

*Psychological Inquiries (the Second Part). Being a Series of Essays intended to illustrate some points in the Physical and Moral History of Man.* By Sir BENJAMIN C. BRODIE, Bart., D.C.L., F.R.S. Longman, Green, Longman, and Roberts. pp. 247.

CRITES, a busy lawyer, and Ergates, a busy surgeon, being wearied of the din and smoke of the metropolis, gladly avail themselves of an invitation from their friend Eubulus, to exchange for a time the "fumum et opes strepitumque Romæ," for the pure and serene air of his country residence, where, engaged in horticultural pursuits and in the performance of social duties, he lives that calm and even life which some suppose to be attended with so little care, and with so much quiet happiness. Commencing at once with warm praise of the country, where the "harmony of rural sounds is so different from the discords of London streets," Eubulus passes on to a description of the advantages of the cultivation of the physical sciences, his friends joining in the discussion, and, as usually happens in books written in the mode of dialogue, conveniently making the objection which is so easily put aside, and often perversely missing the exact objection which they should make. In fact, if this were not professedly a popular work, something might be fairly said against the adoption of a method of writing, by which an author is enabled to wander from heaven to earth, from the origin of evil to the origin of species, from the perfectibility of mankind to the ill consequences of *ennui*, and, without logical connection, to join, by the merest accident or most abrupt transitions of conversation, subjects that have no further apparent relation to one another than that man is able to think about them. The book is not, however, written for the purpose of communicating any facts not already known, or any conclusions which others may not have arrived at; it consists of the pleasant garrulity of three old men, and its principle objects are two: 1st. To show that, for the solution of the complicated problem relating to the condition, character, and capabilities of man, the observations of the physiologist must be combined with those of the moral philosopher, either of which alone would be insufficient. 2nd. To point out of how great practical importance to the individual such researches are, as enabling him to understand how much he may contribute to the improvement of his faculties, and to his well-being in life. That this unpretending little book more than accomplishes its design in a simple, elegant, and pleasing manner, no one who reads wisely will for a moment doubt.

When science is so fashionable, and so much esteemed, that it can easily command on its gala days the willing and admiring services

of the beauty and dignity of the land, it might appear almost unnecessary to speak of the benefits which it has conferred on mankind. The old Norse fable, which relates how the mighty Thor, after trying to empty the drinking horn of Asgard, after wrestling with the old woman, and racing against the runner Lok, discovered that he had been drinking the sea, wrestling with time, and racing with thought, symbolized in his efforts the helpless contention of man with the supreme forces of nature. But man is not quite so helpless now as he was even in those days when there were giants. For, although he cannot drink off the sea, wrestle successfully with time, or win the race from thought, he has, by patient attention to the physical laws, succeeded in using the forces of nature most advantageously for his service; he has, by placing his human force in obedience to the laws of nature, gained many a glorious victory. He wrestles very much better with time, and races very valiantly with thought. It is science which has given him all his success; it is that which has rendered the intellectual work of the present age so much more profitable than that of any other age, as to have now become almost synonymous with civilization. And yet any one who devoted himself to the earnest pursuit of science, in the expectation of reaping some portion of the reward which such important services might be expected to obtain from the gratitude of mankind, would meet with a heavy disappointment. The true man of science does not work for public admiration; nor does he look to public gratitude as the reward of his toil; he knows full well the worth of these, knows that, notwithstanding the enthusiastic applause of the hour, the public would quite calmly allow him to starve on pure science. It is in the development of his own intellectual nature, in his own activity, that he finds his gratification; and while deriving at all times an even pleasure from such efforts, he is every now and then above measure rewarded by displaying some wonderful example of order and design in nature. But every new discovery reveals more plainly how much remains to be discovered; and, as it has been aptly expressed, the higher one rises the more distant is the horizon. The dwarf mounts on to the shoulders of the giant, only to find how much there is that the giant cannot see. Nothing, then, can be more puerile than the complaints sometimes made by certain cultivators of a science, that it is very difficult to make discoveries now that the soil has been exhausted, whereas they were so easily made when the ground was first broken. It is an error begotten by ignorance out of indolence. The first discovery did not drop upon the expectant idler who, with placid equanimity, waited for the goods the gods might send, but was heavily obtained by patient, systematic, and intelligent labour; and, beyond all question, the same labour of the same mind which made the first discoveries in the new science, would now succeed in making many more, trampled though the field be by the restless

feet of those unmethodical inquirers who, running to and fro, anxiously exclaim, "Who will show us any good thing?"

No one who takes a wide and careful survey of the present position of those sciences which immediately concern themselves with man's moral and physical state, can fail to conclude that we stand on the very verge of discoveries of vast importance. The physiologist is daily approaching nearer and nearer to the mental philosopher, while the latter has long since found it necessary to abandon an untenable position, and to accept as the basis of his fabric the discoveries of the physiologist. Psychology and physiology are two branches of one science—anthropology; or, perhaps, it might be said that physiology, drawing, like the roots of the tree, its support from the lower ground of matter, and psychology, like the branches, spreading out into a higher sphere, unite in a common trunk, and form therewith a biological unity. The pure metaphysical philosopher who, disdainful of physical science, cultivates mental phenomena on the basis of those infallible affirmations of consciousness which almost every second person does not understand, and every third person denies; who spins systems of word-philosophy out of his own mind, as the spider draws its web out of its own belly; who trammels the unwilling mind with the burdensome logic of the schools, and in other ways attempts violently to sever man's intimate relationship with nature, may soon retire to that pleasant suburban retreat where, with the calm aspect of a lofty philosophical disdain, he may, in company with the megatherium and other creatures of the past, look down, in undisturbed repose, on an age which appreciates him not.

There is some danger at the present time that the physical sciences, proud of the immense benefits which they have conferred on man, should assume, not perhaps too prominent a position, but a silent right, as it were, to despise a science the products of which are not of any immediate material utility to mankind. But if the mental exercise which a man uses in the pursuit of truth is more valuable to him than the truth, if the acquisition of knowledge is really subordinate to the cultivation of our faculties, if the individual is an end unto himself rather than an instrument for the accomplishment of something out of him, then, unquestionably, the study of mind has a better title to be called useful than the "bread and butter sciences" (*Brodwissenschaften*). "Those studies which determine the faculties to a more vigorous exertion will," as Sir W. Hamilton says, "in every liberal sense, be better entitled, absolutely, to the name of useful, than those which, with a greater complement of more certain facts, awaken them to less intense and, consequently, less improving exercise. On this ground I would rest one of the pre-eminent utilities of mental philosophy." The opinion of Sir Benjamin Brodie is scarcely less decided on this matter.

