

I.

RESTRICTIONS IN MARRIAGE

By FRANCIS GALTON, F.R.S., D.C.L., Sc.D.

Read before the Sociological Society, on Tuesday, February 14th, at a meeting in the School of Economics and Political Science (University of London), Clare Market, W.C., Dr. E. WESTERMARCK in the Chair.

It is proposed in the following remarks to meet an objection that has been repeatedly urged against the possible adoption of any system of Eugenics,* namely, that human nature would never brook interference with the freedom of marriage.

In my reply, I shall proceed on the not unreasonable assumption, that when the subject of Eugenics shall be well understood, and when its lofty objects shall have become generally appreciated, they will meet with some recognition both from the religious sense of the people and from its laws. The question to be considered is, how far have marriage restrictions proved effective, when sanctified by the religion of the time, by custom, and by law? I appeal from arm-chair criticism to historical facts.

To this end, a brief history will be given of a few

* Eugenics may be defined as the science which deals with those social agencies that influence, mentally or physically, the racial qualities of future generations.

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widely-spread customs in successive paragraphs. It will be seen that with scant exceptions they are based on social expediency, and not on natural instincts. Each paragraph might have been expanded into a long chapter had that seemed necessary. Those who desire to investigate the subject further can easily do so by referring to standard works in anthropology, among the most useful of which, for the present purpose, are Frazer's *Golden Bough*, Westermarck's *History of Marriage*, Huth's *Marriage of Near Kin*, and Crawley's *Mystic Rose*.

I. MONOGAMY. It is impossible to label mankind by one general term, either as animals who instinctively take a plurality of mates, or who consort with only one, for history suggests the one condition as often as the other. Probably different races, like different individuals, vary considerably in their natural instincts. Polygamy may be understood either as having a plurality of wives; or, as having one principal wife and many secondary but still legitimate wives, or any other recognised but less legitimate connections; in one or other of these forms it is now permitted—by religion, customs, and law—to at least one-half of the population of the world, though its practice may be restricted to a few, on account of cost, domestic peace, and the insufficiency of females. Polygamy holds its ground firmly throughout the Moslem world. It exists throughout India and China in modified forms, and it is entirely in accord with the sentiments both of men and women in the larger part of negro Africa. It was regarded as a matter of course in the early Biblical days. Jacob's twelve children were born of four mothers all living at the same time, namely, Leah, and her sister, Rachel, and their respective handmaids Bilhah and Zilpah. Long afterwards, the Jewish kings emulated the luxurious habits of neighbouring potentates and carried polygamy to an extreme degree. For Solomon, see I. Kings, xi. 3. For his son Rehoboam, see II. Chron., xi. 21. The history of the subsequent practice of the custom among the Jews is obscure, but the Talmud contains no law against polygamy. It must have ceased in Judæa by the time of the Christian Era. It was not then allowed in either Greece or Rome. Polygamy

was unchecked by law in profligate Egypt, but a reactionary and ascetic spirit existed, and some celibate communities were formed in the service of Isis, who seem to have exercised a large though indirect influence in introducing celibacy into the early Christian church. The restriction of marriage to one living wife subsequently became the religion and the law of all Christian nations, though licence has been widely tolerated in royal and other distinguished families, as in those of some of our English kings. Polygamy was openly introduced into Mormonism by Brigham Young, who left seventeen wives, and fifty-six children. He died in 1877; polygamy was suppressed soon after. (*Encyc. Brit.*, xvi. 827.)

It is unnecessary for my present purpose to go further into the voluminous data connected with these marriages in all parts of the world. Enough has been said to show that the prohibition of polygamy, under severe penalties by civil and ecclesiastical law, has been due not to any natural instinct against the practice, but to consideration of social well-being. I conclude that equally strict limitations to freedom of marriage might, under the pressure of worthy motives, be hereafter enacted for Eugenic and other purposes.

2. ENDOGAMY, or the custom of marrying exclusively *within* one's own tribe or caste, has been sanctioned by religion and enforced by law, in all parts of the world, but chiefly in long settled nations where there is wealth to bequeath and where neighbouring communities profess different creeds. The details of this custom, and the severity of its enforcement, have everywhere varied from century to century. It was penal for a Greek to marry a barbarian, for a Roman patrician to marry a plebeian, for a Hindu of one caste to marry one of another caste, and so forth. Similar restrictions have been enforced in multitudes of communities, even under the penalty of death.

A very typical instance of the power of law over the freedom of choice in marriage, and which was by no means confined to Judæa, is that known as the Levirate. It shows that family property and honour were once held by the Jews to dominate over individual preferences. The Mosaic law

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actually *compelled* a man to marry the widow of his brother if he left no male issue. (Deuteron. xxv.) Should the brother refuse, "then shall his brother's wife come unto him in the presence of the elders, and loose his shoe from off his foot, and spit in his face; and she shall answer and say, so shall it be done unto the man that doth not build up his brother's house. And his name shall be called in Israel the house of him that hath his shoe loosed." The form of this custom survives to the present day and is fully described and illustrated under the article "Halizah" (= taking off, untying) in the *Jewish Cyclopaedia*. Jewish widows are now almost invariably remarried with this ceremony. They are, as we might describe it, "given away" by a kinsman of the deceased husband, who puts on a shoe of an orthodox shape which is kept for the purpose, the widow unties the shoe, spits, but now on the *ground*, and repeats the specified words.

The duties attached to family property led to the history, which is very strange to the ideas of the present day, of Ruth's advances to Boaz under the advice of her mother. "It came to pass at midnight" that Boaz "was startled (see marginal note in the Revised Version) and turned himself, and beheld a woman lay at his feet," who had come in "softly and uncovered his feet and laid her down." He told her to lie still until the early morning and then to go away. She returned home and told her mother, who said, "Sit still, my daughter, until thou know how the matter will fall, for the man will not rest until he have finished the thing this day." She was right. Boaz took legal steps to disembarass himself of the claims of a still nearer kinsman, who "drew off his shoe"; so Boaz married Ruth. Nothing could be purer, from the point of view of those days, than the history of Ruth. The feelings of the modern social world would be shocked if the same thing were to take place now in England.

Evidence from the various customs relating to endogamy show how choice in marriage may be dictated by religious custom. That is, by a custom founded on a religious view of family property and family descent. Eugenics deal with what is more valuable than money or lands, namely

the heritage of a high character, capable brains, fine physique, and vigour; in short, with all that is most desirable for a family to possess as a birthright. It aims at the evolution and preservation of high races of men, and it as well deserves to be strictly enforced as a religious duty, as the Levirate law ever was.

3. EXOGAMY is, or has been, as widely spread as the opposed rule of endogamy just described. It is the duty enforced by custom, religion, and law, of marrying *outside* one's own clan, and is usually in force amongst small and barbarous communities. Its former distribution is attested by the survival in nearly all countries of ceremonies based on "marriage by capture." The remarkable monograph on this subject by the late Mr. McLennan is of peculiar interest. It was one of the earliest, and perhaps the most successful, of all attempts to decipher pre-historic customs by means of those now existing among barbarians, and by the marks they have left on the traditional practices of civilised nations, including ourselves. Before his time those customs were regarded as foolish, and fitted only for antiquarian trifling. In small fighting communities of barbarians, daughters are a burden; they are usually killed while infants, so there are few women to be found in a tribe who were born in it. It may sometimes happen that the community has been recently formed by warriors who have brought no women, and who, like the Romans in the old story, can only supply themselves by capturing those of neighbouring tribes. The custom of capture grows; it becomes glorified, because each wife is a living trophy of the captor's heroism; so marriage within the tribe comes to be considered an unmanly, and at last a shameful act. The modern instances of this among barbarians are very numerous.

4. AUSTRALIAN MARRIAGES. The following is a brief clue, and apparently a true one, to the complicated marriage restrictions among Australian bushmen, which are enforced by the penalty of death, and which seem to be partly endogamous

in origin and partly otherwise. The example is typical of those of many other tribes that differ in detail.

A and B are two tribal classes; 1 and 2 are two other and independent divisions of the tribe (which are probably by totems). Any person taken at random is equally likely to have either letter or either numeral, and his or her numeral and letter are well known to all the community. Hence the members of the tribe are sub-classed into four sub-divisions, A₁, A₂, B₁, B₂. The rule is that a man may marry those women only whose letter and numeral are both different to his own. Thus, A₁ can marry only B₂, the other three sub-divisions A₁, A₂, and B₁ being absolutely barred to him. As to the children, there is a difference of practice in different parts: in the cases most often described, the child takes its father's letter and its mother's numeral, which determines class by paternal descent. In other cases the arrangement runs in the contrary way, or by maternal descent.

The cogency of this rule is due to custom, religion and law, and is so strong that nearly all Australians would be horrified at the idea of breaking it. If any one dared to do so, he would probably be clubbed to death.

Here then is another restriction to the freedom of marriage which might with equal propriety have been applied to the furtherance of some form of Eugenics.

5. TABOO. The survival of young animals largely depends on their inherent timidity, their keen sensitiveness to warnings of danger by their parents and others, and to their tenacious recollection of them. It is so with human children, who are easily terrified by nurses' tales, and thereby receive more or less durable impressions.

A vast complex of motives can be brought to bear upon the naturally susceptible minds of children, and of uneducated adults who are mentally little more than big children. The constituents of this complex are not sharply distinguishable, but they form a recognisable whole that has not yet received an appropriate name, in which religion, superstition, custom, tradition, law and authority all have part. This group of

motives will for the present purpose be entitled "immaterial," in contrast to material ones. My contention is that the experience of all ages and all nations shows that the immaterial motives are frequently far stronger than the material ones, the relative power of the two being well illustrated by the tyranny of taboo in many instances, called as it is by different names in different places. The facts relating to taboo form a voluminous literature, the full effect of which cannot be conveyed by brief summaries. It shows how, in most parts of the world, acts that are apparently insignificant have been invested with ideal importance, and how the doing of this or that has been followed by outlawry or death, and how the mere terror of having unwittingly broken a taboo may suffice to kill the man who broke it. If non-eugenic unions were prohibited by such taboos, none would take place.

6. **PROHIBITED DEGREES.** The institution of marriage, as now sanctified by religion and safeguarded by law in the more highly civilised nations, may not be ideally perfect, nor may it be universally accepted in future times, but it is the best that has hitherto been devised for the parties primarily concerned, for their children, for home life, and for society. The degrees of kinship within which marriage is prohibited, is with one exception quite in accordance with modern sentiment, the exception being the disallowal of marriage with the sister of a deceased wife, the propriety of which is greatly disputed and need not be discussed here. The marriage of a brother and sister would excite a feeling of loathing among us that seems implanted by nature, but which further inquiry will show, has mainly arisen from tradition and custom.

