# SCIENCE

### FRIDAY, OCTOBER 9, 1914

# CONTENTS

A Study of Primitive Character: SIR EVERARD	
IM THURN	495
George Marcgrave: Dr. E. W. Gudger	507
The Effects of the Katmai Eruption on Marine Vegetation: GEORGE B. RIGG	509
The Effect of Lightning on a Reinforced Con- crete and Steel Dome: Professor C. D. PERRINE	513
Scientific Notes and News	
·	
University and Educational News	518
Discussion and Correspondence:	
An Experiment on Killing Tree Scale by Poisoning the Sap of the Tree: PROFESSOR	
FERNANDO SANFORD. Laboratory Cultures	
of Amæba: N. M. GRIER. The Origin of	
Mutation: XY. Plea for a Statue in Wash-	
ington to Professor Spencer Fullerton	
Baird: DR. R. W. SHUFELDT. Belgian	
Professors and Scholars: Professor Edwin	~ 10
B. FROST	519

#### Scientific Books :---

#### Special Articles :---

The Food Habits of the Short-tailed Shrew: H. L. BABCOCK. The Limit of Uniformity in the Grading of College Students by Different Teachers: DR. MAX MEYER ...... 526

# ADDRESS OF THE PRESIDENT TO THE ANTHROPOLOGICAL SECTION OF THE BRITISH ASSOCIATION FOR THE AD-VANCEMENT OF SCIENCE1 A STUDY OF PRIMITIVE CHARACTER

CIVILIZATION and "savagery"---for unfortunately it seems now too late to substitute any term of less misleading suggestion for that word "savagery"-are the labels which we civilized folk apply respectively to two forms of human culture apparently so unlike that it is hard to conceive that they had a common origin-our own culture and that other, the most primitive form of human culture, from which, at some unknown and distant period, our own diverged. But, assuming one common origin for the whole human race, we anthropologists can but assume that at an early stage in the history of that race some new idea was implanted in a part of these folk, that is in the ancestors of civilized folk which caused these thenceforth to advance continuously, doubtless by many again subsequently diverging and often intercrossing roads, some doubtless more rapidly than others, but all mainly towards that which is called civilization, while those others, those whom we call "savages," were left behind at that first parting of the ways, to stumble blindly, advancing indeed after a fashion of their own, but comparatively slowly and in a quite different direction.

It is easy enough for civilized folk, when after age-long separation they again come across the "savages," to discern the existence of wide differences between the two, in physical and mental characteristics, and

<sup>1</sup> Australia, 1914.

MSS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrison-On-Hudson, N. Y.

in arts and crafts; it is not so easy, it may even be that it is impossible, to detect the exact nature of these differences, especially in the matter of mental characters.

As a rule the occupant of this presidential chair is one who, whether he has seen much of "savages" at close quarters or not, has had much ampler opportunity than has fallen to my lot of comparative study of that great mass of anthropological observations which, gathered from almost every part of the world, has now been recorded at headquarters. I, on the other hand, happen to have spent the better part of my active life in two different parts of the world, remote from books and men of science, but in both of which folk of civilized and of savage culture have been more or less intermixed, but as yet very imperfectly combined, and in both of which I have been brought into rather unusually close and sympathetic contact with folk who, whatever veneer of civilization may have been put upon them, are in the thoughts which lie at the back of their minds and in character still almost as when their ancestors were at the stage of savage culture.

While trying to adjust the mutual relations of wild folk and of folk of civilized stock, I have seen from close at hand the clash which is inevitable when the two meet —a clash which is naturally all the greater when the meeting is sudden. Moreover, having started with a strong taste for natural history, and especially for the natural history of man, and having had much guidance from many anthropological friends and from books, I have perhaps been especially fortunate in opportunity for studying the more natural human animal at close quarters and in his natural surroundings. I have tried, from as abstract and unprejudiced a point of view as possible, to understand the character, the mental and moral attitude, of the natural "savage" as he must have been when civilized folk first found him and, at first without much effort to understand him, tried abruptly to impose an extremely different and alien form of culture on this almost new kind of man.

I venture to claim, though with diffidence, that I may have begun to discern more clearly, even though only a little more clearly than usual, what the primitive man, the natural "savage"-or, as he might more accurately be described, the wild man -was like; and it seemed possible that an attempt to bring together a picture-it can hardly be more than a sketch—of the mentality and character of some one group of people who had never passed out of the stage of "savagery" might be interesting and practically useful, especially if it proves possible to disentangle the more primitive ideas of such people from those which they subsequently absorbed by contact, at first with other wild, but less wild, folk, and later with civilized folk; and that a further study of the retention by these folk of some of their earlier habits of thought during later stages in their mental development might suggest a probable explanation of certain of their manners and customs for which it is otherwise hard to account.

