A Glottochronological Insight into English and French Lexicon

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Abstract

The prime objective of this study is to explore the degree of similarities between English and French words using glottochronological approach. In doing so a representative sample of 284 basic words were taken from English followed by listing their equivalents in French. The findings revealed 65 words with partial phonological similarity between English and French. Furthermore, the study also revealed that theses two languages had belonged to one common parent language 3488 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 (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 English-French 284 words considered to the representative samples. It is imperative to mention that all the sample words translated in French are in masculine gender.

1. a-un-d
2. about-sur-d
3. above-au dessus de-d
4. add-ajouter-d
5. after-aprés-s
6. again-encore-d
7. air-air-s
8. all-tout-d
9. almost-presque-d
10. along-le long de-d
11. also-aussi-s
12. always-tojuors-d
13. and-et-d
14. animal-animal-s
15. another-un autre-s
16. answer-réponse-d
17. any-tout-d
18. around-environ-d
19. ask/interrogate- interroger-s
20. at-à-d
21. away-loin-d
22. back-arrière-d
23. bad-mauvais-d
24. ban-interdire-d
25. because-parce que-d
26. become-devenir-d do-faire-d
27. bed-le lit-d
28. before-avant-d
29. begin/commence- commencer-s
30. below-au dessous de-d
31. between-entre-d
32. big/grand-grand-s
33. book-livre-d
34. both-tous les deux-d
35. boy-garçon-d
36. bring-apporter-d
37. but-mais-d
38. by-par-d
39. call-appel-d
40. can-pouvez-d
41. canister-boîte-d
42. car-voiture-d
43. carry-porter-d
44. change-changement-s
45. children-les enfants-d
46. city-ville-d
47. close-fermer-d
48. Cold-froid-d
49. Come-viens-d
50. cough-la toux-d
51. country-pays-d
52. cut-couper-d
53. daily-du quotidien-d
54. day-jour-d
55. different-différent-s
56. do-faire-d
57. door-porte-d
58. down-vers le bas/en bas-d
59. earth-terre-d
60. eat\manger-d
61. end\finish-fin-s
62. enough/sufficient-suffisant/assez-s
63. every-chaque/tous/tout-d
64. example-exemple-s
65. eye-yeux-d
66. face-visage-d
67. family-famille-s
68. father-père-d
69. foot-pied-d
70. few-peu-d
71. find-trouver-d
72. first/premier-première-s
73. follow-suivre-d
74. food-nourriture-d
75. for-pour-d
76. form-forme-s
77. from-de-d
78. get/obtain-obtenir/avoir-s
79. girl-fille-d
80. give/donate-donner-s
81. go-aller-d
82. good-bien-d
83. great-gènial/magnifique-d
84. group-groupe-s
85. grow/cultivate-grandir/ cultiver-s
86. had-avait-d
87. hand-main-d
88. hard/difficult-dur/difficile-s
89. has/have-avoir-d
90. he-il-d
91. head-tete-d
92. hear-entendre/ecounter-d
93. help/aide-aider-s
94. here-ici-d
95. high-haute-d
96. hot-chaud-d
97. house-maison-d
98. how-comment-d
99. i-je-d
100. idea-idée-s
101. if-si-d
102. important-important-s
103. in-dans-d
104. is-est-d
105. item/object- l'objet-s

106. just-seulement/juste-s
107. keep- garder-d
108. kind/gentle- gentil-s
109. know-savoir/connaître-d
110. land- terre-d
111. large-gros/grand/large-s
112. last-dernier-d
113. later-plus tard-d
114. learn- apprendre-d
115. leave-partir-d
116. left- gauche-d
117. let-laisser -d
118. letter-lettre-s
119. life-la vie-d
120. light-lumiére-d
121. like- comme/aimer-d
122. line/queue-ligne/la queue-s
123. list-liste-s
124. little-peu/peu de/petit-d
125. live- vivre-d
126. long-longue-s
127. look/expression- regardez/l'expression-s
128. lose-perdu-d
129. main/essential-principale/ essentiel-s
130. make-faire-d
131. man-homme-d
132. many-beaucoup-d
133. may-peut-d
134. me-moi-d
135. mean/significance-signifier-s
136. meet-recontrer-d
137. mid- milieu-d
138. milk-lait-d
139. mistake/error/fault- erreur/faute-s
140. more-encore de-d
141. morning- matin-d
142. mother- mére-d
143. mountain-montagne-s
144. move/displace-déplacer-s
145. much-beaucoup –d
146. my-moi -d
147. name- nom -s
148. near-près-d
149. need-besion –d
150. never-jamais-d
151. new-nouveau-d
152. next-prochain-d
153. night-nuit-s
154. no-non-s
155. now-maintenant -d
156. number-nombre -s
157. of-de-d
158. off-de-d
159. often-souvent -d
160. oil-huile-s
161. old-vieux –d
162. on-sur-d
163. once-unefois -d
164. one-un-d
165. only/solely-seulement -s
166. open-ouvert- -d
167. or-ou-d
168. other-autre -s
169. our-notre -d
170. out-endehors -d
171. over- plus de/ur-d
172. own-poséeder-d
173. page-Page-s
174. path-chemin-d
175. paper-papier-s
176. part-partie -s
177. people/person-personnes-s
178. per-par-d
179. picture/image- image-s
180. place-Endroit-d
181. plant-plante-s
182. play-jouer -d
183. point-point-s
184. present-présent-s
185. put -mettre- -d
186. read-lire-d
187. really-vraiment-d
188. right-droit-d
189. river-rivière-s
190. run-courir-d
191. said-dit-d
192. same-Meme-s
193. saw-vu-d
194. say- dire-d
195. school-École -s
196. sea-mer -d
197. second-deuxième-d
198. see-soir-d
199. seem-semble-s
200. sentence/phrase-phrase-d
201. set-group-d
202. she-Ellee-d
203. should-devrait-d
204. show-montrer-d
205. side-côté-d
206. small- petit-d
207. so-ainsi-d
208. some/certain-certains-s
209. something-quelquechose-d
210. sometimes-parfois-d
211. song-Chanson-d
212. soon-bientôt-d
213. sound-son-d
214. spell-épeler-d

