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A Proto-Manobo Word List

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A PROTO-MANOBO WORD LIST

1. INTRODUCTION. It has recently become evident that the term *Manobo* refers to speakers of certain Philippine languages which are more closely related to each other than to other Philippine languages. These languages constitute a Manobo subgroup within the Philippine subfamily. A short sketch of some of the evidence for this is given in Elkins (1971), but no comparative studies of Manobo languages have been undertaken until recently.

This study¹ consists of a Proto-Manobo word list followed by the realization rules which account for shapes of words in twelve daughter languages. The paper suggests a theory of subgrouping which may shed some light on how migrations of Manobo-speaking peoples took place. In conclusion, some questions are raised as to the significance of geminating languages in the Manobo subfamily and elsewhere in the Philippines.

The languages on which this reconstruction is based are: Tigwa Manobo (TIG), Binukid of Mindanao (BKD), Sarangani Manobo (SAR), Western Bukidnon Manobo (WBM), Ilianen Manobo (ILN), Dibabawon Manobo (DIB), Cotabato Manobo (CTM), Tasaday (TSY), Cagayano of Cagayancillo Island² (CAG), Kinamigin of Camiguin

Island (KIN), and Tagabawa (TAG) and Obo (OBO) of the Mount Apo region in Davao province. Surveys conducted by the Summer Institute of Linguistics indicate that at least nineteen Manobo languages and major dialects are spoken. The twelve languages of this study are representative of the several subgroups of the Manobo subfamily.

A language is identifiable as belonging to the Manobo subfamily of Philippine languages if it contains certain features or combinations of features which it shares exclusively with other members of the subfamily. A few of these features are:

1. reflexes of the following Proto-Manobo words: *getek 'belly', *langesa 'blood', *karamag 'wind', *tabak 'answer', *diyu? 'far', *sa?eg 'floor', *belad 'hand', *bubun 'thigh', etc.

2. certain features of the pronoun system such as reflexes of: *∅ 'third person singular focus brief pronoun', *nu 'second person singular possessive nonfocus pronoun', *kandin ~ *din 'third person singular pronoun', *kandan ~ *dan 'third person plural pronoun'.

2. THE WORD LIST. The word list used as a basis for this study is a Philippine word list adapted by Elkins from the Swadesh list in 1962. A revised list seemed necessary for the purposes of the program of the Summer Institute of Linguistics (S.I.L.) in the Philippines because the Swadesh list included many items that were either too generic for the consistent elicitation of cognates in Philippine languages, or which contained ambiguities in the English gloss. The spelling of words follows the various orthographies devised by S.I.L. members with several exceptions. The pepet vowel is represented by *e* in all languages. In Tagabawa and Obo *ε* represents a front mid vowel. A plus sign (+) represents a possible morpheme boundary. In Cagayano *ɺ* is pronounced with the tongue tip between the teeth and apparently contrasts with *l* in a word initial position. The orthography for Tasaday is based on the author's tentative phonemic analysis of data gathered in August, 1972. The Tasaday

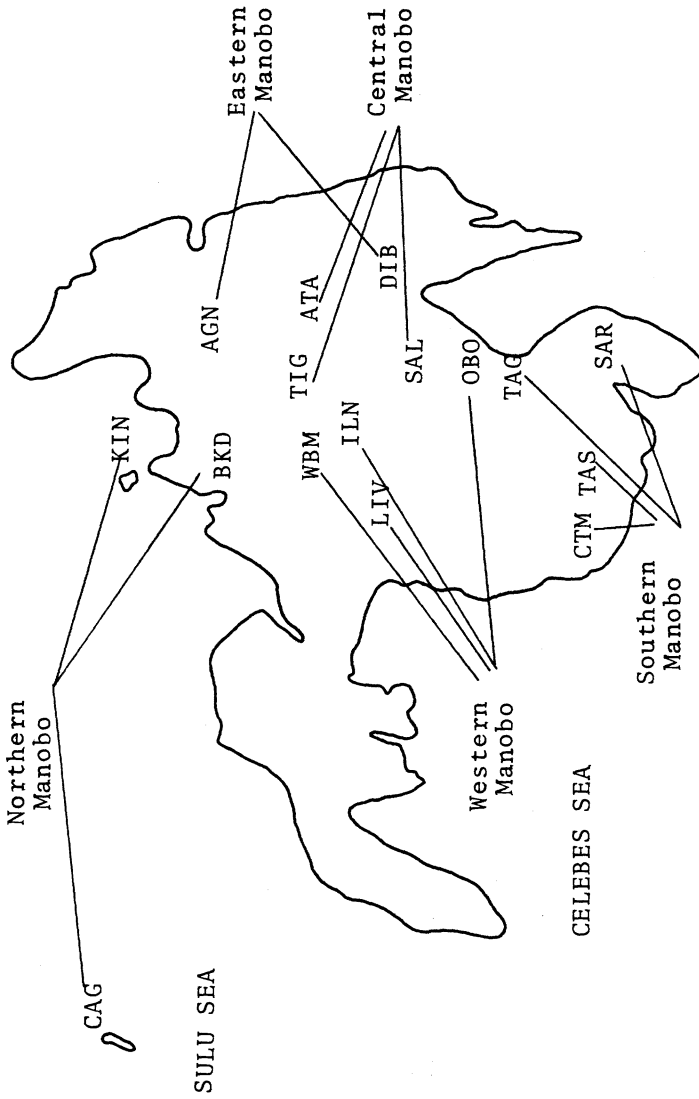


FIGURE 1: Mindanao Island, Philippines

phonological system appears to be identical with that of Cotabato Manobo.

1. *ʔabaka 'abaca, manila hemp fiber'. TIG, BKD, DIB, CAG, KIN ʔabaka; SAR ʔebaka; TAG baka.
2. *hapun 'afternoon'. TIG, BKD, WBM, KIN, CTM hapun;³ SAR ʔapon; ILN ʔapun; CAG, TAG, OBO mapun; DIB hapun 'early evening'.
3. *tabak 'answer'. TIG, DIB, TAG, OBO tabak; WBM, ILN tavak; SAR taba.
4. *mamaʔen 'areca nut'. BKD, DIB, TSY mamaʔen; SAR memaʔen; WBM, ILN memaʔan.
5. *saging 'banana'. TIG, BKD, SAR, DIB, CTM, CAG, KIN, TAG saging; WBM saging; ILN, OBO sahing.
6. *(pa+)digus 'bathe'. TIG digus; SAR digos; WBM pezigu?; DIB padigus; CTM, TSY, TAG pedigus.
7. *getek 'belly, abdomen'. TIG, BKD, SAR, WBM, ILN, DIB, OBO, CTM, TSY getek; KIN gutuk; CAG, TAG gettek.
8. *manika 'betel pepper'. TIG, TAG, OBO, BKD manika; WBM, CTM menika.
9. *kagat 'bite'. TIG, BKD, CAG, KIN, TAG, DIB kagat; OBO, ILN kahat; WBM kagat.
10. *paʔit 'bitter'. BKD, SAR, WBM, ILN, CTM, TSY, CAG, KIN, TAG paʔit; TIG, DIB peʔit.
11. *ʔitem 'black'. TIG, BKD, SAR, WBM, ILN, DIB, CTM, TSY ʔitem; CAG mitem; KIN ʔitum; TAG, OBO metem.
12. *langesa 'blood'. TIG, BKD, DIB langesa; WBM, ILN lengesa; CAG langessa; OBO langasa.
13. *lawa 'body'. TIG, BKD, SAR, WBM, ILN, DIB, CTM, TSY, CAG, KIN, TAG, OBO lawa.
14. *tuʔlan 'bone'. TIG, BKD tulʔan; SAR to lan; WBM, ILN tulan; CTM, TSY tuʔelan; TAG, OBO tullan.
15. *sambay 'borrow'. BKD sambay; TIG, WBM sambey; CTM, TSY sagbay.

16. *ʔutek 'brain'. TIG, BKD, WBM, KIN, ILN, DIB, OBO, CTM, TSY ʔutek; SAR ʔotek; TAG utek.
17. *r(i?)am(?)ag or *r(i?)em(?)ag 'breakfast'. TIG lemʔag; BKD damʔag; WBM, ILN ramag; CTM liʔemag; OBO lammag.
18. *lebeng 'bury'. TIG, BKD, SAR, DIB, TAG, CTM lebeng; WBM, ILN leveng; CAG, OBO lebbeng.
19. *begsay 'canoe paddle'. BKD, SAR, CAG, KIN, DIB begsay; TIG, WBM begsey; TAG begse.
20. *karabaw 'carabao'. BKD, CTM kalabaw; WBM, ILN keravew; TIG kalabew; SAR kelabaw; DIB kalabaw/kabaw; CAG kababaw; KIN kaabaw; TAG karabo; OBO kaabew.
21. *kagpa 'chest'. BKD, SAR, TAG, CTM, TSY kagpa; DIB kugpa 'chest of a pig'.
22. *bataʔ 'child'. BKD, SAR, WBM, ILN, DIB, CAG, KIN, TAG, CTM, TSY bataʔ; TIG bateʔ.
23. *bakaʔ 'chin'. BKD, WBM, CAG, ILN bakaʔ; TIG bakeʔ; TAG, CTM, TSY bahaʔ.
24. *piliʔ 'choose'. BKD, WBM, ILN, CAG, KIN, DIB piliʔ; CTM hemiliʔ.
25. *(paN+)(pa+)naHik 'climb (a tree)'. TIG pamaneik; BKD panahik; SAR nayit; WBM pemenahik; DIB penhik; CAG panaʔik; TAG penek; OBO pemenek.
26. *genaw 'cold'. SAR genaw; WBM genew; CTM genaw; BKD genaw 'to have chills and fever'; CAG ginaw 'chilled'; TAG gano; OBO gannaw.
27. *suwat 'comb'. BKD, WBM, ILN, TAG, OBO, CTM suwat; SAR sowat.
28. *duma 'companion'. TIG, BKD, WBM, ILN, DIB, CTM, CAG, KIN, TAG, OBO, TSY duma; SAR doma.
29. *gapas 'cotton'. TIG, SAR, WBM, ILN, KIN, DIB, CTM gapas.
30. *buhaʔ 'cough'. BKD, WBM, TAG, CTM, TSY buhaʔ; TIG bueʔ.