The attainment of some such understanding is, or should be, one of the chief objectives of the practical anthropologist, not merely for academic purposes, but also for the practical guidance of those who in so many parts of our Empire are brought into daily contact with so-called "savages."

Perhaps hardly anywhere else in the world would it be possible to find better opportunity and more suitable conditions for such a study as I now propose than in the tropical islands of the South Seas. The ancestors of these islanders, while still in purely "savage" condition, must have drifted away from the rest of the human race, and entered into the utter seclusion of that largest of oceans, the Pacific, covering as it does more than a third of the surface of the globe, long before the first man of civilized race, Balboa, in 1513, from the Peak in Darien, set eyes on the edge of what he called "the Great South Sea," before Magellan, in 1520, forced his way into and across that same sea, which he called the Pacific, and certainly long before civilized men settled on any part of the shore of that ocean, *i. e.*, in 1788, at the foundation of Australia. For when first studied at close quarters by civilized folk from Europe, which was not till after the last-named event, these South Sea "savages" had been in seclusion during a period sufficiently long-and certainly no short period would have sufficed for such an effect—not only for them all to have assumed characters, cultural and even physical, sufficient to distinguish them from all other folk outside the Pacific, but also for them to have split up into many separate parties, probably sometimes of but few individuals, many of which had drifted to some isolated island or island-group, and had there in the course of time taken on further well-marked secondary differences.

It will probably now never be discovered when, how often, and from what different places the ancestors of these folk reached the Pacific. It is quite possible that they entered again and again, and were carried by winds and currents, some from west to east and some in the reverse direction, many perishing in that waste of waters, but some reaching land and finding shelter on some of that great cloud of small islands which lie scattered on both sides of the equator and nearly across that otherwise landless ocean.

Of the folk who in those old times thus

drifted about and across the Pacific, the most important, for the part which they played in the story which I am endeavoring to tell, were the two hordes of "savages" now known respectively as Melanesians and Polynesians. Without entering deeply into the difficult subject of the earlier migrations of these two hordes, it will suffice here to note that, towards the end of the eighteenth century, when European folk at last began to frequent the South Sea Islands. and when consequently something definite began to be known in Europe about the islanders, certain Melanesians, who had probably long previously drifted down from north-westward, were found to be, and probably had long been, in occupation of the exceptionally remote and isolated Fiji Islands; also that, long after this Melanesian occupation of these islands, and only shortly before Europeans began to frequent them, several bodies of Polynesians, who had long been in occupation of the Friendly or Tongan Islands, lying away to the east of Fiji, had already forced or were forcing their way into the Fijian Islands.

The meeting in Fiji of these two folk, both still in a state of "savagery," but the Polynesians much further advanced in culture than the Melanesians, at a time before European influence had begun to strengthen in those islands, affords an exceptionally good opportunity for the study of successive stages in the development of primitive character, especially as the two sets of "savages" were not yet so closely intermingled as to be indistinguishable—at least in many parts of Fiji. It is unfortunate that the earliest European visitors to Fiji were not of the kind to observe and to leave proper records of their observations.

The earlier, Melanesian, occupants of Fiji had to some extent given way, but by no means readily and completely, to the Polynesian invaders. The former, not only in the mountain fastnesses difficult of access, but also in such of the islets as the local wind and weather conditions made difficult of access, retained their own distinct and simpler culture, their own thoughts, habits and arts, long after the Polynesians had seized the more important places accessible to the sea, and had imposed much of their own more elaborate (but still "savage") culture on such of the Melanesians' communities as they had there subjugated and absorbed.

The social organization throughout Fiji remained communistic; but in the purely Melanesian communities the system was purely democratic (*i. e.*, without chiefs), while in the newer mixed Polynesian-Melanesian communities—as was natural when there had been intermingling of two unequally cultured races—there had been developed a sort of oligarchic system, in which the Melanesian commoners worked contentedly, or at least with characteristic resignation, for their new Polynesian chiefs.

Alike in all these communities custom enforced by club-law prevailed; but in the one case the administrative function rested with the community as a whole, while in the other it was usurped by the chiefs.

