



Exploring the Degree of Similarities between Hindi and Maithili Words from Glottochronological Perspective

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Received: July 13, 2019

Accepted: July 22, 2019

Online Published: August 30, 2019

Abstract

The prime objective of this study is to explore the degree of similarities between Hindi and Maithili words using glottochronological approach. In doing so a representative sample of 237 basic words were taken from Hindi followed by listing their equivalents in Maithili. The findings revealed 177 words with partial phonological similarity between Hindi and Maithili. Furthermore, the study also revealed that these two languages had belonged to one common parent language 693 years ago.

1. Introduction

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 (237 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 has been prepared in terms of Hindi-Maithili 237 words considered to the representative samples.

1. A-ek-ek-s
2. About-ke bare me-ka bare me-s
3. Above-upar-ooper-s
4. Add-jodna-joirna-s
5. After-bad me-bad me-s
6. Again—punah/phirse-pher se-s
7. Air-hava-haba-s
8. All-sab-sab ta-s
9. Almost-lagbhag- lagbhag-s
10. Along-sath me-sath me-s
11. Also-bhi- hu/ho/ko-d
12. Always-hamesha-hardam-s
13. And-aur/evam-aar-s
14. Animal-jaanvar- jaanvar-s
15. Another-ek aur- ek ta aar-s
16. Answer-uttar- uttar-s
17. Any-koi bhi- kunu bhi-s
18. Around-charo or-charu or-s
19. Ask-puchhna-puchhne-s
20. At-par-par-s
21. Away-dur-dur- s
22. Back-pichhe-pachha-s
23. Bad-bura-adhlaah-d
24. Ban-pratibandh-roak-s
25. Because-kyonki- kiya ta-s
26. Bed-bistar/bed-bistar-s
27. Big-bara-paigh-d
28. Book-kitaab-kitaab-s
29. Both-dono-dunu-s
30. Boy-larka- chhaura-d
31. Bring-lana-lana/nene-s
32. But-parantu/lekin-mudaa-d
33. By-dwara-dwara-s
34. Call-bulana-baja-d
35. Car-kar-kar-s
36. Change-parivartan-parivartan-s
37. Children-bachche-bhentaari-d
38. City-shahar-sahar-s
39. Close-band-munab-d
40. Cold-thandha-kankani-d
41. Come-aanaa-aayab-s
42. cough-kaph-kaph-s
43. country-desh-desh-s
44. cut-katna-danaasab-d
45. daily-dainik/roj-roje-s
46. day-din-din-s
47. do-karna-karab-s
48. door-darwaja-kebaari-d
49. down-niche-nichaa-s
50. earth-dharti-dharti-s
51. eat-khana-khaayab-s
52. end-ant-ant-s
53. enough-paryapt-paryapt-s
54. example-udahran-udahran-s
55. eye-aankh-aainkh-s
56. family-pariwaar-pailwaar-s
57. father-pita/baap-baap-s
58. few-kuchh- kani-s
59. find-pana-paayab-s
60. first-prtham/pahla-pahil-s
61. food-bhojan-bhajan-s
62. for-ke liye-lel-s
63. form-roop-dhab-d
64. from-se-se-s
65. get-paana-d
66. girl-larki- chhauri-d
67. give-dena-deab-s
68. go-jana-jaayab-s
69. good-achchha-neek-d
70. great-mahan-mahan-s
71. group-jhund-jhund-s
72. grow-badhna-badhab-s
73. had-tha-chhalai/rahai-s
74. hand-haath-haath-s
75. hard-kathin-kathin-s
76. has/have-hai-chhai-d
77. he-vah-o-s
78. head-sir-matha-d
79. hear-sunana-sunab-s
80. help-madad karna-madad karna-s
81. here-yahan-ahi thaam-d
82. high-uncha-unch-s
83. hot-garm-garam-s
84. house-ghar-ghar-s
85. how-kaise-kena-s
86. I-mai-hum-d
87. Idea-vichar-vichar-s
88. If-yadi/agar-agar-s
89. Important-mahatvpurn-khaas-d
90. In-me-me-s
91. Is-hai-chhai-d
92. Item- vastu-cheez-d