31. *buʔaya 'crocodile'. TIG, BKD, WBM, ILN, DIB, CTM
buʔaya; SAR *boʔaya*; CAG, OBO *buwaya*; KIN *buʔadza*; TAG
buaya.
32. *sinegaw 'cry (weep)'. CTM, TSY *sinegaw*; WBM *sinegew*;
ILN *sinehew*; TIG, DIB *sinegew*; SAR *sinegaw* 'weep aloud';
OBO *sinaggaw*.
33. *ʔaldaw or *ʔandaw 'day or sun'. TIG, BKD, SAR *ʔaldaw*;
WBM, ILN *ʔandew*; DIB *ʔadew*; CTM *ʔagdaw*; OBO *ʔallem*; TAG
ello 'sun'.
34. *ʔutang 'debt'. TIG, BKD, WBM, ILN, DIB, CAG, KIN, TAG,
OBO, CTM *ʔutang*.
35. *dalem 'deep'. TIG, BKD, SAR, WBM, ILN, CTM *dalem*; DIB
daem; CAG *daʔem*; KIN, OBO *daum*; TAG *dalum*.
36. *saladeng 'deer'. BKD, TAG *saladeng*; SAR, CTM *seladeng*;
WBM *selazeng*; ILN *selareng*; OBO *saareng*.
37. *regen 'difficult'. WBM *regen*; ILN *rehen*; BKD, TIG
legen; OBO *leggen*.
38. *ʔasu or *tuyang 'dog'. TIG, BKD, KIN, WBM, ILN *ʔasu*;
TAG *asu*; OBO, CTM, TSY *tuyang*; SAR *toyang*.
39. *ʔinem or *ʔinum 'drink'. SAR, DIB, CAG, OBO, CTM, TSY
ʔinem; TIG, BKD, KIN, WBM, ILN *ʔinum*; TAG *inem*.
40. *mada 'dry'. TIG, BKD *mada*; WBM *maza*; ILN, CAG *mara*.
41. *talinga 'ear'. TIG, BKD, CAG, KIN, TAG, OBO, DIB
talinga; SAR, WBM, ILN, CTM, TSY *telinga*.
42. *tanaʔ 'earth'. SAR, WBM, ILN, CTM, TSY *tanaʔ*; TIG *taneʔ*.
43. *linug 'earthquake'. BKD, WBM, ILN, CAG, KIN, TAG, OBO,
CTM, TSY *linug*; SAR *linog*; TIG *dinug*.
44. *kaʔen 'eat'. BKD, SAR, CTM, TSY *kaʔen*; TIG, DIB *keʔen*;
WBM, ILN, CAG, OBO *kaʔan*; KIN *kaʔun*; TAG *kan*.
45. *kasili 'eel'. TIG, KIN, TAG, OBO, BKD *kasili*; SAR, WBM,
ILN *kesili*.
46. *walu 'eight'. TIG, BKD, WBM, ILN, TAG, CTM, TSY *walu*;
SAR *walo*; DIB *wau*; CAG *walu*; KIN *wau*; OBO *wauʔ*.

47. *siku 'elbow'. TIG, BKD, WBM, ILN, DIB, CAG, KIN, TAG, OBO, CTM, TSY *siku*; SAR *siko*.
48. *mata 'eye'. TIG, BKD, SAR, WBM, ILN, DIB, CAG, KIN, TAG, OBO, CTM *mata*.
49. *kiray 'eyebrow'. WBM, ILN *kirey*; SAR, KIN, BKD *kilay*; OBO, TIG, DIB *kiley*; TAG *kile*; CTM *kilay* 'forehead'.
50. *(pirek)pirek 'eyelash'. WBM, ILN *pirekpirek*; OBO, SAR, CTM, TSY *pilekpilek*; TIG, BKD, CAG, DIB *pilek*; KIN *piluk*.
51. *diyu? 'far'. BKD, WBM, ILN, TAG, OBO, CTM, TSY *diyu?*; SAR *diyo?*; TIG, CAG, DIB *diu?*; KIN *didzu*.
52. *lambu? 'fat'. TIG, BKD, WBM, ILN, TAG *lambu?*; SAR *lambo?*; OBO *lambu?lambu* .
53. *ʔamay 'father'. BKD, CAG, KIN, SAR *ʔamay*; TIG, WBM, ILN, DIB *ʔamey*.
54. *haldek or *handek 'fear'. TIG, BKD *haldek*; WBM *handek*; DIB *hadek*; ILN *ʔandek*.
55. *ʔalad 'fence'. TIG, BKD, KIN, SAR, WBM, ILN *ʔalad*; OBO, DIB *ʔaad*; TAG *alad*.
56. *sulu 'fingernail'. TIG, BKD, WBM, ILN, TAG, CTM, TSY *sulu*; SAR *solo*; DIB *suu*; CAG *sulu*; OBO *sulu?*.
57. *hapuy 'fire'. ILN, OBO, CAG, CTM, TSY *ʔapuy*; SAR *ʔapoy* TIG, BKD, KIN, WBM *hapuy*; TAG *apuy*.
58. *saʔeg 'floor'. BKD, SAR, CTM *saʔeg*; TIG, DIB *seʔeg*; WBM, CAG, KIN, OBO, ILN *saʔag* TAG *asaq*.
59. *bulak 'flower'. TIG, BKD, TAG, OBO, WBM *bulak*; SAR *bolak*; CTM, TSY *bulok*; DIB, KIN *buak*; CAG *buʔak*.
60. *langaw 'fly (noun)'. BKD, SAR, CAG, KIN, OBO, CTM *langaw*; TIG, WBM, ILN, DIB *langew*.
61. *layang 'to fly'. BKD, SAR, WBM, DIB, TAG, OBO, CTM *layang*; KIN *ladzang*.
62. *lipat 'forget'. BKD, WBM, CAG, KIN, ILN *lipat*; TSY *lipot*.

63. *(ha)?epat 'four'. SAR, ILN, OBO, CTM, TSY ?epat; TIG *hep?at*; BKD *ha?epat*; WBM *he?epat*; CAG ?appat; KIN ?upat; TAG *epat*.
64. *hemut 'fragrant'. TIG, BKD, WBM, DIB *hemut*; ILN ?emut; CAG ?ammut; KIN *humut*; TAG *mamut*; OBO *mammut*.
65. *bakkak 'frog'. TIG, BKD, SAR, WBM, ILN, KIN, TAG, CTM, TSY *bakkak*; OBO *bakabak*.
66. *penu? 'full'. TIG, SAR, WBM, ILN, TAG, CTM, TSY *penu?*; DIB *penu*; BKD, KIN *punu?*; CAG *pannu?*.
67. *luy(?)a 'ginger'. TIG, WBM, ILN, TAG, OBO *luya*; SAR *loya*; CAG, KIN, BKD *luy?a*; DIB *lui?a*.
68. *begay 'give'. TIG, SAR, CTM, TSY *begay*; WBM *begey*; ILN *behey*; DIB *begey*; TAG *begge*; OBO *beggey*.
69. *?ilem 'green'. TIG, BKD, WBM, ILN ?ilem.
70. *belad 'hand'. TIG, SAR, WBM, ILN, CTM, TSY *belad*; DIB *bead*; TAG, OBO *bellad*.
71. *desen 'hard'. TIG, BKD, WBM, ILN, DIB *desen*; CAG *dessen*.
72. *?ulu 'head'. TIG, BKD, WBM, ILN, KIN, CTM, TSY ?ulu; OBO, DIB ?uu; SAR ?olo; TAG *ulu*; CAG ?u?u.
73. *pusung 'heart'. TIG, BKD, WBM, ILN, DIB, CTM, TAG, OBO *pusung*; SAR *posong*.
74. *begat 'heavy'. TIG, BKD, SAR, DIB, CTM, TSY *begat*; WBM *begat*; ILN *bahat*; CAG *beg?at*; KIN *bugat*; TAG *begget*; OBO *beggat*.
75. *palu 'heel'. TIG, WBM, TAG, ILN *palu*; SAR *palo*; OBO *pau?*; DIB *pau*.
76. *heles 'to hide'. TIG, BKD *heles*; SAR, WBM, ILN ?eles; TAG *elles*; OBO ?alas.
77. *?init 'hot'. TIG, SAR, WBM, ILN, DIB ?init; CAG ?init 'to warm up'; TAG *menit*; OBO *manit*.
78. *balay 'house'. BKD, SAR *balay*; TIG, WBM, ILN *baley*; DIB, OBO *baey*; CAG *ba?ay*; KIN *baay*; TAG *balε*; CTM *balay+laget* 'brass betel nut box'.

79. *pira 'how much, how many'. WBM, TAG, ILN *pira*; TIG, BKD, CAG, KIN, OBO, SAR, DIB, CTM, TSY *pila*.
80. *gatus 'hundred'. TIG, BKD, WBM, ILN, CAG, KIN, TAG, OBO, DIB *gatus*; SAR *gatos*.
81. *bitil 'hunger'. TIG, WBM, ILN, CTM *bitil*; SAR *bitil* 'starve'; DIB *bitii* 'stretch taut'.
82. *katel 'itch'. BKD, SAR, TAG, CTM, TSY *katel*; CAG *kateɭ* KIN *katul*.
83. *sipa? 'kick'. BKD, KIN, TAG, SAR, WBM, ILN, DIB *sipa?*; TIG *sipe?*; CTM *sipa?* 'kick with the instep'.
84. *himatay 'kill'. BKD, KIN *himatay*; TIG, WBM, DIB *himatey*; SAR, CTM *?imatay*; ILN *?imatey*.
85. *bu?el 'knee'. TIG, BKD, WBM, ILN *bu?el*; SAR *bo?el*; CAG *bu?uɭ*; TAG *abull*; OBO *bu?e*.
86. *danaw 'lake'. BKD *danaw*; DIB *danew*; SAR, CTM, KIN *lanaw*; TIG, OBO *lanew*; WBM, ILN *ranew*; TAG *rano*; CAG *danaw* 'flood'.
87. *dakil 'large'. TIG, TAG, OBO, SAR, CTM, TSY *dakil*; WBM, ILN *dekela?*; DIB *dakee*; BKD *dakil* 'many'.
88. *dahun 'leaf'. BKD, KIN, WBM *dahun*; CAG, CTM, TSY *daun*; TAG, OBO *da?un*; TIG *deun*; SAR *dawen*; ILN *dawun*; DIB *dehun*.
89. *gibang 'left'. TIG, BKD *gibang*; SAR, CTM *bibang*; WBM, ILN *givang*; TSY *b+in+ibang*.
90. *pa?a 'leg'. TIG, BKD, KIN, TAG, WBM, ILN *pa?a*; SAR *pa?a* 'thigh'.
91. *kilat 'lightning'. TIG, BKD, CAG, KIN, OBO, WBM, ILN, DIB *kilat*; SAR, CTM, TSY *kilat* 'thunder'.
92. *?apug 'lime'. TIG, BKD, CAG, KIN, OBO, WBM, ILN, DIB, CTM, TSY *?apug*; SAR *?apog*; TAG *apug*.
93. *?ugpa? 'live (dwell)'. TIG, DIB, CTM *?ugpa?*; SAR *?ogpa?*; WBM, ILN, OBO *?ubpa?*.
94. *?atay 'liver'. BKD, CAG, KIN, SAR, CTM *?atay*; TIG, WBM, ILN, DIB *?atey*; TAG *ate*.

