

The Reflection of Proto-Austronesia to Sula: Preliminary Testing of Hypothesis Collins (1981)

Refleks Proto-Austronesia ke dalam Bahasa Sula: Langkah Awal Menguji Hipotesis Collins (1981)

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Abstract

*Collins (1981) proposed evidence regarding the kinship of languages (ambelau, buru, sula and taliabo) and grouped them into middle-east Maluku group based on the qualitative evidence. However, the evidence is limited and not convincing. This article intends to explain Proto-Austronesian (PAN) reflexes to Sula language and their relation to Collins Hypothesis (1981) about the West-Central Maluku Subgroup. Field data collection has been carried out in the Sula Islands, especially Fatche isolates in the form of 200 basic vocabulary and 800 cultural vocabulary and Collins study (1981). The collected data was analyzed using a joint innovation top-down approach. The results showed that there was a regular and irregular change in PAN phonemes into Sula language. A PAN phoneme changes regularly and irregularly at once. PAN phonemes that undergo regular changes are *p, *t, *C, *k, *ʔ, *b, *d, *m, *n, *ŋ, *s, *S, *i, *a, *u, *ə *uy, and *ay, while those who do not experience regularly are *z, *j, *N, *h, *R, *r, and *w. PAN reflexes into Sula in some respects show a different pattern of change from the evidence put forward by Collins (1981). This does not mean negating Collins's (1981) hypothesis of the family tree of the group, but other relevant evidence needs to be identified. In addition, PAN's reflexes to Sula were found to be the same as Collins's (1981) proposed evidence of the historical relations of the West-Central Maluku Subgroup.*

Keywords: reflex PAN, Collins hypothesis (1981), shared innovations, historical relationship.

Abstrak

Collins (1981) telah membuat hipotesis tentang bukti kekerabatan bahasa-bahasa (Ambelau, Buru, Sula, dan Taliabo) yang disebut sebagai Kelompok Maluku Tengah Barat berupa bukti kualitatif yang sifatnya terbatas sehingga belum meyakinkan secara ilmiah. Artikel ini bermaksud menjelaskan refleks Proto-Austronesia (PAN) ke bahasa

*Sula serta kaitannya dengan Hipotesis Collins (1981) tentang Kelompok Maluku Tengah Barat. Pengumpulan data lapangan telah dilakukan di Kepulauan Sula khususnya isolek Fatche berupa 200 kosakata dasar dan 800 kosa kata budaya dan telaah studi Collins (1981). Data-data yang terkumpul dianalisis menggunakan pendekatan top-down metode inovasi bersama. Hasil penelitian menunjukkan bahwa perubahan fonem PAN ke dalam bahasa Sula ada yang bersifat teratur dan tidak teratur. Suatu fonem PAN mengalami perubahan secara teratur dan tidak teratur secara sekaligus. Fonem PAN yang mengalami perubahan secara teratur adalah *p, *t, *C, *k, *ʔ, *b, *d, *m, *n, *ŋ, *s, *S, *j, *a, *u, *ə *uy, dan *ay, sedangkan yang tidak mengalami secara teratur adalah *z, *j, *N, *h, *R, *r, dan *w. Refleks PAN ke bahasa Sula dalam beberapa hal memperlihatkan pola perubahan yang berbeda dengan bukti yang diajukan dengan Collins (1981). Hal tersebut bukan berarti menegasikan hipotesis Collins (1981) tentang silsilah kekerabatan kelompok tersebut, tetapi perlu diidentifikasi bukti lain yang relevan. Selain itu, ditemukan refleks PAN ke Sula yang sama dengan bukti yang diajukan Collins (1981) tentang relasi kekerabatan Kelompok Maluku Tengah Barat.*

Kata kunci: refleks PAN, hipotesis Collins (1981), inovasi bersama, relasi kekerabatan

