

II

THE PROBLEM OF THE BIRTH SUPPLY

Within the last minute seven new citizens were born into that great English-speaking community which is scattered under various flags and governments throughout the world. And according to the line of thought developed in the previous paper we perceive that the real and ultimate business, so far as this world goes, of every statesman, every social organizer, every philanthropist, every business manager, every man who lifts his head for a moment from the mean pursuit of his immediate personal interests, from the gratification of his private desires, is, as the first and immediate thing, to do his best for these new-comers, to get the very best result, so far as his powers and activities can contribute to it, from their undeveloped possibilities. And in the next place, as a remoter, but perhaps finally more fundamental duty, he has to inquire what may be done individually or collectively to raise the standard and quality of the average birth. All the great concerns of life work out with a very little analysis to that, even our wars, our orgies of destruction, have, at the back of them, a claim, an intention, however futile in its conception and disastrous in its consequences, to establish a wider security, to destroy a standing menace, to open new paths and possibilities, in the interest of the generations still to come. One may present the whole matter in a simplified picture by imagining all our statesmen, our philanthropists and public men, our parties and institutions gathered into one great

hall, and into this hall a huge spout, that no man can stop, discharges a baby every eight seconds. That is, I hold, a permissible picture of human life, and whatever is not represented at all in that picture is a divergent and secondary concern. Our success or failure with that unending stream of babies is the measure of our civilization; every institution stands or falls by its contribution to that result, by the improvement of the children born, or by the improvement in the quality of births attained under its influence.

To begin these speculations in logical order we must begin at the birth point, we must begin by asking how much may we hope, now or at a later time, to improve the supply of that raw material which is perpetually dumped upon our hands? Can we raise, and if so, what can we do to raise the quality of the average birth?

This speculation is as old at least as Plato, and as living as the seven or eight babies born into the English-speaking world since the reader began this Paper. The conclusion that if we could prevent or discourage the inferior sorts of people from having children, and if we could stimulate and encourage the superior sorts to increase and multiply, we should raise the general standard of the race, is so simple, so obvious, that in every age I suppose there have been voices asking in amazement, why the thing is not done? It is so usual to answer that it is not done on account of popular ignorance, public stupidity, religious prejudice or superstition, that I shall not apologize for giving some little space here to the suggestion that in

reality it is not done for quite a different reason.

We blame the popular mind overmuch. Earnest but imperfect men, with honest and reasonable but imperfect proposals for bettering the world, are all too apt to raise this bitter cry of popular stupidity, of the sheep-like quality of common men. An unjustifiable persuasion of moral and intellectual superiority is one of the last infirmities of innovating minds. We may be right, but we must be provably, demonstrably and overpoweringly right before we are justified in calling the dissentient a fool. I am one of those who believe firmly in the invincible nature of truth, but a truth that is badly put is not a truth, but an infertile hybrid lie. Before we men of the study blame the general body of people for remaining unaffected by reforming proposals of an almost obvious advantage, it would be well if we were to change our standpoint and examine our machinery at the point of application. A rock-drilling machine may be excellently invented and in the most perfect order except for a want of hardness in the drill, and yet there will remain an unpierced rock as obdurate as the general public to so many of our innovations.

I believe that if a canvass of the entire civilized world were put to the vote in this matter, the proposition that it is desirable that the better sort of people should intermarry and have plentiful children, and that the inferior sort of people should abstain from multiplication, would be carried by an overwhelming majority. They might disagree with Plato's methods, [Footnote: The Republic,

Bk. V.] but they would certainly agree to his principle. And that this is not a popular error Mr. Francis Galton has shown. He has devoted a very large amount of energy and capacity to the vivid and convincing presentation of this idea, and to its courageous propagation. His Huxley Lecture to the Anthropological Institute in 1901 [Footnote: Nature, vol. lxiv. p. 659.] puts the whole matter as vividly as it ever can be put. He classifies humanity about their average in classes which he indicates by the letters R S T U V rising above the average and r s t u v falling below, and he saturates the whole business in quantitative colour. Indeed, Mr. Galton has drawn up certain definite proposals. He has suggested that "noble families" should collect "fine specimens of humanity" around them, employing these fine specimens in menial occupations of a light and comfortable sort, that will leave a sufficient portion of their energies free for the multiplication of their superior type. "Promising young couples" might be given "healthy and convenient houses at low rentals," he suggests, and no doubt it could be contrived that they should pay their rent partly or entirely per stone of family annually produced. And he has also proposed that "diplomas" should be granted to young men and women of high class--big S and upward--and that they should be encouraged to intermarry young. A scheme of "dowries" for diploma holders would obviously be the simplest thing in the world. And only the rules for identifying your great S T U and V in adolescence, are wanting from the symmetrical completeness of his really very noble-spirited and high-class scheme.

At a more popular level Mrs. Victoria Woodhull Martin has battled bravely in the cause of the same foregone conclusion. The work of telling the world what it knows to be true will never want self-sacrificing workers. The Humanitarian was her monthly organ of propaganda. Within its cover, which presented a luminiferous stark ideal of exemplary muscularity, popular preachers, popular bishops, and popular anthropologists vied with titled ladies of liberal outlook in the service of this conception. There was much therein about the Rapid Multiplication of the Unfit, a phrase never properly explained, and I must confess that the transitory presence of this instructive little magazine in my house, month after month (it is now, unhappily, dead), did much to direct my attention to the gaps and difficulties that intervene between the general proposition and its practical application by sober and honest men. One took it up and asked time after time, "Why should there be this queer flavour of absurdity and pretentiousness about the thing?" Before the Humanitarian period I was entirely in agreement with the Humanitarian's cause. It seemed to me then that to prevent the multiplication of people below a certain standard, and to encourage the multiplication of exceptionally superior people, was the only real and permanent way of mending the ills of the world. I think that still. In that way man has risen from the beasts, and in that way men will rise to be over-men. In those days I asked in amazement why this thing was not done, and talked the usual nonsense about the obduracy and stupidity of the world. It is only after a considerable amount of thought and inquiry that I am beginning to understand why for many generations, perhaps, nothing of the sort can

possibly be done except in the most marginal and tentative manner.

