



शिखागोविश्वविद्यालये

प्रारम्भिकसंस्कृतम्

FIRST-YEAR SANSKRIT

AT THE UNIVERSITY OF CHICAGO



अल्लटाचार्योद्भावितः पाठक्रमः  Designed by Andrew Ollett



mūrdhanyīkaraṇam

RETROFLEXION

mūrdhanyīkaraṇam

RETROFLEXION

Retroflexion simply means that a dental consonant (*t, th, d, dh, n, s*) is converted to a retroflex consonant (*ṭ, ṭh, ḍ, ḍh, ṇ, ṣ*) under the influence of a preceding sound.

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RETROFLEXION

This is a phenomenon of *internal sandhi*, and hence it only occurs within a word (with one complication discussed later).

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RETROFLEXION

Three main targets:

$s \rightarrow \underset{\cdot}{s}$ (RUKI)

$n \rightarrow \underset{\cdot}{n}$ (NATI)

$t, th \rightarrow \underset{\cdot}{t}, \underset{\cdot}{th}$

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RETROFLEXION

These are all essentially processes of **progressive assimilation**, where the features of a prior sound (the **trigger**) spread to those of a subsequent sound (the **target**).

RUKI

trigger

r / ṛ / ṝ

u / ū / o / au

k

i / ī / ē / ai

target

s

[VOCALIC]

t / th

n / m

y / v

RUKI

trigger

r / ṛ / ṝ

u / ū / ō / au

k

i / ī / ē / ai

target

ṣ

[VOCALIC]

t / th

n / m

y / v



RUKI

trigger target

r / ṛ / ṝ
u / ū / ō / au
k
i / ī / ē / ai

ṣ

[VOCALIC]
t / th
n / m
y / v

[HIGH]

[SIBILANT]

[CORONAL]

RUKI – EXAMPLES

(with *-su* of the locative plural)

pitṛ + su → *pitṛṣu*

guru + su → *guruṣu*

*bhuk + su*¹ → *bhukṣu*

vanē + su → *vanēṣu*

¹ The stem is *bhuj*, depalalized and devoiced to *bhuk* before *s*.

RUKI – EXAMPLES

RUKI can happen even when an *anusvārah* intervenes between the trigger and the target:

jyōtīm + si → jyōtīmṣi

RUKI – EXAMPLES

RUKI is **blocked** when the *s* is followed by *r*:

usraḥ →

RUKI WITH PREVERBS

Some preverbs end in RUKI triggers:

vi, abhi, ni, anu, nir, pari

Some verbal roots that begin with s tend to retroflex it after these sounds, while others do not.

RUKI WITH PREVERBS

Those roots susceptible to initial retroflexion are taught with an initial ष in the *dhātupāṭhaḥ*, hence they are called *ṣōpadēśaḥ* (“taught with ष”), in contrast to *sōpadēśaḥ* (“taught with s”) roots.

ni + snātaḥ → niṣṇātaḥ

vi + sarati → visarati

NATI

NATI refers to the retroflexion of n .

In contrast to RUKI, it is a **long-distance** process.
This means that n can be retroflexed even if it is
separated from its trigger by one or more sounds.

NATI

trigger

r / ṛ / ṝ

ṣ

target

n

[VOCALIC]

