ON */r/ IN T'IN

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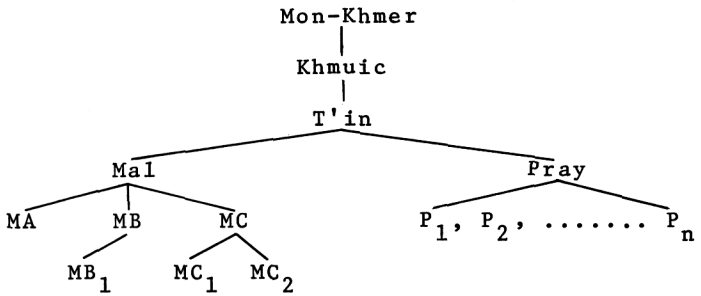
Introduction

The location of T'in and her dialects within t
total picture of Mon-Khmer may be displayed by mean
of the following tree:



T'in was classified as a Khmuic language by Thomas
and Headley (1970). As I pointed out in my dissert
tion (Filbeck 1971), there is no T'in language, on
dialects. The term T'in may be considered an ethno
graphic construct for the people in Thailand and La
who speak a set of related dialects, but synchron-
ically the term has no reality either linguisticall
or culturally. There are two main branches in T'in
the Mal and the Pray, but neither of these can be
considered homogeneous dialects. Mal is divided in
three dialects having sharp boundaries clearly
definable by statable rules of phonological change.
Even the Mal subsets (MB_1, MC_1, MC_2) are sharply
differentiated, and in a way directly related to th

cussion of this paper for the latter two sub-
lects. On the other hand, Pray is still a language
h a great deal of 'local differentiation' (Swadesh
2). Dialectal boundaries are not sharp; there is
y a potpourri of individual changes meandering
ough all Pray villages resulting in no accumula-
e, dialectal effect among the speakers.

The introduction of the above tree schema of
n dialects is important in one major respect: it
vides a concise picture of what we are up against
tracing the Proto-T'in phoneme */r/ throughout the
lects of T'in. The behavior of this proto-phoneme
not confined to dialectal boundaries. Yet a pic-
e of the dialects of T'in offers a frame of refer-
e whereby a discussion of this behavior can take
ce. Therefore, my purpose in this paper is to
e the current, varied situation of Proto-T'in */r/
the extant dialects and to present a description
ch will account for the changes from */r/ in all
wn dialects, but without regard for the boundaries
these dialects.

Data

The data of Proto-T'in */r/ and its reflexes cut
oss and through all dialects of T'in. That is,
re are dialects in Mal and Pray which contain an
phoneme, and identical developments from */r/ are
ervable in both Mal and Pray dialects. The loca-
ns of these isoglosses, whether /r/ or any devel-
ent from */r/, are often noncontiguous as one
vels from east to west or from north to south. In
lity, villages located in proximity to each other
l more than likely display a mosaic of heteroge-
us retentions of and developments from Proto-T'in
/. For example, just three hours' walk from the

T'in village where I lived for a few years, there were two other T'in villages differing from each other in respect to */r/ as well as differing from the village where I lived in still a third way. Jus beyond these two villages were other villages addin their own distinctive patterns to the mosaic. Even where there exists a clustering of villages repre- senting a retention or a particular reflex of */r/, there have been migrations of villages representing different aspect of the problem into the area. Som T'in villages are even a mixture of /r/ retention a /r/ reflex.

Proto-T'in */r/ can in some cases be used as t sole criterion in differentiating dialects. Such i the case for differentiating Mal C_1 from Mal C_2, bu this represents only a trivial dialectal variation within the total picture. For the most part dialec differentiation in T'in must be an accumulation of different changes of which the behavior of Proto-T' */r/ is only one. I emphasize this at this point* because the following discussion may at times give the impression that the development of Proto-T'in * is the only criterion for dialect differentiation. This is far from true. The purpose of this section is to locate isoglossic retentions and reflexes of Proto-T'in */r/ in T'in. I do not mean the geograp ical location of these isoglosses, for the shifting fortunes of the T'in people under the dark cloud of the Indo-China War makes this impractical and impos sible. I mean the dialectal location of */r/ and i reflexes within the schema of T'in dialects present in the introduction.