If to-morrow the whole world were to sign an unanimous round-robin to Mr. Francis Galton and Mrs. Victoria Woodhull Martin, admitting absolutely their leading argument that it is absurd to breed our horses and sheep and improve the stock of our pigs and fowls, while we leave humanity to mate in the most heedless manner, and if, further, the whole world, promising obedience, were to ask these two to gather together a consultative committee, draw up a scheme of rules, and start forthwith upon the great work of improving the human stock as fast as it can be done, if it undertook that marriages should no longer be made in heaven or earth, but only under licence from that committee, I venture to think that, after a very brief epoch of fluctuating legislation, this committee, except for an extremely short list of absolute prohibitions, would decide to leave matters almost exactly as they are now; it would restore love and private preference to their ancient authority and freedom, at the utmost it would offer some greatly qualified advice, and so released, it would turn its attention to those flaws and gaps in our knowledge that at present render these regulations no more than a theory and a dream.

The first difficulty these theorists ignore is this: we are, as a matter of fact, not a bit clear what points to breed for and what points to breed out.

The analogy with the breeder of cattle is a very misleading one. He has

a very simple ideal, to which he directs the entire pairing of his stock. He breeds for beef, he breeds for calves and milk, he breeds for a homogeneous docile herd. Towards that ideal he goes simply and directly, slaughtering and sparing, regardless entirely of any divergent variation that may arise beneath his control. A young calf with an incipient sense of humour, with a bright and inquiring disposition, with a gift for athleticism or a quaintly-marked hide, has no sort of chance with him at all on that account. He can throw these proffered gifts of nature aside without hesitation. Which is just what our theoretical breeders of humanity cannot venture to do. They do not want a homogeneous race in the future at all. They want a rich interplay of free, strong, and varied personalities, and that alters the nature of the problem absolutely.

This the reader may dispute. He may admit the need of variety, but he may argue that this variety must arise from a basis of common endowment. He may say that in spite of the complication introduced by the consideration that a divergent variation from one ideal may be a divergence towards another ideal, there remain certain definable points, that could be bred for universally, for all that.

What are they?

There will be little doubt he will answer "Health." After that probably he may say "Beauty." In addition the reader of Mr. Galton's Hereditary Genius will probably say, "ability," "capacity,"

"genius," and "energy." The reader of Doctor Nordau will add "sanity." And the reader of Mr. Archdall Reid will round up the list with "immunity" from dipsomania and all contagious diseases. "Let us mark our human beings," the reader of that way of thinking will suggest, "let us give marks for 'health,' for 'ability,' for various sorts of specific immunity and so forth, and let us weed out those who are low in the scale and multiply those who stand high. This will give us a straight way to practical amelioration, and the difficulty you are trying to raise," he urges, "vanishes forthwith."

It would, if these points were really points, if "beauty," "capacity," "health," and "sanity" were simple and uniform things. Unfortunately they are not simple, and with that fact a host of difficulties arise. Let me take first the most simple and obvious case of "beauty." If beauty were a simple thing, it would be possible to arrange human beings in a simple scale, according to whether they had more or less of this simple quality--just as one can do in the case of what are perhaps really simple and breedable qualities--height or weight. This person, one might say, is at eight in the scale of beauty, and this at ten, and this at twenty-seven. But it complicates the case beyond the possibilities of such a scale altogether when one begins to consider that there are varieties and types of beauty having very wide divergences and made up of a varying number of elements in dissimilar proportions. There is, for example, the flaxen, kindly beauty of the Dutch type, the dusky Jewess, the tall, fair Scandinavian, the dark and brilliant south Italian, the noble Roman, the dainty Japanese--to name

no others. Each of these types has its peculiar and incommensurable points, and within the limits of each type you will find a hundred divergent, almost unanalyzable, styles, a beauty of expression, a beauty of carriage, a beauty of reflection, a beauty of repose, arising each from a quite peculiar proportion of parts and qualities, and having no definable relation at all to any of the others. If we were to imagine a human appearance as made up of certain elements, a, b, c, d, e, f, etc., then we might suppose that beauty in one case was attained by a certain high development of a and f, in another by a certain fineness of c and d, in another by a delightfully subtle ratio of f and b.

A, b, c, d, e, F, etc.

a, b, c, d, e, f, etc.

a, b, c, d, e, F, etc.,

might all, for example, represent different types of beauty. Beauty is neither a simple nor a constant thing; it is attainable through a variety of combinations, just as the number 500 can be got by adding or multiplying together a great variety of numerical arrangements. Two long numerical formulae might both simplify out to 500, but half the length of one truncated and put end on to the truncated end of the other, might give a very different result. It is quite conceivable that you might select and wed together all the most beautiful people in the world and find that in nine cases out of ten you had simply produced mediocre offspring or offspring below mediocrity. Out of the remaining

tenth a great majority would be beautiful simply by "taking after" one or other parent, simply through the predominance, the prepotency, of one parent over the other, a thing that might have happened equally well if the other parent was plain. The first sort of beauty (in my three formulae) wedding the third sort of beauty, might simply result in a rather ugly excess of F, and again the first sort might result from a combination of

a, b, c, d, e, F, etc.,

and

A, b, c, d, e, f, etc.,

neither of which arrangements, very conceivably, may be beautiful at all when it is taken alone. In this respect, at any rate, personal value and reproductive value may be two entirely different things.

