

SOME REMARKS ON THE AUSTRALIAN LANGUAGES.

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1. *The Grammars.*

No large effort has yet been made to master the difficulties that present themselves in the study of the comparative grammar of the Australian languages. The only thing in this direction, that I know of, is a paper on the "Position of the Australian Languages, by W. H. J. Bleek, Esq., Ph.D.," published in 1871. Dr. Bleek was a philologist who, in 1858, assisted in cataloguing the Library of His Excellency Sir Geo. Grey, K.C.B., then Governor of Cape Colony. Twenty years previously, Sir George (then Captain Grey), as leader of an expedition into the interior of our continent, had excellent opportunities of seeing the native tribes in their original condition; and the knowledge thus gained was enlarged by him and matured, while he was Governor of South Australia. Any one of us, although not specially interested in Philology or Ethnography, can understand how valuable to science would be the publication of the MS. records of the knowledge of so intelligent an observer as Sir Geo. Grey. These records are now in the South African Public Library, Cape Town, having been presented to that Library by him, along with his collection of books and other manuscripts. The Government of the Cape is not likely to take so liberal an interest in our aborigines, as to publish Sir George's account of what he saw and learned of the natives in South Australia; but I think that any one of our Colonies would do itself an honour if it got these manuscripts copied for publication here. Their contents would certainly be interesting to Australians.

The catalogue of Sir George Grey's Library was published by Trübner & Co., London, and Dr. Bleek devotes a portion of the second volume to the philology of the Australian languages.*

The earliest of individual efforts to deal with any single language of the Australian group was made by the Rev. L. E. Threlkeld, who, for many years, was engaged as a missionary among the blacks of Lake Macquarie, near Newcastle, New South Wales. His

* Throughout I say 'languages'; although, in fact, there is but one Australian language with many dialects; I also use the word 'language' instead of dialect, wherever the meaning is clear.

Grammar of their language was printed in Sydney in 1834, at the "Herald Office, Lower George Street." A few years previously, Mr. Threlkeld had translated the Gospel by St. Luke into the same language. This translation remained in manuscript, and had disappeared; recently I discovered that it still exists and is now in the Public Library of Auckland. I am glad to be able to inform you that this work, and the Grammar, and some smaller fruits of Mr. Threlkeld's labours on that language, will shortly be published by the Government Printing Office, Sydney. The volume will be the most important that has yet appeared on an Australian language. But it deals with only one dialect, and, for the purposes of comparative grammar, more languages than one are required. In searching for another Grammar, I remembered that Mr. Hale, the philologist of the United States' Exploring Expedition (1838-42), when he was in this colony, got access to the Rev. William Watson, missionary to the aborigines at "Wellington Valley," and that Mr. Watson had drawn up for him "an account of the most important peculiarities of the Wiraduri language, modelled as nearly as possible on the Grammar of Mr. Threlkeld, for the purpose of comparison." Further search disclosed the fact that, as early as 1835, a Dictionary and a Grammar of that language had been prepared, and the Gospel by St. Luke had been translated. How valuable these materials would now be, to illustrate the Awabakal of Lake Macquarie! but Mr. Watson had no relatives in this colony, and on his death his MSS. were sold as waste paper; so I am told. Fortunately, the late Archdeacon Günther of Mudgee, where a dialect of the same language was spoken, collected a copious Vocabulary of that dialect and wrote a Grammar of it. The Vocabulary I found to be in the hands of his son, the present Archdeacon of Camden, and I hope that I shall be able to get it published; the Grammar was, many years ago, sent to the home country, and I fear that it cannot now be recovered.

The next labourers in the field of Australian grammar were the Lutheran Missionaries, Messrs. Teichelmann (E. G.) and Schürmann (C. W.); in 1840 they published a "Grammar, Vocabulary, and Phrase-book" of the aboriginal language of the Adelaide tribe. Then, in 1856, appeared the primer "Gurre Kamilaroi," by the Rev. W. Ridley. Mr. Ridley, who was a man of rare devotedness and self-denial, went among the aborigines of Liverpool Plains and shared the privations of their wandering life, in order that he might learn their language, and so be able to tell them the message of the Gospel. In 1866 (2nd edition, 1875), our Government Printing Office issued his book on the "Kamilaroi, Dippil, and Turrubul languages." I do not know that, since 1875, any other book has appeared on the grammar of our languages. But there have been some valuable short papers in various journals, such as

that in the Anthropological Journal for 1880, on the "Kabi dialect of Queensland," by the Rev. John Matthew, now of Coburg, Victoria. The substance of this, with many important additions, will be found as a portion of his prize essay on the aborigines of Australia, published in the Journal of the Royal Society, N.S.W., for last year. So far the history of the grammars.

2. *Influences affecting the Language.*

The position of our Australian dialects in their relation to the great families of language has not yet been determined. That task demands leisure, labour, and skill. A collection of carefully prepared Grammars and Vocabularies would make the task much easier; but where are these to be had? With the exception of those that I have named, I know of none. Australian Vocabularies have been collected in abundance, but, for the most part, these are quite useless to the philologist; they consist of dialect-names for native customs and weapons, for the birds of the air, the beasts of the field, and the trees of the forest.* All this is mistaken labour which yields no fruit. What we want is to get from each dialect a sufficient number of words expressing the ideas essential to a language, in the form of substantive, adjective, or verb, and a sufficient number of simple sentences; this would enable the philologist to ascertain what is the structure of its grammar and its vocables.

The Australian languages are subject to a principle of change which it is worth our pains to consider here. Our native tribes name their children from any ordinary occurrence, which may have taken place at the birth or soon after it. For instance, if a kangaroo-rat were seen to run into a hollow log at that time, the child would be named by some modification of the word for kangaroo-rat. At a later period of the boy's life, that name might be changed for another, taken from some trivial circumstance in his experience; just as our own boys get by-names at school. When a man or a woman dies, his family and the other members of the

* I wish here to express my strong regret that, in two of the largest publications which these colonies have produced, on the subject of our aborigines, so much space has been given to mere local names, such as those for the mountains, lagoons, animals, and birds in a district. Such details are absolutely valueless to the philologist. In a general investigation as to the character of the Australian language, no help is to be gained from a bare knowledge of the names for all the Frying Pan Creeks and Doughboy Hollows in the land, or for the scores of varieties of the eucalyptus tree. Instead of these, let us have the words essential to the language, 'to see,' 'hear,' 'speak,' 'smite or kill,' and the like, and, with them, samples of the manner in which they form derivatives; let us also have similar lists of root-words used as substantives and adjectives to express simple ideas; such collections would be useful both now and hereafter.