Introduction

This research is one of the efforts to continue the study of Sumarlam et al (2017a, 2017b, and 2018). The Sumarlam et al. study (2017a) has explained some arguments about the need for the Central-West Maluku Subgroup study hypothesized by Collins (1981). The Sumarlam et al. (2017b) study explains the Proto-Austronesian (PAN) phoneme reflex to Buru language in relation to Collins' hypothesis (1981). This second study also formulated similarities and differences in the evidence proposed by Collins (1981) with PAN reflexes in the Buru language. A recent, similar study was carried out by Sumarlam et al. (2018) regarding PAN reflexes to Ambelau also in relation to the Collins hypothesis (1981). Similar to the second study, the third study also explained the similarities and differences in the evidence proposed by Collins (1981) with PAN reflexes in Ambelau. Thus, the last two studies describe PAN reflexes to Buru and Ambelau, whether the evidence put forward by Collins (1981) in the form of a joint (phonological) innovation about the kinship relations of West-Central Maluku languages is appropriate or not. Because, as is known Buru and Ambelau together with Sula and Taliabo are languages classified as Collins (1981) into the West Central Maluku Group. However, how PAN's reflexes into Sula and Taliabo languages are related to the Collins hypothesis (1981).

This study of PAN reflexes into Sula language has a similar purpose to the study conducted by Sumarlam et al (2017b and 2018), which not only describes PAN's reflexes to Sula but how to correlate these descriptions with evidence in the form of joint innovation put forward by Collins (1981) about the Maluku Group Central-West. To explain the kinship relations of the West Central Maluku Group languages, Collins (1981) saw PAN's pattern of innovation into these four languages. For example, to explain the separation of Buru-Sula-Taliabo (BST) with Ambelau, PAN *p becomes BST: p (Taliabo: h) at the initial and middle positions. PAN *t also becomes BST: t regularly at the beginning and middle positions, while at the end position in Sula: ∅ (Buru: t and Taliabo: c). Likewise, PAN *k in BST has regular retention in the initial and middle positions, while in the final position in Sula: ∅ (Buru: t and Taliabo: k). the problem is whether the evidence put forward by Collins (1981) in the form of a joint innovation including the PAN reflex to the Sula is sufficient? Linkages with this matter need to be studied. Because, Collins' (1981) research is preliminary and still uses limited data. Intensive

research by examining PAN's reflexes one by one into the four languages of the members of the West-Central Maluku Subgroup is an effort in that direction.

As stated in the research of Sumarlam et al (2017b and 2018), as Collins (1981) hypothesized, the languages of Ambelau, Buru, Sula, and Taliabo were derived from one common parent language called Proto-West-Central Maluku. Proto-West-Central Maluku first separated into two, namely Buru-Sula-Taliabo and Ambelau, then Buru-Sula-Taliabo separate into Buru and Sula-Taliabo. Finally, Sula-Taliabo separated into Sula and Taliabo. To explain this, Collins (1981) proposed evidence of phonological innovation in the form of PAN reflexes in these four languages. Languages that experience joint innovations reflected in PAN reflexes will be classified into the same group, and vice versa. Intensive studies to examine Collins' hypothesis (1981) have only been carried out by Sumarlam et al (2017b and 2018) by taking the languages Buru and Ambelau as objects of study.

Actually, there are some recent studies on PAN reflexes against Maluku languages, including research by Burhanuddin, Sumarlam, and Mahsun (2017); Burhanuddin, Ahmadi, and Yulida (2017); and Burhanuddin (2017). The study of Burhanuddin, Sumarlam, and Mahsun (2017) aims to explain the position of Gebe language historically linguistically whether it is included in the South Halmahera Group or the Raja Ampat Group. The Gebe language is used on Gebe Island which is located in the eastern part of Halmahera Island or west of the Raja Ampat islands. Qualitative evidence in the form of innovation with phonology and the lexicon showing Gebe is more closely related to the South Halmahera Group. The research of Burhanuddin, Ahmadi, and Yulida (2017) purely examines the PAN reflex pattern into the language of Buli. As is known, Buli is classified as Blust (1978) and Kamholz (2014) into the South Halmahera Group. Similar to the second study, Burhanuddin's (2017) study took the object of the Taba/ East Makian language which is a member of the South Halmahera Subgroup. The Taba/East Makian language is used on Makian (East) Island, North Maluku. The study of Burhanuddin, Ahmadi, Yulida (2017) and Burhanuddin (2017) can be further utilized in testing Blust (1978) and Kamholz (2014) hypotheses about the historical relationship of the South Halmahera Subgroup languages. So, the languages of Gebe, Buli, and Taba which were the object of the three studies were told by the Halmahera community in North Maluku which is historically linguistic in the South Halmahera Subgroup. If it is related to the topic of this research, it is certainly not relevant. Likewise with the research of Burhanuddin (2019) which explains the complexity of sound change in the languages of the South Halmahera Subgroup. Although the study discusses the pattern of sound change in various languages of the South Halmahera Subgroup, it is clear when viewed from the object and the purpose is less relevant to this study.

