

The *duties* of the State, on the other hand, can be simply determined by the fundamental formula, applied positively and negatively: it must "prevent interferences with individual action beyond such as the social state itself necessitates". Justice requires it to do this adequately: and Justice requires it to do nothing further,—at anyrate if the further action is either coercive or expensive; since either coercion or expenditure, beyond what is needed for the protection of individual rights, is itself an infringement of these rights. It would hardly be suitable in the present notice to discuss adequately Mr. Spencer's application of this simple principle, which will be, in the main, familiar to readers of his previous writings. I will only say, briefly, that the consequences of the political empiricism that disregards this principle are severely expounded, and impressively illustrated by modern instances, in the concluding chapters.

H. SIDGWICK.

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*Les Idéologues.* Essai sur l'histoire des Idées et des Théories scientifiques, philosophiques, religieuses, etc., en France depuis 1789. Par F. PICAVER, Docteur des lettres, Agrégé de philosophie, Maître de conférences à l'École des hautes études, Lauréat de l'Institut. Paris: F. Alcan, 1891. Pp. xii., 628.

The author of this important volume essays a task of no common magnitude. Rarely has there been a greater, or at least a more varied, intellectual outburst than marked the revolutionary era of French history. M. Picavet traces its origin, follows it along the multifarious lines that it took, and seeks to appreciate the abiding value of its results. The industry he displays is immense, and hardly less remarkable the historical and critical insight. Writing also clearly and with force, there is not an aspect of the movement that he does not effectively portray, not one of its hundred figures, small or great, that he does not manage to invest with interest. But it must be added that the very thoroughness of his work over so wide a field has at times a somewhat overpowering effect. And when it comes to looking back upon the whole moving scene, one sighs for index as a means of keeping hold of it all. Why, with all its fine gift of exposition, is the French mind hardly more careful than the German to employ that simple help for making its labours of ready service to the busy student?

The revolutionary movement of thought in France, called Ideological by Destutt de Tracy, one of its chief leaders, has a special interest for us in this country, as M. Picavet is forward to point out. If English thinking has in this generation recovered in France something of the same kind of authority that was yielded before the middle of last century to the thought of Locke, it has

done so in forms that were moulded not least by influences received from France itself. In fact, during the modern period an alternate process of give-and-take between the two countries has always been going on. Locke, who seemed to overcome Descartes in France, had owed more to Descartes than to any other of his predecessors. So the later English psychology, which has supplied so manifest a stimulus to the French activity of mental research at the present day, had its own line of progress, at an earlier time, very markedly affected by the Ideologists. Hamilton was quite right when he signalised the origin, in D. de Tracy, of Thomas Brown's theory of external object, taken up afterwards and developed by J. S. Mill, Prof. Bain and others. The discovery does not seem to have been made by Hamilton till his later days (*Reid*, Note D, p. 868 n.), but already in his early onslaught upon Brown (Art. "Philosophy of Perception," 1830) there is some general reference to the school which he gives Cousin, after Royer-Collard, the credit of overcoming. Such overthrow, in as far as it took place, is but another effect of the interchange of thought between the two countries, since Royer-Collard (from 1811) was stirred to his revolt against the Sensationalist tradition in France by no other than the influence of Thomas Reid. As for the Hamilton of 1830, it is not out of place to add that one cannot easily now read without smiling the tones of portentous solemnity in which he speaks of those high interests of morality and religion which, under Locke's influence, had been wrecked for nearly a century in France till the great Cousin at last stood forth to stay and save. It is not creditable to Hamilton's discernment that he should at any time have let himself be imposed upon by that flighty rhetorician. Had he known, too, a little more intimately the work of those, whether called Sensationalists or Ideologists, whom at that time, apparently, he was content to take at the estimate of their foes, he might have recognised that in Degérando and Laromiguière, then still active, there was as much concern for religion (not to say morality) as the belauded Cousin ever showed; that Cabanis himself, more than twenty years before, had supplemented his scientific inquiries into the relations of mind and body by a grave philosophical argument (*Lettre sur les Causes premières*) for religious interpretation of the universe; and that in the earlier generation Condillac, for all his psychological insistence upon sense, was a most ardent spiritualist and theist.