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| 93. Just- keval/abhi-abhi-akhan-d | 139. | no-na/nahi-nai-s |
| 94. Keep- rakhna-raakhab-s | 140. | now- ab-akhan-s |
| 95. Kind- dayaalu/prakaar-dayaalu-s | 141. | number- sankhya-sankhya-s |
| 96. Know- Jaanana-jaanab-s | 142. | of-ka-ker-s |
| 97. Land- jameen-jameen-s | 143. | off-band-band-s |
| 98. Large- vishaal-paigh-d | 144. | often- aksar-bahudha-d |
| 99. Last- antim-antim-s | 145. | oil- tel-tel-s |
| 100. Later-baad me-baad me-s | 146. | old- praana/budha-puraan-s |
| 101. Learn- seekhana-seekhab--s | 147. | on- per-per-s |
| 102. Leave- chhodna-chhorab-s | 148. | once- ek baar-d |
| 103. Left- baaen-baam-s | 149. | only- keval-d |
| 104. Let- chalo-chaloo-s | 150. | open- khula-khulla-s |
| 105. Letter- patra/chiththi-chiththi-s | 151. | or- ya/athwaa-va-s |
| 106. Life- jindagi/jeevan-jingi-s | 152. | other- annya-aan-s |
| 107. Like- jaisa-jokan-s | 153. | our- hamaara-hamar-s |
| 108. Line- rekhaa-lakeer-d | 154. | out- bahar-bahar-s |
| 109. Little- thoda-kani-d | 155. | over-ooper-ooper-s |
| 110. Live- rahna- rahab-s | 156. | own- apna-apan-s |
| 111. Long- lamba-lamba-s | 157. | Path-path/raasta-rasta-s |
| 112. Look- nazar/roop-nazar-s | 158. | Paper-kaagaz-kaagaz-s |
| 113. Lose- khona-khoab-s | 159. | Part-hissaa/bhaag-hiss/bhag-s |
| 114. Main-mukhy/pradhaan-mukh-s | 160. | People- log-lok-s |
| 115. Make- banana-banayab-s | 161. | Plant- vanaspati-vanaspati-s |
| 116. Man- aadmee-aadmee-s | 162. | Play- khel-kher-s |
| 117. Many- anek/bahut-badd-s | 163. | Point- bindu-bindu-s |
| 118. May- sakna-sakai-s | 164. | Present- vartmaan-maujood-d |
| 119. Me-mujhe-hamro-s | 165. | Put- daalna/rakhna-daalab-s |
| 120. Mean- matlab-mane-s | 166. | Read-padhna-padhab-s |
| 121. Meet- milna-milab-s | 167. | Really- sachmuch-albat-d |
| 122. Mid- madhy/bich-bich-s | 168. | Right- sahi/daahine-daheen-d |
| 123. Milk- dudh-dudh-s | 169. | River- nadi-nari-s |
| 124. Mistake- galati-galti-s | 170. | Run- daud/chalaana-daurnaai-s |
| 125. More-aur-aar-s | 171. | Said- kaha-kahal-s |
| 126. Morning- subhah-bhor-s | 172. | Same- samaan-ek joka-d |
| 127. Mother- maa-maa-s | 173. | Saw-dekha-dekhal-s |
| 128. Mountain-pahaar-shail-d | 174. | Say- kehna-kahab-s |
| 129. Move- chalna-chalu-s | 175. | School-vidyaalai-chatisaar-d |
| 130. Much- bahut-dher-d | 176. | Sea- samudra-samudra-s |
| 131. My- mera-hamar-d | 177. | Second- dwitiyai-dwitiyai-s |
| 132. name-naam-naam-s | 178. | See- dekhna-dekhab-s |
| 133. near- pass-lag-d | 179. | Seem-lagna-lagab-s |
| 134. need- jaroorat-jroorat-s | 180. | Sentence-waakya-waakya-s |
| 135. never-kabhi nahi-kakhno nai-s | 181. | Set- samuh-samuh-s |
| 136. new-naya-arvaachin-d | 182. | She- vah-o-d |
| 137. next- aglaa-agulka-d | 183. | Should-chaahiye-chaahab-s |
| 138. night- raat-raait-s | 184. | Show-dikhana-dekhaib-s |