We will begin by giving due weight to certain assigned motives. (1) Indifference and even repugnance between boys and girls, irrespectively of relationship, who have been reared in the same barbarian home. (2) Close likeness, as between the members of a thorough-bred stock, causes some sexual indifference: thus highly bred dogs lose much of their sexual desire for one another, and are apt to consort with mongrels. (3) Contrast is an element in sexual attraction which has not

yet been discussed quantitatively. Great resemblance creates indifference, and great dissimilarity is repugnant. The maximum of attractiveness must lie somewhere between the two, at a point not yet ascertained. (4) The harm due to continued interbreeding has been considered, as I think, without sufficient warrant, to cause a presumed strong natural and instinctive *repugnance* to the marriage of near kin. The facts are that close and continued interbreeding invariably does harm after a few generations, but that a single cross with near kinsfolk is practically innocuous. Of course a sense of repugnance might become correlated with any harmful practice, but there is no evidence that it is *repugnance* with which interbreeding is correlated, but only *indifference*, which is equally effective in preventing it, but quite another thing. (5) The strongest reason of all in civilised countries appears to be the earnest desire not to infringe the sanctity and freedom of the social relations of a family group, but this has nothing to do with instinctive sexual repugnance. Yet it is through the latter motive alone, so far as I can judge, that we have acquired our apparently instinctive horror of marrying within near degrees.

Next as to facts. History shows that the horror now felt so strongly did not exist in early times. Abraham married his half-sister Sarah, "she is indeed the sister, the daughter of my father, but not the daughter of my mother, and she became my wife." (Gen. xx., 12). Amram, the father of Moses and Aaron, married his aunt, his father's sister Jochabed. The Egyptians were accustomed to marry sisters. It is unnecessary to go earlier back in Egyptian history than to the Ptolemies, who, being a new dynasty, would not have dared to make the marriages they did in a conservative country, unless popular opinion allowed it. Their dynasty includes the founder, Ceraunus, who is not numbered; the numbering begins with his son Soter, and goes on to Ptolemy XIII., the second husband of Cleopatra. Leaving out her first husband, Ptolemy XII., as he was a mere boy, and taking in Ceraunus, there are thirteen Ptolemies to be considered. Between them, they contracted eleven incestuous marriages, eight with whole sisters, one with a half-sister, and two with nieces. Of course,

the object was to keep the royal line pure, as was done by the ancient Peruvians. It would be tedious to follow out the laws enforced at various times and in the various states of Greece during the classical ages. Marriage was at one time permitted in Athens between half-brothers and half-sisters, and the marriage between uncle and niece was thought commendable in the time of Pericles, when it was prompted by family considerations. In Rome the practice varied much, but there were always severe restrictions. Even in its dissolute period, public opinion was shocked by the marriage of Claudius with his niece.

A great deal more evidence could easily be adduced, but the foregoing suffices to prove that there is no instinctive repugnance felt universally by man to marriage within the prohibited degrees, but that its present strength is mainly due to what I called immaterial considerations. It is quite conceivable that a non-eugenic marriage should hereafter excite no less loathing than that of a brother and sister would do now.

7. **CELIBACY.** The dictates of religion in respect to the opposite duties of leading celibate lives, and of continuing families, have been contradictory. In many nations it is and has been considered a disgrace to bear no children, and in other nations celibacy has been raised to the rank of a virtue of the highest order. The ascetic character of the African portion of the early Christian church, as already remarked, introduced the merits of celibate life into its teaching. During the fifty or so generations that have elapsed since the establishment of Christianity, the nunneries and monasteries, and the celibate lives of Catholic priests, have had vast social effects, how far for good and how far for evil need not be discussed here. The point I wish to enforce is the potency, not only of the religious sense in aiding or deterring marriage, but more especially the influence and authority of ministers of religion in enforcing celibacy. They have notoriously used it when aid has been invoked by members of the family on grounds that are not religious at all, but merely of family expediency. Thus, at some times and in some Christian nations, every girl who did

not marry while still young, was practically compelled to enter a nunnery from which escape was afterwards impossible.

It is easy to let the imagination run wild on the supposition of a whole-hearted acceptance of Eugenics as a national religion; that is of the thorough conviction by a nation that no worthier object exists for man than the improvement of his own race; and when efforts as great as those by which nunneries and monasteries were endowed and maintained should be directed to fulfil an opposite purpose. I will not enter further into this. Suffice it to say, that the history of conventual life affords abundant evidence on a very large scale, of the power of religious authority in directing and withstanding the tendencies of human nature towards freedom in marriage.

CONCLUSION.—Seven different subjects have now been touched upon. They are monogamy, endogamy, exogamy, Australian marriages, taboo, prohibited degrees and celibacy. It has been shown under each of these heads how powerful are the various combinations of immaterial motives upon marriage selection, how they may all become hallowed by religion, accepted as custom and enforced by law. Persons who are born under their various rules live under them without any objection. They are unconscious of their restrictions, as we are unaware of the tension of the atmosphere. The subservience of civilised races to their several religious superstitions, customs, authority and the rest, is frequently as abject as that of barbarians. The same classes of motives that direct other races direct ours, so a knowledge of their customs helps us to realise the wide range of what we may ourselves hereafter adopt, for reasons as satisfactory to us in those future times, as theirs are or were to them at the time when they prevailed.

Reference has frequently been made to the probability of Eugenics hereafter receiving the sanction of religion. It may be asked, "how can it be shown that Eugenics fall within the purview of our own?" It cannot, any more than the duty of making provision for the future needs of oneself and family, which is a cardinal feature of modern civilisation, can be deduced from

the Sermon on the Mount. Religious precepts, founded on the ethics and practice of olden days, require to be reinterpreted to make them conform to the needs of progressive nations. Ours are already so far behind modern requirements that much of our practice and our profession cannot be reconciled without illegitimate casuistry. It seems to me that few things are more needed by us in England than a revision of our religion, - to adapt it to the intelligence and needs of the present time. A form of it is wanted that shall be founded on reasonable bases and enforced by reasonable hopes and fears, and that preaches honest morals in unambiguous language, which good men who take their part in the work of the world, and who know the dangers of sentimentalism, may pursue without reservation.

II.

STUDIES IN NATIONAL EUGENICS

By FRANCIS GALTON, F.R.S., D.C.L., Sc.D.

Communicated at a meeting of the Sociological Society held in the School of Economics and Political Science (University of London), Clare Market, W.C., on Tuesday, February 14th, 1905.

It was stated in the *Times*, January 26, 1905, that at a meeting of the Senate of the University of London, Mr. Edgar Schuster, M.A., of New College, Oxford, was appointed to the Francis Galton Research Fellowship in National Eugenics. "Mr. Schuster will in particular carry out investigations into the history of classes and families, and deliver lectures and publish memoirs on the subjects of his investigations."

Now that this appointment has been made, it seems well to publish a suitable list of subjects for eugenic inquiry. It will be a programme that binds no one, not even myself, for I have not yet had the advantage of discussing it with others, and may hereafter wish to largely revise and improve what is now provisionally sketched. The use of this paper lies in its giving a general outline of what, according to my present view, requires careful investigation, of course not all at once, but step by step, at possibly long intervals.

I. Estimation of the average quality of the offspring of married couples, from their personal and ancestral data. This

includes questions of fertility, and the determination of the "probable error" of the estimate for individuals, according to the data employed.

(a) "Biographical Index to Gifted Families," modern and recent, for publication. It might be drawn up on the same principle as my "Index to Achievements of Near Kinsfolk of Some of the Fellows of the Royal Society" (see "Sociological Papers," Vol. I., p. 85). The Index refers only to facts creditable to the family, and to such of these as have already appeared in publications, which are quoted as authority for the statements. Other biographical facts that may be collected concerning these families are to be preserved for statistical use only.

(b) Biographies of capable families, who do not rank as "gifted," are to be collected, and kept in MS., for statistical use, but with option of publication.

(c) Biographies of families, who, as a whole, are distinctly below the average in health, mind, or physique, are to be collected. These include the families of persons in asylums of all kinds, hospitals, and prisons. To be kept for statistical use only.

(d) Parentage and progeny of representatives of each of the social classes of the community, to determine how far each class is derived from, and contributes to, its own and the other classes. This inquiry must be carefully planned beforehand.

(e) Insurance office data. An attempt to be made to carry out the suggestions of Mr. Palin Egerton, "Sociological Papers," Vol. I., p. 62, of obtaining material that the authorities would not object to give, and whose discussion might be advantageous to themselves as well as to Eugenics. The matter is now under consideration, so more cannot be said.

II. Effects of action by the State and by Public Institutions.

(f) Habitual criminals. Public opinion is beginning to regard with favour the project of a prolonged segregation of habitual criminals, for the purpose of restricting their opportunities for (1) continuing their depredations, and (2) producing low class offspring. The inquiries spoken of above (see c) will measure the importance of the latter object.

(g) Feeble-minded. Aid given to Institutions for the feeble-minded are open to the suspicion that they may eventually promote their marriage and the production of offspring like themselves. Inquiries are needed to test the truth of this suspicion.

(h) Grants towards higher education. Money spent in the higher education of those who are intellectually unable to profit by it lessens the

sum available for those who can do so. It might be expected that aid systematically given on a large scale to the more capable would have considerable eugenic effect, but the subject is complex and needs investigation.

(i) Indiscriminate charity, including out-door relief. There is good reason to believe that the effects of indiscriminate charity are notably non-eugenic. This topic affords a wide field for inquiry.

III. Other influences that further or restrain particular classes of marriage.

The instances are numerous in recent times in which social influences have restrained or furthered freedom of marriage. A judicious selection of these would be useful, and might be undertaken as time admits. I have myself just communicated to the Sociological Society a memoir entitled "Restrictions in Marriage," in which remarkable instances are given of the dominant power of religion, law and custom. This will suggest the sort of work now in view, where less powerful influences have produced statistical effects of appreciable amount.

IV. Heredity.

The facts after being collected are to be discussed, for improving our knowledge of the laws both of actuarial and of physiological heredity, the recent methods of advanced statistics being of course used. It is possible that a study of the effect on the offspring of differences in the parental qualities may prove important.

It is to be considered whether a study of Eurasians, that is, of the descendants of Hindoo and English parents, might not be advocated in proper quarters, both on its own merits as a topic of national importance and as a test of the applicability of the Mendelian hypotheses to men. Eurasians have by this time intermarried during three consecutive generations in sufficient numbers to yield trustworthy results.

V. Literature.

A vast amount of material that bears on Eugenics exists in print, much of which is valuable and should be hunted out and catalogued. Many scientific societies, medical, actuarial, and others, publish such material from time to time. The experiences of breeders of stock of all kinds, and those of horticulturists, fall within this category.

VI. Co-operation.

After good work shall have been done and become widely recognised, the influence of eugenic students in stimulating others to contribute to

their inquiries may become powerful. It is too soon to speculate on this, but every good opportunity should be seized to further co-operation, as well as the knowledge and application of Eugenics.

VII. Certificates.

In some future time, dependent on circumstances, I look forward to a suitable authority issuing Eugenic certificates to candidates for them. They would imply a more than an average share of the several qualities of at least goodness of constitution, of physique, and of mental capacity. Examinations upon which such certificates might be granted are already carried on, but separately; some by the medical advisers of insurance offices, some by medical men as to physical fitness for the army, navy and Indian services, and others in the ordinary scholastic examinations. Supposing constitution, physique and intellect to be three independent variables (which they are not), the men who rank among the upper third of each group would form only one twenty-seventh part of the population. Even allowing largely for the correlation of those qualities, it follows that a moderate severity of selection in each of a few particulars would lead to a severe all-round selection. It is not necessary to pursue this further.

The above brief memorandum does not profess to deal with more than the pressing problems in Eugenics. As that science becomes better known, and the bases on which it rests are more soundly established, new problems will arise, especially such as relate to its practical application. All this must bide its time; there is no good reason to anticipate it now. Of course, useful suggestions in the present embryonic condition of Eugenic study would be timely, and might prove very helpful to students.