Though we are here to consider mainly the ideas, the mentality, of these people, it will be useful to say a few preliminary words as to their arts and crafts. The Melanesians during their long undisturbed occupation of the islands had undoubtedly made great progress, on lines peculiar to them, especially in boat building, in which they excelled all other South Sea islanders, in the making of clubs and other weapons, and in otherwise using the timber, which grew more abundantly, and of better quality, in their islands than elsewhere. Meanwhile the Polynesians, in their earlier homes and long before they reached Fiji,

had developed, in very high degree, corresponding but different and much more elaborate arts (and ideas) of their own. But, as we know from Captain Cook, the Polynesians, despite their own higher culture. from their Tongan homes, greatly admired and appreciated the special craftsmanship of the Fijians, and it was indeed this admiration which attracted the former from Tonga to Fiji; and when the Polynesians had gained footing in the Fijis they-quite in accordance with human nature-were inclined, for a time at least, to foster the foreign Fijian arts-if not Fijian ideasrather than replace these by their own arts; and before the struggle, both physical and cultural, between the two sets of "savages" had gone far it was interrupted, and more or less definitely arrested, by the arrival and gradual settlement of the still more powerful, because civilized, white folk from the western world.

In turning to the earlier (Melanesian) occupants of Fiji, and especially to the less advanced of these, to find the traces of which we are in search of the more primitive habit of thought, it must not be forgotten that even at the stage at which we begin to know about them they had made considerable advance, in their ideas as well as in their arts and crafts. They still used their most primitive form of club, but also made others of much more elaborated form; so, though the ideas which lay at the basis of their habit of thought were of very primitive kind, they had acquired others of more complex character.

Before going further may I say—and I sincerely hope that the suggestion will not be misunderstood—that in the difficult task of forming a clear conception of the fundamental stock of thought which must have guided the conduct of the more primitive folk we must constantly bear in mind the parallelism (I do not mean necessary identity of origin) between the thoughts of the earliest human folk and the corresponding instincts (as these are called) noticeable in the case of some of the higher animals? I am particularly anxious not to be misunderstood; the suggestion is not that even the most primitive human folk were mentally merely on a par even with the higher animals, but that many, perhaps most, of the ways of thought that guided the primitive man in his bearing towards the world outside himself may be more easily understood if it is once realized, and afterwards remembered, that the two mental habits, however different in origin and in degree of development, were remarkably analogous in kind.

A similar analogy, in respect not of thoughts but of arts, may well illustrate this correspondence between the elementary ideas of men and animals. The higher apes occasionally arm themselves by tearing a young tree up by the roots and using the "club" thus provided as a weapon of offense and defense against their enemies. Some of the primitive South Sea islanders did—nay, do—exactly the same, or at any rate did so till very lately. The club-the so-called malumu-which the Fijian, then and up to the much later time when he ceased to use a club at all greatly preferred to use for all serious fighting purposes was provided in exactly the same way. *i. e.*, by dragging a young tree from the ground, and smoothing off the more rugged roots to form what the American might call the business end of the club. But though the Fijian, throughout the period during which he retained his own ways, used and even preferred this earliest form of club, he meanwhile employed his leisure (which was abundant), his fancy, and his ingenuity, in ornamenting this weapon, and also in gradually adapting it to more and more special purposes, some of the later of which

were not even warlike but were ceremonial purposes, till in course of time each isolated island or group of islands evolved clubs special to it in form, purpose and ornament, and the very numerous and puzzlingly varied series of elaborate and beautiful clubs and club-shaped implements resulted. It seems to be in power of improvement and elaboration that lies the difference between men-folk and animalfolk.

Something similar may be assumed to have brought about the evolution of the ideas of these islanders. Starting with a stock of thoughts similar in kind to the instincts of the more advanced animals, the human-folk—by virtue of some mysterious potentiality—gradually adapted these to meet the special circumstances of their own surroundings, and in so doing ornamenting these primitive thoughts further in accordance with fancy.

In the Fiji Islands this process of cultural development was probably slow during the long period while the Melanesians, with perhaps the occasional stimulus afforded by the drifting in of a little human flotsam and jetsam from other still more primitive folk, were in sole occupation; yet it must have been during this period and by these folk that the distinctively Fijian form of culture was evolved. But the process must have been greatly accelerated, and at the same time more or less changed in direction, by the incoming of the distinct and higher Polynesian culture, at a time certainly before, but perhaps not very long before, the encroachment of Europeans.

