

Eskimo and the Indian.

THE criticisms of Mr. Chamberlain's letter (*Science*, Dec. 2) by Dr. Boas and Mr. Murdoch are sound, forcible, and instructive; but these critics have confined their strictures wholly to the Eskimoan words. So, using the alphabet adopted by the Bureau of Ethnology for recording Indian languages, I will point out some errors made by Mr. Chamberlain in the words of his comparative list taken from the Iroquoian languages.

After making due allowance for the rude and imperfect 'orthography' of the words, it is necessary to say that *ata* ('father') and *ekening* ('woman') are not Tuscaroran terms; that *nup* ('die') and *nibey* ('water') are not Mohawk words; that *aitaa* ('father') is not Huron: these vocables, having these forms and with these meanings, are not Iroquoian.

(1) *kwe'-nis*, and not *quennies*, is the correct form of this term for 'copper.' It is evidently the word 'penny' or 'pence' (possibly *penning* or *peningens*), adopted by the Iroquois, and adapted to their own peculiar utterance. In earlier times they most invariably substituted *kw* for *p* or *b*, because these sounds did not occur in their speech.

(2) *kā-nā'-tcyā'* is the proper form of *kanadzia*, and, being predicative, it signifies 'it is copper,' and not simply 'copper;' it also means 'it is a pot or kettle,' and is more frequently used in this latter sense. Its derivation is not clear, but, in accordance with the genius of Iroquoian speech, it presupposes the nominal or substantive form, *o-nā'-tcyā'*; this, in turn, points to an earlier *o-nā'-tcyo'-kwe*, — a form still extant in some of the cognate languages, and which form is evidently from the predicative *ye-nā'-tcyo'-kwā'* ('one cooks rice (wheat) by which'), undoubtedly referring to the cone-bottomed earthen 'pots' or 'kettles' so used. The circumstance that unburnished copper resembles very much these clay 'pots' in color would quite naturally serve as a distinctive characteristic by which to describe this metal. *Kā-nā'-tcyā'* as a predicative signifies either 'pot' or 'copper,' but as a substantive, only 'pot,' which is probably its oldest meaning.

Mr. Chamberlain compares the preceding two words with the Eskimoan *kannooyak* ('copper'). One of the two is clearly of European origin, and the other is possibly, but not probably, related to the Eskimoan term.

(3) *e'-hne'-kēñ* is the proper orthography of *ehneken*. It is a derivative term denoting 'above,' 'on the surface.' Its probable original signification is 'sun-ward,' 'sun-side,' or 'toward-sun.' It certainly never meant 'sky' in Iroquoian speech; but the Unalashkan *innuyak* with which it is compared means both 'sky' and 'above' in the list.

(4) *o-nēñ'-yā'*, and not *onna*, is the proper Iroquoian word for 'bone.' The Eskimoan *hrownik* ('bone') has clearly no 'fortuitous coincidence' of sound with it.

(5) *he'-gēñ'-hā*, and not *haenyeha*, is the proper form of this Iroquoian expression. It signifies 'my younger brother' (literally, 'my brother small'), and not simply 'brother.'

(6) *tcyā'-tā'-te-kēñ*, and not *jattatege*, is the true form of this vocable: it means 'ye two are brothers to each other,' and not 'brother' alone. The Eskimoan *anayoa* ('his elder brother'), *anaga*, and *agituda* have clearly no evident similarity of sound or meaning with the two preceding Iroquoian words, *he'-gēñ'-hā* and *tcyā'-tā'-te-kēñ*.

(7) *she'-yēñ'-hā*, and not *cheahhah*, represents the orthoepy of this predicative term, which means 'thy daughter,' and not simply 'child.' Literally it signifies 'thou one hast small.' The Eskimoan word *iyaye* ('child') has no apparent affinity here.

(8) *e-nē'-se-rā'*, and neither *eghnisera* nor *ennisera*, is the proper form of this word, meaning 'day,' a form used mainly in composition. It is a derivative form of the word *ēñ'-tā'* or *e-nē'-tā'* ('day,' originally 'sun'). The Eskimoan *anyark* evidently means 'a long day,' and not simply 'day.' No similarity of sound or meaning appears here.