tribe, as far as possible, never mention his name again, and discontinue the use of those ordinary words which formed part of his name; other words are substituted for these common ones, and become permanently established in the daily language of the clan or sub-tribe to which the deceased belonged.* In this way new words arise to designate those familiar objects, the previous names of which have been cast aside: and these new words are formed regularly from other root-words, that describe probably another quality inherent in the thing in question. Let me illustrate this matter by examples. A man or a woman may get a name from some peculiar physical feature, such as a large mouth, or chin, or head; or a name taken from an animal or tree, or any similar object, animate or inanimate, which had some relation to his birth. A Tasmanian woman was called Ramanalu, 'little gull,' because a gull flew by at the time of the child's birth. After her death, the word rama would never be used again for 'a gull'; a new name for 'gull' would be invented, formed, it may be, from a root-word meaning 'white,' because of the whiteness of the bird. This new word would be used by all the kindred and acquaintances of the deceased, and would ere long establish itself in the language of that portion of the tribe as the right name for 'gull.' Again, a boy of the Dunggog tribe of blacks, in our own colony, was receiving instruction from the old men of the tribe; he was required to make a spear, and was sent into the bush to select a suitable piece of wood: he cut off and brought to them a piece of the kulai ('cockspur') tree; this choice was so absurd, that forthwith his instructors dubbed him Kulai-kat, and that was his name ever after. When he died, the word kulai would disappear, and some other name be found for the cockspur tree. And the operation of this principle is not confined to Australia; it is found also in Polynesia: but there it has respect to the living, not the dead. High chiefs there are regarded as so exalted personages, that common people must not make use of any portion of their names in ordinary talk, for fear of giving offence. If, for example, a chief's name contains the word pe'a, 'bat,' the tribe calls the 'bat,' not pe'a, but manu-o-le-lagi, 'bird of the sky.' In languages which are not subject to these influences, the derivation of such a word is usually very plain: the Latin *vespertilio*, 'bat,' for instance, bears its origin on its very face; but if a philologist, not knowing the history of the word *manu-o-le-lagi*, were to find it to mean a 'bat' in a Polynesian tongue, he would be puzzled to explain how it is that a creature so peculiar as the 'bat,' should have been named by a word having so indefinite a meaning as the 'bird

* It is possible that the discarded word resumes its place in the language after a while; this point I have not ascertained; at all events, the adopted word remains.

of the sky.' Any one of you, who has had the curiosity to look into lists of names for common things in Australian vocabularies, must have been surprised to see how diverse are these names in the various tribes, but your wonder ceases to be wonder when the cause is known. In fact, we do find that among conterminous tribes, and even in the sub-sections of the same tribe, these words vary greatly; for the presence of death from time to time in the encampments had the effect of maintaining a continual changing of the names of things. Hence it is that, as I have said, the labour spent on these lists of words is often labour mis-spent, for to the philologist it must be barren of results, *unless* we have in the lists at the same time a due proportion of the simple roots from which such words are taken; thus only is it possible to see and understand the mechanism of the language.

You may possibly ask me why our blackfellows had so strong a disinclination to mention the name of a friend who had died. We ourselves have a feeling of the same kind. We speak of our friend as 'the deceased,' 'the departed,' 'him who is gone'; and if we must mention his name, we apologise for it by saying 'poor' Mr. So-and-so, and seem afraid to use the simple word 'dead.' But our indigenes have a stronger reason than that. They believe that the spirit of a man, especially if he is killed by violence, is excessively uncomfortable after death, and malicious, and in its fretfulness ready to take offence at anything, and so pour out its wrath on the living. Even the mention of the dead man's name would offend, and bring vengeance on them in the night time. Our blacks seem also to have the idea that the deceased, for a certain number of days after death, has not yet got his spiritual body, which slowly grows upon him, and that, while in this undeveloped state, he is like a child, and is specially querulous and vengeful. But I fear that this digression is leading me off the track of the Australian languages.

3. *Tests in examining Languages.*

I now proceed to show you some results which may be obtained even from our Australian words, by comparing them with others elsewhere. It is agreed among philologists, that there is no surer test of the affinity of different languages than that which comes through the identification of their pronouns, numerals, and, to a less extent, their prepositions. To this I would add, in our present inquiry, the identity of such common words as 'eye, foot, hand, water, fire, sun, moon,' and the like; for these words cannot have been used much in the names of individuals, and are therefore not likely to have suffered from the fluctuations which I have already explained. It is true that, in all languages, the pronouns and the numerals are subject to abrasion and decay, from the

frequency and rapidity with which they are pronounced, and from a natural tendency everywhere to shorten the words which are most in use. But it is the function of the philologist, not only to understand these causes of decay, but to show the process by which the words fell away, and to restore them to their original forms for the purpose of identification.

It is agreed, then, that the numerals, the pronouns, and, to some extent, the prepositions, are a strong test of the affinity of languages. On this principle, such languages as the Sanskrit, the Greek, the Latin, the German and Gothic, the Lithuanian, the Keltic, have been tested and proved to be so much akin that they are grouped as a well-defined family of languages—the Aryan. Some anthropologists, especially when they are not linguists themselves, sneer at the labours of philology as deceptive and liable to serious error; so are all sciences, if not managed with care and ability. A student in chemical analysis and synthesis may get results which are clearly erroneous; instead of declaring the prescribed methods to be faulty or his materials to be bad, he ought to blame only his own want of skill in manipulation. As to the utility of philology, I would only remind you, that it was by the study of languages that the place of Sanskrit (and consequently of the Hindu race) was determined in its relation to the other members of the family I have named, and it was philology alone that settled the claim of the Keltic, and consequently of the Kelts, to be regarded as one of the most ancient members of the Aryan family. In the case of the cuneiform inscriptions, the services which philology has rendered are inestimable. And it is quite possible that, amid the conflicting opinions as to the origin of our Australian race, the *via prima salutis*, the first dawn of a sure daylight, may in the future arise from a careful examination of their language.

As is well known, the Australian numeral system is very limited in its range; our natives say 'one,' 'two'; sometimes 'three'; occasionally 'hand' for 'five'; all else is 'many,' 'a great number.' It was alleged by Sir John Lubbock, and has since been repeated by everybody, that their having separate words only for 'one' and 'two' is a proof that Australians possess very limited mental powers, since they cannot count higher than 'two.' Every colonist, who has been much in contact with the blacks, can adduce proofs to show that their mental powers are not so limited, and that, when our indigenes are taken out of their adverse environment and encouraged to cultivate their intellectual faculties, they readily develop a decided capacity for improvement. A friend of mine, 50 years ago, taught two young black boys to play chess; they soon acquired a liking for the game, and learned to play with caution and skill, and even with success. If it were possible to surround the blacks with favourable influences con-

tinued from generation to generation, I have no doubt that their whole position would be altered; but any final separation from their ancestral habits would lead to their speedy extinction as a race; this was the issue that was rapidly approaching after the last remnants of the Tasmanians were removed to Flinders' Island. But for many hundreds of years, no one can tell how many, the Australian race, has lived in the midst of adverse surroundings, tribe warring against tribe, each tribe restricted to its own boundaries, the supply of food in our precarious climate often scanty, the paralysing terror produced by their strong belief in the supernatural power of demons and of their own wizards, the ravages of waves of disease and death sweeping over them from time to time; all these and other causes compelled them to think only of their daily subsistence and the preservation of their lives, fixed and deepened their degradation, and prevented even the possibility of amelioration and elevation. The natives of the South Sea islands, whose lot has been a fairer one, have had many yams and cocoa-nuts and bananas and other things to count, and so have developed a wide system of numbers; but our poor blackfellows, whose only personal property is a few spears or so, have not felt it necessary to speak of more than 'one,' 'two' or 'three' objects at once. Then, as to the linguistic question on which Sir John Lubbock builds his charge, I think it could be shown that even the Aryan system of numbers—the most highly developed system of any—is founded on the words for 'one,' 'two,' 'three,' and no more, all the rest being combinations of these by addition or by multiplication. Further, the Aryans have singular and dual forms for nouns and pronouns, that is, they have number-forms for 'one' and 'two,' but all the rest beyond that is included in the general name of plural, that is 'more'; indeed the Sanskrit uses its word for 'four' in a general way to mean a considerable number, exactly as to our blackfellows all else beyond two or three is *bula*, 'many.' For these reasons I think that this charge against our blackfellows ought to be laid on better ground than that afforded by their numerals.

