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The following paper was read by the Author :—

On a METHOD of INVESTIGATING the DEVELOPMENT of INSTITUTIONS; APPLIED to LAWS of MARRIAGE and DESCENT.

By EDWARD B. TYLOR, D.C.L., F.R.S.

FOR years past it has become evident that the great need of anthropology is that its methods should be strengthened and systematised. The world has not been unjust to the growing science, far from it. Wherever anthropologists have been able to show definite evidence and inference, for instance, in the development series of arts in the Pitt-Rivers Museum, at Oxford, not only specialists but the educated world generally are ready to receive the results and assimilate them into public opinion. Strict method has, however, as yet only been introduced over part of the anthropological field. There has still to be overcome a certain not unkindly hesitancy on the part of men engaged in the precise operations of mathematics, physics, chemistry, biology, to admit that the problems of anthropology are amenable to scientific treatment. It is my aim to show that the development of institutions may be investigated on a basis of tabulation and classification. For this end I have taken up a subject of the utmost real as well as theoretical interest, the formation of laws of marriage and descent, as to which during many years I have been collecting the evidence found among

between three and four hundred peoples, ranging from insignificant savage hordes to great cultured nations. The particular rules have been scheduled out into tables, so as to ascertain what may be called the "adhesions" of each custom, showing which peoples have the same custom, and what other customs accompany it or lie apart from it. From the recurrence or absence of these customs it will be our business to infer their dependence on causes acting over the whole range of mankind.

Years since, long before my collection of data approached its present bulk, and could be classified into the elaborate tables now presented, I became naturally anxious to know whether the labour had been thrown away, or whether this social arithmetic would do something to disclose the course of social history. The question was how to make the trial. I remembered a story I had once heard of Horace Vernet, that a friend asked him how he planned out his huge battle-pieces. The painter took the inquirer into his studio and began a picture for him by first touching in a bayonet in one corner of his canvas, then drawing the arm and sabre of the trooper slashing over the bayonet-thrust, and so on from one overlapping figure to the next till he reached the central group. It seemed to me that it would be well to begin thus in one corner of the field. The point I chose was a quaint and somewhat comic custom as to the barbaric etiquette between husbands and their wives' relatives, and *vice versa*: they may not look at one another, much less speak, and they even avoid mentioning one another's names. Thus, in America, John Tanner, the adopted Ojibwa, describes his being taken by a friendly Assineboin into his lodge, and seeing how at his companion's entry the old father and mother-in-law covered up their heads in their blankets till their son-in-law got into the compartment reserved for him, where his wife brought him his food. So in Australia, Mr. Howitt relates how he inadvertently told a native to call his mother-in-law, who was passing at some little distance; but the blackfellow sent the order round by a third party, saying reproachfully to Mr. Howitt, "You know I could not speak to that old woman." Absurd as this custom may appear to Europeans, it is not the outcome of mere local fancy, as appears on reckoning up the peoples practising it in various regions of the world, who are found to be about sixty-six in number, that is, more than one-sixth of the whole number of peoples catalogued, which is roughly three-hundred and fifty. Thus:—

Avoidance.

Between H. and W.'s Rel.	Mutual.	Between W. and H.'s Rel.
45	8	13

Now, on looking out from the schedules the adhesions of this avoidance-custom, a relation appears between it and the customs of the world as to residence after marriage. This is seen in the following computation of the peoples whose habit is for the husband to take up his abode with the wife's family permanently, or to do so temporarily and eventually to remove with her to his own family or home (the reverse of this does not occur), or for the husband at once to take home the wife.

<i>Residence.</i>		
H. to W.	Removal	W. to H.
65	76	141

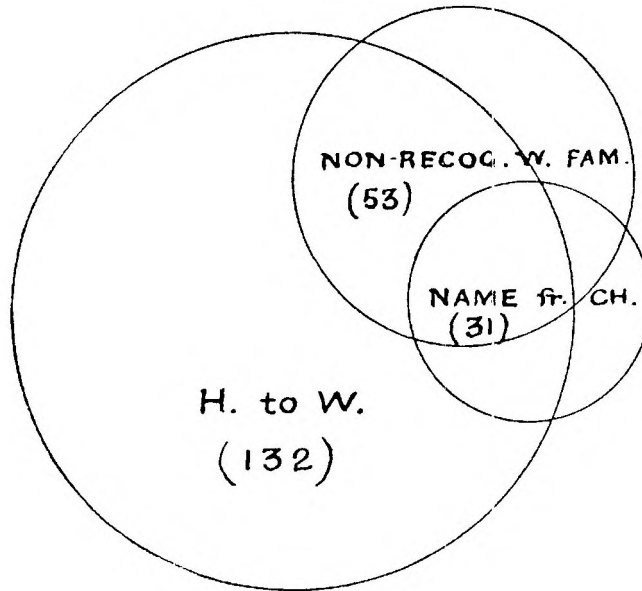
Now, if the customs of residence and the customs of avoidance were independent, or nearly so, we should expect to find their coincidence following the ordinary law of chance distribution. In the tribes where the husband permanently lives with his wife's family (sixty-five out of three hundred and fifty), we should estimate that ceremonial avoidance between him and them might appear in nine cases, whereas it actually appears in fourteen cases. On the other hand, peoples where the husband at marriage takes his wife to his home (one hundred and forty-one out of three hundred and fifty), would rateably correspond with avoidance between him and her family in eighteen cases, whereas it actually appears in nine cases only. Also, if the thirteen cases of avoidance between the wife and the husband's family were divided rateably among the different modes of residence, two or three cases should come among the peoples where the husband lives with the wife's family, but there are no such cases. On the other hand, five cases should be found among the peoples where the wife lives in the husband's home or family, but actually there are eight. Thus there is a well marked preponderance indicating that ceremonial avoidance by the husband of the wife's family is in some way connected with his living with them ; and *vice versa* as to the wife and the husband's family. Hereupon, it has to be enquired whether the facts suggest a reason for this connexion. Such a reason readily presents itself, inasmuch as the ceremony of not speaking to and pretending not to see some well-known person close by, is familiar enough to ourselves in the social rite which we call "cutting." This, indeed, with us implies aversion, and the implication comes out even more strongly in objection to utter the name ("we never mention her," as the song has it). It is different, however, in the barbaric custom we are considering, for here the husband is none the less on friendly terms with his wife's people because they may not take any notice of one another. In fact, the expla-

nation of this ceremonial cutting may be simpler and more direct than in civilised Europe. As the husband has intruded himself among a family which is not his own, and into a house where he has no right, it seems not difficult to understand their marking the difference between him and themselves by treating him formally as a stranger. So like is the working of the human mind in all stages of civilisation, that our own language conveys in a familiar idiom the same train of thought; in describing the already mentioned case of the Assineboin marrying and taking up his abode with his wife's parents who pretend not to see him when he comes in, we have only to say that they do not *recognise* him, and we shall have condensed the whole proceeding into a single word. In this first example, it is to be noticed that the argument of a causal connexion of some kind between two groups of phenomena brings into view, so far at least as the data prove sound, a scientific fact. But we pass on to less solid ground in assigning for this connexion a reason which may be only analogous to the real reason, or only indirectly corresponding with it, or only partly expressing it, as its correlation with other connexions may eventually show. This important reservation, once stated, may be taken as understood through the rest of the enquiry.

