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## **A Glottochronological Insight into Malayalam and Telugu**

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### Abstract

The prime objective of this study is to explore the degree of similarities between Malayalam and Telugu words using glottochronological approach. In doing so a representative sample of 125 words of each part of speech i.e, Noun, Verb, Adjective and Adverb were taken and the total representative sample were 500 words from Malayalam followed by listing their equivalents in Telugu. The findings revealed 185 words with phonological similarity between Malayalam and Telugu. These 185 words are classified into 81 completely similar words and 104 partially similar words. These partially similar words were analysed phonologically. The phonological analysis shows that partially similar words are following assimilation, sandhi and dissimilation.

### 1. INTRODUCTION

Malayalam and Telugu are from Dravidian family. The communicative words of Malayalam and Telugu share similarities not only in terms pronunciations but also in terms of sharing common root words deriving from Sanskrit. Unlike many languages of northern and western India, these languages are not easy to pronounce. Malayalam is a language spoken in Kerala, in India. It has its own script, distinct from other scripts used in India. Malayalam has as many as 6 different articulation points for consonants and also has retroflex consonants. Telugu has a series of retroflex consonants which can be pronounced with tip of the tongue curled. Telugu has ranked second after Hindi among the Indian languages mostly popularly spoken. It is also a lavishly evolved language and the significant linguistic unit in India. Telugu was more influenced by Sanskrit and Prakrit. Telugu is also said as the fastest growing language in many other foreign counties.

## *Background of the Study*

Majority of Indian languages have been originated from two language families, namely, Indo-Aryan and Dravidian. Therefore, certain kind of similarity can be found among the languages of a particular family can be expected to exist. The languages spoken in neighboring regions also show certain similarity since there happens to be a lot of intermingling between the people of the neighboring regions.

Malayalam is a language predominantly spoken in the Indian state of Kerala and the Union Territories of Lakshadweep and Puducherry by the Malayali people. Telugu is a language predominantly spoken in the southern Indian state of Andhra Pradesh and Telengana. Telugu and Malayalam language have more amount of complex word pronunciation like Sanskrit compared to other Indian languages.

Malayalam and Telugu have such a great resemblance which led to the similarity in the culture and tradition of the people who are the speakers of these languages.

### *1.2 Statement of the Problem*

In this research paper, the statement of problem is to find out whether Malayalam and Telugu have been developed independently or not by finding the degree of similarities between both the languages by phonological analysis and classifying it into each part of speech i.e., Noun, Verb, Adjective and Adverb. It is said that Malayalam and Telugu belong to Dravidian language. This might be one of the reasons why much research has not been done by researchers on this topic.

### *1.3 Research Objectives*

1. To study the glottochronology of Malayalam and Telugu Lexicons.
2. To study the degree of similarities between Malayalam and Telugu Lexicons.
3. To study how many years ago Malayalam and Telugu language developed independently.

### *1.4 Research Questions*

1. How the Rate of change occurs in the vocabularies of Malayalam and Telugu is the purpose of calculating the length time during which both languages have developed independently?
2. How much Malayalam and Telugu are similar to each other?

### 3. Has Malayalam and Telugu developed independently?

#### *1.5 Significance of the Study*

This research paper will be helpful for the researchers in the future for a reference. This research paper will be helpful for the ones who are interested in learning Malayalam and Telugu language as it will guide them in this learning process. This research paper will show that Malayalam and Telugu are different from each other after having such a great resemblance.

#### *1.6 Limitation of the Study*

Malayalam and Telugu have a great resemblance but then also much research work hasn't been done on this topic. Therefore, while preparing this research paper we weren't able to refer much works.

## 2. LITERATURE REVIEW

Glottochronology is a method of lexicostatistics to compute not only the degrees of lexical similarities between two languages but also to find relationship between languages in terms of when they diverged from each other. The method of Glottochronology proposed by Swadesh (1955) assumes that common words in languages are maintained at a definite rate. According to Swadesh, (i) the rate of retention of vocabulary items in the basic core is constant through time; (ii) the rate of loss of basic vocabulary is approximately the same in all languages; (iii) the rate of loss was arrived at by testing lexical loss in languages with a long series of texts. On the basis of tests, 81% of loss is reported over the period of 1000 years. Once we know the percentage of cognates within the core vocabulary (284 in the present case) for any pair of languages, the length of time that has elapsed is computed to see when the two languages began to diverge from a single language. The following list of basic vocabulary, taken from the similar study of Jha (2020), has been prepared in terms of Malayalam-Telugu 600 words considered to the representative samples.

Malayalam and Telugu are from Dravidian family. About 80% of the communicative words share similarities not only in terms pronunciations but also in terms of sharing common root words deriving from Sanskrit. Unlike many languages of northern and western India, these languages are not easy to pronounce. This is why, they are often deemed as one of the world's toughest languages.

Indian Languages have rich morphology, relatively free word order and default sentence structure as SO (Subject Object Verb) and structurally similar languages are called sibling language of India. Malayalam and Telugu both belongs to Dravidian languages. Malayalam and Telugu follows same grammar rules but have different vocabulary and pronunciation.

Sentence structure of north the language is same that is Subject-Object-Verb (SOV) and free order. Sentence of both the language is comprised of Subject and Predicate and both the language have same type of Nouns, genders, Numbers, tenses and Cases. Malayalam and Telugu are different from English according to two aspects of word order. Firstly, the standard word order is in Hindi Subject-Object-Verb as against Subject-Verb-Object in English. Secondly, in Malayalam and Telugu, the preposition comes after the noun or pronoun it qualifies. ie., it is more correctly called a 'postposition'. There does not seem to be undue interference between the two languages in these areas. Malayalam and Telugu have incorporated numerous Sanskrit words, which is a help to the beginner of Malayalam speaking person to learn the Telugu language and vice versa. However, the pronunciation of many of the loan words have changed in Malayalam and Telugu.