This study aims to explain PAN's reflexes to Sula language and relate these findings to Collins (1981) proposed evidence of the relationship between the language relations between the West-Central Maluku Subgroup, especially those related to the Sula language. Collins (1981) presented evidence of innovation with the Sula language with Buru-Taliabo in the form of PAN reflexes that separated it from Ambelau. In addition, Collins (1981) presented evidence of innovation with Sula with Taliabo in the form of PAN reflexes which separated him from Buru. So, this study intends to explain whether Collins's (1981) evidence of innovation occurring in the Sula language is adequate or not.

Method

To explain these problems, data collection has been carried out using the documentation method in the form of PAN reconstruction Blust (2013), Blust and Trussel (2015) Austronesian Comparison Dictionary, and Collins (1981) research on the West-Central Maluku Subgroup. The Austronesian Comparison Dictionary of Blust and Trussel (2015) was used to identify the form of PAN that was realized in the Sula

language, while PAN Blust (2013) reconstruction was used as a basis for viewing PAN reflexes in Sula language. In addition, field data collection was carried out in the form of 200 basic vocabulary words and 800 cultural vocabulary words in Sula Fatche isolates in Sula Islands, North Maluku Province. Field data collection involved three to five informants from Fatche isolates in the Sula Islands. The collected data is then analyzed using the innovation method along with a top-down approach. This method is used to explain the PAN reflex in the Sula Language. Furthermore, the description of the PAN reflex to Sula is compared to its suitability with the Collins study (1981). The results of the comparison are then classified according to the type and nature to then be presented verbally.

Result and Discussion

Result

In accordance with its objectives, this section will explain PAN's reflexes into the Sula language, as well as their relationship with the evidence put forward by Collins (1981) in explaining the kinship relations of the West-Central Maluku Subgroup. In this regard, it should be stated that Blust (2013) has identified as many as 32 PAN phonemes. According to Blust (2013), the PAN phoneme consists of 24 consonants (/ p, t, C, c, k, q, b, d, z, j, g, m, n, ɲ, ɳ, s, S, h, l, r, R, y, and w /), four vowels (/ i, u, ə, and a /), and four diphthongs (-aw, -ay, -uy, and -iy). Based on the type of phoneme, the realization is in Sula Isolek Fatche. The following is expressed the PAN reflex to the Sula language.

Refleks PAN *p

PAN * p in the initial position in the Sula language has regular retention and irregular retention. In the middle position PAN *p becomes p, h, ʔ, and ø each irregularly.

Gloss	PAN	Sula	Rule
kill	*pa-aCay	amata	*p > ø/#-
navel	*pujək	use	
how many	*pija	ila	
stingray	*paRi	pari	*p > p/#-
pare	*pariaʔ	papari	
thin	*tipis	maniʔi	*p > ʔ/#V-V#
what	*apa	sapan	*p > p/#V-V#
four	*Səpat	hata	*p > h/#V-V#
fire	*Sapuy	au	*p > ø/#V-V#
centipede	*Sipan	larian	

Refleks PAN *mp

PAN *mp at the starting and middle positions becomes p regularly in Sula language.

Gloss	PAN	Sula	Rule
white	*(ma)-putiq	puti	*mp > p/#-
grandchild	*əmpu	upuŋ	*mp > p/#V-V#

Refleks PAN *t

PAN *t has regular retention at the initial and middle positions, while in the final position it disappears irregularly.

Gloss	PAN	Sula	Rule
three	*təlu	teru	*t > t /#-
planting	*tanəm	tani	
afraid	*takut	mataʔu	
white	*ma-putiq	puti	*t > t /#V-V#
dead	*matay	amata	
we	*kita	ite	
stone	*batu	hatu	
moss	*lumut	lumu-lumu	*t > ø /-#

Refleks PAN *C

PAN *C changes to /t/ at the beginning, middle and end positions occurring regularly in the Sula language. In addition to being /t/, in the initial position to /k/ irregularly.