“These subjects, which may all be conveniently included under the name of psychology, constitute a science quite as real as astronomy, chemistry, or natural history; inferior to none of the physical sciences in interest, and I may add in usefulness. I know of no better exercise than that which these inquiries afford for the mind itself, especially as they tend to improve in us the habit of thought and reflection, as they enable us to form a just estimate of our own powers and of the nature and limits of human knowledge; thus rendering us more competent to pursue other inquiries, however different in their nature, with advantage. Observe that I suppose the study of mental phenomena to be properly conducted, and limited to its proper objects, without being adulterated by those wild speculations in which some have indulged, and which have given the science rather a bad reputation under the name of metaphysics.” (p. 16.)

And again at p. 18: “I believe that whoever would form a right estimate of himself and others; whoever would improve his own character; whoever aspires to the high office of ameliorating the condition of society, whether as a statesman, as a religious teacher, as the promoter of education, or in any humbler capacity, can in no other way so well qualify himself for his undertaking, whatever it may be, as by studying the laws which regulate his own mind, displayed as it is in his own perceptions, sentiments, thoughts, and volitions. This is the only true foundation of that great science which, for all practical purposes, is more important than anything besides—the science of human nature.”

More might be justly said, if it were necessary, in favour of the valuable services of psychology; but it will be sufficient here to indicate, that it may be of great advantage in pure physiological investigation. No one can read with care the records of the labours of such a physiologist as John Hunter, without being forcibly struck with the great influence which a feeling of the operations of his own conscious intelligence had in directing his investigations into the laws of action of that unconscious intelligence which forms and maintains the organism. Though Hunter himself might not have distinctly maintained it, yet it is difficult to believe that he did not feel that there is no more helpful principle in physiological labour than this—that the human mind follows consciously the same laws which the so-called vital, plastic, or organic force follows unconsciously, and, according to the degree of its training and development, reflects more or less clearly the physical laws of organization. It is plain that such a principle must be very carefully applied, lest it become the fruitful parent of extravagant hypotheses, and thus seriously impede knowledge; but it is not so plain that, with proper care, the cautious recognition of the so-called doctrine of final causes may not be advantageously combined with the application of

the inductive philosophy. There is some cause to apprehend that the world, from its horror of the metaphysical extreme, is rushing headlong into a materialistic extreme.

This is eminently an utilitarian age, an age which, after the fashion of Macaulay, "reduces the human intellect to the level of a saucepan," which lauds an inductive philosophy that Bacon would scarce have known, in a way that would have extorted an exclamation of wondering surprise from Bacon; which appears strongly to suspect that Plato must have been mad on every point, and Aristotle mad at least on one point; which detects mysticism in idea, and madness in mysticism; which has a sure faith only in the idea when it is embodied in a steam-engine or in a cotton-machine; and which labours with a mechanical constancy to root out individuality, and to reduce men to a dead level of monotonous uniformity. All this may be right, but it has by no means yet been proved to be so; and meanwhile there is some reason to believe, that there is truth in Plato as well as in Bacon, that the words which were the expression of so powerful an intellect, and which have endured so long, are not utterly meaningless. And if they have a signification, then the truth which they contain is reconcilable with the truth which the investigations of the present age disclose; and if we do not perceive the relationship, the fault is ours, and the labour to reveal it must be our duty. It is not, perhaps, to be expected that the multitude, who feel so vividly the advantages which they derive from the physical sciences, should exercise moderation in their estimate of them; but it will be a great evil, as Sir B. Brodie has pointed out, if the cultivators of science themselves become influenced merely by utilitarian views. "The period has arrived when the discoveries of science, the achievements of former generations, are becoming extensively applied to the purposes of commerce, of manufactures, and the ordinary concerns of life. Then the numerous examples which have presented themselves of late years, of large fortunes rapidly accumulated, have afforded an additional stimulus (where none was wanted) to the natural desire of wealth; while the prevailing study of political economy, with all the great good which it has done, has produced this evil, that it has encouraged the disposition, in a large portion of society, to regard the increase of wealth, and the adding to our stock of luxuries and comforts, as the most important business of life. From this combination of causes it is, that too many of the public are led to measure the advantages arising from the pursuit of knowledge by a lower standard than that by which it has been measured hitherto; estimating the value of researches in science by their consequences as affecting the physical well-being of mankind, and regarding those who apply the discoveries to some practical purpose as if they were on a level with those with whom the discoveries originated. The danger to which I allude is, that the cultivators of

science might themselves be led to participate in these utilitarian views. If it should be so, science must undoubtedly descend from the high station which it at present occupies. Nor can this happen without great injury to the cause of knowledge itself." (pp. 31, 32.)

The second dialogue commences with some judicious observations on the necessity of physical power to intellectual exercise. There cannot be any doubt that a great deal of evil happens from the ignorance which men are in with regard to the amount of force which they have; that many a one foolishly concentrates into a few years the force which should rightly be diffused over a lifetime, and suffers through life for his mistake. There is truth as well as error in the popular opinion, that those who are great at college are little afterwards. Those who do not fail from the indolence born of success, often fail from the exhaustion produced by overwork. And it admits of serious question, whether the middle-class examinations which have been organised by the universities, are not doing positive injury to the young vitality of the community. As a matter of fact, they solicit a great deal of force in intellectual exercise at that very time when force is most required for physical development; nor does the forced intellectual development compensate for the physical degeneration which is undoubtedly sometimes produced. "In pueritiâ senex, in senectute puer," said Aristarchus the Sophist. It seems only reasonable to suppose, that a youth should be gaining force from without, and laying it up, under a system of proper discipline, as potential for future display, in place of expending it outwardly as he gets it, thereby starving physical development at the time, and cutting off the supply for future intellectual development. In the present series, as well as in the first series, of his 'Inquiries,' Sir B. Brodie remarks upon the "ill effect produced by the great extension of the competitive system, in stimulating many to exertions beyond their powers, and in promoting the exercise of the faculty of learning at the expense of the higher qualities of observation and thought." No authority in this matter can well carry greater weight than that of Sir Benjamin Brodie.