Let us now turn to another custom, not less quaint-seeming than the last to the European mind. This is the practice of naming the parent from the child. When Moffat, the missionary, was in Africa among the Bechuana, he was spoken to and of, according to native usage, as Ra-Mary = father of Mary. On the other side of the world, among the Kasias of India, Colonel Yule mentions the like rule; for instance, there being a boy named Bobon, his father was known as Pabobon. In fact there are above thirty peoples spread over the earth who thus name the father, and, though less often, the mother. They may be called, coining a name for them, *teknonymous* peoples. When beginning to notice the wide distribution of this custom of *teknonymy*, and setting myself to reckon its adhesions, I confess to have been fairly taken by surprise to find it lying in close connection with the custom of the husband's residence in the wife's family, the two coinciding twenty-two times, where accident might fairly have given eleven. It proved to be still more closely attached to the practice of ceremonial avoidance by the husband of the wife's relatives, occurring fourteen times, where accident might have given four. The combination is shown on the diagram, fig. 1, the (approximate) numbers on which give the means of estimating the probable closeness of causal connection. Were the three customs so distantly connected as to be practically independent, the product of the corresponding fractions

$\frac{132}{350} \times \frac{53}{350} \times \frac{31}{350}$, multiplied into the three hundred and fifty peoples would show that their concurrence might be expected to happen between once and twice in the list of peoples of the world. In fact it is found eleven times. Thus, we have their common causation vouched for by the heavy odds of six to one. Many of the firmest beliefs of mankind rest, I fear, on a less solid basis. In tracing out the origin of the group of customs in conformity with these conditions, it is not necessary to invent a hypothesis, as an account of the proceedings of the Cree Indians will serve as a "luminous instance" to clear up the whole situation. Among these Indians the young husband, coming to live with his wife's parents, must turn his back on

Fig. 1.



them, not speaking to them (especially not to his mother-in-law), being thus treated as a stranger till his first child is born ; whereupon he takes its name, and is called "father of So-and-so," and thenceforth attaches himself to his parents-in-law rather than to his own parents. That is to say, he is ceremonially treated as a stranger till his child, being born a member of the family, gives him a status as father of a member of the family, whereupon they consistently leave off the farce of not recognising him. When I brought this argument to the knowledge of Dr. G. A. Wilken, of Leyden, he pointed out to me that in his series of papers on "Primitive Forms of Marriage,"¹ where he

¹ G. A. Wilken, "Over de primitieve vormen van het huwelijk, &c.," in "Indische Gids," 1880, &c.

gives instances of the naming of fathers from children, he had stated this practice to be an assertion of paternity. Undoubtedly it is so on the father's part, and its being so is quite compatible with its being a recognition of him by the wife's kinsfolk, the two aspects belonging to one social fact.

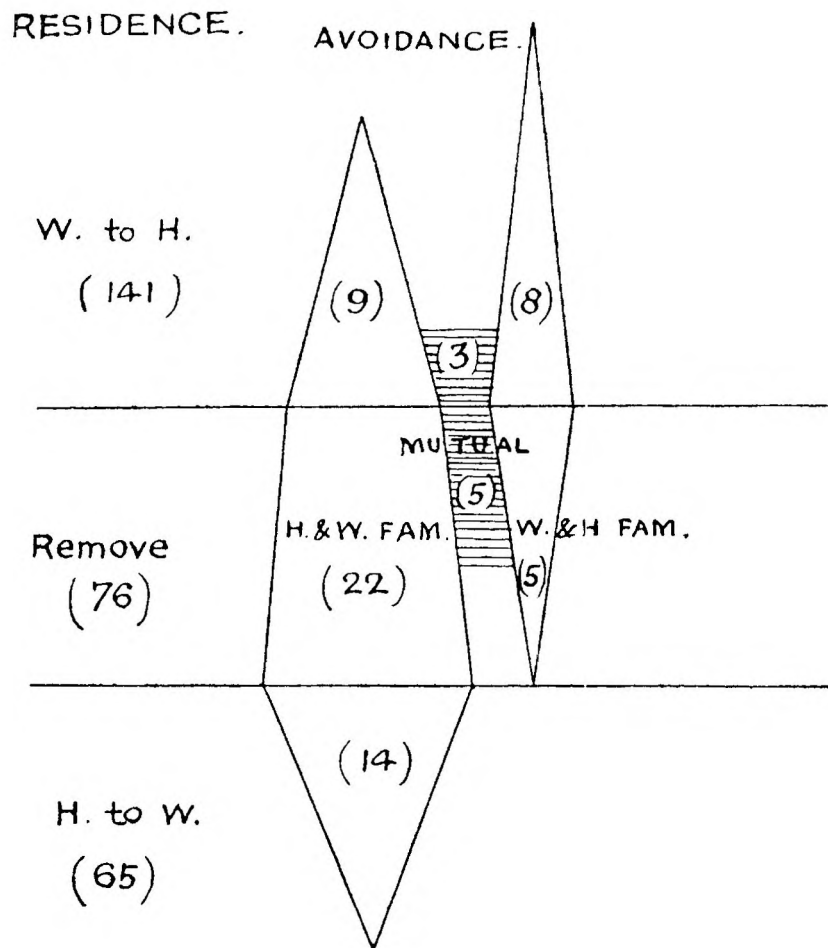
Taking the connection between residence and ceremonial avoidance to be substantiated by their relative adhesions, it is necessary to notice that there are cases where the husband, although he carries the wife away from the home of her parents, nevertheless goes through the form of avoiding them. This, under the circumstances, seems a motiveless proceeding, but is intelligible as a survival from a time when he would have lived with them. These cases belong mainly to the Malay District and to Australia. In the Malay District the habit of residence in the wife's family is still a notable institution of the country, though being fast superseded by householding on the Arab and European models. In Australia, the native custom is described as being that the husband takes his wife to his own home, while at the same time he carries out the etiquette of cutting his mother-in-law to a ludicrous extreme, with slight traces of the avoidance of the father-in-law. It appeared to me that on the present explanation this must indicate a recent habit of residence on the wife's side, and reference showed a law of the Kurnai tribe of Gippsland,¹ that when a native kills game, certain parts of the meat (of a kangaroo, the head, neck, and part of the back) are the allotted share of the wife's parents. As the duty of supplying game to the wife's household when the husband lives there is one of the best-marked points of matriarchal law, I wrote to Mr. Howitt, as the leading authority on Australian anthropology, suggesting that further enquiry would probably disclose evidence hitherto unnoticed as to the maternal stage of society subsisting in Australia. After examination made, Mr. Howitt replied :—"I am now satisfied that your surmises are quite correct," and therewith he sent details bearing on the question, especially an account by Mr. Aldridge, of Maryborough, Queensland, as to the practice of the tribes in his neighbourhood. This I will quote, as being a strongly marked case of residence on the wife's side. "When a man marries a woman from a distant locality, he goes to her tribelet and identifies himself with her people. This is a rule with very few exceptions. Of course, I speak of them as they were in their wild state. He becomes part of and one of the family. In the event of a war expedition, the daughter's husband acts as a blood-relation, and will fight and kill his own blood-relations if blows are struck by

¹ Fison and Howitt, "Kamilaroi and Kurnai," p. 207.

his wife's relations. I have seen a father and son fighting under these circumstances, and the son would most certainly have killed his father if others had not interfered."

The relative positions of the two groups of customs, residence and avoidance, may now be more completely shown, by the aid of the diagram, fig. 2.

Fig. 2.



Here the space representing residence is divided into three sections, viz., residence on the wife's side ; the transitional stage of removal (where the couple begin married life in the wife's house, but eventually move) ; residence on the husband's side. According to the previous arguments, the ceremonial avoidance between the husband and the wife's family is taken to have arisen within the periods when he and they lived permanently or temporarily in contact, and to have continued by survival

into the period after this co-residence had ceased. There next appear the small group of eight cases of mutual avoidance, at once between the husband and the wife's family, and the wife and the husband's family. These consistently are found in the removal stage, where both kinds of residence meet, surviving into the stage of residence on the husband's side. Avoidance between the wife and the husband's family has the same range, but here the conditions producing it belong to both stages of residence, and there is no question of survival.