1. A(n)-onn-oka-d
2. Able (adj)-karivulla-samarthyam-d
3. About (ad)-kurich-gurinci-s
4. Above(ad)-mukalil-paina-d
5. Absolute (adj)-sampurna-sampurna-s
6. Academic (adj)-vidya-vidya-s
7. Accessible(adj)-pveshikyanull-prapyata-d
8. Accurate (adj)-krityam-kachitam-d
9. Actually(ad) -yatharthil-nijaniki-d
10. Add(v)-cerkkuka-kurchu-d
11. After(ad)-sesham-taruvata-d
12. Again (ad)-veendum-malli-d
13. Ago(ad) -mump-kritam-d
14. Ahead (ad)-munot-munduku-s
15. Air(n)-vayu-vayuvu-s
16. All (ad)-ellam-anni-d
17. All(adj)-ellam-andaru-d
18. Almost(ad)-mikkavarum-dadapu-d
19. Alone(ad) -ottek-ontariga-d
20. Along(ad)-oppam-patu-d
21. Already (ad)-ithinekam-ippatike-d
22. Also (ad)-kudathe-kuda-s
23. Always(ad) -ellaporum-ellappudu-s
24. Analysis(n)-vishkalanam-vislesana-s
25. And(n)-oppam-mariyu-d
26. Animal(n)-mrigam-jantuvu-d
27. Another(adj)-mattun-marod-d
28. Answer(v)-uttaram-javabu-d
29. Around (ad)-chuttum-cuttu-s
30. Art(n)-kala-kala-s
31. As (ad)-pole-ga-d
32. Ask(v)-chodikuka-adugu-d
33. Available (adj)-labhyamaan-andubatulo-d
34. Away(ad) -dure-duranga-s
35. Back (ad)-tirige-tirigi-s
36. Back(n)-thirike-thirigi-s
37. Bad(adj)-moshaman-cedu-d
38. Ban(v)-nirodhanam-nisedham-s
39. Basis(n)-adisthana-adharanga-s
40. Because(ad)-karanam-kabatti-d
41. Become(v)-akuka-marindi-d
42. Bed(n)-kitakka-mancham-d
43. Before(ad) -munbe-mundu-s
44. Begin(v)-arambhikkunnu-modalu-d
45. Below(ad)-thare-krinda-d
46. Best(adj) -mikachth-uttamamainadi-d
47. Better (adj)-migchith-manci-d
48. Between(ad)-idayil-madhya-d
49. Big(adj)-valut-pedha-d
50. Blissfully(adv)-Anandanga-anandode-s
51. Blue (adj)-nila-nilam-s
52. Body(n)-shariram-shariram-s
53. Boldly(ad)-dhairyanga-dhairyathode-s
54. Book(n)-pustakam-pustakam-s
55. Both(n)-randum-rendu-s
56. Boy(n)-payyan-baludu-d
57. Breezily(ad) -katt-galulato-d
58. Bring(v)-kontvarik-tisukuni-d
59. Broadly (ad)-vishaalmayi-vistrtanga-s
60. Brotherly(ad) -sahodara-sahodara-s
61. Build(v)-nirmikyuga-nirmincu-s
62. But(ad)-pakshe-kani-d
63. Buy(v)-vaung-konugolu-d
64. By(ad)-elutiyat-dwara-d
65. Call(v)- vilikkuka-pillupu-d
66. Calmly (ad)-shanthmayi-prasantanga-d
67. Can(v)- kariyum-cheyavachu-d
68. Canister(adj)- kanisrrar-dabbi-d
69. Capture(v)-kiripadikal-sangrahamu-d
70. Car(n)-vandi-karu-d
71. Care(v)- shradha-sanraksana-d
72. Carry(v)-chomakkuka-taralimpu-d
73. Case(n)-kes-kesu-s
74. Catch(v)- pidikyuga-patukoni-d
75. Central (adj)-kendram-kendram-s
76. Certain (adj)-urppan-konni-d
77. Certainly(ad) -theerchayi-khaccitanga-d
78. Change(n)-mattam-marpu-d
79. Chase(v)-pinthoduruga-Vanta padatam-d
80. Children(n)-kuttikal-pillalu-d
81. City(n)-nagaram-nagaram-s
82. Clap(v)-kayyidiikyuga-cappatlu-d
83. Clear (adj)-vyakthamaan-nischinta-d
84. Clearly (ad)-vyakthmayi-Spastanga-d
85. Close(adj)-ataykuka-muyatam-d
86. Coffee(n)-kaapi-kaphi-s
87. Cold(adj)-tanupp-challani-d
88. Come(v)-varu-randi-d
89. Common (adj)-sadharnam-sadharanam-s
90. Community(n)-samajam-samajam-s
91. Company(n)-sanstha-sanstha-s
92. Continue(v)-Thodrugakonasaginchu-d
93. Cough(v)-choma-daggu-d
94. Could(v)-karinju-kaledu-d
95. country(n)-rajyam-rajyam/desam-s
96. Crawl(v)-Areyoga-pakatam-d
97. Create(v)-srishtikyuga-srstincatam-s
98. Cultural(adj) -samskari-sanskrtika-s
99. Current (adj)-nillavulath-prastuta-d
100. cut(v)-katt-koyu-d
101. Daily(n)-divasena-roju-d
102. damant (adj)-varganth-monivadu-d
103. Dance(v)-nrtyam-nrtyam-s
104. Dark (adj)-irutu-cikati-d
105. day(n)-divasam-pagalu-d
106. Dead (adj)-marichu-canipoyina-d
107. Deeply(adj)-Lotuga-aazhathil-d
108. Dental (adj)-denral-danta-d
109. Desperate (adj)-nirashayulla-tirani-d
110. Die(v)-marikyug-canipo-d