A little reflection will render it evident, that the important principle of the conservation of force must be applicable to human action, as well as to every other form of activity in nature. The human body cannot generate force within itself of its own mere motion, and dispense it outwardly in unlimited quantities; what is given out in any form of motion must be replaced in some way from without by an equivalent of the motion. And if a man applies his force in one direction, he has necessarily that much less for use in another way. Each one, then, may choose for himself how he will employ the force which he embodies, whether he will exercise the mind at the expense of the body, or exercise the body at the expense

of the mind; or whether, as is most just, he will endeavour to preserve that balance by which the functions of both are best developed, and man's destiny on earth best accomplished. Some may devote themselves mainly to the propagation of ideas, while others expend their energies in the propagation of children; and, as Bacon long ago remarked, those who are good at the one are not generally good at the other. It has become a common saying, indeed, that great men have great fools for children; and although a few exceptions to the rule may be collected, yet the opinion has the sanction of experience. "*Heroum filii noxæ et amentis Hippocratis filii,*" said the ancient proverb. It has the sanction also of theory. For he who has used all available force in intellectual exercise, and thus displayed it to the admiration of the world in a brilliant inflorescence, has thereby exhausted the energy of the stock, which thereupon rests for awhile, in order to regain power, or decays and actually dies. So it happens, that stupidity, bodily disease, madness, or family extinction, not unfrequently follow the eminent man. He who propagates great intellectual force to his offspring, the true parent of genius, is the calm self-contained man, who has quietly done his duty in the world without noise, who, self-denying, self-reliant, has not dissipated power, but has transmitted it all to his children. And though it is often said that great men have had clever mothers, yet it is quite certain that the mother in such case has not been one who has expended her force in a literary blossoming, or in any other great intellectual achievement, but, on the contrary, one who has used great powers of mind for womanly purposes, who, with admirable self-sacrifice, has given her children the benefit of her advantages, and has thus propagated her influence through time in that way which nature seems so plainly to have pointed out as woman's duty. Does it not happen, for the most part, that great intellectual display is found to be reserved for the barren and the unmarried women? It appears also, that beneath that regulation of the Catholic Church which enforces the celibacy of priests, there is true philosophy; for therein is the recognition of the law of conservation of force as applicable to the exercise of human force.

In this second chapter, Sir B. Brodie further notices the very remarkable circumstance, that on certain occasions a conviction flashes through us that we have been in precisely the same circumstances once before; that the identical thing is happening which we felt was going to happen. We are quite familiar with the feeling; the recognition is the flash of a moment, and it almost appears as if the mind had been in advance of consciousness—had, as it were, travelled out of us, become familiar with the event, and, then returning, revealed to consciousness, at the same time, its own private experience, and the condition of things acquired through the ordinary channels of the senses. We may suppose that the former expe-

rience would then appear as the remembrance of a previous existence. Mr. Oliver Wendell Holmes has noticed the following circumstances in connexion with this duplicate consciousness. 1. The state which seems to be the repetition of a former one is often very trivial—one that might have presented itself many times. 2. The impression is very evanescent; and it is rarely, if ever, recalled by any voluntary effort, at least after any time has elapsed. 3. There is a disinclination to record the circumstances, and a sense of incapacity to reproduce the state of mind in words. 4. He has often felt that the duplicate condition had not only occurred once before, but that it was familiar, and seemed habitual. Lastly. He had had the same conviction in dreams. All that need be added to these observations is, that the state which seems to be the duplicate of a former one is not always such as might have happened before; it is sometimes certainly such as could not possibly have happened before. For example, even whilst writing a certain sentence on this page, a conviction flashed upon the writer that he had been in exactly the same position once before, which he certainly never could possibly have been. It may be doubted, too, whether the duplicate condition often is familiar, and seems habitual, if, indeed, it ever does seem to have happened more than once before.

Sir Benjamin Brodie gives the following interesting example, which, he thinks, throws great light upon the subject, by showing that, on these occasions, there is always an actual revival of some impression made on the mind formerly, though the events in connexion with it have escaped from our memory. The account is communicated to him by a "very intelligent correspondent."

"When I was about fifteen years of age, I went, with my father and mother and other friends, on a tour through Somersetshire; and having arrived at Wellington, where I had certainly never been before, we tarried an hour or two at the Squirrel Inn for refreshments. On entering the room where the rest of the party were assembled, I found myself suddenly surprised and pursued by a pack of strange, shadowy, infantile images, too vague to be called recollections, too distinct and persevering to be dismissed as phantasms. Whichever way I turned my eyes, faint and imperfect pictures of persons once familiar to my childhood, and feeble outlines of events long passed away, came crowding around me and vanishing again in rapid and fitful succession. A wild reverie of early childhood, half illusion, half reality, seized me, for which I could not possibly account; and when I attempted to fix and examine any one of the images, it fled like a phantom from my grasp, and was immediately succeeded by another equally confused and volatile. I felt assured that all this was not a mere trick of the imagination. It seemed to me rather that enfeebled memory was, by some sudden impulse, set actively at work, endeavouring to recall the forms of past realities,

long overlaid and almost lost behind the throng of subsequent events. My uneasiness was noticed by my mother; and when I had described my sensations, the whole mystery was speedily solved by the discovery that the pattern of the wall-paper in the room where we were seated was exactly similar to that of my nursery at Paddington, which I had never seen since I was between four and five years of age. I did not immediately remember the paper, but I was soon satisfied that it was indeed the medium of association through which all those ill-defined, half-faded forms had travelled up to light; my nurse and nursery events associated with that paper pattern being, after all, but very faintly pictured on the field of my remembrance."

It is obvious, however, that this is not an exact case of the condition which has been described; but rather an instance of the revival of certain indistinct infantile impressions through a particular association of ideas. Still, the explanation which Sir B. Brodie accepts is one that has been put forward to account for the genuine duplicate condition of consciousness. It is supposed by those who uphold it, that the coincidence of circumstances is partial only, and that we take this partial resemblance for identity, as we sometimes do resemblances of persons. That may happen in some cases, but in others it is certain that we have the strongest conviction that the experience is altogether strange to us, that nothing like it ever has or could have occurred before to us.

The explanation offered by Dr. Wigan, who had noticed the circumstance, was, that the two hemispheres of the brain were not quite synchronous in action; he supposed, in accordance with his theory of the duality of the mind, that the results of their action were not communicated to consciousness exactly at the same moment, so that the impression of a previous identical experience was produced. It is an ingenious explanation, but it is not generally accepted.

Still another solution of the difficulty has been offered. Some imagine, after the manner of Plato, that these flashes are really sudden recollections of a previous existence; they believe that, in the weary pilgrimage of life, we every now and then come upon precisely similar experiences to those of a former existence, the events of which, with these few exceptions, we have completely forgotten. If this be so, we are even more miserable than we had any notion of; for, from the nature of these remembered experiences, it is plain that our former life was very much of the same character as this, that sorrow and labour have been our lot through past ages, as they are through the present, and may possibly be through the future. We may possess an immortality on earth like Tithonus, and like Tithonus, without that which alone would make immortality on earth desirable.