4. *The numeral 'one.'*

(a). Of the words for 'one,' I take up first that which is least common, *pir* 'one.' And here I beg to say that, like other investigators, I have to depend upon the accuracy of others for the facts quoted. I have not been in the districts where the word *pir* is used, and so cannot verify the word for myself, but I have no doubt it is correctly given as a word for 'one.' I am responsible only for the arguments I draw from the evidence produced in this inquiry. So far as I know, these arguments have never been advanced previously; for my practice is to form my own opin-

ion on the evidence independently, and I seldom read the opinions of others until after I have made my own. Indeed, I am convinced that no one has ever discussed these numerals before, for it is commonly alleged that it is impossible to give any account of them. The word *pir* is said by Bonwick to be used by the blacks on the Namoi,* and a modification of it is in use in Queensland. These are, so far as I know, the only two places where it is to be found. But I think it is correctly quoted, for I know the word *piriwul* means 'chief,' and *pir* seems to me to bear the same relation to *piriwul* that the Latin *primus*, 'first,' bears to *princeps*, 'chief,' 'first,' or the Latin preposition *pro*, 'before,' to *proceres*, 'chiefs,' or our English word 'first' to the German *Fürst*, 'a prince.' In fact I regard *pro* and *pir* as the same word originally.

Now, do not mistake me here; for I do not assert that the languages spoken by our Australians are uterine brothers to the Latin and the Greek; but I do assert that all languages have one common, although ancient, origin, and that, in the essential words of these languages, there are proofs of that common origin. *Pir*, then, as allied to *pro*, means the number which comes 'before' all others in the row, the one that comes 'first.' The Latin *primus* is for *pr-imus* (*cf.* Sk. *prathamā*, 'first'), in which the root *pri*, not unlike *pir*, is the same as the Latin *pro* and *prae*. In the Aryan family, the nearest approach to the Australian *pir* is the Lithuanian *pir-mas*, 'first,' and *pir-m* (a preposition), 'before'; other remote kinsmen are the Greek *pro-tos*, 'first,' *pru-tanis*, 'a prince,' 'a president' (*cf.* *piriwul*), *prin*, 'before'; the Gothic *fru-ma*, 'first'; the Aryan prefixes *pra*, *fra*, *pro*, *pru*, *prae*, *pre* and *fore*, as in our English 'fore-ordain.' The Keltic languages drop the initial *p* or *f*, and say *ro*, *ru*, *air*, *ari*, to mean 'before.' In the Malay region *ar-ung* is a 'chief,' and in Polynesia *ari-ki* is 'a chief,' which the Samoans change into *ali'i*; these words, I would say, come from eastern forms corresponding to the Keltic *ro*, *air*, 'before.' In Samoan *i lu-ma* means 'in front,' and in Malay *de-alu-wan*; these are like *ru*; in Aneityum, a Papuan island of the New Hebrides, a 'chief' is called *natimi arid*, where *arid* is 'high,' 'exalted,' doubtless from the same root as *ari-ki*; and *arid* is to *ari-ki* as the Latin *procērus*, 'tall,' to *proceres*, 'chiefs'; *natimi* means 'man.' From the abraded form *ru* I take the New Britain word *lūa* (Samoan *lua'i*), 'first.'

In the Dravidian languages of India, from which quarter, as I suppose, our Australian languages have come, there is a close parallel to our word *pir*, for there *pir-a* means 'before,' and *piran*

* Since this was written, I find that Hale, the philologist to the U.S. Exploring Expedition, 50 years ago, quotes this word; there can, therefore, be no doubt of its antiquity and genuineness.

is 'a lord.' Dravidian scholars themselves acknowledge that *piran* comes from the Sanskrit preposition *pra*, 'before'; this corroborates my derivation of the Australian word *piriwul* and the Maori *ari-ki*. The Aroma dialect of New Guinea says *pirana*, 'face'; and, in my opinion this *pirana* bears the same relation to the Dravidian *pira* that the Latin *frons* has to the preposition *pro*, the Samoan *mua-ulu* to *mua*, and the English forehead, to *be-fore*. The Motu dialect says *vaira* for 'face, front'; I take this to be a corruption of *pira*, for the Motu also says *vaira-nai* 'before'; another dialect says *vari*; with this *cf.* *pro*, *para* and *frons*. I may add here, in passing, that on the Upper Nile, west of Khartoum, the negroes say *ber*, *bera*, for 'one.'

The Australian postposition *bir-ung*, 'away from,' seems to be connected with this root in the same way as the Greek *para*. The dictionary meanings of the Sanskrit preposition *pra* are 'before,' 'away,' 'beginning'; if these three meanings were carried to Australia through the Dravidian form *pira*, they abundantly justify my arguments as to the origin of the Australian words *pir*, 'one,' and *birung*, 'away from.' In New Britain, *pirai* means 'odd,' 'not a "round" number' (*cf.* the game of 'odds and evens'), and this sense must have come from a numeral meaning 'one.'

Results in this Section are:—Preposition forms to mean 'before' are, in the primitive languages, *pra*, *pri*, *pro*, *prae*, *pru*; other forms are *par-a*, *par-os*, *pur-as*; modes of all these are, *fra*, *fru*, *vor*, *fore*, and, without the initial letter, *ro*, *ru*, *air*; the Lithuanian has *pir-*, and with this correspond the Dravidian *pir-a*, 'before,' the Australian *pir*, 'one,' and the Turkic, *bir*, 'one.' In Sanskrit, the old ablative form *purā* means 'formerly,' 'first'; cognates are the Gr. *paros*, 'before,' and the Zend *para*, 'before.'

(b). But the most common word for 'one' in New South Wales is *wākul*. In fact, it is our Sydney word for 'one,' and there can be no doubt of its genuineness, for it is noted by Lieut.-Colonel Collins as a Port Jackson word in his book on the Colony, published 1802; he spells it *wogul*. At Newcastle it was *wākōl*; in the Williams River district *wākul-bo*, and on the Manning *wakul*. From my manuscript notes I write down the various forms which this word assumes, beginning with Tasmania and passing northwards to the Timor Sea:—Tasmania, *mara-i*, *mara-wa*; in Victoria, *bur*; on the Murray River, near Wentworth and Euston, *mo*, *mata*, *marda*, *meta-ta*; on the middle course of the Darling, *waichola*; on the Upper Murray, *mala*; on Monero Plains, *yalla*; at Moruya, *med-ental*; in the Murrumbidgee district, *mit-ong*; at Jervis Bay, *met-ann*; on Goulburn Plains, *met-ong*; in the Illawarra district, *mit-ung*; at Appin, *wōgul*; at Sydney, and northwards to the Manning River and the Hastings, *wakul*;

on Liverpool Plains, mal; at Wellington, mal-anda; in Southern Queensland, beahda, mūray, bardja, beaiya; in the Northern Territory of South Australia, mo-tu, wa-rat; at Port Essington, wa-dat.