95. **layat* 'long'. TIG, BKD, SAR, TAG, WBM, ILN *layat*; CTM *layat* 'spread out'.
96. **kutu* 'louse'. TIG, WBM, ILN, DIB, CTM, CAG, KIN, TAG, OBO *kutu*; SAR *koto*.
97. **ma?ama* 'male'. BKD, KIN, WBM, ILN, CTM, TSY *ma?ama*; SAR *me?ama*; CAG *mama*; TAG *mama?*.
98. **?ikam* 'mat'. TIG, CAG, OBO, BKD, SAR, WBM, ILN, CTM *?ikam*; DIB *hikam*; TAG *ikem*.
99. **?ubal* 'monkey'. TIG, CTM, TSY *?ubal*; WBM, ILN *?uwal*; DIB *?ubaa*.
100. **bulan* 'moon'. TIG, BKD, WBM, ILN, TAG, CTM *bulan*; SAR *bolan*; DIB, KIN, OBO *buan*; CAG *bulan*.
101. **selem* 'morning'. TIG, BKD, WBM, OBO, ILN *selem*; DIB *seem*; SAR *?iselem*; CAG *se?em*; TAG *sellem*.
102. **lesung* 'mortar'. TIG, BKD, WBM, ILN, DIB, CTM *lesung*; SAR *lesong*; CAG *lassung*; KIN *lusung*; TAG *lisung*.
103. **tag(e)nek* 'mosquito'. BKD, TAG, TSY *tagenek*; ILN *tehenek*; DIB *tagnek*; SAR *tigenek*; KIN *tagruk*; CAG *tagnek* 'mosquito-like insect'.
104. **?inay* 'mother'. BKD, CAG, KIN, SAR, CTM, TSY *?inay*; TIG, WBM, ILN, DIB, OBO *?iney*.
105. **ba?ba?* 'mouth'. BKD, CAG, KIN, TAG, DIB *ba?ba?*; TIG *be?be?*; WBM, ILN *be?ba?*.
106. **basak* 'mud'. TIG, BKD, WBM, OBO, ILN *basak*; TAG *basa?*.
107. **ngadan* 'name'. TIG, BKD, TAG, SAR, DIB, CTM, TSY *ngadan*; WBM *ngazan*; ILN, CAG, KIN, OBO *ngaran*.
108. **dani* 'near'. TIG, WBM, ILN, DIB, CAG, KIN, TAG, OBO *dani*.
109. **li?eg* 'neck'. TIG, BKD, SAR, WBM, ILN, DIB, CAG, OBO, CTM, TSY *li?eg*; KIN *li?ug*; TAG *alig*.
110. **dagum* 'needle'. TIG, BKD, KIN, CTM *dagum*; SAR, DIB, CAG *dagem*; WBM *ragum*; ILN *raham*.

111. *bag(?)u 'new'. TIG, CAG, KIN, BKD *bag?u*; WBM *begu* ILN *behu*.
112. *dukilem 'night'. CAG, TIG, WBM, ILN, DIB *dukilem*.
113. *siyam or *siyaw 'nine'. BKD, KIN, SAR *siyam*; TIG *siam*; DIB *si?am*; WBM, OBO, ILN *siyew*; CTM, TSY *siyow*; CAG *siyam*; TAG *siyo*.
114. *?ugtu 'noon'. TIG, BKD, CAG, DIB *?ugtu*; WBM, ILN, KIN *?udtu*.
115. *?idung 'nose'. TIG, BKD, TAG, CTM, TSY *?idung*; SAR *?idong*; WBM *?isung*; ILN *ngirung*; CAG, KIN, OBO *?irung*.
116. *?anak 'offspring'. TIG, WBM, ILN, DIB, CTM, TSY *?anak*; SAR *?anak* 'niece or nephew'.
117. *sakit 'pain'. TIG, BKD, CAG, KIN, TAG, OBO, SAR, WBM, ILN, DIB, CTM, TSY *sakit*.
118. *palad 'palm of hand'. TIG, BKD, SAR, WBM, ILN, TAG *palad*; DIB, KIN, OBO *paad*; CAG *pa?ad*.
119. *dalan 'path (trail)'. TIG, BKD, SAR, WBM, ILN, TAG, CTM *dalan*; DIB, KIN *daan*; CAG *da?an*.
120. *bayad 'to pay'. TIG, BKD, SAR, WBM, ILN, CAG, TAG, OBO, DIB, CTM *bayad*; KIN *bad?ad*.
121. *etaw 'person'. BKD, CTM, TSY *?etaw*; TIG, WBM, ILN, DIB *?etew*; SAR *?otaw*; KIN *?utaw*; CAG *?ittaw*.
122. *(se)?elu 'pestle'. SAR *?elu*; CTM *se?elu*; TAG *ellu*; CAG *?a??u*.
123. *babuy 'pig'. TIG, BKD, CAG, KIN, TAG, OBO, CTM, DIB *babuy*; WBM, ILN *bavuy*.
124. *bayu 'pound rice'. DIB *bayu*; WBM, ILN *bevayu*; TAG, OBO, TIG *b+in+ayu*; SAR *b+in+ayo*.
125. *gakit 'raft'. TIG, BKD, KIN, TAG, OBO, WBM, ILN, DIB *gakit*.
126. *?udan 'rain'. TIG, BKD, DIB, CTM *?udan*; SAR *?odan*; WBM *?uzan*; ILN, CAG, KIN, OBO *?uran*.

127. *balugtu 'rainbow'. BKD *balugtu*; TIG *baluntu*; WBM *beludtu*; ILN *beluntu*; CTM *belugtu*; OBO *bauntu*.
128. *balagen 'rattan'. TIG, BKD *balagen*; SAR, CTM, TSY *belagen*; WBM *belagen*; DIB *bagen*; CAG *bʔagen* 'a vine'; KIN *baagun*; TAG *belagan*; OBO *baahen*.
129. *kawanan 'right hand'. TIG, OBO, BKD *kawanan*; SAR *kowanen*; WBM, ILN *kewanan*; CTM *kuwanan*; TAG *kawanen*.
130. *sising 'ring'. TIG, BKD, WBM, OBO, ILN *sising*; CTM *tising*.
131. *ʔatep 'roof'. TIG, BKD, SAR, WBM, ILN, CAG, OBO, DIB, CTM *ʔatep*; TAG *atep*; KIN *ʔatup*.
132. *dalid 'root'. TIG, SAR, WBM, ILN, OBO, DIB, CTM, TSY *dalid*; BKD, KIN *dalid* 'a particular type of root'; TAG *daliq*.
133. *pisiʔ 'rope'. TIG, BKD, KIN, WBM, DIB *pisiʔ*.
134. *(pa)laguy 'run'. TAG, TIG *palaguy*; BKD *pulaguy*; SAR *lagoy*; WBM *pelaguy*; ILN *pelahuy*; DIB, CAG *laguy*.
135. *pantad 'sand'. TIG, BKD, CAG, WBM, ILN *pantad*.
136. *taHiʔ 'sew'. BKD, CAG, KIN, WBM *tahiʔ*; DIB *tehiʔ*; ILN *tayiʔ*; TIG *teiʔ*.
137. *ʔalung 'shadow'. TIG, BKD, WBM, ILN, CTM *ʔalung*; SAR *ʔalong*; TAG *alung*; OBO *ʔaung*.
138. *garang 'sharp or rough'. TIG, SAR, CTM, TSY *galang*; WBM, ILN *garang*.
139. *suled 'sibling'. TIG, BKD, WBM, ILN *suled*; OBO *sued*.
140. *pinuʔu 'sit'. TIG, BKD, WBM, ILN *pinuʔu*; CTM *peneʔu*.
141. *(ha)ʔenem 'six'. SAR, ILN, DIB, CTM, TSY *ʔenem*; TIG *henʔem*; BKD *haʔenem*; WBM *heʔenem*; CAG *ʔannem*; KIN *haʔunum*; TAG *enem*; OBO *ʔanem*.
142. *gasaʔ 'skinny'. BKD, SAR, WBM, ILN, TAG, DIB, CTM, TSY *gasaʔ*; TIG *gaseʔ*; OBO *gasahasa*.
143. *langit 'sky'. TIG, BKD, SAR, WBM, ILN, DIB, CAG, KIN, TAG, OBO, CTM, TSY *langit*.