There seems to be a great probability that the true explanation of

the problem will be found in the unconscious action of the mind. This is a subject which has been studied in Germany with the usual patient German industry, which has been sketched out by Sir W. Hamilton with his usual clearness of style, and which has been popularised by Dr. Carpenter under the barbarous designation of "unconscious cerebration;" it seems also to be included in the "reflex action" of the brain, as described by Dr. Laycock. It is a subject, however, of far too great importance to be entered upon here, where all that we need keep in mind is, first, that consciousness of mental action may exist in every degree down to actual unconsciousness; and secondly, that the most valuable part of all mental action is unconscious. If we remember these facts, and reflect also upon the very great rapidity of the mind's action, it will be conceivable how it may, in its knowledge of a particular event, anticipate the full consciousness. The consciousness lagging a little behind, or being for a moment diverted from following the mental process, will have communicated to it the result of the automatic action of the mind, which will then appear familiar, and as a previous experience. It may be objected to such an explanation that it, after all, assumes a sort of consciousness of an unconscious mental action. The objection, however, itself contains the assumption that an act of our own mind of which we have not consciousness must be quite unfamiliar to us when brought into consciousness; and it may, at any rate, be disposed of by maintaining a very partial degree of consciousness in the automatic act.

In the third dialogue, there is some repetition of what has been said in the previous two, which, as may well be supposed, in conversational discussion on such subjects, is not easily avoided. The mental faculties, although classified for convenience, are not absolutely distinct. They are really different conditions of one mind which is now in a state of feeling, now in a state of cognition, and at another time in a state of will. It is impossible, then, to discuss one so called faculty, without more or less including others; and of all undertakings, it is one of the most unprofitable to attempt to make a precise inventory of the faculties of a mind whose influence nations yet unborn may feel. There can be little doubt that the classification of the mental faculties has been productive of considerable inconvenience in mental philosophy, on account of the too great importance which has been attached to it. However carefully made, it must necessarily be imperfect, and, in so far as it makes distinctions which do not exist in nature, erroneous. "For example," as Sir B. Brodie observes, "in a system of logic the imagination is altogether disregarded; but in practice it is quite otherwise, and even the pure mathematician would find that he could make but little progress in the advancement of his science, if he did not call in the aid of his imagination."

Into the question as to necessity and free will, Sir B. Brodie is not disposed to enter farther than to make the following observations. "*First*: finding as I do the metaphysical argument to be entirely on one side, and my irresistible conviction to be entirely on the other, I am led to suspect that this is one of the subjects to which Ergates alluded formerly as being beyond the reach of our limited capacities. *Secondly*: that, even if we admit the doctrine of a necessity which rules our thoughts and actions to its full extent, the practical result is in no way different from what it would have been if we rejected it altogether. If I am not mistaken, it was the late Baron Alderson who on some occasion addressed a jury to the following effect, if not in these exact words:—'The prisoner is said to have laboured under an uncontrollable impulse to commit the crime. The answer to which is, that the law has an equally uncontrollable impulse to punish him.' We may make an allowance for the external influences which operate on men's minds; we may excuse altogether those who labour under the illusions of actual insanity; but otherwise we cannot get rid of the feeling of responsibility as regards either ourselves or others; and the most thorough-going necessarian, when he quits the loftier regions of Metaphysics to mix in the ordinary affairs of life, thinks and reasons precisely in the same way as the most unhesitating believer in free-will."

It is not impossible that Mr. Baron Alderson was quite right when he made that observation, that he was right also in laying down, as he did on the same occasion, the doctrine that, if a man had a delusion that his head was glass, he would be rightly punished if he committed murder, and his delusion had not directly driven him to do it; but it is quite certain that, when Baron Alderson expressed himself so decidedly, he assumed that a man whose relations with nature were completely perverted by disease, might and could act exactly as if those relations were undisturbed and harmonious. The decision seems to have been influenced by the philosophy which parcels out the mind into distinct faculties, and refuses to see that the whole mind works in every faculty. It is plain that the line drawn was rather arbitrary, and that there was no sufficient reason why Baron Alderson might not have further said— "The prisoner is said to have laboured under a delusion that he must kill the man. The answer to that is that the law has an equal delusion that it must hang him." Because an individual has a delusion that he must kill some one, it does not follow that he is ignorant that he will be doing wrong, in the world's opinion, if he does commit murder; but he does it because he is at law with himself, because, being mad, he thinks that he is right, and that all the world is wrong. And when a man has a delusion on one point, when, for example, he believes that he has a head of glass, he does not merely differ from

all the world on that matter, and in other things preserve his responsibility as a rational being; he is altogether mad. A young girl of only fourteen years of age, who had been mostly good and gentle, one day suddenly killed her father, opened his chest, and ate his heart. Some pronounced it to be monomania. But, as Dr. Wendt remarks, a monomania for what? For eating human flesh? It was a general madness, and to call it monomania was to justify the words of the magistrate, who said that monomanias of that kind should be cured in the Place de Grève. As disease may be of every degree of intensity in the mind, so corresponding degrees of responsibility must exist; and it is obviously impossible justly to place an arbitrary line between responsibility and irresponsibility. Although, then, it may be necessary in practice to make the separation, yet it might be as well even for judges to remember that it is only done at the cost of some injustice, and that the really just plan would be the seemingly impracticable one of proportioning the punishment to the degree of responsibility which actually existed.

It is a common mistake, which even Sir B. Brodie seems to have fallen into, to suppose that the necessarian doctrine is fatalism. The true necessarian does not deny the existence of responsibility any more than the free-will metaphysician. He simply applies the law of causality to human actions, maintaining that the will, like everything else in nature, must have a cause. He affirms that he can as easily conceive creation to have happened without a cause as conceive volition to be without antecedent. Admitting this, it does not thence follow that an individual is under a fatal necessity to act in a certain way; what does really follow is, that given a certain antecedent state of mind a certain volitional effect will follow, if no other state of mind meanwhile intervene to counteract it. Very great confusion has been caused in this matter by the use of the word necessity—a word which is usually supposed to denote an irresistible force, a cause which cannot be counteracted; whereas it is here used only to express an uniformity of sequence. Because it is possible for A, with an intimate knowledge of the character of his friend B, and of the particular circumstances in which he is placed, to predict nearly with certainty how he will act in them, B is none the less free to act as he likes. The experience of A is, that certain causes operating in B will produce certain effects, but it is quite possible that the operation of those causes may be interfered with by the intervention of other causes which will produce a different effect, and disappoint the prediction. But it cannot thence be concluded that the law of causality is not applicable to the human will; all that can be said is, that A was not acquainted with all the antecedent conditions. A thief, again, may have so strong a motive to jump from the top of a house, in the desire to escape from his pursuers, as to determine his will to the act; or the desire to save his life from

an apparently certain destruction may intervene, and supply a stronger motive to prevent the leap. All that the philosophical necessarian maintains is, that the first motive determines a certain volitional consequent, unless a counteracting cause intervene meanwhile and determine a different result. But the result, whatever it be, has necessarily its antecedent cause. This, it must be admitted, is a very different kind of necessity from that which we speak of when we say that given a certain cause, for example, deprivation of air to a man, a certain effect, death, *must* follow, whatever be done to prevent it.