Now what the elements of personal aspect really are, what these elements a, b, c, d, e, f, etc., may be, we do not know with any sort of exactness. Possibly height, weight, presence of dark pigment in the hair, whiteness of skin, presence of hair upon the body, are simple elements in inheritance that will follow Galton's arithmetical treatment of heredity with some exactness. But we are not even sure of that. The height of one particular person may be due to an exceptional length of leg and neck, of another to an abnormal length of the vertebral bodies of the backbone; the former may have a rather less than ordinary backbone, the latter a stunted type of limb, and an

intermarriage may just as conceivably (so far as our present knowledge goes) give the backbone of the first and the legs of the second as it may a very tall person.

The fact is that in this matter of beauty and breeding for beauty we are groping in a corner where science has not been established. No doubt the corner is marked out as a part of the "sphere of influence" of anthropology, but there is not the slightest indication of an effective occupation among these raiding considerations and uncertain facts. Until anthropology produces her Daltons and Davys we must fumble in this corner, just as the old alchemists fumbled for centuries before the dawn of chemistry. Our utmost practice here must be empirical. We do not know the elements of what we have, the human characteristics we are working upon to get that end. The sentimentalized affinities of young persons in their spring are just as likely to result in the improvement of the race in this respect as the whole science of anthropology in its present state of evolution.

I have suggested that "beauty" is a term applied to a miscellany of synthetic results compounded of diverse elements in diverse proportions; and I have suggested that one can no more generalize about it in relation to inheritance with any hope of effective application than one can generalize about, say, "lumpy substances" in relation to chemical combination. By reasoning upon quite parallel lines nearly every characteristic with which Mr. Galton deals in his interesting and suggestive but quite inconclusive works, can be demonstrated to consist

in a similar miscellany. He speaks of "eminence," of "success," of "ability," of "zeal," and "energy," for example, and except for the last two items I would submit that these qualities, though of enormous personal value, are of no practical value in inheritance whatever; that to wed "ability" to "ability" may breed something less than mediocrity, and that "ability" is just as likely or just as unlikely to be prepotent and to assert itself in descent with the most casually selected partner as it is with one picked with all the knowledge, or rather pseudo-knowledge, anthropology in its present state can give us.

When, however, we turn to "zeal" or "energy" or "go," we do seem to be dealing with a simpler and more transmissible thing. Let us assume that in this matter there is a wide range of difference that may be arranged in a direct and simple scale in quantitative relation to the gross output of action of different human beings. One passes from the incessant employment of such a being as Gladstone at the one extreme, a loquacious torrent of interests and achievements, to the extreme of phlegmatic lethargy on the other. Call the former a high energetic and the latter low. Quite possibly it might be found that we could breed "high energetics." But before we did so we should have to consider very gravely that the "go" and "energy" of a man have no ascertainable relation to many other extremely important considerations. Your energetic person may be moral or immoral, an unqualified egotist or as public spirited as an ant, sane, or a raving lunatic. Your phlegmatic person may ripen resolves and bring out truths, with the incomparable clearness of a long-exposed, slowly developed, slowly printed

photograph. A man who would exchange the slow gigantic toil of that sluggish and deliberate person, Charles Darwin, for the tumultuous inconsequence and (as some people think it) the net mischief of a Gladstone, would no doubt be prepared to substitute a Catherine-wheel in active eruption for the watch of less adventurous men. But before we could induce the community as a whole to make a similar exchange, he would have to carry on a prolonged and vigorous propaganda.

For my own part--and I write as an ignorant man in a realm where ignorance prevails--I am inclined to doubt the simplicity and homogeneity even of this quality of "energy" or "go." A person without restraint, without intellectual conscience, without critical faculty, may write and jabber and go to and fro and be here and there, simply because every impulse is obeyed so soon as it arises. Another person may be built upon an altogether larger scale of energy, but may be deliberate, concentrated, and fastidious, bent rather upon truth and permanence than upon any immediate quantitative result, and may appear to any one but an extremely penetrating critic, as inferior in energy to the former. So far as our knowledge goes at present, what is popularly known as "energy" or "go" is just as likely to be a certain net preponderance of a varied miscellany of impulsive qualities over a varied miscellany of restraints and inhibitions, as it is to prove a simple indivisible quality transmissible intact. We are so profoundly ignorant in these matters, so far from anything worthy of the name of science, that one view is just as permissible and just as untrustworthy as the other.

Even the qualification of "health" is not sufficient. A thoughtless person may say with the most invincible air, "Parents should, at any rate, be healthy," but that alone is only a misleading vague formula for good intentions. In the first place, there is every reason to believe that transitory ill-health in the parent is of no consequence at all to the offspring. Neither does acquired constitutional ill-health necessarily transmit to a child; it may or it may not react upon the child's nutrition and training, but that is a question to consider later. It is quite conceivable, it is highly probable, that there are hereditary forms of ill-health, and that they may be eliminated from the human lot by discreet and restrained pairing, but what they are and what are the specific conditions of their control we do not know. And furthermore, we are scarcely more certain that the condition of "perfect health" in one human being is the same as the similarly named condition in another, than we are that the beauty of one type is made up of the same essential elements as the beauty of another. Health is a balance, a balance of blood against nerve, of digestion against secretion, of heart against brain. A heart of perfect health and vigour put into the body of a perfectly healthy man who is built upon a slighter scale than that heart, will swiftly disorganize the entire fabric, and burst its way to a haemorrhage in lung perhaps, or brain, or wherever the slightest relative weakening permits. The "perfect" health of a negro may be a quite dissimilar system of reactions to the "perfect health" of a vigorous white; you may blend them only to create an ailing mass of physiological discords. "Health," just as much as