111.	different(adj)-vyatyasta-vividha-d	167.	Forward (ad)-munbilot-munduku-s
112.	Difficult (adj)-bhudimutt-kastam-d	168.	Free(adj) -saujanya-ucitam-d
113.	Directly (ad)-nere-neruga-s	169.	Full (adj)-naranju-purti-d
114.	Divine(adj) -divya-daiva sambandam-d	170.	Gain(v)-labham-labham-s
115.	do(v)-cheyyuka-cheyu-s	171.	General(adj) -sadharana-sadharana-s
116.	door(n)-vadil-talupu-d	172.	get(n)-netuka-pohuta-d
117.	Down(ad)-tharek-kindha-d	173.	girl(n)-penkutti-ammayi-d
118.	Driver(n)-draiver-draivar-s	174.	give(v)-nalkuka-ivalani-d
119.	Early (adj)-neruthe-tondarga-d	175.	Glow(v)-thilkam-veluturu-d
120.	Early(ad) -nerthe-prarambha-d	176.	go(v)-po-po-s
121.	Earth(n)-bhumi-bhumi-s	177.	good(adj)-nallad-manchi-d
122.	Easily(ad) -elupathil-sulabhanga-d	178.	great(adj)-kollam-goppa-d
123.	Eastward (ad)-kirkod-turpuvaipu-d	179.	Green(adj) -pacha-akupacca-d
124.	Easy (adj)-elpamaan-sulabham-d	180.	Group(adj)-samuham-samuham-s
125.	Eat(v)-thinnuka-tinu-s	181.	grow(v)-valaruka-perugu-d
126.	Economic(adj) -sambathik-arthika-d	182.	Habitually (ad)-pathiaayi-alavatu-d
127.	Either (ad)-onnukil-gani-d	183.	Had(v)-untayirunnu-vundi-d
128.	Else (ad)-allenkil-lekapotey-d	184.	Halfway (ad)-pakuthivari-sagam -d
129.	end(n)-avasanam-mugimpu-d	185.	Hand(n)-kai-ceyyi-d
130.	Enjoyment(n)-anandam-anandam-s	186.	hard(adj)-katina-katinamina-s
131.	Enough(adj)-mathi-calu-d	187.	has/have(v)-unt-kalgivuni-d
132.	Entire (adj)-muruvan-mottam-d	188.	Have(v)-und-kaligi-d
133.	Even(ad) -polum-kuda-d	189.	He(n)-aan-atanu-d
134.	Eventually (ad)-uduvil-civariki-d	190.	Head(n)-thala-thala-s
135.	Ever(ad) -ennekum-eppudu-d	191.	Health(n)-aarogyam-aarogyam-s
136.	Every(n)-ellam-prati-d	192.	Hear(v)-kelkkuka-vinu-d
137.	Exactly(ad) -kriyamayi-khaccitanga-d	193.	Hear(v)-kelkuga-vinandi-d
138.	Example(n)-udharanam-udaharana-s	194.	Heavy (adj)-bharam-bhari-s
139.	Expect(v)-prathyekshikyug-asistaru-d	195.	help(v)-sahayam-sahayam-s
140.	Extremely (ad)-Cala-angeattam-d	196.	Helpful(adj)-sahayam-sahayaka-s
141.	eye(n)-kann-kanu-s	197.	Here(n)-ivide-ikkada-d
142.	face(n)-mukham-mukham-s	198.	high(adj)-uyarnn-adhika-d
143.	Fact(n)-vastavam-vastavam-s	199.	History(n)-charitram-caritra-s
144.	Fall(v)-viricha-patanam-d	200.	Hold(v)-pidikuga-pattukondi-d
145.	Falsely (ad)-thettayi-tappuga-d	201.	hot(adj)-chud-vedi-d
146.	family(n)-kutumbam-kutumbam-s	202.	House(n)-veed-illu-d
147.	Far(ad) -dure-duramuga-s	203.	How(n)-engane-ela-d
148.	Fast(ad) -vegatha-veganga-s	204.	However(ad) -ennirnalum-ayite-d
149.	father(n)-achan-tandri-d	205.	Huge(adj)-kutan-bhari-d
150.	Fee(n)-phis-phiju-s	206.	I(n)-njan-nenu-d
151.	Feel(v)-anubhavam-anubhuti-s	207.	Idea(n)-aashayam-alochana-d
152.	Few(n)-kurach-konni-d	208.	Ideally (ad)-thigachum-adarsanga-d
153.	Fight(v)-adi-poradandi-d	209.	If(n)-enkil-unte-d
154.	File(v)-aram-varusa-d	210.	Immediately (ad)-udane-taksaname-d
155.	Final (adj)-anthim-civari-d	211.	In(n)-akath-lo-d
156.	Finally(ad) -avasanamaayi-civaraku-d	212.	Include(v)-ulpedthuga-cerchandi-d
157.	Financial(adj) -sambhathiga-arthika-d	213.	Indeed (ad)-theerchmaayi-nijaniki-d
158.	find(v)-kantettuka-kanuko-s	214.	Is(v)-aan-undi-d
159.	Fine (adj)-pira-jarimana-d	215.	Item(n)-sadhanam-vastuvu-d
160.	First(ad)-adyam-pradhama-d	216.	Just(ad)-veruthe-kevalam-d
161.	Fly(v)-parakuga-eguru-d	217.	Keep(v)-vak-unchenduku-d
162.	follow(v)-pintutaruka-anusarana-d	218.	Kick(v)-thori-thanu-d
163.	Food(v)-bhakshanam-aharam-d	219.	Kill(v)-koluga-campandi-d
164.	Foot(n)-padham-padham-s	220.	Kind(n)-daya-dhaya/rakam-s
165.	Foreign(adj) -videsham-videsham-s	221.	Know(v)-ariyuka-telusa-d
166.	Form(n)-rupam-rupam-s	222.	lack (adj)-karuth-nalupu-d

223. Lame(adj) -mudthan - kunti -d  
224. Lamely(ad) -sletugal-mandakodiga-d  
225. Land(n)-sthalam-sthalam/bhumi-s  
226. Large(adj)-valud-vishalamaina-d  
227. Largely (ad)-valiythothil-ekkuvaga-d  
228. Last(adj)-avasana-antima-d  
229. Late (adj)-vaki-alasyam-d  
230. Lately (ad)-athuthid-alasyanga-d  
231. Later (ad)-pinnit-taruvata-d  
232. Laugh(v)-chiri-navvu-d  
233. Laughably (ad)-chiri-navvutu-d  
234. Lay(v)-kidanu-pettu-d  
235. Lazily (ad)-alasmayi-somaritanam-d  
236. Lazy-madiyan-somaritanam-d  
237. Lead(v)-iyam-sisam-d  
238. Learn(v)-padikkuka-telusuko-d  
239. Least (ad)--koranyath-kanisam-d  
240. Leave(v)- vituka-seluva/vadiley-d  
241. Left(adj)-itad-adama-d  
242. Less (ad)-kurav-takkuva-d  
243. Let(v)-anuvadikkuka-vilu-d  
244. Letter(n)-kath-lekha-d  
245. Life(n)-jivitham-jivitham-s  
246. Lifestyle(n)-jivanashaili-jivanasaili-s  
247. Light(adj)-prakasham-kanti-d  
248. Like(v)-pole-vanti/istam-d  
249. Likely (adj)-sadyadha-avakasam-d  
250. Line(n)-rekha-rekha-s  
251. List(adj)-pattika-jabitha-d  
252. Little(adj)-cheriya-cinna-d  
253. Live(v)-thalsamayam-brathuku-d  
254. Local(adj) -pradeshikam-sthanika-d  
255. Long(adj)-nilamulla-dirgha-d  
256. Look(v)-nok-chudu-d  
257. Lord(n)-yajamanam-yajamani-s  
258. Lose(adj)-nashtappetuka-kolpotaru-d  
259. Love(v)-sneham-prema-d  
260. Low (adj)-tharunath-takkuva-d  
261. Madly (ad)-bhrandan-picciga-d  
262. Magazine(n)-patrika-patrika-s  
263. Main(adj)-pradhana-prahanam-s  
264. Make(v)-nirmikkuka-tayaru-d  
265. Man(n)-manushyan-manishi-s  
266. Marry(v)-vivaham-vivaham-s  
267. Massively(ad)-vanthothil-bhariga-d  
268. May(v)-mey-me-s  
269. Maybe (ad)-orupakshe-bahusa-d  
270. Me(v)-nan-nenu-s  
271. Mean(v)-sharashari-ardham-d  
272. Medicine(n)-marun-mandu-s  
273. Meet(v)-kantumuttuka-kaluham-d  
274. Mid(adj)-itayil-madhya-d  
275. Might(v)-shakti-undavaccu-d  
276. Mild(ad) -saummy-telikapati-d  
277. Military(adj) -sainiyam-sainika-s  
278. Milk(n)-pal-pallu-s  
279. Minute(n)-nimisham-nimisam-s  
280. Mistake(n)-thet-thapu-d  
281. Month(n)-masam-masam-s  
282. More(adj)-kututal-adhika-d  
283. Morning(n)-ravile-vudayam-d  
284. Most(ad) -migathum-atyanta-d  
285. Mother(n)-amma-amma-s  
286. Move(v)-nikkuka-kadilika-d  
287. Much(adj)-valareyadhikam-chala-d  
288. Must(v)-nirbhandmaayu-tappaka-d  
289. My(adj)-ende-na-d  
290. name(n)-per-peru-s  
291. Namely(ad)- aththayth-avi-d  
292. National(adj) -deshiya-jatiya-d  
293. Nature(n)-prakrti-prakrti-s  
294. Near(ad)-samipam-deagra/samipam-s  
295. Nearby(ad) -samipth-samipanlo-s  
296. Nearly(ad) -ekadesham-dadapu-d  
297. need(v)-avashyam-avasaram-s  
298. Never(ad)-orikullam-eppudu-d  
299. new(adj)-puthiya-kotta-d  
300. Next(adj)-atuttat-taruvatha-d  
301. Nice(adj) -kollam-bagundi-d  
302. night(n)-ratri-ratri-s  
303. No(n)-illa-na-d  
304. Now(ad)-ippo-ippudu-s  
305. Nowadays (ad)-ippol-I rojullo-d  
306. number(n)-nampar-sankya-d  
307. Obsess(v)-nirigshikyuga-mattu-d  
308. Of course (ad)-theerchmayi-yokka-d  
309. Off(n)-ophan-mihanunchi-d  
310. Offend(v)-kuttapedtheguga-neram-d  
311. Office(n)-karyalayam-karyalayam-s  
312. Often(ad)-palapozhum-tarachu-d  
313. Oil(n)- enna-nuney-d  
314. old(adj)- paraya-patha-d  
315. On(ad)-onan-pai-d  
316. Once(ad)-orikkal-okasari-d  
317. One(n)-onn-okati-s  
318. only(adj)-mathram-mathram-s  
319. open(adj)-turanna-viphu-d  
320. Opt(v)-thirnedukuga-empika-d  
321. Other(adj) -matulav-itara-d  
322. Others(adj)-marrullava-itara-d  
323. Our(n)-nammude-ma-d  
324. Out(ad)-veliyal-bayata-d  
325. Over(ad)-melil-paiga-d  
326. Own(adj)-swantham-sontha-s  
327. Package(n)-pakkej-pyakeji-s  
328. Paint(v)-chayam-peyint-d  
329. Paper(adj)-pepar-kagitam-d  
330. Part(n)-bhagam-bhagam-s  
331. Past(adj) -budhkalam-gata-d  
332. Path(n)-margam-margam-s  
333. Pay(v)-adaykuga-cellincandi-d  
334. People(n)-alukal-prajalu-d