But wherein lies the distinctive character of the Ideological movement, as we may now understand it with the help of M. Picavet's practically exhaustive research? Less in its method, which had been applied by others before to the investigation of mind, than in its aims begotten of a time of high humanitarian enthusiasm. It was essentially a revolutionary movement: Education, government, the whole frame of society were to be recast; the renovation being based upon a scientific analysis of "ideas,"

or developed human experience, driven, with that all-inclusive practical purpose, deeper than ever before. The enterprise indeed, even its practical bearings, was not novel. Locke's "way of ideas," which remained the whole method of the French revolutionary thinkers, had for him also a practical, quite as much as a theoretical, significance. And one object, uniting considerations of both theory and practice, namely, the direction and furtherance of the work of special science, had been as present to the mind of Hume as of Locke in their new analytic treatment of human "understanding". But the progress of the positive sciences had come, by the end of the eighteenth century, to exert an ever-deepening influence upon philosophic minds. The French thinkers who, after Condillac, continued to draw their main inspiration from Locke had it forced upon them to make mental inquiry more and more expressly scientific in form, on the model of the other sciences; while yet contending that these others could be systematised and co-ordinated only from the point of view of the mental inquirer. Getting then, after the revolutionary Terror, the opportunity of building upon a ground that had been swept bare, they made it their first practical concern to refound the whole higher instruction of France, and to organise, in the Institute, the means of universal scientific advance. In both departments—of research as of instruction—"Analysis of Sensations and Ideas" (or other equivalent designation) was put forward to mark the particular line of scientific inquiry and consideration that should henceforth take the place of an arbitrary "Metaphysic" in relation to all other actual or possible varieties of human knowledge and endeavour. So may we represent to ourselves, in general, the nature and scope of the movement.

Leaving aside for the moment M. Picavet's introductory question of the "Origins," we may first note the chapter (pp. 20-100) in which he gives account of the Ideologists' "Relations, political and private, academic, scientific, and literary". It is truly a marvel of painstaking research. The work remained for M. Picavet to do, and he has done it once and for all. Nothing that one can desire to know of the new institutions, educational and other, set on foot from 1796, or of the men, obscure as well as prominent, who helped in their founding and working, is here left unelucidated. The class of Moral and Political Sciences, second of three composing the Institute, had but seven years of life before Napoleon, who as General Bonaparte could speak about "ideas" with the foremost (p. 80), abolished it in his pique at being unable to retain the good opinion and support of the philosophical leaders who, in their desire for a more settled political order, had helped him to his supremacy in the State. From that time it was that "Ideologist" became his favourite term of contempt for all those whose serious scientific and social purpose would not bend itself to the service of his personal ambition, and in a depreciatory sense passed readily enough into

currency with many who had been proud to bear the name. But Napoleon's impatience of mental independence did not deprive the school of its means of official utterance before its work has been in effect done. And it needs but an unbiassed study of its chief productions to see that at least the leading spirits, Cabanis and De Tracy, if over-sanguine in their enthusiasms, had no such deficiency of practical sense as the title of their choice was made to imply against them.

The work of the Ideologists is, in effect, summed up in the writings of the two men, Cabanis and De Tracy, and all the more because of their complementary relation to one another; De Tracy confining himself, for the most part, to properly subjective consideration, while Cabanis made it his business to discover the physiological conditions of mental process. But with M. Picavet the work of the two (done within some ten years from 1796) and of those whom they more especially influenced constitutes but one of three stages that may be distinguished within the whole movement. To a later "generation" are referred, with others of less note, Degérando (1772-1842) and Laromiguière (1757-1836), who, though already active by the side of De Tracy and Cabanis in the revolutionary years, did not attain their prominence till a later time, when it was left to them to continue the Ideological tradition in face of the strong reaction that had set in against it, but to continue it in a modified form, at once "spiritualist and Christian". And a "first generation" is made of writers, like Condorcet and Volney, whose work, in conception if not also in execution, reaches back to the pre-revolutionary period and is to be ranked with that of the Ideologists proper because of a general similarity in method and aim.