Besides these, some other words for the number 'one' are used in various parts of Australia, but those I have given all proceed from one original root, which it will be our duty now to discover. And I notice, first of all, that one word in the list stretches along the whole extent of seaboard from the Illawarra district to the Hastings—the word wakul—and this fact affords the presumption that all that coast line was occupied by the same tribe, or by tribes closely akin; for the tribes a little inland say mal and mal-anda for 'one.' Wakul, then, was the word used by the Sydney blacks, as Collins testifies. If a chemist has a compound substance handed to him for analysis, he experiments on it, and tests it in order to discover its elements. Let us do so with wakul; it is a compound, for simple roots are usually monosyllables; but are its parts wa + kul or wak + ul? Here I remember that, in the same region where wakul exists, there is a word kará-kul, 'a wizard, doctor or medicine-man,' but inland he is called kará-ji. This satisfies me as proof that the -kul is merely a formative syllable, and that the root is wa. And this conviction is strengthened when I cast my eye over the above list of words; for they all begin with the syllable ma or some modification of it, the rest of each word consisting of various formative syllables. As I have now got hold of a clue to a solution, I reflect that the initial labial of a root-word may assume various forms; thus, *p, b, m*, may interchange, and may easily become *f, wh, v, w*. There can be no doubt, for instance, that the Latin pater, the German vater, and the English father, are the same word; there $p=f=v$; and in one district in Scotland, the people always say fat for what and far for where; so also the Maori whatu is the Samoan fatu; that is $f=wh$; *b* and *m* also are interchangeable, in oriental languages especially, for *m* is only the sound of the letter *b* modified by the emission of a breathing through the nose; *m* is therefore regarded as a *b* nasalized. I note also that the words under consideration all begin with the cognate sounds of *m, b, or w*, except yalla; and this example I think must have been at one time walla, that is, uala, of which the *u* has obtained the sound of *i* (*y*); or wa-la may come from the same root as wa-kul, the difference lying only in the termination. The other vowels of our root word are *o, u, e, i, ai*, all of which in Australian are modifications of the original sound *a*.

Having now discovered the root-germ from which our Sydney friend wakul proceeded, and having noted the various guises which he has assumed in these colonies, we must next ask where

he came from, and see if he has any kinsmen in other lands; for, when by searching we find that out, we may perhaps be justified in saying that the Australians brought the root-word with them from those lands. Before setting out on this quest, I observe that when a number of men are arranged in a row, he who is number one is (1) 'before' all the others, and 'in front' of them; he is thereby (2) 'first or foremost'; he has (3) the 'pre-eminence' in honour or authority, and (4) he may be regarded as the 'beginning or origin' of all the others.* We may therefore reasonably expect that words for 'one' will be akin to other words, bearing some one or other of these four meanings. I have already shown that the Kamilaroi numeral pir, 'one,' is related to Aryan prepositions meaning 'before,' and to the Maori word ariki (Samoan ali'i), 'a chief,' as one having authority and eminence; † I shall now show that the kindred of wakul have the other meanings as well. And, first, I note that the word bokol is used for 'one' in the island of Santo, one of the New Hebrides. Bokol is so like wogul, the Port Jackson word, that I cannot doubt their identity; and yet it is impossible to suppose that the one word can be borrowed from the other. The islanders of Santo can never have had any intercourse with the blacks of Sydney; nor, if they had in any past time, can we believe that either language was so miserably poor as to be without a word of its own for 'one.' The blacks of Santo are a woolly-haired negroid race; I therefore argue, from the evidence of this word, that these blacks and our blacks have, in some way, one common origin.

I next take you to another Papuan region having a negroid population—a group of islands off the east end of New Guinea and consisting of New Britain, New Ireland, and some others. In the Duke of York Island there, I find the following words, all akin to wakul, viz., makala, 'for the 'first' time,' mara, mara-kam, 'for the 'first' time,' marua, 'to bear fruit for the 'first' time, to enter on a new course, to begin,' mara, 100 (= the 'beginning' of a new reckoning), muka, 'first,' muka-na, 'first-born son,' muka-tai, 'first,' mun, 'to go 'first.' ‡ In all these, the root is ma, mu, as in Australia, and the abundance of these derived forms in this Tukiok language proves that the root is indigenous, not borrowed. Among them I observe mara, 'for the 'first' time,' and mara 100, and this is exactly the Tasmanian word (mara-

* Cf. the Hebrew áhādh, kedam, rōsh, aul or yaal, for these meanings.

† The Insular-Keltic words for 'chief,' 'principal,' are priomh, ard, araid; and roimh is 'before.' It is evident that these are only corruptions of the root pri, pro, prae, pra, 'before.' In Ku, a Dravidian dialect, 'one' or 'first' is ra (cf. Sk. pra) and in Duke of York Island (New Britain Group), 'one' is ra, re.

‡ Compare with this the Tamil postposition mun, 'before.'

wa) for 'one'; another of them is muka, 'first,' and this word, by dropping the k, which is never* sounded in Samoan, becomes the Samoan mua, 'first,' and mua-ulu, 'the fore-head.'† Mua also is very common in Samoan (as in foe-mua, 'the first' or stroke oar,' a-fua, 'to begin'), and thus proves itself to be native to the language. Further, you may have observed that some of the Australian words for 'one' are mo, mata. With mo compare the Santo word mo-ig 'to begin,'—another proof that the Santoans and the Australians are kinsmen; with mata compare the Motu (N. Guinea) word mata-ma, 'to begin,' and, as an adjective, 'first'; the Fijian matai, 'first,' and tau-mada 'before-hand'; the Maori ti-mata 'to begin'; the Samoan a-mata 'to begin'; the New Britain a-ma-na 'before, in front,' mata-na, 'the front,' biti-na 'the commencement'; the Motu badi-na, 'origin,' and the Aneitymese ni-mti-din, 'the front'; with mu compare the Fijian vuna, 'to begin,' and the New Britain wa-vuna, 'to begin,' and the Santo mul, 'a chief,' as being the 'first' man. All these I have noticed in the course of my reading, but I believe there are many other words in these islands which are of the same origin as our Australian word wakul.‡ I pray you to remember that, with the exception of Samoa and New Zealand, these words all come from Papuan regions and afford indirect evidence that our Australians are allied to the Papuans.

As to the Maori and Samoan congeners that I have quoted, it is commonly alleged that these races are Malayo-Polynesians, on the theory that their languages are of Malay origin § but let us look at this theory in the light of our present inquiry. It is

* The one solitary exception is puke, 'catch you!'—a word used by children in their games.

† An uncommon form of the root ba is va; and from it the Mangaians (Hervey Islands) say va-ri, 'a beginning'; but in the Koiari dialect of New Guinea this same word means 'the forehead,' 'the face.' This word thus illustrates the procession of meanings from the root pra (para) pro, 'before'; for vari is equivalent to 'that which is before,' hence 'a beginning,' 'the forehead' as the 'front' part of the human body, 'the face'; it also throws some light on the derivation of frons, which has so puzzled Latin etymologists that some of them derive it from the Greek ophrus, 'the eyebrow!' The Motumotu dialect of New Guinea says hali, instead of vari, for 'forehead'; several other dialects there say i-piri-ti, paru, para-na, pira-na, for 'face'; these are all connected with the Dravidian pira, 'before.'

‡ These and all other words from the New Britain and Duke of York Islands I quote from manuscript dictionaries of these languages, prepared by the Missionaries there. It is much to be regretted that, in these Colonies, we have no public fund from which to defray the cost of printing these and similar works, which would be so valuable to Science.