144. *ʔudipen 'slave'. TIG, DIB, CTM ʔudipen; WBM ʔuzipen; ILN, OBO ʔuripen; CAG ʔulipen; KIN ʔulipun.
145. *lipedeng 'sleep'. TIG, DIB lipedeng; WBM lipezeng; ILN lipereng; BKD, SAR, CTM lipedeng 'close the eyes'.
146. *deʔisek 'small'. TIG, WBM, ILN deʔisek; CTM, TSY diʔisek; SAR deʔitek; OBO disek.
147. *hadek 'to smell or kiss'. TIG, BKD, DIB, CTM hadek; SAR ʔadek; ILN, CAG, OBO ʔarek; WBM hazek; KIN hauk; TAG adek.
148. *ʔebel 'smoke'. TIG, BKD, SAR, CTM, TSY ʔebel; WBM, ILN ʔevel; DIB ʔeeb; KIN ʔabul; TAG abell; OBO ʔabbe.
149. *ʔuled 'snake'. TIG, WBM, ILN, CTM ʔuled; DIB ʔued; BKD ʔuled 'worm, insect'; OBO ʔuad.
150. *sabaw 'soup'. BKD, CAG, KIN, SAR, CTM sabaw; TIG, DIB sabew; WBM, ILN savew; TAG sabo.
151. *dangaw 'span'. BKD, SAR, TSY dangaw; TIG, DIB, OBO dangew; WBM, ILN rangew.
152. *ʔileb 'spit'. TIG, BKD, CAG, OBO, WBM, ILN, DIB, CTM, TSY ʔileb; KIN ʔilub; TAG ileb.
153. *ʔasawa 'spouse'. TIG, BKD, CAG, KIN, OBO, DIB ʔasawa; SAR, WBM, ILN ʔesawa; CTM, TSY sawa; TAG sawa.
154. *(hi)tindeg 'stand'. BKD, WBM hitindeg; ILN ʔitindeg; CAG, TAG, SAR tindeg; CTM, TSY tigdeg; KIN tindug.
155. *bituʔen 'star'. TIG, BKD, WBM, ILN, CTM, DIB bituʔen; SAR bitoʔen; CAG, KIN bituʔun.
156. *deket 'stick to'. TIG, BKD, WBM, ILN, DIB, CTM deket; CAG dekket; OBO dakat.
157. *batu 'stone'. TIG, BKD, CAG, KIN, TAG, OBO, WBM, ILN, DIB, CTM, TSY batu; SAR bato.
158. *tuʔlid 'straight'.⁴ SAR toʔlid; DIB tuʔid; TAG, WBM tulid; TIG, BKD tulʔid; OBO tullid.
159. *rimuseng 'sweat'. WBM, ILN rimuseng; TIG, CTM, TSY limuseng.

160. *ʔating 'sweat'. BKD, SAR, OBO ʔating; TAG ating.
161. *ʔemis 'sweet'. TIG, BKD, WBM, ILN, CTM, TSY ʔemis; SAR (ma+)ʔmis; OBO maʔamis; TAG mamis.
162. *kasilaʔ 'sweet potato'. SAR, WBM, ILN *kesilaʔ*; TIG *kasileʔ*; CTM *katilaʔ*; TAG *kasilaʔ*; OBO *kasila*.
163. *ʔikug 'tail'. TIG, BKD, CAG, KIN, OBO, WBM, ILN, DIB, CTM, TSY ʔikug; SAR ʔikog; TAG *ikug*.
164. *sa(m)puluʔ 'ten'. BKD *sampuluʔ*; WBM, ILN, CTM, TSY *sepuluʔ*; SAR *sempoloʔ*; DIB *sampuuʔ*; TAG, TIG *sapuluʔ*; OBO *sapuuʔ*.
165. *ʔanay 'termite'. CAG, KIN, SAR ʔanay; TIG, WBM, OBO, DIB ʔaney; BKD ʔanaʔay; TAG *ane*.
166. *kepal 'thick'. TIG, BKD, WBM, ILN, TAG, CTM, TSY *kepal*; KIN *kapal* 'thick volumes'; OBO *kappal*.
167. *bubun 'thigh'. TIG, BKD, KIN, TAG, OBO, CTM, TSY *bubun*; WBM *buun*; SAR *bobon*.
168. *nipis 'thin'. TIG, BKD, KIN, TAG, OBO, SAR, WBM, ILN, DIB, CTM *nipis*.
169. *dugi 'thorn'. TIG, BKD, DIB, TAG, CTM, TSY *dugi*; WBM *dugi*; ILN *ruhi*; OBO *duhi*.
170. *libu 'thousand'. TIG, BKD, CAG, KIN, WBM, DIB *libu*.
171. *(ta)telu 'three'. TIG *tatelu*; WBM, ILN *tetelu*; BKD *tatulu*; SAR, CTM, TSY *telu*; DIB *tateu*; CAG *tallu*; KIN *tatuu*; TAG *tellu*; OBO ʔatallu.
172. *rugung 'thunder'. TIG, BKD, KIN, DIB *lugung*; WBM *rugung*; ILN *ruhung*; OBO *luhung*.
173. *dilaʔ 'tongue'. BKD, CAG, KIN, TAG, SAR, WBM, ILN, DIB, CTM, TSY *dilaʔ*; TIG *dileʔ*.
174. *ngipen 'tooth'. TIG, BKD, CAG, TAG, OBO, SAR, WBM, ILN, DIB, CTM, TSY *ngipen*; KIN *ngipun*.
175. *kayu 'tree'. TIG, BKD, WBM, ILN, DIB, TAG, OBO, CTM, TSY *kayu*; SAR *kayo*.

176. *saluʔal 'trousers'. TIG *saluʔal*; WBM, ILN *seluʔal*; SAR *selowal*; DIB *sauʔaa*; CAG *sawwaʔ*; KIN *sawal*; TAG *saruʔal*.
177. *baʔu(ʔu) 'turtle'. TIG, BKD, DIB *baʔuʔu*; WBM, ILN *beʔuʔu*; CTM, KIN *baʔu*; SAR *baʔo* 'small sea turtle'.
178. *(da)duwa 'two'. TIG, BKD *daduwa*; WBM *dezuwa*; ILN *derewa*; DIB *dadua*; CTM, TAG, TSY *duwa*; SAR *dowa*; CAG *darwa*; KIN *daruwa*; OBO *ʔaruwa*.
179. *ʔugat 'vein'. TIG, BKD, CAG, KIN, DIB *ʔugat*; SAR *ʔogat*; WBM *ʔugat*; ILN, OBO *ʔuhat*; TAG *kugat*.
180. *tagad 'wait'. TIG, SAR, CAG, KIN, DIB *tagad*; WBM *tagad*; ILN, OBO *tahad*.
181. *ʔangat 'wait'. BKD, CTM *ʔangat*; TAG *angat*.
182. *(hi)panaw 'walk'. BKD *hipanaw*; TIG, WBM, DIB *hipanew*; ILN, OBO *ʔipanew*; SAR *ʔipanaw*; CAG, KIN *panaw*; TAG *pano*.
183. *piʔpiʔ 'wash clothes'. TIG, BKD, WBM, ILN, TAG, OBO, CTM *piʔpiʔ*.
184. *wahig 'water'. BKD, WBM *wahig*; TIG *weig*; DIB *wehig*; ILN *wayig*; SAR, CTM, TSY *wayeg*; CAG, TAG *waig*; OBO *waʔig*.
185. *sakedu 'water container'. TIG *sakedu*; DIB, CTM *sekedu*; WBM *sekesu*; BKD *sakudu*; CAG *sagaddu*; TAG *sikedu*; OBO *sakaddu*.
186. *habel 'weave cloth'. TIG, BKD *habel*; SAR *ʔabel*; WBM *havel*; ILN *ʔavel*; DIB *habee*; KIN *habul*; TAG *abel*.
187. *sa(n)lep(+an) 'west'. WBM, ILN *senlepan*; TIG, BKD *salepan*; SAR *selepan*; DIB *saepan*; CAG *salepan*; KIN *saupan*; TAG *saleppan*; OBO *saup*.
188. *hames 'wet'. BKD, WBM *hames*; TIG *kames*; CAG *ʔammes*; SAR, ILN *ʔames*; KIN *hamus*; TAG *mames*; OBO *ʔamas*.
189. *kuwa 'what you may call it'. TIG, BKD, WBM, CAG, KIN, OBO, ILN, CTM *kuwa*; SAR *kowa*; DIB *kuaʔ*.
190. *putiʔ 'white'. TIG, BKD, WBM, ILN, CAG, KIN, TAG, OBO, DIB *putiʔ*; SAR *potiʔ*.
191. *balu 'widow'. TIG, BKD, WBM, ILN, TAG, CTM *balu*; SAR *balo*; DIB, OBO *bau*; CAG *baʔu*.

192. *karamag 'wind'. TIG, BKD *kalamag*; SAR, CTM, TSY *kelamag*; DIB *kamag*; WBM, ILN *keramag*; OBO *kaamag*.
193. *pakpak 'wing'. TIG, BKD, SAR, WBM, ILN, CTM, CAG, KIN, TAG, OBO *pakpak*.
194. *bahi 'woman (female)'. BKD, CAG, WBM, *bahi*; SAR, CTM, TSY *bayi*; DIB *behi*; TIG *bei*; KIN *badzi*; TAG *bai*.
195. *kagi 'word or saying'. TIG, SAR, BKD, WBM, TAG, DIB, CTM *kagi*; ILN, OBO *kahi*; TSY *ikagi*.
196. *tu?ig 'year'. BKD, WBM, DIB *tu?ig*; TIG, KIN *tu?id*.
197. *gabi?(i) 'yesterday'. TIG, CAG, DIB *gabi?i*; WBM, ILN *gevi?i*; SAR *gebi?i* 'long ago'; BKD *gabi?* 'past'; KIN *gabi?*.

3. THE REFLEXES OF PROTO-MANOBO PHONEMES.

3.1. *Proto-Manobo phonemes are:*

Consonants

*p	*t	*k	*ʔ
*b	*d	*g	
*m	*n	*ng	
	*l		
	*r		
	*s		*h
*w	*y		

Vowels

*i	*u
*e	
*a	

3.2. *Realization rules for Proto-Manobo phonemes.*

3.2.1. Proto-consonants.

*p

(a) In TIG, BKD, SAR, WBM, ILN, DIB, KIN, CTM, and TSY

$$*p \longrightarrow p$$

Discrepancies: CTM *hemili?* 'choose'. Presumably *hemili?* corresponds to *paN-'distributive' + *pili? 'choose'. If this true the discrepancy would be in the correspondence of *paN-to hem-. Since the N of *paN- is a replacive, i.e., it replaces the initial consonant of the stem *pili?* while assimilating to its point of articulation, there is no actual discrepancy of *pili? to *hemili?*.