(9) *koñ'-nē's* (meaning 'I make, build, or render it,' and not simply 'do') is a better form of *konnis*. *K* for *ka-* ('he—it'), *-oñ-nē'* ('make,' 'build,' or 'render'), *-s* (terminative sign of customary action), — this is the etymology of the word, which has no similarity of sound or meaning with the Eskimoan *tcheneyoag* ('he works').

(10) *shēñ'-tā'-kyē*, and not *suntunke*, represents the proper pro-

nunciation of this word: it means 'on or against thy ear,' and not simply 'ear;' the initial *s-* is the sign of the second person possessive, *-kye* is the locative, and *-hēñ-t-* is the noun stem or root. The Tchuktschi *tchintak*, or correctly *siuta* ('his ear'), apparently has no affinity with this word.

(11) *e-nyēñ'-kyē*, and not *ayinga*, misquoted from *eyingia*, is the correct form of this word, which signifies 'on or against one's hand,' and not 'finger,' as does the Tchuktschi *aihanka*, with which it is questionably compared.

(12) *yu'-nāks*, and not *yoneks*, means 'it is burning,' and not simply 'fire,' as in the list: *yu-* ('it'), *-nāks-* ('to burn'), *-s* (the terminative sign of customary action). The Eskimoan *oonoktook* ('fire' or 'to burn') has but a doubtful claim to relationship with this word.

(13) *o-sī'-tā'*, and neither *achita* (Huron), nor *ochaita* (Onondaga), is the correct form of this vocable, meaning 'foot.' The stem or root of the word is *-sī'-t-*, a stem that never meant 'hand.' The Eskimoan *etscheak* or *arkseit* ('foot' or 'hand') has certainly no evident affinity with this word.

(14) *yo-yā'-nē-re'*, and not *ioyanere*, is the true form of this term or expression, which signifies 'it is good' affirmatively: thus, *yo-* ('it'), *-yā-nē-r-* ('the good,' 'the right,' or 'the noble'), *-re'* ('to have or possess'). The Eskimoan *ayunitork* or *ayunitsoq* means 'not bad,' and so 'good' negatively. These two words evidently have no affinity nor a common origin.

(15) *os-o'-tā'*, and not *chotta*, is the proper form of this word, denoting 'hand.' With this meaning it is common to only two of the Iroquoian languages. Originally it meant 'finger,' signifying literally 'hand-protruding-thing.'

(16) The orthography of *noatsshera* is so uncouth that it is very difficult to discover its meaning. It does not mean 'head,' but 'hat' or 'scalp-covering.' It is properly written *o-no-he'-tcrā'*, which form has no relation whatever to Tchuktschi *naschko* ('head').

(17) *o'-skwā'*, and not *hechkwaa*, is the proper orthography of this term for 'lip.' It bears no resemblance to the Eskimoan word *kakkviar* ('lip'), with which it is compared.

(18) *e'-nē'-hā*, and not *enihah* nor *aneehah*, is the proper spelling of this word, which means 'one is male,' but never 'man.'

(19) *oñ'-kwe*, but not *onquich*, is the correct form of this term, which denotes 'homo,' 'man,' 'a human being,' but never 'male,' to distinguish sex. This word, and *e'-nē'-hā* above, have no root in common: so, having no literal meaning common to both of them, they should not be compared with one and the same word. The Eskimoan words *angut* and *innuk* ('man') are not related, and why compare them with two Iroquoian terms (*ē'-nē'-hā* and *oñ'-kwe*) likewise unrelated to each other?

(20) *ēñ'-nē'* represents the true form of *anehah* (Huron), *eanuh* (Tuscarora), *ana* (Nottoway), and means 'my mother,' not simply 'mother.' The root of the word is *-ēñ-*, which signifies 'mother.' It is my belief that it is related to *-oñ-nē'* ('to make or produce,' 'to build or render').

(21) *o-nyoñ'-sā'*, not *yaunga*, is the true form of this Iroquoian word for 'nose.' It has no apparent affinity to Tchuktschi *chinga* ('nose').