In order to realize as vividly as possible what were the earlier, most elementary, thoughts on which the whole detail of his subsequent "savage" mentality was gradually imposed, it is essential for the time being to discard practically all the ideas which, since the road to civilization parted from that on which savagery was left to linger, have built up the mentality of civilized folk; it is essential to try to see as the most primitive Fijian saw and to conceive what these islanders thought as to themselves and as to the world in which they found themselves.

It seems safe to assume that the primitive man, absolutely self-centered, had hardly begun to puzzle out any explanation even of his own nature, still less of the real nature of all the other beings of which he must have been vaguely conscious in the world outside himself. To put it bluntly, he took things very much as they came, and had hardly begun to ask questions.

He was—he could not but be, as the lower animals are—in some vague way conscious of himself, and from that one entirely self-centered position he could not but perceive from time to time that other beings, more or less like himself, were about him, and came more or less in contact with him.

The place in which he was conscious of being appeared to him limitless. He did not realize that he could move about only in the islet which was his home, or perhaps even only in a part of a somewhat larger, but according to our ideas still small, island; if other islets were in sight from that on which he lived, these also would be part of his world, especially if-though such incidents must have been rare-he had crossed to, or been visited by strangers from, those islands-islands which lay between his own home and that which he spoke of as wai-langi-lala (water-sky-emptiness) and we speak of as the horizon. To him the world was not limited by any line, even the furthest which his sight disclosed Rarely, but still sometimes, to him. strangers had come from beyond that line. Perhaps too he had some time heard that

his ancestors had come from the somewhere which seemed beyond. Again his ancestors of whom he had heard, and even some of the contemporaries whom he had seen, though no longer with him except occasionally during his dreams in bodily form, were somewhere, somewhere beyond that line of sight. Even he himself (in what were his dreams, as we say, but to him were part of his real life) habitually went beyond the line, and, as far as his experience had gone, returned each time to the island home.

Moreover, he did not doubt that this limitless region in which it vaguely seemed to him that he, and innumerable other beings, moved, extended not merely along what we speak of as the surface of the globe, but also, and equally without any intervening obstacle, up into the infinite space above and beyond the sky. In short, to this primitive man the world, though the part of it to which he had actual access was so small, was limitless.

The thoughts of the dweller in this vague world, as to himself and as to the other beings of which from time to time he became conscious, must have been correspondingly indefinite.

He was, to a degree almost if not quite beyond our power of conception, a spiritualist rather than a materialist; and it is essential to get some idea of the extent and manner of his recognition of spiritual beings—and his corresponding non-recognition of things material.

In passing I here disclaim, for myself at least, the use of the misleading word "belief" in speaking of the ideas of really primitive man—as, for instance, in the phrase the "belief in immortality." Possibly primitive men of somewhat more advanced thought, though not yet beyond the stage of "savagery," may have "believed" in spirits, in immortality, and so on; but it seems to me that at the earlier stage there can hardly have been more than recognition (admittedly very strong recognition) of spiritual beings, and non-recognition of any beginning or ending of these spirits.

To return from this digression, Sir E. B. Tylor long since gave currency to the very useful word "animism" as meaning "the belief in spiritual beings," and this has been taken to mean that animism was the initial stage, or at any rate the earliest discoverable stage, of all religion. The primitive Fijian was certainly a thorough-going animist, if his extraordinarily strong but vague recognition of spiritual beings suffices to make him that; but I do not think that the ideas of that kind of the primitive "savage"---or, say, of the most primitive Fijian-before his ideas had been worked up into somewhat higher thought, during the long period while he was secluded in his remote islands and before the advent of the Polynesians, had developed far enough to constitute anything which could be called "religion," though doubtless they were the sort of stuff which, had these folk been left to themselves, might, probably did, form the basis of the "religion" towards which they were tending.

Practically all human beings—savage and civilized alike—and, though in lower degree, even animal-folk, have in some degree recognized the existence of some sort of spiritual beings. The point then seems to be to discover what was the nature of the spiritual beings which the primitive Fijian recognized but without understanding.

Anthropologists have recently defined, or at least described, several kinds of spiritual beings as recognized (even here I will not use the word "believed") by more or less primitive folk. There is, first, the soul, or the separable personality of the living man or other being; secondly, the ghost, or the same thing after death; thirdly, the spirit, which is said to be a soul-like being which has never been associated with a human or animal body; and, fourthly, there is, it appears, to be taken into consideration yet another kind of spiritual being (or something of that nature) which is the life of personality, not amounting to a separable or apparitional soul, which, it has been supposed, some primitive folk have attributed to what we call "inanimate things."

