THE ANARCHIST IDEAL

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AND OTHER ESSAYS

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Optanda mors est, sine metu mortis mors

PREFATORY NOTE

THESE papers must be taken for what they are,— occasional lectures and addresses. *The Anarchist Ideal* was read to Quadrangle and to The Club, Ann Arbor (1910). *Plutarch and His Age* is substantially one of the Carew Lectures, delivered before Hartford Theological Seminary, Hartford, Connecticut (1899). *The Movement Towards 'Physiological' Psychology* was presented to the Academy of Medicine, Detroit, Michigan (1907). *Heredity and Education: Some Facts and Some Guesses* was read at the annual meeting of the Michigan Schoolmasters' Club (1909). *The University in the United States* is the substance of an address to The Circle, Harrogate, Yorks, England (1906).

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The others have appeared respectively in *The New World* (Boston; June, 1900); *The Popular Science Monthly* (New York; May, July, August, September, 1908); *The Journal of the Michigan Schoolmasters' Club* (Ann Arbor; March, 1910); and *The University Review* (London; May, 1907).

I may add that, just as the sheets were passing through press, I had an opportunity to examine Mr. F. M. Cornford's *From Religion to Philosophy, a Study in the Origins of Western Speculation* (London, 1912). This vigorous work serves to show that the ideas after which I had been groping — often blindly enough — four years ago, in the second part of the title paper, are by no means devoid of basis.

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THE ANARCHIST IDEAL

Mist is under and mist above, . . .
And we drift on legends for ever.

Ullam Appietatem ant Lentulitatem valere apud me plus quam ornamenta virtutis existimas?

ANARCHIST utopianism is no recent importation from bureaucratic Russia or volatile Italy. Were it needful to drive this platitude home, one could cite Emerson, with his "the timidity of our public opinion is our disease, or shall I say, the publicness of opinion, the absence of private opinion"; or Thoreau *On the Duty of Civil Disobedience,* with his "I quietly declare war with the State after my fashion . . . it must always be unpatriotic to take your Government's side against your country;" or even Herbert Spencer, drab by comparison, with his "Government, begotten of aggression and by aggression, ever continues to betray its original nature by aggression." These be opinions of yesterday. On the other hand, anarchist sentiment runs back to the dim verges of Greek history. So long as mankind has been prone

to idealise, so long some men could not but exclaim, "Each of us is a world's history for himself . . . we are free from what we are rid of." The perpetual emigration of fact to hope, the immigration, almost as perpetual, of hope to fact, imply no less. And it is important to note that we uncover a contrast, not between an 'eternal yea' and an 'eternal nay,' not even between a temporal 'yea' and an eternal 'nay,' but between a temporal and an eternal 'yea.' Whether we revert to the Cynics, the Stoics, the Anabaptists, the Puritans and Locke, the Virginians, the eighteenth century Radicals, hypnotised by Rousseau (whom Plutarch's *Lycurgus* misled), or to contemporary propagandists, protestantism and insurgency — that is, revolt against *present* institutions and legalities — characterise all. And, at the moment, the temporal element jostles us with such insistent familiarity that we cannot place reliance upon our own judgment. Accordingly, we may obtain a juster view if we drop current controversies, and return to a past where we can observe the conflict without partizanship, undismayed by the apostles of denial, unpersuaded by the subtle charm of the *laudator temporis acti.* Besides, thanks to the simplicity of their economic arrangements, as well as to their intellectual curiosity, there is a profound sense in which we may venture to reaffirm, that "the Greeks walk in light."

I.

Readers of Plutarch will recall that, in his *Life of Solon,* he makes the sage distinguish between an ideal order and a practicable system of law, between a perfect scheme and a workable compromise designed to meet a special situation.

"Yet, though Solon refused the government, he was not too mild in the affair: he did not show himself mean and submissive to the powerful, nor make law to pleasure those that chose him. For where it was well before, he applied no remedy, nor altered anything, for fear lest

Overthrowing altogether and disordering the state,

he should be too weak to new-model and recompense it to a tolerable condition; but what he thought he could effect by persuasion upon the pliable, and by force upon the stubborn, this he did, as he himself says,

With force and justice working both in one.

And, therefore, when he was afterwards asked if he had given the Athenians the best laws that could be given, he replied, 'The best they could receive.' . . . Solon, fitting his laws to the state of things, and not making things to suit his laws . . . ordered the Areopagites to examine how every man got his living, and chastise the idle."

As elsewhere, so here, Plutarch is anything but critical. Still, there is no good reason to doubt that, even in the first decade of the sixth century, men had noted vaguely the contrast between ideal and actual systems, destined to exert such potent influence on the fortunes of the race later, in Greece, Rome, post-Reformation Europe, and the United States of America. Nevertheless, we have every reason to suspect that the perfect system of Solon's vision belonged to a divine rather than to a human world. For, although the conception of *Nomos,* unknown to Homer, had been formulated, hazily enough, perhaps, yet the Homeric notion of *Themis,* meaning the Goddess of Justice, and not prescriptive as opposed to statute law, continued to permeate the Greek mind for at least a century and a half. Many winds were to ruffle the Piræus ere the opposition between *Nomos* and *Phusis,* the law of the Legislature and the law of Nature, could set issues that still survive — and shout — in the ideal of latter-day Anarchism.

Like others elsewhere in all ages, the Greeks of the period 'before the war' were swayed by many motives in moral conduct. Thus, I suppose, they sometimes anticipated tangible rewards for judicious observance — human amity, divine favour may be; or again, with the better sort, the vulgarity of excess, possibly the æsthetic measure of pro-

priety, told its tale; or, in other cases, 'legal' morality, customary usage, and the like, pointed the strait gate; or, once more, the pleasure of esteem and the horror of public odium may have influenced not a few. But, whatever the immediate impulse, reason had not come to strip motives bare, to wag scornful finger at their lack or surplusage. Hellas had not felt the joy and terror of holding the mirror up to her own nature. The experience was nigh, however. The keen stimulus, destined to tempt Athens

> "To cast the kingdoms old
> Into another mould,"

overtook her almost like a thief in the night. Emotion ran high in the pregnant years of the Persian war. Thereafter, as with Elizabethan England, national consciousness knew itself; the responsibilities, triumphs and makeshifts of empire forced new phases of justice and injustice upon the citizen. At length, the mysterious, cloud-capped righteousness of Æschylus stepped down from Olympus to inhabit the Pnyx. The Just and the Unjust Arguments of Aristophanes were no abstract personifications bred by poetic license, but transcripts of 'Causes' debated hourly and everywhere by the facile, eager Athenians. Briefly, an age of transition was sweeping Greece, Attica particularly. As often since, plain men were puzzled

by "the decay and death of a regulative system no longer fit, before another and fitter regulative system has grown up to replace it." The 'intellectuals' proclaimed the dizzy matter without compunction and without thought for the morrow. Hippias, as Plato reports, put the question in a nutshell: "All of you who are here present I reckon to be kinsmen and friends and fellow-citizens, by nature and not by law; for by nature like is akin to like, whereas law is the tyrant of mankind, and often compels us to do many things which are against nature." Law, the issue of human convention, is the source of bane; but 'Nature,' decked in sweet simplicity, offers the antidote. Therefore, appeal to something higher than law excuses revolt.

When we come to search for foregleams of recent Anarchism in this hellenic movement, we find that three 'moments' sway its immediate history. They are: *first,* the Sophists (especially Gorgias and Hippias, so far as evidence permits us to affirm now); *second,* Socrates; *third,* the Cynics. Everyone is aware that Socrates was incomparably the most important for the progress of theory and practice alike. Accordingly, he must occupy the centre of our stage. But, even so, he, and the Sophists, will appear as forerunners of Antisthenes and his kind.

(1) Gorgias of Leontini, a small town nearby

Syracuse, arrived at Athens, on an embassy, in 427 B. C. It is on record that he impressed the Athenians profoundly by his skill in public speech, although one must confess that such tags of his talk as are extant render it difficult to see why. He was a professor of the 'art of persuasion.' Like his race always, he suffered from the myopia of anti-intellectualism; the proper study of Mankind is man — this gave the substance of the message. In a word, opportunism was heralded as the rule of life. Pat questions about social and political affairs — the ordinary material for such discussions ever since in free communities — were ventilated. No system was forthcoming but new and seductive ideas found mouthpiece. Moreover, there were Sophists *and* Sophists, just as, among ourselves, there are lawyers *and* lawyers, from the faithful family adviser to the village shyster who will do anything for fifty dollars. Their business, then, was adroit treatment of current catchwords: — What is the State? What is Law? What is Justice? What is Concord? More theoretically, What is Knowledge? What is Truth? And, as a necessary accompaniment, in times when printing was not, they polished the vehicle of communication — words and the spoken tongue, or correct and elegant speech.

It is evident that these sophistic problems cover a vast range, and include subjects which, in modern

practice, would be assigned to inquirers whose several preparations may, usually do, diverge greatly. Of course, this is a consequence of the minute subdivision of society. And, when it comes to questions concerning the relation of the citizen to the State, one contrast assumes paramount importance. 'Private' life, as we conceive it, had small place in the Greek world. Athens was the Athenian's country, the source of his most elevating traditions; his nation, the fount of his most inspiriting conceptions; his church, the guardian of his finest hopes. From Athens flowed the ideals worth while, the opportunities which, just because he was her citizen, rendered him the highest conceivable type possible for man. On the other hand, his State claimed his time, intelligence, service — his entire life even — in fair compensation for the inestimable advantages bestowed. There were no men then, only Athenians. And, if this attitude came to clear consciousness so late as the famous Funeral Oration of Pericles, there is a sense in which it had been formative time out of mind, and all over Greece. Plutarch's account of the constitution of Lycurgus, for instance, indicates the 'private' scope of Greek legislation, like some applications of the term Draconian among ourselves. There were rules for personal morality, rules for physical and mental discipline, rules to prevent misbehaviour of adults with chil-

dren, sumptuary regulations, marriage regulations, and civil disabilities based on matters that we should deem entirely, or almost entirely, our own affair. Inevitably, this attitude, born of centuries, died hard. Even so late as Aristotle we find the remark, that many arrogated to themselves a complete knowledge of justice on the narrow basis of acquaintance with the code of their own city. Accordingly, law, and the maxims of lawgivers, came, not only to possess an importance, but also to take a sweep altogether unfamiliar to us. Plato was perfectly definite on this point years ere he sat down to construct his ideal or his real State. "When they have done with masters, the state again compels them to learn the laws, and live after the pattern which they furnish, and not after their own fancies. . . . These are given to the young man, in order to guide his conduct whether as ruler or ruled; and he who transgresses them is to be corrected, or, in other words, called to account." It is easy to see, then, that conditions were assembled for the pertinent inquiry, Is the good citizen necessarily the good man — are legality and morality identical? The problem awaited the fateful moment, which arrived in season.

Seeing that the State overshadowed other social institutions, notably the family, changes within its organisation were bound to entail important moral

effects. The codification of Draco (621 B. C.) inevitably produced a distinction between usage, or custom blessed of the gods (the original sense of *Dike*), and statute (its secondary meaning). As is obvious, the former contained an implicit suggestion of the 'higher law' that came to be explicit afterwards in 'Nature.' It speaks volumes for the strength of Greek religious sanctions, intertwined with *all* 'rightness,' whether customary or legal, that open conflict between the implications of 'higher' and 'lower' justice did not supervene till 181 years after Draco, in Sophocles' *Antigone* (440 B. C.). Naturally, many earlier references 'tremble on the verge,' the most noteworthy, perhaps, in Æschylus' (471 B. C.), *Seven Against Thebes* (cf. 646 f.). But Sophocles was no anarchist, he rather filled the *rôle* of high priest in poetry. Yet, it is to be remembered that, two years before the production of *Antigone,* Euripides gained the tragic prize for the first time; and, with him, the conflict between 'Nature' and 'Law,' the unwritten 'higher' and the written 'lower' command, became a commonplace of the stage, because it had become a commonplace of the streets. And Euripides was of one blood with the Sophists.

Carlyle's famous saying, that the rise of philosophy marks a stage of decline in a people's life, gains its speciousness from the history of Greek

civilisation. But in this, as in much else, Greece was unique. Less than 170 years separate Marathon from the biers of Aristotle and Alexander the Great. The martial rise of Hellas, her unexampled bloom in politics and art and literature and philosophy, her unholy civil strife, followed by her material collapse, and then by her spiritual supremacy over the Mediterranean world, from Rome to Cæsarea Philippi,— ay, and farther East, from Alexandria to Aspendus,— its great theatre still bearing witness in stupendous ruin,— succeed each other in a perfect riot of bewildering changes. When Pericles died (429 B. C.) she stood at the cross-roads already, the old order sinking apace, the new glimmering fitfully. The sophistic movement reflected her indecision, and in two ways. On the one hand, it revealed the compromises and contradictions that beset current standards in practical affairs: on the other, it flogged the failure of the previous 'physical' philosophy, which had cast little, if any, light upon the clamant problems of ethics and politics. But, although the Sophists sowed abundant tares of doubt in the harvests of morals and society, they were by no means averse to share the easy fruits of both. Compromise governed them. They lacked the earnestness to be thorough with either. Enamoured of superficial culture, they clutched anything that came to hand, and, indeed, might be termed the Euphuists

of their day. Set upon gorgeous form, solid matter could not but hamper them. In the first place, then, they gave free tongue to the incompatibility between individual independence and the civic obligations, so meddling (as we should say) in Hellas. And one prominent figure at least — Hippias — advocated a return to the self-sufficiency of 'Nature' almost in the accent of Rousseau. But, what is 'Nature'? This asked, a second turn of the sophistic kaleidoscope seems to occur. The subtle polemic of Gorgias against the Eleatic One — that is, against the Reality wherein all things live and move and have their being — was an assault upon an objective, physical *substratum* whence everything (psychical processes like the rest) emerged. Thus, while Gorgias exorcised the occult, he stimulated men — unconsciously — to obtain a positive content for 'Nature' from reason. The One was not abolished, it cannot be abolished; its venue was transferred merely. 'Nature,' now as the 'wise man,' with heavy stress on 'wise,' displaced the entity of Parmenides, not in the teaching of Gorgias probably, but in the pragmatic voluntarism of his greatest pupil, Antisthenes. Accordingly, the Sophists advanced Anarchy by two steps. They bared the transitory and local character of many 'legal' obligations, indicating that, as a consequence, the demands of citizenship led often to infractions of

a 'higher' law, entangling and bemusing individuality. This is the negative element. But no negative is without a positive. Hence, they also exalted the individual and, by their very contempt for the old objective science, hinted that the ultimate regulative order might be enshrined in his person. He is the 'higher,' and 'Nature,' the ideal, may derive form and comeliness from him.

(2) The second force in the Greek movement towards anarchist ideals sprang from the person of Socrates. And here we must have heed lest pitfalls entrap us. Hear the note of tense emotion that vibrates in those winged words from the *Crito*: "Our country is . . . higher and holier than mother or father . . . when we are punished by her . . . the punishment is to be endured in silence. . . . Whether in battle or in a court of law, or in any other place, the citizen must do what his city and his country order him. . . . This is the voice which I seem to hear murmuring in my ears, like the sound of the flute in the ears of the mystic." No anarchist this. Far rather a just man, who preserved intact the old Greek consecration of citizen to State, with its devout assent to the will of the tutelary deity. Nevertheless, Socrates was a genius who, towering above lesser folk, revealed many aspects, not simply of a rich character, but also of a complicated civilisation redolent of a strange past. Hence, if a man will only

fathom his own nature, recalling its representative function, then he will know the doctrine, *and,* as a pendant, know how to serve the gods. In a word, sanctions tend to become subjective and personal with Socrates: to this extent his accusers were right. Individual wisdom, not current custom, offers the clue to righteousness, even if civic habituation remain indispensable for mastery of self. And individual wisdom may well revert to convictions long lost by the general consciousness. As a result, then, virtue is a kind of self-knowledge. But, even so, the knowledge of virtue is communicated through the State. Where the legal is the moral, it cannot be otherwise. The State has a single reason for existence — to ennoble men morally. But the State manifests itself in men; hence, "as a matter of justice, the man who knows not what he ought to know should be content to sit at the feet of those who know, and be taught." Of course, appeal is thus carried to the 'wise man.' Yet this type, as Socrates thought, learns wisdom, not simply from philosophy, but *through* habituation in society. If only the wise were the governors, the State would be regenerated. With reference to the State as it *is,* Socrates fails to condescend upon specific reforms. And a society whose kings are philosophers is, unfortunately, no prescription for a society whose leaders must continue to be 'ward poli-

ticians.' In the issue, then, despite his emphasis upon education, Socrates did not reveal how the actual Athens might once more merit the confidence shaken so sorely by the trend of events. The rift between city and citizen was not stayed, far less closed.

Inevitably, then, some turned to Socrates' 'wise man,' forgetful of his perfect commonwealth. The one is objective, and might be identified with a person, or, at all events, with certain traits of a person, especially if a Socrates walked the streets. The other is a city not built with hands,

> "As from beyond the limit of the world,
> Like the last echo born of a great cry."

Preserve the image of the vital teacher, whom martyrdom has glorified: heighten his goodness just a hair's breadth and, more than likely, you already have the sage as he ought to be, able to save to the uttermost. By this process precisely, the 'imperfect' Socratics, picking and choosing according to their hearts' desire, made a 'three-quarter's man' of Socrates, and then took this torso for an incarnation of the whole truth in moral conduct. The immediate issue was not doubtful. A new virtue, unexampled in kind possibly, must be created. But, the moment we speak of a 'new' or 'unexampled' virtue, a paradox assails us. History attests that the dumb masses grasp

the external accompaniments of morality with comparative ease. The internal or spiritual mood appeals to the few. Consequently, the 'new'—always internal primarily—must needs embody itself with reference to some contemporary movement, usually unconscious in character, ere it can win to power. For example, Rousseau and Bentham alike taught a 'new virtue.' But, in both cases, it would have lain cloistered with the literary or philosophical minority had it not found local habitation amid French social and British political tendencies. In proportion as it coincided with the drift of historical circumstances, in economics and legislation mainly, it came to exercise *specific* influence over the French and English peoples. That is, the 'new' grew 'old' ere it attached adherents at large. And this is merely to assert that aspects of the dynamic person of Rousseau, of the dynamic doctrine of Bentham, were selected and *stereotyped*—then, and then alone, they exerted leverage. Reduce the 'new' to a static form, and it may succeed with the crowd: attempt to preserve it entire in its elusive vitality, and it must remain the secret of the elect. This necessary process had remarkable illustration in the case of Socrates, thanks to his seminal person. So far as he could be absorbed into certain movements of contemporary society—'old' before his time—he left an immediate mark in the Cynics and,

through them, a profound readjustment of moral values, motivated chiefly by the Stoics and, later, by the Neo-Cynics of the Roman Empire. On the contrary, in so far as his total person was caught and transfigured by the immortal Plato, the power of the 'new virtue' had much less practical effect. For, as everyone knows, Plato's monumental spirit has always been mediatorial, but between cultivated men only — men who can be in dead earnest without suffering themselves to become enemies.

Postponing any attempt at analysis of the Cynic-anarchist ideal for the moment, and confining attention to the more or less conventional view of Greek history, Socrates, the familiar of the market-place, seems to have impressed his disciples, Plato conspicuous by exception, in three ways. His endurance, with its non-Greek touches of asceticism; his independence, with its non-Greek tendency to rise above the State; and his 'inner light,' with its non-Greek hints of a 'higher law,' set over the rules of the city, struck them. Here his real originality was displayed, they thought.

No doubt, the hellenic ideal, of a "spiritual nature unfolded in strict unity with the body," to adopt Emerson's phrase, received a fatal shock in Socrates. Not that he set the ascetic style. But he felt the burden of life — and consciously. In the circumstances, it could not be otherwise.

There was something to be borne; willy-nilly, one must, nay ought to, bear up under it. Things being as they are, endurance enables a man at once to command and to release his inward individuality. It was this element of release, of freedom, that appealed to the Cynics and, through them, came to be a transitive force in hellenistic conceptions of the moral life afterwards. The Socratic implication is that the highest good is circumscribed, it is relative to events; these, in turn, must be mended or ended. According to this interpretation of Socrates, the ideal inevitably escapes the group-life, which is always snared in temporary entanglements. Therefore, good becomes the peculiar privilege of the individual, as the Cynics and Stoics taught. Abstract the Socratic endurance from the State, in relation to which alone the Master deemed it could be exercised, and it offers a means of escape from this present evil world. Pointedly, it is an end in itself, and for every man by himself. At this, anarchy is not far off. Nevertheless, Socrates never carried internalism to such extremes. For him well- and ill-doing implied specific adjustments. These presupposed obedience to the laws of the city as the "gift of the gods, the resolutions of wise men." But, in the absence of a direct Socratic system, independence might be interpreted as contempt for these very civic rules. And the Cynics, so understand-

ing it, found abundant justification of anarchy. Thus, in respect of Socratic endurance and independence, they stereotyped the Master, bringing him down to an obvious level. It is highly significant that the same can hardly be said of the doctrine of the "inner light."

The daily duties of the average Greek citizen had a character of their own. They found embodiment in certain ceremonial observances, in the performance of obligations to the city, to fellow-citizens, and to the hellenic *ethos;* as such, they sufficed — reflection did not bite into them. The avowed cardinal virtues betray this openly. In proportion as the duties were specific and demanded personal obedience or devotion, they limited the scope of moral activity and, likely enough, the liveliness of self-sacrifice. For, regular conformity might simulate piety, obedience justice, assertiveness courage, and so forth. Thus, we must not wonder to find Socrates facing two ways. On the one hand, he often emphasised the spirit as against the cant letter of moral commonplace. And the point to be noted is that, in this contrast, his reliance upon the *Daimon* was essentially an appeal to a 'higher law.' Xenophon presents the case with some detail in the famous fourth chapter of the fourth book of the *Memorabilia.* Here Socrates retorts upon Hippias, the Sophist: "I am in a chronic condition of proclaiming what I re-

gard as just and upright." And, when Hippias says: "I do not catch what you mean by lawful and just," Socrates explains that the 'upright' and 'just' are the 'lawful' and the 'law-observant,' adding, however, an immediate reference to "certain unwritten laws," with the suggestion that they must be divine, not man-made. This is simply the contrast between human motive (*gnome*) and unforeseen divine agencies (*Tuche*), made familiar by Thucydides. In the course of the subsequent conversation, these 'higher laws' are specified as follows: *first,* It is a custom everywhere to worship and reverence the gods; *second,* To honour parents is also customary everywhere; *third,* So is prohibition of marriage between parents and children; *fourth,* It is a custom universally to return good for good, and kindness with kindness. Observe, these are not laws known to be of human enactment; they originate in the 'nature of things,' and therefore are the work of the gods. This reference to the gods serves to show that, in the judgment of Socrates, the first provision was the ground of the others. And Xenophon takes care to stress this by the declaration, put on the lips of Hippias at the close of the discussion: "Yes, Socrates. In all these cases, I admit, there is an implication of divine authority . . . a higher than human type of legislator."

Thus, in one aspect of it, the *Daimon* was an

index to the moral attitude maintained by Socrates. It sealed him as a co-worker with the gods, as one not simply attentive to their ritualistic worship, but rather as a chosen vehicle of their veritable spirit — and, accordingly, elevated above 'common' law, the *real* sting in the charges that led to his condemnation. Hence the doctrine, that the human soul, so far as it assimilates itself to the divine, becomes similarly authoritative. This conception had been abroad more or less for a century at least and, as we shall see, it may intimate more than 'settled opinion' about Greek history permits meantime. Now, the practical bearing of such self-likening to deity needs no comment. Briefly, the *Daimon* is the living witness to an internal revelation from the gods which, being divine, justifies abrogation or extension of the customary code of the State.

> "Therefore a new conception of the soul
> Springs of itself; a self-authority
> Within the reason, self-condemnatory
> Indeed (if those old premises, proved false,
> Were still maintained as standpoint of debate),
> But by the inward dialogue self-proved
> Final, demonic, in best sense divine."

Evidently, it is impossible to square this with Xenophon's plain contention,— even were his wish father to the thought,— that Socrates was a law-

abiding citizen, a man of 'orthodox' piety. Possibly, contemporary conditions help to unravel the tangle. The inscriptions of the age, which reflect the popular consciousness, and never lie, suffice to prove that the sanctions of religion had lost vitality somewhat. Conformity was indeed general, nay, emphatic to the point of reaction or obscurantism. Yet, formalism had marked the Greek for its own. Vows were being paid, honours were being rendered — to self rather than to the divinities. Ancient traditions were too crude for readjustment to the best mind of a people whose mental alertness has become proverbial. The State, reposing upon divine authority, slackened its grip as its psychical basis receded more and more into the impenetrable darkness of a meaningless past. Socrates' frequent appeal to utility in matters ethical appears to tell that he had sensed the vanity of recourse to tradition or to statute. But he was too tense a soul by far to leave morals at the mercy of mere prudential calculation. Hence the "inner light" of the *Daimon* did not consist in any simple return to a faith once delivered to the saints, or in a fatuous assertion of an "eternal not-ourselves that makes for righteousness." On the contrary, the voice he continually heard murmuring in his ears seemed to him the guardian and the guarantee of a new, *objective* well-being. Nay, he marked an epoch

precisely because he held that Reason can, and must, illuminate morality by stating its nature in unequivocal terms. Accordingly, the ethical revelation of Reason, backed by the conviction of its religious sanction, constitute at once his originality and the secret of his incalculable influence.

> "Might I not in converse yet explain them
> The loftier definition and so serve
> The cause of clear conception in the mind
> By leading men each to commune alone
> With self and so experience in self . . .
> The truth- assurance, hear the voice divine?
> For thus were I conclusive of mankind,
> The continuity of other men,
> Their growth, their self-persuasion, guarantee
> And warrant of authority as truth:
> Outwardly, as inwardly, that very voice!"

This attitude embraces two factors. On the one side, in its insistence that men must act from the highest principle, it refers to a social whole wherein the many share. On the other side, in its insistence upon the necessity for rational consciousness of motives, it exalts the individual, and tends to minimise the element of goodness present even in *naïve* respectability. As with true genius always, the universal and the individual confront each other, preferring a characteristic demand for a four-square reckoning. In the person of Socra-

tes, the individual went under. How about those who took his name? As circumstances then were, the *obvious* interpretation of his doctrine lay in a choice between the two, not in an elucidation of the principle of their indivisible unity. Xenophon were proof enough, and, just here, he misses the 'historical' Socrates! Moreover, thanks again to circumstances, the choice could hardly fail to fasten upon the individual element. For, as we all know, periods recur when the reformer, despite his intent, is fated to be construed as if he understood his favourite text — whatever is not of faith is sin — only in the antinomian, protestant sense. This was to be the sequel now.

(3) Hence Cynic anarchism merits attention, not as a system, but as an extreme development in practice. It pushes the inner logic of a situation to a point where balance goes by the board. The sophistic movement, and the political confusion of Greece are taken to warrant the dissolution of all, or nearly all, social bonds. In like manner, the endurance of Socrates becomes contemptuous rejection of the 'resources of civilisation;' his independence, bereft of ethical intent, turns to defiance; while his 'higher law' proves a naked appeal to untamed 'Nature,' and his confidence in Reason excuses many a caprice. But, even so, Cynicism held the public eye for a time and, if we are to do it justice, in our effort to disentangle

its ideal, we must see it in the light of its environment.

Ere we proceed, notice that our knowledge of the sect is of the scantiest. The writings have nigh disappeared, and we are dependent upon late reports, salted with gossip and scandal, or upon the incidental remarks of contemporaries who were inimical or contemptuous. Nor can we neglect another, most symptomatic, fact. None of the Cynic leaders were Attic by nature, one alone by nurture. Nay, they came from the fringes of hellenic culture. Antisthenes, the founder, had an Athenian to father; but his mother was a Phrygian slave, and he received his education at the Cynosarges, the school for the base-born. As for the rest, they recall the multitude come together on the day of Pentecost — "out of every nation under heaven." Bœotia, Cyrenaica, Egypt, Galilee, Lydia, Pamphylia, Paphlagonia, Sicily, Northern Syria, and Thrace, to say nothing of the cities of the Peloponnese, contribute their quota. In a word, the sacred municipal traditions, the sobering privileges no less, must have sat loose to these colonial, slave and 'asianised' men, some few of them Metics, but most mere vagrant transients in the classical centre of hellenic achievement, all strangers to the pure Athenian *ethos*. The period of their greatest activity covers the hundred years after the death of Socrates, that

is, the fourth century B. C. Antisthenes, the first leader, survived Socrates about twenty-five years; Diogenes, his pupil, died in 323 B. C., while his disciple, Crates, the third and last real leader, reached the height of a considerable influence shortly after the Corinthians placed the symbolic dog of Parian marble upon the grave of his master. Thereafter the sect seems to have gone to seed in mere quixotry, effrontery, and even vile shamelessness, and is lost to view till it emerges, on a higher level than ever, perhaps, in the Roman Empire, where we find its greatest preacher in the person of Epictetus. This later development nowise concerns us now.

With the possible exception of Crates, about whose productiveness, however, we know next to nothing, Antisthenes was the most considerable representative of the movement. We are aware that he was a pupil of the Sophists and of Socrates successively. Till near middle life in all likelihood,— he was forty-five when Socrates drank the cup,— he sat at the feet of Gorgias, or pursued a career of the regular sophistic type. And it is only on the dispersion of the Socratic circle, after the execution, that he steps forth as a missionary of the newest individualism. One gives him no more than his due in saying that, while his pupils and later followers often outdid him in *bizarrerie* and anti-intellectualism, his teaching

constitutes the substantial body of Cynic doctrine, although his reputation as a peripatetic preacher appears to have been eclipsed by the notoriety of Diogenes, his success as a tireless proselytiser by the indefatigable Crates. In any case, the scientific theory of the Cynics, such as it was, belongs to him. We need not dwell upon it at length now. But its temper is significant. Its anarchist intent lies on the surface. A precise apposition was instituted between percepts and concepts; and, as concerns truth or validity, the presumption was overwhelming for the former, the thrust of all reasoning punctured the latter. For, grant that the sensible world is the only real existence, and you cannot place any curb upon intellectual anarchy. Pertinent theoretical grounds are forthcoming for the most destructive conclusions. Every man is free to make his own terms with Destiny, brilliant irresponsibility is the rule of life. Thus, replying to Xeniades, his reputed owner, Diogenes phrased the attitude of the sect in an epigram. When Xeniades inquired how he should bury him, Diogenes answered, "on my face, because, in a little while, all things will be turned upside down." For the Cynics, as for anarchists always, topsy-turveydom is the prelude to the realisation of the ideal. And, whatever the ideal, the tale of protest runs smoothly enough.

Men are blind to their own follies, for, they

overlook the practice of virtue, and give heed only to 'what is written.' They fail to see that wisdom is the sole good, and that all else lies at the mercy of any whim of Chance (*Tuche*). But wisdom has no existence save in the mind of the individual. Consequently, freedom from social ties — mere encumbrances — becomes a clamant necessity, and every external development in or from society must be viewed as irrelevant to the supreme purpose of life. The wise man, who aspires to goodness must, for this very reason, despise all that others value. The higher the store set by popular opinion upon aught, the greater the need for iconoclasm. For, the resources of civilisation are enlisted in a gigantic conspiracy to entice humanity from the pursuit of true virtue. The leaders of modern anarchism have no other message: as Tolstoi put it, "The progress of mankind is not a means but an impediment to the realisation of that ideal of harmony which we carry about in our bosoms." Therefore, renounce, forego the goods of this world, if you would begin to approach self-possession, wherein alone genuine moral mastery consists. Return to the original purity of 'Nature.' All this has a strangely familiar ring, thanks to Rousseau and his seed. Did not our own Thoreau make phrases that would have delighted Diogenes? The gist of the matter may be found in his aphorism, racy

of the soil of New England, and of its great festival. "I would rather sit on a pumpkin, and have it to myself, than be crowded on a velvet cushion."

To this point, we have followed the beaten track. It is possible, however, that some sources of Cynicism still escape us. We know, for instance, that modern anarchism presents itself under two aspects. On one side, it reverts to the economic situation consequent upon the industrial revolution and upon internationalism; on another, it roots deep in the history of philosophy, offering a strange blend of Anglo-French nominalism and German idealistic realism. It prescribes a Utopia to cure our social ills, and constructs this from many, even contradictory, doctrines. Perhaps similar, though far from identical, forces underlie the Cynic movement. Granting that we shall trench upon uncertain and controversial ground, especially when utopianism comes in question, let us attempt no more than a footnote to history. At worst, we may reach a point where we, or the evidences, become muddled. At best, we may only uncover the old truth that fact and fiction are bedfellows. For, even history has been taken in the act of interference with reality.

II.

The Persian war produced severe economic pressure at Athens. But this was not a conse-

quence of the mere momentary stress. Rather, conditions that had been operative for centuries began to disclose their ultimate sequel. Time out of mind, the Greek communities had fostered their scanty resources in isolation. We might call them cantons, yet with many deductions from the Swiss organisation. The 'lie of the land,' with its mountain ranges, set natural and impassable boundaries, so much so, that self-sufficiency came to be the dominant ideal. If the custom and law of the city determined the ethical outlook of the citizen, then, no less, domestic olive-products and wheat and wine shaped his economic relations. Independent 'states' could be counted by the dozen, and 'independence' reposed upon an economic as much as upon a political foundation. But, as the world loomed larger, as intercourse by sea acquired safety, regularity and importance, and as inter-city leagues were negotiated, the old economic simplicities and the old self-sufficiency met rude shocks. Great displacements made slow and silent, though sure, encroachments. Nevertheless, the ancient landmarks, moral and material, did not vanish completely. On the contrary, they remained — at once guides and obstacles. In short, the agricultural (or land-holding) basis, with its hoard of rustic notions, maintained itself. The commercial adjustments demanded by the

price of 'empire' pivoted upon it in great measure.