n / m

y / v

NATI

trigger

r / ṛ / ṝ
ṣ

target

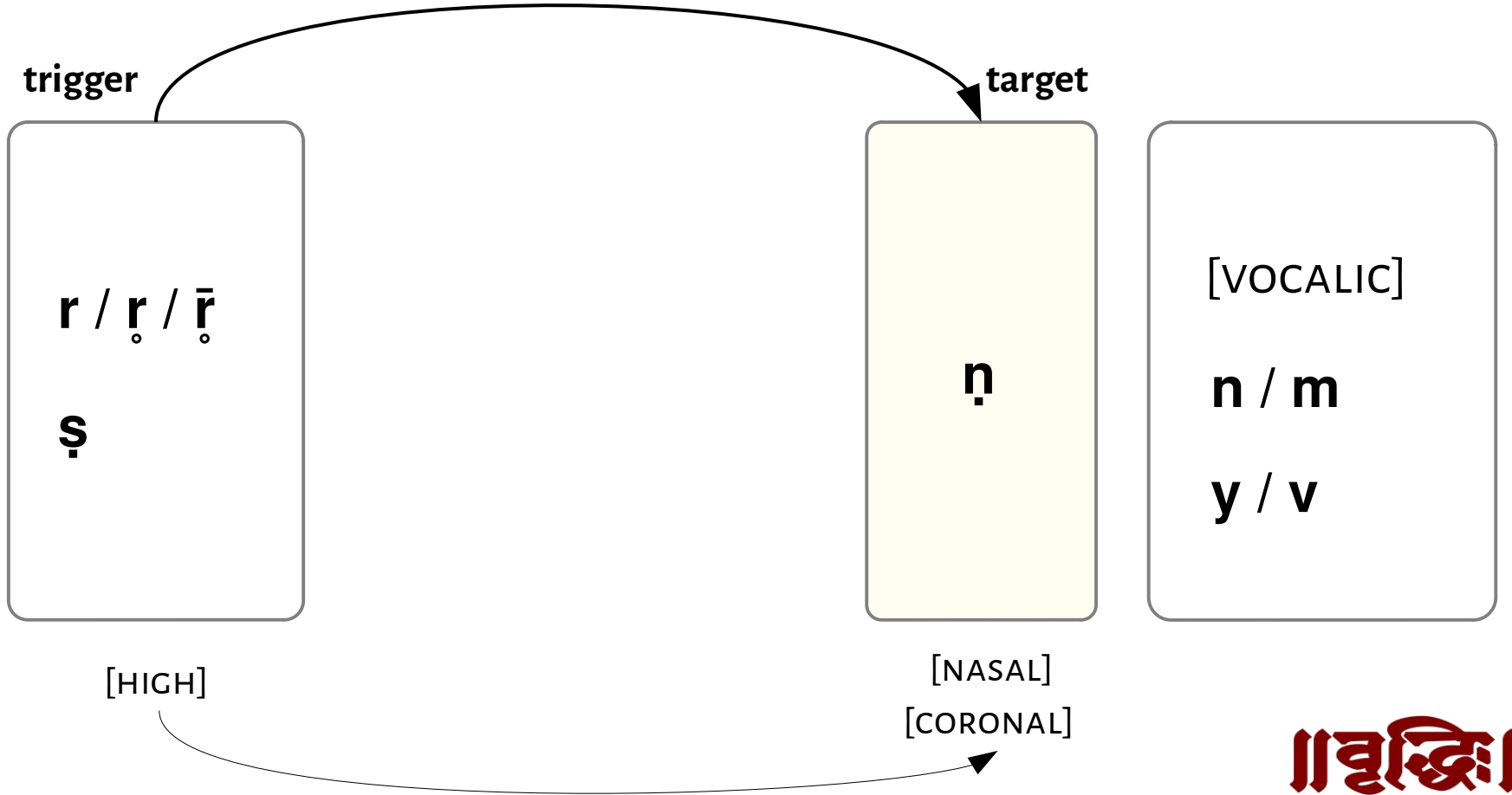
ṇ

[VOCALIC]
n / m
y / v





NATI

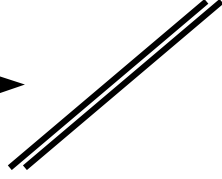


NATI

trigger

r / ṛ / ṝ
ṣ

[HIGH]



target

c / ch / j / jh / ñ
ṭ / ṭh / ḍ / ḍh / ṇ
t / th / d / dh / n
l
ś / s

[CORONAL]

n

[NASAL]
[CORONAL]

[VOCALIC]
n / m
y / v

NATI – EXAMPLES

rāmē + na → *rāmēṇa*

arkē + na → *arkēṇa*

rāmāyanam → *rāmāyaṇam*

manīṣi + nā → *manīṣiṇā*

NATI – EXAMPLES

NATI is **blocked** by a coronal consonant in the following:

ardhē + na → *ardhēna*

arcanam → *arcanam*

darśanam → *darśanam*

arṇavā + nām → *arṇavānām*

NATI WITH PREVERBS

Just as in the case of the change of *s* to *ṣ*, some verbal roots retroflex an initial *n* after a NATI trigger in a preverb (e.g., *pari*, *pra*), and are taught in the *dhātupāṭha* with *ṇ*, while others do not:

pari + *nandanam* → *parinandanam*

pra + *nāmaḥ* → *praṇāmaḥ*

RETROFLEXION OF STOPS

Finally, there is a simple rule that retroflexes dental occlusives and fricatives when they immediately follow retroflex occlusives and fricatives.