DISCUSSION

DR. A. C. HADDON SAID :

We have been greatly favoured this afternoon in listening to one who has devoted his life to science and has just presented us, in so able a paper, with the conclusions of his mature age. Future generations will hold the name of Mr. Galton in high reverence for the work he has done in so firmly establishing the theory of evolution, and I consider that we have listened to a memorable paper which will mark a definite stage in the history of the subject with which Mr. Galton's name will remain imperishably associated. It is refreshing, if Mr. Galton will allow me to say so, to find a man of his years formulating such a progressive policy, for this is generally supposed to be a characteristic of younger men, but he has done so because all his life he has been studying evolution. He has seen what evolution has accomplished amongst the lower animals; he has seen what man can do to improve strains of animals and plants by means of careful selection; and he foresees what man may do in the future to improve his own species by more careful selection. It is possible for people to change their customs, ideas and ideals. We are always accustomed to regard the savages as conservative, and so they are, but, as a matter of fact, savages do change their views. In Australia we find that different tribes have different marriage customs and different social regulations, and it will be generally found that the change in marriage custom or social control is nearly always due to betterment in their physical conditions. The tribes which, as some of us believe, have the more primitive marital arrangements, are those which live in the least favoured countries; and the tribes who have adopted father-right are those who live under more favourable conditions. In Melanesia, Africa, and in India, social customs vary a very great deal, and this proves that even their marriage customs are not in any way hide-bound, and that social evolution is taking place. When circumstances demand a change, then a change takes place, perhaps more or less automatically, being due to a sort of natural selection. There are thinking people among savages, and we have evidence that they do consider and

discuss social customs, and even definitely modify them ; but, on the whole, there appears to be a general trend of social factors that cause this evolution. There is no reason why social evolution should continue to take place among ourselves in a blind sort of way, for we are intelligent creatures, and we ought to use rational means to direct our own evolution. Further, with the resources of modern civilisation, we are in a favourable position to accelerate this evolution. The world is gradually becoming self-conscious, and I think Mr. Galton has made a very strong plea for a determined effort to attempt a conscious evolution of the race.

DR. F. W. MOTT SAID :

I have to say, I think it is of very great importance to the nation to consider this subject of Eugenics very seriously. Being engaged as pathologist to the London County Council Asylums, I see the effect of heredity markedly on the people admitted into the Asylums. The improvement of the stock can in my opinion be brought about in two ways:—(1) By segregation, to some extent carried on at present, which in some measure, checks the reproduction of the unfit ; and (2) by encouraging the reproduction of the fit. Checking the reproduction of the unfit is quite as important as encouraging the reproduction of the fit. This, in my opinion, could be effected to some extent, by taking the defective children and keeping them under control, at least a certain number that are at present allowed to have social privileges. It would be for their own welfare and the welfare of the community ; and they would suffer no hardship if taken when quite young. This is included in the question of Eugenics which Mr. Galton has brought forward, and has shown his practical sympathy with, by establishing a Fellowship, which will, no doubt, do great good in placing the subject on a firm basis, and also in getting a wide intellectual acceptance of the principle. It seems to me the first thing required is that it should become generally known that it is to the advantage of the individual and of the race to have a healthy heritage. Whether any practical steps could be taken to forward this principle when it has a widespread acceptance, is a question ; and I consider that any State interference would be harmful at first, but it would be proper for the State to encourage setting up registry offices where not only a form would be given, with particulars as to marriage, but also a form that would give a bill of health to the contracting parties ; and that bill of health should be of some value not only to the possessors, but to their children. If children had a good heritage, there is no doubt it would have actuarial value, in the matter, for instance, of obtaining life insurance policies at a more reasonable rate ; also in obtaining municipal and government employment, because the chances of paying pensions to people who have a good heritage, is very much less. It seems to me that the subject is one of national importance,

and this Society, by spreading the views of Mr. Galton, will do, not only a very great work for individuals, but for the race as a whole.

MR. A. E. CRAWLEY SAID:

Mr. Galton's remarkable and suggestive paper shows how anthropological studies can be made fruitful in practical politics. Sociology should be founding its science of eugenics upon anthropology, psychology, and physiology. I hope that it will avoid socialistic dreams and that, while chiefly considering the normal individual, it will not forget the special claims of those abnormal persons whom we call geniuses. In a well-ordered state they should be considered before the degenerate and the diseased.

With regard to one or two minor matters: I should like to ask the author if he has examined the evidence for McLennan's examples of marriage by capture. It is not, perhaps, a very important point, but anthropological theories are often houses of cards, and I doubt the existence of a single real case of capture as an institution. As to exogamy, it is important to understand that in the great majority of cases it is really endogamous, that is to say, the favourite marriage in exogamy is between first cousins, and the only constant prohibition is that against the marriage of brothers and sisters. Exogamy, in fact, as Dr. Howitt, Dr. Frazer, and myself agree, reduces to this one principle. McLennan, the inventor of exogamy, never understood the facts, and the term is meaningless. If, as I have suggested in *Nature*, the normal type of primitive marriage was the bisectional exogamy seen in Australia, which amounts to cross-cousin marriage, two families A and B intermarrying for generation after generation—we have found a theory of the origin of the tribe, an enlarged dual family, and we have also worked out a factor which may have done much to fix racial types. Lewis Morgan suggested something of the latter notion as a result of his consanguine family.

I am still persuaded that one or two forms of union are mere "sports," group-marriage, for instance, which is as rare as the marriage of brother and sister. Neither of these can be regarded as the primal type of union, though anthropologists have actually so regarded them. I think we may take it as certain that there are two permanent polar tendencies in human nature, first against union within the same home, and secondly against too promiscuous marriage.

In questions like this, I think it is most important to avoid confusing sexual with matrimonial concerns. It seems to me, on the evidence of history and anthropology, that polygamy is the result of such a confusion. For efficiency and individuality, monogamy is the best foundation of the family. Mr. Galton has not, I think, shown any cause for concluding that the prohibition of polygamy is due to social considerations. Schopenhauer

indeed suggested the adoption of polygamy as a solution of the problem created by the preponderance of females, and as likely to do away with what he thought to be a false position, that of the lady—a position due to Christian and chivalrous sentimentalism. His suggestion, by the way, shows the same confusion between sexual and domestic matters, but it certainly would solve many social difficulties. The sexual impulse in men seems to have several normal outlets. In spite of defects the ancient Greeks in their best period seem to show the results of an unconscious eugenic tradition; and I believe the same is true of the Japanese.

Mr. Galton's suggestions as to the part religion may play in these matters seem to me to be excellent. Religion can have no higher duty than to insist upon the sacredness of marriage, but, just as the meaning and content of that sacredness were the result of primitive science, so modern science must advise as to what this sacredness involves for us in our vastly changed conditions, complicated needs, and increased responsibilities.

DR. ALICE DRYSDALE VICKERY SAID:

There appeared to her three essentials to success in any attempt to improve the standard of health and development of the human race. These were (1), the economic independence of women, so as to render possible the exercise of selection, on the lines of natural attraction, founded on mental, moral, social, physical and artistic sympathies, both on the feminine and masculine side; (2), the education of the rising generation, both girls and boys, so as to impress them with a sense of their future responsibilities as citizens of the world, as co-partners in the regulation of its institutions, and as progenitors of the future race; (3), an intelligent restriction of the birth-rate, so that children should only be born in due proportion to the requirements of the community, and under conditions which afforded a reasonable prospect of the efficient development of the future citizens.

The present economic dependence of women upon men was detrimental to the physical, intellectual and moral growth of woman, as an individual. It falsified and distorted her views of life, and, as a consequence, her sense of duty. It was above all prejudicial to the interests of the coming generation, for it tended to diminish the free play and adequate development of those maternal instincts on which the rearing and education of children mainly depended. The economic independence of women was desirable in the interests of a true monogamic marriage, for without this economic independence, the individuality of woman could not exercise that natural selective power in the choice of a mate, which was probably a main factor in the spiritual evolution of the race. Where the sympathetic attraction between those concerned was only superficial, instead of being deeply

interwoven in all their mutual interests and tastes, the apparent monogamic relation only too frequently masked an unavowed polygamy, or polyandry, or perhaps both. Therefore it would forward truly monogamic marriage if greater facilities should be afforded for the coming together of those who were spontaneously and pre-eminently attracted to each other.

In respect of limitations of offspring, we had to consider both organic and social criteria. For the determination of these, physiologist must combine with sociologist. From the individual and family point of view, we wanted guidance in determining the size of family adapted to given conditions, and from the social point of view we wanted guidance in determining the numbers of population adapted to a given region at a given time. Incidentally it was here worth noting that in the case of Great Britain, the present birth-rate of 28 per 1000, with death-rate of 15 per 1000, gave an excess of 13 per 1000, compared with a birth-rate of 36 per 1000, and death-rate of 23 per 1000, shown by the vital statistics of 1877; but yet the lower contemporary birth-rate gave the same, or a rather higher, yearly increase, *i.e.*, rather over 400,000 per annum; and with this annual increment of between 400,000 and 500,000, we had to remember that there fell upon the nation the burden of supporting over a million paupers, and a great number of able-bodied unemployed. It seemed, therefore, desirable that sociologists should investigate the conditions and criteria of an optimum increase of population. The remarkable local and class differences in the birth-rate were well known. If the birth-rate of 18 per 1000 and death-rate of 15 per 1000 which prevailed in Kensington could be made universal throughout the United Kingdom, it would give, from our total population of 42 millions, a yearly increment beginning at 130,000. Incidentally she wished to call attention to a paper by M. Gabriel Giroud which went to show that the food supplies of the human race are insufficient, and that one-third of the world's inhabitants exist habitually in a condition of semi-starvation.

The propositions which she desired to submit, were (1), that sexual selection, as determined by the individuality of the natural woman, embodies eugenic tendencies, but that these tendencies are more or less countered and even reversed by a process of matrimonial social selection determined by the economic dependence of woman in contemporary occidental society—in short, that eugenics may be promoted by assuring an income to young women; (2), that artificial control of the birth-rate is a condition of eugenics.

MR. SKRINE SAID:

Mr. Galton, in treating of monogamy, says that polygamy is now permitted to at least one half of the human race. I have lived for twenty-one years amongst polygamists, and having come home to Europe I seem

to see conditions prevailing, which are not in essence dissimilar. The conclusion I have arrived at is that monogamy is purely a question of social sanction, a question, as it were, of police. In regard to endogamy we may trace back its origin to periods before the dawn of history. The origin of caste and endogamous marriage is due, I believe, to the rise of powerful or intellectual families, which everywhere tend to draw to themselves less powerful families. The higher family was looked up to, and it was thought an honour to marry within it. And thus a small group was formed by a combined process of social and sexual selection. The history of certain group formations determined by this sort of marriage selection might be compiled from that royal stud book, the *Almanac de Gotha*. There is, it is true, the method of evading the selective process by the custom ofmorganatic marriage, but that only proves the rule. Mr. Galton has not touched on polyandry; that, I think, may be interpreted as one of the devices for limiting population, and can be accounted for, I believe, by scarcity of land.