335. Perhaps(ad) -oruopakshe-bahusa-d  
336. Person(n)-vyakthi-vyakthi-s  
337. Physical(adj) -sharirigam-shariraka-s  
338. Pick(v)-edukuga-enchukondi-d  
339. Picture(n)-chithram-chitram-s  
340. Place(n)-sthalam-sthalam-s  
341. Place(v)-vakan-pettunduku-d  
342. Plant(n)-chedi-mokka-d  
343. Play(n)-kalikan-adhuko-d  
344. Play(v)-kalikyuga-adandi-d  
345. Point(n)-pulli-chuka-d  
346. Polite-mariyada-mariyada-s  
347. Political(adj) -rashtriya-rajakiya-s  
348. Poor (adj)-pavam-peda-d  
349. Position(n)-sthanam-sthanam-s  
350. Possible(adj) -sadyamaan-sadhyame-s  
351. Power(n)-shakti-sakti-s  
352. Present(v)-saanityam-prastutam-d  
353. President(n)-rashtrapati-rastrapati-s  
354. Pretty (ad)-sundari-cakkani-d  
355. Probably(ad)- orupakshe-bahusa-d  
356. Problem(n)- prashnam- samasya-d  
357. Promise(v)-vagdhanam-vagdanamu-s  
358. Provide(v)-nalkug-andincadaniki-d  
359. Public(adj) -pothu-praja-d  
360. Put(n)-vakk-pethu-d  
361. Put(v)-vak-calu-d  
362. Quickly (ad)-vegthil-twaraga-d  
363. Quite(ad) -valare-nisabamga-d  
364. Raise (v)-uyarthuga-penchandi-d  
365. Ramble(v)-nadukuga-shikaru-d  
366. Reach(v)-ethicheruga-cerukondi-s  
367. Read(n)-vayikkuka-chadavandi-d  
368. Real (adj)-yatharth-nijamaindi-d  
369. Really(ad)-sherikum-really-d  
370. Reason(n)-karnam-karanam-s  
371. Recent (adj)-samipkalam-itivali-d  
372. Recently(ad)- aduthide-itivala-d  
373. Red (adj)-chomap-erupu-d  
374. Remain(v)-nilnilkuga-migiliunnayi-d  
375. Result(n)-nirnayam-phalitam-d  
376. Right(adj) -sheri-sariga-d  
377. Right(n)-valath-kudi -d  
378. River(v)-nadhi-nadhi-s  
379. Room(n)-muri-gadi-d  
380. Run(v)-od-parigetud  
381. Said(v)-parannu-anaru-d  
382. Same(adj)-athe-ade-s  
383. Satisfy(v)-triptipeduga-santripti-s  
384. Saw(n)-kandu-chusa-d  
385. Say(v)-parayuka-chepu-d  
386. School(n)-vidhyalayam-vidhyalayam-s  
387. Scream(v)-nilavili-kekalu-d  
388. Sea(n)-kadal-samudram-d  
389. Search(v)-thirayuga-vetakandi-d  
390. Second(n)-randaam-rendava-s  
391. Secret(n)-rahasyam-rahasyam-s  
392. See(v)-kanuka-chudandi-d  
393. Seem(v)-thonnunu-anipinchi-d  
394. Send(v)-aayikyug-pampandi-d  
395. Sense(v)-ithiyam-bhavam-d  
396. Sentence(n)-vakyam-vakyam-s  
397. Service(n)-sevanam-seva-s  
398. Set(v)-sajjamakkuka-sariga-d  
399. She(n)- aval-ame-d  
400. Short(adj) -kuriyth-cinnadi-d  
401. Should(v)-cheyyanam-undali-d  
402. Show(v)-kanikkuka-kanipinchu-s  
403. Side(n)-vasham-vaipu-d  
404. Silence(n)-nishabhdam-nissabdam-s  
405. Simple (adj)-lalitham-sadharana-d  
406. Simply(ad)- lalithmaayi-kevalam-d  
407. Singer(n)-gayaka-gayakudu-s  
408. Single(adj) -otta-vantariga-d  
409. Small(adj)-cheruth-chinna-d  
410. So(ad)-athinal-kabatti-d  
411. Social(adj) -samuhik-samajika-s  
412. Some(n)-chilath-konni-d  
413. Something(ad)-entho-edo-s  
414. Song(n)-gaanam-pata-d  
415. Soon(ad)-udan-tvaralo-d  
416. Special(adj) -prathyeg-pratyeka-s  
417. Spell(v)-manthram-manthram-s  
418. Stand(v)-nilpad-nilabadatam-s  
419. Start(v)-arambhikkuka-arambam-s  
420. State(n)-sansthanam-rasta/stithi-d  
421. State(n)-sansthanam-rastram-d  
422. Still(ad)-nischalamaya-ippataki-d  
423. Stop(v)-nirthuka-aphu/aghud  
424. Story(n)-katha-katha-s  
425. Strong(adj) -shaktan-balanga -d  
426. Student(n)-vidhyarthi-vidyarthi-s  
427. Study(n)-padanam-adhyayanam-d  
428. Such(ad)-atharam-ituvanti-d  
429. Suddenly(ad)- pettun-akasmattuga-d  
430. Sure(adj) -orupaano-khaccitanga-d  
431. System(n)-vyavastha-vyavastha-s  
432. Take(v)-etukkuka-tisukovadam-d  
433. Talk(v)-sanvadam-charcha-d  
434. Tall(adj) -uyaramullath-podavainadi-d  
435. Tell(v)-parayuka-chepandi-d  
436. Than(n)-ennathinekkal-kante-d  
437. That(ad)-ith-a-d  
438. Their(n)-avarude-vari-d  
439. Them(v)-avare-vatini-d  
440. Then(ad)-pinne-apudu-d  
441. There(ad)-avide-akkada-d  
442. These(adj)-iva-ivai-s  
443. They(v)-avar-avarkal-s  
444. Thing(n)-karyam-vishayam-d  
445. Thing(n)-vasthu-vasthuvu-s  
446. Think(v)-chinthikkuka-alochinchu-d