It is true, of course, that the resources of civilisation in Greece were crude, nay, a modern magnate of London or New York would deem them ludicrous, and justifiably. Pericles stated a bare fact when he said, "We are lovers of beauty, though with thrift; we employ wealth, not for talk and ostentation, but when there is a real use for it:" it could not be otherwise. A Greek wardrobe was an exiguous affair, like a Greek dwelling. Food was plain to the verge of parsimony; lighting and heating, as we understand them, did not exist; the arrangements for 'personal hygiene' were uncouth, to say the least. Indeed, such were the expedients that the ordinary round of domestic life cannot but have been full of discomfort. But, the Greek enjoyed a splendid compensation. He was not driven. He felt no spur to toil untimely hours for provision of houses, clothes and food. So, when the necessity for wealth dawned upon him, during the 'imperial' period at Athens, he applied silver and gold, not to the evanescent accompaniments of personal comfort, but to upbuilding the permanent factors of civilisation, whereby he has led mankind ever since. We lavish millions upon a *private* residence, almost without notice, but we preen our-

selves when we can mention thousands for a *public* church. The Athenians raised the Parthenon partly because Pericles was quite content with an adobe villa. Always poor, Greece never possessed the means to pursue 'big business.' Always rich, she consecrated her 'treasure' to the embellishment of the Acropolis, and to other mighty works still eloquent in the pathetic appeal of ruin.

Accordingly, it is not surprising that, prior to the Persian war, commerce played a subordinate, or fitful, part. And even after the Peace of 448-45 B. C., when Athens undertook her marvellous public works at enormous expense proportionate to her funds, the old ideals of citizenship tended to hamper, if they did not wholly thwart, the free development of *private* enterprise in trade. As time passed, the two interests clashed more and more, and a new consciousness awakened which contributed its share to the origins of the Cynic movement. While we cannot allege that the ancient opposition between oligarchy and democracy was done away, it is plain that the *Demos* developed a fresh spirit, and for economic reasons chiefly. What a descent, for example, from Xanthippus, Themistocles, Ephialtes, and even Pericles, to Cleon and Cleophon; from the magnanimous man in the Aristotelian mould to a 'smart Aleck' of a tanner! The landed aristocracy and

the yeomanry had been succeeded by the "merchants, carpenters, workmen, aliens, foreigners, and islanders" of the Piræus. To them the old Athens mattered little, or mattered only as *their* Athens held command of the sea to the end that profits might multiply exceedingly. Hence the Peloponnesian disaster, culminating in the Sicilian *débâcle*. Security meant larger expenditure, larger expenditure meant industry and commerce, industry and commerce meant alien immigration, and alien immigration meant a transformation of the ancient State. As the Old Oligarch wisely observed, "When we have a naval power dependent upon wealth, we must be slaves to our slaves perforce, in order that we may collect our slave-rents and let the real slave go free." Plutarch's *Pericles* serves to show that the change had been in progress for half a century. Athens moved too fast for her economic basis and, as a consequence, the age-old values broke down. The citizen could be free no more, because his State was bound. The State could be free no more, because the citizen had forgotten that freedom imposes hard terms upon him personally. For, freedom thrives upon large, impersonal issues, and takes to hasty flight the moment self-seeking shows its face. And here the rule of the lesser factor had supplanted that of the larger, thanks to inevitable economic change: this accomplished, the pressure

of urban life offered ample evidence in support of anarchical doctrine. The idealism engendered by social control vanished before the expediencies forced upon the imperial city by her unprecedented economic situation. Integrity fell upon inanition, and the creeds of weary or arid minds found their opportunity.

The civil war, ending in 403 B. C., with the victory of the 'new' *Demos,* completed the transformation, already far advanced thanks to the twenty-eight years of luckless conflict with Sparta. The temper that could declare, "We alone regard a man who takes no interest in public affairs, not as harmless, but as a useless member of society," had lost its old surety; disaster had overtaken everything; and a querulous spirit stalked abroad. But, even overwhelming misfortunes cannot erase a mighty past. And the question arises, Had the hellenic consciousness aught to offer those who had eyes to see? Were there ecumenical convictions, not peculiar to Athens or, indeed, to any city-state, but characteristic of the Greek contribution to 'the education of man,' whereon insight might plant firm feet despite the loss of great possessions and the lapse of former purposes? The continued, and continuous, supremacy of Athens in the spiritual realm compels us to answer, Yes. Her political decline was not to be without compensation. Nay, it proved the prelude to her as-

sured supremacy — in language, ideas and culture — as the living embodiment of the hellenic genius. Self-sufficiency had gone, but, in the 'things of the mind,' Athens had grown for ever synonymous with Greece, the protagonist of the higher cosmopolitanism. The death of material possibilities had liberated gracious facts. In the magic person of Socrates and, later, in the universalism of Plato, the fateful city reverted to that older cosmopolitanism, born from men of her own kin, and expressed in the recurrent conviction, "the things which are seen are temporal, but the things which are unseen are eternal." Or, in the symptomatic words of the dramatist who best caught the inward implications of that age, "Blessed of old are the sons of Erectheus . . . moving luminously through the brightest air, where once, they say, golden-haired Harmony brought forth the nine chaste Muses of Pieria." The ancient pride of the city still preserved itself, though tuned to vaster issues than the conquest of Sicily. Athens remained incomparable,— the very moon shines more beautifully upon her than upon Corinth,— because all that was stable in her had been consecrated by the memories of men who achieved incomparably for the whole race. Socrates and Plato, and the rest, are indeed Athenians, but, "blood-tinctur'd of a veined humanity," they are no less 'heroes' of humankind. The Utopia,

the place where all is well, because it is dedicated to lasting purposes satisfying to intellect and emotion alike, acts as a philtre, at once troubling and assuaging self-consciousness. And this idea, of "another city, which is an heavenly," had haunted the hellenic world for centuries, giving point and power to the mythical Orpheus, and to the legendary Pythagoras. Small wonder that it should reappear in these days of evil omen, pregnant with consequences.

Careful and troubled about many things, Periclean Athenians were beset by doubt concerning essentials. But doubt is often a prelude to larger vision, even though this may illuminate the few only. Thus, if we remember that the Greek drama was a religious exercise, we can see readily how it bore one implication, in the sphere of the Homeric mythology, for the *Demos,* another, at once freer and yet more dogmatic, for the select spirits. The 'unchangeable decrees' of Zeus, personified in Nemesis and Ate, in Hybris and Peitho, must have been of peculiar suggestion to men in the Socratic mould, who deemed philosophy a 'preparation for death.' The anthropomorphism became 'anthropormophic enough' for them, as in the Platonic myths later, and the figures, growing transparent, revealed the unseen and eternal forces that remain imperturbable amid the fitful fever that marks the lot of blind

mortals. But, how to clear them of sensuous reference, how to cleanse them of mere abstract symbolism, so perilously nigh superstition? This was the rare opportunity presented to the true philosopher! His it was to start from the average citizen in average moods; then to discern the transitive norms that had bestowed efficacy and power upon the city-group, now obsolescent; finally, to transcend discrepancies, so intrinsic to the 'qualities' whereby the natural world is interpenetrated and, by this ascent to unriddle the most insistent of all problems. But, observe, this ascent demands personal experience, an 'initiation' which supersedes the otiose birthright of citizenship. As Berkeley said, reproducing the very temper of Socrates: "Whatever the world thinks, he who hath not much meditated upon God, the Human Mind, and the *Summum Bonum,* may possibly make a thriving earthworm, but will most indubitably make a sorry patriot and a sorry statesman."

Through Socrates and his magnetic influence, the 'cry of the human' arises to disturb the preoccupation of the citizen, not querulously, indeed, but by reference to problems which the subordination of the citizen soothed rather than solved. The Athenian or what not, possessed by his city, enjoyed the care of the "gods whom the city recognises," and through the medium of a *com-*

mon or group cultus. Communal custom lent him such support as he craved, such vocation as sufficed. Yet, this very citizen was also human, and bound to travel beyond the local and temporary *coulisses de société.* Accordingly, the *man,* possessed by a soul, could not but rise above the city, and worship a deity of whose especial or personal care he sought assurance. At first, therefore, he tended to minimise, and then came to neglect the impersonal interests of the State in favour of the eternal destiny of the individual. And this implied at once an uncivic course of action, and an uncivic sweep of philosophy. To go no further afield, Alcibiades, in the *Symposium* of Plato, testifies to the former, the entire atmosphere of the *Phædo* to the latter. The classical passage, where Alcibiades recounts the extraordinary impression of individual peculiarity and reserve left by Socrates, runs as follows: "One morning he was thinking about something which he could not resolve; he would not give it up, but continued thinking from early dawn until noon — there he stood fixed in thought; and at noon attention was drawn to him, and the rumour ran through the wondering crowd that Socrates had been standing and thinking about something ever since the break of day. At last, in the evening after supper, some Ionians, out of curiosity (I should explain this was not in winter, but in summer), brought out their

mats and slept in the open air, that they might watch him and see whether he would stand all night. There he stood all night until the following morning; and with the return of light he offered up a prayer to the sun, and went his way." This incident offers an admirable illustration of one aspect of the Master, an aspect little consonant with all we usually ascribe to the care-free, beauty-loving Athenian. As we saw before, Socrates had a distinct ascetic strain. Now, in the Greek world,— as, indeed, always,— asceticism presupposed a definite doctrine, not about *human* life, but about the nature of the *individual* man. Taking no account of the citizen or of the alien, of the Greek or of the 'barbarian,' this doctrine regarded men, in their separate persons, as the subjects of a twofold being. They are bodies and souls in temporary partnership. At death, the temporal factor, the body, returns to its constituent earthly elements; but the soul, being divine, persists. Thus, true 'philosophy,' in contrast with the 'practical' arts of the sophist, is a rehearsal of death; a discipline that assures the soul eternal release from its "garment of strange flesh." The philosopher is he who has schooled himself to die daily. "The soul of the true philosopher . . . abstains from pleasures and desires and pains and fears so far as she is able;" for, "each pleasure and pain is a sort of nail which spikes and rivets

the soul to the body, until she becomes the body . . . and is not likely ever to be pure at her departure." This was no new-fangled notion among the Hellenes, although it did not attract Athenians. At the same time, whether its origin be Orphic or Pythagorean, or both, there can be little doubt that Socrates contemplated just such a 'way' of life. His *Daimon* held him from the turmoil of local politics, because the larger life called him to "become God from Man," as the Orphic tablets have it. The trance, noted above, was but one mark of a mastery of soul over body, already acquired by ascetic discipline, practised, possibly, with an inner circle of 'initiated' disciples, as Aristophanes seems to indicate.

Now, this imports, not merely a certain moral rule, but also a distinct type of ontological idealism. Whatever difficulty there may be in proving that the contemptuous criticism of the leaders of the Athenian *Demos,* given in the *Gorgias,* represents the attitude of the historic Socrates, we can hardly deny that, from his general point of view as we know it, it has historical warrant; and, at any rate, his Cynic disciples so interpreted him. Nay, Thucydides intimates as much. Devotion to the best things was slipping, even Pericles, despite the unmatched Funeral Oration, seems to have felt the insidious change towards the end. At all events principle paled and casuistry, brought

forth to tide an occasion over, waxed. The gracious responsibility, so characteristic of yore, gave way to conditions such as those satirised by Plato in the allegory of the Disorderly Crew. In short, conservation of ethical values was going to pieces. The victorious foes of Athens were they of her own household. As Thucydides says grimly: "The sacred places . . . were full of corpses who had died just as they were;" and, after this, anything,—"men . . . became utterly careless of all whether sacred or profane." Naturally, then, Socrates "made his companions despisers of the existing laws." As the *Euthyphro* relates, he sought a 'good' that escaped the civic order, even in its holy things. It is not impossible that his devotion to Apollo assumed a form distasteful to Athenian worshippers of Apollo Patröos, the deity of the phratries; that, to use Mr. Farnell's words, Socrates strayed "outside of the proto-Athenian cult-system." While it is improbable that he introduced 'mysteries' of a Dionysiac nature, or adopted a cathartic ritual, there are traces of evidence that he entertained 'unofficial' or illicit doctrines concerning the soul, perhaps of the kind underlying the association of Pythagoras with Apollo Hyberoreios. Be this as it may, many were convinced that he exhibited tendencies towards a belief in divine 'participation' beyond the reach of 'orthodox' cit-

izens and, therefore, from their standpoint, subversive of equal relations with the deities. Assuredly, his imperturbable composure was firmly set on the conviction that there *is* a sphere where ethical values are conserved. Of this the *Daimon* furnished him unanswerable witness. Thus, just as there is a dualism between body and soul, so there is a dualism between the human and the divine 'states.' The purpose of God is not that of men. What we demand of deity is the preservation of '*the* Good'—a condition of spiritual being wherein *is* salvation. This supplies at once the norm of an adequate life and the 'sufficient initial postulate'—the coercive principle, as a modern idealist would phrase it—whence any relevant estimate of the meaning of the universe must start. The Good and the Beautiful are true existences in the Divine and, not subject to birth or death, they alone can give a man rest unto his soul. The way of life is a 'way,' because it comes from and leads to them; throughout it, the soul conserves unity with God. Veritable knowledge and veritable goodness have, and can find, no other guarantee. If 'citizens' think otherwise, the simple fact is that they suffer from illusions.

It is still, and long may be, an open question how far these tendencies moulded the teaching of Socrates. But, whatever evidence may be precip-

itated ultimately by further inquiry, it must remain certain that Socrates drew no extreme utopian conclusions. He had reached his majority ere the Persian peace, his early and middle manhood synchronised with the wondrous bloom of Athens. Individualistic utopianism was out of the question, the traditions of the Greek state persisting with unique results, public service still providing a reasonable vocation. Social control was too rooted in immemorial custom to be foregone even by a Socrates.

> "It is a city and free,
> The whole folk year by year, in parity
> Of service, is our King,"

as even the dramatist of scepticism could declare. Spiritual adventure might be undertaken and yet conserve much of the civic *ethos,* for self-discipline continued vital, as the magnificent passages in the *Apology* attest, and as many stories about Socrates show. In other words, the Socratic 'quality' was not out of reach in the spacious days of great Pericles — playing politics apart, perhaps. But, by the time the Master turned fifty, decline had set in apace. And though, so far as we now know, he never lost sentiment for the communal heritage, he had sown seed destined to produce something widely different. He may well have seemed to the Cynic, in many ways, a representa-

tive of the faith once delivered to the saints. But his conception of equality, as fellowship based on vital fraternity, even if it entirely precluded Cynic anarchism, gave Antisthenes a relevant point of departure. "When the Athenian is good, he is very good," as the Spartan says in the *Laws*. Socrates was too good for his Cynic disciples — his person towered above their ken. But, Athens gone, even Socrates must become good, not in and for her, but for the sake of an 'alien' humanity, shared by him with all men. Assuredly, events led the Cynics so to interpret him; and, thus seeing, they vulgarised his asceticism, and inverted his universalism, stripping it of positive application.

If our confidence in the available records be not misplaced sadly, Socrates was a character of the utmost complexity. He appealed strongly, in some cases overwhelmingly, to all sorts and conditions of men. Charmides, Plato's uncle, an associate from of old, who became only more attached with the lapse of years; Pythagorean mystics from Thebes and Phlius; scientific Eleatics from Megara; Crito, a representative and rich Athenian gentleman; Æschines, a noted *littérateur*, a familiar of poverty; the aristocratic Plato, splendid in body no less than in mind; Xenophon, another aristocrat, the father of all true amateur sportsmen; Hermogenes, who had spent his sub-

stance upon Sophists, to no purpose; Antisthenes, the bitter Cynic, and many others, lay under his spell. Age, condition, country, intellectual affiliation appear to have made no difference. Somehow or other, Socrates transcended class-feeling, the distinctions between wealth and poverty, and the provincialisms of city-states. Among his intimates and associates he apparently forecast, in his own person, the encomium upon Athens uttered afterwards by Isocrates; he was "the inaugurator of all human blessings, the guide of men from the life of beasts, the establisher in fact of the social organism altogether." Naturally, then, when he died, interpretations of his character and teaching differed widely — every associate found what he brought. Simmias, the mystic, saw one light; Xenophon, the soldier-country-gentleman, another; Plato, the artist-metaphysician, another; the 'savage' Appolodorus, like Antisthenes, social proletarians both, yet another.

Although an intellectual proletariate did not exist then, as in some modern countries, there were proletarians nevertheless. A hard, even callous school, Athens knew right well that a portion of this world's goods played a necessary part in the 'best' life. But, class-differences had been accentuated by the war, all could not work for the city now, at an equal, if modest, wage. Moreover, the generous temper of the great building

era had developed acidity. Listen to the irony put in the mouths of the envoys at Melos by Thucydides: "We shall not trouble you with specious pretences either of how we have a right to our Empire, because we overthrow the Persians, or are now attacking you because of the injury that you have done us. You know just as well as we that right, as the judgment of the world runs, is in question only between equals in power; the strong do what they can, and the weak suffer what they must." The old graciousness had evaporated, the squalor remained. Practical preoccupation was trenching upon former light-heartedness, and seemed to be an unavoidable accompaniment of the social order. Large adjustments were in process with the usual results — unhappiness, indecision, and much open discontent. Moreover, the view, expressed by Plato a generation later, was rooted more firmly amongst the 'intellectuals' at the time of the execution of Socrates. "Poverty results from increase of man's desires, not from the diminution of his property." That is, the ascetic doctrine of wealth — the good man's chattels will be "such as to be in harmony with his inward wealth" — had received powerful impetus from the growth of philosophy. Nor was this all. The position of the 'unproductive' alien had become more difficult. If the foreigner came to the city to 'make money,' he enjoyed the

same freedom as the citizen, all things considered, — the Piræus afforded him a 'country.' But, in the things of the spirit, he was more than ever an outsider to the native-born. As Isocrates said, with particular reference to the days of the democratic sea-power: "A city will be happy, not when it collects a multitude of citizens at random from every nation in the world, but when it preserves above all the race of its original inhabitants." The cruel disabilities heaped upon alien women in 403 B. C., and the impeachment of Socrates itself are straws, showing how the wind blew. Welcome, more or less, from the period of Solon, the alien, thanks to his exclusive vocation as a trader, was now regarded as a 'base' fellow. When useful, he dealt in leather, honey, oakum, sheep or cheese, as Aristophanes comments sarcastically; for the rest, especially when given to thought, he was a menace, because in morals, religion and the like, a man without a country. Thus, wafted by economic and social forces, the alien thinker moved inevitably towards non-Greek notions, and sometimes sought the fair land of Utopia. Notice, too, that, after Socrates, Plato was the sole native Athenian who achieved universal position in philosophy. Aliens held the leadership from his day till the death of Panætius, two and one-half centuries after; and the later native 'presidents' are, for the most part,

mere nobodies. Alien outlook, then, no less than native economic transformation, was to put a new face upon Socratic teaching.

Not without Socratic authority, as we have seen. Individualism, in the modern sense, would have been incomprehensible to a Greek. For him, it always implied some form of hostility to society. The Cynics were fated to make this plain, and by appeal to Socrates. Historical conditions during the sixty-seven years between the battles of Ægospotamos and Chæronea undoubtedly countenanced their abandonment of his disinterested criticism in favour of political despair and rejection of all social relations. Like Mill, they deemed Socrates dissatisfied better than a pig satisfied. But they committed the terrible blunder of supposing that dissatisfaction could furnish a complete ideal. Thus, in one way, the Cynic point of departure is plain enough. Consistency, if not of, then to, thought, as originating the 'way' of life; self-sufficient unity of will in pursuing this 'way;' and radical departure from convention, based on personalised insight, did indeed mark Socrates. Dissenting reaction, especially against democratic stupidity and materialism was one aspect of his work. Narrow and disillusioned souls learned this lesson readily; for them it became a shibboleth, that the aims of morality must be wholly self-determined. The

'Socratic vigour,' turned to rigour, alone could render "virtue sufficient for happiness." And, if society outraged the 'self-determined' individual, he could retort in kind. He could change Socratic calm into violence, replacing sympathetic criticism from within by fierce challenge. We have noted this phase of the situation already; it is part of the accepted tradition about the history of Greek thought.

But, subtler influences were at work. When the Cynic movement broke forth, the Sophists had completed their mission, and were receding into the past. Other problems had appeared. On the face of it, then, we should not look for the significance of Cynicism primarily in the intellectual gymnastics of the fifth century. Certainty in life, not dexterity in dialectic, was the new desideratum. And so, even the Cynic logic may well have been based upon discussion of human temperament and, for this reason, may have diverged from the usual clever displays of eristic. It may intend to show that man is one — an impervious unity — according to 'convention' as well as according to 'nature.' To reach this impalpable essence, one might judge it quite worth while to beggar himself of goods, to forego companionship with his 'blind' neighbours. Popular science, art and education, nay, civic life in general, being utterly inadequate to virtue, the man who would

be true to self must strike out alone on his own path. What path? The soul experiences a profound need "to discourse with herself." She is able to do so morally, because she knows the 'more excellent way' and this, in turn, points to a peculiar reality conceivable by the 'wise man' only. For, while 'virtue' possesses a 'nature,' nevertheless 'convention,' even though it seem to inhabit the sphere of 'virtue,' may be *another* attestation of this very 'nature,' if we but see it aright. In any case, we here discover the reason why we are able to name virtue 'virtue.' Hence the possibility of tragedy after the order of Euripides. The decent citizen takes his critics for scoundrels, the critics are keenly aware that he is a victim of mere self-deception. In a word, a *real* life according to the spirit of Socrates replaced a *real* life according to the senses. There is no problem as between the two, for the question holds entirely with reference to the implications of the former. Here we strike the basis of Cynic fanaticism. There *was* a two-edged sword, dividing unto the bones and marrow. The issue admitted of no paltering.

If, then, the Cynics, led by Antisthenes, who belonged to the Socratic inner circle at the death of the Master, set out from the doctrine that "the soul partakes in the divine," they developed this theory in one of the two directions which it may

take. Like the mystic who, as Plato says in the *Gorgias,* " creeps into a corner for the rest of his life, and talks in a whisper with three or four admiring youths, but never speaks out like a freeman in a satisfactory manner," they withdrew from political affairs, because, for the most part, economic conditions had borne harshly upon them. And, unlike Socrates, sentiment for the state left them untouched. Therefore, they contemplated a Utopia having for its legend Menander's phrase, " what a fine thing is a man when he is man." Neglecting the universal element in every man, they thought of the separate individual as universal, and descried ultimate truth in subjectivity of character, the sufficing Utopia in a singular life. They thus served themselves avatars of an apocryphal Socrates, although in their mendicancy, and in their taboos, they preserved external signs of a doctrine that had affected their master greatly. Like Socrates, and like the ' initiate ' brethren of his " notion-shop," they held that the true philosopher ranks pleasure very low, that the desires of the body thwart the quest for truth and, consequently, that the permanent ' goods ' sought by the true philosopher transcend the senses, because " visible " only to the mind. In all this they agree with the greatest disciple of Socratic mysticism. " Plato," as Archer Hind says, " acknowledges that the morality of the multitude

must be utilitarian, since none other is attainable save by the highly trained metaphysician. Therefore, however superior the morality of those who obey this code may be to that of the oligarchical man, it is sundered from that of the philosopher by a fathomless gulf." They dissent from Plato in that they contemptuously refuse "to desist from their own meditations and give their minds to instructing their fellow-citizens;" fellow-citizens they had none, be it remembered.

Evidently, then, the Cynics viewed their problems from the height of a knowledge of moral 'realities,' a knowledge connected so closely with ascetic habits, long naturalised in the hellenic world, that it was, apparently, at once their progenitor and their offspring. They laboured 'in travail,' and sought 'deliverance' in the temper of 'initiates.' In all this they kept faith with the Socratic 'inner light,' with the Socratic endurance, and with the Socratic independence, but, lacking the Socratic discipline in citizenship, they were neither canny nor 'ironical.' They overlooked the positive humanity in this 'wise man.' So, like protestants always, they abstracted the individual, and proceeded to make God from him. Thus, virtue became possible only where society ceased, and they outlawed themselves even from the Socratic fraternity. For, social arrangements, being 'stepped down' from a transcendent, im-

material entity,— which they conceal or bemuse, — are fatal to the 'reality' as it is in men here and now. These ancient anarchists stood to Socrates as did Feuerbach and 'Stirner,' fathers of modern anarchism, to Hegel.

"The state of nature was the reign of God,"

but, man aside, it could not exist. The Cynics would have applauded Quinet's remark, "the owl has outlived Pallas Athene; the eagle has outlived Jupiter; they have not shed a feather in the fall of the gods." But, they would have commented, '*our* Socrates has added a cubit to his stature in the fall of the gods.' The anarchist ideal centres in this attitude precisely.

Vague and, of set purpose, evading definition, the Cynic ideal is distinctively anthropological. By a curious, but characteristic, inversion, mysticism gives way to a *Selbstanschauung Gottes* — in man. The result follows necessarily from the special quality of Cynic as contrasted with Christian asceticism. The latter, not content with renouncing the flesh and the world that ministers to it, abandons the human spirit also, abasing both knowledge and will. The Cynics, on the contrary, minimise the wants of the body and berate the social expedients that at once create and indulge them. But they hold fast to human knowledge, and will, nay, properly understood, these

are the universe. Man, the individual, finds the sole good in them and, so finding, himself becomes the universal. As in democratic Athens all die, so in autocratic Antisthenes one is made alive again. To have no wants is to be as the gods, to safeguard independence is to realise the divine nature, because virtue and wisdom are here presupposed. But virtue and wisdom are not viable so long as alien 'law' and alien social 'will' continue to interfere. These restraints are deceptions palmed off as truth, and evil altogether. Social problems do not exist, because any order of civilised society is inherently bad. On the other hand, by following the true 'way,' thus narrowly interpreted, man can grow more and more into 'likeness' with the gods, who are self-sufficing. The essential need is to 'see all things in a certain way.' This done, manhood, if given free course, glorifies itself into divinity. The 'wise man,' when he cultivates his 'special endowment' as a human being emancipated from the infractions of society, reveals to his fellows the truth as it is in 'the highest.' He is 'set apart,' not indeed as a pensive pietist, but as the "organ of imperial Reason." Motivated thus, he achieves apotheosis. The patriotism of the city is deserted for a patriotism of heaven — upon earth. So each man, gifted with insight, must work out his own salvation in despite of society and, wis-

dom conceded, he has almighty power to attain his end. In other words, we have a purely anthropocentric universal, and the *anthropos* is the self disengaged from entangling alliances with his kind. The knowledge that all else is malignant is, on the theoretical side, Cynicism, on the practical, anarchism. The unintelligible omnipotence of a deity, and the unintelligent governance of a society or state become intelligible — in the tautology of the individual life!

Confronted with the intense city-pride of the Greeks, this strange issue of Socratic other-worldliness could not escape a certain negative cosmopolitanism, of a kind somewhat in evidence today. The kinship appears in common assumptions. The Cynics assumed, for example, that the State forces restraints upon its citizens and, having accomplished this, its relations with them cease. Now, restraint as such is high treason to the free soul. For, the life of the State and the career of the individual are mutually exclusive. The time had not yet arrived for enunciation of that toothsome anarchist epigram, "the end of all government is to render government superfluous." But the root of the matter was there. Individual conviction had been set in opposition to civic opinion, and the 'inalienable rights' of the former had received explicit assertion. Treason to the State, as the State judged, had blos-

somed into identity with truth to self. But, in the Greek world, this never meant that the State was to be seized and overthrown; such a proceeding could not, according to the ancient outlook, profit the individual. It did mean, however, that the State must be abandoned to the fate brought upon it by its own 'divisive courses.' The Cynic preacher taught that all is vanity, and incidentally proved that the greatest of vanities is the preacher himself. For, to be frank, his vanity measured his weakness. His inner unity, manifested in outer oddity, gained no more than a negative success, the success of a noisy scandal. He saw what his age lacked, never what it needed. His incommunicable peculiarity, a parasitic growth upon the body-politic where he belonged, concealed its own origin. Grasping the liberty wherewith Zeus had made him free, he lost all sense of the complementary fraternity and responsibility. Generating no practicable innovations worth while, he realised no valuable ends, even if he proved a "gad-fly to the Athenians." Notwithstanding his fine notions about "making God from Man," he bogged himself in a paltry conceit of originality. Like austere sectaries in all ages, he must needs abide these condemnations. At the same time, when we bethink the 'more excellent way' whither he set out, another aspect compels recognition. Anarchism is a parasitical growth

doubtless; what of the ready and favourable *nidus?*

Symptomatic of a national crisis, the execution of Socrates touched the level of real tragedy. The victim and his judges were equally right. Cynicism formed a sequel — the same tragedy stripped of its touching features. Men do not go about to condemn a Socrates lightly. They must needs be thoroughly in earnest about something which so possesses them that they lapse from calm assurance into the cowardice of intolerance. And a Socrates meets death clear-eyed, because convinced to the uttermost of an indefeasible truth. Athens had "hitched her waggon to a star," and believed deeply in her generous destiny. Invisible things set their seal upon her genius. Jealous for them, public opinion broke forth in intermittent fits of persecution. On the other hand, the 'aristocratic' philosophers caught glimpse of even greater realities which, again, pointed to a wiser adjustment of human life than Athenian provincialism permitted. So, Socrates suffered, because, faithful to a mystic call, he was adjudged faithless to the sacred norms of the social order. But its own vaulting ambition brought this very order to its doom and, with the Cynic movement, the old passion that had bred heroes brought forth martyrs — martyrs to an inverted self-sufficiency. Esoteric Socraticism, which could flourish as *a*

truth within the State, appeared as *the* truth over against the State. The defects of the Greek idea of virtue grown manifest, other elements of goodness clamoured for recognition, but at a time when the traditional conception was still powerful enough to baulk a new synthesis.

Fundamentally aristocratic, Greek virtue divided the Hellene from the barbarian, the subject of civic *paideia,* or culture, from the outsider who, debarred from the requisite nurture, remained *apaideutos,* a hopeless boor. Thus understood, virtue depended upon knowledge; he who knows, as the Greek alone enjoys opportunity to know, cannot fail to choose 'the more excellent way,' as Socrates taught. Moreover, enlightened, he will respect himself, being conscious of his due, and assert himself, being conscious of his 'special endowment.' He will prefer demands upon others, because assured of mutual superiority and inferiority. But, curious as it may seem, Socrates also held that the highest virtue can be realised only in a confraternity devoted to mystic doctrines which forbid all self-assertion. Pythagorean communism found an adherent in him, if Plato report correctly. The ordinary aims, even of Athenian citizens, are "a tale full of sound and fury." Accordingly, his gospel is permeated by an unhealed dualism between achievement and aspiration. After his death, political and

economic changes so conspired in Athens that the *Demos* embraced the lower achievement, and abandoned the higher aspiration, forgetting the virtue of internal quality in mad haste to acquire external quantity. Consequently, the Cynic, seizing upon self-assertion, and overbalancing the abstract humanitarian element in Socratic mysticism, sought his due in that paradox — a social vacuum. The relative anarchy of the actual Athens became absolute for him as the paramount condition of any moral life whatsoever. The 'separated' man, being the sole possible vehicle of the good, rejects as impious the bare suggestion of temporising between himself and the "city of pigs." Could tragedy go further? Antisthenes, Crates, Diogenes and the rest were enunciating a principle that has effected, and must continue to effect, weighty results for civilisation. The "city of pigs" had crowned the Acropolis with the Parthenon, and was about to give expression to her eternal significance in the Platonic philosophy!

The standard of revolt raised by the Cynics was a sign of the times. But these protestants denied the times altogether. That is, their assertion of incompatibility between virtue and society went so far as to be irrational. Nevertheless, they drew attention to the fact that, as amongst men, mutual understanding supplies the only available basis of social intercourse. The Greek can maintain no

monopoly here. If society can compass progress, the instrument is intelligence, and anarchy happens to be discarnate intelligence. Along with other anarchists, the Cynics err in an effort to make 'rights' absolute, and succeed by insistence upon a truth so obvious as to be overlooked constantly — rights are empty of significance save for individuals. Matters of degree, they are relative to grades of reality. Ascetic discipline, for example, reveals value, if it enables a man to develop juster estimate of the worths practicable in human life. Yet, even this issue is blank failure, unless others profit, nay, unless the 'wise man' profit too, by the reaction of his fellows to his teachings. For, individuality being what it is, its strength is made perfect in weakness. Freedom strikes no root in self, it flourishes amid substantial relations between selves. "Cancel these . . . and morality will be left reasonable still, but paralysed; possible to temperaments comparatively passionless, but with no grasp on vehement and poetic natures; and gravitating to the simply prudential wherever it maintains its ground." A moral life is quite inconceivable apart from opportunity to select; and, in so far as selection is restricted by the crudity or unfruitfulness of society — it is limited! In so far as it can reach greater adequacy of expression, it presupposes richer, profounder, finer social accom-

paniments. This inexpugnable dependence upon society may be termed weakness, if you please. The judgment means nothing; for the strength that renders weakness apparent is itself social. To probe the nature of this social "substance which is immanent in the show of the temporal and transitory" individuals, and is affirmed in their freedom, forms one main task of intelligence. Thus, at the risk of giving dire offence to "the demagogic folk," who are as ready now to rant about the 'un-American' as they once were about the 'un-Greek,' we must recollect that "freedom to follow a line of business presupposes first of all an established police-power; and then an established system of currency, of transportation, of commercial law. Freedom to realise your aims in a learned profession presupposes well developed schools. Freedom to express your opinion demands, first, protection from the mob, and then, on a higher plane, an established convention of tolerance and fairness."