It seems, though I say this with all due deference, that this identification and naming of various kinds of spiritual beings, though it may hold good of animism at a higher stage, does not fit the case of the more primitive animist (say, that of the Melanesian in the very backward state in which, as far as we know, he first reached Fiji), for presumably he had not as yet recognized nor differentiated between the various kinds just enumerated. He recognized something which may be called the "soul," which was the separable personality of the living man or other being. But he did not recognize-perhaps it would be better to say that he had not yet attained to recognition of-the ghost, or the same thing after death; for he had not even recognized any real break, involving change, at death. Nor, as I think, did he recognize a spirit, *i. e.*, a soul-like being which had never been associated with a human or animal body; for he had no idea of any spiritual being which did not, or could not, on occasion associate itself with a human, animal or other material body, nor seemingly had he reached the stage, labelled animatism, in which he would have attributed life and personality to things (which I take to mean things which are to us inanimate).

All that the most primitive man would recognize would be that he himself—the essential part of him—was a being (for convenience and for want of a better name it may be called "soul") temporarily separable at any time from the material body in which it happened to be, and untrammeled—except to some extent by the clog of the body-by any such conditions as time and space; he had found no reason to think that in these respects the many other beings of which from time to time he became aware (whether these were what we should class as men, other animals, or the things which we speak of as inanimate, such as stocks and stones, or bodiless natural phenomena, such as winds) differed from himself only in the comparatively unimportant matter of bodily form; moreover, it seemed to him that, as he himself could to some extent do all these, the other beings, and some perhaps even more easily, were able to pass from one body to another.

He felt that these "souls" were only temporarily and more or less loosely attached to the particular material forms in which they happened to manifest themselves at any moment, and that the material form in which the soul (and noticeably this held good even of his own soul) happened at any moment to be embodied was of little or no real importance to that soul, which could continue to exist just as well without as with that body.

Another point which it is important to note is the egoism of the savage man as distinguished from the altruism of the eivilized man; for it was perhaps the beginning of the idea of altruism, of duty to one's neighbor, that gave the start to civilization, and it was because the ancestors of the savage had never got hold of this fundamental principle of altruism that they were left behind.

The uncivilized man, complete egoist as he was, thought and acted only for his own personal interests. It is true that he was

to a certain extent kind (as we might call it) to the people of his own small community and possibly still more kind to such of the community as seemed to him more immediately of his own kindred. But this kindness was little more than instinctive-little more than a way of attracting further service. It is also true that on the occasions, which must have been very rare till a late period in the Melanesian occupation of Fiji, when strangers -i. e., persons of whom he had not even dreamed-came, so surprisingly, into his purview, he was sometimes civil or even hospitable to those strangers (it should not be forgotten that to him these were souls embodied by separable accident in material forms); but this would have been only on occasions on which he knew, or suspected, that these visitors were stronger than himself and able to injure or benefit him.

Another point of great significance in the character of this primitive man was that he had no conception of ownership of property. To him all that we should class as goods and chattels, his land, or even his own body, was his only so long as he could retain it. He might if he could and would take any such property from another entirely without impropriety; nor would he resist, or even wish to resist, the taking from himself of any such property by any one who could and would take it.

Again, the primitive man must have been far less sensitive to pain, and far less subject to fear, than the normal eivilized man. I do not mean that the primitive Fijian was without the ordinary animal shrinking from physical pain, but that he can not have been nearly as sensitive even to physical pain as is the more sophisticated man; nor had he the same mental pain, the same anticipation and fear of pain, that the civilized man has. Having thus dealt with some of the more important points in the character of the primitive Fijian, I propose next to consider how far these suffice to account for some of the more "savage" conditions under which these islanders when first seen were living.

Cannibalism claims the first mention, in that, though the practice has been recorded from many other parts of the world, it is commonly supposed to have been carried further in Fiji than elsewhere.

Here, however, it is at once necessary to point out that the outbreak of cannibalism in Fiji in the first half of the last century was not due to any innate and depraved taste on the part of the Fijians, and that the practise to the degree and after the fashion of which the story-books tell was not natural to the Fijian, whether of Melanesian or Polynesian stock.