DR. WESTERMARCK, speaking from the Chair, SAID :

The members of the Sociological Society have to-day had an opportunity to listen to a most important and suggestive paper, followed by a discussion in which, I am sure, all of us have taken a lively interest. For my own part, I beg to express my profound sympathy and regard for Mr. Galton's ardent endeavours to draw public attention to one of the most important problems with which social beings, like ourselves, could be concerned. Mr. Galton has to-day appealed to historical facts to prove that restrictions in marriage have occurred and do occur, and that there is no reason to suppose that such restrictions might not be extended far beyond the limits drawn up by the laws of any existing civilised nation. I wish to emphasise one restriction not yet touched upon. The husband's and father's function in the family is generally recognised to be to protect and support his wife and children, and many savages take this duty so seriously that they do not allow any man to marry who has not previously given some proof of his ability to fulfil it. Among various Bechuana and Kafir tribes, the youth is not allowed to take a wife until he has killed a rhinoceros. Among the Dyaks of Borneo, and other peoples in the Malay Archipelago, no one can marry unless he has acquired a certain number of human heads by killing members of foreign tribes. Among the Arabs of Upper Egypt the man must undergo an ordeal of whipping by the relations of his bride, and if he wishes to be considered worth having, he must receive

the chastisement, which is sometimes exceedingly severe, with an expression of enjoyment. I do not say that these particular methods are to be recommended, but the idea underlying them is certainly worthy of imitation. Indeed we find in Germany and Austria, in the nineteenth century, laws forbidding persons in actual receipt of poor-law relief to contract marriages, and in many cases the legislators went further still and prohibited all marriages until the contracting parties could prove that they possessed the means of supporting a family. Why could not some such laws become universal, and why could not the restrictions in marriage be extended also to persons who, in all probability, would become parents of diseased and feeble offspring? I say, "in all probability," because I do not consider certainty to be required. We cannot wait till biology has said its last word about the laws of heredity. We do not allow lunatics to walk freely about, even though there be merely a suspicion that they may be dangerous. I think that the doctor ought to have a voice in every marriage which is contracted. It is argued, of course, that to interfere here would be to intrude upon the individual's right of freedom. But men are not generally allowed to do mischief simply in order to gratify their own appetites. It will be argued that they will do mischief even though the law prevent them. Well, this holds true of every law, but we do not maintain that laws are useless because there are persons who break them. There will always in this world be offspring of diseased and degenerated parents, but the law may certainly in a very considerable degree restrict their number by preventing such persons from marrying. I think that moral education also might help to promote the object of eugenics. It seems that the prevalent opinion, that almost anybody is good enough to marry, is chiefly due to the fact that in this case the cause and effect, marriage and the feebleness of the offspring, are so distant from each other that the near-sighted eye does not distinctly perceive the connection between them. Hence no censure is passed on him who marries from want of foresight, or want of self-restraint, and by so doing is productive of offspring doomed to misery. But this can never be right. Indeed there is hardly any other point in which the moral consciousness of civilised men still stands in greater need of intellectual training than in its judgments on cases which display want of care or foresight. Much progress has in this respect been made in the course of evolution, and it would be absurd to believe that we have yet reached the end of this process. It would be absurd to believe that men would for ever leave to individual caprice the performance of the

most important and, in its consequences, the most far-reaching function which has fallen to the lot of mankind.

DR. DRYSDALE SAID:

He would like to ask the Chairman if he was aware that some of the restrictions he had referred to were actually in force in England? In some of the great English banks, for instance, clerks are not allowed to marry until their salary has reached a certain level. But for his part he thought the principle unsound. Would it not be better to say to these young men that they might marry, but that they must restrict the number of their children?

WRITTEN COMMUNICATIONS

PROFESSOR YVES DELAGE (*Professor of Biology in the University of Paris*), in a letter to Mr. Galton, wrote:

I am delighted with the noble and very interesting enterprise which you are undertaking.

I have no doubt that if in all countries the men who are at the head of the intellectual movement would give it their support, it would in the end triumph over the obstacles which are caused by indifference, routine, and the sarcasms of those who only see in any new idea the occasion for exercising a satirical spirit, in which they cloak their ignorance and hardness of heart.

We should translate "eugenics" into French by "eugonie" or "eugènese." Could you not, while there is still time, modify the English term into "eugonics" or "eugensis," in order that it might be the same in both languages?

I see with pleasure that you have had the tact to attack the question on the side by which it can be determined.

Many years ago I had myself examined the subject that you prosecute at this moment, but I had thought only of compulsory, or rather prohibitive means of attaining the object.

You are entirely right in laying aside, at least at the outset, all compulsory or prohibitive means, and in seeking only to initiate a movement of opinion in favour of eugenics, and in trying to modify the mental attitude towards marriage, so that young people, and especially parents, will think less of fortune and social conditions, and more of physical perfection, moral well-being, and intellectual vigour. Social opinion should be modified, so that the opprobrium of *mésalliance* falls not on the union of the noble with the plebeian, or of the rich with the poor, but on the mating of physical, intellectual, and moral qualities, with the defects of these.

As you have so well put it, public opinion and social convention

have a considerable prohibitive force. You will have rendered an incalculable service if you direct these towards eugenics.

The thing is difficult, and will need sustained effort. To impress the public, not only men of science must be asked to help, but those of renown in literature in all countries.

FROM DR. HAVELOCK ELLIS.

The significance of Mr. Galton's paper lies less in what is said than what is implied. The title, "Restrictions in Marriage," bristles with questions. We need to know precisely what is meant by "marriage." Among us to-day marriage is a sexual union recognised by law, which is not necessarily entered into for the procreation of children, and, as a matter of fact, frequently remains childless. Mr. Galton seems, however, to mean a sexual union in which the offspring are the essential feature. The distinction is important, for the statements made about one kind of marriage would not hold good for the other. Then, again, by "restrictions" do we mean legal enactments or voluntary self-control?

Mr. Galton summarises some of the well-known facts which show the remarkable elasticity of the institution of marriage. By implication he asks whether it would not be wise further to modify marriage by limiting or regulating procreation, thus introducing a partial or half monogamy, which may perhaps be called—borrowing a term from botany—*hemigamy*. I may point out that a fallacy seems to underlie Mr. Galton's implied belief that the hemigamy of the future, resting on scientific principles, can be upheld by a force similar to that which upheld the sexual taboos of primitive peoples. These had a religious sanction which we can never again hope to attain. No beliefs about benefits to posterity can have the powerful sanction of savage taboos. Primitive marriage customs are not conventions which every one may preach for the benefit of others and any one dispense with for himself.

There is one point in Mr. Galton's paper which I am definitely unable to accept. It seems to be implicitly assumed that there is an analogy between human eugenics and the breeding of domestic animals. I deny that analogy. Animals are bred for points, and they are bred by a superior race of animals, not by themselves. These differences seem fundamental. It is important to breed, let us say, good sociologists; that, indeed, goes without saying. But can we be sure that, when bred, they will rise up and bless us? Can we be sure that they will be equally good in the other relations of life, or that they may not break into fields for which they were not bred and spread devastation? Only a race of supermen, it seems to me, could successfully breed human varieties and keep them strictly chained up in their several stalls.

And if it is asserted that we need not breed for points but for a sort

of general all-round improvement, then we are very much in the air. If we cannot even breed fowls which are both good layers and good table birds, is it likely that we can breed men who will not lose at other points what they gain at one? (Moreover, the defects of a quality seem sometimes scarcely less valuable than the quality itself.) We know, indeed, that there are good stocks and bad stocks, and my own small observations have suggested to me that we have scarcely yet realised how subtle and far-reaching hereditary influences are. But the artificial manipulation of human stocks, or the conversion of bad into good, is still all very dubious.

It would be something, however, if we could put a drag on the propagation of definitely bad stocks, by educating public opinion and so helping forward the hemigamy, or whatever it is to be called, that Mr. Galton foresees. When two stocks are heavily tainted, and both tainted in the same direction, it ought to be generally felt that union, for the purposes of procreation, is out of the question. There ought to be a social conscience in such matters. When, as in a case known to me, an epileptic woman conceals her condition from the man she marries, it ought to be felt that an offence has been committed serious enough to annul the marriage contract. At the same time, we must avoid an extreme scrupulosity. It is highly probable that a very slight taint may benefit rather than injure a good stock. There are many people whose intellectual ability, and even virtues as good citizens, seem to be intimately bound up with the stimulating presence of some obscure "thorn in the flesh," some slight congenital taint. To sum up: (1) let us always carefully define our terms; (2) let us, individually as a nation, do our best to accumulate data on this matter, following, so far as we can, the example so nobly set us by Mr. Galton; (3) let us educate public opinion as to the immense gravity of the issues at stake; but (4) in the present state of our knowledge, let us be cautious about laying down practical regulations which may perhaps prove undesirable, and in any case are impossible to enforce.

FROM MR. A. H. HUTH

(Author of "*The Marriage of Near Kin*").

Every one will sympathise with Mr. Galton in his desire to raise the Human Race. He is not the first, and he will not be the last. Long ago the Spartans practised what Mr. Galton has christened "Eugenics"; and in more modern times Frederick I. of Prussia tried something of the sort. I have often thought that if the human race knew what was good for them, they would appoint some great man as Dictator with absolute power for a time. At the expense of some pain to individuals, some loss of liberty for say one generation, what might not be done! Preferably, they should choose me: not because I think myself superior to others, but I would rather make the laws than submit myself to them!

Mr. Galton shows very clearly, and, I think, indisputably, that people do submit to restrictions on marriage of very different kinds, much as if they were laws of nature. Hence the deduction is drawn: that since people submit without (in most cases) a murmur, to restrictions which do not benefit the race, why not artificially produce the same thing in a manner that will benefit the race?

There are, however, two difficulties: One, the smaller, that in our present state of civilisation people will not accept, as they did in the childhood of their race, the doctrine of authority. The other is that all the restrictions on marriage cited by Mr. Galton, with the one exception of celibacy, to which I shall come later, only impeded, but did not prevent marriage. Every man could marry under any of the restrictions, and only very few women could not lawfully be joined to him in matrimony.

Now, what is Mr. Galton's contention? He wishes to hasten the action of the natural law of improvement of the race which works by selection. He wishes to do as breeders have done in creating superior races by the selection of mates. He recognises that, unhappily, we cannot compel people to mate as the scientist directs: they must be persuaded to do so by some sort of creed, which, however, he does not (at least in this paper) expressly define. You could not make a creed that your choice of a wife should be submitted to the approval of a high priest or of a jury. You would not, again, submit the question from a quasi-religious point of view to the like authorities, as to whether you are to marry at all or not. Mr. Galton does indeed point out that people were doomed to celibacy in religious communities: but here you have either a superior authority forcing you to take the vows, or you have the voluntary taking of the vows. Would the undesirable, the weak, the wicked, the frivolous—any of those beings who ought not to propagate their species—take these vows? I fear not. Only the best, those who have strength of mind, the unselfish—in short, only those who should propagate their species—would take the vows with any prospect of respecting them.

I have said that Mr. Galton is seeking to hasten a natural process. We all know the Darwinian law of the selection of the fittest; and also that other law of sexual selection which is constantly going on. I think that even within historical times they have told. I think that if you study the portraits which have come down to us (excluding of course the idealistic productions of the Greeks and some others), if you study even the prints of the grosser multitude, and then walk down any of the more populous streets of London, you will find that you have reason to congratulate the race on a decided general improvement in looks and figure. We have also undoubtedly improved in health and longevity; but this may be due, as also the improvement in looks may be partly due, to improvement in the conditions of life. But with all this, with all these natural forces working untiringly, effectively, and imperceptibly for the

improvement of the race, our whole aims as a social body, all our efforts are directed to thwart this natural improvement, to reverse its action, and cause the race not to endeavour to better its best, but to multiply its worst.