In other words, I will use the proto-phoneme * and its reflexes as typological features to classif

T'in dialects into four groups. However, in this
se, the classification is only arbitrary, perhaps
austive, but certainly not, as Greenberg (1963:66)
ld say, unique; a few dialects may be classified
nore than one typological classification. This
l become clear in the discussion.

/r/ Dialects

The first typological group consists of those
lects where the proto-phoneme */r/ has been
ained throughout. In this type I mean to include
y those dialects where */r/ has been retained for
relevant positions of the syllable: initial,
al, and in initial consonant clusters. There are
e dialects where */r/ has been retained for only
tain positions, but these shall be discussed
ow. Furthermore, I mean that the modern reflexes
of /r/-type; cases where */r/ has developed to
ifferent sort of phoneme are not included.

There are two T'in dialects where the proto-
neme */r/ has been retained. One is Mal A and
other is what we may term for the purpose of
s paper Pray 1. The listing below gives a number
cognates from these two dialects where /r/ occurs
all consonantal positions.

Mal A	*Pray 1*	
raʔ	raʔ	'to place'
ʔiar	siʔiar	'chicken'
raaŋ ʔaal	raaŋ lam	'flower'
pran	proʔ	'sore'
thaar	thaar	'rope'
mpriaŋ	mprɛŋ	'split bamboo'
krak	krak	'tomorrow'
khrɛh	khrɛh	'ripe'

Mal A	*Pray 1*	
phram	khram	'person'
mprɛh	mpreh	'elder'
ŋkraŋ	ŋkraŋ	'pole'
prɔŋ	ŋkrɔh	'morning'

Mal A is spoken in only one village located at the extreme western edge of T'in territory in Thung Chang District of Nan Province in north Thailand. Pray 1 consists of at least three non-contiguous areas, two in Thailand and one in Sayaboury Province in Laos. (I am indebted to Don Durling of the Christian and Missionary Alliance Church for furnishing data from several T'in villages in Laos.) The first area in Thailand consists of several villages located in a refugee camp in Thung Chang District. The second area is located some 15 miles to the south. The area in Laos includes two villages several miles apart, but the data show they share identical features. Between the villages located in Thailand and those in Laos, there are a few differences, mostly in vocabulary.

The /l/ Dialects

The criterion for classifying or typing T'in dialects here is that for all relevant positions of the syllable, the reflex of Proto-T'in */r/ is the lateral /l/. /l/ is already an established phoneme for all dialects of T'in and for Proto-T'in. Here, however, 'relevant syllable position' takes on a restricted meaning, because, for having undergone the change from Proto */r/ to /l/, there must be a previous rule eliminating all liquids (including /r from all consonant clusters. Only one dialect meet this condition and that is the subset Mal C_1.

Mal dialect C is spoken only in one large
lage complex in Pua District of Nan Province.
C_1 and Mal C_2 divide the 2000-plus speakers in
s complex into two linguistic groups. The sole
terion for distinguishing between these two
sets is the way Proto-T'in */r/ has changed.
uids in consonant clusters have been replaced by
o in both subsets. In Mal C_1, Proto-T'in */r/
become /l/ in both prevocalic and postvocalic
itions.

Proto-T'in	*Mal C_1*	
ri?	li?	'energetic'
mar	mal	'snake'
khraak	khaak	'buffalo'
phlah	phah	'to forsake'

Mal dialect C_2 also has /l/ in prevocalic
ition for Proto-T'in */r/, but differs from C_1
that postvocalic proto */r/ changed into /y/.
s, however, brings us to the third group of T'in
lects, and Mal C_2 should be discussed in this
nection, along with a number of other dialects.

Glide Dialects

The criterion used here for typologically
uping T'in dialects is that for some position or
itions of the syllable, Proto-T'in */r/ has
ome a glide. This criterion does not result in
nique classification for it does not exclude the
ention of /r/ for other positions of the syllable,
the change of proto */r/ to /l/ for these other
itions.

Three glides have developed from Proto-T'in */r/
the dialects of T'in. The most common glide is
. One of the interesting things about /y/ is that

it is only one part of a split, i.e. where Proto-T'i */r/ has become /y/, it has also become something else. For example, in Mal C_2, */r/ became /y/ in postvocalic position, but /l/ in prevocalic positio In a Pray dialect, which we will call Pray 2, just the reverse has occurred: /y/ is prevocalic and /l/ is postvocalic. In still another Pray dialect, Pray 3, /y/ has emerged in consonant clusters while /r/ is retained for all other positions.