It is probable, even perhaps certain, that all the Fiji islanders occasionally ate human flesh before the coming of white men to the islands; but it was only after the arrival of the new-comers that this practise, formerly only occasional and hardly more than ceremonial, developed into the abominable orgies of the first half of the last century. The first Europeans to set foot-about 1800-and to remain in the islands for any time were the so-called "beachcombers." At first at least, these renegades from civilization, to secure their own precarious position and safety, contrived to put themselves under the patronage of some one or other of the great native chiefs, who would be Polynesians, and assisted and egged on these chiefs in their then main occupation of fighting other great rival chiefs, also Polynesians, and raiding the less advanced Melanesians of the surrounding districts. The guns and ammunition which the beachcombers, in some cases at least,

brought with them or managed to procure, and the superior craft which they had imbibed from civilization, greatly assisted them in this immoral purpose. Consequently a habit of cruelty, new to the Fijian, was implanted and developed, especially in the Polynesian chiefs. It became more and more a fashion for the greatest native warriors, thus egged on, to vie with each other in the number of their victims and in the reckless cruelty with which these were killed. Doubtless at first the victims were opponents killed in fight, sometimes great rival chiefs and sometimes mere hoi polloi who had been led out to fight, probably not very reluctantly, for their chiefs. Incidentally more and more people were killed; and the bodies of the slain were conveniently disposed of in the ovens. A taste for this food was thus developed in the chiefs-though this seems, for a time at least, to have been confined to the great chiefs, most of those of lower status, and all women, refusing to partake, at any rate till a later period. Before long, when the number of the killed ran short, the deficiency was made up by clubbing more and more even of their own people, till eventually the great native warrior took pride in the mere number of those he had killed and eaten.

It seems probable that even the coming of the missionaries, who first reached Fiji thirty or forty years after the earliest beachcombers, and at once began almost heroic efforts to stop cannibalism, thereby to some extent temporarily even aggravated the evil. For the chiefs, in their characteristic temper of gasconade, killed and ate more and more unrestrainedly, in mockery of the missionaries and to show what fine fellows they thought themselves to be.

To return from this digression into a somewhat distasteful subject, cannibalism as practised by the Fijians before the coming of white men was very different, and, from the Fijian point of view—if I may say so without fear of being misunderstood —not altogether indefensible. It must be remembered that there was, as it were, no killing in our sense of the word involved, merely a setting free from the non-essential body of the essential soul, which soul survived just as well without the body as

Note that the soul must have been considered as in some way and for a time still associated with its late body if, as is commonly and perhaps rightly held, the slayer sometimes ate some part of the body of the slain in order to acquire some of the qualities of the slain.

Again, there can be little doubt that men were sometimes killed for sacrificial purposes, the material bodies of the victims being placed at some spot (perhaps the tomb) considered to be frequented by the disembodied spirit of some ancestor for whom it was desired to provide a spirit attendant. It may be noted that this sacrificial use of the body might be combined with an eating of the same body when once it had served its first purpose of attributing the spirit which had been in it to the service of the honored ancestor.

It has been laid to the charge of the Fijians (as to that of many other folk of savage and even of civilized culture) that they habitually killed strangers, especially such as had been washed or drifted to the islands by the sea—who, in early times at least, must have been almost the only strangers to arrive. The charge, like that of cannibalism, has been exaggerated, and the facts—as far as there were any—on which this charge was founded have been misunderstood.

Here, again, the attitude of the Fijian in this respect was hardly different from that of the lower animals under similar circum-

stances. The Fijian knew of no reason to be glad of the arrival of strangers, unless these could, in one way or another, be useful to him; and, as has already been explained, he knew of no reason why he should not make the best use possible of the stranger, of his body or his spirit, separately or together.

While, as must have been the case in earlier times, the new-comers were dark-skinned men like himself, the Fijian might without the slightest prick of conscience separate their bodies from their spirits, and dispose of the body or the spirit separately; or without effecting this separation, he might simply enslave the new-comers; or, again, if he suspected that the new-comers were too strong for him, he might yield himself to them as a slave.

And later, when Europeans began to arrive, sometimes as refugees from passing ships and sometimes as survivors from ships wrecked on the surrounding reefs, the bearing of the Fijian towards this new kind of stranger would have been on the same principles, only that in this case the new-comers, being of far less readily understood kind, would be regarded with more suspicion and also more respect. I believe that very seldom, if ever, was an inoffensive white man, wrecked sailor or other, killed, or treated with anything but kindliness and courtesy, even though the wrecked man's property might naturally be appropriated by the natives. It was only when white-skinned strangers became commoner, and frequently more offensive, and when familiarity had bred contempt, that they were killed, as nuisances, and, especially during the great outbreak of cannibalism, were eaten.