The whole tendency of the organised world has been to develop from the system of the production of a very numerous offspring ill fitted to survive, to the production of much fewer offspring better fitted to survive, and guarded at the expense of the parents until they were started in life. This law so permeates the world, and is so general, that it is even true of the higher and lower plains of humanity. The better classes, the more educated, and those capable of greater self-denial, will not marry till they see their way to bring up children in health and comfort and give them a start in life. The lower class, without a thought for the morrow, the wastrels, the ignorant, the selfish, and thoughtless, marry and produce children. Under the ordinary law of nature, of course, the natural result would follow: the children of the more desirable class, though fewer, would survive in greater proportion than the more numerous progeny of the less desirable class, and the race would not deteriorate. But here legislation, and still worse, the so-called philanthropist steps in. Burdens are heaped upon the prudent; they are taxed and bullied, the means which they have denied themselves to save for their own children are taken from them and given to idle vagabonds, in order that their children may be preserved to grow up and reproduce their like. Not only are these children carefully maintained at the costs of the more prudent, but their wretched parents are fed and coddled also at the expense of the more worthy, and saved against themselves to produce more of the—shall I call them kakogenetics? Not content with this, we freely import from the sweepings of Europe, and add them to our breeding stock.

In the days when England made her greatness, she did not suffer from the cankers of wild philanthropy and a promiscuous alien immigration.

FROM DR. MAX NORDAU.

The shortness of the time at my disposal, and the vastness of the subject treated by Mr. Galton, do not permit me to deal with the paper as it deserves. I must limit myself to a few "*obiter dicta*," for the somewhat dogmatic form of which I crave the indulgence of the Sociological Society.

Theoretically, everybody must hail Eugenics. It is a fine and obviously desirable ideal, to direct the evolution of the individual and the race towards the highest possible type of humanity. Practically, however, the matter is so obscure and complicated that it can only be approached with hesitation and misgivings.

We often hear people, even scientists, say: "We breed our domestic animals and useful plants with the greatest care, while no selection and

foresight is exercised in the case of the noblest creature—Man." This allusion to the methods of breeding choice cattle implies a biological fallacy. The breeder knows exactly what he wants to develop in his stock: now it is swiftness, now it is staying-power; here it is flesh, there it is wool; in this case it is abundance of milk, in that a capacity for transforming, quickly and completely, food into muscle and fat of a high market value. The breeder is working out the one quality he is aiming at, at the cost of *other* qualities which would be of value to the animal, if not to its owner. The selection practised by the breeder in view of a certain aim, creates new types that may be economically superior, but are biologically inferior. To put it flatly: our vaunted thoroughbreds, the triumph of selection exercised for many generations, may be wonderfully adapted to the one particular end they are destined for; they may flatter our utilitarianism and fetch high prices, but their general vital power is diminished, they are less resistant to the injuries of life, they are subject to diseases far less frequently, or not at all, met with in non-selected animals of their kind; and if not constantly fostered and protected by man, they would be unable to hold their own in the struggle for life.

It is clear that we cannot apply the principles of artificial breeding to man. Which quality of his are we to develop by selection? Of course, there is the ready answer: "*Mens sana in corpore sano.*" But this is so general and vague a rule that it means nothing when it comes to practical application. There is no recognised standard of physical and intellectual perfection. Do you want inches? In that case, you have to shut out from your selection Frederick the Great and Napoleon I., who were undersized; Thiers, who was almost a dwarf; and the Japanese as a nation, as they are considerably below the average of some European races. Yet in all other respects than tallness they are very recommendable specimens of our species. What is your ideal of beauty? Is it a white skin, clear eyes and fair hair? Then you must favour the northern type and exclude the Italian, Spaniard, Greek, etc., from your selection, which would not be to the taste of these nations.

If from somatic we turn to intellectual perfection, we encounter the same difficulties. Some highly gifted individuals have inductive, others deductive talents. You cannot easily have in the same man a great mathematician and a great poet, an inventor and a statesman. You must make up your mind whether you wish to breed artists or scientists, warriors or speculative philosophers. If you say you will breed each of these intellectual categories, each of those physical types, then it amounts to confessing that you will let things pretty much have their own way and that you renounce guiding Nature and directing consciously the species towards an ideal type. If you admit that you have *no* fixed standard of beauty and mental attainment, of physical and intellectual perfection, to propose as the aim of eugenic selection; if your artificial man-breeding is

not destined to develop certain well-defined organic qualities, to the detriment of others, then Eugenics means simply that people about to marry should choose handsome, healthy young individuals; and this, I am sorry to say, is a mere triviality, as already, without any scientific consciousness or intervention, people ARE attracted by beauty, health and youth, and repulsed by the visible absence of these qualities.

The principle of sexual selection is the natural promoter of Eugenics; it is a constant factor in biology, and undoubtedly at work in mankind. The immense majority of men and women marry the best individual among those that come within their reach. Only a small minority is guided in its choice by considerations of a social and economical order, which may determine selections to which the natural instinct would object. But even such a choice, contrary as it seems to the principle of Eugenics, might be justified to a certain extent. The noble Ernest Renan would never have been chosen for his physical appearance by any young woman of natural taste; nor would Darmesteter, the great philologist, who was afflicted with gibbosity. Yet these men had high qualities that were well worth being perpetuated in the species. A young and beautiful woman could put in a plausible plea for her marrying an elderly rich financier or nobleman of not very pleasing appearance. In both cases her own organic qualities may vouchsafe fair offspring which will better develop in economically and socially favourable surroundings than it would have done in poverty and obscurity, even if the father had been a much finer specimen of man.

It seems to me that the problem must be approached from another side. There have been pure human races in pre-historical times. Actually every European nation represents a mixture, different in its *proportion* only, of ALL the races of Europe and probably some of Asia and Northern Africa. Probably every European has in his ancestry, representatives of a great number of human types, good and indifferent ones. He is the bearer of all the potentialities of the species. By atavism, any one of the ancestral types may revive in him. Place him in favourable conditions, and there is a fair chance of his developing his potentialities and of his growing into resemblance with the best of his ancestors. The essential thing, therefore, is not so much the selection of particular individuals (every individual having probably latent qualities of the best kind) as the creating of favourable conditions for the development of the good qualities. Marry Hercules with Juno, and Apollo with Venus, and put them in slums—their children will be stunted in growth, rickety and consumptive. On the other hand, take the miserable slum-dwellers *out* of their noxious surroundings, house, feed, clothe them well, give them plenty of light, air and leisure, and their grand-children, perhaps already their children, will reproduce the type of the fine, tall Saxons and Danes of whom they are the offspring.

If Eugenics is only to produce a few Grecian Gods and Goddesses in the sacred circle of the privileged few, it has a merely artistico-aesthetical

but no politico-ethnological interest. Eugenics, in order to modify the aspect and value of the nation, must ameliorate not some select groups, but the bulk of the people, and this aim is not to be attained by trying to influence the love-life of the masses. It can be approached only by elevating their standard of life. Redeem the millions of their harrowing care, give them plenty of food and rational hygienics, and allow their natural sympathies to work out their matrimonial choice, and you will have done all the Eugenics that is likely to strengthen, embellish and ennoble the race. In one word: Eugenics, to be largely efficient, must be considered, not as a biological, but as an economical question.

One word more as to the restriction of marriage. There is no doubt that laws and customs have had at all times and in all places, the effect of narrowing the circle within which the matrimonial selection could take place. But I believe it would be an error to conclude that therefore it would be within the power of the legislator to modify these laws and customs, and to create new restrictions unknown before our own time. The old marriage laws and customs had the undisputed authority of religion; they were considered as divine institutions, and superstitious fears prevented transgression. This religious sanction would be absent from modern restricted laws, and in the case of a conflict between passion or desire and legal prohibition, *this* would weigh as a feather against *that*. In a low state of civilisation, the masses obey traditional laws without questioning their authority. Highly differentiated cultured persons have a strong critical sense; they ask of everything the reason why, and they have an irrepressible tendency to be their own lawgivers. These persons would not submit to laws restricting marriage for the sake of vague Eugenics, and if they could not marry under such laws in England, they would marry abroad, unless you dream of a uniform legislation in all countries of the globe, which would indeed be a bold dream.

FROM PROFESSOR A. POSADA

(Professor of Constitutional Law in the University of Oviedo).

Without entering into a discussion of the bases on which Mr. Galton has raised Eugenics as a science I find many very acceptable points of view in all that is proposed by this eminent sociologist.

The history of matrimonial relationship in itself discloses most interesting results. The relative character of its forms, the transitory condition of its laws, the very history of these would seem to show that the reflex action of opinion influences the being and constitution of the human family.

Granting this, and assuming that the actual conditions of the matrimonial regime—especially those that bear upon the manner of contract—

must not be considered as the final term of evolution (since they are far from being ideal), one cannot do less than encourage all that is being done to elucidate the positive nature of matrimonial union and the positive effects resultant from it, whether such union was effected with regard, or disregard, to the exigencies of generation and its influence on descendants.

Marriage is actually contracted either for love or for gain—more often than not the woman marries because she does not enjoy economic independence. In such circumstances, physiological considerations, the influence of heredity, both physiological and moral, have little or no weight—perhaps because they are neither sufficiently known or demonstrated in such a manner that the disastrous effects of their disregard can induce direct motives of conduct.

On this account I think that we should :

- (1) Work to elucidate, in as scientific a manner as possible, the requirements of progressive selection in marriage, and we should rigorously demonstrate the consequences of such unions as are decidedly prejudicial to vigorous and healthy offspring.
- (2) We should disseminate a knowledge of the conclusions ascertained by scientific investigation and rational statistics, so that these could be gradually assimilated by public opinion and converted into legal and moral obligations, into determinative motives of conduct.

But we must bear in mind that one cannot expect a transformation of actual criteria of sexual relationship, from the mere establishment of a science of eugenics, nor even from the propagation of its conclusions ; the problem is thus seen to be very complex.

The actual criteria applied to sexual relationships—especially to those here alluded to—depend on general economic conditions, by virtue of which marriage is contracted under the influence of a multitude of secondary social predispositions, that have no regard to the future of the race ; and it is useless to think that any propaganda would be sufficient to overcome the exigencies of economic conditions. On the other hand the actual education of both the woman and the man leaves much to be desired, and more particularly in regard to sexual relationship. And it would be futile to think of any effectual transformation in family life, while both the man and woman do not each of them equally exact, by virtue of an invulnerable repugnance to all that injures morality—a purity of morals in the future spouse.

The day that the woman will refuse as husband the man of impure life, with a repugnance equal to that usually felt by man towards impure womanhood, we shall have made a great step towards the transformation of actual marriage—to the gain of future generations.

FROM PROFESSOR SERGI

(Director of the Museum and Laboratory of Anthropology, University of Rome).

As an abstract proposition, I believe Mr. Galton's proposal is entirely right and has many attractions. But, nevertheless, it seems to me to be not easily practicable and perhaps even impossible.