Gloss	PAN	Sula	Rule
ear	*Caliŋa	tarina	*C > t /#-
pellet	*Cahu	taru	
cry	*Caŋis	kani	*C > k /#-
egg	*qiCəluR	manteruŋ	*C > t /#V-V#
dead	*maCay	mata	
hundred	*RaCus	utui	
veins	*huRaC	uhat	*C > t /-#
sky	*laŋiC	lanita	

Refleks PAN *k

At the start and end positions, PAN *k undergoes regular removal, while in the middle position it becomes ø, y, and k irregularly. In addition, there is an irregular change in the final position to ø.

Gloss	PAN	Sula	Rule
we	*(k)ita	ite	*k > ø /#-
dig	*kali	asi	
you	*kaSu	ane	
turmeric	*kunij	uniŋ	
fleas	*kutu	utu	
afraid	*takut	mataʔu	*k > ø /#-#
fish	*Sikan	iyaŋ	*k > y /#-#
open	*hukaʔ	heka	*k > k /#-#
child	*aNak	anak	*k > k /-#
viens	*pujək	use	*k > ø /-#
crooked	*bungkuk	bəŋkə	
bird	*manuk	manu kibu-kibu	

Refleks PAN *ʔ

PAN *ʔ in the initial position and end of being \emptyset regularly, while in the middle position it becomes \emptyset irregularly (if extended it is possible to occur regularly).

Gloss	PAN	Sula	Blust (1978)
salt	*ʔasiRa	tasi	*ʔ > \emptyset /#-
egg	*ʔiCəɭur	manteruŋ	
head	*ʔulu	ulu	
rain	*ʔuzaN	ulaŋ	
ash	*ʔabu	abu	
crocodile	*buʔaya	huae	*ʔ > \emptyset /#-#
new	*baʔəRuh	heru	
open	*hukaʔ	heka	*ʔ > \emptyset /-#
blood	*daRaʔ	lala	
pare	*pariaʔ	papari	
raw	*ʔ(a,ə)taʔ	mamata	
white	*ma-putiʔ	puti	

Refleks PAN *b

PAN *b becomes h regularly and becomes \emptyset and b irregularly in the initial position respectively. The middle position becomes b and h irregularly.

Gloss	PAN	Sula	Rule
new	*baʔeRuh	heru	*b > h/#-
split	*belaʔ	haʔa	
stone	*batu	hatu	
month	*bulaN	hula	
mountain	*buləd	ulata	*b > \emptyset /#-
fur	*bulu	bulu	*b > b/#-
crooked	*bungkuk	bɛŋkɔ	
fall	*nabuq	manahu	*b > h/#-#
pig	*babuy	hahu	
ash	*ʔabu	abu	*b > b/#-#

Refleks PAN *d

PAN *d becomes /l/ regularly and becomes r, j, h, and \emptyset irregularly in the initial position respectively.

Gloss	PAN	Sula	Blust (1978)
shrimp	*qudaŋ	maʔulaŋ	*d > l/#-
blood	*daRaʔ	lala	
ear	*dəŋəR	halaqa	
two	*duSa	rua	*d > r/#-
saliva	*dula	tahula	*d > h/#-
girl	*daRa	jujaro	*d > j/#-
good, well	*diʔaʔ	ia	*d > \emptyset /#-

Refleks PAN *z dan *j

PAN *z at the initial and middle positions each becomes irregular, while PAN *j in the middle position becomes *r*, *s*, and *l* irregularly. Likewise *j in the final position becomes *ŋ* irregularly.

Gloss	PAN	Sula	Rule
street	*zalan	lalaŋ	*z > t/#-
rain	*qusaN	ulaŋ	*z > ø/#-
nose	*ijun	iru	*j > r/#-
veins	*pujək	use	*j > s/#-
how many	*pija	ila	*j > l/#-
turmeric	*kunij	uniŋ	*j > ŋ/#-

PAN *m, *n, *ŋ, dan *N

PAN *m has regular retention at the initial and middle positions, while in the final position it becomes *n* and *ø* irregularly.

Gloss	PAN	Sula	Rule
chicken	*manuk	manu	*m > m/#-
afraid	*ma-takut	mataʔu	
dead	*matay	amata, etc	
five	*lima	rima	*m > m/#-
moss	*lumut	lumu-lumu	
hand	*kamay	rima, etc	
planting	*tanəm	tani	*m > n/#-
drink	*inum	inu	*m > ø/#-
six	*ənəm	nenā	

PAN *n has regular retention at the initial and middle positions, while in the final position it retains irregularly and becomes *ŋ* regularly.