Blind to the paradox that leaders of men are seldom or never 'originals,' the Cynic missed all this. Oppressed by the old self-sufficiency, he could not know that moral advance always imitates the letter, as Socrates did, although, in spirit, he was, to adopt Homer's phrase, the friend of all men, not of the Greek merely. It is true, as the Cynics sensed vaguely, that law has relation

only to outward acts, and that paternalism misconceives the nature of morality. On the contrary, it is equally true that rights are the correlates of duties. The great 'free spirits' are free precisely because representative; hence their authority. Sharpened by the negative in Socrates, the Cynics perceived that personal virtue transcends the local conditions of the Greek state, just as our anarchists protest that it transcends the ways of contemporary nationality. But both go farther and fare worse. They omit to insist that virtue can never neglect *all* ties of kin and folk. It is a prize hard won by the efforts of many, not an inalienable possession of one. Had events not cast it in shadow, the positive in Socrates would have revealed that a 'sufficient' personal life includes devotion to a universal reality. In short, as the Pythagorean Socrates taught, morality is linked indissolubly with the object of religion. The 'philosopher on the throne,' perhaps on account of his ecumenical office, taught no less, even if he failed to pass on to the attendant moral activity. The "soul ranges the universe, alike the world of form and the world of void, and reaches forth into eternity, and encompasses and comprehends the cyclic regeneration of the universe, and perceives that our fathers had no fuller vision, neither will our children behold any new thing. . . . And yet another property of the rational soul

is love of neighbours, truth, self-respect, and that supreme self-reverence which is likewise an attribute of Law. And this implies that the law of Reason is coincident with the law of justice." With Marcus Aurelius, the old world says its last word, one manifestation of goodness being proven inadequate to complete expression of the good, so closely are the 'yea' and the 'nay' interwoven here below. For, stung by his own universality, the 'wise man' ever suffers, being in advance of his time. Nevertheless, wisdom deserts him the moment he would reject his fellows, and keep himself to himself. Justified partially in his criticism of the follies or mischances of a passing day, when civilisation seems to stand puzzled at the crossroads, he can be justified wholly only on condition that he descry the practicable remedy. And, for the open eye, it lies near at hand. The cure for the known defects of civilisation is — more civilisation. In this, as in less weighty matters, repudiation spells bankruptcy.

PLUTARCH AND HIS AGE

So was it when my life began;
So is it now I am a man;
So be it when I shall grow old,
Or let me die! . . .
And I could wish my days to be
Bound each to each by natural piety.

SYSTEMATIC Philosophy of Religion is dated usually from Hegel's *Lectures on the Philosophy of Religion,* published in 1832 from the notes of students. Informal, like all lectures, and delivered without thought of print, nevertheless "their very artlessness gives them something of the same stimulating, suggestive power which is attained by the consummate art of the Platonic Dialogues." Now Hegel is responsible, not merely for the application of logical principles to the development of religion, but also for the spread of those expert studies, known as the Science of Religions, based upon objective historical investigation. It has thus come to pass that the Philosophy of Religion is perplexing and debatable ground, because it involves two problems, distinct in type. The metaphysician and the student of religious history are interested

equally, but each minimises the office of the other. Naturally enough, one might anticipate that difficulties of the greatest magnitude would arise with reference to first principles; and, in recent years, progress has lagged here much more than on the historical side. Yet, historical issues detain the investigator at numerous points, nowhere more, perhaps, than in the crowded period intervening between the death of Augustus and the accession of the Antonines. Here 'Hellenism' and 'Jewish-Alexandrianism' have done duty as periphrases for mere probability or for comparative ignorance. I am quite aware that I have not been able to penetrate their secrets. But the conviction has grown upon me that, despite scholars to whom Plutarch is no stylist, and thinkers to whom he is no philosopher,—"a philosophical washerwoman,"—he represents the temper of his age more suggestively than his contemporaries. He exhibits at once the needs, the resources, and the characteristic poverty of the time. As is well known, no single movement exercised decisive influence, for the old system of life was in process of slow dissolution, the new had not arisen to replace it. We do not find a religious crisis, a philosophical drift, or a moral demand so emphatic as to be capable of separate treatment. All intermingle, and the resolution of enigmas is to be sought mainly by

recourse to principles that can be set forth fully only in a systematic Philosophy of Religion. Meanwhile it may suffice to accept Miss Julia Wedgwood's apt and striking suggestion: "It is not impossible that a second-rate thinker who stands at a turning-point in history, who catches the glow of a coming or departing age, may embody more of the thoughts and beliefs interesting to posterity than some who stand in the front rank."

Philosophy always preserves a certain air of unreality to many minds. It seems to withdraw from contemporary events, or to concern itself little with momentary agitations that absorb popular attention for their brief hour. What once was, as the contention runs, Philosophy may very possibly explain *post factum,* but immediate problems obtain no heed. This average attitude of suspicion has its causes in the nature of the case. Thought usually cries in the wilderness of its own generation, and arrives at a kingdom later. Not without manifold reasons. Acquisition of the perspective indispensable to real grasp upon spiritual or intellectual achievements is a slow business, and few there be who attain it. While the goal may differ little from age to age, each epoch views it under distinctive aspects. So, paradoxically, Philosophy must needs meet a double condemnation. Repelling many, because it ap-

pears to sit remote from contemporary commotions, these very flurries affect the medium through which it must approach its own problems. Accordingly, while it is impossible to cast the bias of the time behind one's back, it is equally impossible to forget that, so far as human insight goes, this very bias, characteristic of all epochs, may intimate the final problems. Here, at least, the peculiar contribution of an era must be sought; here materials must be gleaned for praise or blame; here, most of all, if not entirely, must the unseen and eternal be winnowed from the seen and temporal. Thus, if we cannot affect to recall the Plutarchian, or any other period as it actually appeared in its completeness to the actors in the drama, we are not left without a guide to its salient qualities. They conform to a general principle that repeats itself endlessly along the zigzag trail of human aspiration.

In larger outline, the great movements that combine to form the complex heritage of the present have encountered similar vicissitudes. The ideal springs are tapped unawares, and there the leaders of the morrow refresh themselves. Thus invigorated, they shake off trammels that hinder others, and generate

> "Thoughts hardly to be packed
> Into a narrow act,
> Fancies that break through language and escape."

So, ideas brimful of evangelical fervour go forth to the masses, turning many to righteousness by their missionary force, renewing the life of a city, a people, maybe of an epoch. Then the usual petrifaction ensues. Forms suitable for preservation of the precious teaching come to be evolved, and permanent safety is sought in subservience to them. As a result, idolatry — always ubiquitous — emerges at a greater or lesser interval. Observance of rites ousts vital belief; respectable conformity to custom does duty for personal holiness; and, all too often, hypocrisy, most hurtful when least conscious, becomes own mother to iniquity. By a strange somersault, decent indecency rules the roost. When this sham has masqueraded as reality for a due season, detection is brought to potent birth by a few select spirits, of whom it is recorded sometimes, "he hath a devil." Injustices, lies, miseries, the natural brood of a decadent stage, beget irritation and resentment. Unrest and criticism trumpet the death of the old oracles. Such junctures tend to repeat themselves; and they evoke either an imperative demand for a return to ancient, lost aspirations, or a no less urgent sense of need for a new revelation. A Plutarch, the true *laudator temporis acti*, arises, or a prophet rouses the land.

As some investigators would urge now, grievous calumny has been heaped upon the Plutarchian

period. Even so, it were needless to deepen farther, by a touch of shadow, the awful blackness that brooded over many of its dark places. The Rome of Domitian, although no longer the metropolis of that hideous egotist, Nero, still bore faintest adumbration of the City of God. But, while making this admission, we have been too slow to recall that the Mistress of the World was no more than *Mistress*. To her the civilised universe might indeed pertain; she did not mirror it entirely. The profound wistfulness of the period, and something of its incongruous contentment, were partly obscured at the imperial city. Plutarch embodied both traits. He was well aware that the shrines had ceased to diffuse inspiration; he was quite conscious that the former vocation of citizenship no longer afforded ideals. Nevertheless, he was interested to deploy reasons for the lapse, and pleased to celebrate vanished glories won under a past dispensation. "You discuss what ought not to be argued, when you question the opinion we hold concerning the gods, and ask reason and proof for everything. For the hereditary and ancestral faith suffices. . . . If you demand demonstration about each of the old gods, laying hands on everything sacred and playing your sophistry on every altar, you will leave nothing exempt from calumny or from the ordeal of trial." In an age which, as no other, de-

manded and received its sober defender of the old and its divine revealer of the new, Plutarch stood forth, almost

> "a modern gentleman
> Of stateliest port,"

as the epitomiser and apologist of Greek culture under Roman rule. He felt the vacuity of religion, shrank from the flaccidity of morals, but he had none of the instant self-sacrifice — an intellectual virtue mainly — that seeks to safeguard the future. He lacked the necessary wisdom, with its just perception of relative values; he knew no passion for truth. Hence he fell back upon antique supports, and became, in his measure, the first modern defender of divine authority. From him, rather than from any of his more brilliant contemporaries, the inward import of that mysterious phrase, "the fulness of the time," may be gathered. He possesses a poise foreign to the rest; and his obvious distaste for novel extremes renders him, not simply genial, but eminently helpful to the student of the spiritual crisis. Greatly daring, but with rare sagacity, the foremost English Plutarch scholar of his day wrote: "Of one special class of students — I mean the theological — it may be safely said that they would receive more direct benefit from an acquaintance with the Greek of Plutarch than from a study of the great

masterpieces of the Periclean age."[1] To theological and philosophical students equally Plutarch is as enthralling and important as Philo. Each summed up the tradition of the civilisation that bore him. But, in both, the old culture had forsaken its first seat, had passed into the mighty Roman world and undergone strange transformation. Greek superstition was giving laws to its conquerors, Jewish pride of race was, not merely disdaining or suffering the Gentiles, but was offering them yet another 'mystagogue.' The Bœotian and the Alexandrian spoke in the voice of their time, for they were at one in their curious unconsciousness of the real meaning of the momentous change that was just upon them.

Like Shakespeare, Plutarch had no biographer, and, despite his skill as a writer of lives, he left no autobiography. By a tantalising fate, materials for even a bare summary of the chief events in his career are scant. We are unaware, for example, when precisely he was born (about 50 A. D.), when he died (about 120 A. D.), when he visited Rome, Egypt, and Gaul, when he travelled in Greece, when he wrote his principal works, when he held such offices as were then in the power of his countrymen to bestow. True, apposite inferences may be drawn with high probability here

[1] H. A. Holden, in the Introduction to his edition of Plutarch's *Life of Sulla,* p. vi.

and there. But it is not possible to trace the man's mental development, to watch his growth in character, to mark the circumstances wherein the various religious influences that he must have experienced came to act upon his views of faith and life. At the same time, as in other conspicuous instances, counterbalancing advantages ought to be remarked. Minor issues aside, we may reconstruct the person from the *Lives* and the *Moralia*. Liberated from the trivialities whereof modern bookmaking is so greedy, we can calmly measure the wider sweep of the writer's mind, and concentrate attention upon his significant mission as the least sophisticated reporter of his own era. In many ways, his abounding *naïveté* bestows fine compensation for his unrecorded biography. His works savour of himself, and, untouched by the deflecting judgment of others, we keenly enjoy face-to-face communion with an authentic man. His store of anecdotes and his antiquarian lore add a relish to his graver thought, while his many moralisings portray, not merely his own character, but rather his entire nature, mellowed and chastened by the religious, moral and political conceptions of the day. Our acquaintance being thus direct, Plutarch wins upon us and sympathy wells up. It is not hard to see that he was in some sense a deeply religious man living in an age when religion had sunk to superstition, a thinker inter-

ested in metaphysical and ethical problems, meditating at a moment when an effective philosophy was out of the question. Destined, after centuries of travail, to transmute some hideous evils, the new ideas that were to illumine the Roman universe, mysterious then beyond the ordinary, loomed so near and yet so far that none but puny souls can withhold kindliness, if not affectionate compassion, from this noble among 'greeklings,' searching for light.

The more Plutarch enlists fellow-feeling, the more one realises how much he has to tell. Having 'little Latin,' he was cut off in a measure from the chief contemporary writers. Despite his wealth of information, he does not quote them, and the absence of their influence is, to say the least, surprising to modern omniscience. Consequently he offers a free presentation of his own mind. Sometimes he startles the reader with a novel suggestion that might have proceeded from the nineteenth century, and, taken as a whole, he conveys a complete impression of an important historical phase such as can be obtained nowhere else now. Without the exaggeration of Juvenal, Plutarch has a truer moral interest; without the repressed indignation of Tacitus, he turns the same affectionate gaze upon the good old times, and by them would fain glorify the present; without the tittle-tattle of Suetonius, he is as bright and inform-

ing; without the elaborate learning and studied speech of many grammarians and rhetoricians prominent on his stage, he is more influential and as persuasive. The secret lies in his humanity — a quality rare always, then exceptional.

> Animas servorum et corpora nostra
> Materia constare putat paribusque elementis.

So Juvenal wrote. Plutarch cannot rest content with these, the pious sentiments, to which some, more distinguished for brilliancy than depth, then gave occasional utterance. He must needs rehabilitate the ancient sanctions of morality and religion, advancing quaint reasons, and never permitting himself to stand helplessly dismayed or ineffectually enraged before present defect. If Pliny Major be the most instructive representative of the culture of that time, Plutarch is our best reminder of the entire spiritual condition — of its spent resources no less than of its accumulating necessities. And as, by slow degrees, he intimates the spirit of his generation, we come to learn that he has also given us a self-revelation which only the ideal biographer, who never appears, could have furnished forth. The potent magnetism of natural honesty receives another conspicuous proof.

Curiously enough, Plutarch's very attractiveness has long obscured his less obvious but greatest merits. His *Lives* claim a place alongside

Homer, Herodotus, the Bible, the 'Confessions' of M. Aurelius, and the *Imitation of Christ* in that select list of books whither, as by an intuition of close kinship, men have continually resorted for rejuvenation, comfort, or wise counsel. Just after Plutarch's death, his works acquired influence. Beginning with Aristides, the apologist for Christianity to Hadrian (about 133 A. D.), and concluding with Sopater of Apamea in the sixth century, the *Lives* and the *Moralia* were quarried for information, or reproduced wholesale in unblushing fashion. When the Revival of Letters rescued classical literature, Plutarch resumed his place among the authors who "can never be read without profit." Erasmus discerned his ethical benignity at the very outset of the movement. Scaliger knew him. The French in particular welcomed him cordially. Montaigne, little given to enthusiasm, forgets himself over Plutarch. "In his Parallels (which is the most admirable part of all his works, and with which, in my opinion, he is himself most pleas'd) the fidelity and sincerity of his judgments equal their depth and weight. *He is a philosopher that teaches us vertue.*" After Montaigne, Plutarch's influence flows on persistently through French literature; and, not only in France, but everywhere, he attracts the unlettered many no less than the literate few. Amyot, Rabelais, Boileau, La Fontaine, Saint-Evremond, Pascal,

Molière, Racine, Montesquieu, Rollin, Saint-Pierre, Marmontel, Voltaire, Rousseau, La Harpe, Mdme. Roland, De Maistre, Chateaubriand; Henri Quatre and Turenne among men of action; the Semiramis of the North among great women — all dwell upon him. In England, Shakespeare, Bacon, Jeremy Taylor, Milton, Wordsworth, Macaulay and Browning unite to accord him the sincerest flattery — of imitation. Dryden edits a translation of him, and is more widely read therefor. Emerson expects him to be "perpetually rediscovered from time to time as long as books last." Trench pleads for a better comprehension of his merits on the basis of *all* that he wrote, and laments its long delay. Jean Paul and Neander add their homage. Finally, as if to emphasise yet again Plutarch's universal appeal, one of the most thoughtful women and one of the most valiant men in our own generation, whose paths circle strikingly apart otherwise, combine to sound his praise. "He may almost be called the interpreter of Greece and Rome to modern Europe," says Julia Wedgwood. And during those slow, sad days of hope deferred at Khartum, the ancient pagan thinker still spoke wisdom to the latest hero of Christendom. "Certainly I would make Plutarch's *Lives* a handbook for our young officers; it is worth any number of *Arts of War* or *Minor Tactics*." These brave words, with others,

were penned by Gordon — a relief from the agonising anxieties of the final act in the breathless drama of his career.

Yet, despite this popularity, perhaps because of it, it still remains true that men enjoy Plutarch, finding pleasure and cheer in his company, and forthwith put him aside. Although in the earlier centuries of the Christian era, the *Lives* and the *Moralia* were alike plundered impartially, since the Renascence attention has been concentrated with unreasonable exclusiveness upon the former. In practice, so many have acknowledged the unique allurement of the Parallels that to the 'man in the street,' if not to the professional scholar, they represent the most readable compendium of classical times, and constitute a main channel through which the influence of Greek and Roman culture is now experienced consciously. Like Scott's best novels, the *Lives* have caught the modern reader through the story. Their worth has been taken on sight, at its face value, as it were. Questions seldom obtrude themselves, for does not Plutarch say, "I am not writing histories but lives, and it is not necessarily in the famous action that a man's excellence or failure is revealed; but some little thing, a word or a jest, may often show character better than a battle with its ten thousand slain." It was none of Montaigne's or of Gordon's part to ask whether the pictures show "men as they

were" or "men as they ought to have been." The ironical censor of human vanity, and the courageous exemplar of a chastened self-reliance agreed that the biographies contained more than mere characterisation. But they did not tarry to dwell upon reasons or to probe origins. And it thus happens that the *Lives* have held the field to the exclusion of the *Moralia*. Philosophers have passed Plutarch by, because he had little interest, and less competence, in ultimate problems — no passion for truth consumed him; scholars, because he did not write Attic Greek. Nevertheless, a large portion of the biographer's charm proceeds from the moralist's insight, and nearly all the educative power of the one collection derives its inspiration from the inner spirit of the other.

Plutarch found himself confronted by decrepitude in matters that pertain to the things that cannot be shaken. For his own satisfaction, if not always for that of others, he attempted to relieve doubt, and to guide aspiration by setting forth in semi-familiar, semi-reflective style the permanent merit of the chief beliefs whereby classical paganism had sustained its faith. The "teaching of vertue," according to Montaigne the note of the Parallels, is but one among several results of Plutarch's life-work. The appeal to the select spirits of antiquity consists in no barren catalogue of their misdeeds or achievements. For, even in

detail, Plutarch seldom relapses into the sign-post system of biography, never in rounded outline. With the possible exceptions of Galba and Otho, the figures appear, not simply as men who were born and wrought and died, but as embodiments of devotion to, or defection from, the old ideals that the writer would fain revivify. If the history of Herodotus have affinity with the epic, that of Thucydides with the drama, Plutarchian biography may be said to simulate the lyric. It expresses the author's personal interest, springing, as it does, from his sober but persistent determination to justify the old paths of morality and religion by reclaiming them. And while the works manifest little external unity, the pervasive temper of the man is at one with itself throughout. Insight may tarry often, intention is ever plain. Nay, strange as it may seem, this very intention bestows wisdom, when precision of knowledge and conscience for evidence are far to seek. Yet, we may admit that Plutarch's inner spirit eludes us still. And our own age seems so like his in some salient features that the effort to penetrate his secret exerts no little seduction. We may try to obtain glints at least by reference to the ethical environment.

The social situation in the Roman Empire, as the first century swept to its close, held a strange medley of unassorted opposites. By defect, it presents features that irresistibly entice those who

indulge the habit of hysterical denunciation. The influence exerted by the highly partial 'historical' argument, still deemed a necessary accompaniment of Christian apologetics by some, has made itself felt strongly here. On the other hand, and as an inevitable consequence, contrary judgments may be cited readily. It is alleged, for example, that in this, *the* epoch of "apathy, debauchery and cruelty" with the apologist, "men sought after moral progress with a zeal which the Christians, if they ever rivalled, never surpassed. . . . If you want to find the true spirit of the Founder of Christianity, you will find more of it in the fragmentary literature of Paganism than in all the works of the Fathers put together; and more, not merely of its spirit, but of its actual expression, in Seneca . . . or Plutarch than in Augustine, Jerome, and all their tribe." In short, the period has long furnished, and still provides, a favourite battle-ground. But mutually exclusive inferences, akin only in approximate equality of friendly evidence, are traceable as a rule to a bias arising either from preconceived ideas, or from a special purpose in the interest of which the records have been approached. Moreover, it must be insisted that, in the present case, take it from what angle one will, a just estimate is of exceptional difficulty. Prepossessions, often barely distinguishable from prejudices, saturate the very atmosphere we breathe. Moral

standards are so different; conditions integral to happiness are selected upon such dissimilar grounds; and, perhaps most of all, the entire fabric of society witnesses to the operation of ideals so antagonistic, that even a sympathetic estimate may be baulked of precision. At the same time, thanks in part to recent epigraphy, exclusive dependence need no longer be placed upon satirists who exist to caricature, upon historians who trade in tale-bearing or express with open impatience the sentiments of a deposed class. At first sight, the prevalent tone of Plutarch contrasts inexplicably with that of Juvenal, of Suetonius, or of Tacitus. And, in the essay to reconstruct the conditions whence our author sprang — relying much on his own remains,— the 'give and take' in the available evidence may be permitted such free and fair play as the bias of contemporary culture allows.

The reporters, whose books have coloured subsequent opinion concerning Plutarch's age, were themselves subject to plain limitations. Their accounts cannot be taken uncritically, and treated as a just statement of the whole case. Nay, Plutarch's own lapses, when he mistook poetry for historical fact, afford illustrations in point. Even more than our chief centres of population, Rome acted as a magnet, subtly attracting the best intellect, the highest ambition, and no less the sordid and adventurous spirits of the outspread empire.

The heterogeneity of this hived humanity has never had parallel since, Alexandria in her 'palmiest' days, London, and New York notwithstanding. The spirit of the republican city-state, impelling for all its severity, had evaporated. Rome had ceased to originate moral guarantees, having become rather a receptacle for the shot virtues and vices of the world, bent upon satisfaction after their kind. As a consequence, "Parthians, and Medes, and Elamties, and the dwellers in Mesopotamia, and in Judæa, and Cappadocia, in Pontus, and Asia, Phrygia, and Pamphylia, in Egypt, and in the parts of Libya around Cyrene, Jews and proselytes, Cretes and Arabians" rubbed shoulders there; yet each retained his cultural tradition in large measure. Accordingly, the notable writers, their moment bending their intuitions, confined themselves to familiar aspects of this motley assemblage; and, where talent is concerned, familiarity tends to be distributive.

True, the poets are at one negatively; they have escaped the wistful sadness of their predecessors — of Lucretius, and Catullus, of Virgil especially. Positively they differ from each other, even although they agree to employ satire as a medium. The obscure allusiveness of Persius, the stinging exaggeration of Juvenal, the elaborate heroics of Lucan, the lively dialogue of Petronius, the mordant epigram of Martial, constitute a single illus-

tration of the manner in which literature parades morals. These qualities are traceable severally, not so much to that essential extract which is of an age, as to the specific conditions and opportunities pertaining to individuals. Persius' education, Juvenal's contempt for the servility of the *parvenu,* Lucan's rhetorical ingenuity, blind to ideals, Petronius' unerring eye for minor manners, Martial's cynicism, were determining factors in their respective views of contemporary life. Each sees differently, and for different reasons; not one arrests "the flying moment;" its likeness escapes his most beautiful shapes. Regarded collectively even, they leave this sense of failure, for they are not

> "The only speakers of essential truth,
> Opposed to relative, comparative
> And temporal truths."

Thus it were a fallacy to take the Messalinas and Trimalchios for types of mankind, to forget that they are representative of small coteries. In the same way, not only matters of opinion, but an appreciable element set down as matter of fact, say by Tacitus, must be appraised in the light of his truly Roman *severitas;* by Suetonius, with deductions enforced by his obvious partiality for scandal. Be they poets, be they historians or biographers, the 'divine soliloquy' is

not caught on the inward ear of any, for it cannot be said that the "skies are genial and the earthly air propitious." The kaleidoscopic traits of the great city distract all so much that not one enjoys "final rest atop the mount;" thus they miss the wisdom necessary to finer insight. Not that they falsify, but each is content to cultivate his own corner of the garden. They possess an identity principally because personal opinions lord it over universal conceptions. Even Pliny's praise of the present is obliquely put in a disparagement of the past, and for this there is a reason in which he has private interest. Ideals, when they come to the surface, immediately disclose their ancient lineage; seldom are they born of the moment. A bewildering medley of temporary, one might almost say accidental, qualities receives vivid delineation; but of the hidden forces that silently sway the multitude in the background few glimpses are afforded.

While, then, Plutarch's contemporaries failed to epitomise the era, they preserved, and with keen zest, many prominent characteristics little creditable for the most part to the society of the day. Their tone, too, bears unmistakable witness to the dearth of fructifying motives, or, perhaps, to the absence of opportunities that might have originated for them also the Plutarchian glimmer of the single constructive tendency of the time. Critical mission they had and to spare. But they

were blind to the ultimate significance of the Pagan Reaction. Accordingly, they never adopted the Virgilian motto, applicable so happily to the Chærónean sage — *Sacra deosque dabo.* Even Juvenal, the most trenchant of the group, shows small ability to read the signs of the times.

> "Our past is clean forgot,
> Our present is and is not,
> Our future's a sealed seed plot,
> And what betwixt them are we?"

The truth is that, no matter how valuable the clues offered by the Roman writers, this period can be understood approximately only by reference to the religious and social presuppositions of which it was the last and, in many respects, the decadent expression. These principles, intertwining more and more inextricably from crisis to crisis, alone explain and justify many common qualities that must be associated always, for the modern mind, with the unhappiness inseparable from civic inequality. They also expose much real weakness which we, befogged by our tolerant sentimentalism, are prone to set aside too lightly.

The attempt to resuscitate the ancient classical spirit, projected by several recent poets, proves how apt we are to overlook the great gulf fixed between the Græco-Roman world and ourselves. The formative ideas, in obedience to which modern

society has fashioned itself, contain their own distinctive essence. And, while classical learning remains an important part of contemporary European education, no less a pregnant source of the refinements that mark true knowledge, one cannot allege that Greek and Latin are as they were for Athenian or Roman. They have put on a spiritual body. They are factors in a new creation, and contact with many strange, but integral, influences has transformed their pristine nature. Different sentiments determine our morality; other purposes condition our social arrangements; more than aught else, the revelation derived from another religion has rendered our life concentric to a fresh conception of the measure of manhood and the vocation of humanity. Inevitably, these later ideals betray their own limitations, inducing peculiar defects that breed sad consequences in the resultant organisms of religion, morality, politics and literature. Yet, despite reformers who bewail themselves occasionally that the sins of Rome, Alexandria and Corinth may be matched in London and Paris and Berlin, in New York and Chicago and San Francisco, the blemishes are not those of the old pagan world. The fabric is of another sort. If it be true, for the classical as for the modern state, that

> "All are needed by each one;
> Nothing is fair or good alone,"

it is true in a widely different sense. And the key to the divergence lies in the contrasted views of personality, of the value and use of individual life.

To understand Plutarch's age, to appraise its needs and resources, it is indispensable to cast aside the *media* implied in phrases such as 'the rights of man,' and to reconstruct in thought all that was once signified by 'the duties of the citizen.' Our historical descent involves us, all unwitting, in constant emphasis upon the privileges — the dues — of manhood. We realise the meaning of Paul's question without difficulty, and we place a definite interpretation upon its consequences. "And when they had tied him up with the thongs, Paul said to the centurion that stood by, Is it lawful for you to scourge a man that is a Roman and uncondemned? . . . The chief captain also was afraid when he knew that he was a Roman, and because he had bound him." But we are liable to forget that, while the 'political animal' of Aristotle enjoyed rights, he paid an extortionate price, as our current estimate would run. For, citizenship was not merely exclusive. The situation involved something more than a division into Greek and barbarian, or into Roman citizen, subject nationality, and slave. Political recognition was based on a total deprivation of 'liberty' as we understand the term. The free-born citizen merged his humanity in his citizenship. And in the earlier

days of the classical world, he remained unconscious of any loss; his sole vocation was government; he received back double for everything he bestowed. The strength of the city-state, while in full bloom, flowed from that subjection to it in which its members found the only perfect, because the only conceivable, freedom. It was *the* Utopia, the good place. Take Plutarch's statement about Theseus: "Now, after the death of his father Ægeus, forming in his mind a great and wonderful design, he gathered together all the inhabitants of Attica into one town, and made them one people of one city, whereas before they lived dispersed, and were not easy to assemble upon any affair for the common interests. . . . He dissolved all the distinct state-houses, council halls, and magistracies, and built one common state-house and council hall on the site of the present upper town, and gave the name Athens to the whole state, ordaining a common feast and sacrifice, which he called the Panathenaea, or the sacrifice of all the united Athenians." Then take Plato's definition of justice: "What at the commencement we laid down as a universal rule of action, when we were founding our state, this, if I mistake not, or some modification of it, is justice. I think we affirmed, if you recollect, and frequently repeated, that every individual ought to have some one occupation in the state, which should be that to which his natural

capacity was best adapted. . . . That fourth principle in every child and woman, in every slave, freeman and artisan, in the ruler and in the subject, requiring each to do his own work, and not to meddle with many things." These passages present in broad outline the presuppositions of the development of classical society. Every one revelled in a freedom possible only within the social medium of a comparatively small city, but *his* city. No one sensed the sacrifice unavoidably resultant. Allowing for certain lapses, civic vocation supplied room and to spare for action and avocation — till the empire engulfed the world. Nevertheless, every one was bound as a man through the whole period. As Mommsen says, the citizen's duty was to rule his own household, and, for the rest, to be the obedient subject of the state. So long as all went well, the legitimate authority might respect its own limits; but, these forgotten, the magnitude of the price became evident — and too late.

The pregnant issues developed naturally from this semi-socialistic conception constitute the inner history of classical civilisation. The ultimate ubiquitousness of Greek culture was conditioned by the subjugation of Hellas to Macedonia, of Achaia to Rome. The Hellenes, finding themselves bereft of their old political interests, became the evangelists of education, and so 'gave laws to the conquerors.' The sadness of the later Greek

thinkers is a corollary to their criticism of a past ideal, and to their debility in the search for a substitute. Their continuous unrest is that of the citizen torn from his city; their occasional happiness, that of rediscovering the old vocation anew, though attenuated sorely, in the city-ruled empire of the known world. And with Plutarch, as with the dumb millions in his day, the latter is for a little the predominant sentiment. Man, untroubled by recognition of his absolute value as such, evinces no regret consequent upon a comparison of what he is with what it is in him to be. But the citizen sometimes bemoans the once Athens and the unbending aristocratic spirit of old Rome. Yet, for the most part, he accepts — and thankfully — the *Pax Romana* as compensation for loss, and the accomplished facts of the time generate something of contentment by their sheer immensity. Like Virgil, Plutarch is fain to laud Rome —" the most beautiful of all the works of man."

Thus it may be said — not, indeed, as the latter-day democrat would judge, but within the servitude of humanity to the passion for citizenship — that Plutarch's age held means of consolation for many. In the person of *Divus Cæsar,* Theseus had

> " Come again and twice as fair;
> Come
> With all good things, and war shall be no more."

And, although there was no new Athens, no revived patrician order, the splendour of the empire, everywhere apparent, dazzled masses into believing that the golden age had arrived at length. Peace on earth had ended the hideous suffering caused by civil war; there was good-will, not indeed to men, but to those who acquiesced in Roman supremacy. The world may have been dead, but Rome seemed so living that faith in rejuvenescence by drafts upon her energy was not unnatural.