§ The name and authority of K. Wilhelm von Humboldt first gave this theory a standing; but we have now much fuller materials on which to form an independent judgment.

said that the Polynesians are Malays. Well, let us see. If the Samoans are Malays, then the Duke of York Islanders are Malays; for the word mua, which is essential to the Samoan language, is the same word as the Tukiok muka; therefore the Papuans of that island also are Malays! But the corresponding Malay word is mûla, 'in front,' 'foremost,' 'at first,' and it is certain that muka can never be formed from mûla; for, while k may become l, the letter l, when once established in a word, cannot revert to k. Thus the Malay language might be said to have come from the Duke of York Island, at least so far as the evidence of this word goes! But I acknowledge that they may both be taken from one common source, and this I believe, is the true solution of the question. Where shall we find that common source? The root-form of mûla, muka, mua, and of all the others, is ma, mu, and if we can find that root, it will be easy to understand how all these words have been formed independently from that original root; and it will then be unnecessary to say that the Samoan language is of Malay origin, or that the Papuans of the New Britain isles are using a Malay language. Now, in Southern India, there is a group of languages called the Dravidian, from the Sanskrit word Dravida, which, in the Mahâbhârata, is the name given to these aboriginal inhabitants of India. They now occupy the mountains of the Dekkan, and the coasts both to the east and the west of that. There are twelve dialects; some of these people are very barbarous, the mountaineers; others, again, are very civilized; the Klings, for instance, of Madras are clever at figures and intelligent; their services are much in demand all over the Eastern Archipelago; and in Penang, Singapore, and elsewhere, you may be sure to find a Kling engaged as a head book-keeper in a warehouse, or thriving as a merchant; they are said to be the Scotch of the East. Some of these Dravidian tribes are considered by the best authorities to be certainly negroid, and in England Prof. Flower, from an examination of their crania, has classed them as kinsmen of the Australians. One of the most cultivated languages of the group is the Tamil, and the Tamilians are known to have class-marriage laws similar to those in Fiji and Australia. Now for 'first' the Tamil says mudal, and this mudal is a verbal noun meaning 'a beginning,' 'priority' in time or place. The root is mu, and dal is a formative syllable. The mu is, without doubt, our Australian root ma, mo, mu. Bishop Caldwell of Tinnevely, who has carefully examined the Dravidian languages, says—"Mu-dal is connected with the Tamil postposition mun, 'before'; mudal is used as the root of a new verb 'to begin.' Mu evidently signifies priority, and may be the same as the Tamil mu, 'to be old,' mudu, 'antiquity.'" I think there is a better derivation than that. The Sanskrit mûla means 'origin, cause, commencement,' and is the

same word as the Malay *mula* already referred to, and both of these I take from the Sanskrit root-verb *bhū*, 'to begin to be, to become, to be,' with which is connected the Latin *fore* (*fuere*), 'to be about to be,' *fui*, &c. From *bhū* come such Sanskrit words as *bhava*, 'birth, origin,' *bhāvana*, 'causing to be,' *bhuvanyu*, 'a master or lord' (*cf.* *piran*, &c.), and many other words in the Aryan languages. At all events, *wakul* and these other Australian words for 'one' are assuredly from the same root as the Dravidian *mu-dal*, 'first, a beginning.' I, for one, cannot believe that words so much alike both in root and meaning should have sprung up by accident over so vast an area as India, Malaya, New Guinea, Fiji, Samoa, and back again to the New Hebrides and Australia. The only rational explanation seems to me to be that these races were all at one time part of a common stock, that in their dispersion they carried with them the root-words of the parent languages, and that in their new habitations they dressed out these root-words with prefixes and affixes by a process of development, just as circumstances required.

Results.—The root in its simplest form is *ba*, 'to begin to be,' 'to begin'; other forms are *bo*, *bu*, *bi*: *ma*, *mo*, *mu*: *fa*, *fu*, *vu*; *wa*. The nearest approach to the Australian *wakul*, 'one,' is the Ebudan *bokol*, 'one,' and the Tukiok *makal-a*, 'for the first time,' but many other cognate words are found all over the South Seas in the sense of 'first,' 'begin.' The Tasmanian *marawa*, 'one,' is the same as the Tukiok *mara*, 'for the first time,' and *mara*, 100; and in New South Wales, *maragai* means 'first' in the Mudgee dialect.

5. The numeral 'two.'

Almost the only other Australian numeral is *bula* 'two.' It is true that several tribes have a distinct word for 'three,' and a few have a word for 'five' taken from the word 'hand,' but in most parts of Australia the number 'three' is expressed by 'two-one,' 'four' by 'two-two,' 'five' by 'two-two-one' and so on. But the word *bula* is universal; with various changes of termination,* it

* NOTE.—In my manuscript notes I have the following forms.—Tasmania, *bura*, *pooali*, *piawah*; Victoria, *bulum*, *pollit*; South Australia, *bulait*, *purlaitye*; New South Wales, *blula*, *buloara*, *buloara-ba*; Southern Queensland, *bular*, *pūbul*, *bularre*, *bulae*; Northern Queensland, *bularoo*. It is evident that some of these words have been written down by men who were not acquainted with the phonology of languages, and that the spelling does not adequately represent the real sounds. This is generally the case in vocabularies of Australian words, and is a source of much perplexity to linguists. One of the commonest mistakes is *bular* for *bula*. In pronouncing that word our blackfellows let the voice dwell on the final *a*, and an observer is apt to think that this

exists from Tasmania in the extreme south, right on to the Gulf of Carpentaria. If you ask me why there is only one word for 'two,' while the words for 'one' are so numerous and different, I reply that, among other languages, and especially in the Turanian family, there is a similar diversity in the words for 'one'; and the reason is this that, wherever there is a considerable number of words for 'origin,' 'commencement,' 'before,' &c., there will be a similar variety in the words for 'one,' which are formed from them. But the range of ideas for 'two' is somewhat limited; the only ideas possible are 'repetition,' or 'following,' or something similar. Let me show you this by a few examples. The Hebrew *shēnāim*, 'two,' is a dual form, and is connected with the verb *shānāh*, 'to repeat;' the Latins also say '*vigesimo altero anno*' to mean in the 'twenty second year;' but *alter* is 'the other of two,' and in French and English it means to 'change,' and *secundus* in Latin comes from *sequor*, 'I follow.' Thus we shall find that words for 'two' are the same as words for 'follow,' 'repeat,' 'another,' 'again,' 'also,' 'and,' and the like; and most of these ideas are usually expressed by forms of the same root-word.

As to the form of the word *bula*, we have here no friendly *karaji* to tell us whether the *-la* is radical or not. I think that the *-la* is formative, and that it indicates the dual number, the *bu-* being thus the root. The Tasmanian *bu-ali* (Milligan writes it *pooalih*) is probably the nearest approach to the original form, the *bu* being the root and the *-ali* the dual affix; these would easily coalesce into *bula*. In the Tasmanian *pia-wa*, the *pia* seems to me to be a dialect form of *bula*, for the liquid *l* easily drops out, and in the Aryan languages a modified *u* approaches very nearly to the sound of *i* (*cf.* Eng., *sir*); in the Polynesian, *i* often takes the place of *u*. Thus, *bula* would become *bu-a*, *bi-a*, *pia*. The *wa* in *pia-wa*, as in *marawa* 'one,' is only a suffix, the same as *ba* in our colony. All the other words for 'two' are only lengthened forms of *bula*.