these other things, is, for this purpose of marriage diplomas and the like, a vague, unserviceable synthetic quality. It serves each one of us for our private and conversational needs, but in this question it is not hard enough and sharp--enough for the thing we want it to do. Brought to the service of this fine and complicated issue it breaks down altogether. We do not know enough. We have not analyzed enough nor penetrated enough. There is no science yet, worthy of the name, in any of these things. [Footnote: This idea of attempting to define the elements in inheritance, although it is absent from much contemporary discussion, was pretty evidently in mind in the very striking researches of the Abbé Mendel to which Mr. Bateson--with a certain intemperance of manner--has recently called attention. (Bateson, Mendel's Principles of Heredity, Cambridge University Press, 1902.)]

These considerations should at least suffice to demonstrate the entire impracticability of Mr. Galton's two suggestions. Moreover, this idea of picking out high-scale individuals in any particular quality or group of qualities and breeding them, is not the way of nature at all. Nature is not a breeder; she is a reckless coupler and--she slays. It was a popular misconception of the theory of the Survival of the Fittest, a misconception Lord Salisbury was at great pains to display to the British Association in 1894, that the average of a species in any respect is raised by the selective inter-breeding of the individuals above the average. Lord Salisbury was no doubt misled, as most people who share his mistake have been misled, by the grammatical

error of employing the Survival of the Fittest for the Survival of the Fitter, in order to escape a scarcely ambiguous ambiguity. But the use of the word "Survival" should have sufficed to indicate that the real point of application of the force by which Nature modifies species and raises the average in any quality, lies not in selective breeding, but in the disproportionately numerous deaths of the individuals below the average. And even the methods of the breeder of cattle, if they are to produce a permanent alteration in the species of cattle, must consist not only in breeding the desirable but in either killing the undesirable, or at least--what is the quintessence, the inner reality of death--in preventing them from breeding.

The general trend of thought in Mrs. Martin's Humanitarian was certainly more in accordance with this reading of biological science than were Mr. Galton's proposals. There was a much greater insistence upon the need of "elimination," upon the evil of the "Rapid Multiplication of the Unfit," a word that, however, was never defined and, I believe, really did not mean anything in particular in this connection. And directly one does attempt to define it, directly one sits down in a businesslike way to apply the method of elimination instead of the method of selection, one is immediately confronted by almost as complex an entanglement of difficulties in defining points to breed out as one is by defining points to breed for. Almost, I say, but not quite. For here there does seem to be, if not certainties, at least a few plausible probabilities that a vigorous and systematic criticism may perhaps hammer into generalizations of sufficient certainty to go

upon.

I believe that long before humanity has hammered out the question of what is pre-eminently desirable in inheritance, a certain number of things will have been isolated and defined as pre-eminently undesirable. But before these are considered, let us sweep out of our present regard a number of cruel and mischievous ideas that are altogether too ascendant at the present time.

Anthropology has been compared to a great region, marked out indeed as within the sphere of influence of science, but unsettled and for the most part unsubdued. Like all such hinterland sciences, it is a happy hunting-ground for adventurers. Just as in the early days of British Somaliland, rascals would descend from nowhere in particular upon unfortunate villages, levy taxes and administer atrocity in the name of the Empire, and even, I am told, outface for a time the modest heralds of the government, so in this department of anthropology the public mind suffers from the imposition of theories and assertions claiming to be "scientific," which have no more relation to that organized system of criticism which is science, than a brigand at large on a mountain has to the machinery of law and police, by which finally he will be hanged. Among such raiding theorists none at present are in quite such urgent need of polemical suppression as those who would persuade the heedless general reader that every social failure is necessarily a "degenerate," and who claim boldly that they can trace a distinctly evil and mischievous strain in that unfortunate miscellany which

constitutes "the criminal class." They invoke the name of "science" with just as much confidence and just as much claim as the early Victorian phrenologists. They speak and write with ineffable profundity about the "criminal" ear, the "criminal" thumb, the "criminal" glance. They gain access to gaols and pester unfortunate prisoners with callipers and cameras, and quite unforgivable prying into personal and private matters, and they hold out great hopes that by these expedients they will evolve at last a "scientific" revival of the Kaffir's witch-smelling. We shall catch our criminals by anthropometry ere ever a criminal thought has entered their brains. "Prevention is better than cure." These mattoid scientists make a direct and disastrous attack upon the latent self-respect of criminals. And not only upon that tender plant, but also upon the springs of human charity towards the criminal class. For the complex and varied chapter of accidents that carries men into that net of precautions, expedients, prohibitions, and vindictive reprisals, the net of the law, they would have us believe there is a fatal necessity inherent in their being. Criminals are born, not made, they allege. No longer are we to say, "There, but for the grace of God, go I"--when the convict tramps past us--but, "There goes another sort of animal that is differentiating from my species and which I would gladly see exterminated."