Indications of this general expectancy, to which Plutarch gave plain utterance, are frequent. Speaking generally, and omitting details for the moment, there can be little question that the reign of Augustus was hailed, not simply by a later and idealising generation, but by men of the time, as the dawn of a better day. The gods were charging themselves with the care of men after an oblivious interval so long that, but for folk-memory, the gap must have yawned impassable. Thanks to folk-memory, once more, this was recognised even by the people — by the silent multitude that ultimately shapes the destinies of civilisation. The internecine factions and horrid turbulence of the later Republic gave place to the strong and, in its way, beneficent rule of a single will, guaranteeing grateful liberty to undertake ordinary business with reasonable assurance of effective protection. As a

sequel, an expansive system of mythology sprang up round the name of the dead Cæsar. A similar contentment, but charged on this occasion with a larger element of hope for the immediate future, thanks to contrast with the nearest past, marked the outset of Nero's principate. The youth started with generous intentions, and he is commonly reported to have acted up to them. More than likely, however, the 'Golden *Quinquennium*' was due to the wise policy of Seneca and to the rigid good faith of Burrus. The emperor was still in their leading-strings, and while he thus remained, things went well. But this touching confidence proved baseless all too soon. The stock that spawned Caligula and Claudius had yet another degeneration to reveal. The "heartless buffoon" broke loose, and the *præsens Divus,* mortally intent to win securer eminence by denuding his vicinity of strength, intellect and virtue distinguished enough to command admiration, cut down the "tall stalks." Yet, even at this, it must be remembered that the judgment of Tacitus on the murderous Cæsars is full of point: *Sævi proximis ingruunt.*

Not till the localised horrors of Nero's rule had been spread abroad by the general miseries of civil war, when emperors came to the Golden House and departed "as if they were players in a booth, going on the stage and off again," to use Plutarch's apt metaphor, did the trouble lay heavy hand upon

the whole body of the people. Then, once more, and again to a great extent by contrast, hope, even confidence emerged. Vespasian was the deliverer risen in the East. On this occasion, expectation was to be justified of her children. After Domitian, possibly during his reign, there is a species of return to the outward prosperity of the Augustan Jubilee. The heart-sickness of hope deferred dies away. Making allowance for his confusion of religion with theology and his consequent misprision of the spiritual crisis, Gibbon has placed on record the judgment which sums this period most pointedly, if somewhat too absolutely: "If a man were called to fix the period in the history of the world, during which the human race was most happy and prosperous, he would, without hesitation, name that which elapsed from the death of Domitian to the accession of Commodus." The deliverance is of general application. It might be said of the British, in the same way, that the Victorian era has been the time of their greatest happiness and prosperity. Nevertheless, in so declaring, detailed reference to the inordinate lust of some few, whom sudden wealth had ruined, to the undisguised scepticism of many, upset by half-culture, to patent injustices, if not crimes, among all classes — special effects springing from the implications of the nineteenth century social order — would be left out of conspicuous consideration. So, too, with the

Roman Empire. The progressive sweep of the civilisation is grandiose; and from this very fact a spirit of self-satisfaction stalks abroad, throwing into shadow many shameful deeds, distracting attention from certain foul customs, and drowning the cry of much awful misery in its world-resounding tramp. It has been the fate of the Roman Empire (and, not unlikely it may be that of our federated commercialism, enshrined, as its excrescences are, in the newspaper press) that the dirt, the dishonour, and the squalor have assumed undue proportions with a later age. New standards have led observers to see the black spots larger, to forget that, after all, overt wickedness was then the luxury of the few, as it must ever be. Doubtless the principles implicit in ancient society resulted in judgments whereat we may well stand aghast. But, in the nature of things, humanity itself could not have been fundamentally different. Oppression may not have seemed oppression as we now think, but torture and death and disregard of man's dearest relationships cannot but have overwhelmed many with a frightful burden. And thus a dumb, hopeless acquiescence, destructive of spontaneous aspiration, cast a shadow over the outward prosperity of the world-state — a shadow not of earth, but of the spirit.

On the other hand, the benefits of Roman rule, in the shape of a settled social system, of safety

in commerce and travel, of opportunity in education, and of free intercourse between folk of the most various races through the *media* of two languages, together universally understood, contributed to the spread of stability, toleration, wealth, and other accompaniments of prosperity. The wisdom of the Roman administration had been such that, with two significant exceptions — the Egyptians and the Jews — the subject nationalities had almost forgotten their former independence, and evinced few traces of desire to regain it. Cosmopolitanism, due to long contact with all sorts and conditions of men, had softened Roman hardness,— even the straitest sect of the Stoics had relaxed its traditional austerity. The vigour of several of the recent provinces, like Gaul and Germany, had done something towards regenerating the Italians, depressed to effeteness by monetary exactions, evictions, and civil strife. Strenuous efforts were put forth to reorganise agriculture in the 'home counties.' On the whole, the emperors were distinguished, not by clemency alone, but also by an undeniable, if partial, practice of their profession — to revert to the civic traditions of the best republican times. Military training, still in fashion, afforded scope for the exercise of restraint, and offered a school for the inculcation of obedience, valour, and self-discipline; while, despite their unsavoury associations, it is by no means

clear that the *Lanistae* did not exert similar influence. Finally, as Plutarch's *Symposia* prove, there was another side to the vulgar philistinism of the orgy of Trimalchio. Men of culture and learning had their place. A quiet social life, in which rational conversation and sane enjoyment played a chief part, flourished. Despite the marriage of *usus* and the exposure of children, domesticity was not dead. In other words, only a small minority felt the pinch of 'keeping up appearances' experienced by those who lived, for the sake of brief and scandalous notoriety, among the fashionable who frequented the metropolis and its appanages, the pleasure-cities. The inscriptions afford clear evidence of this. And, as has been said, in estimating these signs, care must be taken to eschew comparison with modern judgments. For, as Lecky observes, to fall below the standard of a merciful age is often in reality to be far worse than those who have conformed to the judgment of a barbarous time.

On general and special grounds alike, evidence abounds to prove that Plutarch's age is not represented fairly by pushing to the front the 'favourites' of that ironical goddess, Fortune, who, after their kind in all ages, strutted a short hour in exquisite circles at the capital and at those centres of self-indulgence where metropolitan 'society' was aped. On the contrary, when the immense num-

ber of Roman citizens is taken into account, Gibbon's allegation comes nearer the mark. Much misery there was and no little oppression. But, writing off our modern ways of judgment, and adding the blessings of security and plenty, there were manifold reasons for confidence, many causes for that thankful cheerfulness so consistently present in Plutarch. Whatever their depth, the social evils that some of his contemporaries were so forward to advertise do not seem to have penetrated the people deeply enough to deflect the bent of the average man. Then, as now, the exceptional received flamboyant notice, the abnormal or pathological was reported with avidity. A good 'story' must needs be 'written up.' The great bulk of genial deeds done; of duties faithfully fulfilled day-in, day-out; of kindnesses extended unostentatiously, have no historian. Yet in them lies the general savour of average life. Accordingly, we are forced to conclude that Plutarch found not a little of vaster moment than damnable vice, unspeakable foulness, and hateful cruelty among the many prominent qualities of the end of the first and the beginning of the second century of grace.

But if, taking all the evidence into consideration, Plutarch's age is to be regarded as fairly happy and prosperous — happy and prosperous beyond the average possibly — what of the other side? What of "the universal corruption" that has

evoked such a stream of denunciation? Here, as before, it is necessary to fall back upon the principles involved in the historical evolution of classical society. The free-born citizen, though quite unconscious of the fact, enjoyed his privileges at great cost. Man was not sacred because of his humanity, but on account of his nationality. The city-state imparted its virtue to the citizens only. In exchange it received their lives — a free-will offering, no doubt, embodying the contemporary idea of freedom. When, in consequence, benefits really accrued to individuals, the most characteristic contribution of classical civilisation to the advance of mankind emerged, as in the Athens of Pericles, and in the spacious days of the Roman commonwealth. But, when one city sucked vitality from all the world, and proved unable to render fair return in the shape of civic virtues, a potent cause of inward stagnation, and consequent corruption, appeared. Even in the palmiest years of the Empire, but especially in that portion of them to the beginnings of which Plutarch belongs, this defect irritated more or less. Men everywhere felt, though they could not explain, the decline. Yet, even so, a chief reason for the prevalence of the mood is to be sought, not in disregard of the rights of manhood as concerns citizens, but in the poisonous effects emanating from an enormous slave population.

For a time, when civic virtue flourished, slavery may have been of positive advantage. The conditions whence Greek art, literature and philosophy sprang implied the presence of a leisure class, of a class in whose outlook leisure formed a determining element. In like manner, the Roman genius for government had similar presuppositions. While, in its origin, amongst savage peoples, slavery is no more than another illustration of man's inveterate desire to aggrandise self, it exhibits higher qualities in the socialised community of the city-state. As the spirit of this organisation led the citizen to give himself for his privileges, so it forced the slave to give himself for his life. He thus became an integral part of the polity, and gained, if not rights, at least that consideration apart from which he would have been worthless, because insubordinate and dangerous. By the necessities of the situation, masters were schooled to exercise a certain amount of forbearance, even although they undoubtedly had opportunities for the exhibition of what we should deem senseless cruelty. More effectually than violence, moderation kept relations sweet. In practice, restraint produced a good tendency, even if the moral aim implied were not according to modern theory. The very contrast between bond and free, like that between barbarian and Greek, generated an *esprit de corps* among the privileged. For, if the fact

of slavery offered depravity occasion to display native wickedness, it also left the better masters free to follow the arts, or to cultivate the sciences of war and government. On the whole, cruelty was probably an exception — certainly an exception as the men of the day understood it; and virtue, developed in pursuit of 'aristocratic' occupations, innoculated the old stock. More than likely, too, some benefit accrued to the slaves themselves. They learned to feel that their masters were necessary to them; frequent are the records of their devotion. On the principle that "he who cannot look up to a superior can never come to respect himself," they were affected for the better by the standard illustrated in the lives of their owners. Caprice and brute force were curbed by the humanising influence exercised by a social system from which master and slave were equally inseparable.

But the flowering time of such arrangements could not last for ever. The eclipse of moral right, and the insistence upon duty imperatively imposed by current social norms, were factors fated to bring forth consequences spiritually disastrous throughout and, in the end, destined to practical or material ruin. Every form of human association has the defects of its qualities. The resources of life depend ultimately upon the relative perfection of the community. The best so-

ciety is the one wherein identical, or approximately identical, interests spur each to strive for the uplift of all. So the master could not but be degraded eventually by contact with the slave. For, the few gained something at the expense of the many, and, in the issue, as always happens, the privileged had to pay dearly for their uncommon advantages. At first, slavery helped the masters morally by leading them to exhibit their superiority in deed. When this had come to be matter of mere tradition, stagnation ensued, and worse, seeing that, after all, the honour of elevation above a being who has no rights is comparatively barren, and proves its sterility by acting as a gradual gangrenous growth upon ideals. The favoured, being set cheek by jowl with the unfavoured, finally come to be unfavoured themselves. The fear of the Lord is only the beginning of wisdom. And, as a God who is feared, and no more, tends to become a fetich,— something less than the worshipper,— so the master who can always and readily work his sweet will tends to become a slave to otiose impulses which, opportunity aiding nature, gain overwhelming influence. Long ere Plutarch lived, this stage had been reached.

Furthermore, one must remember that the *Circenses* not only constituted the "chief blot" upon Roman civilisation, but were also a prime consequence of that contempt for the dignity of

man whence, such is the paradox, the supreme qualities of 'pagan' culture grew. The constant distributions of wheat, too, and the avidity with which they were accepted or even sought, are witness to the servility of both donors and recipients. The sensuality of men and the license of women are referable also to the opportunities which the low conception of manhood afforded; they were aggravated by the pliability of slaves whose prime hope lay in a manumission to be compassed most speedily by taking special service with the lust, gluttony or voluptuousness of their superiors. While the temptations inseparable from their position were intensified by the corruption of the highest, some accompaniments of imperial rule aggravated the mischief of slave depravity farther. The artificial security desiderated by the baser Cæsars afforded a new profession. The crime of *lèse-majesté,* literally created all to frequently by the custom of delation, opened a prosperous career to the informer. And when, on a word from the worst, the best might be done to death, the way to the inrush of all evil passions was plain — to every species of treachery, to meanest revenge for supposititious injury, or for the more real insult of proven superiority which so moves the malicious and the petty. Inexpressibly foul in itself, this practice further restricted the scope for legitimate expression of individuality, a field already far too

circumscribed for safety or public weal. Success in life was to be obtained by mere pandering to all that was vilest. The mimes, the painters, the story-tellers, nay, the very priests of religion, were infected. Luxury had attained almost incredible proportions, and its enervating effects were never more potent. In the ranks thus tainted, even the superlative excellence of a Thrasea, itself an outgrowth of the peculiar circumstances, could do no more than rise to an acceptance of the inevitable. "We pour out a libation to Jupiter the Deliverer. Behold, young man, and may the gods avert the omen, but you have been born into times when it is well to fortify the spirit with examples of courage."

Nevertheless, we must lay it to heart that this frightful corruption was no more than an exceptional instance of the prevalent inertia of moral idealism, a defect necessarily consequent upon the disregard of personality involved in the inner principle of the city-state. Opportunity, which might well have made the majority competitors for distinction in evil, presented itself mainly, if not exclusively, to the few. Even in Rome herself, and in Italy, by all accounts the most miserable of the provinces, one stratum was the chief subject of this death to virtue. It may well be doubted whether the dire example spread widely beyond Rome, except to some cities, the confessed imitators of her

gross foibles — to Pompeii, Baiæ, Sybaris, Alexandria, Corinth. Appraising the age without reference to modern standards, the worst that can be said of society, as a whole, is, that moral aspiration was dull, and that, as at no other time, occasion abounded to sin openly and without reproof. Even when this is conceded, the question always remains, What was the proportion of the one hundred million inhabitants of the Empire to whom such occasion came? It is an obvious reply that the vices whereby Nero and his court idealised themselves into dirt would have been impossible had they been universal. The very satire, hurled at them and their kind, implies the existence of another standard, not simply among the masses, but even with those who moved in the ranks that most furnished forth rioters in bestiality. In short, whatever may have been the habit of Vitellius, to take a case in point, we may rest assured that flamingoes' tongues did not form the national dish of the imperial Romans.

On a broad survey, then, it is impossible to escape the conclusion that Plutarch's age presents a strange conjunction of characteristics. Outwardly, it was prosperous and avowedly happy beyond the average, possibly beyond any period of recorded history save our own. The supremacy of Rome was instilling confidence into many minds. Yet, in narrow circles, vice held triumphant sway, and

servility corrupted with awful success. Accordingly, extreme denunciation and extreme praise are equally beside the mark. Society had its qualities, most of them due to the socialising principle of the city-state; and it displayed its defects, most of them bred by the truncated conception of man as a moral being which, notwithstanding, was the presupposition of the mighty heritage of classical paganism. So far as the conduct of life went, then as always there was a chasm between the great and the small of the earth. The practice of specific vices, which testified to the perversion of members of the one order, did not exist to bear similar witness for the other. If, therefore, the age is to be understood, an attempt must be made to discover the true sources of putrescence. The most serious defect did not consist in the showy sin whereon Juvenal dilated; for we can all fervently echo the wish that Plutarch's essay about Brotherly Love, ay, and much else of his, might be "bound up with the sixth satire of Juvenal, as painting the two aspects discernible in the same era, according to the eyes that saw it." No, the virulent corruption of any epoch is that which permeates it through and through. The happiness of Plutarch's time, chargeable not a little to absence of spiritual curiosity, or, at all events, to the blunting of moral idealism, is far more significant than the tales of imperial licentiousness. For, the adulteries of

Roman ladies, the blasphemies, gluttonies, and unnatural excesses of the court and its *entourage* are not to be mistaken for causes. They were themselves effects. The good and bad of the time, as it has been too commonly understood, are both appearances. The reality, the ultimate source of much seeming ill, as of much seeming good — superstition, for example — is to be sought deeper.

While we may not have the key to this mystery as yet, still we can learn more about the period from Plutarch than from anyone else. And he warrants the assertion that the spirit of the time is not set forth in the freakish beliefs and weird cults of the masses, or in the swinishness of the men about town. The contentment of many and the excess of some are the consequences of qualities wherein the people and the exquisites partook alike. These hidden tendencies are the keepers of the secret of the era. Depressing influences in themselves, they are the seed of those phenomena that have rightly earned for the period its terrible appellation, the Age of Death. Plutarch was not the sole recorder of the actual truth, but he caught it more justly than his fellows. Spiritual sickness supplied his theme; regeneration formed his ideal, but regeneration by return to a past dispensation. We have misprised him till now, because one whose inspiration seems antiquarian bears no vital message. But we have for-

gotten that he had his own aspirations, that he was a prophet after his kind — the sole kind which a reaction, in this case, the Pagan Reaction — can ever inspire. Great Pan is dead; but, mayhap some other god still ranges the firmament, seeking sincere worship. The dread fact of this death and the need somewhere and somehow for spiritual resurrection, together constitute the spiritual quintessence of the age. Yet every eye seems to have been blind, although Plutarch caught a glimmer here and there. The significance of his insight may be brought home to us, children of a late but like transition, by those lines, from the pen of one of our best exemplars. Mr. Kipling has addressed them appositely —"To whom it may concern."

> The smoke upon your altar dies,
> The flowers decay,
> The Goddess of your sacrifice
> Has flown away.
> What profit then to sing or slay
> The sacrifice from day to day?
>
> "We know the shrine is void," they said,
> "The Goddess flown —
> Yet wreaths are on the altar laid —
> The Altar-Stone
> Is black with fumes of sacrifice,
> Albeit She has fled our eyes,

For it may be, if still we sing
And tend the Shrine,
Some Deity on wandering wing
May there incline,
And, finding all in order meet,
Stay while we worship at Her feet."

THE MOVEMENT TOWARDS 'PHYSIOLOGICAL' PSYCHOLOGY

We believe that the more closely the physiological conceptions approach agreement with the actual facts of structure and function, the more facile the progress of psychology.

LIKE many words of broad sweep and intensive significance, the term 'soul' has descended to us laden with centuries of righteousness — and iniquity. Even yet some folk roll it as a sweet morsel under the tongue; while others, seeing it is neither hot nor cold, would spue it from their mouths forthwith. Consequently, whereas the very title 'psychology' means a study of the soul, to-day one seldom hears the too suggestive name inside a psychological laboratory, for there we have no inclination to the *double entendre*. And the impression has gone abroad that this 'strange' attitude dates from very recent times. Accordingly, it is necessary to point out, first, that traces of a psychology rooted in physiology, that is, of psychology as a natural science, did not begin yesterday,

indeed, they may be said to antedate physiology itself. While it may be needless to consider Pythagoras' alleged discovery, that the tones in an octave are results of relations between physiological movements capable of numerical measurement, or Aristotle's extraordinary prevision, of the study of 'soul' as a question for the physiologist, we cannot omit reference to post-Renascence thought.

As happens so often, especially when a recent movement attains vogue, the "heroes before Agamemnon" are apt to be robbed of credit. Flushed by the success of experimental methods, some have tended to forget that the forerunners did but what they could. To accuse them of interrogating themselves "without information, experience, apparatus, or means of procedure," to blame them for their looseness and mysticism, or for subservience to preconceived beliefs, to popular fancies and predilections, is to evince lack of historical sense. They groped in the dim, grey dawn of science, without our advantages, but they set the problems that we attack hopefully in the bright glow of early morning. If, then, we remember this, we shall be less surprised to learn that, leaving many lesser lights aside, at least two dozen men, between Locke (1690) and Lewes (1860), play their preparatory parts to Fechner, Wundt and the devoted contemporary group of psychological co-workers. To make this clearer, let me adduce

some names, adding the approximate dates of most significant activity. Locke, 1690; Berkeley, 1709; Lavatar, 1772; Kant, 1781; Herder, 1785; Galvani, 1786; Cabanis, 1801; Volta, 1801; Gall, 1805; Spurzheim, 1813; Young, 1807; Sir Charles Bell, 1811; George Combe, 1820; Herbart, 1825; Fourier, 1825; Js. Müller, 1835; Beneke, 1835; E. H. Weber, 1846; du Bois Reymond, 1848; Lotze, 1852; Helmholtz, 1856; Bain, 1857; Lewes, 1860; Fechner, 1860, and Wundt (1874), the inheritor of all this renown, who, in a manner parallels for psychology Darwin's position in natural history.

Our next task is to unravel the tangled skein of investigation and tentative hypotheses, of discovery and of open problems, for which these names stand. This is no easy thing, because some of the threads cannot be disentangled. But we may contrive to render the situation less puzzling, and so see how we came to stand where we have been for the past thirty years.

Premising that they cross, recross, and even coincide occasionally, three lines of development may be traced. These are: *First,* the philosophical, in the accepted sense of this term, which originates, of course, in a view of human experience as a whole, or, restricting the compass somewhat, emphasises the gross organisation of consciousness; *second,* the physical, which lays stress on the relation of

certain events in consciousness to objects presented under the primary conditions of space and time; *third,* the physiological, which founds on the interconnection between conscious processes and the structures of the body, particularly the cerebrospinal system. As every one knows, the first appeared earliest, while the second and third, being dependent upon the advance of positive science, had to await what we may call the Newtonian and genetic epochs, the one initiated by Copernicus, the other by Herder and Schelling. Till the age of Kant, philosophy and physics are dominated by British thought, all things considered; from Kant till the first quarter of the nineteenth century French thought acquires increased importance; thereafter, the primacy passes to Germany, where it still remains, the influence of Darwinian ideas aside (and so I shall omit reference to the later British school). For, physiology and 'physiological' psychology, along with the problems issuing from the new outlook, are in the main German products. The synthesis of information constituting the modern science of consciousness was "made in Germany."

I.

The point of departure, then, lies in the philosophical line. Little as he could foresee the future influence of his theory, Locke raised, in a manner,

the entire question of the relation between consciousness and the physiological organism by his famous distinction between the primary and secondary qualities of body. Qualities like colour, odour, hardness and sound, he called secondary, because they cannot become effective components of consciousness unless the appropriate organs coöperate. Neither colour nor sound resides in nature, but motions of such and such amplitude. For us, therefore, colour and sound happen to be interpretations by eye and ear of something incommensurable with the perceptions *in* consciousnss. On the contrary, qualities such as resistance and extension belong to objects in their own right, and persist independent of any coöperation by our sense-organs. Locke did not grasp the philosophical problems involved here, much less the extreme complexity of the physiological processes he assumed. However, he does advert to one of the difficulties embedded in his view — the 'mystery,' as it remains even yet, of space perception:

"I shall here insert a problem of that very ingenious and studious promoter of real knowledge, the learned and worthy Mr. Molineux, which he was pleased to send me in a letter some months since; and it is this: —'Suppose a man *born* blind, and now adult, and taught by his *touch* to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell,

when he felt one and the other, which is the cube, which the sphere. Suppose then the cube and the sphere placed on a table, and the blind man be made to see: *quære,* whether *by his sight, before he touched them,* he could now distinguish and tell which is the globe, which the cube?' To which the acute and judicious proposer answers, 'Not. For, though he has obtained the experience of how a globe, how a cube affects his touch, yet he has not yet obtained the experience that what affects his touch so or so, must affect his sight so or so; or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube.'— I agree with this thinking gentleman, whom I am proud to call my friend, in his answer to this problem; and am of opinion that the blind man, at first sight, would not be able with certainty to say which was the globe, which the cube, whilst he only saw them; though he could unerringly name them by his touch, and certainly distinguish them by the difference of their figures felt. This I have set down, and leave with my reader, as an occasion for him to consider how much he may be beholden to experience, improvement and acquired notions, where he thinks he had not the least use of, or help from them."

As the last sentence indicates, this reference remains incidental rather than determining for Locke.

It was left for his successor and critic Berkeley to give special form to the problem for its own sake, in his *Essay towards a New Theory of Vision* (1709). With remarkable prescience, he writes:

"Rightly to conceive the business in hand, we must carefully distinguish between the ideas of sight and touch, between the visible and tangible eye; for certainly on the tangible eye nothing either is or seems to be painted. Again, the visible eye, as well as all other visible objects, hath been shown to exist only in the mind; which, perceiving its own ideas, and comparing them together, does call some pictures in respect to others. What hath been said, being rightly comprehended and laid together, does, I think, afford a full and genuine explanation of the erect appearance of objects — which phenomenon, I must confess, I do not see how it can be explained by any theories of vision hitherto made public. In treating of these things, the use of language is apt to occasion some obscurity and confusion, and create in us wrong ideas. For, language, being accommodated to the common notions and prejudices of men, it is scarce possible to deliver the naked and precise truth, without great circumlocution, impropriety, and (to an unwary reader) seeming contradictions."

That is to say, Berkeley insists upon the necessity for another and more concrete analysis than

that afforded by the resources of descriptive language.

Later, in *The Principles of Human Knowledge,* Part I., he seems to indicate that this profounder analysis must take a physiological direction:

"The philosophic consideration of motion doth not imply the being of an *absolute Space,* distinct from that which is perceived by sense, and related to bodies. . . . When I excite a motion in some part of my body, if it be free or without resistance, I say there is *Space.* But if I find a resistance, then I say there is *Body:* and in proportion as the resistance to motion is lesser or greater, I say the space is more or less *pure.* . . . When, therefore, supposing all the world to be annihilated besides my own body, I say there still remains *pure Space;* thereby nothing else is meant but only that I conceive it possible for the limbs of my body to be moved on all sides without the least resistance: but if that too were annihilated then there could be no motion, and consequently no Space."

Knowing little of physiology, Berkeley leaves the problem, stated so far, indeed, but only stated. It is this: How can we derive space, a general condition of external objects, from states of the body which, in their very nature, differ utterly from this, their product? Twenty-two years later, he returns to the question, and appears to raise it in fresh

form. In the Fourth Dialogue of *Alciphron, the Minute Philosopher,* he says:

(Euphranor speaks:) "We perceive distance, not immediately, but by mediation of a sign, which hath no likeness to it, or necessary connection with it, but only suggests it from repeated experience, as words do things." (Alciphron replies:) "Hold, Euphranor: now I think of it, the writers in optics tell us of an angle made by the two optic axes, where they meet in the visible point or object; which angle, the obtuser it is the nearer it shows the object to be, and by how much the acuter, by so much the farther off; and this from a necessary demonstrable connection."

It is needless to add that Berkeley, although he makes physiological reference and research inevitable, lived long before such a study of "local signs" as that undertaken by Lotze was practicable.

Thus, the 'mystery' is simply held over, to be attacked by Kant, in whose person eighteenth century thought was to give place to a very contrasted movement. For him, space and time, the general forms of human perception of all events in consciousness, are factors not derived from materials supplied by sensation. They belong to the unifying power of perception in its relation to objects which, again, demands the presence of ele-

ments presented by sensation. Accordingly, he is quite clear that, for example, geometrical truth must be classed as *a priori;* that is, it cannot be distilled, as it were, from those sense materials acquired in the course of experience. Thus Kant forces us to class him as a 'nativist.' So, it does not surprise us to observe that he fails to envisage difficulties which were to become capital for 'physiological' psychology at a later time. For instance: How, as a matter of fact, do we construct our completed perception of space? Granted that it be the product of psychical processes, What are they? Granted that it become effective only in the presence of objects, which presuppose sensuous matter, What does this physiological reference gift to our perception? Or, once more, By what subtle alchemy can we explain the obvious fact that we distribute our sensations in space, as it were? How, that is, can we account for localisation? Here we quit the philosophical line for a while, premising that its unanswered questions will reappear in an altered perspective.

II.

In the realm of physics, prior to the systematic inquiries of the nineteenth century, several more or less sporadic references to the connection between physical and psychical phenomena occur.

Such, for example, were the discussions, by Euler and Daniel Bernoulli, of "the law governing the motions of strings"; Bernoulli's theory of the *mensura sortis,* with Laplace's addition of the *fortune physique* and the *fortune morale.* These forecast the laws of psycho-physical relationship formulated by E. H. Weber and Fechner. Similarly, the discoveries of Galvani and Volta led to speculations on a supposed parallelism between the known phenomena of electricity and the so-called 'discharges' of innervation which, in a way, plumbed the depths of quasi-charlatanism in the developments from Mesmer, and touched the heights of scientific advance in du Bois Reymond's classical work *Untersuchungen über thierische Electricität* (1848), where the mystical and the physical views passed over to physiology for systematic clarification.

Again, Fourier's Law, that "any given regular periodic form of vibration can always be produced by the addition of simple vibrations, having vibrational numbers which are once, twice, thrice, four times, *etc.,* as great as the vibrational number of the given motion"; Ohm's analysis of the "periodic motions perceived by the human ear," and Wheatstone's stereoscope united to demonstrate that the psychical and the physical stand in close connection.

Finally, Young's colour-theory, with its three

primary colours — red, green and violet — paved the way for a passage from physical to physiological considerations; for it led to the hypothesis of "specific energies" in the nerve-fibres.

Ere we pass to the epoch-making transformations of last century, two movements, discredited in many ways it is true, yet of importance as preparatory, demand recognition. It may astonish us to find that they are phrenology and physiognomy. Gall and Spurzheim, both physicians, substituted for the descriptive and introspective faculty-psychology an anatomical scheme analogical essentially in result. They concluded that the faculties can be localised in definite portions of the brain, and that these, in turn, can be traced by reference to the surface formation of the skull. Phrenology created widespread interest early in the ninetenth century — witness George Combe (1828) in Edinburgh, who, it may be interesting to relate, received a call to the chair of philosophy in the University of Michigan, or Caldwell and Godman in this country. Through a long series of fluctuating fortunes their suggestions became effective finally as elements in a scientific 'physiological' psychology when Broca (1861) located the brain-centre of speech; and, ever since, thanks to the labours of Hughlings Jackson, Ferrier, Golz, Hitzig and many others, this has provided

an important sphere of study to 'physiological' psychology.

In similar fashion, the observations, opinions and speculations of Lavatar, in his *Physiognomische Fragmente* (1772), produced a *furore;* elicited Sir Charles Bell's famous *Essay on the Anatomy of Expression* (1806), with its theory of the relation between intellectual power and the facial angle; and, at last, attained complete scientific consecration in Darwin's masterly book, *Expressions of the Emotions in Man and Animals* (1872). Thus positive error and misleading half-truth sometimes serve to raise problems which, otherwise, might have failed to gain hearing. One may conclude fairly, then, that questions about the relation of body to mind were in the air throughout the entire course of the eighteenth century and, at its close, had begun to become urgent.

III.

At this juncture philosophical activity assumed unprecedented proportions and left a solid deposit destined to a constructive influence which, I fear, too few scientific men recognise to-day. The years 1780-1840 witnessed an efflorescence of speculative thought unparalleled in western history save once — in that wonderful century (422-322 B. C.) when Socrates, Plato and Aristotle se-

cured for the Greeks a far more permanent and formative hold over mankind than was ever achieved by Aristotle's amazing pupil, Alexander the Great. As at Athens, so in the modern period, transitive intellectual personages are legion. Here it must suffice to mention Herder, Fichte, Schelling, Hegel, Herbart and Beneke. Fichte's previsions of a social science, Schelling's widespread sway over nascent physiology and medicine, and Hegel's splendid mission, as founder of contemporary critico-historical and comparative studies that have altered the face of human nature, must be suppressed now. But, for psychology, Herder, Herbart and Beneke present matter of real import.

Herder possessed that rarest of endowments, a seminal mind. His thought scattered seeds everywhere, which have come to fruitage since in philology, comparative religion, anthropology and psychology, to name no others. Genetic conceptions inspired him, and his command of enormous reading enabled him to illustrate them concretely, if sporadically. Under the influence of Albrecht von Haller, the eminent Göttingen naturalist, who founded experimental and brain physiology, he foresaw the necessity of physiological research for psychology. "According to my thinking," he wrote, as early as 1778, "there is no psychology possible which is not at every

step definite physiology. Haller's physiological work once raised to psychology, and, like Pygmalion's statue, enlivened with mind, we shall be able to say something of thought and sensation." No less remarkable is the following, in its prophetic insight; "Among millions of creatures whatever could preserve itself abides, and still after the lapse of thousands of years remains in the great harmonious order. Wild animals and tame, carnivorous and graminivorous insects, birds, fishes and man are adapted to each other."

But, admitting Herder's vision to the full, his main title to a distinct place in the historical line of psychologists supplies the reason why, strange as it may seem, we must dismiss him briefly in the present context. The most recondite and, at the same time, most potent quality of self-consciousness is its eerie power of objectification. Students brood upon this increasingly, sciences like historical criticism, sociology and æsthetics offering testimony. Men bandy words about the "social mind," about "mob psychology," about a "national or epochal *ethos*," and so forth. Customs and institutions, myth and religion yield palæontological records, not of individual men, but rather of humanity, a kind of compost of individuals. But the implications hinted here receive their most striking manifestation in language. Herder, to give him his due, must be saluted as the herald of

Völkerpsychologie and of *Sprachwissenschaft.* So he stands aside from the line under examination. For, even if it be recalled that phonology can be classed as a physiological science, the matter terminates there. Great as have been the contributions of W. von Humboldt, Bopp, Grimm, Max Müller and their co-workers, and much as has been accomplished by Waitz, Lazarus, Steinthal, McLennan, Spencer, Lubbock, Tylor, Frazer and Westermarck, all sit more or less loose to 'physiological' psychology, which continues to be an investigation of individual far more than of group processes. Thus, attractive and suggestive as Herder is, perforce we rest content now with the bare reference to what I have had the temerity to call his seminal mind.

When we arrive at Herbart and Beneke the case presents a different aspect. For they stand forth among the last great psychologists who deal with mind as mind, to the exclusion of modern experimental methods applicable chiefly to the body. After a manner their services pale in the glow of the contemporary atmosphere; their work has been bemused by pedagogists, misprized overmuch by psychologists, even if, as Wundt says, he owes most to Kant and Herbart, and even remembering the researches of Herbartians like Drobisch, Volkmann, Exner, Strümpell, Cornelius and R. Zimmermann.

Note, at the outset, that Herbart (1776-1841) and Beneke (1798-1854) revolt strongly against the dominant Hegelian school, and that both attempt a *concrete* study of consciousness. On one point they differ radically. Herbart's psychology, as the title of his chief work runs,— *Psychology as a Science, founded, for the first time, upon Experience, Metaphysics and Mathematics,*— possesses a triple basis. Beneke excludes the second and third, emphasising experience as the sole legitimate foundation. In this respect he takes a pioneer place among those who raised the later cry, "Back to Kant!"

Thanks to the limits of this paper, Herbart's metaphysical doctrine must disappear with a word. He held that the soul, in its own proper nature, forms an original, changeless and simple entity. Psychological processes originate in its resistance to intrusion from the outside, therefore, the complexities of consciousness, just because they are *complex,* fall within the reach of analysis. As results of mechanical interaction they lie open to mathematical methods. Such procedure, of course, leads straight to experience, and, on the whole, it may be affirmed that, as his psychology prospers, the direct influence of his metaphysic wanes. In this way a long step towards psychology viewed as a natural science be-

comes easy. Let us try to see how Herbart presaged such tendencies.