(b) In CAG, TAG, and OBO

$$*p \longrightarrow \left\{ \begin{array}{l} pp \text{ in } / *e \text{ ______ } V \\ p \text{ elsewhere} \end{array} \right\}$$

where: V = vowel (here and following)

Discrepancy: TAG *kepal* 'thick'.

*t

(a) In TIG, BKD, SAR, WBM, ILN, DIB, KIN, CTM, and TSY

$$*t \longrightarrow t$$

(b) In CAG, TAG, and OBO

$$*t \longrightarrow \left\{ \begin{array}{l} tt \text{ in } / *e \text{ ______ } V \\ t \text{ elsewhere} \end{array} \right\}$$

Discrepancy: OBO *getek* 'belly'.

*k

(a) In TIG, BKD, SAR, WBM, ILN, DIB, KIN, CTM, and TSY

$$*k \longrightarrow k$$

Discrepancies: CTM and TSY *baha?* 'chin'; SAR *nayit* 'climb', *taba* 'answer'.

(b) In CAG, TAG, and OBO

*k → $\left\{ \begin{array}{l} kk \text{ in / *e ______ v} \\ k \text{ elsewhere} \end{array} \right\}$

Discrepancy: OBO *dakat* 'stick to'.

*b

(a) In ILN and WBM

*b → $\left\{ \begin{array}{l} v \text{ in / } \left\{ \begin{array}{l} \text{vocoid} \\ l \\ r \end{array} \right\} \text{ ______ } \\ b \text{ elsewhere} \end{array} \right\}$

(b) In TIG, BKD, SAR, DIB, KIN, CTM, and TSY

*b → *b*

(c) In CAG, TAG, and OBO

*b → $\left\{ \begin{array}{l} bb \text{ in / *e ______ v} \\ b \text{ elsewhere} \end{array} \right\}$

Discrepancy: TAG *lebeng*, 'bury'.

*d

(a) In WBM and ILN

*d → $\left\{ \begin{array}{l} \left[\begin{array}{l} \text{WBM:} \\ \text{ILN:} \end{array} \right] \left[\begin{array}{l} z \\ r \end{array} \right] \text{ in / } \left\{ \begin{array}{l} \text{vocoid} \\ l \end{array} \right\} \text{ ______ } \\ d \text{ elsewhere} \end{array} \right\}$

Discrepancies: ILN *ruhi* 'thorn', *rahum* 'needle'; WBM *ragum* 'needle'; WBM, ILN *rangew* 'span'; KIN *ʔulipun* 'slave', *hawk* 'smell' or 'kiss'.

(b) In TIG, BKD, SAR, DIB, KIN, CTM, and TSY

$$*d \longrightarrow d$$

(c) In CAG

$$*d \longrightarrow \left\{ \begin{array}{l} r \text{ in / } V^1 \text{ ______ } \text{vocoid} \\ dd \text{ in / } *e \text{ ______ } V \\ d \text{ elsewhere} \end{array} \right\}$$

where: $V^1 \neq *e$

Discrepancies: *ʔulipen* 'slave', *ʔirung* 'nose'.

(d) In KIN

$$*d \longrightarrow \left\{ \begin{array}{l} r \text{ in / } V \text{ ______ } V \\ d \text{ elsewhere} \end{array} \right\}$$

(e) In TAG

$$*d \longrightarrow \left\{ \begin{array}{l} dd \text{ in / } *e \text{ ______ } V \\ d \text{ elsewhere} \end{array} \right\}$$

Discrepancies: *sikedu* 'water container', *dalig* 'root', *elló* 'sun'.

(f) In OBO

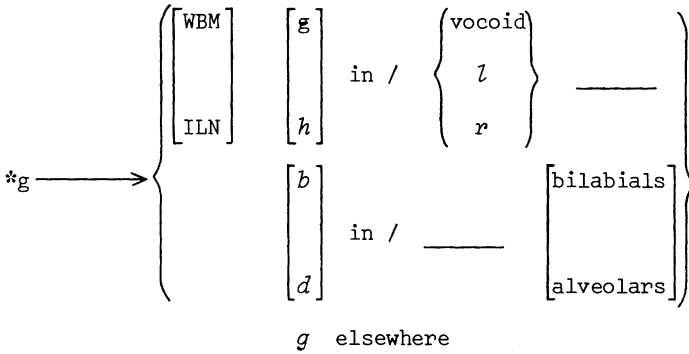
$$*d \longrightarrow \left\{ \begin{array}{l} dd \text{ in / } *e \text{ ______ } V \\ r \text{ in / } V^1 \text{ ______ } V \\ d \text{ elsewhere} \end{array} \right\}$$

where: $V^1 \neq *e$

Discrepancies: *baluntu* 'rainbow', *ʔallew* 'sun'.

*g

(a) In WBM and ILN



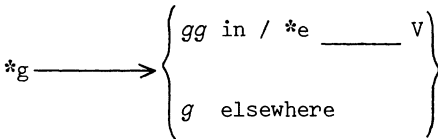
Discrepancy: ILN *beluntu* 'rainbow'.

(b) In TIG, BKD, SAR, DIB, CAG, KIN, CTM, and TSY

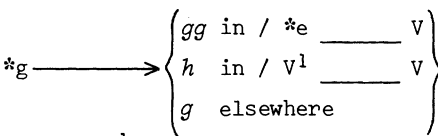
*g → g

Discrepancies: SAR, CTM *bibang* 'left side'; TSY *b+in+ibang* 'left side'; TIG *baluntu* 'rainbow', *tuid* 'year'; KIN *?udtu* 'noon', *tu?id* 'year'; CAG *saggadu* 'water container'.

(c) In TAG



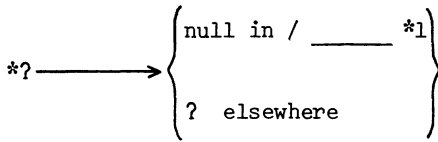
(d) In OBO



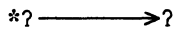
where: $v^1 \neq *e$

*?

(a) In ILN and WBM

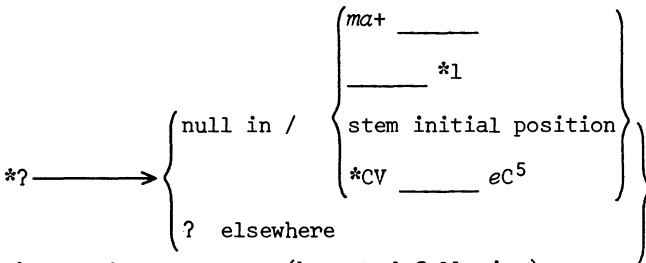


(b) In TIG, BKD, SAR, DIB, CAG, KIN, CTM, and TSY



Discrepancies: DIB *hikam* 'mat'; SAR *seluwal* 'trousers'; CAG *mitem* 'black', *bwaya* 'crocodile'; KIN *didzu* 'far'.

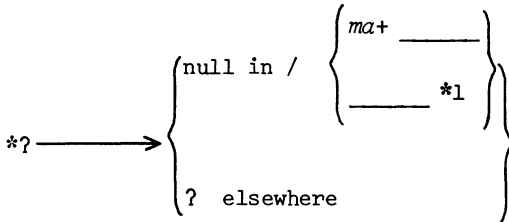
(c) In TAG



where: C = consonant (here and following)

Discrepancies: *kan* 'eat', *kugat* 'vein'.

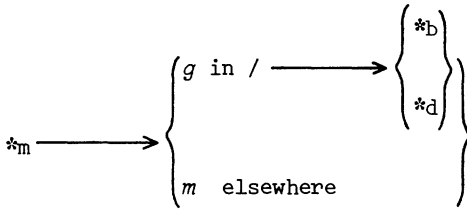
(d) In OBO



Discrepancies: *disek* 'small', *gasahasa* 'skinny', *bwaya* 'crocodile'.

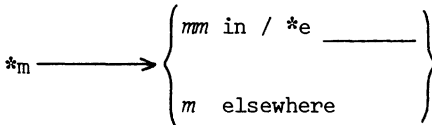
*m

(a) In CTM and TSY



(b) In TIG, BKD, KIN, SAR, WBM, ILN, and DIB $*m \longrightarrow m$

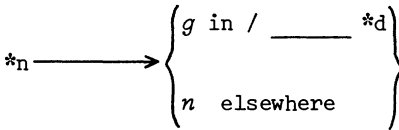
(c) In CAG, TAG, and OBO



Discrepancies: TAG *ma+mut* 'fragrant', *ma+mi's* 'sweet'; OBO *ma'amis* 'sweet'.

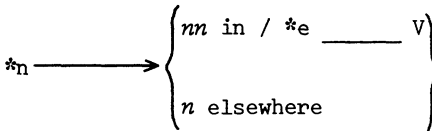
***n**

(a) In CTM and TSY



(b) In TIG, BKD, KIN, SAR, WBM, ILN, and DIB $*n \longrightarrow n$

(c) In CAG, TAG, and OBO



Discrepancies: TAG *penu?* 'full', *gano* 'cold'.

***ng**

In TIG, BKD, SAR, WBM, ILN, DIB, CTM, TSY, CAG, KIN, TAG and OBO $*ng \longrightarrow ng$

***l**

(a) In TIG, BKD, SAR, WBM, ILN, CTM, and TSY $*l \longrightarrow l$

Discrepancy: TIG *dinug* 'earthquake'.

(b) In DIB

$$*l \longrightarrow \left\{ \begin{array}{l} \text{null in / } v^1 \text{ ______ } v^1 \\ v^2 \text{ in / } *v^2 \text{ ______ } \# \\ l \text{ elsewhere} \end{array} \right\}$$

where: $v^1 \neq i$, $v^2 = \text{any vowel}$, $\# = \text{word boundary}$

(c) In CAG

$$*l \longrightarrow \left\{ \begin{array}{l} ll \text{ in / } *e \text{ ______ } v \\ l \text{ in / } \left\{ \begin{array}{l} \left\{ \text{______ } i \right\} \\ i \text{ ______ } \\ \# \text{ ______ } \end{array} \right\} \\ l \text{ elsewhere} \end{array} \right\}$$

(d) In KIN

$$*l \longrightarrow \left\{ \begin{array}{l} \text{null in / } v \text{ ______ } v \\ l \text{ elsewhere} \end{array} \right\}$$

where: $v \neq i$

Discrepancies: ?*alad* 'fence', ?*ulu* 'head'.