In all the world, says the necessarian, there is not a casualty; for nowhere in it is there not causality. It must be evident on reflection what a mighty responsibility this doctrine imposes upon the individual. Life is seen to be a most important work of art, to be built up under a recognition of the principle of cause and effect. The individual sees the way by which he may influence the formation of his own character and attain to the possession of a strong will by its logical development through reason. He knows that certain antecedents must determine certain consequents, and endeavours to operate upon the antecedents; he fashions in some measure the circumstances which fashion him. "All successful men," says Emerson, "have agreed in one thing—they were *causationists*. They believed that things went not by luck, but by law; that there was not a weak or cracked link in the chain that joins the first and last of things. The most valiant men are the best believers in the tension of the laws." If the will determined itself, if it were determined by no antecedents, it is impossible to conceive how a man should have any power over it, any way of influencing it, and, therefore, any responsibility; whereas, in reality, the education of the will is the highest aim and attainment of human effort, and a completely fashioned will the last and best development of nature, the finest flower of all her marvellous works.

"Sir," said Dr. Johnson to Boswell, "we know our will is free, and there's an end of it." But the ponderous doctor had rather an arbitrary way of settling matters, which was sometimes not so satisfactory to his hearers as to himself. He fancied that he had demolished Berkeley by demanding triumphantly why the Bishop did not strike his foot against a stone, and thus convince himself of the existence of an external world; and he would probably have become exceedingly angry if some one had told him that he had not said anything whatever to the point, as in truth he had not. Still, in asserting free-will against fatalism, there cannot be any doubt that Dr. Johnson was right. It is the fatalist who has done so much mischief by so completely misunderstanding his own position. He has not seen that the application of the law of causality throughout every part of nature is not incompatible with individual freedom of choice. On psychological grounds, it has been

above shown that the volition must have its necessary antecedent; and on physiological grounds, it may be said that the great principle of conservation of force demands it. The controversy about free-will and necessity is now generally acknowledged to be a useless wrangle about improperly applied words; and while Locke clearly pointed out how absurd and inappropriate it was to use the word free in connection with the will, Mr. J. S. Mill has done a like good service to the equally misused word necessity.

It is time to return to our discursive philosophers. Passing, then, as abruptly as they do, from subject to subject, it will be interesting to give Sir B. Brodie's opinion on the use of tobacco and opium.

*“First.*—It is not simply as a liquor producing absolute intoxication that alcohol may be injurious. One person may drink a pint of port wine or an equivalent quantity of some other liquor daily, and that through a long life, with impunity; while in the case of another, though never in a state of intoxication, the effect may be to render him dull in early life, prematurely stupid in his old age, and probably shorten his life ultimately.

*“Secondly.*—The evils arising from the use of alcohol have been fearfully aggravated by the invention of distillation. It is under the influence of gin and brandy, much more than of beer or wine, that bodily diseases arise, and it is alcohol in these forms especially that leads to acts of violence and crime.

*“Mutatis mutandis,* what I have said as to the use of alcohol may be applied to other articles of the same class, such as opium and tobacco. The opium-taker is only negatively mischievous to society; he is dreamy and inactive, but nothing more; and it is worthy of note that the habitual use of opium does not, like that of alcohol, seem materially to shorten the duration of life. So as to tobacco. In the Polytechnic School of Paris it was found that the habitual tobacco-smokers were far below others in the competitive examinations. Tobacco-smokers, like opium-takers, become lazy and stupid, but they have not the vices of gin-drinkers. As to the effect of tobacco upon the organization generally, I am inclined to think that it is more deleterious than opium, and more productive of disease, when the use of it is carried to excess.”

It is rather a bold statement that tobacco-smokers become lazy and stupid, considering how many of our most active men are great smokers. And certainly it would be as fair to suppose that those who were low down in the competitive examination in the Polytechnic School of Paris were habitual tobacco-smokers because they were lazy and stupid, as it is to suppose that they were lazy and stupid because they were habitual tobacco-smokers. Is it not wise for an individual to create for himself as many gratifications as possible, so long as he does not injure his health by excess? Or is it true philosophy for him to diminish his wants, and, disdain luxury,

to revert to a Spartan simplicity, and to his ancestral sheepskin apparel? To Eubulus, who in the fourth dialogue asks, "What is happiness?" Crites replies—"I consider him to have the greatest amount of happiness who has the largest proportion of agreeable, and the smallest proportion of painful feelings, be they either physical or moral." While giving this definition, he fears it is common-place and vulgar; but Eubulus reassures him by pronouncing it the most philosophical sense in which the word can be used! Will it not, then, justify a moderate use of tobacco, or the judicious indulgence of any sensual pleasure? If a man create for himself as many artificial wants as possible, so long as he has the means of gratifying them, he will plainly be increasing his happiness; besides which, the desire to possess the means of indulgence will stimulate him to active exertion, which will again be a pleasure.

It is an odd circumstance that the theologians, moralists, and philosophers, who have undertaken to instruct mankind in the way to become happy, have almost always confined themselves to the moral aspect of the question. They do not tell us how to act with regard to physical enjoyments, nor do they point out how a just and equitable frame of mind may charm away physical pain. And yet, what profit is it to demonstrate that to be virtuous is to be happy to an unfortunate creature who is constantly suffering the great agonies of some painful organic disease? If a man can find his happiness in enduring suffering with patient resignation, then he may ensure to himself a never-failing supply; otherwise, happiness will be to him, whilst "confined and pestered in this pincfold here," little more than a devout imagination. Judging from appearances, those who least deserve happiness often seem to get the most of it. The wicked, on the whole, stands very well in slippery places, and we may pass many times by his garden and not find it a desolation. It is very consoling, however, to learn that Sir B. Brodie's long experience has led him to the conviction that the selfish people who live only for their own gratification, without regard to the feelings of others, do not, when they get prosperity, get happiness. He says:—"But I have lived long enough to watch the course of some such persons, and am led to believe that even in this world the day of retribution rarely fails to come at last. I have seen them, as they advanced in years, fall into a state of melancholy, amounting to hypochondriasis, for which even the most firm religious convictions afforded but an inadequate relief. A philosophical friend of mine has suggested that remorse is the destined punishment in a future state of existence. Be that as it may, I am satisfied that many, who do not own it, even to their nearest friends, are the victims of remorse even here on earth. Obvious examples of it in one of its forms are almost constantly presented to us in the daily journals, in the notices furnished by the Chancellor of the Exchequer of sums of

money sent to him anonymously for 'unpaid taxes.' Is there any one, even of the best among us, who does not look back with regret at some errors which he has committed at a former, and perhaps distant, period of life?"