M. Picavet gives a very interesting chapter (pp. 101-75) to these immediate forerunners, who were all in more or less close relations with Cabanis and De Tracy; but, for the right understanding of the central pair, it is of greater moment to note what he otherwise seeks to establish concerning the origin of their thought. The most obvious question is of their relation to Condillac, the dominant French thinker of the eighteenth century, and this is a question which M. Picavet keeps in view all through his exposition and would very decidedly answer. He speaks with an exceptional knowledge of Condillac, having some years ago edited with characteristic care a part of the *Traité des Sensations*. He has, moreover, for the present inquiry, made an elaborate survey of all prior influences, French or other, that can have affected the Ideologists; though in his book, as printed, some two hundred pages which he had written on this topic have had to be condensed into an introduction of less than twenty. In the result, according to him, it is a grave historical mistake to subordinate the Ideologists to Condillac as master. Though agreeing with Condillac in the general psychological method he had taken from Locke, they criticised him with the utmost

freedom and made claim to have advanced indefinitely beyond his positions. Neither was Condillac himself, from the middle of the century till his death in 1780, by any means the solitary thinker of mark and power in France that he is commonly represented. And when we go back beyond Locke, to whom the allegiance of the Ideologists is undoubted, it is to Hobbes and Bacon, outside of France, that they are seen to stand most near ; while, in France, it was at least as much from Descartes as from Gassendi or from the line of sceptics reaching back through Bayle and others to Charron and Montaigne that they drew. In all this contention by M. Picavet there is much freshness of historical insight, and especially noteworthy is the evidence he adduces that never in the eighteenth century did Descartes cease to be an active philosophical force among his countrymen. With the Ideologists, at anyrate, he stood in high credit—in higher credit (it is interesting to note) than with Royer-Collard, the initiator in the second decade of the nineteenth century of that spiritualist reaction which later on was fain to connect itself with his celebrated name. As to the Ideologists' independence of Condillac, however, M. Picavet's proof is not very decisive. It is just as easy to find in the pages of De Tracy and Cabanis professions of discipleship as reclamations against this or that shortcoming of their psychological predecessor. They were in truth very specially beholden to him ; but, over and above their novel breadth of practical aim, they had the characteristic—in a remarkable degree for their time—of seeking to connect their thought with the best (as they conceived it) of method or principle that they could find among all the streams of modern inquiry. They looked upon themselves as the crest of the whole advancing modern wave. This confidence is curiously manifested in a criticism on Kant which De Tracy read to the Institute in 1802. Some of it (as given by M. Picavet, pp. 347 ff.) is not at all ill-pointed as special criticism, but more significant is the general judgment passed, as from a higher level, on “*les philosophes allemands*”—who retain the prejudices of the old school-doctrine, do not know of the observations that have been made in France, take no account of origins, language, method of calculus, but regard the human mind as an abstract thing, &c., &c.

Cabanis and De Tracy occupy between them more than a third of M. Picavet's book (pp. 176-398). His plan is to interweave with accounts of their lives abstracts, more or less critical, of their writings, in order (as far as possible) of composition. The work is done with so much intelligence and sympathetic care that for most readers the abstracts may well supersede the originals, though some can hardly fail to be led on by them to a direct contact with the writers. Cabanis (1757-1808), the slightly younger man, was, as long as he lived, perhaps the more prominent or representative figure of the two, and he lived long enough to cover not only the period of his yoke-fellow's effective authorship