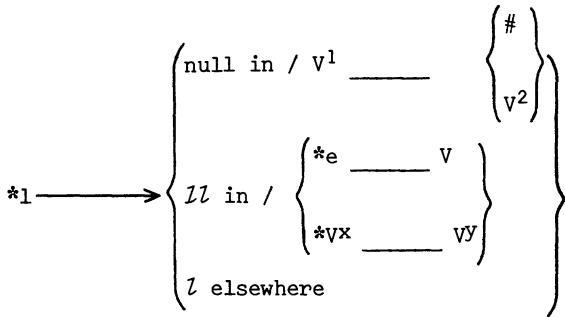
(e) In TAG

$$*l \longrightarrow \left\{ \begin{array}{l} ll \text{ in / } \left\{ \begin{array}{l} *e \longrightarrow \left\{ \begin{array}{l} \# \\ v \end{array} \right\} \\ *v^x \text{ ______ } v^y \end{array} \right\} \\ l \text{ elsewhere} \end{array} \right\}$$

where: $\# = \text{word boundary}$, $v = \text{vowel}$, $*v^x \text{ ______ } v^y$ is a sequence containing $*l$ in a consonant cluster.

Discrepancies: *tulid* 'straight', *abull* 'knee', *abell* 'smoke'.

(f) In OBO



where: $V^1 \neq e$ or i , $V^2 \neq i$, $*v^x \text{ _____ } V^y$ is a sequence containing $*l$ in a consonant cluster.

Discrepancies: *bulak* 'flower', *?alas* 'hide'.

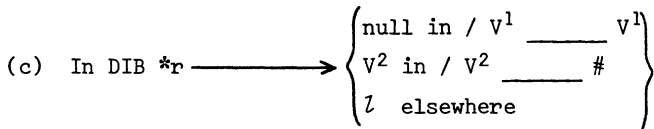
$*r$

(a) In WBM, TAG, and ILN $*r \longrightarrow r$

Discrepancies: TAG *kile* 'eyebrow', *rano* 'lake'; ILN *dara* 'weave a mat'.

(b) In TIG, BKD, SAR, CTM, and TSY $*r \longrightarrow l$

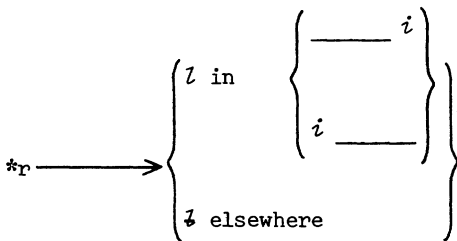
Discrepancies: BKD *dam?ag* 'breakfast', *danaw* 'lake'.



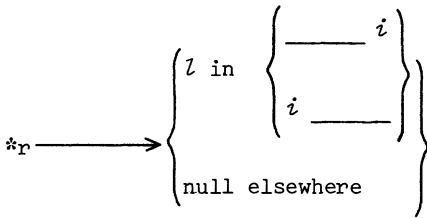
where: $V^1 \neq i$, $V^2 =$ any vowel, $\# =$ word boundary

Discrepancy: *danaw* 'lake'.

(d) In CAG

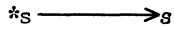


(e) In KIN and OBO



*s

In TIG, BKD, SAR, WBM, ILN, DIB, CTM, TSY, CAG, KIN, TAG, and OBO



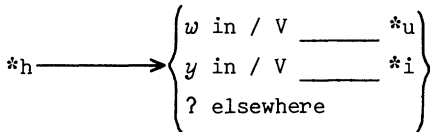
Discrepancies: WBM *pezigu?* 'bathe'; CTM *tising* 'ring', *katila?* 'sweet potato'; SAR *de?itek* 'small'.

*h

(a) In BKD, WBM, KIN, and DIB $*h \longrightarrow h$

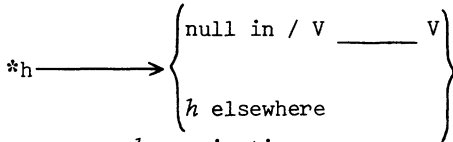
Discrepancies: WBM *?eles* 'hide', KIN *badzi* 'female'.

(b) In SAR and ILN



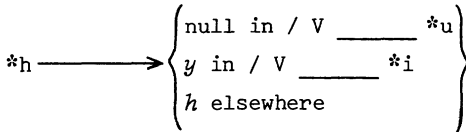
Discrepancy: SAR *wayeg* 'water'.

(c) In TIG



Discrepancy: *kames* 'wet'.

(d) In CTM and TSY



Discrepancies: CTM, TSY *wayeg* 'water', *ʔapuy* 'fire'; CTM *ʔimatay* 'kill'.

(e) In TAG *h → null

Discrepancies: *daʔun* 'leaf', *buhaʔ* 'cough'.

(f) In OBO *h → ?

Discrepancy: *pemeneκ* 'climb'.

(g) In CAG

$$*h \longrightarrow \left\{ \begin{array}{l} h \text{ in / } *a \text{ ______ } i \\ \emptyset \text{ in / } V \text{ ______ } V \\ ? \text{ elsewhere} \end{array} \right\}$$

where: V ______ V ≠ *a ______ i

Discrepancies: *waiɡ* 'water' (but the form *wahig* occurs as a place name for an area where there are good sources of water), *naʔik* 'climb'.

*w

(a) In TIG, BKD, SAR, WBM, ILN, CTM, TSY, CAG, KIN, and OBO

*w → w

(b) In DIB

$$*w \longrightarrow \left\{ \begin{array}{l} \text{null in / } *u \text{ ______ } \\ w \text{ elsewhere} \end{array} \right\}$$

(c) In TAG

$$*w \longrightarrow \left\{ \begin{array}{l} \text{null in / } *a \text{ ______ } \# \\ w \text{ elsewhere} \end{array} \right\}$$

*y

(a) In BKD, SAR, WBM, ILN, CTM, TSY, CAG, and OBO

*y → y

Discrepancy: CAG *diuʔ* 'far'.

(b) In TIG and DIB

$$*y \longrightarrow \left\{ \begin{array}{l} \text{null in / *i ______} \\ y \text{ elsewhere} \end{array} \right\}$$

(c) In KIN

$$*y \longrightarrow \left\{ \begin{array}{l} dz \text{ in V ______ V} \\ y \text{ elsewhere} \end{array} \right\}$$

(d) In TAG

$$*y \longrightarrow \left\{ \begin{array}{l} \text{null in *a ______} \\ y \text{ elsewhere} \end{array} \right\}$$

3.2.2. Proto-vowels

*a

(a) In TIG

$$*a \longrightarrow \left\{ \begin{array}{l} e \text{ in / } \left\{ \begin{array}{l} +C ______ S+ \\ + ______ S+ \\ ______ \left\{ \begin{array}{l} *h \\ *? \end{array} \right\} \\ (______) ?x \\ + ______ ?+ \\ ______ *?e \end{array} \right\} \text{ high vowel} \\ a \text{ elsewhere} \end{array} \right\}$$

where: C = consonant, S = semivowel, + = syllable boundary,
 (______) ≠ prepenultimate syllable, and

$$x = \left\{ \begin{array}{l} \text{any phoneme except } a \\ \text{null} \end{array} \right\}$$

Discrepancies: *hepʔat* 'four' and *henʔem* 'six' where there is a loss of *a from *Xaʔepat and *Xaʔenem respectively. (Metathesis accounts for the displacement of ʔ)

(b) In BKD, CAG, and KIN *a → a

Discrepancy: *pulaguy* 'run' BKD; CAG *mama* 'male'.

(c) In SAR

*a → $\left. \begin{array}{l} e \text{ in prepenultimate syllables} \\ a \text{ elsewhere} \end{array} \right\}$

Discrepancies: *tigenek* 'mosquito', *kowanana* 'right hand'.

(d) In WBM and ILN

*a → $\left. \begin{array}{l} e \text{ in / } \left\{ \begin{array}{l} \text{prepenultimate syllables} \\ +C \text{ ______ } S+ \end{array} \right\} \\ a \text{ elsewhere} \end{array} \right\}$

where: C = consonant, S = semivowel, + = syllable boundary

(e) In DIB

*a → $\left. \begin{array}{l} e \text{ in / } \left\{ \begin{array}{l} +C \text{ ______ } S+ \\ + \text{ ______ } S+ \\ \left. \begin{array}{l} *ʔ \\ *h \\ *ʔe \end{array} \right\} \text{ high vowel} \end{array} \right\} \\ \text{null in / } *a1 \text{ ______ } \\ aa \text{ in / } \text{______ } *1 \left\{ \begin{array}{l} \# \\ + \end{array} \right\} \\ a \text{ elsewhere} \end{array} \right\}$

where: C = consonant, S = semivowel, + = syllable boundary, # = word boundary. The sequence *a1 is part of a word consisting of more than two syllables.

Discrepancies: *penhik* 'climb (a tree)', *sekedu* 'water container', *kugpa* 'chest of a pig'.

(f) In CTM and TSY

$$*a \longrightarrow \left\{ \begin{array}{l} e \text{ in / prepenultimate syllables} \\ a \text{ elsewhere} \end{array} \right\}$$

Discrepancies: CTM and TSY *ma?ama* 'male', *kalabaw* 'carabao', *katila?* 'sweet potato', *bulok* 'flower'⁸, *sawa* 'spouse'; TSY *lipot* 'forget'; CTM *kwanan* 'right hand'.

(g) In TAG

$$*a \longrightarrow \left\{ \begin{array}{l} \epsilon \text{ in } \left\{ \begin{array}{l} \text{---} *hi \\ \text{---} *y \end{array} \right\} \\ o \text{ in } \text{---} *w\# \\ a \text{ elsewhere} \end{array} \right\}$$

Discrepancies: *begget* 'heavy', *mama?* 'male', *sikedu* 'water container', *ikem* 'mat', *belagan* 'rattan', *penek* 'climb', *kawanen* 'right hand'.