Gloss	PAN	Sula	Rule
fall	*nabuq	manahu	*n > n/#-
swim	*nanguy	nanu	
chicken	*manuk	manu	*n > n/#-
planting	*tanəm	tani	
minum	*inum	inu	
six	*ənəm	nenā, etc	
centipede	*Sipan	lariaŋ	*n > ŋ/#-
street	*zalan	lalaŋ	
fish	*Sikan	iyaŋ	
wind	*haŋin	aniŋ, etc.	
right	*waNan kanan		*n > n/#-

PAN *ŋ in Sula in the middle position becomes *n* regularly, while being *ŋ* irregularly. In the final position it becomes *ŋ* and \emptyset each occurs irregularly.

Gloss	PAN	Sula	Rule
hunchback	*buŋkuk	bɛŋkɔ	*ŋ > ŋ/#-#
wind	*haŋin	aniŋ	*ŋ > n/#-#
swim	*naŋuy	nanu	
cry	*CaŋiS	kani	
ear	*Caŋiŋa	tarina	
sky	*laŋiC	lanita, etc.	
gill	*hasaŋ	hansaŋ	*ŋ > ŋ/#-
nose	*iŋuŋ	iru	*ŋ > \emptyset /-#

The PAN *N in the initial position if the data is expanded is possible to become *n* on a regular basis, while in the final position it becomes *ŋ* and \emptyset each irregularly.

Gloss	PAN	Sula	Rule
right	*waNan	kanan	*N > n/#-#
child	*aNak	anak	
rain	*quzaN	ulaŋ	*N > ŋ/#-
month	*bulaN	hula	*N > \emptyset /-#

PAN *s, *S, dan *h

PAN *s has regular retention at the starting position, while in the middle position it becomes \emptyset irregularly. PAN *S in the initial position becomes \emptyset regularly, while in the middle position it occurs irregularly (if expanded data is possible it occurs regularly). In the middle position, PAN *S changes to ʔ occurs irregularly, while at the end position becomes \emptyset (if expanded data is possible it occurs regularly).

Gloss	PAN	Sula	Rule
dog	*asu	asu	*s > s/#-
one	*(a,ə,i)sa	saita	
gill	*hasaŋ	hansaŋ	
salt	*ʔasiRa	tasi, etc.	
thin	*tipis	maniʔi	*s > \emptyset /#-#
four	*Səpat	hata	*S > \emptyset /#-
fish	*Sikan	iyaŋ	
fire	*Sapuy	au, etc.	
two	*duSa	rua	*S > \emptyset /#-#
water	*waSir	weir	
wood	*kaSiw	laʔita	*S > ʔ/#-#
rope	*CaliS	warita	*S > \emptyset /-#
cry	*CangiS	kani	
open	*hukaq	heka	*h > h/#-

wind	*hanjin	aniŋ	*h > ø/#-
veins	*huRaC	urat	
wife	*bahi	mahina	*h > h/#-#
sea	*lahud	louhaha	*h > ø/#-#
put	*Cahu	taru	*h > r/#-#
dig	*kalih	asi	*h > ø/#-

PAN *h has retention and ø is irregular in the initial and middle positions (specifically being ø is possible to occur regularly if the data is expanded). PAN *h in the middle position also becomes *r*, and becomes ø at the end position respectively irregularly.

PAN *l, *R, dan *r

PAN *l has regular retention, while being *r* and *h* occurs irregularly in the initial position. In the middle position *l becomes *r* on a regular, and occurs irregularly into *l* and *ʔ*.

Gloss	PAN	Sula	Rule
moss	*lumut -an	lumu-lumu	*l > l/#-
sky	*laŋjC	lanita	
sea	*lahud	louhaha	
five	*lima	rima	*l > r/#-
saliva	*ludaq	tahula	*l > h/#-
fur	*bulu	uru walaŋ	*l > r/#-#
eight	*walu	waru	
head	*qulu	uru	
ear	*Caliŋa	tarina	
three	*təlu	teru	
egg	*ʔiCəluŋ	manteruŋ, etc	
month	*bulaN	hula	*l > l/#-#
street	*zalan	lalang	
split	*ma-belaʔ	haʔa	*l > ʔ/#-#
hundred	*RaCus	utui	*R > ø/ #-
stingray	*paRi	pari	*R > r/#-#
new	*baʔəRuh	heru	
salt	*ʔasiRa	utui	*R > ø/#-#
egg	*ʔiCəluŋ	manteruŋ	*r > ŋ/#-

PAN *R becomes *r* and ø irregularly (being *r* may occur regularly if the data is extended) in the middle position. In the initial position it becomes ø irregularly, while PAN *r in the final position becomes *ŋ* irregularly.