It seems universally admitted, although the practice in this matter is quite at variance with theory, that whosoever devotes himself entirely to getting money, who is inspired with that desire only, commits a certain mistake, and does not get the happiness which he hopes for. The wealth-passion is plainly a blighting passion, which always endangers, and often kills, the moral sense. Nor are its evil effects confined to the individual. The community is tainted by the subtle and powerful poison; commercial morality becomes of a different species from true morality, in reality no morality at all, but immorality under the flimsiest disguise; and the general plan of estimating an individual by a money value ignores with a remarkable audacity, yet not with impunity, the genuine worth and native dignity of humanity. Constituted as every one is with a moral nature, it is impossible that any man can cut himself so completely off from his fellows as to live solely for himself, in utter indifference to their welfare, without being severely judged of nature; and he who takes that course is very diligently sowing curses, the fruits of which his posterity will most likely be compelled to reap. For, though the individual may forget his relations as a moral being, the universe does not forget. The wealth which has been hoarded up with such careful toil, not with any design of using the immense power which it represents for the good of mankind, but simply for its own sake, or with the ambitious vanity of founding a family, is often seen to become, after a little while, nothing more than the gilding of decay. The family that was to be founded upon it has, by the very means taken to accumulate it, been tainted with a rottenness at the heart. For the parent who has systematically repressed the moral element in his nature and done his best to destroy it, even though he himself escape the bitter consequences of his error, transmits his acquired deficiency to his children, who may thus be born with a natural vice of constitution to which, but for the most favorable circumstances, they must fall victims. How rare, indeed, is it to find wealth-founded families endure through two or three generations!

It would scarcely be doing justice to Sir Benjamin Brodie if we did not here signalise a danger which he fears from the increase in the population of towns, and the diminution of that of the rural districts. This also may be attributed to the eagerness after wealth. Our crowded cities are draining off the stock of vitality that has been hitherto stored up in the rural districts, and are using it all up in the eager competition. What, then, is to become of the race when the supply is exhausted?

“Unfortunately, it is shown by the returns under the late census, that while there is a great increase going on in the population of the larger towns, the population of the rural districts is diminished rather than otherwise. I own that I cannot contemplate such facts as these without some apprehensions as to the future. There may not be any great difference observable in the course of a single generation; but is there not danger that, after a few more generations have passed away, the race will degenerate, and that the mass of the population will no longer be distinguished for those powers of physical exertion, and that unflinching determination to overcome difficulties, which have hitherto contributed so much to the power and welfare of our country?”

If such apprehensions are ever realised, few will then doubt that a wealthy country may gain its wealth at far too great a cost.

It has, fortunately, happened so far in the world's history, that whenever men have come to set up a purely artificial faith, to believe in shams as realities, some reformer has appeared who, bursting through formulas, has shattered the spurious conventionalisms, and has proclaimed with a force that there was no withstanding the inherent dignity of humanity. And when the impassioned eloquence of earnest conviction utters the simple truth that “a man's a man for a' that,” it is remarkable how quickly formulas fall to the dust and the glitter of false glories fades. There is some reason to hope for a reformation in the faith of the present age. For there is noticeable abroad an impatient spirit which rebels against the money-worship and other idols; on all sides are heard complaints of the evils which flow from the mad desire for wealth, of the immorality which is being received without anger into commercial transactions, of the hypocrisy which is so gladly welcomed in social life, and of the great separation of the different classes from each other. The separation, says Sir B. Brodie, “to such an extent as it exists in this country at the present day, is a great social evil, while I fear that it may lead to a still greater evil, perhaps at no very distant period of time.” Seeing, however, that the evil is distinctly recognised, and by many strongly reprobated, there is some hope that the threatened danger may be in some measure obviated.

If it be the fact, as many suppose, that the separation of the different classes has not its foundation in any real human superiority on the part of those who hold the higher position, it is certainly a fact of grave importance, which cannot but add seriously to the danger of such a state of affairs. The upper classes have all the advantages of a complete and expensive education, but in how few instances, it is asked, do these excellent opportunities bear good fruit? With nothing more to boast of than an outward appearance of refinement, with no worthy object in life, those who are born to affluence often, as Crites observes, “betake themselves to mean and frivolous, and

too frequently to degrading and demoralising, pursuits." Ergates wishes that he could dispute the correctness of the observation, but confesses that he cannot. Now, it is very certain that he who wastes a life in enervating pleasures and in trivial pursuits, who passes away without the world being any better for his existence, is, whatever position he may have held in the world's ranks, much less noble a man than the humblest mechanic who labours honorably in his vocation. All honest labour is so much added to the wealth of humanity; while the physical forces of nature might well rejoice, if they were capable of it, at the miserable drone who allows them to get back, in so easy a way, that force which has been gained from them, at so great a cost, by the labour of the thinking and working men. It scarcely needs a prophet's insight to predict what must be the inevitable result of a condition of things in which superiority really means inferiority. As Sir B. Brodie justly observes,—“If the superior classes allow themselves to be distanced in the race, they will find ere long that they are in danger of losing the position which they occupy, with all the advantages belonging to it. Money is power, which is certainly none the less from it being combined with the *prestige* of birth and rank; but knowledge and intelligence are a greater power still, and if the two should unfortunately be placed in opposition to each other, there can be, as I apprehend, not the smallest doubt as to which of them must ultimately prevail.”