As to the kindred of *bula*, I find that, in the Papuan island of Aneityum (New Hebrides), the word *in-mul* is 'twins'; there the *in* is the common prefix used to form nouns; the *mul* that remains is *bul*, 'two'; there also *um*, for *mu*, is 'and'; in the other islands it is *ma*, *mo*. In New Britain, *ba-let* is 'again,' *bul-ug*, 'again,' 'also,' 'another,' *mule*, 'again,' *bula*, 'another,' 'an additional one' (*cf.* *ma*, 'and'), *bula*, *ka-bila*, 'also' (with *-bila cf.* Tasm.

is the sound of *ar*; just as a Cockney will say 'idear' for 'idea,' 'mar' for 'ma,' or 'pianer' for 'piano.' In one vocabulary that I have seen almost every word terminates with *r* on this principle!

It is evident also that the same mistaken principle vitiates the spelling of some of the words for 'one,' given on a previous page; for instance, *marda* ought to be *mā-da*, and *bardja* should be *bā-ja*.

pia-), *mu* 'to follow.' In Samoan, *muli* is 'to follow,' *fo'i* is 'also,' *ulu-ga* (for *fulu-*) is 'a couple.' The Fijian has *tau-muri* 'behind' in the sense of 'following,' just as *tau-mada* in Fijian means 'first' or 'before.' The Malay has *ulang*, 'to repeat,' and *pula*, 'again, too, likewise.' In some of the Himalayan regions, to which a portion of the aboriginal inhabitants of India was driven by the Aryan invasion, *buli*, *pli*, *bli* means 'four,' that is, as I suppose, 'two-twos,'—a dual form of 'two.'

It seems to me that the Dravidian words *maru*, 'to change,' *muru*, 'to turn,' *muri*, 'to break in two' are from the same root as *bula*, and that root is to be found in Aryan words also, such as Lat. *mu-to*, *mu-tu-us*; for there is a Sk. root *ma*, 'to change.' It is known that the Sanskrit *dvi*, *dva*, 'two,' gives the Greek *dis* (for *dvis*), 'twice,' and the adjective *dissos*, 'double,' and that *dvis* gives the Latin *bis*; but the Sk. *dva* also gives the Gothic *twa*, 'other, different,' and the Eng. *twain*, 'two,' as well as words for 'two' in many languages. Hence I think that our root *bu*, *ba* gives the Samoan *væ-ga*, 'a division,' *væga-lemu*, 'the half,' and other words; because, when people are 'at one' on any subject they are agreed, but when they are at 'twos and threes' they are divided in opinion: and in the same sense I would connect the Lat. *divido* with the Sk. root *dvi*. Probably the Latin *varius* and the English *variance* are connected with the root *ba* in that same sense. But I must now leave the word *bula*; for this discussion is getting too lengthy.

I would only add a line to say that our blackfellows use the word *bula* also to mean 'many.' I do not believe that this is the same word as *bula*, 'two.' I consider it to be from the same root as the Sanskrit *pulu*, *puru*, 'many,' and that root under the form of *par*, *pla*, *ple*, *plu* has ramifications all through the Aryan languages, in the sense of 'fill, full, much, many, more,' &c. The eastern form of this root gives, in New Britain, *bula*, 'more,' *mag*, 'many,' *buka*, 'full': in Motu, *bada*, 'much,' and *hutu-ma*, 'multitude'; in Aneityum, *a-lup-as* (*lup = plu*), 'much'; in Fiji, *v-ga*, 'many'; in Duke of York Island *bu-nui*, 'to increase.' In Dravidian, *pal* is 'many,' *pal-gu*, 'to become many, to multiply, to increase.' It thus appears that the Australian *bula*, 'many,' has kindred, not only in Melanesia and the Dekkan, but also all through the Aryan region.

Results.—The root is *bu*, which denotes 'repetition,' 'change,' and this is the idea which resides in the Hebrew numeral 'two,' and in the Latin *alter*, 'second': another, but cognate, idea for 'two' or 'second' is 'that which follows': of the root *bu* other forms are *ba*, *bi*, *pi*, *ma*, *mo*, *mu*, *fu*, *fo* and *u*: from *ma*, *mu*, come Dravidian words meaning 'to turn,' 'to change'; and from

the same root-forms there are, in the New Hebrides, New Britain, and Polynesia, numerous words in the sense of 'follow,' 'again,' 'another,' 'a couple,' 'also.' The Melanesian word *mu-la*, 'again,' and the Malay *pu-la*, 'again,' connect themselves, not only with the Dravidian *ma-ru*, *mu-ru*, but also with the Sanskrit word *pu-nar*, 'back,' 'again,' and also with the Greek *pa-lin*, 'again,'

6. Words for 'water' and 'blind.'

(a). And, for the same reason, I must forego the consideration of the Australian words for 'water,' 'fire,' 'sun,' 'eye,' &c., all of which could be proved to have their roots in India, and to have stems and branches from these roots in Aryan Europe, in Malay lands, and in the islands of the South Seas. Let me before closing, just give you a glimpse of the line of argument which I intended to follow. Collins quotes *bado* as the Port Jackson word for 'water'; others write it *badu*; it is found in various parts of our colony and in Western Australia. The root is *ba* (= *ma*); and *du* is a Dravidian formative to neuter nouns. The root *ma* means 'to be liquid,' 'to flow.' It is a very old word; for the Assyrian cuneiform inscriptions have *mami*, 'waters,' and this is a plural by reduplication; the Hebrew has *mo*, *ma* (i), 'water,' *moa*, 'to flow'; the ancient Egyptian has *mo*, 'water,' whence the name Moses; the Sanskrit has *ambu* (*am* for *ma*, by metathesis), 'water,' the Keltic has *amhainn*, *abhuinn*, 'a river,' whence come the river-names, 'Avon.' From *ma* come the words *wai* and *vai* which are so common for 'water' in the New Hebrides and in the Polynesian islands, and from the same root, in a sense known to the Arabs, by an appropriate euphemism, as 'the water of the feet,' come the Melanesian and Polynesian words *mi*, *mim*, *mimi*, *miaga*, &c., the Sanskrit *mih* and the Keltic *mùn*. From *am* (= *ab = ap*) comes the Sanskrit plural form *âpas*, 'water,' while from *ma* may come the Latin *mad-idus*, 'wet.' We found that *wa-kul*, 'one,' comes from root *ba*, *ma*; so, from the root of *badu*, comes the Australian word *wa-la*, which means 'rain,' and in some places, 'water.'

As to the kindred of our Sydney *badu*, I would remind you that 'water,' 'rain,' 'sea,' and 'wave,' are cognate ideas; hence the Samangs, who are the Negritos of the peninsula of Malacca, say *bat-eao* for 'water'; the Motu of New Guinea say *medu*, 'rain,' *batu-gu*, 'shower'; the Aneityumese *in-cau-pda*,* 'rain'; New Britain says *bata*, 'to rain,' *ta-va*, 'sea'; and the Maori say *awa*, 'water.' As a coincidence, it is remarkable that the old high German word *awa* (cf. the Ger. *wasser*, Eng. *water*) means

* *Cau* is the Fijian *ta u*, 'to fall as rain,' and *-pda* is the same as the New Britain word *bata*, 'rain'; *au* in Samoan is 'a current.'