This point in the bearing of the islanders to white men might be further illustrated by a circumstance which, to my surprise, I have never found mentioned, i. e., that

with it.

during the whole period while the missionaries were, with a rashness only justified by the circumstances, testifying against the natives of Fiji not one of these was killed, till at a much later period, when European influence was all but predominant in Fiji, Baker was killed and eaten under very special circumstances.

If it were possible to ascertain in each case the facts as to the reception by "savages" of the first white men they saw, it would almost certainly be found that the reception was apparently kindly, though this kindness may really have been due to fear and not to charity. It was, however, quite probable that at any moment the savage might find that his dread of the white man was unfounded, and in that case he might kill him (*i. e.*, separate his soul from his body) without hesitation, and after doing this his fear-he probably never had any affection for him-of the disembodied spirit of the white man might be as great, or even greater, than before.

Incidentally it may here be noted, as a further curious point, that a Fijian who thus quite remorselessly set free the soul of a stranger from his body would probably not often and not for long in his dreams be revisited by his victim, if a native; and perhaps not even if the victim were a white man, unless very remarkable. In other words, the victim survives only just so long as he is remembered. Captain Cook, we know, survived for very long, perhaps does so still; few, if any, of such beachcombers as were later killed in Fiji survived for any length of time; and the innumerable natives who were drifted or washed to one or other of the islands must for the most part have passed from memorv soon after they were killed.

It has been suggested that the killing of strangers may have been for the purpose of preventing the introduction of disease; and it is certain that, perhaps even before the coming of white men, the islanders recognized that the advent of strangers was curiously often and most disastrously followed by the introduction of new diseases, either real diseases or at least some queer, unexplained influence which has so often made life not worth living for savages where white strangers have been.

The Fijians were hardly more notorious for cannibalism than for theft-and almost as undeservedly. There is hardly an account of the visit of a European ship in early times to any of the islands which does not mention that the islanders who came aboard took whatever they fancied, either quite openly or if furtively then without evincing anything like shame when discovered. This habit, which the explorers naturally called theft, was but the manifestation of a South Sea custom, due to the entire absence of any idea of personal property, which in Fiji is called keri-keri. To keri-keri was to take whatever you wanted and could take without the previous holder of the property pre-In old days no Fijian venting you. doubted his own absolute right to kerikeri, nor did he feel the very slightest shame in thus (as we should say) "depriving another of his property" or "stealing"; and even to this day the Fijian, provided that he is not really Europeanized, will keri-keri without shame. In short the idea of ownership and individual property never occurred to the natural Fijian. He took what he wanted, and was strong enough to take. But, on the other hand, he yielded up, practically without reluctance. whatever another stronger or cleverer than himself wanted and was able to take from him.

Of the many other charges of "savagery" made against Fijians, I can, in the time at my disposal, deal with but one more, that as to their strange and gruesome habit of celebrating great occasions by killing their own folk. When a Fijian chief died, as we should say, or, as it seemed to the surviving natives when his soul left the body which it had for a time used, his widows, and other of his kindred and dependents, unwilling to be left behind, were strangled, often indeed helped to strangle themselves, that their bodies might be put into the graves, while their souls went gladly with that of the chief whom they had been accustomed to follow.

Again, when a chief built a house, some of his dependents, whom the great man told off for the purpose, willingly stepped down into the holes which had been dug for the house-posts, and remained there while the earth was filled in on to them, and continued thereafter as permanent supporters of the house.

Again, there is a tradition, which at least was not incredible to the natives, that a great chief one day went a-fishing, and caught many fish. Two brothers of humbler rank who happened to have come down to the same waterside, also to fish, were less successful. The chief, in a characteristic freak of generosity, presented his best fish to the elder of the two brothers, who, strictly according to Fijian custom, accepted the gift, but felt bound to make an immediate return, but he had nothing to give. Thereupon the younger brother, at his own suggestion, was clubbed by the elder, and his body presented to the chief in token that his soul would thereafter serve that chief.

It is even said that when yams and other vegetables were brought in as food for the chiefs by the dependents who had grown them for that purpose, the food-bearers, if there was a scarcity of fish or other suitable accompaniment for the vegetable diet, were themselves clubbed and their bodies

eaten. This particular atrocity probably happened only after the habit of cannibalism had, as already explained, been unnaturally intensified. But the story is noteworthy in that the food-bearers are not represented as in any way dreading or shirking the use to which their bodies were put.