(h) In OBO

$$*a \longrightarrow \left\{ \begin{array}{l} e \text{ in / } *+C \text{ --- } S+ \\ a \text{ elsewhere} \end{array} \right\}$$

where: C = consonant, S = semivowel, + = syllable boundary

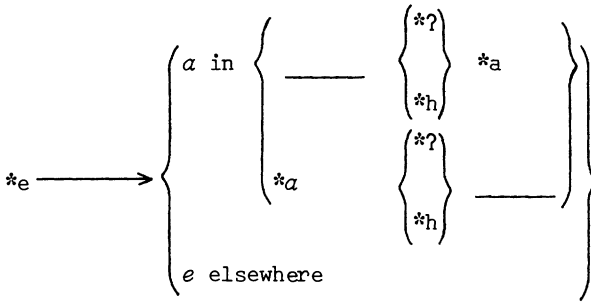
Discrepancies: *pemenek* 'climb', *langasa* 'blood', *ma?ame?* 'male', *langaw* 'fly', *gannaw* 'cold'.

*e

(a) In TIG, BKD, SAR, CTM, and TSY $*e \longrightarrow e$

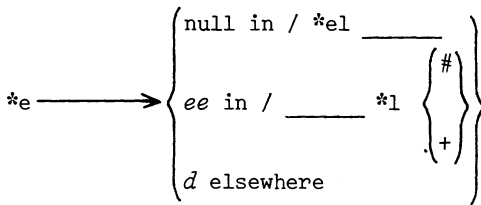
Discrepancies: BKD *punu?* 'full', *sakudu* 'water container', *tatulu* 'three'; DIB *?upat* 'four'; SAR *ma?mis* 'sweet', *?otaw* 'person'; CTM, TSY *di?isek* 'small'.

(b) In WBM and ILN⁹



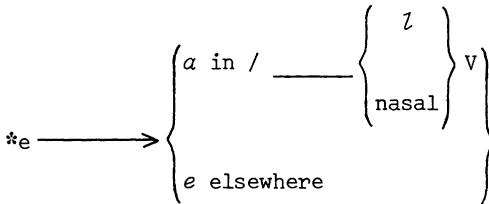
Discrepancy: WBM, ILN *be?ba?* 'mouth'.

(c) In DIB



where: # = word boundary, + = syllable boundary. The sequence **el* is part of a word consisting of more than two syllables.

(d) In CAG



where: V = vowel

Discrepancies: *sagaddu* 'water container', *?appat* 'four', *sa?ag* 'floor', *ka?an* 'eat', *lassung* 'mortar', *ginnaw* 'chilled' (from **genaw* 'cold'), *bitu?un* 'star', *bu?u?* 'knee'.

(e) In KIN $*e \longrightarrow u$

Discrepancies: *sa?ag* 'floor', *?abul* 'smoke'.

(f) In TAG

$$*e \longrightarrow \left\{ \begin{array}{l} a \text{ in / } *CV? \text{ ______ } C \\ \text{null in / } ma+ \text{ ______ } \\ e \text{ elsewhere} \end{array} \right\}$$

where: C = consonant, V = vowel

Discrepancies: *gano* 'cold', *belagan* 'rattan', *lisung* 'mortar', *gettuk* 'belly', *dalum* 'deep', *kan* 'eat'.

(g) In OBO

$$*e \longrightarrow \left\{ \begin{array}{l} a \text{ in / } \left\{ \begin{array}{l} \left\{ \begin{array}{l} l \\ \text{nasal} \end{array} \right\} V \\ a? \text{ ______ } \end{array} \right\} \\ \text{null in / } ma+ \text{ ______ } \\ e \text{ elsewhere} \end{array} \right\}$$

Discrepancies: *kappa* 'thick', *ʔabbe* 'smoke', *sakaddu* 'water container', *ʔuad* 'snake', *daum* 'deep', *gannaw* 'cold', *sinaggaw* 'weep', *ʔamas* 'wet', *anem* 'six', *disek* 'small'.

*i

(a) In TIG, BKD, SAR, WBM, ILN, CTM, TSY, CAG, KIN, and OBO

$$*i \longrightarrow i$$

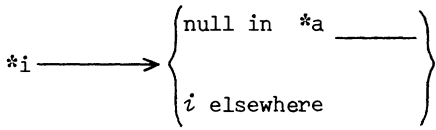
Discrepancies: BKD *gabiʔ* 'past'; CTM *peneʔu* 'sit'; OBO *metem* 'black', *pemensk* 'climb', *manit* 'hot'; SAR, CTM, TSY *wayeg* 'water'.

(b) In DIB

$$*i \longrightarrow \left\{ \begin{array}{l} ii \text{ in / } \text{______} *l \left\{ \begin{array}{l} \# \\ + \end{array} \right\} \\ i \text{ elsewhere} \end{array} \right\}$$

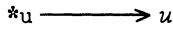
where: # = word boundary, + = syllable boundary

(c) In TAG



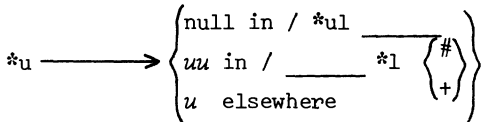
*u

(a) In TIG, BKD, SAR, WBM, ILN, CTM, TSY, CAG, KIN, TAG, and OBO



Discrepancies: SAR *dagem* 'needle', *dawen* 'leaf'; CTM *pene?u* 'sit'; ILN *derewa* 'two'; CAG *sawaw* 'trousers', *darwa* 'two', *dagem* 'needle'; KIN *sawal* 'trousers'.

(b) In DIB



where: # = word boundary, + = syllable boundary. The sequence *ul is part of a word consisting of more than two syllables.

Discrepancy: *dagem* 'needle'.

3.2.3. Phoneme accretion. The following words show discrepancies with their Proto-Manobo counterparts because of phoneme accretion:

<i>?ana?ay</i>	BKD	'termite'	from *?anay
<i>?iselem</i>	SAR	'morning'	from *selem
<i>dekele?</i>	WBM, ILN	'big'	from *dake1
<i>kua?</i>	DIB	'what you may call it'	from *kuwa
<i>tu?elan</i>	CTM, TSY	'bone'	from *tu?lan
<i>?ikagi</i>	TSY	'word, saying'	from *kagi
<i>wau?</i>	OBO	'eight'	from *walu
<i>sulu?</i>	OBO	'fingernail'	from *sulu
<i>bakabak</i>	OBO	'frog'	from *bakbak

3.2.4. Metathesis

(a) The following metathesis rule accounts for the metathesized forms in Tagabawa:

$$*C^1V?eC^2 \text{ ______ } aC^1VC^2$$

alig from *li?eg 'neck', *abull* from *bu?el 'knee', *asag* from *sa?eg 'floor'.

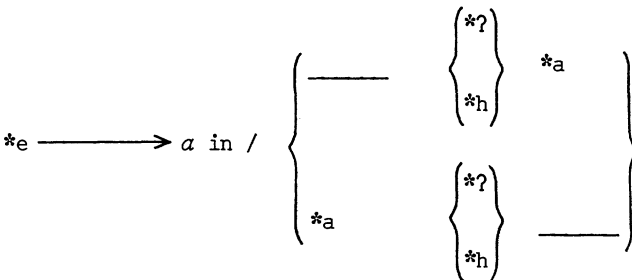
(b) In CAG the discrepancy in the form ?*isyam* 'nine' from *siyam is presumably the result of metathesis. No other metathesized forms have been discovered in CAG.

4. A SUBGROUPING THEORY. The five rules for the reflexes of *a in the daughter languages of Proto-Manobo and one of the rules for the reflexes of *e suggest a theory of subgrouping. The rules represent innovations which occurred subsequent to Proto-Manobo and the subgrouping is based on whether or not a particular language shares one or more of these innovations with one or more of the other languages.

4.1. *The syllable-final semivowel rule (SFS).* For several of the languages in our study *a has the reflex *e* in a syllable which ends in a semivowel. Thus WBM *baley* 'house' from *balay and *savew* 'soup' from *sabaw. The following languages show the syllable-final semivowel rule: TIG, WBM, ILN, DIB, and OBO. (See Section 3.2.2 [*a] (a), (d), (e), and (h))

4.2. *The vowel harmony rules (VH).* There are two kinds of vowel harmony rules. In ILN, OBO, and WBM *e is harmonized to *a*. In TIG and DIB *a is harmonized to *e*. (See Section 3.2.2 [*e] (b))

In ILN, OBO, and WBM



and in OBO

*e → a in / *a? _____

Thus in ILN, WBM, and OBO *ka?en becomes ka?en.
In TIG and DIB (See Section 3.2.2 [*a] (a), (e))

*a → e in / _____ *?e

Thus *ka?en 'eat' becomes ke?en.

4.3. *The prehigh-vowel rule (PHV).* In TIG and DIB *a has the reflex e preceding an *h or *? which precedes a high vowel. (See Section 3.2.2 [*a] (a) and (e))

*a → e in / _____ $\left. \begin{array}{c} *h \\ *? \end{array} \right\}$ high vowel

Thus *bahi 'female' becomes bei in TIG and behi in DIB. Also *pa?it 'bitter' becomes pe?it in both TIG and DIB.

4.4. *The prepenultimate-syllable rule (PPS).* In WBM, ILN, SAR, CTM and TSY *a has the reflex e in prepenultimate syllables. (See Section 3.2.2 [*a] (c), (d), and (f))

*a → e in / _____ penultima

Thus *mama?en 'areca nut' becomes: SAR *mema?en*; WBM and ILN *mema?an*; and *(pa)digus 'bathe' becomes: WBM *pezigu?*; CTM and TSY *pedigus*.