447. This(adj)-ith-idhi-s
448. Those(adj)-a-avi-s
449. Thought(v)-chinthha-alochana-d
450. Three(n)- moonu-mudu-s
451. Through(ad)-vazhi-dvara-d
452. Thus(ad) -angane-E vidhanga-d
453. time(n)-samayam-samayam-s
454. Tiredly (ad)-kshithnmaayi-alasatato-d
455. Today(ad)- inn-E roju-d
456. Together(ad)-orumich-kalisi-d
457. Tonight(ad)- innratri-iratriki-s
458. Too(ad)-athum-cala-d
459. Tree(n)-maram-cettu-d
460. True (adj)-sheri-Nijam -d
461. try(v)-sramikkuka-prayatna-d
462. turn(v)-valav-malupu-d
463. Two(n)-rand-rendu-s
464. Under(ad)-kiril-kinda-d
465. Up(ad)-mukalilekk-paikki-d
466. Us(n)-nammal-maku-d
467. use(v)-upayogam-vadu-d
468. Various(adj) -vividha-vividha-s
469. Very(ad)-valare-cala-d
470. Walk(v)-nadakkuka-nadichi-s
471. War(n)-yudham-yudham-s
472. Was(v)-ayirunnu-vundhi-d
473. Watch(v)-kannum-chudu-d
474. water(n)-vellam-niti-d
475. way(n)-vari-margam-d
476. We(n)-namal-memu-d
477. Well(ad) -sheri-baga-d
478. What(n)-enth-emi-d
479. When(ad)-eppol-eppudu-s
480. Where(ad)-evide-ekkada-d
481. Which(adj)-eth-idi-d
482. While(n)-athesamayam-ayitey-d
483. white(adj)-vella-telupu-d
484. Who(ad)-araan-evaru-d
485. Whole(adj) -motham-mottam-s
486. Whom(ad)-aar-virilo-d
487. Why(ad)-entukonde-enduku-s
488. Wife(n)-bharya-bharya-s
489. Wildlife(n)-vanyajivi-vanyapranulu-d
490. Wildly-Kruranga-vanyamayi-d
491. Win (v)-jayam-jayam-s
492. Wind(n)-katt-gali-d
493. Window(n)-jalakam-kitiki-d
494. Without(n)-kodathe-lekunda-d
495. Woman(n)-stree-stree-s
496. Wood(n)-Thadi -cekka-d
497. word(n)-vaak-padam-d
498. world(n)- lokam-lokam-s
499. write(v)-eruth-vrayu-d
500. Wrong(adj) -thetaan-tappu-d
501. year(n)-varsham-samvastramu-s
502. Yesterday(ad)-innale-ninna-d
503. Yet(ad) -ennitum-inka-d
504. Yielding(ad)- kayakunna-digubadi-d

First of all, we need to see the Time-Depth between Malayalam and Telugu based on the glottochronological approach as follows:

### *Time Depth Of Malayalam And Telgu*

$$t = \frac{\log C}{2 \log r}$$

Where

t= time of separation

c= percentage of shared core vocabulary

r= the glottochronological constant (= 81%)

The result of computing the values using the above formula is as follows:

$$t = \frac{\log .58}{2 \log .81}$$

After computing the log value in the above formula, the result is as follows:

$$t = \frac{.545}{2 \times .217}$$

$$t = \frac{.545}{.434}$$

$$t = 1.2557603686635$$

The quotient of .545 divided by .434 gives 1.2557603686635 which is the indicated time depth, 't'. This needs to be read further as Malayalam and Telugu separated from each other about 1255 years ago.

In this study, 125 Malayalam and Telugu **adjective** lexicons. There are 40 similar lexicons and 85 dissimilar lexicons.

In this study, 125 Malayalam and Telugu **adverb** lexicons. There are 32 similar lexicons and 93 dissimilar lexicons.

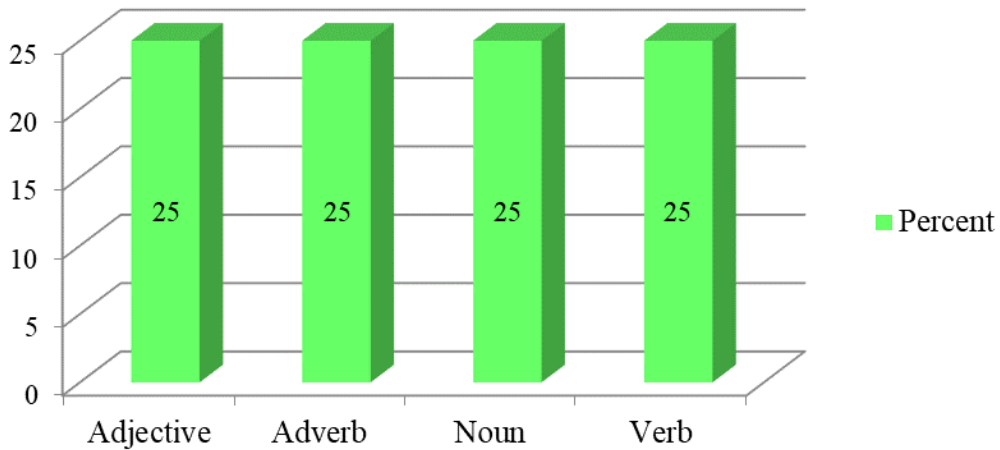
In this study, 125 Malayalam and Telugu **noun** lexicons have been analysed. There are 80 similar lexicons and 45 dissimilar lexicons.