In all these and similar cases it is to be noted that the victims (as we are naturally inclined to call them) were more or less indifferent, if indeed they were not eagerly consenting parties, to the use (cruel as it seems to us) made of their material bodies. Thus the widows were eager to be strangled, and often even helped to do the deed. in order that they-all that was essential of them, i. e., their souls-should rejoin the deceased. Similarly those others who were killed on the occasion of the funeral were quite willing to give their bodies, which seemed of comparatively little importance, as "grass" to be added to the cut fern and other soft material on which the body of the deceased chief was couched in the grave; and quite willingly the men told off for that purpose stepped down into the holes in which the house-posts were grounded, that they, or rather their bodies, might thereafter hold up the house, while their souls enjoyed life much as before but without the encumbrance of the body. Others again contentedly grew taro for the chiefs to eat, and carried it in when ripe, thinking it of little importance that their mere bodies might be eaten with the taro.

In conclusion, having endeavored to realize for myself, and to show you a glimpse, of the enormous, hardly conceivable difference in habit of thought, and consequently in character, which separates the savage from the civilized man, I will offer a suggestion which seems to me possibly the most important outcome of my personal experience, now closed, as an anthropological administrator in tropical places where Eastern and Western folk have met, and where the inevitable clash between the two has occurred.

In such places and circumstances the result has too often been that sooner or later the weaker folk—those whose ancestors have been age-long "savages"—have died out in the presence of those whose ancestors long ago turned from "savagery" to civilization. This dying out of the weaker folk has happened even when the stronger people have done their best to avoid this extirpation.

The real ultimate cause of "the decrease of natives" when in contact with civilized folk lies, perhaps, in the difference in hereditary mentality-in the incapacity of the "savage" to take on civilization quickly enough. However sedulously the missionary, the government official, and others who take a real interest in so doing, may teach civilized precepts to the essential savage, the subject of this sedulous casehowever advanced a savage culture he may have attained-will, at least for many generations, remain a savage, *i. e.*, for just so long as he is under influence of the civilized teacher he may act on the utterly strange precepts taught him, but away from that influence he will act on his own hereditary instincts.

The manner in which the native dies out even when well looked after—varies. He may be killed out by some disease, perhaps triffing but new to him, with which he does not know how to cope, and with which—if he can avoid so doing—he simply will not cope in the ways which the civilized man would teach him; or he may be killed out by the well-meant but injudicious enforcement on him of some system of unaccustomed labor; or, again, he may die out because deprived of his former occupations [e. g., fighting and the gathering of just so much food as sufficed for him] and thus restricted to a merely vegetative existence; or in many other more or less similar forms his extermination may come about.

But all such effective causes are reducible to one, which is that he is not allowed to act on his own hereditary instincts, that he can not at all times have, and often would not use, judicious and disinterested guidance from civilized folk, and that consequently he, the "savage," can not and too often does not care to keep alive when in the presence of civilized folk.

EVERARD IM THURN

# GEORGE MARCGRAVE, A POSTSCRIPT

In the Popular Science Monthly for September, 1912, I published a biographical sketch of "George Marcgrave, the First Student of American Natural History." A copy of this paper was sent to Dr. Alfredo de Carvalho. Pernambuco, Brazil, president of the Instituto Archeologico e Geographico of that city, and a profound student of the history of his country and especially of that period during which the Dutch occupied Pernambuco and the adjacent parts of Brazil. He wrote me of his study of Marcgrave, who did his natural history work at and around Pernambuco, or Recife as it is called by the Brazilians, and sent me a copy of his article-"Um Naturalista do Seculo XVII. Georg Markgraf, 1610-1644 "-in Revista do Instituto Archeologico e Geographico Pernambucano, Vol. XIII., pp. 212-22, 1908. I greatly regret that this paper was not included in my bibliography of George Marcgrave.

In speaking of Marcgrave's death it was stated in my sketch that this occurred on the Gold Coast of Africa, by which term was meant all that pestilential region around the Gulf of Guinea. However, the Gold Coast proper is a section of the coast lying west of the Bight of Benin, and there is good reason to believe that Marcgrave died in Angola at or near San Paulo de Loanda, some distance south of the mouth of the Congo.

In my paper all the intimate and personal