Mal C_2	*Pray 2*	*Pray 3*	
may	mal	maar	'snake'
mɨɨl	məl	rər	'to walk'
lɔɔŋ	luaŋ	ruaŋ	'path'
laaŋ	laaŋ	raaŋ	'flower'
pham	khyam	khyam	'person'
khɔɔŋ	khyɔɔŋ	khyɔɔŋ	'husband, male'

In Mal B an unusual glide has emerged as a reflex of Proto-T'in */r/ in postvocalic position. It is a high back unrounded vocoid, which we may transcribe as /ɨ̈/. The pronunciation of this vocoi can be observed by comparing three words: /suɨ̈/ 'rotten', where there is no tongue movement between /u/ and /ɨ̈/, only an unrounding of the lips; /nthɨɨ̈ 'bat', where there is a slight backward movement of the tongue; and /koɨ̈/ 'claw', where there is an upward movement of the tongue and an unrounding of the lips. This sound is nonsyllabic and is classified as a glide. For other syllable positions in Mal B Proto-T'in */r/ has become /y/.

Proto-T'in	*Mal B*	
reeŋ	yeeŋ	'crab'
rɔh	yɔh	'to rise up'

Proto-T'in	*Mal B*	
ri?	yi?	'energetic'
phər	phəi̤	'to fly'
kar	kai̤	'straight'
tur	tui̤	'cracked'
kru?	kyu?	'deep'
khrɛh	khyɛh	'ripe'
mprɔɔñ	mpyɔɔñ	'a type of basket'

ause of the change to /y/, Proto-T'in */r/ has
n lost from consonant clusters occurring contigu-
to a high front vowel; e.g. Proto-T'in */mpriaŋ/
lit bamboo', Mal B /mpiaŋ/. This has occurred in
dialects where */r/ has become /y/ in consonant
sters.

The third glide that Proto-T'in */r/ has changed
o is /w/. I have found this in only one village
far and in connection with the change to be
cussed next.

r/ *and* /ŋky/ *from* */r/

The cluster */ŋkr/ for Proto-T'in is well
ested from evidence in the majority of T'in
lects. However, there is some evidence that a
words found in the dialects with this consonant
ster should be reconstructed simply with Proto-
n */r/. The most common example is /ŋkrəm ~ ŋkyəm/
cover, conceal, disappear', which is found in
rly all dialects that I have investigated, both
and Pray. Mal dialect B also has /yəm/ in
ition to /ŋkyəm/. Mal A has /ŋkrɛɛr/ 'eye
aract' while Mal B has /yeei̤/. It might be argued
t the best explanation for these variations is
t the cluster /ŋk/ was lost from a few words as

Mal B emerged as a separate dialect. But it could also be argued that /ŋk/ was somehow an accretion for these few words. That this is a distinct possibility can be seen from a Pray dialect which we may call Pray 4.

Pray 4 is spoken in a single village located n in a tribal refugee camp in Pua, Nan Province. Pray 4 is a mixed dialect because of heavy lexical borrowing from formerly surrounding villages speaki Mal dialects. The substratum, however, is clearly Pray. In this dialect Proto-T'in */r/ has become the glide /w/ in syllable final position; for examp Proto-T'in */piar/ 'two' has become /piaw/ in Pray In syllable initial position */r/ has developed to /ŋky/. This includes loanwords from Thai beginning with /r/ (here marked Lw).

Proto-T'in	*Pray 4*	
raaŋ ʔaal	ŋkyaaŋ ʔaal	'flower'
raʔ	ŋkyaʔ	'to place'
reeŋ	ŋkyɛɛŋ	'crab'
rɛɛŋ (Lw)	ŋkyɛɛŋ	'strong'
rak (Lw)	ŋkyak	'love'
raap	ŋkyaap	'to drive away'
rɔɔm	ŋkyɔɔm	'gully'
rɔɔŋ	ŋkyuaŋ	'path'

An interesting allophone of /ŋky/ in Pray 4 is [ɣ^{y}] a fronted back, voiced, velar fricative; it has almost a palatalized quality about it. With some speakers this allophone varies quite freely with the whole cluster /ŋky/.