(22) *kwēñ'-tā'-ēñ*, but not *quechtaha*, is the correct form of this Seneca-Iroquoian word, meaning 'red.' It is compound, and evidently signified 'it is blood-marked,' and so 'it is red.' There is an evident metathesis of the first and second syllables. The Tchuktschi *kawachtuk* ('red') clearly has no affinity whatever to this word.

(23) *ā-wēñ'-nā'-sā'* and *ā-wēñ'-tā'-sē* are the forms of *ennasa* ('tongue') found among the Iroquoian languages. They do not, however, resemble the Unalashkan *ahnak* ('tongue').

(24) *o-nyē'-yā'* and *o-ni-ye-te* are the true Mohawk forms of *ouniyeghie* ('snow'); *o-ni'-yā'* is the proper Seneca form of *onyetak* (also 'snow'): these words have no apparent relation to Tchuktschi *annu* or *annju* of the same meaning.

(25) *so'-rak*, not *soluck*, is the true Mohawk word for 'duck.' The Eskimoan word for 'duck' is *tchorlerk*.

(26) *o'-she*, and not *oxhey*, is the correct form in Huron of this Iroquoian word for 'winter' or 'year.' Its stem is *-sh-*, and means 'snow.' The Eskimoan *ukshiook* and *uktschuk* have no apparent affinity or relationship with this word.

Thus, in comparing thirty different words taken from the several Iroquoian languages, there is scarcely a single instance in which Mr. Chamberlain has not misapprehended the true sound and real meaning of the words.

Before an effective or satisfactory comparison between the words of two languages, or of two families of languages, can be made, the investigator should possess at least an elementary knowledge of both, a knowledge of their rules of etymology and syntax, and of their laws of vocalic and consonantic change. This is especially true with reference to the languages of the Iroquoian peoples. These tongues are among the most difficult of Indian languages to investigate and to understand.

To a want of knowledge of these facts, and to the use of faulty vocabularies, are evidently due Mr. Chamberlain's errors. An attempt to establish the affinity and common origin of two languages upon material so faulty as that criticised is scarcely likely to be successful.

J. N. B. HEWITT.

Bureau of Ethnology, Washington, D.C., Dec. 26.

The Study of Languages.

YOUR correspondent, H. L. E., asks in the last issue of *Science* whether there is any practical method of learning to read a language without the use of a dictionary. The present writer has learned to read readily two languages without the use of either dictionary or grammar, and believes his method not only possible, but the better way, when a knowledge of the language, not its grammar, is the one desired. His plan has been to begin with some easy author, and follow its text closely while some one reads aloud an English or some other familiar translation. By following such a plan through a dozen or more books, one may then venture on some simple author, dispensing with both dictionary and translation so far as possible, and learning the meanings of the new words, as they appear, from the context. After having read twenty or thirty novels or similar works in this way, he should begin the study of the grammar, and will then be surprised to find that conjugations and declensions are no longer a task. After one has learned a language, a dictionary is very useful; but he certainly can never get a thorough and exact knowledge of the meanings of words from English synonyms.

W.

New Haven, Dec. 30.

Conspiracy of Silence.

THE following statement, made by one of your correspondents (*Science*, x. 309) — "But a general conspiracy among men of science to suppress views because they are new and unacceptable to old fogies, is impossible; and your correspondent and the Duke of Argyll must certainly know that fact, and it will remain a fact, in spite of any number of instances of special local repression that can be cited" — is a logical curiosity. Whether or not the general conspiracy exists can only be known by examining the local action in special cases which may arise; but we are told, that, whatever be the result of this examination, we must recognize the impossibility of such a conspiracy. This is decidedly a new process of scientific demonstration. Old Poz, who remarked, "I've said it, and that's enough to convince me," was accustomed to reason in this manner.

The same correspondent states, speaking of Mr. Bonney, "What he meant in his rebuke of the Duke of Argyll is evident: he meant that any one man of science not engaged in a given special line of research can not and dares not make up his own mind as to the validity of one of two opposing theories until those others who have that special line of research in hand have practically reached some consent on the subject."