Now every man who has searched his heart knows that this formulation of "criminality" as a specific quality is a stupidity, he knows himself to be a criminal, just as most men know themselves to be sexually rogues. No man is born with an instinctive respect for the rights of any

property but his own, and few with a passion for monogamy. No man who is not an outrageously vain and foolish creature but will confess to himself that but for advantages and accidents, but for a chance hesitation or a lucky timidity, he, too, had been there, under the ridiculous callipers of witless anthropology. A criminal is no doubt of less personal value to the community than a law-abiding citizen of the same general calibre, but it does not follow for one moment that he is of less value as a parent. His personal disaster may be due to the possession of a bold and enterprising character, of a degree of pride and energy above the needs of the position his social surroundings have forced upon him. Another citizen may have all this man's desires and impulses, checked and sterilized by a lack of nervous energy, by an abject fear of the policeman and of the consequences of the disapproval of his more prosperous fellow-citizens. I will frankly confess that for my own part I prefer the wicked to the mean, and that I would rather trust the future to the former strain than to the latter. Whatever preference the reader may entertain, there remains this unmistakable objection to its application to breeding, that "criminality" is not a specific simple quality, but a complex that may interfuse with other complexes to give quite incalculable results in the offspring it produces. So that here again, on the negative side, we find a general expression unserviceable for our use. [Footnote: No doubt the home of the criminal and social failure is generally disastrous to the children born into it. That is a question that will be fully dealt; with in a subsequent paper, and I note it here only to point out that it is outside our present discussion, which is concerned

not with the fate of children born into the world, but with the prior question whether we may hope to improve the quality of the average birth by encouraging some sorts of people to have children and discouraging or forbidding others. It is of vital importance to keep these two questions distinct, if we are to get at last to a basis for effective action.]

But it will be alleged that although criminality as a whole means nothing definite enough for our purpose, there can be picked out and defined certain criminal (or at any rate disastrous) tendencies that are simple, specific and transmissible. Those who have read Mr. Archdall Reid's *Alcoholism*, for example, will know that he deals constantly with what is called the "drink craving" as if it were such a specific simple inheritance. He makes a very strong case for this belief, but strong as it is, I do not think it is going to stand the pressure of a rigorously critical examination. He points out that races which have been in possession of alcoholic drinks the longest are the least drunken, and this he ascribes to the "elimination" of all those whose "drink craving" is too strong for them. Nations unused to alcoholic drink are most terribly ravaged at its first coming to them, may even be destroyed by it, in precisely the same way that new diseases coming to peoples unused to them are far more malignant than among peoples who have suffered from them generation after generation. Such instances as the terrible ravages of measles in Polynesia and the ruin worked by fire-water among the Red Indians, he gives in great abundance. He infers from this that interference with the sale of drink

to a people may in the long run do more harm than good, by preserving those who would otherwise be eliminated, permitting them to multiply and so, generation by generation, lowering the resisting power of the race. And he proposes to divert temperance legislation from the persecution of drink makers and sellers, to such remedies as the punishment of declared and indisputable drunkards if they incur parentage, and the extension of the grounds of divorce to include this ugly and disastrous habit.

I am not averse to Mr. Reid's remedies because I think of the wife and the home, but I would not go so far with him as to consider this "drink craving" specific and simple, and I retain an open mind about the sale of drink. He has not convinced me that there is an inherited "drink craving" any more than there is an inherited tea craving or an inherited morphia craving.

In the first place I would propound a certain view of the general question of habits. My own private observations in psychology incline me to believe that people vary very much in their power of acquiring habits and in the strength and fixity of the habits they acquire. My most immediate subject of psychological study, for example, is a man of untrustworthy memory who is nearly incapable of a really deep-rooted habit. Nothing is automatic with him. He crams and forgets languages with an equal ease, gives up smoking after fifteen years of constant practice; shaves with a conscious effort every morning and is capable of forgetting to do so if intent upon anything else. He is generally

self-indulgent, capable of keen enjoyment and quite capable of intemperance, but he has no invariable delights and no besetting sin. Such a man will not become an habitual drunkard; he will not become anything "habitual." But with another type of man habit is indeed second nature. Instead of the permanent fluidity of my particular case, such people are continually tending to solidify and harden. Their memories set, their opinions set, their methods of expression set, their delights recur and recur, they convert initiative into mechanical habit day by day. Let them taste any pleasure and each time they taste it they deepen a need. At last their habits become imperative needs. With such a disposition, external circumstances and suggestions, I venture to believe, may make a man either into an habitual church-goer or an habitual drunkard, an habitual toiler or an habitual rake. A self-indulgent rather unsocial habit-forming man may very easily become what is called a dipsomaniac, no doubt, but that is not the same thing as an inherited specific craving. With drink inaccessible and other vices offering his lapse may take another line. An aggressive, proud and greatly mortified man may fall upon the same courses. An unwary youth of the plastic type may be taken unawares and pass from free indulgence to excess before he perceives that a habit is taking hold of him.

I believe that many causes and many temperaments go to the making of drunkards. I have read a story by the late Sir Walter Besant, in which he presents the specific craving as if it were a specific magic curse. The story was supposed to be morally edifying, but I can imagine this

ugly superstition of the "hereditary craving"--it is really nothing more--acting with absolutely paralyzing effect upon some credulous youngster struggling in the grip of a developing habit. "It's no good trying,"--that quite infernal phrase!

It may be urged that this attempt to whittle down the "inherited craving" to a habit does not meet Mr. Reid's argument from the gradual increase of resisting power in races subjected to alcoholic temptation, an increase due to the elimination of all the more susceptible individuals. There can be no denying that those nations that have had fermented drinks longest are the soberest, but that, after all, may be only one aspect of much more extensive operations. The nations that have had fermented drinks the longest are also those that have been civilized the longest. The passage of a people from a condition of agricultural dispersal to a more organized civilization means a very extreme change in the conditions of survival, of which the increasing intensity of temptation to alcoholic excess is only one aspect. Gluttony, for example, becomes a much more possible habit, and many other vices tender death for the first time to the men who are gathering in and about towns. The city demands more persistent, more intellectualized and less intense physical desires than the countryside. Moral qualities that were a disadvantage in the dispersed stage become advantageous in the city, and conversely. Rugged independence ceases to be helpful, and an intelligent turn for give and take, for collaboration and bargaining, makes increasingly for survival. Moreover, there grows very slowly an indefinable fabric of