The sexual relations are vital in the life of all animal species. Any restrictions, to be at all tolerable, must irrefutably demonstrate a great and conspicuous gain. But, unfortunately, we are ignorant of the consequences of restrictions in marriage relations.

It is important in this connection to bear in mind that in modern societies there are certain unmistakable new tendencies at work. These tendencies are all in the direction of dissolving the old restrictions, both religious and social. They constitute, in fact, a movement towards what is called "free love." Now this tendency runs, it seems to me, counter to Mr. Galton's proposals, and makes it particularly difficult to initiate any restrictions of a new form and character.

It is, I believe, an illusion to expect that from any intellectual convictions there may arise a conscious inhibition of sex relations in the population generally. Instances are not wanting of men of high culture marrying women who are the daughters of insane and epileptic parents.

But notwithstanding these objections, which I hold to be a most serious obstacle, and even perhaps fatal to the practical application of Mr. Galton's eugenic principles, nevertheless I believe the studies which, in the second of his two papers to the Sociological Society, he proposes to institute will be both interesting and useful.

FROM DR. R. S. STEINMETZ

(Lecturer on Sociology in the University of Leyden).

I quite agree with Mr. Galton and others (*e. g.*, Dr. Schallmeyer, of Munich, author of "Vererbung und Auslese im Lebenslauf der Völker," 1903) that one of the highest objects of Applied Sociology is the promotion of eugenic marriages. I think there is no worthier object of discussion for a sociological society than that of the means of this promotion. To be sure, the thorough and real knowledge of the true, not the expressed and the reputed motives, for introducing restrictions on marriage might be a means to this end. What we want to know is the real objective cause of these restrictions; there need not, of course, have been any conscious motive at all.

Coming to detailed examination of some points in Mr. Galton's paper on "Restrictions in Marriage," I would ask, is it certain that pro-

hibition of polygamy in Christian nations was due "to considerations of social well-being," as Mr. Galton has it? Surely other causes were also at work. I think, where the number of adult men and women are nearly equal, monogamy is the natural result; polygamy is only possible when by wars and other causes, this proportion is reversed, and when other circumstances, as social inequality, allow some men to take more women than one.

A special distribution of labour between men and women may contribute to this result, but cannot be the cause of it, as every man wants the assistance of more women when he may get them. And in respect of sexual relations, it has to be observed that many men are polygamous in intention, and are only deterred by practical difficulties.

Social inequality, poverty, successful wars are the condition of polygamy. Economical or sexual wants drive men to it.

When these conditions are no longer fulfilled, monogamy will replace it. This is furthered by any rise in the position of women, by the freer play of the purer sentiments between the sexes, and by at least official or public chastity. I believe I am so far in agreement with Westermarck's views on the question. Christianity was very ascetic, as is attested by St. Paul's expressions in the Epistle to the Corinthians. By these ascetic tendencies Christian morals were opposed to polygamy. This tendency was enforced by the Christian ebionistic sympathies, by which all the fathers of the church were governed. Asceticism and social equality can both make for monogamy. Monogamy is certainly in accordance with one very mighty human instinct, that of jealousy; therefore it is the only democratic form of marriage. And I think it is the only one in harmony with the higher sentiments between the sexes, and with a right moral relation between offspring and parents.

But, in considering it, we should never forget that it is largely traversed by irregular love, whether this be sentimental or more sensual, and also by very general prostitution in all ages and classes.

So we must be very cautious in deducing from the fact of monogamy any conclusions as to new and rational marriage regulations, desirable as they may be.

Generally, the term endogamy is employed in a narrower sense than the prohibition of Greeks to marry barbarian women (concubinage with them was allowed, so the restriction was not severe).

I do not consider that Mr. Galton's view of the causes and conditions of endogamy and exogamy is in strict accordance with the results of "anthropology" (the Continental term is "ethnology"); Mr. Galton thinks exogamy is usually to be found in "small and barbarous communities," but combined with the marriage restrictions by blood-ties, and the very general horror of incest, which are only its expression, exogamy is by far the commonest rule of the Chinese; and the Hindus are exogamous in the strict sense, and in the other sense all civilised nations are exogamous,

marriage between close kindred being prohibited (Post, "Grundr. Ethn. Jurispr.," 1897, pp. 37-42).

The possibility of the complicated Australian marriage system, of which we know not yet the real motives and causes, does not at all warrant the conclusion that "with equal propriety" it might be applied "to the furtherance of some form of eugenics" among the Australians or among us. The conclusion from the Australians to us stands in need of demonstration. It cannot be assumed. Is it certain that motives of the same strength as those unknown may be found?

The motives for the horror of incest, we do not yet know quite certainly. Perhaps they are the result of very deep-seated and fundamental causes, which suggest the gravest caution in postulating their analogies.

As yet we are even incapable of restraining the very deplorable neo-Malthusian tendencies in the higher classes and some others in all civilized nations, nor those very generally and strongly operating in the eastern United States, in France, in English Australia. We are powerless against the dangers in this direction with which we are threatened by the widely spread feministic movement.*

The race-love of civilised men and women is regretfully feeble. The real problem is first to enforce it. At present the care for future man, the love and respect of the race, are quite beyond the pale of the morals of even the best.

The nobility of old, yea, the patriarchial family generally, entertained a real love and care for the qualities of their offspring. So, perhaps, the turn for this feeling may come again. The intensification of economic and social life will raise the demands on everybody's mental and bodily capabilities; the better knowledge of the hereditary qualities and their signification in attaining the highest degree of capacity will perhaps, and, I think should, in some degree inevitably waken the care for the qualities of one's own offspring.

I put much more hope on this resultant of intensified social demands, of increase and spreading of pathological knowledge, and of evermore enlightened egoism than on public morals embracing the future of the race. Improved care for one's own offspring according to science may possibly come. The result will be a change in our ideas, morals, and morality.

The next measures that then could be taken by the legislator seem to be those formulated by Dr. Schallmeyer in his excellent paper, "Infection als Morgengaber."

Meantime the chief force for progress in eugenic studies is, I think, the accomplishment of the life work of Mr. Galton, and the next is his establishment of a Research Fellowship in National Eugenics.

* For my own opinions on this, vide "Die neueren Forschungen zur Geschichte der menschlichen Familie," *Zeitschrift für Socialwissenschaft*, 1899; cf. my "Der Nachwuchs der Begabten" and "Feminismus und Rasse," *Zeitschrift für Socialwissenschaft*, 1904.

It is a shameful reflection for Continental universities that this whole range of studies is neglected by them, and may be fittingly compared to their traditional narrowing of the whole field of social science to economics.

FROM SIR RICHARD TEMPLE.

NOTE I.—STUDIES IN NATIONAL EUGENICS.

Topic I.—It seems to me that definitions of "gifted" and "capable" are required. Are the "gifted" to be those who perform the initiative reasoning, out of which the practical results arise? Are the "capable" to be those who bring into effect the reasoning of the "gifted"? It has always seemed to me that the work accomplished in the world is due to both classes in an equal degree. Neither can be effective without the other. Both are equally important. The success of either demands mental powers of a very high order. I am not at all sure that it is going too far to say of an equally high order. Then there are those who combine in themselves both the capacities, the initiative reasoning and the bringing into effect. Where are these to be placed? Many who possess the one in an eminent degree also possess the other; but, as reasoning and giving effect each requires so much thought and absorbs so much energy and time, the majority have not the opportunity to perform both. I suggest that, as regards family eugenics, both the "gifted" and the "capable" be, if the above definitions are to stand, taken as divisions of one class of mankind. This should be the safest method of bringing the inquiry to a practical result, because of the tendency, so strong in human beings, to look on their own description of work as that which is of the most importance to their kind. The great practical difficulty in the inquiry on the lines indicated, that impresses itself on me is that, especially among women—owing to their place in the world's work,—qualities essential to usefulness are frequently present in individuals who are otherwise possessed of no specially high mental qualities, and are therefore "unknown," and in no way remarkable: such qualities as initiative, discretion, "common sense," perseverance, patience, even temper, energy, courage, and so on, without which the "gifted" and "capable" are apt to be of no practical value to the world. I suggest that progress represents the sum of individual capacities, past and present, at any given period among any given population in any given environment. Then again, in the prosecution of Eugenics by statistics of achievement, there is another great difficulty, which may be best expressed in the words of the Preacher in Ecclesiastes: "I returned, and saw under the sun, that the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favour to men of skill: but time and chance happeneth to them all." Existing social conditions and prejudices, all the

world over, will force eugenical philosophy to take root very slowly. This is, perhaps, as it should be, in view of the above practical reflection.

Topic VI.—It would appear that a beginning has been made, as regards men, in the Rhodes Scholarships.

NOTE II.—RESTRICTIONS IN MARRIAGE.

In one sense, Eugenics is the oldest and most universal philosophy in the world, of which the convention called marriage is the outward and visible sign. Everywhere, among all peoples in all times, marriage has originated for the enforcement and maintenance of real or supposed eugenics. The object of the convention has been fundamentally always the same, the direct personal advantage in some tangible form of a group in its environment. All that can be done by individual philosophers is to give marriage a definite turn in a direction deemed beneficial, because human beings in a mass, in a matter affecting every individual, act upon instinct—defining instinct as unconscious reasoning. In human affairs the outward and visible sign of instinct is custom. By reasoning, instinct can be given a definite direction, and hence a definite form can be given to a custom. This has often been accomplished, but, so far as I can apprehend history, reasoning has only succeeded in creating instinct and thus custom, when the masses subjected to its pressure have been able to see the direct personal advantage to be gained by the line taken. This is the practical point that the eugenical philosopher has to keep ever before him. A custom can be created. The questions for the philosopher are what should be created and how it should be created.

All forms of marriage are due fundamentally to considerations of well-being. Exogamy exists where it is thought important to abnormally increase the numbers of a group. Endogamy exists where it is thought important in a settled community to reserve property and social standing or power for a limited group. Monogamy, polygamy, polyandry are all attempts to maintain social well-being in a form that has seemed obviously advantageous to different groups of human beings. Religion, taboo, and the prohibited degrees are all methods of enforcing custom by moral force. The Australian marriage system is merely a primitive, and therefore complicated, method of enforcing custom. But the human instinct as to incest is something going very deep down, as there is the same kind of instinct in some of the "higher" animals of the two sexes when stabled together, *e.g.*, horses, elephants. Celibacy seems to be due to different causes in different circumstances, according as to whether it is enforced or voluntary. In the former case it is a method of enforcing marriage customs maintained for the supposed common good. In the latter it is due to asceticism, itself an universal instinct based on a philosophy of personal advantage.

The restrictions enforced by marriage customs have led to hypergamy, a *mariage de convenance* exchanging position and property, but really an unreasoning form of eugenics adopted because of the supposed personal advantage, and this has led, in one disastrous form, to female infanticide in a distinctly harmful degree. All the restrictions of marriage are modified in uncivilised communities by promiscuity before marriage and in civilised communities by hetairism. The greater the restrictions the more systematic has hetairism become. Illegitimacy has taken on many almost unrecognisable forms in various parts of the world. It really represents the result of rebellion against convention. Every one of these considerations materially affect any proposition for a reform of Eugenics. Caste is the outward manifestation of an endogamic marriage system introduced by the "intellectuals" of a people for the personal advantage of their own group within the nation, and imitated without reasoning by other groups. This system of endogamic marriage, adopted for the real or supposed advantage of a group, has brought about national disaster, for it has made impossible the instinct of nationality, or the larger group, and has brought the peoples adopting it into perpetual subjection to others possessing the instinct of nationality. Its existence and practical effect is a standing warning to the eugenical philosopher, which should point out to him the extreme care that is necessary in consciously directing eugenics into any given channel.