PAN *w, *uy, *aw, dan *ay

PAN *w becomes *w* and *k* irregularly in the starting position, while *uy becomes *u* regularly at the end position. PAN *aw becomes an irregular *a*, while *ay becomes *a* regularly each in the final position.

Gloss	PAN	Sula	Rule
water	*waSiR	weir	*w > w/#-
right	*wanaN	kanan	*w > k/#-
fire	*Sapuy	au	*uy > u/-#
pig	*babuy	hahu	
swim	*naŋuy	nanu	
scratch	*kaRaw	haqi	*aw > a/-#
dead	*ma-aCay	mata	*ay > a/-#
hand	*kamay	rima	
dead	*pa-kaCay	amata	

Refleks PAN *i

PAN *i has regular retention in all positions except that the final position occurs irregularly (if the data is expanded, it is possible to occur regularly).

Gloss	PAN	Sula	Rule
nose	*ijung	iru	*i > i/#-
we	*kita	ite	
drink	*inum	inu	
mother	*isa	saita	
how many	*pija	ila	*i > i/#K-
ear	*Caliŋa	tarina	
salt	*ʔasiRa	tasi	
fish	*Sikan	iyaŋ	
five	*lima	rima	
water	*waSiR	weir	*i > i/-K#
sky	*laŋiC	lanita	
turmeric	*kunij	uniŋ	
white	*(ma)-putiq	puti	
wind	*haŋin	aniŋ	
stingray	*paRi	pari	*i > i/-#
female	*bahi	mahina	

PAN *u

PAN *u in the cultivator silabe, ultima silabe, and the final position are retained regularly in the Sula language. In addition, in the cultivator silabe, PAN *u becomes /ɔ/ and /e/ irregularly.

Gloss	PAN	Sula	Rule
month	*bulaN	hula	*u > u/#K-
two	*duSa	rua	
rain	*quzaN	ulaŋ	
head	*uru	qulu, dsb	

tail	*ikuR	arɔi	*u > ɔ/#K-
open	*hukaʔ	heka	*u > e/#K-
new	*baʔəRuh	heru	*u > u/-K#
fall	*nabuq	manahu	
egg	*ʔiCəlur	manteruŋ	
afraid	*ma-takut	mataʔu	
drink	*inum	inu	
ash	*ʔabu	abu	*u > u/-#
fur	*bulu	bulu	
dog	*asu	asu	
eight	*walu	waru	

PAN *ə

PAN *ə undergoes innovation to be *e* regularly on the syllable penultimate, while in the initial position and syllable ultima occurs irregularly. In addition to being *e*, PAN *a becomes *a* and *ø* in the position of the syllable penultimate irregularly. Likewise, the syllable ultima becomes *i* irregularly.

Gloss	PAN	Sula	Rule
six	*ənəm	nena	*ə > e/#-
grandchild	*əmpu	upuŋ	
new	*baʔəRuh	heru	*ə > e/#K-
six	*ənəm	nena	
three	*təlu	teru	
egg	*ʔiCəlur	manteruŋ	
four	*Sepat	hata	*ə > ø/#K-
split	*bəlaq	haʔa	*ə > a/#K-
mountain	*buləd	ulata	*ə > a/-K#
six	*ənəm	nena	
weight	*beRəʔat	beha	*ə > e/-K#
planting	*tanəm	tani	*ə > i/-K#

PAN *a

PAN *a retention regularly at the initial position, the syllable penultimate, syllable ultima, and the final position. In the penultimate syllable and the final position, PAN *a also experiences innovation into each *e* irregularly.