He denies that consciousness consists in a bunch of faculties. Mind persists as a system of concrete relations between its constituent parts. These parts interact mutually, and therefore stand in mechanical relations to one another. As thus related, they constitute a unity of "presentation" which *resists* "arrest of any of its components." Accordingly, "presentations" may form series; these series, in turn, may arrest or strengthen, and shorten or intertwine, mutually. While the simple substance of soul (metaphysical) remains unknown qualitatively, its activities, in its processes of self-maintenance, afford the states of consciousness which psychology studies. In this respect the soul happens to be identical with all other "reals" which, in sum, make Herbart's universe. Therefore, methods peculiar to the positive sciences find application, and mathematical analysis becomes a chief instrument of discovery. Further, the opposition between "presentations" transforms states of consciousness into forces, with the result that a statics and dynamics (mechanics) of mind emerge. It is feasible, accordingly, to *calculate* the equilibrium and movement of "presentations." So, conformably to science, Herbart frames hypotheses and tries to establish them by mathematical methods. He sets himself to show

accurately how the indeterminate manifold of sensation, as envisaged by Kant, and the multiplicity of ideas as set forth by the faculty-psychology, come to an organic unity in appercipient self-consciousness. In a word, the proper study of psychology is mind which, again, consists precisely in those transforming processes known collectively as "apperception." A very apposite delimitation of the psychological field, one would add. And it is both interesting and important to note that, in his theory of apperception, above all else, Herbart continues to resound in contemporary psychological thought. His connection with the modern movement, though by no means clear on the whole, appears in special tendencies: — first, in his complete acceptance of the method of regressive analysis; second, in his appeal to experience; third, in the attention which he has compelled to the possibility of mathematical applications in this unstable sphere; fourth, in his gradual drift away from his own metaphysical basis as he wrought to render psychology a natural science — to prove that, in mind, as everywhere, natural law reigns supreme.

Notwithstanding all this, his opposition to anything in the nature of a 'physiological' psychology seems certain. For this curious hesitation reasons must be sought, not in any antagonism peculiar to Herbart himself, as some recent experi-

mental enthusiasts, blind to history, have hastily supposed, but in the general perspective of his age. Like many of his followers, he was a partisan enemy of the speculative philosophy that ruled Germany, and he paid the inevitable price. His judgment on certain scientific developments became warped. He noticed that Schelling's *Naturphilosophie* exercised profound influence upon contemporary biological science. Physiology behaved like an ally of idealism, therefore he would exclude it rigidly from psychology, as a sure source of trans-experiential contamination. On this he spoke with no uncertain sound — physiology, as he saw it, was a dangerous friend for a mathematico-empirical psychology. "Physiology, as an empirical doctrine, has attained a height which nobody can despise. Moreover it proceeds in the light of modern physics. Nevertheless, it has eagerly sucked up, as the sponge sucks up water, that philosophy of nature which knows nothing, because it began by construing the universe *a priori*. Towards this error no science has proved so weak, so little capable of resistance, as physiology." The very end for which Herbart toiled so strenuously is obscured from him by his suspicion of physiological tendencies. Truly, the Time-spirit plays us humans queer tricks!

Free from these fears, Beneke brought psy-

chology another stage nearer science. He excluded Herbart's metaphysic, demanded concrete treatment of consciousness as the one road to real knowledge, and placed all the other philosophical disciplines in a position of dependence upon psychology. His pivotal doctrine exhibits clearly the possibility of scientific procedure in psychology. It may be put as follows. Experience presents two sides — an "outer" and an "inner." The former consists of sensational phenomena, or as Hume would have said, "sensations, passions and emotions as they make their first appearance in the soul." The latter includes everything that relates to memory, imagination, thought and ratiocination. Thus science, which deals with the "outer," reaches indirect knowledge of being, while psychology, thanks to its immediate contact with its object ("inner"), arrives at knowledge of true reality. Consequently, by analogy from our own selfhood, we can acquire relatively sufficient knowledge of other men, this sufficiency dwindling, so to speak, as we descend the scale of existence. Accordingly, positive science is confined to observation, but psychology considers knowledge — an inference from this same observation. Therefore the methods of science apply as much in the one sphere as in the other. In short, consciousness originates the dualism between

soul and body, mind and objects. Corporeal processes become conscious in us, and thus fall under direct perception: —

"There is no kind of corporeal process which cannot under certain circumstances become conscious, and as a conscious thing be perceived by us directly. . . . Such a revolutionary change of a thing usually not a psychical apprehension to a psychical apprehension, would be unthinkable were it the case that their being was in fundamental opposition: we are thus led all the more to the conclusion that both kinds of powers in their innermost nature stand very close to one another, and that for the explanation of their inner coherence and interaction no artificial hypotheses are requisite."

Evidently, then, psychology investigates all that we apprehend through internal perception. If we apprehend anything by external perception, it must submit to transmutation by the "inner," in order to enter into experience as an effective component. I am unable to see that any other meaning can be read into this view than that formulated in the current theory of psycho-physical parallelism. Causal connection between body and body there is none; and the contrasts in our inner experience of them reside in apprehension, never in actual reality. The plain business of psychology, therefore, consists in applying observation,

experiment and hypothesis to the "inner." Just as with science, regressive analysis supplies the methods.

Beneke concludes that psychological processes present themselves as complexes fashioned from four primary factors. These are: (1) The transmutation of sense "excitations"; (2) the formation of new "powers"— analogous, it may be said, to the growth of new tissue; (3) the redistribution of "excitations" (sensuous) and of these new "powers" or products themselves; (4) the interpenetration of homogeneous products, according to their degree of homogeneity. Obviously enough, redistribution, or transference, within the psychological complex, forms the dominant feature; and its remarkable similarity to modern energistic conceptions or, as Professor Titchener remarks acutely, "to the process by which one body becomes cooler by communicating heat to another," needs no comment. Whatever one may think of Beneke's special doctrines, he stands to his material in the attitude of a positive scientific investigator. If Herbart worked like a mathematical physicist, Beneke works like a biologist. Indeed, he reminds one of the French school of so-called 'organicists'— Bichat, Claude Bernard, Delage and, perhaps, Roux. I think a specious case could be framed for a parallelism between Beneke's teaching and Claude Bernard's

biological conclusion, especially as formulated in the second *Leçon* in the first volume of his *Leçons sur les Phénomènes de la Vie* (1874), which contains the striking declaration: "la fixité du milieu intérieur est la condition de la vie libre indépendante." Be this as it may, Beneke brought psychology within the field of scientific inquiry. Like Herbart's, his conclusions might be stigmatised, but that both made preparatory contributions there can be little reasonable doubt. The *attitude* they adopted is of the essence of the matter. And one ought to add that the presence of unconscious or subconscious factors in the physical process, a highly significant phenomenon, follows from the situation as contemplated by them.

IV.

This brings us at length to the true physiological line, and to the rapid assimilation of psychology to positive science. The starting point lies in that French group whom Napoleon nicknamed contemptuously, *les Idéologues:* Cabanis, de Tracy, Laromiguière, and Maine de Biran. Cabanis and de Tracy were the leaders in all essentials. Their movement formed part of the mighty revolutionary upheaval. By analysis of sensations and ideas they proposed to discover a method of remoulding society, government and education for prac-

tical purposes. De Tracy (1754-1836) elaborated what Beneke would have termed the "inner" side of ideology. His noteworthy efforts lie in the fields of language, grammar and logic, of economics and government, of morals and education. Yet the influence of science upon him, as upon his fellows, produced results that should receive notice here. He anticipated Comte in the view that knowledge, properly so called, consists in an organised system of the sciences; "positive science," as he declares, and to him, more than to Comte and his pupils, we owe this term, now beatified. In the second place, and coming to the physiological reference, he was the first to recognise the importance of muscular activity as a factor in consciousness. This formed his point of contact with Cabanis, who studied what Beneke would have called the "outer"— the physiological accompaniments of pyschological processes.

Cabanis (1757-1808) inherited the English sensational tendencies represented in France by Condillac, but he added that acquaintance with the human body which he acquired as a physician. In his person the philosophical and physiological lines coincided. His principal work, *Rapports du Physique et du Morale de l'Homme,* grew out of a series of papers read before the French Institute and published in its proceedings for 1798-99. So far as he possessed any consistent

philosophical standpoint, Cabanis was a pantheist (and, therefore, in speculative physiology, a vitalist), as his posthumous *Lettres sur les Causes premières* (1824) and his discussion of the Stoics in the *Rapports* show. Nevertheless, later materialists find precedent for their most striking metaphor in his pages. As the liver secretes bile and the kidneys urine, so the brain secretes thought; thus ran Karl Vogt's raucous challenge (1847). Cabanis employed the very phrase "secretion of thought" which, as his editor, Peisse, says, "has remained celebrated." But the classical passage, also in the *Rapports,* reads as follows: "In order to arrive at a correct idea of those operations from which thought arises, we must consider the brain as a particular organ, destined specially to produce it in the same way as the stomach and the intestines are there to perform digestion, the liver to filter the bile, the parotid, maxillary and sublingual glands to prepare the salivary juice." This is the clear summons to a 'physiological' psychology. Very naturally, Cabanis aimed to supply what Condillac had omitted. Condillac's sensationalism, like that of the English school, found basis in the external senses. It therefore missed those organic and internal changes which physiology alone could set forth. Accordingly, Cabanis insisted that multitudes of impressions proceed continually from the internal

organs to the brain, and that the conditions of the cerebro-spinal system form a determining factor in this process. Or, to be more emphatic, as it continues to maintain its unstable equilibrium, the organism originates *vital feelings within itself* — feelings that bear no direct reference to the external world. That is, the impressions of Locke and Hume do not play upon a *tabula rasa,* but are met, and twisted, by these organic feelings. The unconscious joins up with the conscious. Of this process instinct offers a conspicuous example. Here, primordial experiences, traceable to the embryo, provide a foundation of organic sensation which (in the light of the doctrine of evolution) would explain away psychological processes as automatic — as epiphenomena of the bodily substrate. In this respect Cabanis was a prophet. Nevertheless, despite his studies of age, sex, temperament, sensibility, irritability, habit, climate, the fœtus and instinct, he fails to work through his great theme with the necessary grasp upon detail. His epoch would not let him. Yet he saw the promised land afar off. For, to him, psychology was already a natural science. It traffics with phenomena, never with metaphysical realities, and its material must be found in the relation of mental states to physiological conditions. Hampered everywhere by contemporary ignorance of nervous anatomy, he still contrived to formulate a vivid

and convincing psycho-physiological *schema,* for which, we may as well confess, due praise has never been accorded him. Physiology passed to another land, and he fell into an oblivion rather discreditable to the historical insight of those who came to elaborate his anticipations.

Plainly a 'physiological' psychology cannot emerge in absence of a physiology. The numerous accessions of physiological knowledge during the last seventy years tend to obscure the unpropitious outlook at the dawn of the period. Referring to the time (1841) when he became *préparateur* to his distinguished predecessor, Magendie, at the Collège de France, Claude Bernard drew a gloomy picture. The established 'natural history' sciences — geology, botany, zoology — possessed fair equipment, particularly on the museum side. While chemistry, thanks doubtless, to Liebig's activity at Giessen, made rapid strides. But physiology enjoyed no such advantages, was opposed, indeed, even by a genius of the calibre of Cuvier. "So soon as an experimental physiologist was discovered he was denounced; he was given over to the reproaches of his neighbours and subjected to annoyances by the police." Sir Charles Bell had set forth the contrasted functions of the anterior and posterior roots of the spinal nerves (1807), but had given no experimental proof: and Marshall Hall (1835)

had discovered the reflex function of the spinal cord. But no group of investigators had arisen such as was to place Germany in the leadership. Her preëminence, unchallenged still for 'physiological' psychology, dates from the life-work of Johannes Müller, and his profound influence, especially at Berlin, from 1833 till his death, in the year before *The Origin of Species* (1859).

At this date the intellectual condition of Germany may be called unprecedented without exaggeration. And the fate reserved for unique things has overtaken it. Later men, particularly on the scientific side, have heaped on it multiplied misunderstanding or even obloquy. Despite the bluster of those who have never studied their works, Schelling and Hegel were no day-dreamers, evolving camels from inner self-consciousness. Both were great men, and Hegel ranks among the few marvellous intellects of history. But both suffered from their very success. Hegel's philosophy formed the seedplot of that comparative and critical *Wissenschaft* for which human history supplies the material. As these disciplines developed, the defects of the Hegelian system became more and more irremediable. Yet, the system lacking, the sciences could not have come to birth. Schelling stood in similar case. German science from 1797, the year of the publication of his *Ideen zur einer Philosophie der Natur*, till

1830 or thereby, drew inspiration from his humane, if vaulting, spirit. Alex. von Humboldt, as his biographer Bruhns points out, attempted "by means of a comprehensive collation of details, and the institution of the most searching comparisons, to give a scientific foundation to the ideal cosmology of Herder, Goethe, Schelling and their disciples." Further, Schelling stimulated Carus, the comparative anatomist; Oersted, the father of electro-magnetism; Kielmeyer, an anticipator of biogenesis; I. Döllinger, of Würzburg, who inoculated von Baer with genetic ideas; von Baer himself, who, more objectively than any other scientific man, has estimated the *germinal* significance of the *Naturphilosophie;* Liebig, the pioneer of laboratory methods in chemistry; Johannes Müller, the first main constructive power in modern physiology; Kiser, the early exponent of plant phytotemy; Schönlein and Röschlaub, leaders in the remarkable band who founded the Berlin school of medicine. Nay more, his power burst forth again, significantly for psychology, as a factor in the equipment of Fechner. Thus, like Hegel, Schelling paved the way for his own fall, by sending others to search out the secrets of nature. Accordingly, even if the vagaries of Oken alienate, and if Steffens' analogies between the catastrophies of the human spirit and the disturbances of the earth's crust furnish queer geology, there

were no call to 'swear at large,' to rush around shouting 'vitalism!' or otherwise to evince complete lack of the balance necessary to an estimate of the crisis. Somnambulists haunt the fringes of all movements, but we fool ourselves when we take them for prototypes. New ideas ever were heady; this happens to be the price set upon their power to reveal unsuspected problems, as Schelling and his galaxy of scholars did.

Johannes Müller, then, found himself born into this romantic age. He tended the new scientific spirit to budding, but, unlike von Baer, he died ere it blossomed. Speaking under reservation, as an ignorant man must, I would venture to suggest that he did not enter fully into Hegel's epoch-making idea of *process*. So far as I can comprehend his activity, he was a student chiefly of the organism in gross, that is, a morphologist, rather than an investigator of vital processes, a physiologist. His importance lay in his ideals more than in his results. "A profound teacher," as his pupil Helmholtz declared, he created an atmosphere which his pupils breathed, and he lives in their splendid work rather than in any single achievement of his own. In essentials this atmosphere held the modern perspective. For, although, as du Bois Reymond has recorded, he "assumed the existence of a vital force . . . which in organisms acts the part of a supreme

regulator," this 'force' ruled the realm of the unknown only. In all that could be mastered by contemporary methods and means Müller accepted the physico-chemical view. His studies of nutrition, animal heat, motion and reflex action, his contributions to acoustics and the phenomena of speech embody, not simply his own work, they also supply a masterly unification of previous knowledge. But, especially as concerns 'physiological' psychology, his major result was undoubtedly his doctrine of "specific energies." No matter what the stimulus, the same nerve always originates the same sensation. "Müller's law of the specific energies marks an advance of the greatest importance . . . and is, in a certain sense, the empirical exposition of the theoretical discussion of Kant on the nature of the intellectual process in the human mind." Of course, Müller's views drew criticism, but for us now *the* point is that they started activity which, bit by bit, built 'physiological' psychology into a science.

Fortunate in his disciples — Brücke, Helmholtz, du Bois Reymond, Ludwig, Czermak, Donders (most teachers would forego all personal glory gladly to obtain such human material) — Müller enjoyed luck in the contemporary course of events. For a science more developed and surer of itself than physiology was about to join forces with the newer branch. Magnus, his Berlin

colleague in physics, became the focal point of a movement to which Mitscherlich, Liebig, Ohm, F. Neumann, and the brothers Weber all contributed, the first and last notably. The sobering drill of hard, experimental fact gained recognition here. Or, as we say in philosophy, the prose of Kant was added to the romance of Schelling. For 'physiological' psychology the steadying influence came most through Ernst Heinrich Weber, of Leipzig (1795-1878). Weber, with his younger brothers, Wilhelm and Eduard, worked from the first along distinctively modern lines. The speculative thought, prevalent in his youth, seems to have passed over his head. Exact experimental methods came naturally, as it were, to him and to his brothers. From early life they employed mechanical and mathematical analyses in dealing with physical, physiological and psychological phenomena. Kunze, Fechner's nephew and biographer, goes so far as to say, "They were among the first to raise the study of nature among Germans to the eminence occupied by the philosophers and discoverers of the Latin races." Their first joint research is typical of this. In the *Wellenslehre auf Experimente begründet* they add to Chladni's acoustic theory a parallel account for light, which leads substantially to the inference of an elastic ether. Prior to this, Weber had published researches on the *Comparative Anatomy of*

the Sympathetic Nerves (1817) and *On the Ear and Hearing in Men and Animals* (1827). His psychological contributions appeared in Wagner's *Handwörterbuch der Physiologie,* Vol. III., part 2 (1831), and in the *Archiv für anatomische Physiologie* (1835). The classical paper, *Tastsinn und Gemeingefühl,* was printed in the former and published separately in 1851. Weber here applied the method of least observable differences to sensations of pressure and to the measurement of lines by the eye. These experiments resulted in the generalisation to which the name "Weber's Law," or the "Fechner-Weber Law," or the "Psycho-physical Law," has been given. Referring to this discovery, in the preface to the first great book on 'physiological' psychology, Fechner affirms: "The empirical law which forms the principal foundation, was laid down long ago by different students in different branches, and was expressed with comparative generality by E. H. Weber, whom I would call the father of psychophysics." The law summarises mathematically the relation between physiological stimulus and psychical sense-perception. It is based on the fact, familiar in common experience, and now authenticated by numerous observations and experiments, that the difference between two sensations bears no direct proportion to the actual difference between their stimuli. Granted that the

least observable difference be a constant, then, the strength of sensations does not grow in proportion to stimulus, but much more slowly. Weber's experiments were directed towards measuring the *exact* proportions, and involved comparisons of lines by the eye, of weights and of tones. The resultant generalisation has been formulated in various ways. The most direct are as follows: "In order that the intensity of a sensation may increase in arithmetical progression, the stimulus must increase in geometrical progression"; or, as put more briefly by Fechner, "the sensation increases as the logarithm of the stimulus"; or, as Delbœuf has it, "the smallest perceptible difference between two excitations of the same nature is always due to a real difference which grows proportionately to the excitations themselves." Like all laws, so-called, this one is an abstraction from experience. Consequently, it has been subjected to various interpretations, has been transformed and criticised, and even denied. Again, like all laws, so-called (*e. g.*, Boyle's Law), it holds good only within limits, and round this aspect of the matter multitudinous experiments cluster. Whatever psychological experts may consider to be the present status of the conclusion, Weber's withers are unwrung. His crowning achievement was to have shown that measurements and mathematical methods *can* be applied in this

region of experience. He thus served himself the founder of the Leipzig line, the torch passing from him to Lotze, then to Fechner, and finally to Wundt.

As at the beginning of modern European thought, in Descartes, Spinoza, and Leibniz, so here in the Leipzig men, philosophical insight and power were joined to scientific competence. I, therefore, leave them for a moment to take a glimpse — it can be no more — at the strictly scientific interest as we see it illustrated in Johannes Müller's greatest pupil, Helmholtz (1821-94).

Helmholtz ranks not simply with the foremost scientific intellects of the nineteenth century but with the master minds of all time. His range, grasp and insight combined to render him monumental. A contributor to at least eight sciences, — physics, physiology, mathematical physics, meteorology, medicine, chemistry, anatomy and æsthetics — in three of them he stands high among the foremost. More than this, as Volkmann has recalled, " one of his chief merits was to establish a harmony between the vast accumulation of facts that characterised the period comprehending the middle of this century and the more theoretical studies." Besides, he possessed unusual manipulative skill, his inventions of the ophthalmoscope and ophthalmometer alone would have assured any ordinary reputation. Above all, he was a

humanist, being an accomplished musician, an art critic, and acquainted with the trend of philosophical thought. His discoveries of classical grade amaze one by their thoroughness and versatility. The conservation of energy; the mechanism of the lens of the eye in relation to accommodation; the movements of the eyeballs with the attendant problems of binocular and stereoscopic vision; the profoundest questions of hydrodynamics, thermodynamics and electrodynamics, the last culminating in the revelations of his favourite pupil, Heinrich Hertz; the axioms of geometry; the dark places of meteorology; the deeps of physiological optics and of mathematical physics, all bear witness to his profound, masculine and subtle intellect. But, for our present study, the palm must go to his long struggle with the difficulties of sensation and perception. These absorbed his principal attention from 1852 till 1867 and, in a lesser degree, till his death. He laid the foundation characteristically by his inquiries into the rate of nervous impulse in the motor and sensory nerves, about 1850, and his first paper, on sensation proper, followed in 1852. These labours were crowned magnificently by the publication, in 1863, of his *Sensations of Tone,* and, in 1867, of his *Physiological Optics* — masterpieces both. The former, which involved the most complicated research, has earned the title, " the *Principia* of acoustics," and

must be studied long to be appreciated. For, it not only ranged over the entire subject but, incidentally, raised important problems that belong elsewhere, especially to the domains of phonology and æsthetics. Questions about the quality of the human voice and the absolute pitch of vowel sounds lead us away from physical and physiological laboratories to a very different environment. Similarly, the *Physiological Optics,* with the Young-Helmholtz theory of colour, presents investigations about which psychologists are bound to trouble for many a day.

Thus, the significance of Helmholtz's career may be traced to his combination of the mathematical and exact-scientific with the humanistic interest, a union to which we may attribute our greatest advances alike in science and in intellectual insight. And this fitted him rarely to execute work of abiding value for 'physiological' psychology. No one has contrived to reach better results in those unplumbed reaches of experience where the joint action of body and mind can be studied with a measure of success. Proceeding from the theory of "specific energy" of his master Müller, he wrought it out in detail, eminently for the mechanism of sight and hearing, by experimental methods and by mathematico-physical analyses. Upon the romantic interest in nature stimulated by Schelling he superimposed the critical processes of Kant,

armed with all the resources of the most delicate apparatus and rigid analytic procedure. This coalition of endowment and outlook continued in the three leaders who were destined to build pyschology into an independent science — Lotze, Fechner and Wundt.

V.

Lotze's (1817-81) career as an author opened in 1841, and his psychological contributions relevant to the present theme came to an end practically in 1852. Thereafter, save for a few articles, he devoted himself to the elaboration of his highly significant philosophical system. He therefore antedated the work of Helmholtz. A prominent figure in the bitter controversy over vitalism and materialism (1847-60), he suffered grave misunderstanding; nevertheless, thanks to lapse of time, his psychological position admits of no doubt.

The son of a physician, Lotze entered the University of Leipzig to prepare for the paternal profession. Under the influence of Weisse he became interested in philosophy, and, upon graduation, qualified as *Docent* in both the medical and philosophical faculties. Till 1852 the studies proper to the former predominated, philosophy claimed him later, and his system represents more symptomatically than any other the stress resultant upon the cross-currents of modern thought. It is

meaningful that he occupied successively Herbart's chair at Göttingen and Hegel's at Berlin.

In 1842 he took a decided stand, or even lead, in the vitalist controversy, and also published his *General Pathology and Therapeutics as Mechanical Sciences.* His *General Physiology of the Corporeal Life* appeared in 1851 and, in the next year, the work of importance for us now — *Medical Psychology, or Physiology of the Soul.* Viewed in the perspective of cultural development, especially in Germany, his position seems quite evident. Here is his own statement of it:

"We have two kinds of scientific knowledge. We know, on the one hand, nature, the essence of the object studied; on the other hand, we know only the external relations that are possible between it and other objects. In the first kind of knowledge, there is a possible question of a *cognitio rei* only when our intelligence apprehends an object, not simply under the form of external being, but in an intuition so immediate that we are able, by our senses and ideas, to penetrate its peculiar nature, and consequently, to know what ought to be, according to its internal and specific essence, the order of such a being. On the contrary, the other kind of scientific knowledge, the external, *cognitio circa rem,* does not penetrate to the essence of things, but consists mainly in a clear and precise apprehension of the conditions under

which the object manifests itself to us, and into which, in consequence of its variable relations to other objects, it is regularly transformed."

Prior to Lotze's generation, philosophy had shaped scientific learning, leaving, at the same time, a large field open only to strict scientific treatment. In his person, science shapes philosophy, leaving, at the same time, a large field open only to strict philosophical treatment. One is surprised that such a simple explanation should have escaped notice, and that a presentation of Lotze so fantastic — almost impertinent — as that of Ribot, for example, should have been perpetrated. Lotze's ability to see both sides of a problem, and his consequent sense for the limits of 'physiological' psychology (which, in my humble judgment, remains completely justified still in essentials), provide the clue to his attitude. So, he really presents two kinds of psychology. The one would investigate the factors, combinations and mechanism of consciousness; the other would consider the import of consciousness, and the end (if any) which it subserves in the universe. To understand the latter it is necessary to master his very subtle cosmology (*Metaphysics,* Bk. II). The former *is* 'physiological' psychology, and has been presented more particularly in Bks. II. and III. of the *Medical Psychology.* Here Lotze writes as a scientific man, and the "conception of

a psycho-physical mechanism" suffices; that is, physical, chemical and physiological causality rules. Thus, he regards "physiology of the soul as an exposition of the mechanical conditions to which, according to our observation, the life of the soul is attached." "The conception of a psycho-physical mechanism can be stated as follows: As ideas, volitions and other mental states cannot be compared with the quantitative and special properties of matter, but as, nevertheless, the latter seem to follow upon the former, it is evident that two essentially different, totally disparate, series of processes, one bodily and one mental, run parallel to each other. In the intensive quality of a mental process the extensive definiteness of the material process can never be found; but if the one is to call forth the other, the proportionality between them must be secured through a connection which appears to be extrinsic to both. There must exist general laws, which ensure that with a modification (*a*) of the mental substance a modification (*b*) of the bodily substance shall be connected, and it is only in consequence of this independent rule, and not through its own power and impulse, that a change in the soul produces a corresponding one in the body. . . . It is quite indifferent to medicine wherein the mysterious union of soul and body consists, as this is the constant event which lies equally at the bottom of all phenomena. But

it is of the greatest interest to medicine to know what affections of the soul are connected in that mysterious manner with what affections of the body." Accordingly, his phenomenal psychology was guided by competent knowledge of physics and physiology, the latter, as we must recall, being a subject which he actually professed. His speculative psychology, dealing with the mysterious union, falls within his philosophy.

The third book of the *Medical Psychology*, which still holds lessons for the physician, deals with such subjects as sleep, attention, emotion, the influence of the flow of consciousness upon secretion, nutrition, and instinct, and with abnormal psychology. The second book reviews the factors of self-consciousness, especially in the light of the relation between the physiological mechanism and the mind. It thus includes his most distinctive contribution to 'physiological' psychology — the famous theory of "local signs." This is an integral part of his analysis of space-perception, one of the subtlest ever formulated. His latest presentation of it runs thus:

"Let it be assumed that the soul once for all lies under the necessity of mentally presenting a certain manifold as in juxtaposition in space; How does it come to localise every individual impression at a definite place in the space intuited by it, in such manner that the entire image thus intuited

is similar to the external object which acted on the eye?

Obviously, such a clue must lie in the impressions themselves. The simple quality of the sensation 'green' or 'red' does not, however, contain it; for every such colour can in turn appear at every point in space, and on this account does not, of itself, require always to be referred to the one definite point.

We now remind ourselves, however, that the carefulness with which the regular position on the retina of the particular excitations is secured, cannot be without a purpose. To be sure, an impression is not *seen* at a definite point on account of its *being situated* at such a point; but it may perhaps by means of this definite situation *act* on the soul otherwise than if it were elsewhere situated.

Accordingly we conceive of this in the following way: Every impression of colour 'r'—for example, red—produces on all places of the retina, which it reaches, the same sensation of redness. In addition to this, however, it produces on each of these different places, *a, b, c,* a certain accessory impression, α, β, γ, which is independent of the nature of the colour seen, and dependent merely on the nature of the place excited. This second local impression would therefore be associated with every impression of colour 'r,' in such a manner that rα signifies a red that acts on the

point, *a*, rβ signifies the same red in case it acts on the point *b*. These associated accessory impressions would, accordingly render for the soul the clue, by following which it transposes the same red, now to one, now to another spot, or simultaneously to different spots in the space intuited by it.

In order, however, that this may take place in a methodical way, these accessory impressions must be completely different from the main impressions, the colours, and must not disturb the latter. They must be, however, not merely of the same kind among themselves, but wholly definite members of a series or system of series; so that for every impression 'r' there may be assigned, by the aid of this adjoined 'local sign,' not merely a particular, but a quite definite spot among all the rest of the impressions. The foregoing is the theory of 'Local Signs.'"

The best anatomical and physiological researches fail to reveal spatial order as inherent in sensation; and, even if this ignorance be due to the impossibility of following up the evolutionary regress, it is a real difficulty. Lotze therefore concluded that "localisation in space belongs to the unconscious product of the soul's action through the mechanism of its internal states." We gain a *field* of *vision* from an *ensemble* of 'local signs' and, as concerns tactile sense, the same thing hap-

pens, the functions of the corpuscles of touch being like those of the cones and rods of the retina in sight. As a result, our notion of the extended originates in a perception of *qualitative* differences, from which the mind, by its own power of transformation, constructs extensive relations. Later researches into the structure of the peripheral nerve terminations seem to confirm, rather than undermine, the hypothesis. That it is a typical example of the limitations of hypothesis Lotze acknowledged quite frankly. But he claimed, with justice, that it explained the actual phenomena better than any other theory. As a consequence, even if modified, it has been incorporated in 'physiological' psychology, and, especially as regards vision and touch, must be reckoned with still. To sum up — the point is this: Lotze held that every sensation, say, of colour, was accompanied by an "accessory impression" of locality. The facts made it necessary to assume this "accessory impression." Now, just because it happens to be an assumption, it lies open to several interpretations. In other words, the principle of the hypothesis may stand, but opinions as to the way in which it may be read can differ widely. However this may be, more than any other psychologist, Lotze has laid bare the numerous pitfalls surrounding the explanation of a psychological fact so obvious and common as space perception.

Nascent sciences present a certain family likeness in their life-history. Commonly, they begin as special inquiries, somewhat off the traditional lines, in the science which bears close or closest affinity to the future discipline. Such movements continue lonely for a time, systematisation being difficult or unattainable till many facts have been collected. To the point reached now, we see this stage predominating in 'physiological' psychology. Physics and anatomy, physiology and philosophy present special departures towards psychology, but a unification of the last still lacks. The final step must be associated always with the names of Gustav Theodor Fechner and Wilhelm Wundt (the latter more emphatically), who, building on the accumulations of their predecessors, at length gave the new science definite status.

Fechner (1801-87), like Lotze, studied medicine at Leipzig, where he became professor of physics in 1834. Like Lotze, too, he was an expert in philosophy. Both were "masters in the use of exact methods, yet at the same time with their whole souls devoted to the highest questions, and superior to their contemporaries in breadth of view as in the importance and range of their leading ideas — Fechner a dreamer and sober investigator by turns, Lotze with a gentle hand reconciling the antitheses in life and science." In a fashion Fechner's psychology is more intimately

connected with his philosophy than Lotze's, and his philosophico-psychological perspective offers points of strong contrast to Wundt's. Indeed, his definition of psycho-physics — a term original with him — hints as much. "I understand by psycho-physics an exact theory of the relations of soul and body, and, in a general way, of the physical world and the psychical world." Undoubtedly, the psychology may be disengaged from metaphysical entanglements, as Wundt said in his address on the occasion of the Fechner centenary. But, after all, Fechner's panpsychism forms a motive force of his psycho-physics, because, intellectually, he was a double personality. His philosophical theory teaches a universal parallelism between the physical and the psychical. Or, as Nägeli, the botanist, has it:

"Sensation is clearly connected with the reflex actions of higher animals. We are obliged to concede it to the other animals also, and we have no grounds for denying it to plants and inorganic bodies. The sensation arouses in us a condition of comfort and discomfort. In general, the feeling of pleasure arises when the natural impulses are satisfied, the feeling of pain, when they are not satisfied. Since all material processes are composed of movements of molecules and elementary atoms, pleasure or pain must have its seat in these particles. Sensation is a property of

the albuminous molecules; and if it belongs to these, we are obliged to concede it to the other substances also. If the molecules possess anything even remotely akin to sensation, they must have a feeling of comfort when they can obey the law of attraction or repulsion, the law of their own inclination or aversion; a feeling of discomfort, however, when they are compelled to make contrary movements. Thus the same thread runs through all material phenomena. The human mind is nothing but the highest development on our earth of the mental processes which universally animate and move nature."