traditional home training in restraint that is very hard to separate in analysis from mental heredity. People who have dwelt for many generations in towns are not only more temperate and less explosive in the grosser indulgences, but more urbane altogether. The drunken people are also the "uncivil" peoples and the individualistic peoples. The great prevalence of drunkenness among the upper classes two centuries ago can hardly have been bred out in the intervening six or seven generations, and it is also a difficult fact for Mr. Reid that drunkenness has increased in France. In most of the cases cited by Mr. Reid a complex of operating forces could be stated in which the appearance of fermented liquors is only one factor, and a tangle of consequent changes in which a gradually increasing insensibility to the charms of intoxication was only one thread. Drunkenness has no doubt played a large part in eliminating certain types of people from the world, but that it specifically eliminates one specific definable type is an altogether different matter.

Even if we admit Mr. Reid's conception, this by no means solves the problem. It is quite conceivable that the world could purchase certain sorts of immunity too dearly. If it was a common thing to adorn the parapets of houses in towns with piles of loose bricks, it is certain that a large number of persons not immune to fracture of the skull by falling bricks would be eliminated. A time would no doubt come when those with a specific liability to skull fracture would all be eliminated, and the human cranium would have developed a practical immunity to damage from all sorts of falling substances. But there

would have been far more extensive suppressions than would appear in the letter of the agreement.

This no doubt is a caricature of the case, but it will serve to illustrate my contention that until we possess a far more subtle and thorough analysis of the drunkard's physique and mind--if it really is a distinctive type of mind and physique--than we have at present, we have no justification whatever in artificial intervention to increase whatever eliminatory process may at present be going on in this respect. Even if there is such a specific weakness, it is possible it has a period of maximum intensity, and if that should be only a brief phase in development--let us say at adolescence--it might turn out to be much more to the advantage of humanity to contrive protective legislation over the dangerous years. I argue to establish no view in these matters beyond a view that at present we know very little.

Not only do ignorance and doubt bar our way to anything more than a pious wish to eliminate criminality and drunkenness in a systematic manner, but even the popular belief in ruthless suppression whenever there is "madness in the family" will not stand an intelligent scrutiny. The man in the street thinks madness is a fixed and definite thing, as distinct from sanity as black is from white. He is always exasperated at the hesitation of doctors when in a judicial capacity he demands: "Is this man mad or isn't he?" But a very little reading of alienists will dissolve this clear assurance. Here again it seems possible that we have a number of states that we are led to believe are

simple because they are gathered together under the generic word "madness," but which may represent a considerable variety of induced and curable and non-inheritable states on the one hand and of innate and incurable and heritable mental disproportions on the other.

The less gifted portion of the educated public was greatly delighted some years ago by a work by Dr. Nordau called Degeneration, in which a great number of abnormal people were studied in a pseudo-scientific manner and shown to be abnormal beyond any possibility of dispute. Mostly the samples selected were men of exceptional artistic and literary power. The book was pretentious and inconsistent--the late Lord Tennyson was quoted, I remember, as a typically "sane" poet in spite of the scope afforded by his melodramatic personal appearance and his morbid passion for seclusion--but it did at least serve to show that if we cannot call a man stupid we may almost invariably call him mad with some show of reason. The public read the book for the sake of its abuse, applied the intended conclusion to every success that awakened its envy, and failed altogether to see how absolutely the definition of madness was destroyed. But if madness is indeed simply genius out of hand and genius only madness under adequate control; if imagination is a snare only to the unreasonable and a disordered mind only an excess of intellectual enterprise--and really none of these things can be positively disproved--then just as reasonable as the idea of suppressing the reproduction of madness, is the idea of breeding it! Let us take all these dull, stagnant, respectable people, one might say, who do nothing but conform to whatever rule is established about

them and obstruct whatever change is proposed to them, whose chief quality is a sheer incapacity to imagine anything beyond their petty experiences, and let us tell them plainly, "It is time a lunatic married into your family." Let no one run away from this with the statement that I propose such a thing should be done, but it is, at any rate in the present state of our knowledge, as reasonable a proposal, to make as its quite frequently reiterated converse.

If in any case we are in a position to intervene and definitely forbid increase, it is in the case of certain specific diseases, which I am told are painful and disastrous and inevitably transmitted to the offspring of the person suffering from these diseases. If there are such diseases--and that is a question the medical profession should be able to decide--it is evident that to incur parentage while one suffers from one of them or to transmit them in any avoidable way, is a cruel, disastrous and abominable act. If such a thing is possible it seems to me that in view of the guiding principle laid down in these papers it might well be put at the nadir of crime, and I doubt if any step the State might take to deter and punish the offender, short of torture, would meet with opposition from sane and reasonable men. For my own part I am inclined at times almost to doubt if there are such diseases. If there are, the remedy is so simple and obvious, that I cannot but blame the medical profession for very discreditable silences. I am no believer in the final wisdom of the mass of mankind, but I do believe enough in the sanity of the English-speaking peoples to be certain that any clear statement and instruction they received from the medical

profession, as a whole, in these matters, would be faithfully observed.

In the face of the collective silence of this great body of specialists, there is nothing for it but to doubt such diseases exist.