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| 185. | Side- disha/paksh-pachh-s | 231. | without- ke bina-bina-d |
| 186. | Small- chhota-chhot-s | 232. | word- shabd-shabd-d |
| 187. | So-so/isliye-tain-d | 233. | work- kaam-kaaj-s |
| 188. | Some- kuchh-kani-s | 234. | world- duniya-duniya-s |
| 189. | Song- geet-geet-s | 235. | write- likhna-likhab-s |
| 190. | Soon-shighra-turante-d | 236. | you- tum-tu/ahan-s |
| 191. | Start-shuru karna-shuru karab-s | 237. | your- tumhara/aapka-ahank-s |
| 192. | Still- phir bhi-taiyo-d | | |
| 193. | Stop- rok dena-rokab-s | | |
| 194. | Story- kahaani-khissa-s | | |
| 195. | Such- aisa-ehen-d | | |
| 196. | Take- lena-leb-s | | |
| 197. | Talk-gap karna-gap karab-d | | |
| 198. | Tell- kahna-kahab-s | | |
| 199. | That- vah-o-d | | |
| 200. | Their-unka-hunkar-s | | |
| 201. | There-wahan-ota-d | | |
| 202. | They-wei-o sab-d | | |
| 203. | This- yah-i-d | | |
| 204. | Thought- vichar-vichar-s | | |
| 205. | Three- teen-s | | |
| 206. | Through-jariye-d | | |
| 207. | ticket-tikat-tikat-s | | |
| 208. | time- samay-samay-s | | |
| 209. | together-saath-eke sang-s | | |
| 210. | tree- ped-gachh-d | | |
| 211. | turn-mor-mor-s | | |
| 212. | two- do-dui-s | | |
| 213. | under-antargat-andar-s | | |
| 214. | very- bahut-bahut-s | | |
| 215. | walk- tahalna-tahlab-s | | |
| 216. | want- chahna-chahab-s | | |
| 217. | was- tha-chhal-d | | |
| 218. | water- paani-pain-s | | |
| 219. | way- raasta/dagar-d | | |
| 220. | we- ham-ham-d | | |
| 221. | well- achhi tarah-nik se-d | | |
| 222. | what- kya-ki-s | | |
| 223. | when- kab-kakhan-s | | |
| 224. | where- kahan-kata-s | | |
| 225. | which- kaun sa-kun-s | | |
| 226. | white- saphed-ujjar-d | | |
| 227. | who- kaun-ke-s | | |
| 228. | whose- kiska-kinkar-s | | |
| 229. | why- kyon-kiya-s | | |
| 230. | with- saath mein-sang-d | | |

In the comparison of Hindi and Maithili, two facts come on surface. Firstly 177 words out of the 237 pairs were registered as probable cognates. Statistically, if we divide 177 by 237, we get .74 (74%). In other words, one can say here that the degree of similarity between Hindi and Maithili is 74%. This is the value which will also be used for C in the time depth formula.

Secondly, the study finds time depth of Hindi-Maithili as to when these two languages started separating from a common parent language. In doing so, the following time depth formula of Swadesh (1956) was used:

Time Depth Formula:

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

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:

$$t = \frac{\log .74}{2 \log .81}$$

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

$$t = \frac{.301}{2 \times .217}$$

$$t = \frac{.301}{.434}$$

$$t = 0.6935$$

The quotient of .301 divided by .434 gives 0.6935483871 which is the indicated time depth, 't'. This needs to be read further as Hindi and Maithili separated from each other about 693 years ago.

Conclusion

Meeting the objectives of the study, the study firstly has revealed the degree of similarities between Hindi and Maithili which was found to be 74%. Secondly, the study reveals that Hindi and Maithili belonging to the same language family, i.e. Indo-Aryan family, started separating from each other about 693 years ago. The authenticity of the data is subject to further research.

References

Swadesh, M. (1955). Towards Greater Accuracy in Lexicostatistic Dating. International Journal of American Linguistics 21:121-37.