Fechner had worked out this fundamental theory ere he arrived at his psychological results. We find glimmerings of it so soon as 1835, in the attractive *Little Book on Life After Death,* in the tract *On the Highest Good* (1846); enlarged views in *Nanna, or the Soul-life of Plants* (1848); while the system appears full-fledged in *Zend-Avesta, or the Things of Heaven and the Hereafter* (1851); in 1861 he returned to it in his book, *On the Soul Question,* occasioned by contemporary materialism, and in *The Three Motives and Grounds of Belief;* in 1879 he reaffirmed and restated the position in the remarkable volume entitled, *The Day View and the Night View.* The essence of his teaching may be summed up in the thought that the material or external world is a

half-truth, a concession to the sensuous, rather than an explanation of the psychical.

"However complicated our brains may be, and however much we may feel inclined to attach to such a complexity the highest mental properties, the world is unspeakably more complex, since it is a complication of all the complications contained in it, the brains among them. Why not, therefore, attach still higher mental properties to this greater complexity? The form and structure of the heavens seem simple only when we consider the large masses and not their details and concatenation. The heavenly bodies are not crude homogeneous lumps; and the most diverse and complicated relations of light and gravity obtain between them. That, however, the plurality in the world is also grouped, comprehended, and organised into unity does not contradict the thought that it is also comprehended into a corresponding mental unity, but is in harmony with the same."

Consequently, the physical symbolises the psychical. They are two faces of a single existence. Human research may, therefore, deal with the one or the other, and attain, as it has attained, great success. But the real problem centres in the relation between the two. Of this, 'physiological' psychology is *the* science. Accordingly, you can pursue it *quâ* science, but you must never forget the larger setting whence it cannot be riven.

Proceeding to the psychology, then, note at once that Fechner envisages the problem rather as a physicist than as a physiologist. So, while he suffers from limitations, he gains in precision. Soul and body being a single existence, it is practicable to investigate their mutual functioning and to state the results as laws of nature, which, in turn, are no more than assemblages of observations concerning phenomenal existence. Of course, a developed psychology would endeavour to extend this plan to the entire range of consciousness. Fechner, however, confines himself to a single fundamental point — the relation between stimulus and sensation as generalised in Weber's law; although, just as Lotze before him, he considers other questions in a most suggestive manner, notably, the seat of the soul, sleep and reminiscence. Pursuant to his early conviction, that soul and body are but opposite sides of an identical existence (conscious), he took it for granted that their reciprocal action would be proportional. But this was anticipation, not science. Weber's work led Fechner to test the hypothesis, that the increase of physiological excitation holds the key to psychological changes. And his interest was stimulated by the fact that, if this could be proven accurately, his philosophy would benefit by so much indubitable evidence. Consequently, he was moved to verify Weber's Law by numerous experiments, *physical,* for the

most part. Sensations of pressure and muscular effort, detected by use of weights; sensations of temperature, determined by cold and hot water; sensations of light, detected by the photometer; and sensations of sound, observed by reference to falling bodies, all tended to confirm the same general relation between stimulus and the psychological event. Given what Herbart called a "threshold of sensation," and having fixed this as a constant for each class of sensation, Fechner found it possible to infer, by strict induction, that the intensity of the sensation is equal to the *proportion* of the stimulus, multiplied by the logarithm of the excitation, divided by the threshold of stimulus. In other words, we *can* obtain a formula for the *quantitative* relation of physical and psychological events considered as magnitudes. This formula, which provides a means of measurement, declares that the sensations increase proportionally to the logarithm of the stimulus. As a law, Fechner affirms dogmatically that it applies for internal (psychological) states and, within limits, reasons for which can be given, for external (physiological or physical) conditions. The result was obtained by three methods. (1) The Method of Differences which are Just Observable. This means that the operator finds, first, the least greater or the least smaller stimulus which can just be sensed as different by the subject; and then pro-

ceeds to add increments to this, or, inversely to subtract increments from it, till the intensity or diminution come into clear recognition. Divide the sum of the initial and the altered stimulus and you arrive at the differential of sensibility. (2) The Method of True (Right) and False (Wrong) Cases. Here the operator applies two stimuli, which differ slightly, to the subject, and inquires whether the first is greater or smaller than the second. The replies are recorded; the ratio of true judgments to the total number of judgments gives the measure of sensibility, and varies directly with it. (3) The Method of Mean Errors — or of Probability of Error. Given a stimulus, the subject is asked to add another just equal to the *datum*. He deviates more or less; the probable error of the adjustment, in its deviation from the known mean, affords the direct measure of sensibility. The last, so far as an amateur can judge, would seem to be the most important, because the most accurate procedure. As has been said, the resultant generalisation holds within limits, upper and lower. But this is just what one anticipates in any law of nature. And there is another, much more pertinent, question. Does the law apply to the relation between sensation and neurosis, or merely to that between neurosis and excitation? If the former, it is psychophysiological; if the latter, it is no more than phys-

iological or, strictly, physical. Now this raises precisely *the* fundamental problem: Are sensations measurable? And this, in turn, seems to me to depend upon the possibility of differentiating between sensation and perception (the *manner* in which we experience sensation). So far as I catch the present drift, the *central* difficulty remains *sub judice.* On the other hand, if one be prepared to accept the theory called 'organicism,'— the analogue on the metaphysical side of activism on the ethical,— which declares that our whole experience can only be interpreted as a single vast organism, in which every part bears a relation at once of means and end to every other, it follows plainly, in my judgment, that, if not Fechner's law, then *some* law (possibly not yet known, but operative nevertheless) must be present; and, further, that this law, in certain of its manifestations, is capable of discovery and verification by psycho-physiological methods. You see we must not demand finality from a new science in the first generation of its formal career. At this point pitiful errors have beguiled both critics and advocates. The critic who insists that 'physiological' psychology has nothing to tell is in far too big a hurry to judge; and the advocate who urges that 'physiological' psychology can tell everything forthwith deposes his own subject from its possible place

as a positive science. It is fair to add, as opposed to my own view, that the great American psychologist, William James, states (1) that "Fechner's originality consists exclusively in the theoretic interpretation of Weber's law"; (2) that "the entire superstructure which Fechner rears upon the facts is not only seen to be arbitrary and subjective, but in the highest degree improbable as well"; and (3) that "Weber's law is *probably* purely physical." And he concludes, "the only amusing part of it is that Fechner's critics should always feel bound, after smiting his theories hip and thigh and leaving not a stick of them standing, to wind up by saying that nevertheless to him belongs the *imperishable glory* of first formulating them and thereby turning psychology into an *exact science* (!):

> "And everybody praised the duke
> Who this great fight did win."
> "'But what good came of it at last?'
> Quoth little Peterkin.
> 'Why, that I can not tell,' said he,
> '*But 'twas a famous victory.*'"

This irony need not be taken with too many grimaces. For it merely means that 'physiological' psychology remains in the 'natural history' stage — it is still absorbed mainly in the assemblage of facts. And no one would oppose it were

it not that some foolish partisans, after their kind in all ages, go about to magnify their office. That psychology can never hope to be as 'exact' as physics, or even, mayhap, physiology, seems probable. Yet one attaches little, if any, weight to the remark. For, as physiology ceases to be physiology when it assimilates itself to physics or to chemistry, so psychology ceases to be psychology when it attempts to become physiology, just as sociology, masquerading in the guise of psychology, is no science, but simply a homeless bastard. Sceptical as the conclusion may seem, Fechner, nevertheless, needs no justification, as his work for æsthetics proves abundantly. For, in psychology, as in every science, the investigator assumes the intelligibility of nature; and then, by an attack in detail, attempts to show that natural inter-relations are as his conceptual conclusions anticipated they would be. And from this process no sphere of experience can be held exempt. Doubtless, the application is more difficult in psychology, because there abstraction from either body or mind leads to positive error. But, here, again, we are only saying that, despite all its laboratories and apparatus, psychology remains that new revelation — a philosophical science. And to my mind its first-rate importance grounds in this very fact.

VI.

Now that Herbert Spencer and Eduard von Hartmann have passed away, Wundt stands alone among living thinkers of his generation. The importance of his philosophical contribution ranks second only to his epoch-making career in psychology. Space forbids more than this reference to it; but I may add that, very likely, his philosophical attitude possesses a future. For he heads a movement which portends that a main business of philosophy in present circumstances is to unify and systematise the manifold results garnered piecemeal by the positive sciences.

Born in 1832, Wundt began his academic career as a medical student at Heidelberg in 1851, and continued the same studies later at Tübingen and Berlin, where he resided at the close of Johannes Müller's professorship. In 1856 he worked for a year in the physiological laboratory at Heidelberg under Helmholtz. On the scientific side he came under the influence of Müller, Fr. Arnold (in anatomy), Hasse (in pathology), E. H. and W. Weber, Helmholtz, Lotze, Bain and Fechner. Early in life he also made acquaintance with the philosophical work of Leibniz, Kant, Herbart and Lotze. As stated above, he records that, in psychology, he owes the largest debt to Kant and

Herbart; this explains not a few of his later positions, especially those to which younger men, of purely experimental training, have taken exception, without due appreciation sometimes, I fear, of what exactly they opposed. His life-work as a teacher and investigator has lain at Zürich, and Leipzig, whither he was called in 1876, and where, in 1879, he opened the first purely psychological laboratory, an example followed since by many of the great universities in civilised lands. Unlike his predecessors, especially Weber, Helmholtz, Lotze and Fechner, he has not concentrated his attention upon this or that restricted group of psycho-physiological phenomena, but has ranged over the entire field, with the result that psychology owes to him at once its present systematic form and its definite place in the fellowship of the special sciences. For these reasons, his influence and methods have penetrated everywhere.

A bare list of his principal works suffices to exhibit the range and force of his tireless activity: *Beiträge zur Lehre von den Muskelbewegungen,* 1858; *Beiträge zur Theorie der Sinneswahrnehmung,* 1859-62; *Vorlesungen über die Menschen- und Thierseele,* 1863, 5th ed., 1911 (Eng. trans.); *Grundzüge der physiologischen Psychologie,* 1874, 6th ed., 1911 (Eng. trans.); *Ueber die Aufgaben der Philosophie in der Gegenwart,* 1874; *Ueber den Einfluss der Philosophie auf die*

Erfahrungswissenschaften, 1876; *Logik,* 1906-08; *Ethik,* 1886, 4th ed., 1912 (Eng. trans.); *System der Philosophie,* 1907; *Grundriss der Psychologie,* 1898 (Eng. trans.); *Völkerpsychologie,* 1904-09; and many contributions of first-rate importance to *Philosophische Studien,* the organ of his laboratory and philosophical circle, since 1881, the first year of its publication. When we remember that four of these books are masterpieces, and that one of them is *the* classic in its subject, some idea of Wundt's importance emerges.

Seizing the opportunity incident to his historical position, Wundt aimed to deliver psychology from an old reproach — it was merely another instance of more or less loose *descriptive* classification. He proposed to lift it to the level of scientific *explanation.* By what means?

"It is experiment that has been the source of the decided advance in natural science, and brought about such revolutions in our scientific views. Let us now apply experiment to the science of mind. We must remember that in every department of investigation the experimental method takes on a special form, according to the nature of the facts investigated. We cannot experiment upon mind itself, but only upon its outworks, the organs of sense and movement which are functionally related to mental processes. So that every psychological experiment is at the same time physi-

ological, just as there are physical sciences corresponding to the mental processes of sensation, idea and will. This, of course, is no reason for denying to experiment the character of a psychological method. It is simply due to the general conditions of our mental life, one aspect of which is its constant connection with the body."

Or, again: —

"Psychology is compelled to make use of objective changes in order, by means of the influence which they exert on our consciousness, to establish the subjective properties and laws of that consciousness."

Or, once more: —

"Physiological psychology is, therefore, first of all *psychology*. It has in view the same principal object upon which all other forms of psychological investigation are directed: *the investigation of conscious processes in the modes of connection peculiar to them*. It is not a province of physiology; nor does it attempt, as has been mistakenly asserted, to derive or explain the phenomena of the psychical from those of the physical life. We may read this meaning into the phrase 'physiological psychology,' just as we might interpret 'microscopical anatomy' to mean a discussion, with illustrations from anatomy, of what has been accomplished by the microscope; but the words should be no more misleading in the one case than

they are in the other. As employed in the present work, the adjective 'physiological' implies simply that our psychology will avail itself to the full of the means that modern physiology puts at its disposal for the analysis of conscious processes."

But, had he gone no farther than this, Wundt would scarcely be exempt from the condemnation of his predecessors, or from that under which some of his scholars have fallen. For, plainly, it could be objected that he had omitted the two most remarkable features of consciousness,— its *intensive* or individual centralisation, and its *extensive* development in society. These aspects of the matter tend to get beyond psychological management, as they assuredly raise ultimate philosophical problems. Wundt's high distinction is attributable mainly to his recognition of and attack upon these difficulties. So, his psychology offers a second, and broader, side, set forth, for example, in his excursus entitled *Philosophie und Wissenschaft* (*Essays,* 1881), and present as a constructive, possibly a disturbing, element, in his whole outlook upon the psychological field. For instance, in his *System,* the theory of the "growth of mental values" bears directly upon these questions. "Mental life is, extensively and intensively, governed by a law of growth of values: extensively, inasmuch as the multiplicity of mental developments is always on the increase; intensively,

inasmuch as the values which appear in these developments increase in degree." And, on the strictly psychological side, he takes note of the same things as follows: —

"We may add that, fortunately for the science, there are other sources of objective psychological knowledge, which become accessible at the very point where the experimental method fails us. These are certain products of the common mental life, in which we may trace the operation of determinate psychical motives; chief among them are language, myth and custom. In part determined by historical conditions, they are also, in part, dependent upon universal psychological laws; and the phenomena that are referable to these laws form the subject-matter of a special psychological discipline, *ethnic* psychology. The results of ethnic psychology constitute, at the same time, our chief source of information regarding the general psychology of the complex mental processes. In this way, experimental psychology and ethnic psychology form the two principal departments of scientific psychology at large. They are supplemented by *child* and *animal* psychology, which, in conjunction with ethnic psychology, attempt to resolve the problems of psychogenesis. . . . . Finally, child psychology and experimental psychology in the narrower sense may be bracketed together as *individual* psychology, while animal

psychology and ethnic psychology form the two halves of a *generic* or *comparative* psychology."

So far the *extensive* development. On the side of *intensive* centralisation Wundt's doctrine of "apperception" provides the necessary hypothesis. At these aspects of the subject I can only hint here.

Turning at once to the *Physiological Psychology,* we find that it proceeds, as scientific method dictates, from the simple to the complex. After an introduction, Part I. discusses the bodily Substrate of the Mental Life; Part II. the Elements of the Mental Life; Part III. the Formation of Sensory Ideas; Part IV. the Affective Process and Volitional Action; Part V. the Course and the Connection of Mental Processes; Part VI. adds Final Considerations. Thus, we pass from the functions of the nervous system, by way of sensation, feeling and presentation, to consciousness in the formation of ideas and in the train of ideas, which, in turn, involves attention, apperception, and will, not omitting phenomena such as association, imagination and emotion. Two reasons make it hard to select this or that, and to say, Here Wundt excels. First, profuse wealth of suggestion and result is scattered everywhere. Second, the successive editions of the *Physiological Psychology* constitute the life-story of Wundt's own mind in relation to the subject as a whole; and only psychologists *von Fach* can sup-

ply the necessary light and shade. It appears to me that special interest attaches to his discussion of Müller's theory of specific energies, because it reveals Wundt's view of the part played by the nervous system in the psychological organisation; to his criticism of the Young-Helmholtz theory of colour, because it attacks the 'mystery' of space-perception; to the treatment of sensation, the duration of mental processes, and association, because they afford typical instances of the new data which experimental psychology can bestow upon analyses of psychical phenomena. Doubtless, professed psychologists would insist upon other points. For my part, the central interest still attaches to Wundt's theory of apperception and will. I take the former as a typical illustration of the *direction* in which 'physiological' psychology moves.

In apperception the conscious being brings his entire unity of experience to bear on the object within the field of his attention. We light upon an inner and elaborative activity which "bears the stamp of spontaneity." Evidently, a process complex in the highest degree! My colleague, Professor Pillsbury, has analysed it as follows: Apperception involves four elements:—"(1) Increase of clearness in the idea directly before the mind, accompanied by the immediate feeling of activity; (2) inhibition of other ideas; (3) muscular strain sensations, with the feelings connected

with them, intensifying the primary feeling of activity; (4) the reflex effect of these strain sensations, intensifying the idea apperceived." Despite this complexity, the apperceptive theory posits fundamentally an inexpugnable "original activity," or "psychical energy," which arises from within consciousness and transforms, as by a synthesis, what, for convenience' sake, may be termed simple factors. Physiological stimulus pales, and subjective transitiveness becomes determining. This activity has close connection with will, often with choice. How can it be explained? For Wundt, the term consciousness possesses a special and restricted meaning. It consists of all contents, such as feelings, ideas, excitations of the will, and — there is *no underlying substance or occult being*. This represents the analytic aspect; the synthetic remains to be reckoned with. Now, the spontaneous activity of the mind itself, whereby presentations come to be distinguished clearly, appears as *appercipient attention,* when brought to play upon perceptions or upon the "stream of consciousness," and as *volition,* when it originates movements of the body. Obviously, the former is the more fundamental, because, in it, I connect my ideas with my will. It "depends, on the one hand, upon the stimuli then at work; and, on the other hand, upon the total state of consciousness, how it is made up, that is, by present impressions

and prior experiences. . . . If we would describe more nearly what it is that we experience in ourselves when pleased or pained we cannot do this more concretely than by denoting pleasure as a straining after, and pain as a straining against, an object." We may say, then, that apperception means will brought to bear upon states of consciousness and then directed to external muscular acts. For, "there is absolutely nothing outside man or in him which we can call wholly or entirely his own except his will." So Wundt finds the existence of a synthetic activity of consciousness *beyond the range of mere association.* Without going far wrong, we might term this the single faculty into which all the faculties of the old psychology are absorbed. For it compares and selects among conscious states; or peradventure, it can be described as a species of conscious striving. Here, then, the mental unity presents its distinctive nature, and, as some have indeed supposed, might be held exempt from the persistent assault of psycho-physiological method, secluding itself within its unattainable citadel. But this is a complete mistake; and one should call attention to Wundt's modern position even here, the more that he has been misunderstood, strangely enough, by those who ought to know better. Apperception, or what you please, happens to be a fact of mental life. Accordingly, it must submit to experimental treat-

ment. A process exists, therefore analysis is applicable. And, especially when the problem of duration arises, as it does, a cumulative series of experiments is in strict order.

What happens when apperception occurs? Generally, of course, a transformation of sensory into motor activity. In detail, according to Wundt, a train of processes has supervened, *viz.:* (1) Transmission from the sense-organ to the brain; (2) entrance into the "field of view," that is, existence of simple perception; (3) entrance into the "point of view," when perception becomes discernment; (4) activity of will, with innervation of the central organism through the motor-nerves, and (5) the resultant excitation of the muscles. Plainly, the crux hides in (3), which is purely psychological, while the others have a clear physiological reference. Nevertheless, (3) happens to be so surrounded by physiological phenomena that it is open to observation and experiment and these methods have been concentrated upon a research into the cerebral changes which accompany perception, apperception and will, respectively. These experiments, although elaborate, and becoming more elaborate, may be classed under three heads. (1) The investigation of simple physiological time, that is, when the subject is aware of the coming impression, but is ignorant just when it will take place. (2) Those in which

even this element of ignorance is eliminated. (3) Those in which wide modifications are possible, because, for example, the subject does not know what the impression will be, or is unaware of the character of the stimulus in such a way that he does not know how precisely he will be called upon to register it. In sum, these experiments show, as Wundt infers, that the exact moment of appercipience is dependent upon the self-accommodation of the subject, particularly in the matter of attention. Take the third case. "An indicator is kept moving at a uniform rate over a graduated scale, and so situated that the place of the needle can be clearly seen at each instant of time. The action of the same clock which moves the needle causes a sound at any moment, but in such a way that the subject of the experiment does not know when to expect it. With what position of the needle, now, will the sensation of sound be combined? Will the sound be heard exactly when it occurs, as indicated by the needle; or later than its real time ('positive' lengthening); or earlier than its real time ('negative' lengthening)? The result shows that one rarely hears the sound without either positive or negative displacement of it; but most frequently the lengthening is negative — that is, one believes one hears the sound before it really occurs as measured by the indicator."

In this connection, then, the fundamental prob-

lem of 'physiological' psychology is, "to determine the simple reaction-time, and from it to find the factors of psycho-physical time — namely, perception-time, apperception-time (or discernment-time), and will-time."

Along this line laboratory investigation has been able to show that, as a matter of record, the will does occasion changes in the central physiological mechanism, and that these changes possess *quantitative* differences having more or less definite relation to psychical activity. By this I understand that the latent energy of the nerve-cells is summoned to activity, and that, as a result, the brain labours hard. In our own laboratory I have seen the subject of an attention experiment pour with perspiration, although *physically* he was, to all appearance, quite quiescent. No better proof of intense cerebral work could be desired. And experiment simply attempts to relate this energising to the concomitant psychological states.

But Wundt has committed himself to the modern attitude even further. In the first and second editions of his *Physiological Psychology,* he suggested that the frontal regions of the brain are related to apperception as the "bearers of the physiological processes which accompany the apperception of the presentations of sense." In other words, all stages of the apperceptive process are accompanied by definite physiological activity.

Beyond the circumstance that this assigns a function to the frontal regions which, otherwise, stand out of distinct relation to the factors of consciousness, it must be regarded as a speculation. Wundt himself, although he does not dismiss the hypothesis, tends to minimise it from his third edition. Yet it serves to show how persistently he clings to the true psycho-physiological method even in regard to the most recondite operation of the mind.

It remains to note that the influence of mind over body demands study as much as the converse. If apperception be a legitimate supposition — and it would seem to be a hypothesis which at least accounts for unquestioned facts,— then it follows that we must estimate it, not by external stimulus, but in terms of internal activity. And this, of course, reminds us that psycho-physiological investigation has proved the existence of an influential voluntaristic element. No doubt, to this point, the former has claimed, and still claims, the lion's share of experimental work. So that, in many ways, the internal problem awaits concentrated attack. That is to say, physical and physiological problems, being so much more readily amenable to the new methods, have tended to crowd out the distinctively psychological material. Nevertheless, we have arrived at something *analogous* to a *causal* influence of the central nervous

system, upon what I shall call ideation. This was the indispensable initial step. But yet, this causality is necessarily *in* consciousness, and, in so far forth, is not causal at all. For, of nervous states as such we do not know anything, and never can know anything. Accordingly, the other side proffers its claim, which, in the light of this agnosticism, is far more modest. This point was admirably taken by Professor Cattell, in his vice-presidential address to the Anthropological Section of the American Association for the Advancement of Science, in 1888. "Much is being written just now regarding the relation of consciousness to the brain. The question is: Do perceptions, thoughts, feelings, volitions, stand in causal interaction with the brain, or are they an epiphenomenon, accompanying changes in the brain but not influencing them? Are our ordinary actions complex reflexes due to physical stimuli and the structure of the nervous system, or are the changes in the brain that precede movements initiated and directed by consciousness? The question is one of facts that should be settled by scientific methods; and the solution will by no means concern psychology alone. The two greatest scientific generalisations of the present century are the conservation of energy and evolution by the survival of the fit. Now, if consciousness alters, however slightly, the position of molecules in the brain the fundamental

concept of physical science must be abandoned. If consciousness have no concern in the actions of the individual we have one of the most complex results of evolution developed apart from the survival of useful variations, and the Darwinian theory has failed."

We conclude then with the suggestive reflection that 'physiological' psychology is the keeper of a tremendous oracle. And, on the whole, the oracle contrives to keep silence!

HEREDITY AND EDUCATION: SOME FACTS AND SOME GUESSES

There be many shapes of mystery.
Past hope or fear.
And the end man looked for cometh not,
And a path is there where no man thought,
So hath it fallen here.

'HEREDITY' and 'Education' are terms beset by numerous subtleties. If division of opinion mean aught, they portend ramifications that lie beyond our ken as yet. We must therefore be frank with ourselves and, perhaps, undertake to construct our own meanings. For, truth to tell, the rigid limitations of predilection and ignorance hamper us on every hand. Those who possess competent acquaintance with 'Heredity' and 'Education' would be the first to acknowledge the need for reasoning by analogy, as an expedient to fill gaps, and to recall, that no logical device lies so open to the insidious attack of fallacy. On the one side are limitations peculiar to the writer — in his training, in the bias resultant upon his special work, and inseparable

from his habitual outlook. On the other side are limitations inherent in the subjects themselves. As to the former: an investigator cannot be expected to slough the intellectual associations of a life-time, much less to span knowledge. Thus, as a humble helot in a corner of the philosophical field, I am well aware that I harbour but hazy notions about many phenomena incident to that complex synthesis, 'Heredity.' Nor can I conceal from myself that, often, I fail to follow biological arguments clearly. I lack experience to estimate the precise values of the evidence. Similarly, seeing that my daily duties have familiarised me with analysis and internal exhibition of general concepts, rather than with the interplay of particular precepts, I am bound to approach the combinations peculiar to 'Heredity' and 'Education' from a distinct angle. The reader must bear this in mind as I proceed. Above all, it is to be remembered that I have not the remotest claim to 'expert' knowledge of matters biological, or of the conventions, as I understand them to be, assumed by professors of educational practice. As to the latter: 'Heredity' and 'Education,' like similar 'universes' (so philosophers call them), imply various and fluid conditions. For example, after no little study and pains, I doubt whether I grasp precisely the consensus of scientific opinion about 'Heredity' at the moment. Nay, I am

by no means sure that a consensus exists. While, after years of contact with the mandarins of 'Education,' I am fairly certain that this term connotes meanings apt to alter wondrously as it passes from group to group. Thus, as would appear already, outlooks differ. Accordingly, at the outset, I am caught in a sea of troubles, and can scarce "escape the predestinate scratched face."

I.

It may not be amiss to begin with an attempt to clear one's mind of cant about 'Heredity.' What is it? First, and generally, even the tyro is aware that an organism comes, complete so far, from its immediate ancestors. As our problem confines us to 'humans,' we may declare bluntly, that men are produced by their parents, and that this genetic relation has its objective basis in the sperm-cell and the egg-cell. 'Heredity' is no entity 'out there,' but a name bestowed upon a process wherein an organism arises directly from others, maintains their nature, and therefore starts with an outfit whence its career proceeds. Or, to quote Mr. E. B. Wilson: "The life of successive generations of living beings shows no breach of continuity, but forms a continuous vital stream in which, as Virchow said, rules an 'eternal law of continuity.'" It is a piece of mere mysticism to

allege that aught can happen in a human life irrespective of the physiological basis. Accordingly, the facts of 'Heredity' circle round the question of continuity. *What* did you get from your father? from your mother? from your forebears? *How* did you get it? Plainly enough, these inquiries lead to a comparison between your and their characteristics. But this investigation need not presuppose any *conceptual* 'explanation' of 'Heredity' as such. Nor need it presuppose a theory of that other basal fact — the fact of individual life-history — known as 'Development.' Consequently, it appears a legitimate inference, that the phenomena of 'Heredity' can be realised most definitely in the attendant problems. Thus, the constitution and recoverable past of germ-cells, controlled breeding, permutations of amphimixis, and the like, yield results that go to the formation of the heredity-concept, because they enable us to present — if little more as yet — the important factors which, under definite rearrangement, *are* individuals — are ourselves. And, so far as I can see, we have warrant to assert that 'Heredity' involves a concept of *mode,* not a concept of *cause.*

What do we know of this mode? A synoptic answer might run as follows. Germ-cells, in their *nuclei* especially, are the *continuum:* the two are identical. The immediate ancestors integrate in

them, as we can specify now to some extent. We have good reason to infer that the respective contributions of mother and father reappear in offspring, even if most variably: and that, sometimes, given elements — whether traceable to parents or to remoter progenitors — manifest themselves strongly or seem, on the contrary, to undergo inhibition. We are certain that environment is a necessary condition of these changes, and that it bears relation, not only to the organism in gross, but also to its constituent factors separately. We are aware that individual recapitulation (as in the history of the kidneys, for example,) has presumptive evidence. In short, we are on the track of the modes. On the other hand, we are in no position to explain the extraordinary potentiality of the germ-cells, nor can we state the principle of order whereby *just this* individual emerges finally. That is to say, cause eludes us. We must rest content with hypotheses here. And we should frame our hypotheses so that they may be capable of verification or of disproof. For, in the nature of the case, hypotheses that furnish no ground for farther verification must rank as logical will-o'-the-wisps.

But some enthusiast, accustomed to seven-leagued boots, will exclaim: "Either you are altogether too cautious, or this is a miserable account of empty benches. I had thought of 'Heredity'

as a talisman rather than as a prosaic pursuit of recondite chemical changes, and so forth. I had associated it with the maternal impressions that cut such a figure in some popular novels. I had seen it typified by contemporary playwrights in dypsomania, and worse, inevitable as the car of Juggernaut. It had moved my imagination profoundly when I discovered the meaning of that strange word, telegony. My Sunday newspapers had led me to believe that a judicious diet of cakes and ale, or of canvas-back duck and champagne, would enable duly considerate parents to determine the sex of their children. Nay more, being an 'educator,' and well versed in the literature of my profession, I had felt justified in holding that my little charges became, from year to year, shad, monkeys, missing-links, cave-men, savages, Indians, nomads, shepherds, tillers, and I had tried to train them in accordance with these successive hereditary achievements." To all this — it abounds, worse luck — one can only say: thus do sloppy 'facts' breed sloppier theories, and add, by way of solemn warning, that, in these matters, we can not keep too watchful eye upon a ubiquitous type, given to frequent teachers' meetings, whom we may well baptise 'Dr. Viewy.' Bad biological theories, it has been noted, when they die, go to — Pedagogy.

Nevertheless, these whimsies, which are hardly

a travesty of 'newspaper science' and popular impressionism, do possess a certain warrant, even if warped from it by a far-flung drift. For, as is obvious, problems of 'Heredity' would never have arisen did not germ-cells, mediated by a genial environment, become such and such individuals, marked by special characteristics. Now this means that these problems stand in close relation to the larger questions of 'Development.' Moreover, some characters may be heritable, others may be doubtful, while still others may be acquired — may be modifications in the strict sense. So, further, the problems of 'Heredity' impinge upon the facts of inheritance. At this point the inquiry must proceed by the laborious methods of observation and experiment or, as recently, by that suggestive extension of the theory of probability — biometrics. In these fields, rather than in the sphere of 'Heredity' pure and simple, we are apt to be stranded on the shoals of shallow illusion. Besides, the higher one rises in the organic scale, the greater difficulty in dissipation of imaginary notions and irresponsible references.

II.

Fortunately or unfortunately for our theme, 'Education' presupposes precisely the highest kind of organisation known to us. It carries one

at a step from the physical and physiological to the psychological, and to the psychological integrated and reintegrated till, at the first blush, sure footing seems impracticable. And we may admit frankly that, while theory finds ample room in the circumambient atmosphere, facts tend to elude, are unobtainable in some directions. This leaves little choice in procedure. So, I shall review considerations founded on what may be called facts, at least by a slight stretch of courtesy. Thereafter I shall proceed to a theoretical position — one, perhaps, no less and no more open to destructive criticism, nor worthy of blind faith, than its near kin, the intellectual spooks that hover round the biological camp.

Competent students would agree that the sweep of empirical science has gone far beyond foreign objects in the 'outer' world. As interpreted today, Nature includes the higher achievements of man no less than his physical environment and his physiological frame. On the contrary, contemporary science is by no means able to formulate a fundamental synthesis for the 'spiritual,' one that might stand to it as the laws of motion to the stars in their courses. Briefly, while we are aware that 'Heredity,' Variation, and so on, determine our veritable being, we are unprepared to pronounce upon their laws. Notwithstanding, some things will take no denial. Abnormalities

of sensation, motor defects, the physiological conditions of attention and association, the influence of fatigue, the balance of the nervous system, the possibilities of reflex and voluntary concentration, the relation of rhythm to imagery — to select a few instances — cannot be divorced from educational problems in individual cases. Moreover, these persist in the tendencies impressed upon us by our parents and remoter ancestors. So much is probably ascertained. Whatever conclusions may belong eventually to a hidden future, we are bound to be candid with ourselves, and recognise that the roots of our life strike deep in the race whence we spring. Personally, I am of opinion that theory has not achieved a stage where the constitutive process can be stated four-square in a single proposition. For example, taking a case from my own side of the house, I am unable to accept Hering's view, that our reproduction of ancestral traits may be explained as unconscious memory of the past. Persistent undulations, characteristic or even formative of molecules, and stable despite their ready response to change, no doubt offer an account of 'Heredity' in terms at once of physics, physiology and psychology. But, here we have all the vagaries of panpsychism without compensation. Haeckel's notorious pronouncement is of similar import. "The true and ultimate *causa efficiens* of the biogenetic process, I

propose to designate by a single word, Perigenesis — the periodic wave-generation of the organic molecules or plastidules." This periodicity of "representative particles," in whose ebb and flow lower organisms suffer little loss or gain, while the higher forget and learn much, clouds the issue. Still, theory aside, a few facts do emerge. It is plain that physical and physiological qualities are more stable than psychological and, therefore, that their transmission can be detected more certainly. Or, if you prefer to have it so, the same elementary factors are less likely to undergo annulment, even if the tendencies due to them, as developed in individuals, vary greatly; even if the modalities, to adopt Helmholtz's word, prove less numerous at the lower end of the scale, numerous to confusion at the upper limit. This, again, leads to the inference that 'Heredity' possesses a physico-chemical basis, that, as Gautier says, "the force which maintains the species, and gives it the character of constancy and resistance, is nothing more than the resultant of the forces which maintain the *chemical species* of which the organism is composed." In any event, these empirical conditions enact a *rôle* of the highest importance. And we must have a care to emphasise the 'brute fact,' if we would steer clear of mystical fogs. On the other hand, thanks to the present state of positive knowledge, we should have no difficulty in agree-

ing with Höffding. "Even though the individual organism, which in spite of its completeness and relative independence is still a republic of cells, were to be explained as compounded out of elements, and its origin made intelligible through the law of the persistence of energy, this would not explain the individual consciousness, the formation of a special centre of memory, of action, of suffering. That it is possible for such an individual centre to come into being is the fundamental problem of all our knowledge. Each individual trait, each individual property, might perhaps be explained by the power of heredity and the influence of experience; but the inner unity, to which all elements refer, and by virtue of which the individuality is a *psychical* individuality, remains for us an eternal riddle." Nor can we accuse him of positing a transcendent 'self' here; he alleges simply, that analysis must go farther, and reckon with still other facts.