A number of forms in TAG suggest that some form of the prepenultimate syllable rule may have been present earlier but is no longer productive, e.g., *pedigus* 'bathe', *me+gano* 'cold', *me+sakit* 'painful', *beligya?* 'buy', *eg+layang* 'fly', *penembelat* 'loincloth', *me+lasssem* 'sour', etc. For purposes of subgrouping we accept this as a hypothesis especially in view of considerable further lexical evidence that TAG belongs to the same subgroup as SAR, CTM, and TSY which also display this rule.¹⁰

4.5. *The preglottal-stop rule. (PGS).* In TIG *a has the reflex e preceding a syllable final glottal stop. (See Section 3.2.2 [*a] (a))

*a → e in / (_____) ?x
 where: (_____) ≠ prepenultimate syllable,

$$x = \left\{ \begin{array}{l} \text{null} \\ \text{any phoneme except } a \end{array} \right\}$$

Thus *bata? 'child' becomes *bate?* 'child'.

Figure 2 shows how a subgrouping hypothesis has been derived from the rules.

The information in Figure 2 may also be expressed in a tree diagram which indicates a relative chronology of separation into the various subgroups.

Although our study includes only twelve Manobo languages and dialects, these twelve are generally representative of the majority of the remainder in the following way:

TIG also represents Ata of Davao (ATA), Matig Salug (SAL) and other groups of the Davao River area, and also certain other areas east of the Pulangi River in Bukidnon and North Cotabato.

SAR also represents a Manobo dialect on the eastern side of the Davao Gulf.

WBM, ILN, and OBO form a subgroup with Livunganen (LIV), a dialect north of Midsayap, Cotabato. Although OBO shares the SFS rule and the VH rule with both the Western and the Central Manobo languages, we consider it to belong to the Western subgroup (1) because it lacks the PHV rule and the PGS rule which all other central Manobo languages display, and (2) because it shares exclusively with Western Manobo languages a number of lexical and phonological features.¹¹

DIB also represents the dialects of Agusan Manobo (AGN).¹²

CTM and TSY also represent Blit Manobo.¹³

Assuming that the scheme is correct, we may make the following observations. The tree suggests four major separations in the history of descent from Proto-Manobo. Since the Northern Manobo languages, BKD, CAG, and KIN, exhibit none of the aforementioned

	PPS RULE	SFS RULE	VH RULE	PHY RULE	PGS RULE	
BKD						Northern Manobo
KIN						
CAG						
CTM	X					Southern Manobo
TSY	X					
SAR	X					
TAG	X					
WBM	X	X	X			Western Manobo
ILN	X	X	X			
OBO		X	X			
DIB		X	X	X		Eastern Manobo
TIG		X	X	X	X	Central Manobo

FIGURE 2

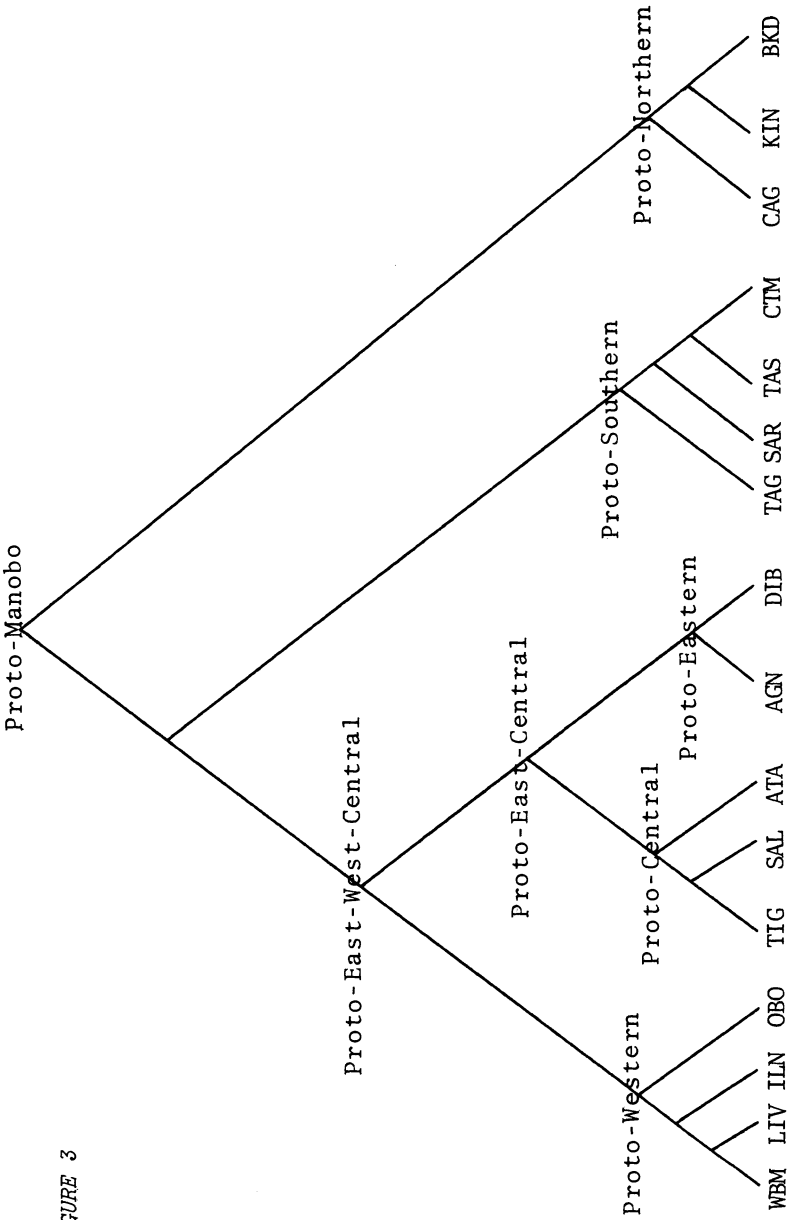


FIGURE 3

innovations, we may assume that the speakers of Proto-Northern Manobo separated from the main body before any of the *a or *e innovations took place. Next, the ancestors of the Southern Manobo speakers separated, but not before the prepenultimate-syllable rule came into being. Following this, Proto-East-West-Central Manobo developed the syllable-final semivowel rule and the vowel harmony rules. When Proto-East-Central Manobo separated from Proto-Western, it lost the prepenultimate rule and developed the prehigh-vowel rule. Proto-Central subsequently separated from Proto-Eastern and developed the pre-glottal-stop rule. The further differentiation into present-day languages is best shown by the differences which have developed in their respective lexicons.

5. GEMINATING LANGUAGES IN THE MANOBO SUBFAMILY. Cagayano, Tagabawa, and Obo share with several languages of Northern Luzon (Ilocano, Ibanag, Agta and perhaps others)¹⁴ a consonant gemination rule which may be stated as follows:

C —————> CC in / *e _____ V

Further study of this feature in Philippine languages is necessary to determine whether the reconstruction of geminate consonants in Proto-Manobo and/or Proto-Philippine is feasible.

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NOTES

¹This paper is the result of field work done in Mindanao, Philippines under the auspices of the Summer Institute of Linguistics from 1953 - 1973. I am grateful to the following members of the Summer Institute of Linguistics for data from languages other than Western Bukidnon Manobo: Clarice Strong, Tigwa Manobo; Ursula Post and Mary Jane Gardner, Binukid; Carl Dubois, Sarangani Manobo; Jean Shand and Hazel Wrigglesworth, Ilianen Manobo; Jannette Forster and Myra Lou Barnard, Dibabawon; Clay Johnston, Cotabato Manobo. I am especially grateful to Secretary Manuel Elizalde, Jr. and the Panamin Foundation, Inc.

for making possible the trip to the Tasaday during which I recorded the Tasaday data. Data from Tagabawa and Obo were taken from lists in the survey files of the Summer Institute of Linguistics, Philippines. Additional data from Tagabawa were provided by Jerry Eck. I am also grateful to Miss Estela L. Dagaraga of Xavier University and Mr. Douglas Regier for Kinamigin data and to Mr. Carlos P. Mosteiro for data from Cagayano. Special appreciation is due to John Wolff for his comments and suggestions.

An earlier version of this paper called "A preliminary Proto-Manobo word list" appeared in the *Philippine Journal of Linguistics*, June 1973. The present paper adds data from four additional Manobo languages.

²Cagayano was recently identified by Isidore Dyen as belonging to the Manobo subfamily.

³TSY and CTM *p* represent the phone /p̥/ which is a voiceless bilabial fricative.

⁴We reconstruct *tuʔlid rather than *tulʔid since it appears to be analogous to *tuʔlan 'bone' for which there is better evidence. Presumably for euphony's sake, metathesis of *l and *ʔ has taken place in BKD, SAR, and DIB. In the case of *tuʔlan WBM and ILN have lost the glottal stop. CTM and TSY eliminate the unusual combination with the accretion of *e*. SAR retains the original form. In TAG and OBO the geminate consonants of *tullan* reflect the consonant cluster of the proto-form.

⁵This loss of glottal stop is accompanied by metathesis as described in Section 3.2.4.

⁶In our data TSY and CAG do not reflect *D.

⁷In our data DIB does not reflect *X.

⁸A wider corpus of data may offer support for a regular rule which accounts for CTM and TSY *o*.

⁹This rule also accounts for phenomena beyond the scope of this paper.

¹⁰The following are some of the cognates which TAG shares exclusively with SAR and/or CTM and/or TSY: TAG *meddang*, CTM *limedang* 'fear'; TAG *dipanu*, SAR *dipanog*, CTM *depanog* 'blood'; TAG, SAR *kilem* 'lightning'; TAG *mantu*, CTM *magtu* 'new'; TAG *ennaʔ*, CTM *?endaʔ* 'not'; TAG *sebbad*, SAR *sebad* 'one'.

¹¹Some of these features are the following: OBO, WBM, ILN *laʔing* 'abaca'; OBO *lammag*, WBM, ILN *ramag* 'breakfast'; the rule in OBO and ILN: *g → h in V _____ V. A similar rule in WBM is: *g → ɣ in V _____ V; the form of the vowel harmony rule in OBO resembles the rule in WBM and ILN (*e → a in / *a? _____) rather than the rule in Central Manobo languages (*a → e in / *e? _____).

¹²These observations are based on information in the survey files of the Summer Institute of Linguistics at Nasuli, Malaybalay, Bukidnon, Philippines.

¹³Personal communication from Teodoro A. Llamzon, S.J.

¹⁴Conant, Carlos Everett, 1912. The pepet law in Philippine languages, *Anthropos* 5:920-47.

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