In the sixth dialogue, our rambling philosophers, after agreeing that there was a time when neither vegetable nor animal life existed on the earth, and that the first introduction of life must have been by some special act of creative power, enter into a short discussion on the fashionable question of the origin of species. It may, perhaps, be justly said that it is not an advantage to any scientific question when it becomes fashionable. There is a danger, then, that our great philosophers may lose their calm indifference to all but truth, and be influenced by the passions and prejudices which surge in the vulgar breast. Unhappily, the pursuit of science is no safeguard against human weaknesses; and few people seem to have so little of the ‘milk of human kindness’ as the scientific men. “There is an avarice of reputation as there is of money; and the competitors have not always been so liberal to each other as they might have been well expected to be.” Injurious, however, as the angry discussions on the origin of species may in some measure have been, one good thing has resulted from them—one fact has been added to anatomical science. The monkey has, without question, a posterior lobe to its brain, and is nearer to man by the extent of that quantity of nervous substance. But although it is undoubtedly well that this point has been settled, yet it must be admitted that the solution of it has not brought us appreciably nearer to a conclusion on the vexed question of the origin of species. Sir Benjamin Brodie thus temperately expresses himself

upon the subject:—"The theory of the gradual development of the multitudes of living beings from one primitive germ, as first propounded by the elder Darwin, and afterwards by Lamarck and the author of the 'Vestiges of the Creation,' has been not unfrequently viewed with suspicion, as if it had a tendency to atheism. Yet there can be no greater mistake. Trace back this system to its origin, and you find that it takes for granted as marvellous an act of creative power and wisdom as can possibly be conceived. In saying this, however, you must not suppose that I am advocating the hypothesis in question; for really, notwithstanding all that has been said on the subject by the learned and sagacious author of the 'Origin of Species,' I find so many difficulties in the way, that I am very far from being convinced of its truth; and I think there is no one who will not find a great stretch of the imagination necessary to enable him to conceive that an oyster, a butterfly, a viper, and an elephant are all derived from one common stock, and are but different forms of one original element variously developed."

Though the conception of such a marvellous transformation is certainly not easily made, it must not be supposed that the difficulty of conceiving it affords any argument against the possibility of it. It is obvious that special creative acts are just as little conceivable by us; and experience has shown that things which at one time were utterly inconceivable, have become, not only conceivable, but so plain to comprehension as to make it a matter of wonder that they were ever doubted. If all the varieties of the human race have had a common origin, it is evident that considerable modifications have been effected by time and circumstances even in the most exalted of living creatures. Sir B. Brodie even supposes it possible that, if two families of Albinos were placed on an island and left there to intermarry, they might in time breed a distinct race of Albinos, as there is now of negroes. That is not very probable, however, seeing that Albinism is by most authors considered to be a congenital defect of the organism, and that experience proves that nature does not willingly propagate such imperfections. As Albinos are generally delicate, and do not live long; as they have feeble vision, and are partially deaf; and as they are generally semi-idiotic, there is strong presumption in favour of the correctness of the statement made by many authors as to their unfruitfulness. And although one or two examples have been with great labour collected by Dr. Lucas in which Albinos did breed, yet the investigations of Dr. Bemiss into the results of marriages of consanguinity would seem to prove that the most successful plan of producing Albinos would be that which produces degeneration of the race, namely, the intermarrying of near relatives.

One very essential and important fact in connexion with his theory Sir B. Brodie charges Mr. Darwin with having overlooked:—"Mr. Darwin has well illustrated the subject by his experiments on pigeons;

yet he has overlooked one very essential and important fact. The transformations to which I have alluded are confined to the external form, to the limbs, to the skin and its appendages. There are bandy-legged sheep; cattle with short horns, or no horns at all; dogs with long legs and slim bodies, dogs with short legs, big dogs and little dogs; Albino rabbits and dark-coloured rabbits; and so on. The Dorking fowl has an additional claw; and in one instance only, quoted by Mr. Darwin, there was an additional bone in the spine of the pigeon. But these transformations do not extend to the internal and more important vital organs, nor to the muscles and nerves, nor even to the general form of the skeleton. The negro is distinguished by his woolly hair, by his projecting jaws, the shape of his legs and heel; yet it matters not to the student of anatomy whether the subject of his dissection be a negro or an European. Those organs which are the special objects of his study, the viscera of the chest and abdomen, the brain and nerves, and, I may add, the muscles, are similar in both." We fear that, in these observations, Sir B. Brodie has scarcely done Mr. Darwin justice, and has certainly done himself some injustice. It is undoubtedly a matter of great moment to the student whether he dissect the brain of a negro or of an European, if he wishes to gain an accurate knowledge of the important organ. If he determines to ignore altogether the number and disposition of the convolutions, and the size and shape of the hemispheres, if he means deliberately to neglect the investigations of Tiedemann, Gratiolet, and others, he may contentedly go on with his dissection on any human brain, and he will find a cerebellum, a corpus striatum, an optic thalamus, and other such parts, as well in the negro as in the European brain. He may find all these, too, in the monkey. But if, impressed with the opinion that co-ordinately with an extension of the mental faculties, there is an extension and complication of the brain, he studies the anatomy of the brain with the object of learning whether the intellectual differences between the negro and European are attended or not with differences in the extent and complication of the nervous substance, he will find that they are. He will see that it is not correct to say, as Sir B. Brodie unwittingly says, that the "brain is the same (similar) in both instances; in fact, the only real difference, and that a comparatively small one, is in the form of the skeleton, in the skin and its appendages."

Although information is very much wanted on the extent of variation in the brain among the different races of mankind, yet there is some knowledge to be had upon the subject. "I am well aware," says Huxley, "that it is the fashion to say that the brains of all races of mankind are alike; but in this, as in other cases, fashion is not quite at one with fact." Tiedemann, who, as the negro's advocate, makes the least of any differences, says:

"The only similarity between the brain of the negro and that of

the orang outang is, that the gyri and sulci on both hemispheres are more symmetrical than in the brain of the European."

Professor Huxley adds, that the fact must strike every one conversant with the ordinary appearance of an European brain, who glances at the plate in Tiedemann's memoir.

Gratiolet has figured and described the brain of the celebrated "Hottentot Venus," and his remarks are as follows:

"The woman, be it premised, was no idiot. Nevertheless, it may be observed, that the convolutions of her brain are relatively very little complicated. But what strikes one at once, is the simplicity, the regular arrangement of the two convolutions which compose the superior stage of the frontal lobe. These folds, if those of the two hemispheres be compared, present, as we have already pointed out, an almost perfect symmetry, such as is never exhibited by normal brains of the Caucasian race. This regularity, this symmetry, involuntarily recall the regularity and symmetry of the cerebral convolutions in the lower species of animals. There is, in this respect, between the brain of a white man and that of this Bosjes-woman a difference such that it cannot be mistaken; and if it be constant, as there is every reason to suppose it is, it constitutes one of the most interesting facts which have yet been noted."

After mentioning other differences, Gratiolet adds:

"The brain of this Hottentot Venus is, then, in all respects, inferior to that of white men arrived at the normal term of their development. It can be compared only with the brain of a white who is idiotic from an arrest of cerebral development."

With respect to the shape of the hemispheres, Tiedemann observes of the negro's brain: "The anterior part of the hemispheres is something narrower than is usually the case in Europeans."