This is the true ecclesiastical method, to which Mr. Bonney objected. It is the method of the child in the song, who says, —

"I believe it, for my mother told me so."

It is the method of the man who has a profound reverence for authority, so well pictured by Thackeray: —

"So, as he had nothing to say in reply, he began to be immensely interested in the furniture round about him, and to praise Lady Clavering's taste with all his might.

"Me, don't praise me," said honest Lady Clavering, 'it's all the

upholsterer's doings and Captain Strong's, they did it all while we was at the Park — and — and — Lady Rockminster has been here and says the salongs are very well,' said Lady Clavering with an air and tone of great deference.

"My cousin Laura has been studying with her," said Pen.

"It's not the dowager: it is *the* Lady Rockminster."

"Indeed!" cried Major Pendennis, when he heard this great name of fashion, 'if you have her ladyship's approval, Lady Clavering, you cannot be far wrong. Lady Rockminster, I should say, Arthur, is the very centre of the circle of fashion and taste. The rooms *are* beautiful, indeed!' and the major's voice hushed as he spoke of this great lady, and he looked round and surveyed the apartments awfully and respectfully, as if he had been at church."

It may be that the views imputed by Mr. Lesley to Mr. Bonney are correct, but this would not be suspected from the latter's published words: and it looks as if Mr. Bonney's defender, in his zeal, has given away Mr. Bonney's case, and the scientist's case in general, more completely even than was done by Mr. Bonney himself.

RICHARD H. BUEL.

New York, Dec. 30.

Color and Other Associations.

IN a note on color and other associations, which I wrote, and which was printed in *Science* (vi. 1885, p. 242), I gave the colors which my daughter Mildred (then a child eight years old) associated with the days of the week, with the numerals 1-10, and with the letters of the alphabet in 1882. I stated that I found the same colors associated with the same forms in 1885. I have lately questioned her again, and I find the same colors are still associated with the same forms in nearly every case. Saturday's color has changed from pure white to cream color; F has changed from black to brown; Q, which had no certain color, is now called purple; X and Y, which had not much color, are now called red and cream color (Q, X, and Y are now more frequently in use than then); 8, which was white, is now called cream color (a similar change to that of Saturday); and 9, which was called 'greenish?' is now called blue. With these few exceptions, the same colors have been constantly associated with the same days, numerals, and letters from 1882 to 1888, — six years. This case appears to me now, as formerly, to deserve record in connection with the observations of Galton and others on the subject.

EDWARD S. HOLDEN.

Berkeley, Cal., Dec. 20.

Thomas Braidwood and the Deaf-Mutes.

IN a footnote to a page of Sir Walter Scott's 'Heart of Mid-Lothian,' I read, "'Dumbiedikes' is really the name of the house bordering on the King's Park (Edinburgh), so called because the late Mr. Braidwood, an instructor of the deaf-and-dumb, resided there with his pupils."

Now, I happen to know that Thomas Braidwood sold his estate (that goes by the name of our family, and is situated next to the Duke of Hamilton's, some twenty miles beyond Glasgow) in order to use the proceeds to start his institution for educating the deaf-and-dumb; and if Professor Bell, in his address at the Gallaudet anniversary, a notice of which is published in *Science* of Dec. 23, meant it as a reproach to the memory of Mr. Braidwood, when he says the school "was a money-making institution," and that its principal "had bound all his teachers under a heavy fine not to reveal his methods to any one," it may be pertinent to ask if, under the circumstances, it was not only prudent, but a duty of Mr. Braidwood, to make his institution pay its own way. His all was involved in it; and, had he not used what some people would call a necessary precaution, his school might have perished for want of funds, and himself been impoverished. At all events, that is the view his relations take of the matter.

And when one reviews the dreary centuries preceding, when every now and again some gentle soul proposed to educate the deaf-and-dumb only for it to drop out of thought again, perhaps it would be best to guard with caution the acts of him who staked his entire wealth in the venture, and spent forty-six years of life in establishing as a living fact what was but as a grand dream for centuries.

THOMAS W. BRAIDWOOD.

Vineland, N.J., Dec. 29.