From this distribution of the avoidance-customs, it appears that in the parts of the world open to the present inspection, the three stages of residence have tended to succeed one another in the upward order of the diagram. Residence on the wife's side appears earliest, after this the removal stage, and latest, residence on the husband's side. For if it be supposed that the course of society was in the reverse direction, as would be represented by turning the diagram upside down, avoidance between the husband and the wife's family would be represented as arising in the stage when the husband lived away from it, while avoidance between the wife and the husband's family, which ought on this supposition to continue by survival into the stage of residence on the wife's side, is not found there. The avoidance-customs, though practically so trifling, are thus signals showing the direction of a movement, of which we shall more fully see the importance, namely, the shifting of habitual residence from the wife's family to the husband's.

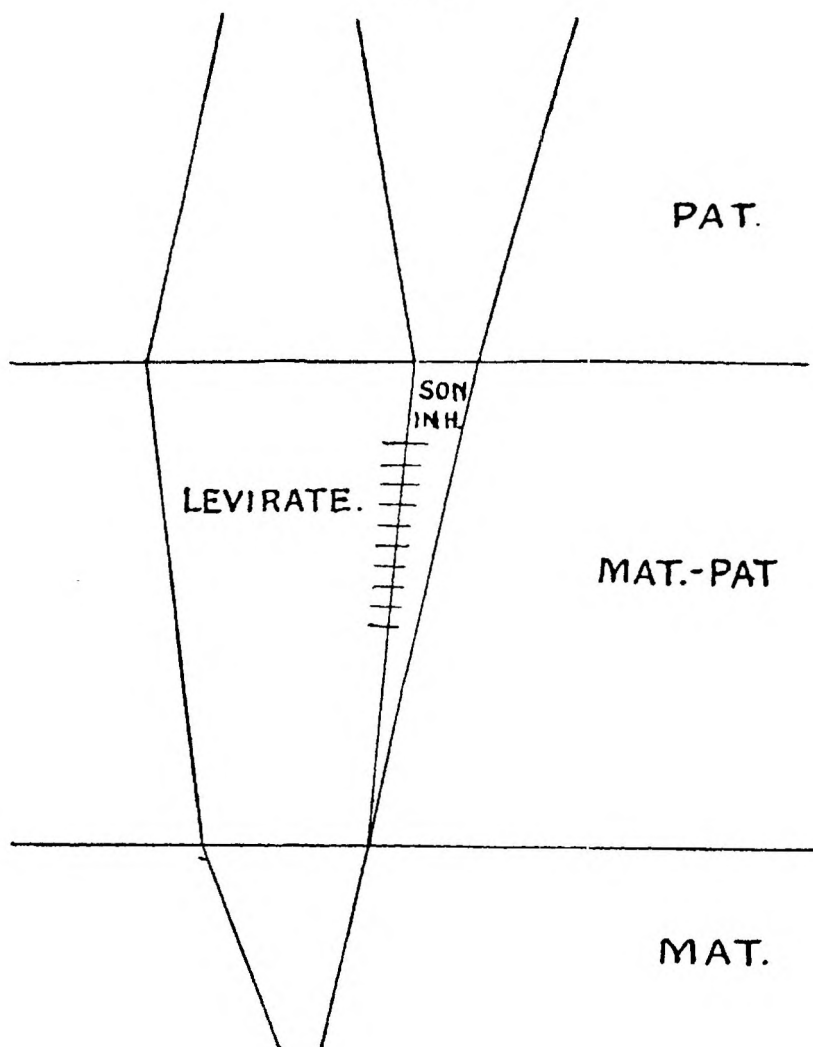
Let us now proceed to apply a similar method to the investigation of the great division of society into matriarchal and patriarchal. In the matriarchal system, descent in the family or clan is reckoned from the mother; authority is mainly on her side, the mother's brother being habitually guardian of the children; succession to rank and office, and inheritance of property, follow the same line passing to the brother or to the sister's son. In the patriarchal system descent is from the father; he has the power over wife and children; succession and inheritance are from him to his offspring. Between these extreme stages lies an intermediate or transitional stage in which their characteristics are variously combined. The terms patriarchal and matriarchal not being quite appropriate, I shall use in preference for the three stages the terms maternal, maternal-paternal, and paternal. The classification is necessarily somewhat vague, but I think will be found to have sufficient precision for the problem of determining the direction in which mankind has tended to move from one of the stages to another. In dealing with this problem certain customs relating to marriage law will be used as indicators.

Among a large proportion of the nations of the world up to the middle levels of culture, the re-marriage of widows is arranged, and more or less enforced, but the regulations are framed on two distinct principles. On the first principle the widow becomes the wife of her husband's brother, or near kinsman, according to some recognized order of precedence of claim. The word "levirate," from *levir* = husband's brother, has become the accepted term for this institution, but its sense must in most cases be extended to take in a series of kinsmen, among whom the brother-in-law only ranks first. Unfortunately, it has seldom been thought worth while to ascertain this precise order, which might throw light on family structure, as in an account drawn up by Mr. Howitt of the practice in Australian tribes where any man is eligible to succeed to the widow, if he stands in the relation of elder or younger brother to the deceased, beginning with actual brothers on the male or female side, according to the rule of descent in the tribe, and extending to tribal brothers who are in our terminology cousins, more or less near. The levirate appears in its various forms among one hundred and twenty peoples in my list, or about one in three in the world. On taking out its adhesions it seems sufficiently accounted for as a custom of substitution, belonging to the period when marriage is a compact not so much between two individuals as between two families, often made when the couple are infants unable to understand it, in fact sometimes before their birth. That the levirate forms part of this family transaction is consistent with other customs more or less associated with it, viz., that when a wife dies or turns out ill her family are bound to replace her by another, a rule which sometimes even holds for betrothal, and that the widow is not allowed to marry out of her husband's family unless by leave of his kinsmen, who have the choice of keeping her, or parting with her, usually for a price. The social distribution of the levirate is shown in fig. 3 to extend through all three social stages. It is in the maternal-paternal stage that it comes into competition with the second principle, unknown in the maternal stage, in which the father's widows pass by inheritance to his sons, especially the eldest son taking his stepmothers. A small but important group of cases forms a bridge between the two principles of levirate and filial succession, combining both in the same nation. This combination is well shown in Africa, where on a chief's death the head wife will pass by levirate to his brother, while her son, the new chief, will inherit a crowd of stepmothers, a less onerous legacy indeed than may seem, as they are practically slaves who hoe and grind corn for their own living. Looking at the distribution of these groups of customs,

it is seen to be only compatible with the view that the paternal rule followed the maternal, bringing with it even while its prevalence was but partial, the principle of paternal widow-inheritance.

The quaint custom of the *couvade* has now to be considered

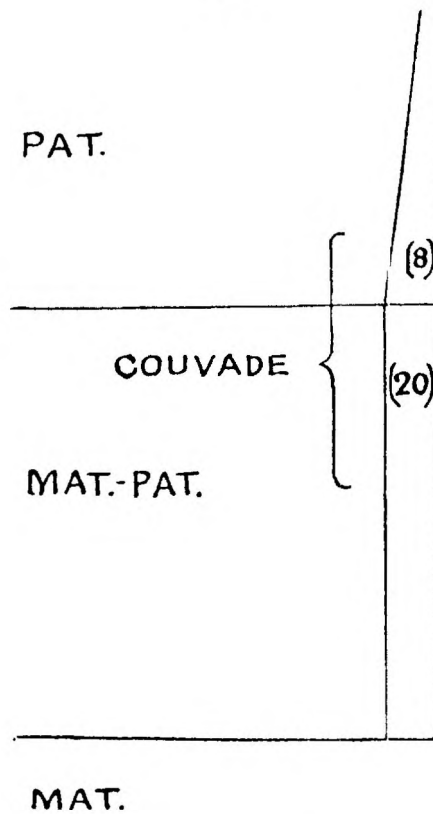
Fig. 3.