In this study, 125 Malayalam and Telugu **verb** lexicons. There are 33 similar lexicons and 92 dissimilar lexicons.

In this study, in total 500 Malayalam and Telugu lexicons have been analysed. There are 185 similar words and 315 dissimilar words in these 500 words.

**Table 1: Parts of Speech**

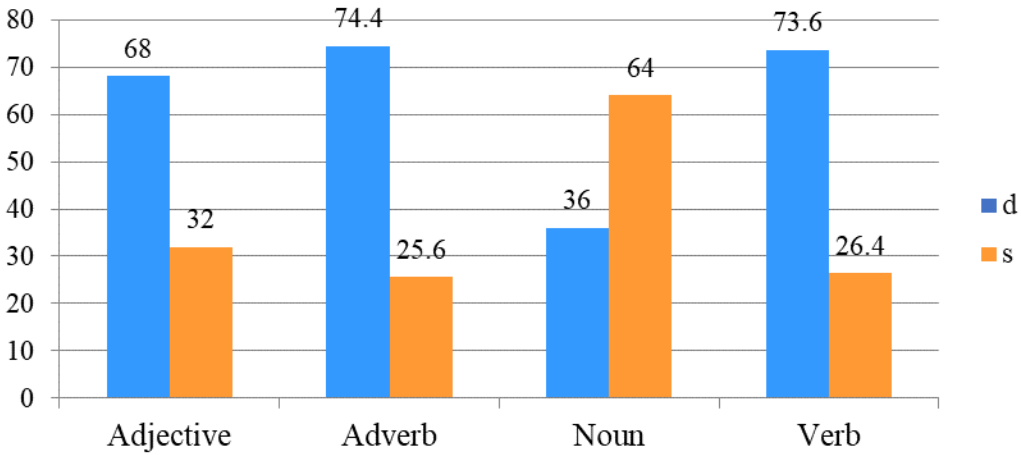
Parts of Speech	Frequency	Percent	Valid Percent
<b>Adjective</b>	125	25.0	25.0
<b>Adverb</b>	125	25.0	25.0
<b>Noun</b>	125	25.0	25.0
<b>Verb</b>	125	25.0	25.0
<b>Total</b>	500	100.0	100.0



In Table 1, we can observe that the data of 500 sample lexicons comprises of 125 each set of lexicons for each part of speech namely Adjective, Adverb, Noun and Verb respectively. Therefore, the data of 500 sample lexicons comprises of 25% of each part of speech in it.

**Table 2: Cross-tabulation between Parts of Speech and Index of Similarity and Dissimilarity**

<b>Parts of Speech</b>		<b>D</b>	<b>s</b>	<b>Total</b>
<b>Adjective</b>	Frequency	85	40	125
	Row N %	68%	32%	100.0%
<b>Adverb</b>	Frequency	93	32	125
	Row N %	74.4%	25.6%	100.0%
<b>Noun</b>	Frequency	45	80	125
	Row N %	36%	64%	100.0%
<b>Verb</b>	Frequency	92	33	125
	Row N %	73.6%	26.4%	100.0%
<b>Total</b>	Frequency	315	185	500
	Row N %	63%	37%	100.0%



**Note:**

**d** denotes for dissimilar words in context of words being dissimilar phonologically

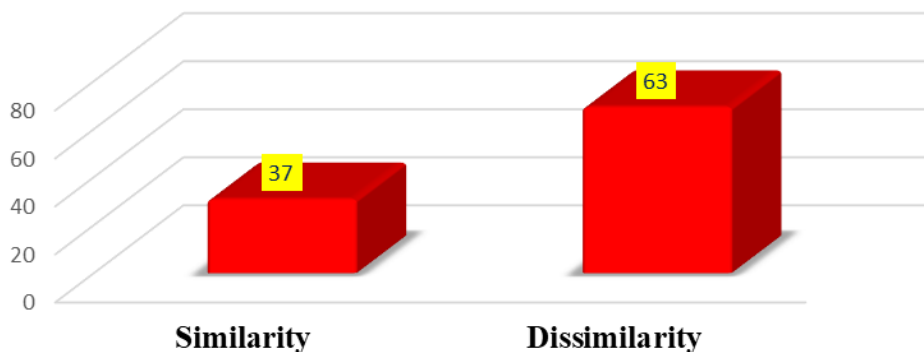
**s** denotes for similar words in Malayalam and Telugu in context of having common words or phonologically

In Table 2, we can observe that the data of 125 sample lexicons of Adjective has 68% dissimilar words and 32% similar words, Adverb has 74.4% dissimilar words and 25.6% similar words. Noun has 36% dissimilar words and 64% similar words, Verbs has 73.6% dissimilar words and 26.4% similar words. In total, 500 sample lexicons have 63% dissimilar words and 37% similar words.

**Table 3: Similarity/ Dissimilarity Index**

Index	Frequency	Percent	Valid Percent	Cumulative Percent
Dissimilarity	315	63	63	63
Similarity	185	37	37	100.0
Total	500	100.0	100.0	

## Percentage



In Table 3, we can observe that the similarity between Malayalam and Telugu Lexicons is 37% with frequency of 185 and the dissimilarity between Malayalam and Telugu Lexicons is 63% with frequency of 315.

**Table 4: Simmilarity/ Dissimilarity**

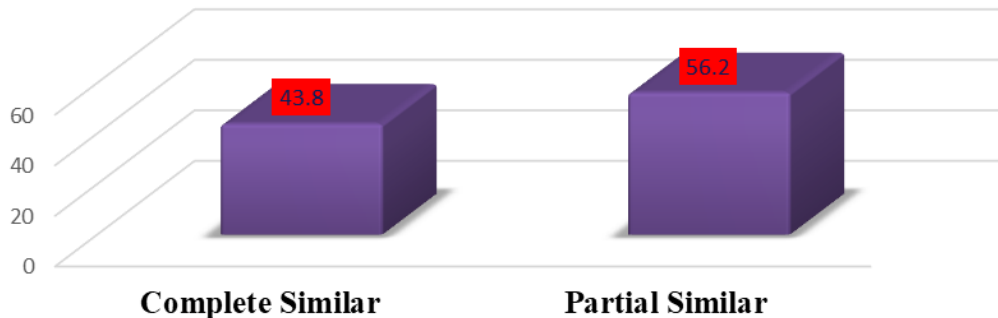
<b>Index</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>cs*</b>	81	43.8	43.8	43.8
<b>ps**</b>	104	56.2	56.2	100.0
<b>Total</b>	185	100.0	100.0	

**Note:**

\*cs denotes for completely similar words in Malayalam and Telugu (e.g., Book means pustakam in both the languages)

\*\*ps denotes for partially similar words (phonologically similar)

## Percentage



In Table 4, we can observe that the data of 185 similar words from 500 sample lexicons is being classified into 81 completely similar words and 104 partially similar words. Therefore, the data of 185 sample lexicons have 43.8 % completely similar words and 56.2% partially similar words.