Such a systematic suppression of a specific disease or so is really the utmost that could be done with any confidence at present, so far as the State and collective action go. [Footnote: Since the above was written, a correspondent in Honolulu has called my attention to a short but most suggestive essay by Doctor Harry Campbell in the Lancet, 1898, ii., p. 678. He uses, of course, the common medical euphemism of "should not marry" for "should not procreate," and he gives the following as a list of "bars to marriage": pulmonary consumption, organic heart disease, epilepsy, insanity, diabetes, chronic Bright's disease, and rheumatic fever. I wish I had sufficient medical knowledge to analyze that proposal. He mentions inherited defective eyesight and hearing also, and the "neurotic" quality, with which I have dealt in my text. He adds two other suggestions that appeal to me very strongly. He proposes to bar all "cases of non-accidental disease in which life is saved by the surgeon's knife," and he instances particularly, strangulated hernia and ovarian cyst. And he also calls attention to apoplectic breakdown and premature senility. All these are suggestions of great value for individual conduct, but none of them have that quality of certainty that justifies collective action.] Until great advances are made in anthropology--and at present there are neither men nor endowments to justify the hope that any such advances will soon be made--that is as much as can be done hopefully for many years in the

selective breeding of individuals by the community as a whole.

[Footnote: If at any time certainties should replace speculations in the field of inheritance, then I fancy the common-sense of humanity will be found to be in favour of the immediate application of that knowledge to life.] At present almost every citizen in the civilized State respects the rules of the laws of consanguinity, so far as they affect brothers and sisters, with an absolute respect--an enormous triumph of training over instinct, as Dr. Beattie Crozier has pointed out--and if in the future it should be found possible to divide up humanity into groups, some of which could pair with one another only to the disadvantage of the offspring, and some of which had better have no offspring, I believe there would be remarkably little difficulty in enforcing a system of taboos in accordance with such knowledge. Only it would have to be absolutely certain knowledge proved and proved again up to the hilt. If a truth is worth application it is worth hammering home, and we have no right to expect common men to obey conclusions upon which specialists are as yet not lucidly agreed. [Footnote: It has been pointed out to me by my friend, Mr. Graham Wallas, that although the State may not undertake any positive schemes for selective breeding in the present state of our knowledge, it can no more evade a certain reaction upon these things than the individual can evade a practical solution. Although we cannot say of any specific individual that he or she is, or is not, of exceptional reproductive value to the State, we may still be able, he thinks, to point out classes which are very probably, as a whole, good reproductive classes, and we may be able to promote, or at least to avoid hindering, their increase. He

instances the female elementary teacher as being probably, as a type, a more intelligent and more energetic and capable girl than the average of the stratum from which she arises, and he concludes she has a higher reproductive value--a view contrary to my argument in the text that reproductive and personal value are perhaps independent. He tells me that it is the practice of many large school boards in this country to dismiss women teachers on marriage, or to refuse promotion to these when they become mothers, which is, of course, bad for the race if personal and reproductive value are identical. He would have them retain their positions regardless of the check to their efficiency maternity entails. This is a curiously indirect way towards what one might call Galtonism. Practically he proposes to endow mothers in the name of education. For my own part I do not agree with him that this class, any more than any other class, can be shown to have a high reproductive value--which is the matter under analysis in this paper--though I will admit that an ex-teacher will probably do infinitely more for her children than if she were an illiterate or untrained woman. I can only reiterate my conviction that nothing really effective can be organized in these matters until we are much clearer than we are at present in our ideas about them, and that a public body devoted to education has no business either to impose celibacy, or subsidize families, or experiment at all in these affairs. Not only in the case of elementary teachers, but in the case of soldiers, sailors, and so on, the State may do much to promote or discourage marriage and offspring, and no doubt it is also true, as Mr. Wallas insists, that the problems of the foreign immigrant and of racial intermarriage, loom

upon us. But since we have no applicable science whatever here, since there is no certainty in any direction that any collective course may not be collectively evil rather than good, there is nothing for it, I hold, but to leave these things to individual experiment, and to concentrate our efforts where there is a clearer hope of effective consequence. Leave things to individual initiative and some of us will, by luck or inspiration, go right; take public action on an insufficient basis of knowledge and there is a clear prospect of collective error. The imminence of these questions argues for nothing except prompt and vigorous research.]

That, however, is only one aspect of this question. There are others from which the New Republican may also approach this problem of the quality of the birth supply.

In relation to personal conduct all these things assume another colour altogether. Let us be clear upon that point. The state, the community, may only act upon certainties, but the essential fact in individual life is experiment. Individuality is experiment. While in matters of public regulation and control it is wiser not to act at all than to act upon theories and uncertainties; while the State may very well wait for a generation or half a dozen generations until knowledge comes up to these--at present--insoluble problems, the private life must go on now, and go upon probabilities where certainties fail. When we do not know what is indisputably right, then we have to use our judgments to the utmost to do each what seems to him probably right. The New

Republican in his private life and in the exercise of his private influence, must do what seems to him best for the race; [Footnote: He would certainly try to discourage this sort of thing. The paragraph is from the Morning Post (Sept., 1902):--

"Wedded in Silence.--A deaf and dumb wedding was celebrated at Saffron Walden yesterday, when Frederick James Baish and Emily Lettice King, both deaf and dumb, were married. The bride was attended by deaf and dumb bridesmaids, and upwards of thirty deaf and dumb friends were present. The ceremony was performed by the Rev. A. Payne, of the Deaf and Dumb Church, London."] he must not beget children heedlessly and unwittingly because of his incomplete assurance. It is pretty obviously his duty to examine himself patiently and thoroughly, and if he feels that he is, on the whole, an average or rather more than an average man, then upon the cardinal principle laid down in our first paper, it is his most immediate duty to have children and to equip them fully for the affairs of life. Moreover he will, I think, lose no opportunity of speaking and acting in such a manner as to restore to marriage something of the solemnity and gravity the Victorian era--that age of nasty sentiment, sham delicacy and giggles--has to so large an extent refused to give it.