FROM PROFESSOR TÖNNIES

(*Professor of Philosophy in the University of Kiel*).

I fully agree with the scope and aims of Mr. Galton's "Eugenics," and consequently with the essence of the two papers proposed. But with respect to details, I have certain objections and illustrations, which I now try to explain.

1. There can be no doubt but the three kinds of accomplishments are desirable in mankind; physical, mental and moral ability. Surely the three, or as Mr. Galton classifies them, constitution—which I understand to imply moral character—physique and intellect, are not independent variables, but if they to a large extent are correlate, on the other hand they also tend to exclude each other, strong intellect being very often connected with a delicate health as well as with poor moral qualities, and *vice versa*. Now the great question, as it appears to me, will be, whether Eugenics is to favour one kind of these excellencies at the *cost* of another one, or of both the other, and which should be preferred under any circumstances.

2. Under existing social conditions it would mean a cruelty to raise the average intellectual capacity of a nation to that of its better moiety of the present day. For it would render people so much more conscious of the dissonance between the hopeless monotony of their toil and the lack of

recreation, poorness of comfort, narrowness of prospects, under which they are even now suffering severely, notwithstanding the dulness of the great multitude.

3. The rise of intellectual qualities also involves, under given conditions, a danger of further decay of moral feeling, nay, of sympathetic affections generally. Town life already produces a race of cunning rascals. Temptations are very strong, indeed, to outrun competitors by reckless astuteness and remorseless tricks. Intelligence promotes egotism and pleasure-seeking, very much in contradiction to the interests of the race.

4. A strong physique seems to be correlate with some portions of our moral nature, but not with all. Refinement of moral feeling and tact are more of an intellectual nature, and again combine more easily with a weak frame and less bodily power.

5. I endorse what Mr. Galton shows—that marriage selection is very largely conditioned by motives based on religious and social consideration; and I accept, as a grand principle, the conclusion that the same class of motives may, in time to come, direct mankind to disfavour unsuitable marriages, so as to make at least some kinds of them impossible or highly improbable, and this would mean an enormous benefit to all concerned, and to the race in general. But I very much doubt if a sufficient unanimity may be produced upon the question—which marriages *are* unsuitable?

6. Of course this unanimity may be promoted by a sufficient study of the effects of heredity. This is the proper and most prominent task of Eugenics, as Mr. Galton luminously points out in his six topics to be taken in hand under the Research Fellowship. Highly though I appreciate the importance of this kind of investigation, to which my own attention has been directed at a very early date, I am apt to believe, however, that the *practical* outcome of them will not be considerable. Our present knowledge, scanty and incoherent as it is, still suffices already to make certain marriages, which are especially favoured by social convention, by religion and by custom, appear to sober-thinking men, highly unsuitable. Science is not likely to gain an influence equivalent to, or even outweighing, those influences that further or restrain particular classes of marriage. On the other hand the voice of Reason, notably with respect to hygienic as well as moral considerations, is often represented by *parents* in contradiction to inclinations or even passions of their offspring (especially daughters); and the prevailing individualistic tendencies of the present age, greatly in favour of individual choice and of the natural right of Love, mostly, or at least very often, dumb that voice of Reason and render it more and more powerless. Eugenics has to contend against the two fronts: against the *mariage de convenance* on the one side, the *mariage de passion* on the other.

7. But this applies chiefly to the upper strata of society, where a certain influence of scientific results may be presumed on principle with greater likelihood than among the multitude. Mr. Galton wishes the

national importance of Eugenics to be introduced into the national conscience like a new religion. I do not believe that this will be possible, unless the conditions of every day existence were entirely revolutionised beforehand. The function of Religion has always been to give *immediate* relief to pressing discomforts, and to connect it with hopeful prospects of an *individual* life to come. The life of the race is a subject entirely foreign to popular feelings, and will continue to be so, unless the mass should be exempt from daily toil and care, to a degree which we are unable to realise at present.

8. However, the first and main point is to secure the general *intellectual* acceptance of Eugenics as a hopeful and most important study. I willingly and respectfully give my fullest sympathy and approval to this claim.

I have tried to express my sentiments here as evoked by the two most interesting papers. I have been obliged to do so in great haste, and consequently, as I am aware, in very bad English, for which I must apologise.

FROM PROFESSOR AUGUST WEISMANN.

It has given me great pleasure to learn that a Sociological Society has been formed in England, and to see that so many distinguished names are associated with its inauguration and proceedings.

As for the request that I should send "an expression of my views on the subject" of Mr. Galton's two papers, I fear I can have nothing to say that will be at all new.

I think there is one question, however, of very great importance which has not yet, so far as I know, been investigated, and to which the statistical method alone can supply an answer. It is this:—Whether, when a hereditary disease like tuberculosis has made its appearance in a family it is afterwards possible for it to be entirely banished from this or that branch of the family; or whether, on the contrary, the progeny of these members of the family who appear healthy must not sooner or later produce a tuberculous offspring?

I am fully aware that there exists already a great mass of statistical matter on the subject of "tuberculosis," but I cannot say that it seems to me sufficient, thus far, to justify a sure conclusion.

Speaking for myself, I am disposed, both on theoretic grounds and in view of known facts, to opine that a complete purification and re-establishment of such a family is quite possible in the cases of slighter infection:

For I believe that hereditary transmission in such cases depends upon an infected condition of the seed, germ, or generative cell; that it is conceivable that single generative cells of the parent may remain free from bacilli; that an entirely healthy child may be developed from one such

generative cell, and that from this shoot an entirely healthy branch of the family may grow in time.

I would almost go so far as to say that if this were *not* the case, then there could hardly be a family on earth to-day unaffected by hereditary disease.

Let me ask the Sociological Society to accept this note as merely an indication of my willingness to make at least a very small contribution to the list of those sociological problems which the Society aims at solving.

FROM THE HON. V. LADY WELBY.

It is obvious that in the question of eugenic restrictions in marriage there are two opposite points of view from which we may work: (1) that of making the most of the race, which concentrates interest, not on the parents—who are then merely, like the organism itself, the germ carriers—but always on the children (in their turn merely race-bearers); and (2) that of making the most of the individual, and thus raising the standard of the whole by raising that of its parts. The problem is to combine these in the future more adequately than has been attempted in the past.

In a small contribution to the discussion on Mr. Galton's first paper I appealed to women to realise more clearly their true place and gift as representing that original racial motherhood, out of which the masculine and feminine characters have arisen. It seems advisable now to take somewhat wider ground.

When, in the interests of an ascending family ideal, we emphasise the need for restrictions on marriage which shall embody all those, as summarised in Mr. Galton's paper, to which human societies have already submitted, we have to consummate a further marriage—one of ideas; we have to combine what may appear to be incompatible aims. In the first place, in order to foster all that makes for a higher and nobler type of humanity than any we have yet known how to realise, we must face the fact that some sacrifice of emotion become relatively unworthy is imperative. Else we weaken "the earnest desire not to infringe the sanctity and freedom of the social relations of a family group." But the sacrifice is of an emotion which has ceased to make for Man and now makes for Self or for reversion to the sub-human.

We are always confronted with a practical paradox. The marriage which makes for the highest welfare of the united man and woman may be actually inimical to the children of that union. The marriage which makes for the highest type of family and its highest and fullest development may often mean, and must always tend to mean, the inhibition of much that makes for individual perfection.

And since the children in their turn will be confronted by the same initial difficulty it may be desirable not only to define our aim and the best

methods of reaching it, but to suggest one or two simple prior considerations which are seldom taken into account. One of these is the fact that, speaking generally, human development is a development of the higher brain and its new organ, the hand. It may, I suppose, be said that the rest of the organism has not been correspondingly developed, but remains essentially on the animal level. What especially concerns us here is that this includes the uterine system, which has even tended to retrograde. Here, surely, we have the key to many social and ethical difficulties in the marriage question.

This relatively enormous complexity of brain, disturbing, or at least altering the organic balance, coupled with the sexual incompleteness of the individual, has cost us dear. All such special developments involving comparative overgrowth must do this. In this case we have gained, of course, a priceless analytical, constructive, and elaborative faculty. But there seem to be many indications that we have correspondingly lost a direct and trustworthy reaction to the stimuli of nature in its widest sense, a reaction that should deserve the name of intuition as representing a practically unerring instinct. An eugenic advance secured by an increase of moral sensitiveness on the subject of parentage may well tend to restore on a higher level these primordial responses to excitation of all kinds. But of course it will still rest with education, in all senses and grades, either (as, on the whole, at present) to blunt or distort them, or to interpret and train them into directed and controlled efficiency.

At present our mental history seems to present a curious anomaly. On the one hand we see what, compared with the animal and even with the lower intellectual human types, is an amazing development of logical precision, ordered complexity of reasoning, rigorous validity of conclusion, all ultimately depending for their productive value on the validity of the presuppositions from which they start. On the other hand, this initial validity can but seldom, if ever, be proved experimentally or by argument, or be established by universal experience. Thus the very perfection of the rational development is always liable to lead us further and further astray. The result we see in endless discussions which tend rather to divide than to unite us by hardening into opposed views of what we take for reality, and to confuse or dim the racial outlook and hinder the racial ascent.

It is to be hoped then that one result of the creation of a eugenic conscience will be a restoration of the human balance, bringing about an immensely increased power of revising familiar assumptions and thus of rightly interpreting experience and the natural world. This must make for the solution of pressing problems which at present cannot even be worthily stated. For there is no more significant sign of the present deadlock resulting from the anomaly just indicated, than the general neglect of the question of effective expression, and therefore of its central value to us; that is, what we are content vaguely to call its meaning.

Such a line of thought may seem, for the very reason of this neglect, far enough from the subject to be dealt with,—from the question of restrictions in marriage. But in the research, studies, and discussions which ought to precede any attempt in the direction of giving effect to an aroused sense of eugenic responsibility, surely this factor will really be all-important: It must be hoped that such discussion will be carried on by those in whom what, for convenience sake, I would call the mother-sense, or the sense of human, even of vital origin and significance, is not entirely overlaid by the priceless power of co-ordinating subtle trains of abstract reasoning. For this supreme power easily defeats itself by failing to examine and rectify the all-potent starting point of its activities, the simple and primary assumption.

I have admitted that the foregoing suggestions—offered with all diffidence—seem to be far from the present subject of discussion, with which, indeed, I have not attempted directly to deal. I would only add that this is not because such questions have not the deepest interest for me, as for all who in any degree realise their urgency.

We shall have to discuss, though I hope in some cases privately, such questions as the influence on descendants of the existence or the lack of reverent love and loyalty between parents, not as “acquired characters,” in the controversial sense, but as giving full play to the highest currents of our mental and spiritual life. We shall have to consider the possibilities of raising the whole moral standard of the race, so that the eugenic loyalty shown in instinctive form on the sub-human plane should be reproduced in humanity consciously, purposively, and progressively. Finally, we shall have to reconsider the two cults of Self and Happiness, which we are so prone to make ultimate. The truly eugenic conscience will look upon self as a means and an instrument of consecrated service; and happiness not as an end or an ideal to strive for, since such striving ignobly defeats its own object, but—as sorrow or disappointment may also become—a means or a result of purifying and energising the human activities to an extent as yet difficult to speak of.

