ to characterize the world (of arts). This paper intends to defend the relevance of the lingua-aesthetic approach with a view to stressing the fact that linguistic theory not only incorporates problems of philosophy related to discursive thinking but is even relevant for our understanding of the true nature of creative power of human mind as reflected in Art Symbols (i.e. expressive forms). It could also be emphasized that contemporary philosophy has its inherent limitations to resolve some very crucial philosophical problems related to the area of creative thinking.

Linguist Philosophers (Katz and Fodor 1962), Katz (1962; 1967) have shown with reason why philosophy of Logical Empiricism (positivism) and Ordinary Language Philosophy—the two major approaches in contemporary philosophy—are inherently incapable of resolving some crucial problems. The reasons for their improvised theories are quite obvious. Logical empiricism provides a highly arbitrary theory because it bases its findings on the data of a closed-set of self-seeking artificial languages. Contrary to this, Ordinary Language Philosophy is concerned with the open set of data, natural to human languages but without providing any cogent theoretical perspective. 'Of course both approaches prided themselves on their shortcomings, turning their vices into alleged virtues. Logical empiricism prided itself on its exclusive concern with artificial languages, claiming that natural languages are too irregular, amorphous and vague to provide a basis for the
solution to philosophical problems. Ordinary language philosophy prided itself on its avoidance of theory construction, claiming that theories cause the very philosophical perplexities that philosophy seeks to resolve by examination of the use of particular linguistic constructions.' (Katz 1967).

The claim has been made by linguist philosophers that one can overcome the inherent limitations of contemporary philosophy provided one starts with linguistic theory as a basis for the treatment of philosophical problems. To them, linguistic theory expresses the universals of language and any description of a specific language is an instance which merely exemplifies the invariants. It is also asserted that there are a priori principles that serve as the prerequisites for the acquisition of knowledge of language and further, inclinations, dispositions or natural potentialities for human being are innate. The doctrine of innate ideas and language universals presuppose the abstract nature of deep structure of any given sentence and creative aspect of language use. It also makes a distinction between competence (what one speaker of a language knows implicitly) and performance (what the speaker does). The linguistic competence can best be expressed as a system of rules that relate sound and sense. Following Chomsky, it is this theoretical perspective which linguist philosophers have been professing, stating thereby that linguistic theory is relevant to the solution of philosophical problems related to the underlying conceptual structure—linguistic or non-linguistic. I will like to argue below that however powerful this linguistic theory of universals based on innate ideal and creative use of linguistic devices might have been, it is not powerful enough to resolve the problems of Art Symbol. But before we take up this issue, let us examine the nature of Art Symbol and some of the problems related to it.

The structure of language built in a system of symbol expresses the world of thought and cognition. Linguistic symbol in its most usual sense stands to signify something else by way of conventions of social use. But apart from this
function of expressing concepts *about* things and facts lying outside itself or providing form and relationship between such concepts in discursive orientation, there is yet another vital role which symbols play, viz. the articulation of ideas and feelings whereby one formulates experience as something imaginable or 'the appearance of feeling, of subjective experience, the character of so-called *inner life*’ (Langer : 133). While discursive language employs linguistic symbols of the first order, it is the later role of symbols which is potentially capable of creating Art Symbol.

An Art Symbol does not designate but simply articulates the emotive experience; it does not signify or refer to something outside itself but expresses the slice of mental life in such a visible form that it becomes a real organic unit for direct perception or intuition. Like other linguistic symbols of common use it does not offer a discursive thought processed through the act of abstraction. In fact, it is the living form objectifying the subjective life, it is an apparition created out of inward experience, an objective symbol expressing the subjective life.

It is in this context that in her stimulating paper, “The Art Symbols and Symbols in Art”, Susanne K. Langer brings out the major distinctions underlying the nature of two types of symbols. Symbols in Art are discursive in nature and refer to a concept they are constituent parts of—Art Symbol which is the work of art as a composite whole. Though Art Symbol is constituted of symbols in art, it is not the sum total of its parts. The point which she emphasizes is that “the difference between the Art Symbol and the symbol used in art is a difference not only of function but of kind. Symbols occurring in art are symbols in the usual sense. They have meanings. The art symbol, on the other hand, *is* the expressive form. It is not a symbol in the full familiar sense, for it does not convey something beyond itself. Therefore, it cannot strictly be said to have meaning; what it does have is *import.*” (p. 138-39) Langer’s distinction between Art Symbol and symbol in Art as a distinction in kind rather than of mere function is a crucial
one. However, her philosophical perspective begs a very vital line of thinking, viz. level of organization.

One cannot deny that the function of Art Symbol in literature is grounded in language matrix. As literary functions are grounded in language matrix there does not seem to be any need to draw a dividing line between literary and linguistic functions. What is really required at the moment is to redefine the scope and limits of linguistic theory and its field of operation. Linguistics investigates the resources of verbal codes and potentialities of realization. As the aesthetic import in literature is realized in and through the language, the scope of linguistics may be enlarged to cover the verbal devices employed by the creative mind to convey the literary message. A forceful claim has been made by Roman Jakobson that “since linguistics is the global science of verbal structure, poetics may be regarded as an integral part of linguistics”. In this sense, Stylistics, the study of literary message through the analysis of verbal devices, can be considered as a branch of linguistics.

Once we begin to look at literature as a verbal art, not only sentences or symbols as constituent parts of Art Symbol but even the Art Symbol itself becomes verbal in qualification. The question is of hierarchical set up or organizational orientation of the units of interlocking levels of realization. For example, in a sentence-based linguistic theory, a sentence is considered as a largest natural unit because it is a constitute which is not a constituent. However, there are many building blocks used for the sentence construction—morpheme (word), phrase, clause etc. All these elements are units of distinct levels subservient to the level of sentence, and the construction principle is such that a unit of one level enters as a constituent element of unit of immediately higher level of organization. As levels are invariably qualitatively distinct and different in kind from any other level, it is obvious that a constitute in a kind is never the result of compounding qualities of contributing constitutes. Another relevant point to be stressed at this