And though the New Republicans, in the existing lack of real guiding knowledge, will not dare to intervene in specific cases, there is another method of influencing parentage that men of good intent may well bear in mind. To attack a specific type is one thing, to attack a

specific quality is another. It may be impossible to set aside selected persons from the population and say to them, "You are cowardly, weak, silly, mischievous people, and if we tolerate you in this world it is on condition that you do not found families." But it may be quite possible to bear in mind that the law and social arrangements may foster and protect the cowardly and the mean, may guard stupidity against the competition of enterprise, and may secure honour, power and authority in the hands of the silly and the base; and, by the guiding principle we have set before ourselves, to seek every conceivable alteration of such laws and such social arrangements is no more than the New Republican's duty. It may be impossible to select and intermarry the selected best of our race, but at any rate we can do a thousand things to equalize the chances and make good and desirable qualities lead swiftly and clearly to ease and honourable increase.

At present it is a shameful and embittering fact that a gifted man from the poorer strata of society must too often buy his personal development at the cost of his posterity; he must either die childless and successful for the children of the stupid to reap what he has sown, or sacrifice his gift--a wretched choice and an evil thing for the world at large. [Footnote: This aspect of New Republican possibilities comes in again at another stage, and at that stage its treatment will be resumed. The method and possibility of binding up discredit and failure with mean and undesirable qualities, and of setting a premium upon the nobler attributes, is a matter that touches not only upon the quality of births, but upon the general educational quality of the

State in which a young citizen develops. It is convenient to hold over any detailed expansions of this, therefore, until we come to the general question, how the laws, institutions and customs of to-day go to make or unmake the men of to-morrow.]

So far at least we may go, towards improving the quality of the average birth now, but it is manifestly only a very slow and fractional advance that we shall get by these expedients. The obstacle to any ampler enterprise is ignorance and ignorance alone--not the ignorance of a majority in relation to a minority, but an absolute want of knowledge. If we knew more we could do more.

Our main attack in this enterprise of improving the birth supply must lie, therefore, through research. If we cannot act ourselves, we may yet hold a light for our children to see. At present, if there is a man specially gifted and specially disposed for such intricate and laborious inquiry, such criticism and experiment as this question demands, the world offers him neither food nor shelter, neither attention nor help; he cannot hope for a tithe of such honours as are thrust in profusion upon pork-butchers and brewers, he will be heartily despised by ninety-nine per cent. of the people he encounters, and unless he has some irrelevant income, he will die childless and his line will perish with him, for all the service he may give to the future of mankind. And as great mental endowments do not, unhappily, necessarily involve a passion for obscurity, contempt and extinction, it is probable that under existing conditions such a man will give his

mind to some pursuit less bitterly unremunerative and shameful. It is a stupid superstition that "genius will out" in spite of all discouragement. The fact that great men have risen against crushing disadvantages in the past proves nothing of the sort; this roll-call of survivors does no more than give the measure of the enormous waste of human possibility human stupidity has achieved. Men of exceptional gifts have the same broad needs as common men, food, clothing, honour, attention, and the help of their fellows in self-respect; they may not need them as ends, but they need them by the way, and at present the earnest study of heredity produces none of these bye-products. It lies before the New Republican to tilt the balance in this direction.

There are, no doubt, already a number of unselfish and fortunately placed men who are able to do a certain amount of work in this direction; Professor Cossar Ewart, for example, one of those fine, subtle, unhonoured workers who are the glory of British science and the condemnation of our social order, has done much to clarify the discussion of telegony and prepotency, and there are many such medical men as Mr. Reid who broaden their daily practice by attention to these great issues. One thinks of certain other names. Professors Karl Pearson, Weldon, Lloyd Morgan, J. A. Thomson and Meldola, Dr. Benthall and Messrs. Bateson, Cunningham, Pocock, Havelock Ellis, E. A. Fay and Stuart Menteth occur to me, only to remind me how divided their attention has had to be. As many others, perhaps, have slipped my memory now. Not half a hundred altogether in all this wide world of English-speaking men! For one such worker we need fifty if this science

of heredity is to grow to practicable proportions. We need a literature, we need a special public and an atmosphere of attention and discussion. Every man who grasps the New Republican idea brings these needs nearer satisfaction, but if only some day the New Republic could catch the ear of a prince, a little weary of being the costumed doll of grown-up children, the decoy dummy of fashionable tradesmen, or if it could invade and capture the mind of a multi-millionaire, these things might come almost at a stride. This missing science of heredity, this unworked mine of knowledge on the borderland of biology and anthropology, which for all practical purposes is as unworked now as it was in the days of Plato, is, in simple truth, ten times more important to humanity than all the chemistry and physics, all the technical and industrial science that ever has been or ever will be discovered.

So much for the existing possibilities of making the race better by breeding. For the rest of these papers we shall take the births into the world, for the most part, as we find them.

[Mr. Stuart Menteth remarks apropos of this question of the reproduction of exceptional people that it is undesirable to suggest voluntary extinction in any case. If a man, thinking that his family is "tainted," displays so much foresighted patriotism, humility, and lifelong self-denial as to have no children, the presumption is that the loss to humanity by the discontinuance of such a type is greater than the gain. "Conceit in smallest bodies strongest works," and it does not follow that a sense of one's own excellence justifies one's

utmost fecundity or the reverse. Mr. Vrooman, who, with Mrs. Vrooman, founded Ruskin Hall at Oxford, writes to much the same effect. He argues that people intelligent enough and moral enough to form such resolutions are just the sort of people who ought not to form them. Mr. Stuart Menteth also makes a most admirable suggestion with regard to male and female geniuses who are absorbed in their careers. Although the genius may not have or rear a large family, something might be done to preserve the stock by assisting his or her brothers and sisters to support and educate their children.]