from the same point of view. In this the father, on the birth of his child, makes a ceremonial pretence of being the mother, being nursed and taken care of, and performing other rites such as fasting and abstaining from certain kinds of food or occupation, lest the new-born should suffer thereby. This custom is known in the four quarters of the globe. How sincerely it is still accepted appears in a story of Mr. Im Thurn, who on a

forest journey in British Guiana noticed that one of his Indians refused to help to haul the canoes, and on enquiry found that the man's objection was that a child must have been born to him at home about this time, and he must not exert himself so as to hurt the infant. In the Mediterranean district it is not only mentioned by ancient writers, but in Spain and France, in or near the Basque country, it went on into modern times ; Zamacola, in 1818, mentions, as but a little time ago, that the mother used to get up and the father take the child to bed. Knowing the tenacity of these customs, I should not be surprised

Fig. 4.



if traces of couvade might be found in that district still. Now examining the distribution of the couvade by the diagram, Fig. 4, we see that this farcical proceeding does not appear in the maternal stage, but arising in the maternal-paternal, at once takes its strongest development of twenty cases ; in the paternal the number falls to eight cases, leading to the inference that here it is only kept up in dwindling survival.

Looking at this position, I must now argue that the original interpretation of the couvade given by Bachofen in his great

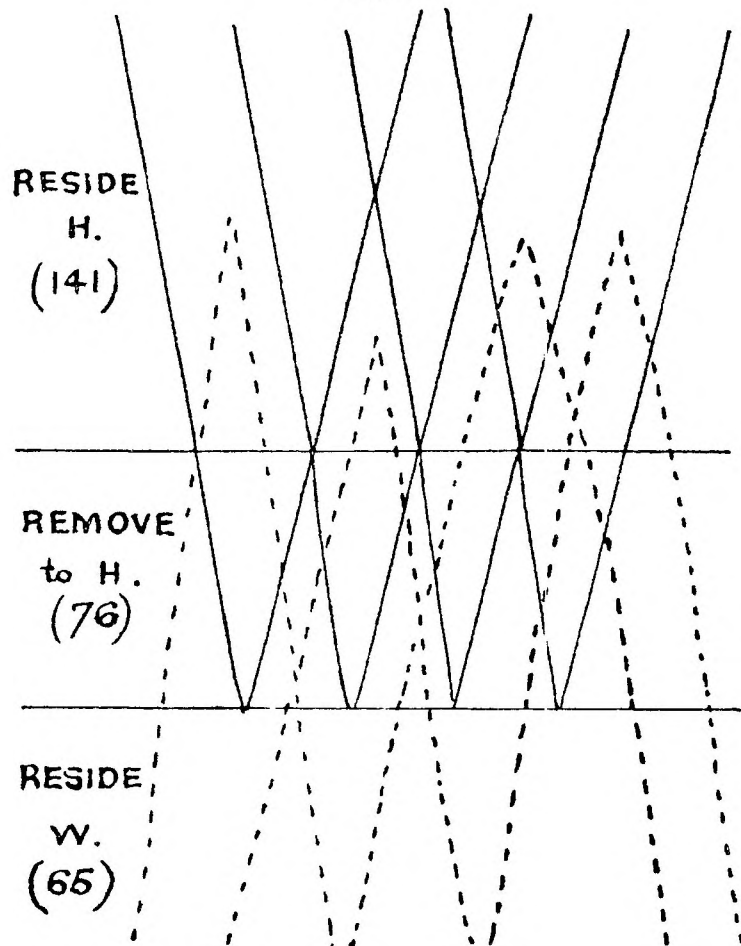
treatise¹ in 1861, and supported by Giraud-Teulon, fits substantially with the facts, and is justified by them. He takes it to belong to the turning-point of society when the tie of parentage, till then recognised in maternity, was extended to take in paternity, this being done by the fiction of representing the father as a second mother. He compares the *couvade* with the symbolic pretences of birth which in the classical world were performed as rites of adoption. To his significant examples may be added the fact that among certain tribes the *couvade* is the legal form by which the father recognizes a child as his. Thus this apparently absurd custom, which for twenty centuries has been the laughing-stock of mankind, proves to be not merely incidentally an indicator of the tendency of society from maternal to paternal, but the very sign and record of that vast change.

The distribution of customs in figs. 3 and 4 is only compatible with a tendency of society to pass from the maternal to the paternal systems, the maternal being placed as earliest from the absence of survivals from other stages extending into it, as they freely do into the paternal, which is therefore placed as latest. The argument is a geological one. Just as the forms of life, and even the actual fossils of the Carboniferous formation, may be traced on into the Permian, but Permian types and fossils are absent from the Carboniferous strata formed before they came into existence, so here widow-inheritance and *couvade*, which, if the maternal system had been later than the paternal, would have lasted on into it, prove by their absence the priority of the maternal. Thus the present method confirms on an enlarged and firm basis the inference as to the antiquity of the maternal system arrived at by the pioneers of the investigation, Bachofen and McLennan, and supported by the later research of a generation of able investigators—Morgan, Lubbock, Bastian, Giraud-Teulon, Fison, Howitt, Wilken, Post, Lippert, and others. By this it is not, however, meant to imply that the maternal form of family as here set forth represents the primitive condition of mankind, but that it is a stage through

¹ J. J. Bachofen, "Das Mutterrecht," pp. 17, 255; Giraud-Teulon, "Les Origines du Mariage," p. 138. In my account of the *couvade*, "Early History of Mankind," Chap. x, I have laid stress on the magical-sympathetic nature of a large class of *couvade* rites as implying a physical bond between parent and child; thus an Abipone would not take snuff lest his sneezing might hurt his newborn baby, and a Carib father must abstain from eating sea-cow lest his infant should get little round eyes like it. This motive, which is explicitly or implicitly recognised by the savages themselves, certainly forms part of the explanation of the *couvade*. It is, however, secondary, being due to the connexion considered as subsisting between parent and child, so that these sympathetic prohibitions may be interpreted as originally practised by the mother only, and afterwards adopted by the father also.

which the inhabitants of a great part of the world now in the paternal appear to have passed, and which still continues in force over considerable tracts of every part of the globe except Europe. It seems probable that this maternal system arose out of an earlier and less organised and regulated condition of human life. As to this problem, however, though the present schedules are not devoid of information, I have not been able

Fig. 5.



to bring the general evidence into shape sufficiently to justify my offering a theory here.