1. **Absolute** 2. **Academic** 3. **Art** 4. **Body** 5. **Book** 6. **Brotherly** 7. **Central** 8. **City** 9. **Coffee** 10. **Common** 11. **Community** 12. **Company** 13. **Country** 14. **Dance** 15. **Earth** 16. **Enjoyment** 17. **Example** 18. **Face** 19. **Fact** 20. **Family** 21. **Foot** 22. **Form** 23. **Gain** 24. **General** 25. **Go** 26. **Group** 27. **Head** 28. **Health** 29. **Healthy** 30. **Help** 31. **Independent** 32. **Kind** 33. **Land** 34. **Life** 35. **Lifestyle** 36. **Line** 37. **Magazine** 38. **Management** 39. **Marry** 40. **Minute** 41. **Month** 42. **Mother** 43. **Mountain** 44. **Nature** 45. **Near** 46. **Night** 47. **Object** 48. **Office** 49. **Only** 50. **Part** 51. **Path** 52. **Person** 53. **Personal** 54. **Picture** 55. **Place** 56. **Polite** 57. **Position** 58. **Power** 59. **President** 60. **Reason** 61. **River** 62. **Same** 63. **School** 64. **Secret** 65. **Sentence** 66. **Silence** 67. **Sound** 68. **Special** 69. **Spell** 70. **Story** 71. **Student** 72. **System** 73. **Time** 74. **Various** 75. **War** 76. **Whole** 77. **Wife** 78. **Win** 79. **Woman** 80. **World** 81. **Young**, these words are the common words in both the language.

## Phonological Analysis:

In this study, the three types of phonological phenomena of sound shift or change were explored based on the partially similar words from 600 sample lexicons.

### 1. Assimilation

Assimilation is a process whereby two sounds in sequence become more similar to each other or one sound becomes more like another. Assimilation may be complete or partial. Many consonant assimilation of Italian are examples of complete assimilation, which are the result of the progressive development of a language. For example, Latin "septem" seven became Italian "sette". The great majority of assimilations take place between contiguous segments, and the great majority involve the earlier one becoming more like the later one (e.g. in connūbium, m- + n becomes -nn- rather than -mm-). Partial assimilation affects only a subset of a given segment's features. An example of partial assimilation is "imbibe", from "in-bibo" drink in, [n] has been only partially assimilated to the [b]. Assimilation can also be progressive or regressive. Progressive assimilation is a process whereby a sound acquires some features of a preceding sound. For example, Hindi, "chakra>chakka" wheel. Whereas, regressive assimilation is a process whereby a sound acquires some of the features of the following sound. For example, the fronting "t" to "ch" in Spanish words like "fecho" from earlier "fieto" (<factum).

1. Air(n)-/va:ju:/-/va:jvu:/-ps
2. Back (ad)-/θir**ike**/-/θir**iki**/-ps
3. Blue (adj)-/ni:l/-/ni:lm/-ps
4. Example(n)-/ʊda:hr**ηm**/-/ʊda:hr**ηa**/-ps
5. Greet(v)-abhivadyam-abhinandinchu-ps
6. Harmfully (ad)-/ha:nigr**rm**/-/ha:nigr**nga**/-ps
7. History(n) /tʃriθ**rm**/-/tʃriθ**ra**/-ps
8. Immense-/apa:rma:**n**/-/apa:rma:**ndi**/-ps
9. Lord(n)-/jdʒma:nn/-/jdʒma:ni/-ps
10. Majorly (ad)-pr<sup>h</sup>a:nma:jum- pr<sup>h</sup>a:nanga:-ps
11. Man(n)-man**ujn**- man**i**-ps
12. Mathematically(ad)- g<sup>h</sup>iθ**ja**:sθrpr**ma:yi**- g<sup>h</sup>iθ**sa**:sθrpr**nga**:-ps
13. Meaningfully(ad)- ar**θ**pu:rvm-ar<sup>h</sup>**d**ha:nθnga:-ps
14. Natural(adj) -swa:b<sup>h</sup>a:**vikm**- swa:b<sup>h</sup>a:**vm**-ps



15. Medicine(n)-mrun-mnḍu-ps
16. Medical(adj) -vaidjsmb<sup>h</sup>dmy-vaidj-ps
17. Service(n)-/se:vnm/-/se:va::/-ps
18. Something(ad)-endo: -edo-ps
19. These(adj)-/iv/-/ivai/-ps
20. They(v)-/avr/-/avrkl/-ps
21. Three(n)-mu:n-muḍu-ps

In the aforementioned data for assimilation, we can see that

- /ke>ki/ in Back (ad)-/θirike/-/θiriki/-ps
- /m>a:/ in Example(n)-/oḍa:hrṇm/- /oḍa:hrṇa:/-ps
- /rm>rnga:/ in Harmfully (ad)-/ha:nigrm/-/ha:nigrnga:/-ps
- /n>ndi/ in Immense-/apa:rma:n/-/apa:rma:ndi/-ps
- /u>i/ in Man(n)-manujn- maniḥi-ps
- /jn>i/ in Man(n)-manujn- maniḥi-ps
- /j>s/ in Mathematically(ad)- gṇiθfa:sθrprma:yi- gṇiθsa:sθrprrnga:ps
- /vikm>vm/ in Natural(adj) -swa:b<sup>h</sup>a:vikm- swa:b<sup>h</sup>a:vm-ps
- /nm>a:/ in Service(n)-/se:vnm/-/se:va::/-ps
- /n>du/ in Three(n)-mu:n-muḍu-ps

## 2. Sandhi

Conditioned changes that take place at word-boundaries but not elsewhere. It can be morpheme-specific, as in the loss of the vowel in the enclitic forms of English is /iz/, with subsequent change of /z/ to /s/ adjacent to a voiceless consonant Frank's not here /frænksnathir/. Or a small class of elements, such as the assimilation of the /ð/ of English the, this and that to a preceding /n/ (including the /n/ of and when the /d/ is elided). A striking exception is Sanskrit, whose orthography reflects a wide variety of such features: thus tat "that" is written tat, tac, taj, tad, tan depending on what the first sound of the next word is. These are all assimilations, but medial sequences do not assimilate the same way.