Finally, it will not do to dodge these survivals of the ape and tiger by the *naïve* expedient, dear to some, of shifting the venue from individuals to the race. For we may regard it as proven that evolution takes place, not according to this or that quality in this or that individual, but through the mediation of characteristics common in degree to members of a group, characteristics productive of a norm that enables us to note variations of indi-

viduals, whether by excess or by defect. And, just as the organism exerts a determining influence in the arrangement of intra-individual qualities, so the environment operates with qualities peculiar to groups. Every species possesses a physical basis, and the same holds of any conceivable human society. It is undeniable that the configuration of France and Germany account to some extent for the differences between the inhabitants. In like manner, the association of rivers with the sites of populous places — so constant in the pre-railroad epoch — has been noted often. Everybody perceives that the accessible material wealth of the United States has determined immigration to us rather than, say, to the Brazilian hinterland, to Australia, or to the frozen coal-fields of the Antarctic. Similarly, climate, with its components of light and temperature and moisture, has affected peoples profoundly. There be those who would trace American wit to our atmosphere, where objects stand forth almost stereoscopic, without the purple iridescence that suffuses the landscape in the sea-set isles of our forefathers. Our untravelled folk have not the remotest idea of the cosmic intimation that choruses in the amber glow of a Scottish sunset. So, too, in the olden time, as far back as Pindar, the Greeks attributed the "swinishness" of their pet butts, the Bœotians, to a like cause, as Cicero intimates.

It is interesting to note that this very idea has persisted in literature to Carlyle. Further, the definite factors of the environment count for much. Water, forests, metals, vegetable and animal life, the physical possibilities of industry, mould a race just as the bodily frame an individual. The burly habit of the Englishman, his round trunk, his phlegmatic temper, imply his environment, as Shakespeare saw long since. Now, if we are to observe the law of economy in thought, we must permit these empirical explanations to carry us as far as possible. Nay, we *ought* to go to the physical for the group, to the physiological for the individual, if we desire to gain a vantage whence we may reach something panoplied in the armour of accuracy. There should be no blinking the issue on these points, no misunderstanding of the facts now known, or of their trend.

III.

It was necessary to dwell on these aspects with no little emphasis, because, as we shall see, there is a sense in which they may be said to function subordinately when 'Education' and its special difficulties claim the centre of the stage. The passage to one of the most complex arrangements devised by human society transports us at a leap to a world diverse from that of the biologist. But the biological elements remain, assert their pres-

ence continually, and exact due attention in any reckoning. Thus, we breathe, and blink eyelids, just as the heart beats — *automatically*. Other actions, like coughing when 'a crumb goes the wrong way,' or sneezing in a dust-laden chamber, are somewhat less simple — reflexes, *independent of control* by consciousness. Up the scale another step come the higher reflexes — habitual activities requiring, apparently, *no interference from the higher nerve-centres;* in these man reminds us of wasps and beavers. Next are complex reflexes, involving the higher centres, and yet so inbred that they operate without prior empirical trial. In the two last cases the process, while well balanced in relation to environment, may not *need* to pass the threshold of consciousness. And on this obscure problem theories crowd. But, be theory what it may, biological factors, especially in their presumptive 'psycho-physical' extensions, predominate. Nay, we must insist that these quasi-psychological events 'survive' in man. There can be little doubt that — to use a picturesque phrase —"we have lines of least resistance in our brains," and this unconsciously. In like manner, mere perceptual reference, below the level of organising reason, is shared by us with other animals. But, man employs them as a kind of spring-board whence he propels himself to a plane whither brutes cannot follow: hence this very

designation —'brutes.' Opinions *pro* or *con* man's exclusive possession of 'reason' need not delay us here. But no one would dispute for a moment that human reason attains a new dimension, or that, in turn, the evolution of speech, *pari passu* with other modes of coöperation, has reoriented man to 'animal' conditions. So much so, indeed, that he has often mistaken himself for an angel or a devil, occasionally for a deity, and has forgotten his poor cousins on four — or fifty — feet. Little as he may be justified in this self-esteem or superciliousness, he is justified at least to the extent that a fresh group of problems emerges from *his* development of consciousness. Moreover, new methods of approach and inquiry become necessary. Omit them, and you lag on the fringes of the question.

One may assert that, till they diverge on this plane, human young, like animal, conserve fundamental characteristics as received from ancestors, although with numerous variations, slight, but obvious; for example, in brothers and sisters. Or, putting it otherwise, Variation revolves about a normal, average, *continuum*. Further, this holds, with high probability, for the psychological no less than for the physiological. At all events, Pearson's results support this inference. No doubt, in the nature of the case, as observation and experiment unite to show, mental variations

tend to be elusive, because their differentiations are wider. This may be, possibly is, due to the reaction of 'memory' and 'reason' upon the simple reflexes. But, even so, the issue does not appear to eventuate in anything that amounts to discontinuity. The 'inborn' set anchors the individual, as it were. That is, in the organism, and in those psychical activities traceable directly to physiological structure or process, permanence of type, and close identity of coördination, must be held proven. Accordingly, it is a fair deduction that 'Education' encounters limits here. It cannot create, although it may elicit or inhibit *given* capacity — given by 'Heredity.' Thus the facts of 'Heredity' may clarify our notions of the practicable. They furnish data, more accurate than we have had hitherto, about the physiological basis. By enabling us to comprehend abnormalities, they offer pregnant hints for the treatment of defectives, in particular cases. They also puncture cranky schemes which, if applied to normals, might well overset their balance. In short, 'Heredity' throws lambent light upon some dark places. It warns us off hair-brained adventures, by proving that man is so stable as to defy our puny efforts to extend his range by any conventional methodism. For, we must recognise that it fixes unilateral adaptation in those senso-motor activities known as instinct, and also

in those secondary manifestations of automatism called habits. In this way, it suggests that men possess definite mental tendencies not amenable to profound alteration by any educational nostrums. For, as Forel says, "Every human race, clearly differentiated, possesses a collection of special mental attributes inherited in the course of its evolution, attributes which no civilisation can either produce or destroy." Thus — and inevitably so — the study of 'Heredity' reminds us that a great part of 'Education' so-called is nothing but instruction. This sort of thing perpetuates, and is condemned to perpetuate, a type which, later, "will exhibit the talent for all unproductiveness . . . one of those creatures incapable of individual combination and independence of mind, but gifted with facility." By contrast, we may learn that real 'Education' must proceed otherwise. It must say insistently, "Keep your brain for better work. Form your will, your judgment, your independence of character." But, evidently, we have reached the plane of divergence here.

IV.

Man is an animal, and something more, he is also *man*. And, while it may be difficult to indicate the precise difference in any brief form of words, I have the temerity to summarise the contrast as follows. So long as you classify him with

the other animals, and attempt to estimate him by means of this genealogical relationship, you find that man *varies* little. The stable element enforced by 'Heredity' lies heavy upon him. On the contrary, admit the phenomena characteristic of the human plane, and you discover that he is capable of extensive *modification*. Well, then, what may these phenomena be?

In the first place, and with special reference to the individual, there appears to be a psychological fork, as it were, where men diverge from animals, although the two paths may continue nearby for a long distance. We know that animals can be taught to form new associations on the basis of perception, as numerous experiments show conclusively. Perceptions may eventuate in inferences indicative clearly of intelligence, but not yet demanding for their explanation any reference to the higher reasoning dependent upon power to employ abstract ideas. That is to say, we have obvious reactions to a particular group of circumstances, but not grasp upon a series of kindred groups in such a way as to elicit principles, causes, and the like. Necessarily, too, intelligence fails here to detect an identity of nature in similar groups which can be 'carried about in the mind,' and applied immediately to other cases. Accordingly, in this regard, men and animals may diverge, and still pursue tracks parallel to some extent.

But, sooner or later, a decisive point of departure arrives, where the human skews from the animal with marked emphasis. Then we encounter psychical manifestations peculiar to 'reason'—manifestations impossible except as abstract or general ideas are used, not only to interpret perceptions, but as bases for syntheses between abstract ideas. Thus, animals, like many men in a primitive stage of mental development, are incapable of science. On the other hand, when science or any similar *Weltansicht,* makes its appearance, a new situation confronts us, one in which, as I have hinted, the biological element functions subordinately. Arrived here, we can no longer adopt the otiose attitude of Pope, and ask blandly,

> "If plagues or earthquakes break not Heav'n's design,
> Why then a Borgia or a Cataline?"

For, when abstract thinking, with its generation of transitive ideas, has upthrust its disturbance within him, man begins his eternal struggle to escape the thraldom of Nature. Or, as D. F. Strauss said, "In him Nature endeavoured to transcend herself. Man not only can and should know Nature, but, so far as his powers allow, should rule both external Nature and the natural in himself."

Yes, 'man'! Whereupon, secondly, we have stepped beyond the tiny circle of the individual, and suggested already another source, perhaps an-

other kind, of divergence. As was indicated at the outset, analogical reasoning besets this problem. The thunderous phrase, "man an organic community," echoes from idea to idea, resounding on many misty mountain-tops of thought, reverberating in valleys where continuous twilight prevails. Even so, for the present purpose it may suffice to hint that man, *the* individual, never exists as *an* individual. Briefly, that definite and apparently separable thing we fain would term *a* man, faces many ways, all leading *from* self. As we have seen, the 'omniprepotence' of 'Heredity' asserts, and with no uncertain sound, that his outlook lies to the past; as an organism he looks *backward.* Yet, looking, he thinks the while; whereupon other considerations arise, obscure, because investigation stands but on their threshold. Despite ignorance, their presence transforms. As a reflective being, man looks *around,* nay, projects himself into phases of experience that possess nor local habitation nor name. Perchance, this far world of the mind's desire may win to fact at length. To-day it *is* not! As a moral and religious being, man looks *up,* demanding completion. Like Carlyle's famous shoeblack, he would "require for his permanent satisfaction and saturation, simply this allotment, no more and no less: God's infinite universe altogether to himself." Your individual, precisely when he most deserves the epithet 'man,' poses

as the spectator of all time and existence, or, better still, serves himself the bearer of every age that ever was to the greater ages that are yet to be. In his capacity as an organism, he may indeed assume the state and dignity of an 'individual,' because he cannot communicate its special modes — sensations. In his capacity as a man, he never earns title to this barren sort of individuality, because the ideas, pursuits, beliefs, and judgments of value that alone suffice to personality — the more it is to be reckoned with, the more conspicuously — have been communicated, must remain communicable in essence, so be they would rank as effective components of experience. The specific modes of anything fit for characterisation as intellect, ideal, or culture, are specific just in proportion as they are communicable. Mutuality makes them what they are. And, worse luck, science fails us on these seductive matters, empirical understanding abdicates. Nevertheless, good cess or bad, 'Education' makes its bed just here.

From the standpoint of biology, of any positive science, indeed, we meet a whimsical or, as the English would say, Gilbertian, universe on this plane. For, positive science deals with specific relations between objects or, in its psychological extension, with connections between subjects and objects. The typical phenomena are conditioned by a process of actual contact or, as in sight, by

what is tantamount to contact — the mechanism of waves impinging upon that photographic camera, the eye. Moreover, investigation concentrates its effort upon the linkage of effects with causes. Thus, dualism tends to dominate the situation; causes are of one kind, effects of another. As Huxley observed, in a classical passage, the odour of the musk-rose and the muskiness in the rose remain for ever incommensurable. But, 'Education' arrived, the primary fact happens to be the interpenetration of mind by mind. Nothing occurs in the nature of the contact just cited, unless we say, by a bit of permissible materialism, one idea caroms off another. We may predict the psychological issue of a physical sign in certain cases. We are at no such advantage with ideas. What strange 'story' will a reporter *not* extract from an address? As often happens, his misrepresentation will puzzle the wit of all other auditors. Two friends meet to discuss a thorny question; they have not the faintest notion how their intercourse will modify the conclusions of both. The identical words printed here, not only may, but must induce contrasted conceptions from reader to reader. For, they are condemned to find their way to due place in that extraordinarily complicated whole, the personal experience of each. They cannot escape the twist given by convictions and presuppositions. 'Education' consists of ma-

terial common to individuals, and depends upon the possibility of producing harmony within cultural groups, whose every member forms a group in his or her turn.

"Let me calmly
Face the paradox which leads me to maintain
The very phrases of the enemy
Over against the championing of friends . . .
Who shall be stronger, still must ease his strength
As I, in speaking self forth in the speech
Of great souls, great by self-pois'd circumstance,
Not blindly passion-warp'd, but more and more
Personal, comprehensive of world-life!"

Needless to insist, problems cluster here, like filings to a magnet. Why is it easy to propagate ideas at a set time, and within a typical civilisation? Why do the same ideas become 'impossible' under other cultural conditions? How happen the quick response and rapid extension? How, on the contrary, the inhibition and even distaste? Why should we have denominational 'Education;' is not truth one? What transformations are incident inevitably to such processes? Maybe, suggestion might throw light upon these questions. It certainly illuminates phenomena of arrest and reinforcement under the relative circumstances. But then, again, we pull ourselves up sharply in its presence — it hardly deals with the normal or average occasion. Study of 'mob'

psychology might offer hints; but then, the mob happens to wallow in opinion rather than to seek the white rays of knowledge. Contagion, as psychologists call it, and 'Education' indeed commingle. But then, the subjects of the mixture must be exceeding fit; therefore, they are exceeding few. For, it takes overwhelming persons to propagate or inhibit ideas influentially. Thus, mayhap, the most we can tie to here might be expressed in an admission that, after all, the dithyrambs of some eighteenth century German romantics were not so far out. Select Herder, for instance.

"A primitive people, like a child, stares at all things; fright, fear, admiration are the only emotions of which it is capable, and the language of these emotions consists of high-pitched, inarticulate sounds, and violent gestures. This is the first, prehistoric, infantile period in the history of a language. There follows the period of youth. With the increasing knowledge of things, fright and wonder are softened. Man comes to be more familiar with his surroundings, his life becomes more civilised. But as yet he is in close contact with nature; affections, emotions, sensuous impressions have more influence upon conduct than principles and thought. This is the age of poetry. The language now is a melodious echo of the outer world; it is full of images and metaphors, it

is free and natural in its construction. The whole life of the people is poetry. Battles and victories, fables and moral reflections, laws and mythology are now contained in song. The third period is the age of manhood. The social fabric grows more complicated, the laws of conduct become more artificial, the intellect obtains the ascendency over the emotions. Literature also takes part in this change. The language becomes more abstract; it strives for regularity, for order; it gains in intellectual strength and loses in sensuous fervour; in other words, poetry is replaced by prose. And prose, in its turn, after it has fulfilled the measure of its maturity, sinks into senile correctness and sterility, thus rounding out the life of a given national literature, and making room for a new development."

What is the 'gatekeeper of the nineteenth century' trying to reach here? He is struggling to liberate himself from subjective feeling, to develop a scientific basis on the concept of a normative type. So far as 'Education' is concerned, it may be asserted that subsequent work, executed essentially in Herder's temper, has done something to verify his 'type,' at least for the individual. Is it not true that the infant faces the world modifiable almost without limit? But, on the contrary, is it not true that he has little or nothing to teach? In youth he becomes an adept at imita-

tion, but hardly gains a point where he can be said to mould others profoundly. In maturity and old age, the positions reverse. Suggestibility loses its resilience; the man, now made, acts as a standard-bearer, the imitator comes to be the pattern. In a word, paradox though it be, the more the individual is adopted into his cultural sphere by 'Education,' the less individual he becomes; yet, as a vehicle of this very culture, he *has* become more individual than ever. The facts seem to admit of no dispute. And they stand in intimate connection with certain aspects of 'Heredity,' about which we are able to do little more than theorise. To this side of the matter we may turn in conclusion.

V.

At this juncture what more natural than that we should seek aid from the professional pedagogists, even if, in the eyes of many, they are but sons of the marshes of science? To little purpose, alas! For, despite its respectable titulars, 'Education' wends its way much like any science 'on the make.' Dubious about its material, it flies for refuge to a familiar expedient. It assimilates itself to contiguous disciplines of superior stability. But yet in the gristle, it leans upon its lustier neighbours, biology or psychology or even sociology, often uncertain what it would be at.

No doubt, it has a mournful linguistic lore of its own. Principles of stimulation, nourishment, pleasure, habituation, interest, and so forth; progress from *the* Known to *the* Unknown, from *the* Simple to *the* Complex, from *the* Concrete to *the* Abstract, and all the rest, do aspire to convey an air of verisimilitude. But, we may be forgiven if we ask,— and without levity,— Where does 'Education' come in? Is it, like the pagan gods, merely an abstraction, constantly demanding human sacrifices? Thus our appeal to the mandarins would seem to issue in a curious result. On "purely pedagogical grounds," we appear compelled to class 'Education' with local option, universal suffrage, the 'credit-elective system,' and "other grotesque but strictly reasonable abominations." It looks as if we had exchanged the old bondage to ignorance for one more perilous — to a neologism remote from human actualities. To alter the figure, it remains a possibility, of course, that the fragments assembled with such assiduity by our pedagogical palæontologists far afield in the Borneo of other sciences may have been subjected to speculative restoration. In any case, few will rest content with the conclusion that 'Education' must be classed as the fruit of a caprice on the part of that missing link, the State, for the contemporary descendant of David Hume, Descriptive Psychology. Its obvious relation to 'de-

scent' notwithstanding, this hybrid holds aloof from our present problem. In another incarnation, "the science and art of education" may be able to offer more than a set of anagrams. Meantime, its *advocatus diaboli* awaits a discomfiture that belongs to the future.

Suppose, then, that we attempt another tack, and carry appeal to the sociologist. At the close of his *Study of Sociology,* Herbert Spencer writes:

"If we contemplate the order of nature, we see that everywhere vast results are brought about by accumulations of minute actions. The surface of the Earth has been sculptured by forces which in the course of a year produce alterations scarcely visible anywhere. Its multitudes of different organic forms have arisen by processes so slow, that, during the periods our observations extend over, the results are in most cases inappreciable. We must be content to recognise these truths and conform our hopes to them. Light, falling upon a crystal, is capable of altering its molecular arrangements, but it can do this only by a repetition of impulses almost innumerable. . . . Similarly, before there arise in human nature and human institutions, changes having that permanence which makes them an acquired inheritance for the human race, there must be innumerable recurrences of the thoughts, feelings, and actions, conducive to such changes.

The process cannot be abridged; and must be gone through with due patience."

After Spencer's habit, this looks like a development of the obvious. But its translucence — as often happens with this writer — serves to clothe a naked fallacy. The suggestion is, that social changes parallel geological and zoological in tardiness. It would be difficult to find a more misleading analogy. Relative to our brief day, social achievement indeed lags. Relative to 'epochs,' as science understands them, it is a marvel of rapidity. And the interesting point under examination now may be summed in the statement, that social transformation supervenes upon intellectual, and that, consequently, societies alter their outlook in what, for geology at least, would count as catastrophic fashion. As I have said, we know little about these matters; but the facts stare us in the face, implying much for 'Education.'

Take the examples set forth a generation since by Mr. Stuart Glennie. Before the sixth century B. C. civilisation was one thing; after this memorable era, along a mighty curve from the Hoang-Ho to the Tiber, it became another and far different thing. We cannot attach less meaning to those wonderful events. Laou-tseu flourished about 550 B. C.; Confucius was born near this date, Gotama a decade later. Deutero-Isaiah and Cyrus accomplished their great works about 538; Anax-

agoras was born in 500, while Pythagoras entered upon his epoch-making activity in Italy about 540. Whatever the darkness of a remote past may conceal, we are aware that to these synchronous outbursts, and all they imply, a sudden cultural rise must be traced, one so pervasive that we, inheritors of the ages, live in its wane, possibly its final wane, at this good hour. For, this pivotal period attained its zenith in Alexander the Great and Aristotle, and won a dominion without rival since. Then followed a second upheaval, initiated by Julius Cæsar and Cæsar Augustus, that culminated in the victory of Christianity under Constantine — the most important single influence in contemporary civilisation. This was succeeded by a third transitive movement, also of five hundred years' duration, when Muhammadanism, with its creed and polity, burst upon mankind, to furnish stimulus to Byzantine and Mediæval culture. A fourth efflorescence, once more lasting some five hundred years, witnessed a new conflict between Asia and Europe, when the Turks, fighting for the Hither East, stung western civilisation into an activity that left four monumental consequences — the eight Crusades, the systems of Scholasticism, the bloom of Romantic Chivalry, and Gothic architecture. Finally, the Reformation and Renascence arrived, at the close of whose five-hundred-year

aftermath we live, in a time puzzled by many signs of impending change. The renewed conflict between Asia and Europe in the Russo-Japanese struggle, with its effect upon American, German and British politics, means more, probably, than surface signs indicate. Here, then, we see five extraordinary 'lifts,' as they may be termed, following at regular intervals, and intimating discontinuity in continuity. What does it all mean? It seems to me that laws, not now on a cosmic-mechanical, but on a cosmic-human scale, may be involved. Unfortunately, we are only in the stage of collection of facts. And this is the more unlucky that 'Education' belongs naturally to the *milieu* distinctive of such events. Perforce, then, we must rest content with a few reflections more or less of a hypothetical nature.

Setting aside the larger movement, what dare we say? Walking in dusk, if not in darkness, we must command the requisite daring, with its sequence of accident. And, remembering the limitation, I would answer: — The conviction grows upon me that, whatever may be the biological case, when we come to cultural conditions a primary factor is precisely the constant transmission of acquired characters; or, more accurately, of modifications peculiar to and originated by individuals in the course of their unique, personal careers.

Mercifully, our present subject does not require that we dogmatise about the *means*. The fact, in some sort, hammers itself home by recurrence. For instance, take Shakespeare or Milton, Emerson or Darwin. One can allege, doubtless, that Shakespeare quired the quintessential quality of the Renascence; that Milton wrought a wondrous combination of Greek beauty with Protestant theology, and Puritan morals; that Emerson grafted Fichte's popular works and European Romanticism upon a new stem, in a new world; that Darwin clinched with serried evidence the suggestive theories of Vico (1722), Montesquieu (1734), Buffon (1749), Monboddo (1773), Erasmus Darwin (1794), Goethe (1795), Malthus (1798), Lamarck (1809), G. St. Hilaire (1830), and Chambers (1844), to say nothing of the meek, inglorious Wells (1818) and Matthew (1831). For all alike, 'things' were in the air; and this may be taken as the 'Heredity' aspect. At the same time, it cannot be denied that these men of genius initiated a fresh intellectual 'lift,' which transmitted itself from them, and became an integral portion of the heritage received by later generations. While it is true that each occupied a place in the order, it is also true that each performed a feat akin to creation — acquired a modification, not present otherwise, and that the acquisition passed on.

"Such souls
Whose sudden visitations daze the world,
Vanish like lightning, but they leave behind
A voice that in the distance far away
Wakens the slumbering ages."

Thus, on the level where 'Education' abides, the upshot seems to be that two main factors, each complex beyond all present means of analysis, can be detected. And they unite to serve the *continuum,* to preserve it vital. First, we have the *solidarité* of a people, race or culture. This element can be observed at its tensest to-day in France. When the luckless Bazaine, after the surrender of Metz, came before the court-martial, he pleaded in extenuation, that the government had fallen, and that no superior authority remained to consult. Whereupon the Duc d'Aumale replied, in a phrase become classical since: "Monsieur, il y avait encore *La France!*" We 'Anglo-Saxon' barbarians incline to view this as a piece of quixotry, and to class it with the kindred manifestation for art, enunciated by M. de Biez, as so much Gallic folly. "Gray, which is the colour of the sky in France, is also the colour of truth itself, of that truth which tempers the impetuosity of enthusiasm and restrains the spirit within the middle spheres of precise reason." On the contrary, it amounts to a transcript of fact. The French democracy is nothing if not institutional,

and offers the best contemporary illustration of 'group-heredity' on a large scale. Second, we have individual initiative, variation, modification — call it what you please — best seen, possibly, in English idiosyncrasy, and set forth so fully, from the French standpoint, by M. Demolins in his suggestive work, *The Superiority of the Anglo-Saxons.*

It is also manifested, though after a very different style, in the confusions due to American lack of organic nationality. An acute novelist of manners has pictured it piquantly as follows. The boys of a middle-class, well-to-do, cultivated family in New England are about to have their annual peg-top contest in the barn, and the mother wonders what sort of crowd they will fetch from the common school: —

"Going to the window, I gazed out; but my thoughts were instantly focussed by the procession coming from the barn, consisting of three or four dogs, Richard, Ian, and their guests. Scanning these last curiously, I saw this strange combination: the son of the Anglican Catholic clergymen; the boy of the Polish shoemaker, suspected to be, though not confessedly, a Jew; Patsy Nally, whose father raises onions and pigs on the far side of the village; the son of the Italian fruit-dealer, who goes by the nickname of Toney 'Guinea;' the Crusiak cripple yclept 'Hop Sticks,' whose Hun-

garian father is a flagman at the turnpike railway crossing; and Sidney Hollister, the only child of the richest magnate of Oaklands and Bridgeton combined!"

Now, so far as complex civilisation is concerned 'Education' maintains itself in unstable equilibrium between these two factors which, again, are coöperant throughout the *continuum*. Remembering this, How shall we overestimate the value of fuller knowledge about the 'Heredity' element on the culture-plane? Further, any solid facts that we can glean must spell hope, and in large letters. For, obviously enough, an unbroken conflict between two tendencies affects the entire educational process, and is responsible for much present hesitation, not to say confusion. One effort ever bends itself to impress the traditional, or approved culture and normal aims of the community upon the individual. So much so that, as Ruskin objurgated, "Modern education for the most part signifies giving people the faculty of thinking wrong on every conceivable subject of importance to them." But, on the contrary, these very achievements of a society would die the death by inanition unless vivified by exceptional persons. Here we light upon the reason why significant men in the various forms of social activity tend to line up against one another. On the whole, we observe two antipathetic types — the formalist and

the idealist. Thus, in philosophy, there are the sophists or professorlings *versus* the sages; in religion, the ceremonialists and ecclesiastics *versus* the saints and mystics; in literature, the philologers *versus* the artists; in science, the methodists *versus* the naturalists; in politics, the aldermen *versus* the statesmen; in education, the mandarins *versus* the humanists. In every case, the one side stresses approved social achievements, the other looks for life in and from individuals. And, as a rule, the children of this world hold the children of light in bondage, to the bedevilment of long-suffering humanity. For, the higher a thing is, the less likely its success. Its appeal flies over — or, as often, *through* — the heads of the average.

The *raison d'être* of 'Education' may be defined as the development of intelligence; that is, to lead man to discover a stable order in his own spiritual nature and in his relations with his kind. All that subserves this end may count as good relatively, the rest as bad or, at best, superfluous. For, as Spinoza has it, in a very wise document: "Before all things, a means must be devised for improving the understanding and purifying it, as far as may be at the outset, so that it may apprehend things without error, and in the best possible way." But the individual cannot compass this great aim of himself, he must use the heritage wrung from Nature by universal experience. Nevertheless, and

inevitably, *an* individual must accomplish this — abstract ideas are not found energising down our avenues. So, from this standpoint, the educational problem may be stated as the unification of social achievement with individual initiative. Nobody can fail to see that, in one aspect of it, this is just the problem of 'Heredity' and variations, or modifications. Institutions — the school a fair representative — tend to become static, and so to treat men as means rather than as ends. On the other hand, the dynamic power of individuality alone possesses virtue to inoculate the old forms with the asepsis of well-being. We must remember that those persons who nurture the best in the group are "nearly always superior, for the purpose in hand, to the average capacity of its members." How far we miss a solution of this fundamental question may be gathered from a pronouncement by one of our foremost biologists.

"It would be an interesting subject to debate whether we could nurture such a man; whether a Darwin, were he entered at a Columbia, a Harvard, a Princeton, could develop mentally as Charles Darwin did at Cambridge in 1827. I believe that conditions for the favourable nurture of such a mind are not with us. They are, repose, time for continuous thought, respect for the man of brains and of individuality and of such peculiar tastes as Darwin displayed in his avidity for col-

lecting beetles, freedom from mental convention, general sympathy with nature and, above all, ardour in the world of ideas. If the genial mind cannot find the kindred mind, it cannot develop. Many American school and college men are laughed out of the finest promptings of their natures. In short I believe our intellectual environment would be distinctly against a young Darwin of to-day."

We teachers, oppressed by our institutionalism, too often succumb to a defect, noted also in the Darwin connection, and right caustically, by the President of the New York Academy of Sciences. "It happened merely, that what most of his teachers were prepared to impart he was not constituted to receive; and so one of the acutest observers the world has ever known was thought to be inattentive and unreceptive. During all the school days of his childhood . . . not only were his superb gifts wholly unrecognised, but no attempt was ever made to find out if he had any such gifts. . . . The one ceaseless effort of his schoolmasters was to crowd him into the common mould."

How long will these things be? How long will we rest satisfied smugly with a mechanical system calculated to drag the average man up to a very average level of average social competence, and neglect vital energies of the hidden spiritual life? How long will we confuse a certain "breathless-

ness of effort" with "quiet and assured power"? In this respect we have still to confront a most troublesome problem of method: How can the best that the *continuum* affords be re-impressed upon individuals without undue danger to their initiative? Solve it, and you grasp a most specific hope. Moreover, another problem lurks close by. It relates to the question of educational values, and might be put thus: How can we keep the average man in the stream of the *continuum* and, at the same time, system notwithstanding, *humanise* him specifically? Beyond doubt, we must exert tireless effort to naturalise *all* citizens in the main medium of our civilisation. But this culture, as we assert in our too frequent fits of vainglory, looks to the *future* for its portion. Likely enough, things may so run, but upon one condition only. Exceptional individuals must serve themselves bearers of the dawn that is to the noon that is to be. Schools for the deficient we have — a tribute to our pitifulness; schools for apprenticeship to our familiar arcs of vocation we have, and to spare — a tribute to our practical adroitness. But, where are our schools for the efficient, for the ten righteous men who, peradventure, will save the city? Echo answers, Where? — a tribute to our incorrigible lack of foresight. "The trouble with us is the prevalence of a sprawling, gossiping self-content that does not know or care whether such

things as manners, art, and literature exist or not." We tend to shout for joy as we hand munificent endowments to that most deceptive species of rot — dry-rot. But we have evolved no scheme for the education and selection of the initiative that can be bestowed upon us only by the higher initiates. That is, we have never so much as thought about one entire half of the 'Heredity' problem. We starve the idealist, because we cannot detect immediate dollars bulging in his jeans. Our schools are *common!* This indicates at once their besetting sin and their constant opportunity. For, 'Education,' if it rise to the height of its mission, must have concern, not merely with equality of instruction at the moment, but also with quality of manhood on the morrow. Its raw material, while formal and fiscal, on one side, cannot but be organic and racial on another.

Hence, I live in good hope that, when the facts of 'Heredity' become generalised on the educational level, when, in particular, we command some valid knowledge of the laws peculiar to the socio-psychological plane, especially in its wonderful 'lifts,' the causes of our present discontents may come within the bounds of diagnosis. The humanist, panoplied in the research we have bestowed upon everything except ourselves and our creations, will then be in position to announce a new commandment: Equality to the equal, in-

equality to the unequal, and all for the preservation of the larger whole. Such a law, as I humbly think, roots in the nature of the case. For, as one serene, sweet master has noticed and said, "All human culture, spiritual as well as natural, hangs upon inequality of souls."

THE UNIVERSITY IN THE UNITED STATES

To be educated by the best intelligence and the best morality of our age, this is freedom, this is life.

IS it possible to convey to the untravelled Englishman a definite impression of the university as it functions in the United States under the special conditions bequeathed by history, and modified by contemporary society? I place this question in the fore-front, partly because it sums the attempt I am about to make, partly because I doubt whether any picture can reproduce, for a complete stranger, the fact in its precise truth. At all events, it hints my difficulties, and may therefore serve to palliate my shortcomings.

Contrasted types as Oxford and Glasgow are, mediævalism developed both. And the mediæval flavour tends to persist. Does not Birmingham confess herself the daughter of Glasgow? Thanks to propinquity, is she able to escape influences from Oxford? Now, although Harvard was founded when Charles I. sat on the throne,

when Locke and Bunyan and Dryden were small boys, no mediæval society bore her, and, within the compass of a generation, she has departed completely from her once form, largely from her once ideal. The difficulty, then (and it cannot be urged too often or too strongly), of forcing the Englishman to understand, proceeds from insistent contrasts of environment, with the endless ramifications attendant.