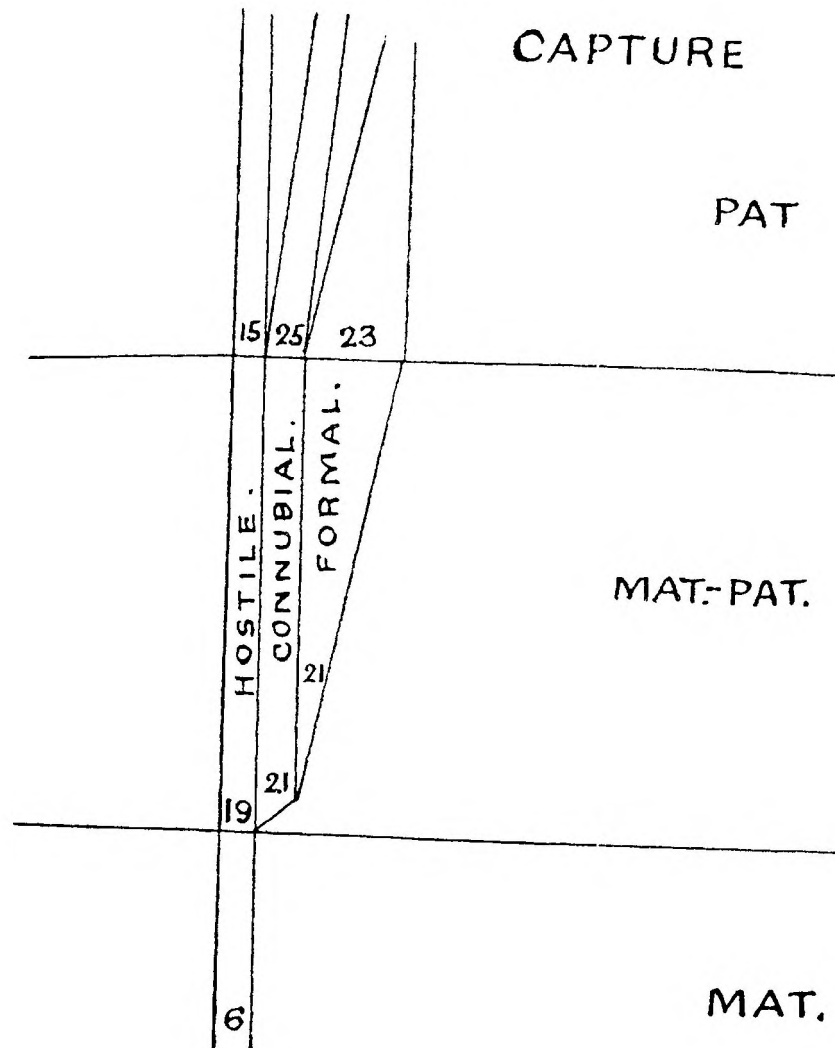
The analogy has already come into view between the division of society according to residence, and according to the maternal and paternal systems. This relation, the reality of which is evident from mere consideration of the difference as to family life which must ensue from the husband living in the wife's house or the wife living in the husband's, may be corroborated

from the schedules. Thus the number of coincidences between peoples where the husband lives with the wife's family and where the maternal system prevails, is naturally large in proportion, while the full maternal system as naturally never appears among peoples whose exclusive custom is for the husband to take his wife to his own home. But as I have pointed out, the maternal and paternal systems are not each a definite institution, but combinations in which more or less strictly the authority, descent, succession, inheritance follow the female or the male side. The imperfection of my schedules makes it desirable for me to postpone an attempt to work out numerically the intricate problem of the mutual relations of these social rules till more perfect data are accessible. I have made, however, a rough sketch illustrative of the hypothesis suggested by the diagrams figs. 3 and 4, namely that in the one simple fact of residence we may seek the main determining cause of the several usages which combine to form a maternal or paternal system. This sketch, fig. 5, is meant to suggest the social movement which the schedules seem to imply. Division according to residence on the female or male side is taken as the fundamental fact, and the lines show the institutions of female descent, avuncular authority, &c., arising in the stage of residence on the female side, and extending into the stages of removal and residence on the male side. Within these two latter stages it is that male descent, paternal authority, &c., arise and extend onward in history. This direction is indeed consistent with what our own knowledge of human nature would lead us to expect. We can well understand how when the man lives in his wife's family his power will count for little against the combined authority of her maternal uncles and brothers, whereas when he takes her to his own home, he is apt to become master of the household; and we should expect the rules of descent, succession, and inheritance to follow the same order. Actual record of such transition is very rare, but at any rate one observer, the Hon. J. W. Powell, of the Bureau of Ethnology at Washington, has had both the opportunity to see and the skill to see what he was seeing, with the result of convincing himself that the transition from maternal to paternal society has in great measure depended on residence. I quote a passage of a letter from him:—"It would seem from such opportunities as I have had to collect facts in the field that hunting and other parties are frequently organised in such a manner that the male members of a clan group proceed together in company with their wives and children. Under such circumstances the control of the family necessarily falls into the hands of the husbands and fathers." This happens among the Pueblo Indians, a matriarchal

people with female descent, whose clans, in consequence of the scarcity of water for irrigation in their desert region, are obliged to separate widely for the cultivation of lands at a distance from the central Pueblo. The result is that the control of families and the training of children are temporarily taken out of the hands of their own kin on the mother's side, and with the acquisition of cattle in these new homes comes the tendency to settle there permanently. Observation of these facts led Major Powell to adopt the hypothesis that clanship by female descent passed in this way into clanship by male descent: by the segregation of clans for industrial purposes.

The next diagram, fig. 6, throws more light on the great social transformation. It shows the distribution of the practice

Fig. 6.



of marriage by capture. When the accounts of national custom are classified they show that capture (which belongs to over one hundred of the peoples scheduled) can be more or less accurately divided into three kinds:—Hostile capture, when warriors of one tribe bring away as captives women of another tribe is a feat of arms praised in history short of the highest levels of culture. There were fierce Indians of the Pampas who held that their god, the Great Eagle, told them to live by making war on all other tribes, slaying their men and carrying off their women and children. The same spirit is heard in the hopes of Sisera's host to divide the spoil, to every man a damsel or two. Looking at hostile capture from the anthropological point of view, we have to notice that it exists equally through the three stages of society, from maternal to paternal. Now it obviously conflicts with full matriarchal institutions that a man should bring in a captive wife, for he cannot take her home to his mother-in-law. To understand such a custom appearing within the range of matriarchy at all, we must remember that a captive has no rights, so that what happens to her does not immediately affect the regular custom of the tribe, which applies to native free women. Yet even here the tendency of capture must always have been to upset the maternal arrangements. When capture comes to be an accepted mode of marriage between or among tribes or clans who live at peace and habitually intermarry, it is evident that such "connubial capture," as it is described on the diagram, can only consist with the paternal system, inasmuch as the husband necessarily carries the wife to his own home, thereby setting on foot a paternal household. This is true also of the cases where the capture has become a merely formal ceremony, accompanying a marriage settled beforehand, for the very form of capture involves the bridegroom coming with his friends to carry the bride to his home. This is the interpretation of the fact, made evident in the diagram, that connubial and formal capture belong only to the intermediate stage where paternal institutions are arising, and to the later stage where they are fully established. The effect of capture in breaking up the maternal system, and substituting the paternal for it, has thus to be taken into account as a serious factor in social development. There is at least one region of the world where the operation may be seen going on at this day—the Malay Islands. To quote the concise description by Riedel of the matrimonial arrangements of the Babar Archipelago:—"The men follow the women, and live in their houses. The children also belong to the wife's family. If a man is rich enough he may marry seven wives, who all remain in the houses of their parents. A man who has many wives is

respected. The robbery of a wife from another clan (*negari*) is an honour, and the children follow the father, with or without payment of the fine attached to the deed. Smaller or weaker clans even demand no fine."¹ In the Kisar and Wetar island groups a like state of things appears, the maternal system being the recognised rule, but always liable to pass into the paternal system by capture, which brings wife and children into the husband's hands.

At this point it will be convenient to examine two institutions of early marriage law, namely, exogamy and classificatory relationship. The principle of exogamy was brought prominently into view fifty years ago, by Sir George Grey,² when he described the native Australian rule for a man not to marry a woman of the same family name or bearing the same animal-crest or kobong as himself; and called attention to the coincidence of this with the North American system of clans named from totem animals, a man being bound to marry outside his own totem or clan. Mr. J. F. McLennan³ gave these customs the name of exogamy or "marrying-out," and showed them to belong to "a most widely prevailing principle of marriage law among primitive races." Much information has since then come in, with the result of showing that exogamy has hardly to do with the capture of wives in war between alien nations, but rather with the regulation of marriages within groups of clans or tribes who have connubium; such clans or tribes may be more or less at strife, but they acknowledge ties of kindred and are usually allied by language. It is now also understood that a people may at once practice endogamy or "marrying-in" within its borders, and exogamy or "marrying-out" of its clans with one another. The situation may be understood among the Hindus, where a man must marry in his caste, but within that caste must not marry in his own gotra or clan. The effect of an exogamic rule is similar whether clan-ship follows the female or male line of descent. Next, as to the principle of classificatory relationship, an early mention of this is by Father Lafitau,⁴ above one hundred and fifty years ago, who states that "among the Iroquois and Hurons all the children of a cabin regard all their mother's sisters as their mothers, and all their mother's brothers as their uncles, and for the same reason they give the name of fathers to all their

¹ Riedel, "De Sluik- en Kroesharige Rassen tusschen Selebes en Papua," p. 351; see 415, 448.