'water,' and *bedu* is quoted as an old Phrygio-Macedonian word meaning 'water.'

Some observers have remarked that our blacks soon master the dialects spoken by other tribes, and have ascribed this to a natural readiness in learning languages. But the present inquiry shows that there is another cause for this. A man or woman of the Sydney tribe, which said *ba-du* for 'water,' would easily recognize *ba-na* in an adjacent tribe as the same word, the termination only being different, just as it is not hard for an Englishman to remember that the German *wasser* is water, and that *brennen* means burn. So also, a Kamilaroi black, who says *muga*, would soon know the Wiraduri *mu-pai*: and elsewhere *meta*, 'one,' is not much different from *meta* and *matata* for 'one,' or even from the Tasmanian *meta*.

Results.—*Ba, ma, mo, an, ap* are forms of an original root meaning 'water,' that which is liquid and flows'; derived forms are *mi, me, wa*: from *ba* comes the Sydney word *ba-du*, 'water'; the *du* here is a suffix in Dravidian also, and exists in the New Guinea word *ba-tu*, elsewhere *ba-ta*: the Samang Negritos say *bat-aw*: the old language of Java has *bann*, 'water,' where the *n* has the liquid sound of *gn*, and takes the place of *d* in the suffix *du*. From all this it is clear that our Australian *balu* is of good and ancient lineage.

(*b*). In the Maitland district a 'blind' man is called *boko*; in Polynesia *poko* is 'blind,' or, more fully, *mata-poko, mata-po*, 'eyes-blind.' As there can be no suspicion of borrowing here, how is so striking a resemblance to be accounted for? Do you say that it is a mere coincidence? Well, let us examine the matter. In the Kamilaroi region *muga* is 'blind'; in the Mudgee district *mu-pai* is 'dumb'; in Santo (New Hebrides) *mog-moga* is 'deaf'; in Erromanga, another island of that group, *busa* is 'dumb'; in Fiji *bo-bo* is 'blind'; in Duke of York Island, *ba-ba* is 'deaf'; in Sanskrit, *mu-ka* is 'dumb'; in Greek, *mu-dos, mu-tis* is 'dumb,' Lat. *mut-us*. In Keltic, *bann* is 'to bind, tie,' *balbh* is 'dumb,' and *bodhar* is 'deaf.' Now, there can be little doubt that in all these words the root is the same (*mu, mo; ba, bo, bu; po*), and yet these words extend over a very wide area indeed, from Tahiti right across through India to Greece, Italy, and even to John o' Groats. The meanings are 'blind,' 'deaf,' 'dumb,' and yet the root is the same. The general root-meaning which suits them all is 'to close,' 'to bind'; this meaning shows itself in the Greek verb *mu-ō* (from which *mudos* comes) — 'to close the eyes or mouth,' and in the Sanskrit *mu*, 'to bind'; similarly the Hebrew (*a*) *illām*, 'dumb,' comes from the verb

ālām, 'to bind,' 'to be silent'; in the Gospels, the blind man's eyes were 'opened,' and Zacharias, who had been for a time dumb, had 'his mouth opened and his tongue loosed.' The root of our Australian words *boko, muga*, is therefore the same as the Sanskrit *mu*, 'to bind.' From the same source come the Samoan *pu-puni*, 'to shut,' *po*, 'night'; the Aneityumese *at-apn-es* (*apn* = *pan*), 'to shut,' *nā-poi*, 'dark clouds,' the New Britain *bog*, 'clouded,' and the Tukiok *bog*, 'to cover up': (*cf.* the Sanskrit *bhuka*, 'darkness'). In Aneityum, *a-pat* is 'dark,' 'deaf,' and *po-p* is 'dumb.' In Malay, *puk-kah* (*cf.* *mu-ga*) is 'deaf,' and *bu-ta* is 'blind'; *ba-bat* (*cf.* *ba-ba, bo-bo*) is 'to bind'; Fiji has *ku-ta*, 'to tie,' 'to fasten'; New Zealand has *pu-pu*, 'to tie in bundles,' *pu*, 'a tribe,' 'bunch,' 'bundle.' It is even possible that our English words, *bind, bunch, bundle, come*, through the Anglo-Saxon, from this same root, *ba, bu, mu*.

I suppose that these examples will suffice to prove that the similarity between the Australian *boko* and the Polynesian *poko* is not a mere coincidence. Where have we room now for the theory that the natives of the South Sea Islands are of Malay origin? I might, with equal justice, say that they came from the Hunter River district in Australia, if I were to look only at the words *boko* and *poko*!

Results.—The ideas 'blind,' 'deaf,' 'dumb,' may be reduced to the simple idea 'bound'—the eyes, ears, mouth or tongue 'closed, bound, tied.' This idea is, in the Aryan languages, expressed mostly by *mu*, but, in our Eastern languages, by *ba, bo; mu, mo, pu, po*; all these root-forms are identical, and are the basis of cognate words spreading from the region of 'ultima Thule' across the world to Tahiti. Can this be the result of accident, or of the spontaneous creation of language in several different centres? Is it not rather proof of a common origin? Even in the development of the root, there is a singular correspondence; for the Sanskrit adds *-ka*, and so do the Malay, the Kamilaroi, the Santoan, and the Polynesian; others use *t* instead of *k*.

7. Miscellaneous words.

(*a*). There are just two or three other words which I would glance at very rapidly. The Malay *kutu* means 'louse'; in all Polynesia also that word means 'louse'; therefore, as some persons say, the South Sea islanders must be Malay-Polynesians. But I find that in Aneityum also, a Papuan region, *in-ke-t* is 'louse,' and in South Australia *kūta*. To complete the analogy, these persons should now say that the Papuans of the New Hebrides and the blacks of South Australia are Malay. This looks like a *reductio ad absurdum*.

(b). The word kutu reminds me that there are some unsavoury words, which are a strong proof of identity of origin among races; for if these words have not come from one common source, it is scarcely possible to imagine how they are so much alike. For instance, gū-nung here means *stercus hominis aut bestiae*; in Sanskrit the root-verb is gu. In Samoan, gū-nung is (k)i-n-o, the same word. Among our Port Stephens blacks, the worst of the evil spirits is called gūnung dhakia = '*stercus edens*.' In Hebrew, a variant for the name Beelzebub is Beelzebūl, which means *dominus stercoris*. Again, kak is an Aryan root-verb; in New Guinea it becomes tage (*t* for *k*, as is common); in New Britain, tak; in Samoa, ta'e; in Aneityum, no-hok and na-heh. The Sanskrit bhaga, which I need not translate, is in Fiji maga; and pi. mi, as I have already shown, is as old as the Assyrians.

(c). The Tasmanian word for 'sun' is 'pugganubrana or pukanebrena or pallanubrana or panubrana,' according to Miligan's list. Of these the first is clearly the original form, for the last is merely a contraction of it, and the third substitutes *l* for *g*. The last syllable -na is formative, and is exceedingly common in Tasmanian words; it is, I may observe in passing, exactly the same syllable which is used as a common suffix to form nouns in New Guinea and in the New Britain group, and in a slightly different way also in Aneityum. The remainder of the Tasmanian word is pugga and nubra. Now, nubra or nubré in Tasmanian is 'the eye,' but the vocabularies of that language do not enlighten me as to the meaning of pugga. I would write it bŭ-g-a, and connect it with the New Britain word bŭg (pronounced bŭng) which means 'day'; thus bŭganubra would mean 'the eye of day,' that is, 'the sun'; and that is exactly the meaning of mata-ari, the Malay word for the 'sun.' Bug is allied to the Dravidian pag-al, 'day.' Bŭg I take from the Sk. bha, 'to shine'; with this compare the derivation of the English word 'day.'