but also the whole time of their school's undisputed influence. He had all the warmth of nature and easy flow of utterance helpful in the impressing and attaching of other men. Though philosophic purpose was never absent, literary production took with him a somewhat wide and varied range. Of scholarly habit from youth, before taking up the medical profession, he wrote early and late both as scholar and as physician; and in his master-work, the *Rapports du physique et du moral de l'homme*, which embodies much of his own medical experience, the literary touch is present in a high degree. It brought together a series of memoirs read to the Institute from 1796, some others being added when the book was made up in 1802. By that time Cabanis, who had been very active in support of Bonaparte's *coup d'état* in 1799, had his disillusion; and, suffering always from most uncertain health, he appears to have been anxious not to delay bringing out the results of his protracted inquiry and reflexion on the mental relations of mind and body. The book, as it appeared, has much less of system and orderliness than Cabanis would claim for it; but it is more easy to understand the enthusiastic interest with which it was received at the time than the comparative neglect into which it has later fallen. With an expert's knowledge of all that had been discovered or surmised from Hippocrates downwards as to the human bodily constitution, Cabanis set himself to bring it into definite relation with the results of mental introspection pursued in the scientific spirit of Locke and Condillac. By analysis of his own, he was able to bring into view, with more clearness and precision than anybody before him, the whole range of organic sensibility underlying the external senses. Completely overlooked by Condillac, these "internal impressions," the simplest and most truly primordial of all human experiences, reaching back as they must do to the period of foetal life, were first understood by Cabanis in their peculiar psychological significance, more especially in relation to the earliest (apparently) automatic activities. But his merit lies less in a special discovery like this, important as it is, than in his grasp of the general position that, in their relation to bodily conditions and processes, the facts of mental experience are to be taken directly as such, apart from metaphysical construction. The "relations" to be established are purely phenomenal. His clear perception of this fundamental condition of scientific treatment lends a value to his results which is hardly lessened by the imperfect knowledge of the nervous system which belonged to his time. He distinctly anticipated the position at which all psychophysical inquirers now place themselves; and, though in particular unguarded expressions, like that when he speaks of the brain as "*en quelque sort digesting impressions*" and as "*performing organically the secretion of thought*," he lets himself be overborne for the moment by the obviousness of the physical, yet even in the *Rapports*, still more in the later *Causes premières*, he shows himself well aware

of the unique import of conscious sensibility. The "relations" established are, indeed, for the most part of a very general kind ; but this was inevitable at starting. As a general basis for the most developed doctrine of physiological psychology thus far attained, his exposition may still effectively serve. Certainly, nothing in its way so striking has yet been produced by other hand. Nor, for all the undeserved neglect with which he has been treated by later inquirers, has even this been unrelieved. An edition of the *Rapports* (and *Causes premières*), issued in 1844 by L. Peisse, is a model of careful and judicious commenting, all the more valuable because of the perfect freedom of animadversion which the editor feels bound to allow himself. This is the edition to be recommended to the student who wants to go beyond M. Picavet's admirable analysis.

Count Destutt de Tracy (1754-1836) has had still less justice than Cabanis from historians of philosophy. Lewes is almost alone in giving prominence to either, but, while he seizes fairly enough the importance of Cabanis, says nothing to the purpose in his two pages on De Tracy. Yet De Tracy was a very remarkable man, and a thinker whose performance is only less remarkable than his ambition. He now stands very well revealed in the biographical facts and characteristics recorded of him by M. Picavet, to which there is only wanting some more definiteness of detail towards the end. A self-contained man, of high and strenuous purpose, he had already been given to scientific study while playing the gay soldier at court. When the revolution burst, he was forward to resign all aristocratic privilege and range himself with the popular party, though never exaggerating the social and political evils that had to be redressed. Not all his patriotic ardour and self-sacrifice availed to save him from incarceration and imminent peril of death at the height of the Terror. When he escaped condemnation by the fall of Robespierre and was set free again, the studies which he had calmly pursued in prison had brought him so far as to see, by help of Condillac and Locke, that a "science of ideas" was the thing above all needful for the advancement of knowledge generally and for the conduct of life. This accordingly he proceeded to develop, with gradually widening view; in a series of Institute-memoirs from 1796, revised and recast for publication in 1798. He had then hold of his main conceptions, but their practical applications, educational and other, did not become clear to him till he was called to act (1799-1800) on the Council of Public Instruction; and it was with an educational purpose that he then gave to his philosophical views their systematic form in three parts (Ideology proper, Grammar, Logic) of *Éléments d'Ideologie*, 1801-5. Later on he added a fourth part, of Economics, and the beginning of a fifth part, of Morals, towards a treatise of "Will and its Effects," as his first three parts had together made up a treatise of "Understanding"; but, though he had still, in 1817, some twenty years of life before him,