Gloss	PAN	Sula	Blust (1978)
child	*aNak	anak	*a > a/#-
dog	*asu	asu	
I	*aku	aʔa	
ash	*ʔabu	abu	*a > a/#K-
wind	*haŋin	aniŋ	
fire	*Sapuy	au	
chicken	*manuk	manu	

water	*waSiR	weir	*a > e/#K-
good, well	*diqaq	ia	*a > a/-K#
split	*bəlaq	haʔa	
open	*hukaq	heka	
month	*bulaN	hula	
how many	*pija	ila	*a > a/-#
two	*duSa	rua	
salt	*ʔasiRa	tasi	
five	*lima	rima	
we	*kita	ite	*a > e/-#

Discussion

As stated above, according to Collins' hypothesis (1981) Sula language is related to being related to Taliabo, Buru, and Ambelau. The four languages are derived from the same proto language called Collins (1981) Proto-West-Central Maluku. To explain the relationship between Buru-Sula-Taliabo and Ambelau, Collins (1981) PAN *p with Taliabo and Buru in Sula: *p* at the beginning and middle positions, for example *pitu > *gapitu* 'seven', *upu > *opu* 'grandfather', *pija > *pila* 'what'. This study shows that PAN *p disappears regularly at the initial position, while middle retention occurs irregularly. Even in the middle position, PAN *p becomes Sula: *p* next to *h*, *ʔ*, and *∅* each occurs irregularly. PAN *t with Buru and Taliabo in Sula: *t* at the beginning and middle positions occur regularly. This is consistent with this study. Likewise, the loss of PAN *t at the final position, although in this study is still found in limited data.

According to Collins (1981), with Buru and Taliabo, PAN *k becomes Sula: *k* occurs regularly at the initial and middle positions, while at the end position disappears regularly (Buru: *t* while Taliabo: *k*). This research shows that PAN *k is not found to be Sula: *k*, but becomes *∅* regularly. Also in the middle position are not found to be Sula: *k* regularly, but become *∅* regularly. The similarity of this study with Collins's (1981) study is that PAN *k in the final position disappears regularly in the Sula language. The similarity of the research with Collins' hypothesis (1981) is that PAN *ʔ disappears regularly at the beginning, middle, and end positions. Other similarities are PAN *aw, *uy, and *ay at the end position respectively in *a*, *u*, and *a* regularly.

The similarities and differences in PAN reflexes into Sula language in this study with Collins's (1981) study can be stated as follows. First, the proof of kinship proposed by Collins (1981) regarding the union of Buru-Sula-Taliabo and its separation from Ambelau in the form of PAN *k to Sula: *k* at the initial and middle positions must be examined again. That is, the evidence is not relevant to be made one of the evidences to explain the unification of Buru-Sula-Taliabo which separates it from Ambelau. Nevertheless, Collins' hypothesis (1981) regarding the family tree of the West-Central Maluku Subgroup has not been able to be negated because it is possible to find other relevant evidence. Second, the proof of kinship proposed by Collins (1981) regarding the union of Buru-Sula-Taliabo and its separation from Ambelau in the form of PAN *p, *ʔ, *aw, *uy, and *ay relevant to this study. These evidences reinforce the evidence made by Collins (1981) regarding the family tree of the West-Central Maluku Subgroup.

Conclusion

Based on the description above it can be said that the change in the PAN phoneme into the Sula language is regular and irregular. PAN phonemes that undergo regular and irregular changes can include the same sound. That is, a PAN phoneme can change regularly and irregularly at once. PAN phonemes that undergo regular changes are *p, *t, *C, *k, *ʔ, *b, *d, *m, *n, *ŋ, *s, *S, *i, *a, *u, *ə *uy, and *ay, while phonemes that do not experience regularly are *z, *j, *N, *h, *R, *r, and *w. PAN phonemes that also change regularly and irregularly are *p, *t, *C, *k, * b, *d, *m, *n, *ŋ, *s, *S, *a, *u, *ə *uy, and *ay, each in a different position. In connection with Collins' hypothesis (1981) it can be argued that PAN's reflexes to Sula are found to be similar to the evidence that Collins put forward (1981) especially joint innovation in Sula language. This reinforces the evidence used by Collins (1981) in hypothesizing the language relations of the West-Central Maluku Subgroup, especially in the Sula language. In addition, evidence is found that is incompatible with the joint innovation proposed by Collins (1981) in the Sula language. This condition implies that it is necessary to identify other relevant shared evidence of innovation between Sula and Buru and Taliabo if the Collins hypothesis (1981) is maintained.

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