Because of this evidence that Proto-T'in */r/ has been replaced by /ŋky/ in Pray 4, we should not rule out the possibility that a similar process has

o occurred in other T'in dialects. That is, it is
sible that for a few sets of cognates beginning
h the cluster /ŋkr/ the reconstruction should be
to-T'in */r/. However, I believe that this is
her controversial for the small amount of data we
e, and unfortunately it is a solution we will
e to abandon in the course of this paper.

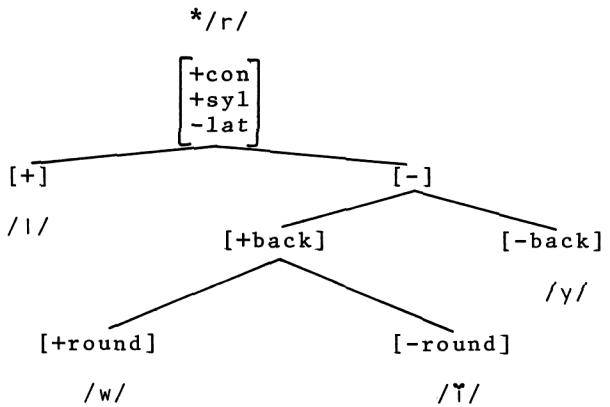
honological Description

After the above exercise in dialectology a
son might be justified in being thoroughly con-
ed concerning Proto-T'in */r/ and its reflexes in
ern day T'in dialects. At the beginning I
ounced there are dialects in T'in but then I
ceeded to disregard these dialectal boundaries
instead chose a proto-phoneme to arbitrarily
roup these dialects typologically according to
entions of and changes from this proto-phoneme.
graphically, as is the rule in dialectology, the
glosses formed a mosaic and not a straight line
descent from one point to another; phonologically,
found a wide variety of changes from */r/ as well
random combinations of changes, plus random
entions of /r/. This, of course, leads us to the
ssical tension between dialectology and structural
guistics and only adds to the confusion.

However, the situation is not as chaotic as my
cussion makes it appear. We can bring order to
ery large degree out of all the data we have
erved by making the assumption that language
nge is basically a change in grammar, i.e. in
erlying competence. Since grammar in this sense
characterized by rules, linguistic change is
nge in the rules of the grammar. Therefore in
s section we are really interested only in making

explicit the changes that have taken place from the proto-phoneme */r/. I will not discuss where */r/ has been retained nor where */r/ has been replaced by zero, for there is nothing of interest in these two aspects. */r/ in certain cases has been lost; e.g. Mal B has /mɨɨ/ 'to walk' while Mal A has /mɨɨr/, which must be taken as the reconstruction of this word. Proto-T'in */hr/ has been lost in nearly all the dialects of T'in, the words containin it being replaced by Thai loanwords.

The rules characterizing the changes from Proto T'in */r/ take as their domain of operation those distinctive features proposed by Chomsky and Halle (1968). Under this system /r/ is classified with the features $\begin{bmatrix}+\text{consonant}\\+\text{syllabic}\\-\text{lateral}\end{bmatrix}$. The changes from this set of proto-features may be conveniently summarized by the following schema (I leave the case of /ŋkr ~ ŋky/ for a special discussion later).



This schema is to be interpreted as reflecting what has been available to all T'in speakers in the cour of development from Proto-T'in. That is, there has been a 'choice', in terms of binary features, where

direction of the change takes place. As far as goes the schema is descriptive, but not neces- ily explanatory; there is much more, as we shall rtly see, to the problem than we presently erstand.

This schema summarizes several rules which racterize the changes from Proto-T'in */r/. re are two types of rules involved in these nges, those that change features, and those (like pheme structure rules) that add features.

In the schema above it can be seen that the ic change involves a change of features, or more perly a change of feature specification. One of interesting results in assuming the features put ward by Chomsky and Halle is that the features in set $\begin{bmatrix}+\text{con}\\+\text{syl}\\-\text{lat}\end{bmatrix}$ become either all 'plus' in specifi- ion, $\begin{bmatrix}+\text{con}\\+\text{syl}\\+\text{lat}\end{bmatrix}$ = /l/; or all 'minus', $\begin{bmatrix}-\text{con}\\-\text{syl}\\-\text{lat}\end{bmatrix}$ = glide. eover, this appears to be a simplification of the to-phoneme, which is a favorite theme in genera- e linguistics. Presumably we can say that it is pler, in a matrix, to have all pluses or all uses instead of two pluses and one minus. In er words, it represents a greater generalization structure to have either all of one or all of other.