his powers were then confessedly spent, and indeed it is hardly beyond 1805 that his philosophical impulse is to be reckoned. Up to that time it worked with freedom and efficiency. Two features of his thought are specially to be noted. (1) It is undoubtedly from him that the import of conscious muscular activity for the psychological problem of object first got distinct recognition. Condillac in France, Hume and Berkeley in England, had (after Locke) each more or less clearly faced the problem; Rousseau, whose psychological tact (in *Émile*) deserves more acknowledgments than it has got, had described the perceptual value of the motor factor. But it was De Tracy that first put all together and, though not without some wavering, laid the foundations of a scientific theory which many hands have since helped to rear. To the conception of object as primarily *obstacle*, one finds, on reading, that he had already given the most definite expression; and there are other points of moment in the theory, as the prior objective character of the subject's own body in relation to all others, which he anticipated with equal clearness. (2) Before Comte, and in a profounder way than Comte, he conceived of human knowledge as an inter-related system of positive sciences. The very designation "positive," which has made its fortune in the present century, is in use with De Tracy and others of the school. Comte, there can be no doubt, took it from that source, and if he had learned also the need of starting with what De Tracy liked to call the "History of our Means of Knowing," his work of scientific ordering might better have claimed its assumed title of Philosophy. Particular ideas, too, commonly regarded as most characteristic of Comte, are plainly foreshadowed in De Tracy or Cabanis. These M. Picavet does not overlook; and, altogether, he is well justified in placing the great Positivist among the "Auxiliaries, Disciples and Continuers" of the two Ideological leaders.

The hundred pages under this title (399-497), in which he proceeds to muster these, with excellent effect, from all departments of science and literature, can here only be mentioned; nor can more be done for his final chapter (pp. 498-570) on the "Third Generation," in which are grouped round Degérando (Dugald Stewart's friend) and Laromiguière a number of minor figures, spanning the whole time till with MM. Taine, Ribot and others the movement of scientific psychology in France was started afresh under foreign stimulus. Among the direct adherents of Cabanis and De Tracy the man of greatest mark is Maine de Biran; the chief interest of his work, however, lying in the extent to which he afterwards broke away from their lead. Him M. Picavet leaves here aside (except in the way of frequent incidental reference), but only to reserve him for special study in connexion with a newly recovered Institute-memoir from the days of his Ideological enthusiasm.

A few pages of "Conclusion" (571-83, followed by some *inedita*



as appendix) are the less to be overlooked, because here M. Picavet does what he can, in other way than by the much-missed index, to bring together the multiplex threads of his whole inquiry. In the last paragraphs of all, there is a striking imagination of the state of mind of an Ideologist transported from the beginning of the century, when he worked so confidently for human enlightenment and progress, to the century's end with its vast increase of scientific knowledge but also increasing sense of the limits set to positive science and its ever-growing burden of social difficulties and perils. The Ideologist, it is allowed, would have to abate much of his practical optimism, and could no longer deal so lightly as he did with philosophical questionings because they had failed of decision. None the less he might truly claim to have done a real stroke of work in his day. He had broken ground in every one of the lines upon which psychology has since advanced,—an effort only partially recognised in the foregoing notice but admirably shown in the book itself. He had also had his own measure of philosophic insight when he proclaimed that all other human search and all human striving should own the sway of a science of "Ideas".

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*Vorlesungen über die Algebra der Logik (Exakte Logik).* By Dr. ERNST SCHRÖDER. Leipzig: B. G. Teubner. Vol. I. Pp. 717.

The appearance of the first volume—a very bulky one—of Dr. Schröder's great work marks an important stage in the progress of Exact Logic. With the exception of the brief former paper of the same writer (*Der Operationskreis des Logikkalküls*) the subject has hitherto received no presentation in Germany; and, for the purpose of making it accessible to the reader who approaches it for the first time, this presentation is practically the only thing that yet exists in any language.

Mr. Charles S. Peirce, to whom Symbolic Logic owes its present state of development, wrote his papers with the brevity and abstractness that befit a scientific journal. Dr. Schröder's book will be objected to on the ground that it is unnecessarily diffuse; but it should be remembered that the subject has had hard work to get itself recognised, and that it is a principle of psychology that a certain degree of voluminousness in a sensation is essential to the producing of a lasting impression. It must be admitted that the book is discursive to the last degree. On the other hand, it is not undesirable that everything that can be said, by way of elucidation and reinforcement, should once be said; coming books can be written with all the greater conciseness. It goes without saying that Dr. Schröder's book is a work of true German thoroughness, and patience with teasing details; it will