² Grey, "Journals of Two Expeditions in N.W. and W. Australia," Vol. II, p. 225.

³ J. F. McLennan, "Primitive Marriage," pp. 48, 130.

⁴ Lafitau, "Mœurs des Sauvages Américains," Paris, 1724, Vol. I, p. 552.

father's brothers, and aunts to all their father's sisters. All the children on the side of the mother and her sisters, and of the father and his brothers, regard each other mutually as brothers and sisters, but as regards the children of their uncles and aunts, that is, of their mother's brothers and father's sisters, they only treat them on the footing of cousins. . . . In the third generation this changes, the great uncles and great aunts become again grandfathers and grandmothers of the children of those whom they called nephews and nieces. This continues always in the descending line according to the same rule." In our own time, Lewis H. Morgan, living among the Iroquois as an adopted Indian, was struck with this system of relationships, so unlike what he had been brought up among, and which he at first thought to be a peculiar invention of his Iroquois. But finding, on enquiry, that it extended to other North American tribes, he eventually by circulating interrogatories succeeded in collecting a great series of systems of relationship, in which he established the wide prevalence of classificatory systems, as he called them from the relatives being grouped in classes.¹ Under the term classificatory systems, Mr. Morgan included not only those approximating to the Iroquois type, but a much simpler and ruder plan prevalent in Polynesia; it is, however, convenient for me to confine my remarks here to the former group only. This system, as found among the American Indians, Mr. Morgan showed to be closely analogous to that of the Dravidian nations of Southern Hindustan. This latter is a well-known source of perplexity to a newly appointed English civilian, who may be told by a witness that his father was sitting in the house, but presently the same witness mentions his father as coming in from the field; the native is sharply reprovèd by the judge for contradicting himself, whereupon he explains, it was my "little father," by which he means his father's younger brother.

I am placing together the two institutions, exogamy and classificatory relationship, inasmuch as they are really connected, being in fact two sides of one institution. This was made out eight years ago, by the Rev. Lorimer Fison, in the work on the Kamilaroi and Kurnai tribes of Australia by him and Mr. Howitt.² This important explanation is still scarcely known to anthropologists, nor indeed, have I much right to reproach others with neglecting it, for I reviewed Fison and Howitt's book without distinctly realising the bearing of this argument on the theory of exogamy, which only came round to

¹ L. H. Morgan, "Systems of Consanguinity and Affinity of the Human Family" (Smithsonian Contributions, 1871).

² Fison and Howitt, "Kamilaroi and Kurnai," 1880, p. 76.

me lately in a way which I had better now describe, as it will enable me to explain shortly and plainly the whole problem. In tabulating the nations of the world, I found a group of twenty-one peoples whose custom as to the marriage of first cousins seemed remarkable ; it is that the children of two brothers may not marry, nor the children of two sisters, but the child of the brother may marry the child of the sister. It seemed obvious that this "cross-cousin marriage," as it may be called, must be the direct result of the simplest form of exogamy, where a population is divided into two classes or sections, with the law that a man who belongs to Class A can only take a wife of Class B. Such a division, for instance, is familiar in Melanesia. Dr. R. H. Codrington describes it in the Banks Islands, where the natives have two families, called *veve* = mother, which implies that descent follows the mother's side, and a man must marry a wife of the other mother from himself, or as they say, not on his own side of the house but on the other. Thus, taking A, *a*, B, *b*, as males and females of the class A and B, and bearing in mind that the mother's children are of her class, but the father's children of the opposite class to his, we have :—

Fig. 7.

Two sisters, <i>a, a</i> , their ⋮ ⋮ Children, <i>A, a</i> , are of same class = tribal brother and sister = unmarriageable.	Two brothers, <i>A, A</i> , their ⋮ ⋮ Children <i>B, b</i> , are of same class = tribal brother and sister = unmarriageable.	Brother and sister, <i>A, a</i> , their ⋮ ⋮ Children <i>B, a</i> , are of different class = tribal cousins = marriageable.
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Having come to this point, it seemed to me that I had seen something like it elsewhere, and on looking back to "Kamilaroi and Kurnai" I found that Fison had thus worked out the origin of the Turanian classificatory system, as Morgan calls that including the above-mentioned systems of North America and India, with others. Fig. 8 puts concisely the main features of the argument as to a man's kin.

Fig. 8.

His
 father's brother's child }
 or
 mother's sister's child } is (tribal) brother or sister,

Therefore

father's brother is (tribal) father,
 mother's sister is (tribal) mother,

His

father's sister's child
 or
 mother's brother's child } is tribal (cousin).

Therefore

father's sister is (tribal) aunt,
 mother's brother is (tribal) uncle.

Though not proposing to enter fully into the deduction of classificatory relationships in all their varieties from the rule of exogamy, it is necessary to point out that the form of exogamy here contemplated is the simplest or dual form, in which a people is divided into two intermarrying classes. Systems of exogamy which are dual in their nature, that is, consisting of two classes or groups of classes, stand in direct connection with cross-cousin marriage and classificatory relationship. But if the number of exogamic divisions is not dual, if there are for instance three clans, and a man of one clan may take a wife of either of the other two clans, it is readily seen that the argument of fig. 7 breaks down. Although at present only prepared to deal with exogamy and classificatory relationship in their dual form, I may notice that the treatment of the problem by the method of adhesions strengthens the view, not wanting in other evidence, that the dual form of exogamy may be considered the original form. In reckoning from the present schedules the number of peoples who use relationship names more or less corresponding to the classificatory systems here considered, they are found to be fifty-three, and the estimated number of these which might coincide accidentally with exogamy were there no close connexion between them, would be about twelve. But in fact the number of peoples who have both exogamy and classification is thirty-three, this strong coincidence being the measure of the close causal connexion subsisting between the two institutions. The adherence is even stronger as to cross-cousin marriage, of which twenty-one cases appear in the schedules, no less than fifteen of the peoples practising it being also known as exogamous. Here, indeed, the relation is not one of derivation, but of identity, the cross-cousin rule being actually a partial form or imperfect statement of the law of exogamy itself. Such adhesions between two or more customs have been already recognised as proving the existence of causal connexion, but it has now to be pointed out that they serve another purpose. The

connexion, when proved, reacts on the evidence by which it was proved. When once it has been shown that cross-cousin marriage is part and parcel of exogamy, it may be argued that all the twenty-one peoples practising cross-cousin marriage are to be set down as exogamous. Now as only fifteen of them are expressly recorded to be so, the list of exogamous nations of the world has to be increased by six. So, classificatory relationship being evidence that the peoples practising it are or have been exogamous, this will add some twenty more to the list of nations among whom further investigation will probably disclose record that exogamic society once prevailed or still prevails. Even if no direct record is forthcoming, the indirect proof may with due caution be sufficient for placing them in the exogamous group, which may thus number above one hundred peoples out of the three hundred and fifty of the world. Those who remember the sharp discussion between McLennan and Morgan years ago, and the view that the classificatory relationships were a mere system of addresses, will be struck with the way in which the controversy is likely to end. For myself I hardly know whether I feel more glad or sorry that my old friend McLennan to the day of his death never knew that Morgan and he, who believed themselves adversaries, were all the while allies pushing forward the same doctrine from different sides.