The palatal ś also has this effect, and it is itself retroflexed in the process.

RETROFLEXION OF STOPS

trigger

ṭ / ṭh / ḍ / ḍh / ṇ

Ṣ

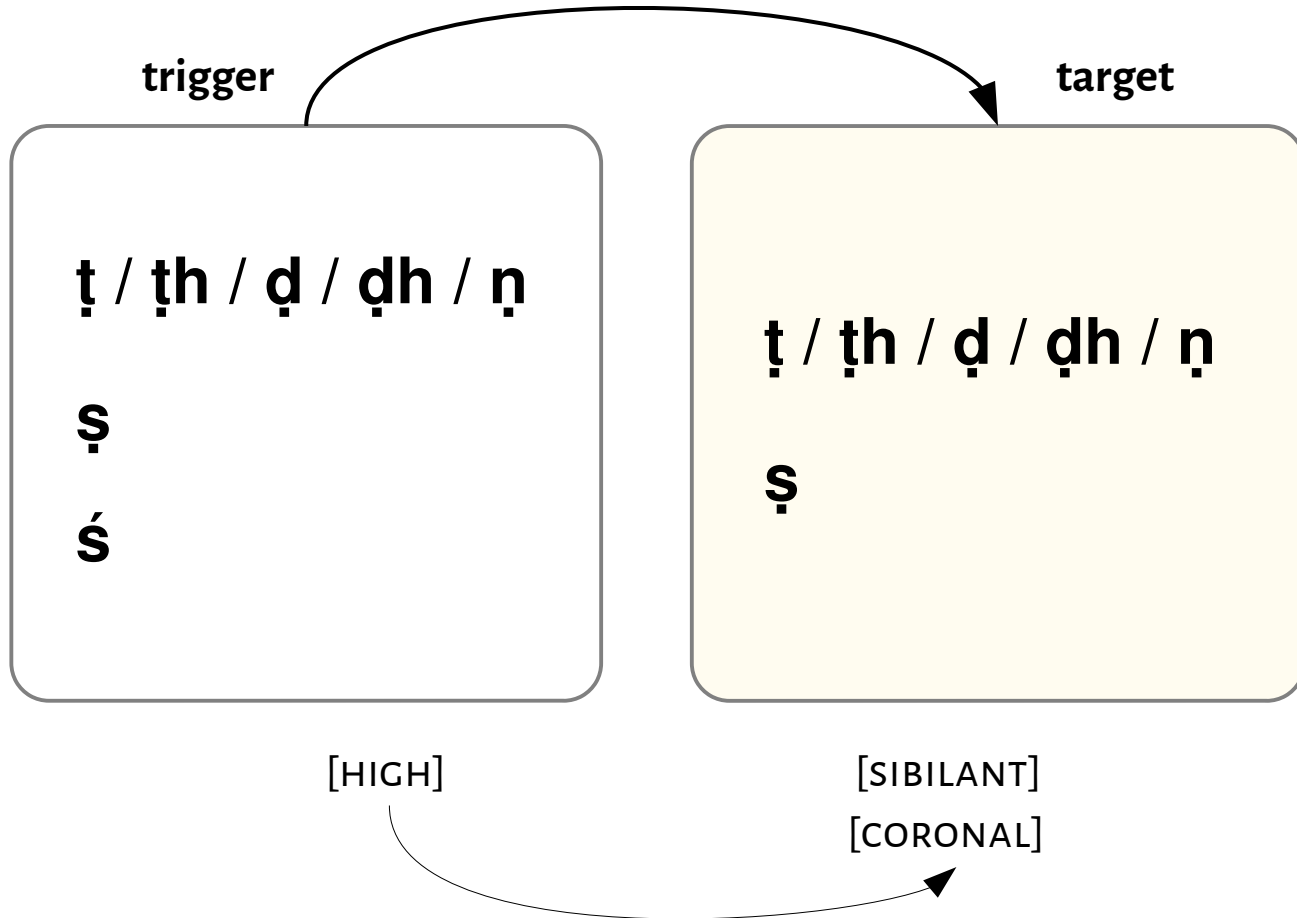
Ṣ́

target

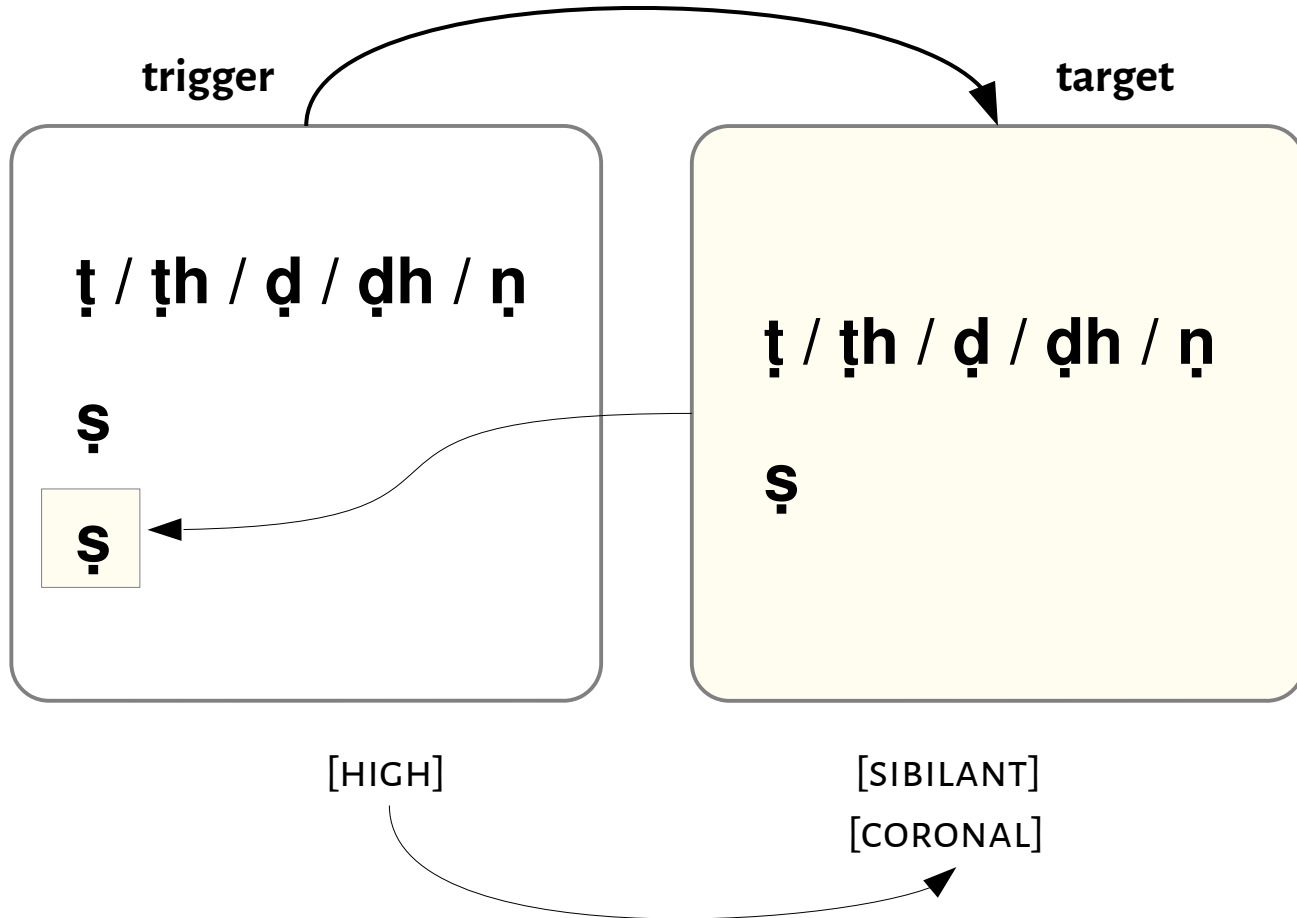
t / th / d / dh / n

s

RETROFLEXION OF STOPS



RETROFLEXION OF STOPS



RETROFLEXION OF STOPS

All formed with the *táḥ* suffix of the past absolute participle:

dviṣ + taḥ → *dviṣṭaḥ*

iṣ + taḥ → *iṣṭaḥ*

viś + taḥ → *viṣṭaḥ*

drś + taḥ → *drṣṭaḥ*

We will encounter further examples with verbal endings later on.