If the change is made to where all features are ked plus, then there is nothing more to say, for resulting realization is /l/. If, however, the nge has made all specifications minus, then rules t add features are needed, for we have seen that re are three glides that have emerged in the T'in

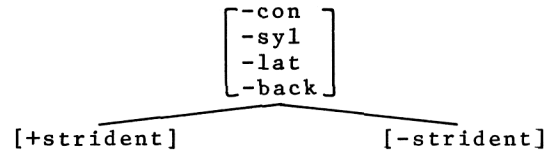
dialects. These three glides divide themselves into back and nonback varieties. So the first rule of change in this regard adds the feature [±back]: $\begin{bmatrix}-\text{con}\\-\text{syl}\\-\text{lat}\\\pm\text{back}\end{bmatrix}$. If [-back] is specified, then the realization is /y/. Now [+back] glides in T'in dialects are likewise divided into two groups, being specified by another rule as to [±round]. If the resultant matrix is $\begin{bmatrix}-\text{con}\\-\text{syl}\\-\text{lat}\\+\text{back}\\+\text{round}\end{bmatrix}$, then the realization is /w/. If the matrix is $\begin{bmatrix}-\text{con}\\-\text{syl}\\-\text{lat}\\+\text{back}\\-\text{round}\end{bmatrix}$, the realization is /ɨ̆/.

I return now to the problem of /ŋkr/ and /ŋky/. We have seen that /ŋky/ for Pray 4 is a reflex of Proto-T'in */r/, and that some cases of /ŋkr/ in other dialects may be also. It appears that these two clusters form an alternation, for if /r/ and /y/ form an alternation from proto */r/, then /ŋkr/ and /ŋky/ should also. Moreover it would seem that the course of events for Pray 4 was proto */r/ to /ŋkr/ to /ŋky/ since Proto-T'in */ŋkr/ has also become /ŋky/ in this dialect. However, all this is not necessarily true for two reasons. First, because of the scant data we have, it cannot be argued to any convincing degree that some examples of /ŋkr/ are to be traced back to the proto-phoneme */r/; therefore, /ŋkr/ and /ŋky/ are not true alternatives and the notion should be dropped from consideration. Second, I believe the correct sequence of events for Pray 4 was not */r/ to /ŋkr/ to /ŋky/, but simply */r/ to /ŋky/. By assuming this we can account for

allophone [ɠʸ], which is in free variation with cluster [ŋky].

Proto-T'in initial */#r-/, *as in the majority* T'in dialects, was under pressure to become tial /#y-/, but for this dialect it came out [ɠʸ], ch is close in articulation to /y/. In fact [ɠʸ] very nearly palatalized itself. Now there was no c voiced velar obstruent of any type in Proto- n. In the change from Proto-Khmuic, Proto-T'in t all voiced stops, */bdjg/ becoming /ptck/. way which compensated for this loss was the emer- ce of new prenasalized unaspirated stops in lition to the ones already in the language.

Now prenasalized unaspirated stops form a well- ablished pattern for the T'in dialects, so it is mystery that the phone [ɠʸ], having developed from to-T'in */#r-/, was further phonemicized to /ŋky-/. s description fits in a neat way into the schema lined towards the beginning of this section. vising that schema to include /ŋky/ and reproducing y the relevant parts of that structure, we can assify the fronted velar [ɠʸ] as a nonback segment stinguishable from the other nonback segment by the ature [+strident].



strident] is realized as the front glide /y/. But [+strident] is added, a whole new process is itiated, namely stridency requires that the segment v be marked [+consonant]. Since the whole process

has been redundantly marked [+voiced] from the beginning, we now have the matrix $\begin{bmatrix} +\text{con} \\ -\text{syl} \\ -\text{lat} \\ -\text{back} \\ +\text{voiced} \end{bmatrix}$.