CONTRIBUTORY NOTES

Brief communications were contributed by, amongst others :

Professor B. ALTAMIRA (of the University of Oviedo), who wrote:—
“The subjects of Mr. Galton’s communications are very interesting, and there should be some very valuable information forthcoming on the forms of marriage (endogamy, exogamy, etc.) to be unearthed from the actual juridical manners and customs of Spain.”

Mr. F. CARREL, who wrote:—“I should like to ask Mr. Galton whether the general practice of eclectic mating might not tend to the production of a very inferior residual type, always condemned to mate together until eliminated from an existence in which they would be too unfitted to participate; and, if so, whether such a system can be adopted without inflicting suffering upon the more or less slowly disappearing residuum?”

Mrs. FAWCETT, who wrote:—“Mr. Galton evidently realises that he has a gigantic task before him, that of raising up a new standard of conduct on one of the most fundamental of human relations. At present, the great majority of men and women, otherwise conscientious, seem to have no conscience about their responsibility for the improvement or deterioration of the race. One frequently observes cases of men suffering from mortal and incurable disease who apparently have no idea that it is wrong to have children who will probably enter life, heavily handicapped by inherited infirmity. Two thirds of what is called the social evil would disappear of itself, if responsibility for the welfare of the coming generation found its fitting place in the conscience of the average man. I wish all success to Mr. Francis Galton’s efforts.”

Professor J. G. MCKENDRICK, who wrote:—“Mr. Galton is opening up a subject of great interest and importance—more especially in its rela-

tion to improving the physical, mental, and pure qualities of the race. At present much is carried on by haphazard, and I fear the consequence is that we see indications of degeneration in various directions. I heartily wish much success to those who are carrying on investigations of these important problems. We are all indebted to Mr. Galton for his valuable and deeply suggestive papers."

Professor J. H. MUIRHEAD, who wrote:—"I think Mr. Galton's suggestions for the advance of the study and practice of Eugenics most important, and hope our Society may do something to forward the subject."

Professor E. B. POULTON, who wrote:—"I entirely agree with the aims Mr. Galton has in view and profoundly admire his papers on this subject. I think they unfold great possibilities for the human race."

The Hon. BERTRAND RUSSELL, who wrote:—"I have read Mr. Galton's two papers in abstract with much interest, and agree entirely with the view that marriage customs might be modified in a eugenic direction."

Mr. C. A. WITCHELL (*Author of "The Cultivation of Man"*), who wrote:—"There is one factor operating in the selection of husbands and wives which will be extremely difficult to bring within the purview of eugenics, and which is yet supreme in its influence. The union of the sexes in its higher form is not a matter of passion, but of the more powerful and enduring sentiment which we call love. The capturing of mates is not confined to mankind; the polygamous birds exhibit it. But there are birds that sing to win a mate—these have a delayed courtship; and in man this is developed to still nobler ideals. Let a man look around him at a public ball. Would he choose for mother of his children the woman who of all present has the greatest physical attractions? Nothing of the kind. The one he chooses (by instinct) is the one who inspires him with a certain elevation of spiritual sentiment, who, indeed, freezes his physical nature out of his thought—whom he could hardly pay a compliment to, and yet whom he knows he would select from among them all. Why does he choose her? Has he not made selection through the assessors chosen by Nature—certain subtle and undefinable perceptions received through the senses of sight and hearing. These perceptions, fleet and instant messengers, have not been delayed by social distances. They have pierced all the flimsy armour of fashion, they have penetrated the shams of culture, and have told his inmost sense of consciousness—his soul—what hers is like. By that knowledge his soul has chosen hers; and unless science can analyse this subtle process of spiritual selection it must stand aside. By all means let eugenics advance! But let its exponents pause to analyse first what is now the most powerful factor governing the selection of the sexes, and seek to take advantage of it rather than to stifle it with mere physical agencies. To sterilise defective

types is one thing ; to eliminate the criminally weak and diseased is another—equally reasonable. But let us beware lest we do anything that may tend to obliterate by physical means the higher instinctive teachings of sexual selection."

A MEMBER OF THE SOCIOLOGICAL SOCIETY, who is a well-known writer, but wishes here to remain anonymous:—"My own views are on the side of the largest scope being given to what might be called interference in the matter, and for this reason I should even regret the abrogation of the sister-in-law disability, mistaken as it seems to me on its merits. I mean anything which keeps alive the sense that marriage is the affair of the State seems to me to have a certain value. When one knows, as I do, of a certain physician asking a patient, 'Were your parents first cousins?' and the affirmative answer, one feels certain that here is a realm of duty to which conscience has yet to awaken."

MR. GALTON'S REPLY.

This Society has cause to congratulate itself on the zeal and energy which has brought together so large a body of opinion. We have had verbal contributions from four eminent specialists in anthropology: Dr. Haddon, Dr. Mott, Mr. Crawley and Dr. Westermarck, and numerous written communications have been furnished by well-known persons. At the time that I am revising and extending these words no less than twenty-six contributions to the discussion are in print. Want of space compels me to confine my reply to those remarks that seem more especially to require it, and to do so very briefly, for Eugenics is a wide study, with an uncounted number of side issues into which those who discuss it are tempted to stray. If, however, sure advance is to be made, these issues must be thoroughly explored, one by one, and partial discussion should as far as possible be avoided. To change the simile, we have to deal with a formidable chain of strongholds, which must be severally attacked in force, reduced, and disposed of, before we can proceed freely.

In the first place, it is a satisfaction to find that no one impugns the conclusion which my memoir was written to justify, that history tells how restrictions in marriage, even of an excessive kind, have been contentedly accepted very widely, under the guidance of what I called "immaterial motives." This is all I had in view when writing it.

Certificates.—One of the comments on which I will remark is that if certificates were now offered to those who passed certain examinations into health, physique, moral and intellectual powers, and hereditary gifts, great mistakes would be made by the examiners. I fully agree that it is too early to devise a satisfactory system of marks for giving what might

be styled "honour-certificates," because we do not yet possess sufficient data to go upon. On the other hand, there are persons who are exceptionally and unquestionably unfit to contribute offspring to the nation, such as those mentioned in Dr. Mott's bold proposals. The best methods of dealing with these are now ripe for immediate consideration.

Breeding for points.—It is objected by many that there cannot be unanimity on the "points" that it is most desirable to breed for. I fully discussed this objection in my memoir read here last spring, showing that some qualities such as health and vigour were thought by all to be desirable, and the opposite undesirable, and that this sufficed to give a first direction to our aims. It is a safe starting point, though a great deal more has to be inquired into as we proceed on our way. I think that some contributors to this discussion have been needlessly alarmed. No question has been raised by me of breeding men like animals for particular points, to the disregard of all-round efficiency in physical, intellectual (including moral), and hereditary qualifications. Moreover, as statistics have shown, the best qualities are largely correlated. The youths who became judges, bishops, statesmen, and leaders of progress in England could have furnished formidable athletic teams in their times. There is a tale, I know not how far founded on fact, that Queen Elizabeth had an eye to the calves of the legs of those she selected for bishops. There is something to be said in favour of selecting men by their physical characteristics for other than physical purposes. It would decidedly be safer to do so than to trust to pure chance.

The residue.—It is also objected that if the inferior moiety of a race are left to intermarry, their produce will be increasingly inferior. This is certainly an error. The law of "regression towards mediocrity" insures that their offspring, as a whole, will be superior to themselves; and if, as I sincerely hope, a freer action will be hereafter allowed to selective agencies than hitherto, the portion of the offspring so selected would be better still. The influences that now withstand the free action of selective agencies are numerous, they include indiscriminate charity.

Passion of love.—The argument has been repeated that love is too strong a passion to be restrained by such means as would be tolerated at the present time. I regret that I did not express the distinction that ought to have been made between its two stages, that of slight inclination and that of falling thoroughly into love, for it is the first of these rather than the second that I hope the popular feeling of the future will successfully resist. Every match-making mother appreciates the difference. If a girl is taught to look upon a class of men as tabooed, whether owing to rank, creed, connections, or other causes, she does not regard them as possible husbands and turns her thoughts elsewhere. The proverbial "Mrs. Grundy" has enormous influence in checking the marriages she considers indiscreet.

Eugenics as a factor in religion.—Remarks have been made concerning eugenics as a religion; this will be the subject of the brief memoir that follows these remarks.

It is much to be desired that competent persons would severally take up one or other of the many topics mentioned in my second memoir, or others of a similar kind, and work it thoroughly out as they would any ordinary scientific problem; in this way solid progress would be made. I must be allowed to re-emphasise my opinion that an immense amount of investigation has to be accomplished before a definite system of Eugenics can be safely framed.

III.

EUGENICS AS A FACTOR IN RELIGION.

Eugenics strengthens the sense of social duty in so many important particulars that the conclusions derived from its study ought to find a welcome home in every tolerant religion. It promotes a far-sighted philanthropy, the acceptance of parentage as a serious responsibility, and a higher conception of patriotism. The creed of eugenics is founded upon the idea of evolution; not on a passive form of it, but on one that can to some extent direct its own course. Purely passive, or what may be styled mechanical evolution, displays the awe-inspiring spectacle of a vast eddy of organic turmoil, originating we know not how, and travelling we know not whither. It forms a continuous whole from first to last, reaching backward beyond our earliest knowledge and stretching forward as far as we think we can foresee. But it is moulded by blind and wasteful processes, namely, by an extravagant production of raw material and the ruthless rejection of all that is superfluous, through the blundering steps of trial and error. The condition at each successive moment of this huge system, as it issues from the already quiet past and is about to invade the still undisturbed future, is one of violent internal commotion. Its elements are in constant flux and change, though its general form alters but slowly. In this respect, it resembles the curious stream of cloud that sometimes seems attached to a mountain top during the continuance of a strong breeze; its constituents are always

changing, though its shape as a whole hardly varies. Evolution is in any case a grand phantasmagoria, but it assumes an infinitely more interesting aspect under the knowledge that the intelligent action of the human will is, in some small measure, capable of guiding its course. Man has the power of doing this largely so far as the evolution of humanity is concerned; he has already affected the quality and distribution of organic life so widely that the changes on the surface of the earth, merely through his disforestings and agriculture, would be recognisable from a distance as great as that of the moon.

As regards the practical side of eugenics, we need not linger to re-open the unending argument whether man possesses any creative power of will at all, or whether his will is not also predetermined by blind forces or by intelligent agencies behind the veil, and whether the belief that man can act independently is more than a mere illusion. This matters little in practice, because men, whether fatalists or not, work with equal vigour whenever they perceive they have the power to act effectively.

Eugenic belief extends the function of philanthropy to future generations, it renders its action more pervading than hitherto, by dealing with families and societies in their entirety, and it enforces the importance of the marriage covenant by directing serious attention to the probable quality of the future offspring. It sternly forbids all forms of sentimental charity that are harmful to the race, while it eagerly seeks opportunity for acts of personal kindness, as some equivalent to the loss of what it forbids. It brings the tie of kinship into prominence and strongly encourages love and interest in family and race. In brief, eugenics is a virile creed, full of hopefulness, and appealing to many of the noblest feelings of our nature.