1. Away(ad) -/ḍu:re/-/ḍu:rnga:/-ps
2. Directly (ad)-nere-neruga-ps
3. Far(ad) -dure-dura:muga:-ps
4. Fast(ad) -vegṭa:vegrnga:ps

5. Feel(v)-/anubh**vm**/-/anubh**uti**/-ps
6. Foreign(adj) -/videf/- /videf*iyulu*/-ps
7. Forward (ad)-munbilot-munduku-ps
8. Heavy (adj)-/bha:**rm**/-/bha:**ri**/-ps
9. Human(adj) -/mnuʃn/-/mnuʃjulu/-ps
10. Magically(ad)-adb<sup>h</sup>u**θm**-adbhu**θnga**:-p.s
11. Manage(v)-niynθrikjug-nirvhintʃda:niki-ps
12. Military(adj) -saini**ym**-saini**ka**:-ps
13. Milk(n)-/pa:**l**/-/pa:**lu**/-ps
14. Nearby(ad) -smipθ-smipa:mlo-ps
15. Political(adj) -/ra:ʃtrij/-/ra:ʃkij/-ps
16. Religious(adj) -mθprma:j-mθprmaina:-ps
17. Singer(n)-/ga:y**kn**/-/ga:y**kudu**/-ps
18. Social(adj) -/sa:mu:hik/-/sa:ma:jik/-ps
19. Stand(v)-nil**pa**:d-nil**bd**tm-ps
20. Start(v)-/a:rmbhikjuk/-/a:rmbhm/-ps
21. Tasty(adj) -rutʃi**grm**-rutʃi**k**rmaina:-ps
22. Teacher(n)-/adja:p**kn**/-/adja:p**kudu**/-ps
23. Wonderfully(ad)-aθb<sup>h</sup>uθgrma:yi- aθb<sup>h</sup>u**θnga**:-ps

In the aforementioned data of sandhi, we can see that

- /re> rnga/ in Away(ad) -/ðu:**re**/-/ðu:**rnga**:/-ps
- / re> ruga/ in Directly (ad)-nere**re**-neruga-ps
- /vm> uti/ in Feel(v)-/anubh**vm**/-/anubh**uti**/-ps
- /m>i/ in Heavy (adj)-/bha:**rm**/-/bha:**ri**/-ps
- / θa:> nga:/ in Fast(ad) -veg**θa**:-veg**nga**:-ps
- / m> nga:/ in Magically(ad)-adb<sup>h</sup>u**θm**-adbhu**θnga**:-ps
- /ym>ka/ in Military(adj) -saini**ym**-saini**ka**:-ps
- /l>lu/ in Milk(n)-/pa:**l**/-/pa:**lu**/-ps
- /kn>kudu/ in Singer(n)-/ga:y**kn**/-/ga:y**kudu**/-ps and Teacher(n)-/adja:p**kn**/-/adja:p**kudu**/-ps
- /p>b/ in Stand(v)-nil**pa**:d-nil**bd**tm-ps
- /g>k/ in Tasty(adj) -rutʃi**grm**-rutʃi**k**rmaina:-ps

### 3. Dissimilation

Unlike assimilation, dissimilation is a process whereby a sound becomes less like another in its vicinity. Liquids, nasals, and segments that demand complete readjustments in the glottis such as aspirated murmured, glottalized stops, seem particularly prone to dissimilation. For example, Latin "purpur" became "purple" in English. Romance \*omine "man" became Spanish hombre.

1. Ahead (ad)-mun**ot**-mund**uku**-ps
2. Also (ad)-/ku:ʈa:te/-/ku:ʈa/-ps
3. Around (ad)- /ʈfutum/-/ʈfutu/-ps
4. Both(n)-/rndum/-/rendu/-ps
5. do(v)- /ʈʃejuk/-/ʈʃeju/-ps
6. eye(n)-/k**nn**/-/k**nu**/-ps
7. Mentally(ad)- /ma:nsikma:ji/-/ma:nsiknga:/-ps
8. name(n)-/pe:r/-/pe:ru/-ps
9. need(v)-/a:vt**ʃ**m/-/a:vs**r**m/-ps
10. Now(ad)-/ipo:l/-/ipudu/-ps
11. One(n)-/v**n**/-/v**k**ti/-ps
12. Possible(adj) -/sa:dhy**ma:n**/-/sadh**me**/-ps
13. Second(n)-/rnda:m/-/rendva:/-ps
14. Show(v)-/ka:nikjuk/-/knipintʃu/-ps
15. Tonight(ad)-iŋra: **θ**ri-ira:r**θ**riki-ps
16. Two(n)-/rnd/-/rendu/-ps
17. Walk(v)-ndkuk-nditʃi-ps
18. Youthfully(ad)- yuvθvθode- yvnnga:-ps
19. Wonderfully(ad)-ad<sup>h</sup>buθgrma:ji- ad<sup>h</sup>buθnga:-ps
20. Nearby(ad) -smipθ- smipnlo-ps
21. Similar (adj) -sma:nma:n-smma:jna:-ps

In the aforementioned data for assimilation, we can see that

- /ot>duku/ in Ahead (ad)-mun**ot**-mund**uku**-ps
- /nn>nu/ in eye(n)-/k**nn**/-/k**nu**/-ps
- /tʃ>s/ in need(v)-/a:vt**ʃ**m/-/a:vs**r**m/-ps
- /n>kti/ in One(n)-/v**n**/-/v**k**ti/-ps
- /ma:n>me/ in Possible (adj) -/sa:dhy**ma:n**/-/sadh**me**/-ps

#### 4. RESULTS AND ANALYSIS

- In this study, 150 Malayalam and Telugu **adjective** lexicons. There are 40 similar lexicons and 110 dissimilar lexicons.
- In this study, 150 Malayalam and Telugu **adverb** lexicons. There are 32 similar lexicons and 118 dissimilar lexicons.
- In this study, 150 Malayalam and Telugu **noun** lexicons have been analysed. There are 80 similar lexicons and 70 dissimilar lexicons.
- In this study, 150 Malayalam and Telugu **verb** lexicons. There are 33 similar lexicons and 117 dissimilar lexicons.
- In this study, in total 600 Malayalam and Telugu lexicons have been analysed. There are 185 similar words and 415 dissimilar words in these 600 words.
- This study classified similar words into completely similar words and partially similar words. This study explored 81 completely similar words out of 185 similar words in Malayalam and Telugu.
- In this study, partially similar words were analysed phonologically. The phonological analysis shows that partially similar words are following assimilation (/ke>ki/, /m>a:/, /rm>rnga:/, /n>ndi/, /u>i/, /jn>i/, /ʃ>**s**/, /vikm>vm/, /nm>a:/ and /n>du/), sandhi(/re> rnga/, / re> ruga/, /vm> uti/, /m>i/, / θa:>nga:/, / m> nga:/, /ym>ka/, /l>lu/, /kn>kudu/, /p>b/ and /g>k/) and dissimilation (/ot>duku/, /nn>nu/, /tʃ>s/, /n>kti/ and /ma:n>me/).

## References

- Jha, S.K. (2019). *Exploring the Degree of Similarities between Hindi and Maithili Words from Glottochronological Perspective*. International Journal of TESOL and Applied Linguistics.
- Swadesh, M.(1955). *Towards Greater Accuracy in Lexicostatistic Dating*. International Journal of American Linguistics 21:121-37.
- Nair, P.L. (2019). *A Glottochronological Insight into Malayalam and Tamil Lexicons*.International Journal of TESOL and Applied Linguistics.
- Yalamanchili, S. & Kaleron, K.S. (2020). *A Glottochronological Insight into Hindi and Telugu Lexicons*.International Journal of TESOL and Applied Linguistics.
- Johnson, K. (2008). *An Introduction to Foreign Language Learning and Teaching*.Pearson Longman.