It thus appears that the number of nations who have the system of intermarrying clans is larger than has been known. But even this by no means measures the full importance of exogamy as a factor in the constitution of society. Anthropologists have long had before them the problem of determining how far clan-exogamy may have been the origin of the prohibited degrees in matrimony so variously defined in the laws of nations. The yet larger problem has been opened, how far laws of permission and prohibition of marriage may have led nations to define relationships and give them names, distinguishing for instance uncles from fathers, and cousins from brothers. It may, I think, conduce to the solution of these problems to notice two ways in which the collation of the present tables bears on the meaning and origin of exogamy.

There are conditions of society under which exogamy is found side by side with wife-capture, so that a barbaric marriage often involves both in one and the same act, as when a Tatar and a party of his friends, all armed to the teeth, ride off to the tents of a distant clan, and thence with simulated or even real violence carry off a bride. But on reckoning up the peoples among whom this combination of capture and exogamy is found, the number, though enough to show that they co-exist freely, falls short of what would justify the inference that they are cause and effect.

Moreover, it appears that this co-existence belongs especially to the paternal stage of society, and to the maternal-paternal, in which paternal influence is partly established. This is intelligible enough from what has been already said as to the effect of capture in setting on foot paternal institutions, from its very outset, by bringing the wife into the husband's hands and home. We are thus led to a more fundamental test of the position of exogamy, by enquiring whether it existed in that earliest known stage of the maternal system of society, where the husband lives in the wife's family. The schedules show that there are in different parts of the world twelve or thirteen well-marked exogamous peoples whose habit of residence is for the husband to join the wife's family.¹ This state of things seems to me to prevent our regarding exogamy as a result of capture, it being plain that the warrior who has carried a wife captive from a hostile tribe does not take up his abode in her family. If capture leads to any form of exogamy, this must, I think, be a paternal form, and if it be admitted that the maternal form is earlier, then it follows that capture is inadmissible as the primary cause of exogamy.

More than twenty years ago, in compiling a list of nations practising this custom of marrying out of the tribe or kin, I noticed that in any full discussion of the subject would have to be considered the wish to bind different tribes together in friendship by intermarriage.² Compiling the present tables has brought together observations to this effect. Morgan, describing how the alliance of the Iroquois tribes, made up of intermarrying clans, formed a bond of union throughout the national league, writes: "It was the boast of the Iroquois that the great object of their confederacy was peace; to break up the spirit of perpetual warfare, which had wasted the red race from age to age."³ Another group of North American tribes, the Tinneh, on the Arctic circle, are divided into three castes, their rule being that, for instance, a Chit-sangh may not marry a Chit-sangh. When this does take place, the persons are ridiculed and laughed at, the man is said to have married his sister, even though she may be from another tribe, and there be not the slightest connection by blood between them. Hardisty, who gives these details, remarks:—"One good thing proceeded from the above arrangement, it prevented war between two tribes who were naturally hostile."⁴ The Bogos of Abyssinia are exogamous, and of

¹ Kasia, Garo, Menangkabau and Padang, Banks Islands, Mortlock Islands, Chiroki, Delaware, Iroquois, Mandan and Minitari, Moqui, Tlinkit, Arawak.

² "Early History of Mankind," p. 286.

³ Morgan, "League of the Iroquois," p. 91.

⁴ "Smithsonian Report," 1866, p. 315.

them Munzinger reports that they are closely bound together by reciprocal marriages, "so that internal war is almost impossible. Blood-quarrels among the Bogos are always settled very quickly, whilst the smallest collision with the adjoining tribes leads to everlasting wars."¹ Du Chaillu writes of Ashango-land, "tribes and clans intermarry with each other and this brings about a friendly feeling among the people. People of the same clan cannot intermarry with each other."² Thus, it seems that when Plutarch asks in the "Roman Questions," "Why do they not marry women near of kin?" he has some reason in setting down as one possible answer, "Whether from their wishing to increase friendships by marriages, and to acquire many kinsfolk, giving wives to others and receiving (wives) from them."³

On looking at the distinction between endogamy and exogamy from this point of view, it will be seen that there is a period in the growth of society when it is a political question of the first importance. While the vast forest or prairie still affords abundant food for a scanty population, small hordes may wander, or groups of households may be set up, each little tribe or settlement cut off from the rest, and marrying within its own border. But when tribes begin to adjoin and press on one another and quarrel, then the difference between marrying-in and marrying-out becomes patent. Endogamy is a policy of isolation, cutting off a horde or village, even from the parent-stock whence it separated, if only a generation or two back. Among tribes of low culture there is but one means known of keeping up permanent alliance, and that means is intermarriage. Exogamy, enabling a growing tribe to keep itself compact by constant unions between its spreading clans, enables it to overmatch any number of small intermarrying groups, isolated and helpless. Again and again in the world's history, savage tribes must have had plainly before their minds the simple practical alternative between marrying-out and being killed out. Even far on in culture, the political value of intermarriage remains. "Matrimonial alliances increase friendship more than aught else," is a maxim of Mohammed. "Then will we give our daughters unto you, and we will take your daughters to us, and we will dwell with you, and we will become one people," is a well known passage of Israelite history.

Exogamy lies far back in the history of man, and perhaps no observer has ever seen it come into existence, nor have the precise conditions of its origin yet been clearly inferred. Even the

¹ Munzinger, "Sitten und Recht der Bogos," p. 10.

² Du Chaillu, "Journey to Ashango-land," p. 427.

³ "Plutarch, Quæst. Rom.," cviii.

historical relation between exogamy and the system of classes known as totemism is not fully cleared up; whether as Prof. Robertson Smith takes it,¹ totemism supplied the necessary machinery for working a law of exogamy, or whether exogamy itself led to totemism. But as to the law of exogamy itself, the evidence shows it in operation over a great part of the human race as a factor of political prosperity. It cannot be claimed as absolutely preventing strife and bloodshed, indeed, it has been remarked of some peoples, such as the Khonds and the Banks Islanders, that the intermarrying clans do nevertheless quarrel and fight. Still by binding together a whole community with ties of kinship and affinity, and especially by the peacemaking of the women who hold to one clan as sisters and to another as wives, it tends to keep down feuds and to heal them when they arise, so as at critical moments to hold together a tribe which under endogamous conditions would have split up. Exogamy thus shows itself as an institution which resists the tendency of uncultured populations to disintegrate, cementing them into nations capable of living together in peace and holding together in war, till they reach the period of higher military and political organisation. Seen from this point of view, the remarkable fact is more easily understood that exogamy, passing on from the maternal to the paternal stage of society, shifts its prohibitions from the female to the male line of descent, now allowing marriages which it treated formerly as incestuous, while prohibiting others which it formerly allowed without scruple. This transformation has been taking place within recent times among Malay and American tribes, and seems to be even going on still, it making no difference politically whether kinship follows the female or male line, if only marrying-out causes the requisite intermixture of the clans. In this connexion it is worth while to notice that there are a small number of peoples in different parts of the world, who have a rule of exogamy not depending on kinship at all. For instance, Piedrahita² relates of the Panches of Bogota, that those of one town did not marry any woman thereof, as all held themselves brothers, and the impediment of kinship was sacred to them, but such was their ignorance that if a sister were born in a different town from her brother, he was not prevented from marrying her. An anthropologist, with the list before him of the peoples who prohibit a man from marrying in his own village, might explain this not as a result of ignorance, but as an extreme case of what may be called "local exogamy."

¹ W. Robertson Smith, "Kinship and Marriage in Early Arabia," p. 184.

² Piedrahita, "Historia General de las Conquistas del Nuevo Reyno de Granada," 1688, page 11.