(d). In the Kamilaroi dialect (N.S.W.), kagul means 'bad,' 'no good'; the -gul here, as elsewhere, is formative, and ka is the root. Now kã is a Sk. prefix meaning 'bad'; in Fiji it is ca, and in the New Hebrides sa; in New Britain it is a-ka-ina.

(e). The last Australian word which I quote is chinna. This word brings up memories of a blackfellow who often came to my house, and whom we knew as King Bonny—so named, perhaps, because he was so ugly. And yet he was the best specimen I have ever seen of the Negro-Australian, for he had all the typical features of the Negro, although under Australian skies. I have often regretted that I did not get his photograph carefully taken, as a good example of one of the types of Australian blacks. But regrets

are unavailing; he is gone, like most of the blackfellows who used to visit me. Bonny was also the one man who was the most angrily-disposed among all my sable friends. The others were calm and amiable; several, chiefly the women, were talkative; and some of the men, especially Henry William and King Cocky, were amusing. Henry William was proud to show us how he could use a knife and fork, like a white man, and write his name on a slate. On one occasion, Cocky had been making his rounds in town on a Saturday, and some lady friend of his had given him an old dishevelled bonnet and a faded silk gown of a chequered pattern. Cocky was not enough of a philosopher to be superior to some of the weaknesses of humanity; he liked to busk himself in gay attire. So, knowing that Christians put on their best apparel on Sunday and go to church, Cocky dressed himself in his new garments next morning, and, shortly after the bells had ceased ringing, he walked gravely into St. Mary's, passed up the aisle and took a seat in front of the choir, which, fortunately, was located behind the people. There he sat during the whole service, behaving like a gentleman! Bonny used to come in at my gate, sit down on a stool near the back door, and make himself quite at home. One day, after sitting there for a while he opened a bundle he had with him, took out a razor and a broken piece of mirror, and began to shave off the grey hairs, which were pretty thick on his cheeks and chin. I suppose he had at some time seen his betters do that. I do not know if he had some ceremonial visit to make that afternoon, and so wished to look clean and spruce; there was certainly a camp of gins not far off, but I cannot suppose that he wished to pay court to any of them; he was too old for that. But I am drifting from my subject and must return to it. Bonny usually called in to see me about breakfast time, or towards twelve or one o'clock. He would sit down in his usual place, and, if my servants did not attend to him soon, he would knock loudly with his stick on the stone flagging and call for Massa. When I appeared, his demand was always chinna. chinna. I took this to be a corruption of our word *dinner*, and used to say to him. "Oh, yes! you'll have dinner very soon; just wait a little." But chinna may be a native word for 'food': I cannot find it anywhere on Australia, but it may be the Motu word kani, 'food,' from the root ka, for ta, 'to eat.' It resembles the Dravidian word tin, 'to eat'; for 'eat' and 'food' are cognate ideas, as is shown by the Latin *esca*, 'food,' and *edere* or *esse*, 'to eat.' The *ch* in chinna is only the palatal sound of the cerebral or the dental *t* of tin. The Dravidian word tin is connected with the root ta, Sk. ad, 'to eat,' -āda, 'eating.' Lat. *edo*, Eng. *eat*. It would be very odd, if it should prove true that my black friend, when he said chin-na, was using the very same root-word we use when we say 'eating.' In one island of

the New Hebrides this verb 'to eat' becomes *jena*, in another, *ca-ig*; in others, *ka-ni*; in fact, the same word is found in various forms in all the islands both of Melanesia and Polynesia. Can this be the result of accident or of borrowing?

Summary of Results.—I have not touched the Australian pronouns; that is a large subject, and requires separate treatment. But I have shown that the Australian numerals, and, incidentally, one of the postpositions, are connected with root-words, which must be as old as the origin of language; for such ideas as 'before,' 'begin,' 'first,' 'another,' 'follow,' 'change,' 'many,' seem to be essential to the existence of any language. I think I may safely say the same thing about the root-words for 'water' and 'dumb,' &c. It thus appears, from the present investigation, that our Australians have a common heritage, along with the rest of the world, in these root-words; for if these blacks are a separate creation and so have no kindred elsewhere, or were never in contact with the other races of mankind, I cannot conceive how they have come to possess primitive words so like those in use over a very wide area of the globe. I therefore argue that they are an integral portion of the human race. If so, what is their origin? On this point too, our investigations in language may have thrown some light.

8. Conclusion.

And now that I have said all that I can venture to say without trying your patience too much, I think I can hear some utilitarian voice asking, 'What's the use of all this talk about words; what profit does it bring?' Well, I acknowledge that the money value of it is small; but still it may be of some interest to us, Australians, to know where our natives came from, and even a very little assistance towards the attaining of that knowledge may have a value, although not in gold. I have therefore endeavoured to show that, so far as some words in their language can be cited in proof, our indigenes are connected with the blacks of the New Hebrides and the New Britain groups of islands, and ultimately with the black races of Southern India. This present argument is founded entirely on considerations drawn from language. But some of you may remember that, nearly ten years ago, in Volume XVI. of your Journal, I advanced arguments drawn from what I call religious beliefs and customs, to prove that on that view, apart from any other, our indigenes are related to the black races of Africa as well as of India. I pointed to the Dravidians of the Dekkan as the connecting link. I was not aware at that time that M. de Quatrefages of Paris, the well-known authority on ethnology, had just the year before given a very

decided opinion to the same effect. Of course, the theory that the Dravidians and the blacks of Australia and Melanesia are intimately related was not new; for, even twenty years before that, Bishop Caldwell had drawn attention to the similarity in structure between the Australian pronouns and those of what he calls the Scythian group, which includes the Dravidian. But I held then, and still hold, the belief that our black race came originally from Babylonian lands in two streams, at different times, and passed through India, resting there for a time before it reached Australia. Of these two streams, the first, I imagine, was of tolerably pure Hamite blood; the next much mixed. I can give reasons for holding this opinion; perhaps I may some day ask you to listen to them.

ON THE 74oz. COMPRESSED-AIR FLYING-MACHINE.

By LAWRENCE HARGRAVE.

[With Four Diagrams.]

[Read before the Royal Society, N.S.W., December 3, 1890.]

A LARGER compressed-air flying-machine than that described on June 4 last, has made two flights that are worth recording here. They are numbered, in the writer's memoranda, Trials 5 and 6 of No. 5 Tin cylinder vibrating engine. No. 4 Tin engine with a receiver capacity equal to that of No. 5, was fitted with the expansion gear that was exhibited in this room, but its irregular working and intermittent action on the piston soon showed it to be unsuitable for such small models. A new Richard's Indicator revealed the fact that the air pipe and ports were too small.

Another form of reducing valve was tried and from the chronograms taken it was inferred that the cylinder pressure was uniform for a number of strokes. The chronographic apparatus was remodelled and Diagram 4 shows its simplicity and handiness. Three simultaneous records are made; the time in seconds, the