215. start/commence-commencer -s
216. state-état-s
217. still-encore-d
218. stop-arrêter-d
219. story-histoire-d
220. study-étude-d
221. such-tel-d
222. sweets-bonbon-d
223. take-prendre-d
224. talk-parler -d
225. tell-dire-d
226. than-que-d
227. that-ce-d
228. their-leur–d
229. them-eux-d
230. then-puis-d
231. there-là-d
232. these-ceux-ci-d
233. they-ils-d
234. thing-chose-d
235. think/imagine-imaginer-s
236. this-ce -d
237. those-ceux d
238. thought-pensé/ideé-d
239. three-trois -s
240. through-par-d
241. ticket-billets-d
242. time-temps-s
243. to-À-d
244. together/esemble-ensemble-s
245. too-trop-d
246. took-pris-d
247. tree-arbre-d
248. try-essayer-d
249. turn-tourner-s

250. two-deux-d
251. under-sous-d
252. until-jusqu'à-d
253. up-en haut-d
254. us-nous-d
255. use/utilise-utiliser -s
256. very-très -d
257. walk/march-marcher -s
258. want-vouloir-d
259. was-Était -d
260. watch-regarder-d
261. water- eau-d
262. way-façon -d
263. we- nous-d
264. well-bien -d
265. what-quel-d
266. when-quand-d
267. where-où-d
268. which-qui–d
269. while-tandis que-d
270. white- blanc-d
271. who-qui -d
272. whom-qui-d
273. why-pourquoi-d
274. will-sera-d
275. with-avec –d
276. without-sans-d
277. word-mot -d
278. work-travail -d
279. world-monde -d
280. write-écrire-d
281. year-année-d
282. you-vous/Tu-d
283. young-jeune-d
284. your-votre-d

In the comparison of English and French, two facts come on surface. Firstly 65 words out of the 284 pairs were registered as probable cognates. Statistically, if we divide 65 by 284, we get .22 (22%). In other words, one can say here that the degree of similarity between English and French is 22%. This is the value which will also be used for C in the time depth formula.

Secondly, the study finds time depth of English-French 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:

$$t = \frac{\log .22}{2 \log .81}$$

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

$$t = \frac{1.514}{2 \times .217}$$

$$t = \frac{1.514}{.434}$$

t =3.488

The quotient of 1.514 divided by .434 gives 3.4884792627 which is the indicated time depth, 't'. This needs to be read further as English and French separated from each other about 3488 years ago.

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In addition to the above findings, it is imperative to point out that in French adjectives are a necessary part of daily conversation .It is used to describe colour,size and age.Hoever unlike English, adjective in French language is catogarized in masculine and feminine form.The gender of the adjective depends upon its noun. Generally, in adjectives 'e' comes with feminine.

Feminine noun endings:

- The majority of words ending with –e ,-ion,-ve,-euse,-euse,-enne,-onne
- Except words ending with –age,-ege,-isme.

Masculine endings:

- Words ending with conosants.
- Words ending with –eu,--age,-ege,-eme,-isme.

EXAMPLE:

MASCULINE	FEMININE	English Translation
Grand	Grande	Tall/Big/Grand
Petit	Petite	Small
Suffix- F:		
Sportif	Sportive	Atheletic
Actif	Active	Active
Creatif	Creative	Creative
Suffix –eux		
Sérieux	Sérieuse	Serious
Curieux	curieuse	Curious
Suffix-eur		
Chanteur	Chanteuse	Singer
Menteur	Menteuse	Liar
Suffix-en		

Indien	Indienne	Indian
Quotidien	Quotidienne	Daily Routine

Suffix-on

Bon	Bonne	Good
Mignon	Mignonne	Cute

EXCEPTIONS:

Beau	Belle	Beautiful/Smart
Gros	Grosse	Fat
Nouveau	Nouvelle	New
Jaloux	Jalouse	Jealous
Gentil	Gentille	Gentle
Vieux	Vieille	Old
Mince	Mince	Thin/Slim
Sympathique	Sympathique	Sympathetic
Timide	Timide	Shy

COLOURS-COULEURS

Bleu	Bleue	Blue
Noir	Noire	Black
Blanc	Blanche	White
Vert	Verte	Green
Rouge	Rouge	Red
Rose	Rose	Pink
Jaune	Jaune	Yellow
Gris	Grise	Grey
Orange	Orange	Orange
Brun	Brune	Brown

NOTE: In French colours are also differentiated in Masculine and Feminine.

Conclusion

Meeting the objectives of the study, the study firstly has revealed the degree of similarities between English and French which was found to be 22%. Secondly, the study reveals that English and French belonging to the same language family, i.e. Indo-European, started separating from each other about 3488 years ago. The authenticity of the data is subject to further research.

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