At this point I posit an optional Feature Distribution Rule for this T'in dialect which distributes the relevant features sequentially:

$$\begin{bmatrix} +\text{con} \\ -\text{syl} \\ -\text{lat} \\ -\text{back} \\ +\text{str} \\ +\text{voiced} \end{bmatrix} \rightarrow [+\text{voiced}] + \begin{bmatrix} +\text{con} \\ -\text{syl} \\ -\text{lat} \end{bmatrix} + [-\text{back}]$$

$$[\text{ɡ}^{\text{y}}] \qquad /\text{ŋ}/ \qquad /\text{k}/ \qquad /\text{y}/$$

([+strident] is obligatorily changed by another rule to [-strident] for this context.) In the environmen above, [+voiced] is realized as a nasal homorganic to the succeeding stop consonant, which in turn is realized as the velar /k/. [-back] is realized as the glide /y/. In this way the cluster /ŋkr/ is bypassed completely in a natural way as an intermediate step for this dialect, thus achieving a certai amount of simplicity in our description. Moreover, because of the free variation of [ɡ$^{\text{y}}$] and [ŋky] even in the speech of individuals of this dialect, this Feature Distribution Rule characterizes a synchronic competence, a competence that has its roots in a historical process.

Unexplained Facts

The previous section offers a description of th changes that have taken place from Proto-T'in */r/, but there are still a number of facts left unexplained. For example, why do particular reflexes of proto */r/ occur in only certain positions of the

lable and not in all positions? Also, why are
re certain combinations of reflexes--i.e. pre-
postvocalic occurrences of different reflexes--
found in the T'in dialects?

The phonotactic facts of Proto-T'in */r/ and reflexes found in the various dialects are these:

l__l l__y y__ɪ ŋky__w Cy__r CØ__y CØ__l
CØi__

m the standpoint of phonological theory, why have
se combinations emerged? A few are explainable;
. it seems natural that /ŋky/ would not occur as
eflex of */r/ in syllable final position. Also,
is natural to expect /y/ in consonant clusters
be lost when occurring contiguous to a high front
el. These two facts can easily be explained in
model of linguistic change because they have to
with physiological limitations on just what can
pronounced, given the environment of the syllable
er discussion. But why should /l/ be a reflex of
to-T'in */r/ in one position and /y/ in another?
why should /y/ emerge only in consonant clusters
le /r/ is retained for all other positions?
se and other similar phonotactic facts have no
lanation; no theory I know of can offer an
lanation of why the changes from proto */r/ have
itioned themselves in these ways and no other.

There are a number of missing combinations.
example, these */r/ reflex combinations are not
nd in any T'in dialect I know of:

y__y y__l y__w w__ ŋky__y ŋky__l r__l
l__r

These combinations are plausible; indeed most of the occur already in various T'in dialects but of course not necessarily due to development from the proto-phoneme */r/. The question here is why */r/ and its reflexes have not formed these particular combinations. There is no reason why these should not have emerged in addition to the others discussed above. Maybe a few have, in some yet undescribed dialect or unknown village. Perhaps some of these missing combinations may yet emerge in some of the dialects where /r/ has been retained.

One possible explanation for these missing combinations is the need to avoid homophonous words. That is, these combinations have not been utilized because of overloading the speech act with too many homonyms, thus impairing communication. However, there is no way to gauge what is and what is not overloading in this respect. Moreover, avoidance of homonyms seems to play no significant role in determining what particular phonotactic combination emerges in a T'in dialect. Both Mal C_1 and C_2 are chock-full of homonyms because of changes from Proto T'in */r/ and other sound changes, such as loss of prenasalization. I have a difficult time understanding these two dialects because of these resulting homonyms, but I have not noticed that there is any comparable lack of understanding when native speakers speak to each other. Therefore, I must conclude that the need to avoid homonyms is not sufficient to explain why certain combinations of reflexes from Proto-T'in */r/ do not occur in T'in dialects.

It appears that we must allow a certain amount of indeterminacy--or fickleness, if you wish--in

scribing the resulting phonotactics of Proto-T'in
·/ and its reflexes. When a proto-phoneme such as
.s splits into different reflexes in different
itions in the syllable, we find a sort of capri-
usness about it all. It is not a capriciousness
structure or structuring, for changes from proto
·/ in these cases do not fly off into all direc-
ns along the spectrum of phonological features.
is still possible to structure the data in terms
abstract features and underlying rules of phono-
gical change. Indeterminacy must come in when we
to predict where a certain phonological structure
ll occur in a syllable. This we cannot do in most
es for the dialects of T'in, and it is a position
at generative linguists do not find particularly
tisfying. Linguistic facts without possibility of
eoretical explanation are currently considered
stasteful. Yet, as far as natural languages go,
re is a fact of life we must learn to live with.

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