The importance of the subject, and the misstatements made with regard to it, must be our excuse for one quotation more. Professor Huxley concludes:

"Thus, the cerebral hemispheres of the Bosjesman (and, to a certain extent, of the negro), as far as the evidence before us goes, are different from those of the white man; and the circumstances in which they differ—viz., the more pointed shape of the cerebral hemispheres, the greater symmetry of their convolutions, and the different development of certain of these convolutions—are all of the same nature as most of those which distinguish the ape's brain from that of man. In other words, if we place A, the European brain, B, the Bosjesman brain, and C, the ourang brain, in a series, the difference between A and B, so far as they have been ascertained, are of the same nature as the chief of those between B and C." (No. I, 'Natural History Review.')

It is plain, then, that so far as the structure of the most important internal organ in man is concerned, it is rather in favour of Mr.

Darwin's theory than otherwise. Even Sir B. Brodie must admit this, if he wishes to be consistent. For he acknowledges that, "co-ordinately with an extension of the mental and intellectual faculties, there is an extension and greater complication of the nervous system, especially of that part which we call the brain." He admits, also, the inferior mental capacity of the negroes and other varieties of mankind. How then, does, he reconcile these statements with his previous assertion that the brain is the same in a negro and in an European? If, again, as he supposes, the negroes and other inferior races may, by the influence of favorable circumstances through generations, improve, so as "even, perhaps, to approach the point which has been attained by the more civilized communities of the present day," does it not follow from the previous statements that the brain must undergo considerable modification? The difference which at present really does exist in favour of the Caucasian brain, will represent the extent to which the negro's brain may improve.

It would not, however, be fairly representing Sir B. Brodie, if the foregoing remarks should produce an impression that he had come to any conclusion on the subject of the origin of species—"You may conclude no more than this: that the thing is so far beyond the limits of my experience, and that, in whatever way I look at it, I find the question so beset with difficulties, that I cannot venture to form any opinion on the subject."

While admitting the co-ordinate development of mind and brain, Sir B. Brodie refuses distinctly to accept the doctrine that the former is simply a function of the latter. "We have no more right," he observes, "to say that the brain makes the mind, than that the mind makes the brain." And to those who may object that we have no experience of the existence of mind except in combination with material structures, he gives the answer "so briefly and clearly given by the learned author of the 'Physical History of Mankind.'" Dr. Prichard's words are:

"The whole universe displays the most striking proofs of the existence and operation of intellect, or mind, in a state separate from organization, and under conditions which preclude all reference to organization. There is, therefore, at least one being or substance of that nature which we call mind separate from organized body, not only somewhere, but everywhere."

Sir B. Brodie thinks it very remarkable that this argument should have been "so much overlooked as it has been both by physiologists and metaphysicians;" and takes the opportunity to point out the errors which they have both fallen into in their investigations. The physiologist's mistake is, that he has studied the brain as he would any other organ of the body, and has thus tended to reduce the mind to a mere function of it, as the secretion of bile is a function of the liver. "We conclude with equal certainty," said Cabanis, "that

the brain digests in some way its impressions, and accomplishes organically the secretion of thought." The metaphysician has gone into the other extreme, and has studied mind quite irrespectively of the corporeal system. Bishop Berkeley is usually said—but the assertion does not do justice to his philosophy—to have denied altogether the existence of a material world. "Neither of these, as I apprehend, pursues exactly the right course. The human mind, as it comes under our observation, is to so great an extent influenced by the condition of the body, that it cannot be the proper object of study if the latter be disregarded; while the physiologist is equally wrong in regarding the mind simply as a function of the brain, overlooking the entire want of relationship between the phenomena which the mind exhibits and those presented by the material world."

It is not exactly apparent, nevertheless, how this last statement of an "entire want of relationship between the phenomena which the mind exhibits and those presented by the material world," is reconcilable with the above mentioned "briefly and clearly given" argument of Dr. Prichard.

Sir Benjamin Brodie accepts the logical result of the views which he has enunciated with regard to mind and brain. He admits that the mental principle in the lower animals must also be independent of organization, and believes it not improbable that the future which man claims for himself will not be denied to them. It is plain that man has no just reason for claiming "a sole exclusive heaven," and when, after a well-spent life, he passes into happier spheres, he may even expect that "his faithful dog shall bear him company."

No limits can be put to the extraordinary conceit which man has of himself. With a remarkable placidity he rests in the belief that the forces of nature have been at work through countless ages for the purpose of building him a dwelling-place; that nature has tried her "prentice hand" in the construction of numberless organic forms, in order to attain to the skill of accomplishing the perfection of his type; and that now, having completed her work and witnessed the glory of it, nature will rest from her long labours and thankfully utter a "Nunc dimittis." For he at last has come for whom there has been such mighty travail. But is this probable? Is man really the final blossom of the universe? As Sir Benjamin Brodie asks, "Whatever may be the future destiny of man, is he really so perfect that he should be regarded as the crowning-piece of the creation? We have the history of the former inhabitants of our planet, not handed down by tradition, not written in books, but recorded in indelible characters in the strata immediately below the surface of the earth. We learn from these that numerous forms of animal life existed, in ages which have long since gone by, which have now become extinct; that the first of these which were called into existence were of a simpler kind; and that by a gradual, though

by no means regular progression, these have been succeeded by others of a higher and yet higher order. Is man to be considered as the last of these productions? or is it not more probable that he does but stand in the middle of a long series, and that in the far distant future there may be a time when, his mission on earth having been completed, he too will be replaced by other living beings, far superior to him in all the higher qualities with which he is endowed, and holding a still more exalted place in the system of the universe?"

Such speculations may be vain, but they are the result of a principle in the human mind which impels it unceasingly to labour to push back the boundaries of the unknown, and by which it is made in time to know the limits of its faculties.

In taking leave of these 'Psychological Inquiries,' it may be well to add that, in books written in the form of dialogue, it is often difficult to avoid attributing to the author sentiments which may, after all, not be his, but those of one of his characters. If such an injustice has been done to Sir B. Brodie in the present notice, the blame of it must rest chiefly with himself. For his "personæ dramatis" are the merest shadows; they have no individuality; Crites might be Eubulus, and Eubulus might be Ergates, and no one would find any difference. If one of them had begun at the beginning of the book, and had talked on to the end of it, while the others listened, it would be no clearer than it is now that it is Sir B. Brodie who is talking throughout. Many, perhaps, might have been more pleased if Eubulus, instead of inviting his friends from town, had sat down and entered more deeply in some of the many interesting subjects which, as it is, he has only touched upon, being prevented, whenever he was tempted to do so, by the observations of his friends that such matters were beyond the reach of human faculties.

He must, however, be a lover of carping criticism who does not at the end of the book feel grateful to the author for such a clear, temperate, and careful expression of opinion on subjects that are of the deepest interest to all mankind.

H. M.