The results here brought forward make no approach to exhausting the possible inferences to be drawn from the tables. These need not even be confined to working out the development of customs found in existence somewhere on the globe, but may in some measure restore the knowledge of forms of society now extinct. Interesting, however, as these problems are, I am more anxious to bring under discussion the method by which they are here treated, how imperfectly I am well aware. The interpretations offered will have to be corrected, the tabulated material improved in quantity and quality, and the principles it involves brought out more justly, yet at any rate it will remain clear that the rules of human conduct are amenable to classification in compact masses, so as to show by strict numerical treatment their relations to one another. It is only at this point that speculative explanation must begin, at once guided in its course and strictly limited in its range by well-marked lines of fact to which it must conform. The key of the position is, as that veteran anthropologist, Prof. Bastian, of the Berlin Museum, is never weary of repeating, that in statistical investigation the future of anthropology lies. As soon as this is systematically applied, principles of social development become visible. Even the diagrams of this paper may suffice to show that the institutions of man are as distinctly stratified as the earth on which he lives. They succeed each other in series substantially uniform over the globe, independent of what seem the comparatively superficial differences of race and language, but shaped by similar human nature acting through successively changed conditions in savage, barbaric, and civilised life.

The treatment of social phenomena by numerical classification will, it must be added, react on the statistical material to which the method is applied. It is in classifying the records of tribes and nations that one becomes fully aware of their imperfect and even fragmentary state. The descriptions happily tend to correct one another's errors, but the great difficulty is blank want of information. As for extinct tribes, and those whose native culture has been re-modelled, there is nothing to be done. But there are still a hundred or more peoples in the world, among whom a prompt and minute investigation would save some fast vanishing memory of their social laws and customs. The quest might be followed up internationally, each civilised nation taking in hand the barbaric tribes within its purview. The future will, doubtless, be able to take care of itself as to most branches of knowledge, but there is certain work which if it is to be done at all, must be done by the present.

DISCUSSION.

The PRESIDENT felt sure that no one would have appreciated Dr. Tylor's memoir more justly, or would have welcomed it more warmly, than Mr. Herbert Spencer, whose efforts to erect a science of sociology upon an inductive basis were well known. Mr. Spencer, as we all remember, went to great cost, and much exerted himself to obtain a collection of the customs of all available nations, savage and civilised, arranged in an uniform and orderly manner for purposes of intercomparison. The result was the publication of an amount of material that filled four very large folio volumes. Unfortunately he had been obliged to delegate to others the task of compilation, and the work was not carried out as accurately as was desirable, or even as completely, notwithstanding its bulk. Much the same may be said of another and a different collection. Dr. Tylor has, on the contrary, collected a mass of well sorted and highly considered information, by means of a sustained and scholarly investigation, extending over many years, and there could be little doubt that a publication of his compact notes, supplemented it might be by the notes of other anthropologists, would be of itself a most valuable and acceptable work. Dr. Tylor's memoir dealt both with a method and with conclusions; it was of the method only that he (Mr. Galton) would now speak. It consisted in ascertaining the degree in which the concurrence of certain customs was exceptionally frequent. He thought that the degree of interdependence, to which the various degrees of exceptional frequency testified, might with advantage be expressed in terms of a scale, in which 0 represented perfect independence, and 1 complete concurrence. By doing so, the values of the various concurrences would become more clear. As an example of what he meant, he would refer to a scale used in certain psycho-physical inquiries and discussed in Fechner's book, where the true significance of the various percentages of success and failure was tabulated.

It was extremely desirable for the sake of those who may wish to study the evidence for Dr. Tylor's conclusions, that full information should be given as to the degree in which the customs of the tribes and races which are compared together are independent. It might be, that some of the tribes had derived them from a common source, so that they were duplicate copies of the same original. Certainly, in such an investigation as this, each of the observations ought, in the language of statisticians, to be carefully "weighted." It would give a useful idea of the distribution of the several customs and of their relative prevalence in the world, if a map were so marked by shadings and colour as to present a picture of their geographical ranges.

Professor FLOWER remarked upon the great value of Dr. Tylor's paper, congratulating him on the application of a rigid statistical method to a research which had generally been conducted on vague

and uncertain lines. It was, however, perfectly obvious that the value of such a method depended entirely upon the units of comparison being of equivalent value, and this seemed to him to be a very great difficulty when dealing with groups of mankind. He had, however, no doubt that Dr. Tylor had taken every means in his power to eliminate the errors which might arise from this source.

Mr. G. BERTIN, after remarking that this paper would do a great deal to elevate anthropology, said he thought that, if Dr. Tylor had included in his diagrams one illustrating the primitive state of society in which women were the common wives of the clan or tribe, it would explain everything. This state of things still exists in some parts of Tibet, and traces of it are detected in Ancient Egypt and among the primitive Semites. Women were at first considered like other properties, and in the communist stage they used to belong to each and all; when property was divided women were assimilated to landed properties or estates, and the children took the name of their mother, as in feudal countries they took that of their estate. This is really the origin of the so-called matriarchate, in which the mother had, in fact, no power, but gave her name to her child. It is only with progress and civilisation that the position of women was raised till it tends in our modern times to place them on equal footing with men.

SIR G. CAMPBELL agreed with a preceding speaker that the maternal system does not mean the rule of the female, but only that she is used as the family seed-bed. And he would very much like to obtain information on one point in the history of marriage, viz., who invented or how came about the very peculiar system of monogamy, so prevalent among all Aryan races, and under which a man is not only confined to one wife, but tied to her by indissoluble bonds. The maternal system we understand, under which the women of a family are the brood mares of their own family; the patriarchal system we understand, under which a man rules over his wives, slave girls, and children, and exchanges the former for others when he thinks fit. But the sacramental monogamous marriage, by which a man is tied to one wife for ever, (among the Hindoos the wife is tied to him even beyond the grave), that is very peculiar, and he had never seen it accounted for.

Mr. BOUVERIE-PUSEY remarked that Dr. Tylor's views on the origin of exogamy derived confirmation from an old Hungarian law, according to which the Ishmaelites (Tartars converted from Islam) were commanded to give all their daughters in marriage to Hungarians, and to take none but Hungarian wives for their sons, obviously to prevent their continuing to form a separate nationality.

Dr. TYLOR congratulated himself on having been able to place the present method before investigators whose criticism was of such

importance, from their thorough appreciation of the points in which such a method has inherent weakness. With the details as yet in an imperfect state, he found it difficult to bring out the results except as a temporary step, which is, however, on the road to permanent settlement. The difficulty raised by Mr. Galton that some of the concurrences might result from transmission from a common source, so that a single character might be counted several times from its mere duplicates, is a difficulty ever present in such investigations, as for instance in the Malay region, where groups of islands have enough differentiation in their marriage systems to justify their being classed separately, though traces of common origin are at the same time conspicuous. The only way of meeting this objection is to make separate classification depend on well marked differences, and to do this all over the world. With regard to Professor Flower's caution as to the units of comparison, an answer of somewhat the same kind might be given. When a community or group of communities follows a law of marriage and descent substantially similar, this may be taken as a unit, notwithstanding historical connection and the consequent partial correspondence which may exist between it and other unit systems. If this method be fairly and equably worked over the world, the correspondences brought about by historical connexion tend to set off against one another, leaving the results of general human action more or less clear.

Dr. Tylor added that he had collected much material bearing on the great problem raised by Sir George Campbell, but at present without any result sufficiently definite to be brought forward.

NOVEMBER 27TH, 1888.

FRANCIS GALTON, Esq., F.R.S., *President, in the Chair.*

The minutes of the last meeting were read and signed.

The following elections were announced:—Rev. LORIMER A. FISON, of Flemington, Melbourne, Australia, as an honorary member; Mrs. C. A. FRASER, of 10, Craven Hill, Hyde Park; HENRY BALFOUR, Esq., B.A., of the Anthropological Department of the University Museum, Oxford; and H. HAVELOCK ELLIS, Esq., of Earlsbrook Road, Redhill, as ordinary members.

The following presents were announced and thanks voted to the respective donors:—