The needs of the sects or, as Americans call them, religious societies, presided over the birth of the early colleges. Harvard, Yale, Princeton, King's (now Columbia) arose to supply the common demand for an educated ministry. Of course, one can trace a relic of mediævalism here. Time was when the 'clerk' alone required 'higher' education. The English, their luckless Education Bill — which says nothing about education — still in fresh memory, can remind themselves how this past, often deemed dead and buried, continues to disturb the present. Why should the clergy, rather than an expert lay profession, train the youth? Mediæval society holds the reply: one class possessed a monopoly of learning then. And notwithstanding numerous influences hostile to such tendencies, a parallel condition secured long lease of life in the United States. So late as 1850 the great majority of the graduates in Arts from Yale were destined to the Christian

ministry. In so far forth, therefore, the *trivium* or *quadrivium* ruled the curriculum; and the proportion of 'reverends' on the staff indicated where the college expected to find competent teachers. So immense has been the change that, to-day, a majority of Yale bachelors go into business, while, in my own university, with a staff of 420, but three own the title 'reverend,' and I greatly doubt whether one-third of their colleagues are even aware of these clerical antecedents. Obviously, then, the American university, seeing that it dates from 1636 (Harvard), possesses a history and, within this history, remarkable transitions have occurred. Accordingly, we must look back for a moment.

(1) English example and ecclesiastical organisation moulded the young university in America. To be quite plain, there was *no* university, but a single college, of the Oxford or Cambridge pattern, ruled by a president and fellows (names still retained in some eastern institutions, but standing now for nothing quite like their English ancestry, wherein the old tradition has been preserved more continuously). It had few teachers,— ten or a dozen,— and few students, three hundred being an extreme limit. It conformed to clerical (usually in the sense of dissenting) standards, shaped its pupils on intense, often narrow, lines, and, on the whole, remained in seclusion, nay, unspotted

from the gross world beyond.[1] Briefly, it represented low living and high thinking, not, however thinking in an intellectual, but in a spiritual sense, and this *quasi* puritanical. Further, strange as it may seem,— for seven generations import enormous alterations in the human affairs of a new land,— this species of establishment maintained itself, unchanged substantially, till the third quarter of the nineteenth century. My colleague, the late Dr. B. A. Hinsdale, in his day the foremost authority on the history of education in the United States, told me that, at the time of the War of the Rebellion, there were but *two universities* in the United States — Virginia and Michigan. Virginia (now happily rehabilitated) went to pieces after the war; men are still alive who remember Michigan so far conformed to the sectarian college that chairs were 'passed round' in turn to approved representatives of the prominent religious denominations; and, at a dire moment, theological rancour came nigh wrecking the university. But,

[1] In my judgment, it is of the first importance that two men, each of whom will leave a great university as his monument,— a unique opportunity uniquely taken,— should set down their recollections of their college training, and compare this with the dominant ideals of the splendid foundations that they have in large measure created. We *need* the reflections of *Emeritus* President Angell upon Brown *College,* as it was in the forties of the nineteenth century, contrasted with the twentieth century *University* of Michigan; equally, we *need* the reflections of *Emeritus* President Eliot upon the Harvard *College* of his youth compared with Harvard *University* as he has made her.

even admitting these two, the rest were small colleges of the kind described above. Thus, the *first* point to be grasped by the Englishman is, that the present university in the United States happens to have sprouted since 1870.

(2) Nor does the tale close even with a consideration so startling. The early colleges responded, not merely to ecclesiastical, but to economic stress. The States of the young Republic, while still in the gristle, found the bare maintenance of civil functions enough ado. Moreover, as in older countries at that time, the supreme significance of education for the efficiency of the entire body politic had not been realised. Thus, not the State and its resources in general taxation, but the self-sacrifice of groups and individuals within it, founded and nursed these nascent homes of learning. But yesterday the patent absurdity, of a great modern university governed by "Fourteen Congregational Ministers of Connecticut," was mitigated. Nevertheless, time out of mind, these ministers and their people had laid their gift upon the altar, and to them, in all justice, control belonged at the outset. His appropriations for nonconformist seminaries (which do not affect the university question) aside, recollection fails the Englishman of a similar contingency. So he must realise, as a *second* point, differentiating the United States, that in a sparsely settled continent,

with few manufactures or other resources, communities within the State, rather than the government, originated and tended the first colleges, and that religious bodies alone enjoyed strength or developed interest equal to the task. Straitened, crude, even reactionary as these beginnings may appear to us now, they embody a heroic story of hardship borne for an ideal, and borne cheerfully — a witness to that inner eye which saw, and seeing, aroused motive to build what was intended consciously to be a *civitas Dei,* a testimony to the spiritual, if in a dogmatic theological aspect. It may aid understanding if I add that the analogue to this spirit, native in the Motherland, is exemplified in the *perfervidum ingenium Scotorum,* whereby the Scot has seized power within the British Empire so entirely disproportionate to his numbers and his material resources. Sir Henry Reichel informs me that, for a generation, something similar has been afoot in Wales.

(3) But, once more, what happened in the New England States two centuries ago has been happening west of the Alleghanies ever since. As population pursued the setting sun, the conditions once peculiar to the Atlantic seaboard migrated also. Hence an immense system of 'higher' education, organised and subsidised by the various churches, spread everywhere. In the four North Central States — Ohio, Illinois, Indiana, and Iowa

— more than one hundred institutions exist chartered to confer the degree of A.B. Of these, ninety *per cent.* at least sprang from religious associations; and while some few, persuaded by Carnegie pensions, now profess to have discarded sectarian bias, all retain many birth-marks. For it is useless to disguise the plain fact that they do not contribute a single member to the comparatively small class which an American would designate the 'great universities.' Hence follows the *third* point to be sensed by the Englishman. Thanks to the historical and economic causes, suggested synoptically above, *more than six hundred and thirty* foundations in the United States are chartered to confer the degree of A.B. The vast majority of them had origin in sectarian sources — Baptist, Disciples, Lutheran, Methodist, Presbyterian, and so on in a long list; they still revert to the type represented by Yale and Princeton one hundred and fifty years ago. I have heard a prominent educationist call them "frauds on the public." I beg to dissent. Their service in keeping the lamp of education alight in waste places cannot well be exaggerated. Besides, even if their intellectual work be oftentimes shabby, occasionally pretentious almost to the point of misrepresentation, I think some of them can render effective assistance still under our unique conditions.

Yet, doing them every justice, they *eliminate themselves* when the question of "the university in the United States" comes under review. For, in a current American colloquialism, so quaint to English ears, they are "schools." To a modicum of Latin and Greek, which would seem rudimentary and, moreover, rough, to a fourth form master in an English Public School, they add mathematics, history, English literature, political economy, a little philosophy, immunised by copious injections of theological antitoxin, and so forth. Their spirit possesses little or nothing in common with the pursuit of truth for the sake of truth. The *arrière pensée* of dogmatic sentiment, in life no less than in intellect, sets their perspective. And, as I understand the matter, this attitude consorts with the desires of those whose interest it is to maintain them. As Dr. Edward Everett Hale has said: "The colleges have been endowed and carried on very largely under ecclesiastical auspices. This has frequently come out in absolute absurdity, for there are now colleges in the United States where a man may not teach the difference between the optative and subjunctive moods in the Greek language if he is not sound as to the inspiration of the book of Jonah, or as to the government of the church in New Padua." Their function, therefore, must not be confounded with that of the uni-

versity as understood in Germany or France, in Britain, or in the universities proper of the United States.[2]

These three introductory points made clear, we may proceed to grapple with our original question.

Towards the middle of last century Americans began to frequent the German universities, at first by twos and threes, then by scores,— some forty could be counted at Heidelberg in 1864,— finally by hundreds. If from early colonial days till the

[2] It is well-nigh impossible to bring home to an English university man the 'kind of thing' implied. But, *teste,* here is the letter-head spread atop a communication from the office of a certain 'College President':—"Christian University. For Ladies and Gentlemen. College of Arts and Sciences. College of the Bible. Business College. Conservatory of Music. Correspondence Bible School. Faculty Strong. Instruction Thorough. Curriculum Full. Expenses Light." And here are a few specimens of questions actually submitted on a printed form to the unhappy wretches who aspire to appointment as 'professors' in another precious 'college':—"On about how many days in the past year was unable to do full work? On about how many days in the past year was medicine taken? How long a Christian? Has taught Sunday School? Has led Prayer Meetings? Uses wine or liquor? Uses tobacco? Belongs to a Secret Society? Who can testify to success in Christian work?" "Christian," as here used, means in effect a species of Plymouth Brother. I am well aware that Englishmen will accuse me of exaggeration. I therefore hasten to add that these elegant extracts are culled from original documents in my possession; and to say that I could a tale unfold farther! Of course, to a stranger, the gulf between this kind of thing and the great universities is so tremendous as to be practically inconceivable. Yet, from Harvard to this circle of the *Inferno* there is a gradation of descent. *Le sage entend à demi mot!*

discovery of the Far West (say 1870), the United States remained tutelary to England, alike in culture and education; thereafter, in a special intellectual or academic sense, a second colonial period appeared, Germany standing sponsor. This new movement followed, then paralleled, a native change. As early as 1765 a school of medicine had grown up alongside Franklin's college at Philadelphia; and by 1817 we find Harvard consisting of the College (*i. e.*, Faculty of Arts) together with the "Schools" of Medicine, Divinity and Law. Thus, on her own initiative, the United States had contrived to broaden the original "College of the Liberal Arts" which, indeed, was already on its fateful way to the present redundant university. When German influence asserted itself with the return of the beatified Ph.D.'s, the Arts course, proper to the college, underwent farther extension and transformation. The inherent tendencies acquired momentum rapidly after 1875, and at length swept all before them after 1895. During the stage of transition, incidental difficulties were palliated or dodged by a species of compromise. The multiplication of degrees conferred by the Arts faculty offers an impressive instance of this process. The old A.B. found itself attended by three *parvenus*, as it were. For, in this light, the Bachelor of Philosophy, the Bachelor of Science, and the Bachelor of Letters were re-

garded at first. Thanks to such expedients, it was still possible to conserve a systematic course, on a basis of required subjects, and yet to permit the flexibility of choice demanded by the intrusion of new subjects. The A.B. implied a classical education, and retained primacy both in academic and popular estimate. For Ph.B. the Greek requirement was dropped, to be replaced by a modern language (German or French). For the B.S. all classical requirements were eliminated, and science (chemistry, physics or biology) was substituted. For the B.L. also classical requirements disappeared, English and the modern languages coming to bulk large in the compulsory studies, and the degree never attained much repute; it was associated with the 'lame ducks.' Thus, the rapid extension of subjects found scope in a more or less clumsy manner, although traditional disciplines, so-called, continued to enjoy 'protection' after a fashion. Plainly this marked an era of unstable equilibrium. For, as subjects multiplied within the university, the representatives of the A.B. requirements, especially the classics, became gradually a minority; while, without the university, as public opinion altered and as social pressure for practical and technical education increased, the proven studies lost their lead rapidly. At last, when these two streams of tendency joined, the less coveted degrees were abolished, and the B.S.

professionalised. Then ensued the full flood of the Elective System, when all subjects came to count equally for the A.B., which, as a result, represented for a time anything in the heavens above, on the earth below, or in the waters beneath the earth. Small wonder! I have heard tell of the President of a Far Western university (!) who perpetrated the sage aphorism, "There is no culture except agriculture." And a few months since, an English Public School boy, who is reforming another "sage brush" institution, informed me that his predecessor doubted the culture even of agriculture!

On the whole, then, with the adoption of the Elective System, the difference between the colonial college and the modern university might be expressed by saying that, in the latter, the Arts degree ceased to indicate any systematic or compulsory discipline. It is true that, in the Freshman year, the undergraduate found his free feeding limited to subjects which presumably linked with his school curriculum. But liberty existed even here. He might omit Greek, or mathematics, or both. It is true also, that English, in the sense of composition and paragraph-writing, was obligatory, and that pedagogy was imposed upon prospective teachers, if they would escape an easy, though irksome, State examination. But, these restrictions aside, the entire field of informa-

tion, from pure mathematics and nervous anatomy to "oratory" and retail trade, lay open to the ingenuous youth without let or hindrance. I have known a case, not unique either, where a student gained the A.B. with four-fifths of his entire undergraduate course in chemistry. The inevitable result was, as a professor of chemistry who taught him said, "he does not know chemistry." Others, again, attained the same degree without Greek, Latin, English literature, philosophy, or modern languages, as the case might be. Many equally curious possibilities might or did occur. In a word, the A.B. had become a routeless omnibus. As a consequence, a general movement for reform has taken place within the last few years. Examination of the Arts *curricula* imposed at a score of the greater universities justifies these general statements. (1) There is a distinct tendency to differentiate between the character of the work proper respectively to the first two and the last two years. This implies that Freshmen are to continue school studies rather on a school than on a university level; that Sophomores (second year students), while continuing school subjects, are permitted to elect studies peculiar to the university, such as elementary philosophy and economics. In short, the grade of work proper to these years is what is known in the United States as "college," that is, part school, part university. (2) Re-

quired work in foundation subjects — chemistry, English, a foreign language, history, philosophy, mathematics, physics and, sometimes, classics — ought to be overtaken in the "college" years. (3) In the last two years (Junior and Senior) real university work is introduced, usually on the basis of a Group System. Here the candidate chooses a major subject; to this he must devote a minimum of one-third or a maximum of two-thirds of his time. Certain minor, or supporting, courses must be elected; and some free election is permitted. The general idea is to ensure concentration and, at the same time, to bring the student into contact with the main realms of knowledge.

From the English viewpoint, when a scheme of this sort rules the *great* universities, the educational question pushes itself back a stage, namely, to the secondary schools. Obviously, if they were organised and conducted in such a way as to furnish material sufficiently competent, even this *Lernfreiheit* might operate as efficaciously as in Germany. But the difficulty, like the difference, nucleates here. All things considered the high school in the United States presents no precise parallel to cognate institutions in England, Germany, or France. Furthermore, the American has adopted and applied in *all* grades of education the German idea peculiar to the *university only,* according to which,

Wissenschaft is its own reward. Severe examinations, competitions and other forms of stimulus, so familiar to the English, are unknown. It seems to have been forgotten that, *outside* the university, such tests obtain everywhere in Germany. The *Arbiturientenexamen* has no analogue in the United States, nor the State medical and legal examinations. Consequently, not only is the American school unprepared to produce the kind of student upon whom the organisation of the German university depends, the youth whose ascertained competence justifies *Lernfreiheit,* but also no entrance tests are imposed comparable in severity to the Scottish or the London Preliminary. Hence the judgments passed upon the Rhodes Scholars by their Oxford Tutors. "They are attractive and attracted, but restless, volatile and never educated *gründlich.*" "They seldom or never settle down to do a long spell of work." "They seem to me to lack accuracy and (as a rule) the power of hard grind." "They have a general knowledge, but have been taught nothing very precisely, and have not been accustomed to write and express themselves clearly and with precision. They do not appear to study a subject as a whole, as we do, but, after attending courses on a portion of a subject, they appear to drop that and never revise it again. They never appear to have any comprehensive examination on the whole

of a subject." Besides, the goal of the German university is the doctorate, designed for those whose preliminary general education enables them to specialise profitably, whereas the end of the American course is the A.B., itself a testimony to much the same general education *presupposed* by the German university. In a word, the teutonisation of the American undergraduate course has so eventuated that students who know nothing thoroughly about a single subject have been made free to choose as if they knew all. Here, at least, praise cannot be perfected out of the mouths of babes and sucklings.

This consequence ensued particularly, some would say exclusively, in the Arts faculty. In the professional faculties a hard and fast system operates, and is so organised that the undergraduate issues informed and moulded within the limits of his chosen *technique* — a philistine, may be, but so far an efficient philistine. The pressure of American life has a great deal to do with this; the professional "school" is a direct preparation for one or other of the careers to 'success,' in the American interpretation of this term. I question if even the Scottish medical course, a severe mill, is so exacting as the best American schools — Harvard, Johns Hopkins, Michigan, Pennsylvania. In the same way, the foremost engineering schools — Cornell, Massachusetts Institute

of Technology, Michigan, Pennsylvania — equal the European in continuous demands upon the undergraduate. But, plainly, the Arts faculty, which means "the university" so largely for the Englishman, differs widely from its British congener. In what remains I shall attempt to punctuate this contrast as clearly as I can.

At the outset, let me repeat the platitude, that two types of university flourish side by side in the United States. In the Eastern States we find institutions of private endowment — Harvard, Yale, Johns Hopkins, and so on. For the most part, these are ancient foundations; they have been paralleled recently in younger communities by Chicago and Leland Stanford. West of the Alleghanies the other great universities were erected by State governments, and are maintained by public taxation as "the cap-stone of the educational system." Even allowing for wide divergence of social condition, it may be declared at once that no such variation separates these types as is familiar in Britain, between Oxford and Glasgow, for example. In a word, the same *general* situation repeats itself universally. Or, as it might be put otherwise, Michigan *the* representative State university, tends to become more like Harvard, *the* typical private university, while Harvard has not remained untouched by the example for which Michigan stands. Accordingly, local and tem-

porary contrasts admitted, one may assert that a dominant trend of system spreads everywhere.

As a rule, the American youth enters the university possessed of more worldly wisdom than his British cousin, and, with reference to practical life, his character presents *markedly* greater adaptability. He might be termed a boy-man. But nearly always he knows no subject with comparable thoroughness, and very rarely has any equal body of systematised information at immediate, available command. To use an apt phrase, "he has never been put through the mill." On entrance, few American matriculants could satisfy, say, the Balliol dons, of competence to read for an honour degree, and a distinct majority would go down before the Scottish Leaving Certificate or the London Preliminary Examinations. On the other hand, they carry an assortment of intellectual light baggage beyond the Etonian's ken, and are decidedly less hampered by English *mauvaise honte* or by the Dorian self-consciousness of the Scot. Consequently, the early terms of residence pertain rather to school than to university studies, and the spirit is accordant. The Freshman "recites" just as he did in his preparatory school. That is to say, he must keep up to the mark day-in, day-out, on the prescribed "lessons," and his "standing" is determined by his response to *viva voce* examination in the class-room. Further, as

Professor Hart, of Cornell, has said pointedly: "From the day of his matriculation to the day of his graduation he is under surveillance more or less intrusive, his attendance is noted down, his performances are graded"—grading means marked in the "instructor's" roll-book. Here one of the most striking features of the American university emerges, one, too, which the Englishman can realise with difficulty, if at all. *Degrees do not depend upon examinations*, instituted *ad hoc*, but upon class-room work from week to week throughout the whole period of attendance. Let me attempt an explanation. To obtain the A.B. the undergraduate must earn so many "hours." This is known as the "credit system," and it operates thus. Suppose that the A.B. represents one hundred and twenty "hours of credit" on the books of the university, and that the course extends over four years, each of two terms (semester is the common American word). Obviously, to graduate, the student must gain fifteen hours in every term. He accomplishes this by selecting courses which aggregate fifteen hours: say, English, four hours; Latin, four hours; mathematics, four hours; history, three hours. Accordingly, during the semester, he must attend the English, Latin and mathematical classes respectively for one hour *per* day on four days of the week, the history class on three days. Then, provided that

his daily "recitations," his "reports," or written exercises, meet the standard, and that at the end of the semester (which runs about seventeen weeks), he passes the "terminal" examination on the work of the class, he will be "credited" with four or three hours in the several subjects as the case may be; the same course cannot be "credited" twice. Should he fail, one of two things will happen. Either he will be returned "not passed," and lose all credit pertaining to the particular course; or he will be set down "conditioned," and must pass a supplemental examination at a set time, to "remove his condition." If the "condition" run more than a stated period (usually a few months) without removal, it becomes a "not-pass" automatically. When, on this plan, the undergraduate has accumulated one hundred and twenty "hours" on the books of the Registrar, he forthwith proceeds to the A.B. at the first Commencement. All degrees in Arts are gained in this way, the British distinction of poll and class being unknown, except in certain subjects at Princeton.

As I see it, the main objection to this system issues from its failure to put any premium, even the slightest, upon high attainment and academic distinction. Accordingly, undergraduates think of 'university honours' as appertaining to official positions in student associations, and the like,

hardly ever in terms of intellectual attainment. For example, here are the 'university honours' of a 'distinguished' student, printed in the list of his class, in a book issued by his fellow students just previous to their graduation: "Freshman Glee Club; Smoker Committee; Athletic Committee; Senior Reception Committee; Social Committee; Class Football Team; Michigamua (Senior Society)." The student was thus 'honoured' because he 'made' these organisations. In the same book, the name of the ablest A.B. of the year passes absolutely without comment. Thus, the tendency to rest content with a bare pass meets all too favourable environment. Consequently, the real credit for the pass must be viewed as relative to the difficulty of securing it on the lowest level. The greatest genius and the greatest goose go forth stamped with the same hall-mark. Ability is not emphasised, dullness is flattered. And the further effect upon the supply of teachers, particularly to the secondary schools, cannot be called reassuring. The legend, "Only graduates in Honours need apply," so often inscribed in advertisements of vacancies for English and Scots masterships, would be rendered meaningless by the "credit system." Why the university should be the sole place where every man is not rewarded according to his deserts, remains a mystery to me, especially as the Ameri-

cans are an eminently practical folk, and devoted to education. Once more, the system is disadvantageous because final for degrees. It ought to be final for courses in class only. Having completed the necessary "credits," the candidate ought to be subjected to a special degree examination of a more extensive and thorough character than is possible in connection with a mere class examination. The result is that the A. B. has come to be regarded, not as a certificate of competence, but rather as a diploma of respectable undergraduatehood. For no test of any real difficulty, either extensively or intensively, has been met. As Mr. Bryce says: "At no point in his career is the student expected to submit to any one examination comparable, for the combined number and difficulty of the subjects in which he is questioned, to the final examinations at Oxford or Cambridge." And I have noticed the press — for whose vice of exaggeration some deduction must be allowed, no doubt — hail the Oxford entrance, to which the Rhodes Scholarships candidates are held, as a horrible crucifixion! I do not say that the "credit system" is thoroughly bad, but I do affirm that the astounding disparities, all covered by one undifferentiating sign, are too marked for comfort, and for educational safety. Lastly, it is a serious defect that the teachers should be the examiners. Better far to have independent examiners read

the papers, adjust passes in consultation with the teachers, and incur entire responsibility for the final results. The teacher ought not to be put in the position of playing special providence — he is all too human for this. In some aspects of it, then, the "credit system" looks suspiciously like a conspiracy on the part of mediocrity to render academic circumstances as favourable as possible to such standards as it can meet with comparative safety.

On the other hand, the flexibility of the plan is marvellous, and accommodates admirably a community where social changes are rapid and startling. Nevertheless, it produces one internal evil of no little magnitude, to which President Hadley, of Yale, adverted, in his 1906 *Report,* though rather in a different connection. In the first and second years of the academic course not a little work is included that can be overtaken with sufficient efficiency by "instructors" (*Angelicé* tutors) who possess few claims to the ability and distinction requisite in a university professor. The school teacher type — that of the average Board school in England — thus gains entrance into the Arts faculty, bringing his undesirable associations. And, if an "instructor" remain in this grade of service long enough, very possibly, by simple lapse of time, he may receive promotion to the professoriate; if the head of department be himself a

weakling, he will recommend this promotion almost certainly. It thus happens that men attain the chair sometimes who are fit to be no more than school drill-sergeants, and they inoculate the entire academic body with their baleful tendencies. So, one occasionally finds sitting on the same senate, and exercising the same powers over high academic policy, scholars equal to the best anywhere, and other individuals whose presence on an English or German university staff would be almost inconceivable. Now this is only to acknowledge that, whether for student or teacher, the system has paid a price hitherto for its adaptation to the peculiar conditions. My personal impression is that this presence of the pedagogue *personnel* and ideals presents one of the practical problems fated to be met soon by the university in the United States. It proves the identity of university with school work, and as, by an inevitable process, the former becomes more differentiated, the overlapping must cease for ever. Meanwhile, it constitutes a constant source of friction, as Dean after Dean has informed me.

To render our picture more concrete, other instances of the tendency towards the persistence of a school atmosphere may be cited. The management of athletics, of student publications, of the funds of undergraduate associations, and so forth, by committees of the instructional force, furnish

cases in point. As straws serve to show how the wind blows, the Englishman will sense at once that the climate is very different from that prevalent in his own universities. I may add that it consorts with a trait characteristic of general society in the United States. Individuals tend to seek a level, which is not that of the most distinguished intellectually, nor of those who have differentiated their special originality. Personal idiosyncrasy, so marked in British academic and political life, finds little elbow room and no encouragement. I could adduce several astonishing, almost incredible, cases of this drawn from my own experience as a professor.

The "professional schools" have been noticed already. It should be mentioned further, that they stand in a peculiar relation to the Arts faculty, or may so stand. The absence of an honour A.B. in mathematical and physical science, in jurisprudence, in chemistry or biology, in Hebrew and oriental languages, or in theology, operates to this end. Thanks to the public educational system, the American student is unable to begin his university career soon enough. If he spend four years in Arts, and another three or four years in a professional faculty, he may very well reach the age of twenty-five to twenty-seven ere he can take the first step in the work-a-day world. This difficulty has caused some searching of heart in the past

fifteen years. Proposals have arisen to limit the Arts course to three or even two years, and the former alternative has adherents. As a general rule, however, another plan has commended itself to the authorities, so drawn that a candidate may obtain both the Arts and the professional degree in six years. Thus, for certain cognate subjects, "hours" count in two faculties, with the result that so much Arts "credit" goes to Law or Medicine, so much legal or medical "credit" receives recognition for the A.B. While of clear value as a useful makeshift in organisation, this arrangement disrupts general education, by restriction of possible elections, and by determining beforehand many of the subjects to be studied. In other words, a boy turns himself into a professional long ere he has made such a voyage of self-discovery as to be able to tell what he can pursue for his own highest development, nay, he forestalls such a voyage. For example, of the large numbers who now elect history or political economy, many follow these subjects, not because the studies exert any charm over them, but because they offer an avenue to a commercial career, or to the combined Arts-Law degrees at the end of six years. To some extent the same holds true on the medical and engineering sides of what ought to be *pure* science. One could imagine, without great difficulty, a successful staff in physics, on an Arts faculty, without a

single physicist — electric engineers, *et hoc genus omne,* would serve! A parallel tendency manifests itself, particularly among women students, at the co-educational universities. Many of them — like some few men — intend to teach in primary and secondary schools under local Boards. Thus, their elections are determined largely, not by the desire for the kind of education calculated to train and transform their talents, or to endue them with the culture so indispensable in the teacher, but by the subjects which they propose to teach *school fashion.* And this movement is intensified to fatuity, as many think, by the intrusion of pedagogy into the Arts course. The preparation in this subject is no less professional than in Law or Medicine,— with no solid body of professional knowledge, unfortunately — and has its proper place either in the Graduate Department, or in a professional "school." Scholars find the consequences exasperating, sometimes ludicrous, were they not so pitiable. In effect the university is set to compete with the normal schools, and *quasi* science obtains the time that should be spent upon the real article. Thus, in every direction one witnesses steady adulteration of the Arts faculty by professionalism and, *pari passu,* a gradual eclipse of the true academic ideal — the production of such and such a type of humane being, differentiated by a crystalline intellectual sensibility or in-

sight. Moreover, the general *ethos* of the nation moves decidedly in this direction. Vocation — the man as a tool — crowds out avocation — the man as a humanised being. Culture for the sake of culture has fallen upon evil days; knowledge for use, and for immediate use at that, aggrandises itself by leaps and bounds. Pursuits multiply, while personalities decay or even disappear.

What, then, does all this mean? It implies, *first,* that society in the United States demands, and obtains, an education sufficient to equip many of its members for citizenship in such a way that they can conduct their affairs with the efficiency of self-respecting folk, and take part in the battle of life with an intelligence and mobility impossible to most Europeans of relative social rank. It implies, *second,* that society demands, and obtains, excellent facilities for fitting any of its members, who so desire, to *do* specific work, more particularly that tending to the successful exploitation of the resources present in an undeveloped continent; to do work that places a man in position to be of *immediate practical use* to the community, whether in medicine, dentistry, invention, engineering, law, commerce, mining, agriculture, and the like. So far, so good. But it implies, *thirdly,* that when individuals possessing special talent or evidencing unusual *Geist* try to *be* some-

thing more than their fellows, they find themselves inhibited, partly by less excellent facilities, and partly by the inevitable inertia of society as a whole embodied, as it always is, in unconscious conventions. Consequently, the most promising spirits are too often sucked into the vortex of practical affairs, where the ceaseless round of the moment kills personal development, except along narrow lines dictated by the daily circumstances; or, having achieved the added ten talents up the hill of unnecessary difficulty, young men find social adjustment slow, being left without obvious function to perform or place to fill, and unable to descry a congenial environment. The admirable technico-professional training effects the one result, the craze for 'safe' men produces the other. Briefly, individualised development of the intense personal sort wanes, because society, such is its present condition, does much — all unconsciously, of course — to discourage its nurture. Emerson noted this, in his address, *The American Scholar,* so long ago as 1837. "The class which with its adherents has so long governed England," as Mr. Hillaire Belloc wrote so acutely, "the class which gives all their spirit to our two universities, the Houses of Parliament and the learned professions, produces a peculiar isolation of type within itself; a self-development, a self-discovery in individuals. . . . The Englishman of the upper class who is

destined to attain the highest places in his career, and therefore to influence his generation in some degree, pushes to the uttermost extreme passion for private experience, private adventure, and the *private solutions* of the problems around him. He pursues . . . *throughout life* that eccentricity or search which distinguishes the *youth* of the middle class in the universities of other countries." Mr. Belloc might have added to the last sentence, "except of the United States." The Englishman must understand, therefore, that subtle contrasts of social temperament affect the American universities. Where differentiation of individuals occurs, as the mark of efficiency, and this of necessity — namely, in the universities and, to a less degree, in the secondary schools,— there precisely American *differentia* becomes most apparent and, many would add, American weakness. By a silent process, which, of course, only a small minority of native Americans note, plans are cultivated that fit men to serve society in practical pursuits; on the other hand, plans calculated to help men to become their distinctive selves are omitted, perhaps frowned upon. No other interpretation can be put upon the following phenomena. The disproportion of girls among those who *complete* the high school course; the increasing proportion of women in the teaching profession; the superiority of scientific and especially professional as

compared with literary training in the institutions of the higher education, and the will to spend so much more money upon its needs; the efficiency of the crafts, judging by their human products, as contrasted with the mediocrity of scholarship, literature, art, and philosophy; the comparative futility of pure science in face of the startling triumphs in the applied branches, to which such an authoritative publication as *Science* is ever returning. Americans point with legitimate pride to their Edisons, Westinghouses and Brushes; but when it comes to Kelvin and Rayleigh and J. J. Thomson and Larmor and Ramsay and Rutherford, they can show only an occasional Rowland. All this is no accident, but the most meaningful consequence of a diffused and deep-seated cause, flesh of the flesh of the whole sociological evolution. As the Mosely Commission said: "On buildings and equipment the expenditure is lavish; unfortunately there is too often undue parsimony in the far more important matter of salaries, and the supply of adequately equipped teachers who intend to stick to the profession is very insufficient." Even more serious, "exceptional ability is hardly, if at all, recognised." The fact is, one can trace a dislike or suspicion of any human material which, unusual in spiritual efficiency, is bound by its very existence to constitute a criticism upon the average man. And, by a process of

selection, the system of education eschews precisely this product. Not without compensation, however.

Under the conditions I have attempted to describe, the Englishman will see at once that the university in the United States is a popular institution to a degree unknown, perhaps impossible, in England or even Scotland, the severe entrance examination having transformed the once character of the northern universities. Now, one of the most noteworthy and symptomatic facts of contemporary life in the United States centres in the rush to the universities. The statistics are astonishing. The present enrollment of the fourteen great universities is 62,196; omitting the three small institutions, it is 57,948, an average of 5,268. Seven years ago the respective figures were: 42,291; 39,793; the average 3,608. While in 1897 the figures read: 27,712; 24,972; and the average 2,270. The present average attendance at the four largest universities is 6,236; seven years ago it was 4,505; in 1897 it was 2,643. Needless to say, in view of the hints thrown out above, the most striking increase pertains to the professional schools, especially law and engineering. In 1897, my own university had 275 students in engineering, 575 in law. Late figures show 1,243 in the former, 902 in the latter. In the same period the Arts faculty rose

from 1,269 to 1,895, a growth by no means commensurate, and affected not a little by the presence of the "joint-course" professional students. It were superfluous to indicate that these phenomena influence the spirit of a university profoundly; the humanist is fighting nigh for his life. Besides, the Englishman must try to understand that, Honours being absent, the Arts degree offers no such rosy gateway to life in the United States as in the Motherland. In England, a graduate in high honours already has his foot on the first rung of several ladders. The learned professions, pure science, the careers of diplomacy or politics, the government Services, the Indian Civil, and the like, afford spheres where a good degree counts for righteousness. Special distinction renders a favourable start sure, while distinction determines the direction whither a hopeful beginning may be made. Why? Just because a high degree implies, almost guarantees, a definite type of man. Nothing of the sort can happen in the United States, mainly, perhaps, because the A.B. is "the night in which all cows are black." Brand the best scholar and the worst dunce with the same mark; you must take the consequence — you cannot know the "mavericks."

At the same time, a "college education" does possess an indefinable social value. Wherein

this consists may be felt more readily than described in good set terms. When — especially in some *coulisses de société* — an Englishman mentions casually, " I was at Oxford with Blank," indicating this or that cabinet minister or prominent personage, something immediately stands to his credit. If you can imagine a vague and faint reproduction of this, divested completely of implications of social status, and having reference, not so much to a class or ' set ' as to the entire body politic, you may obtain a shadowy idea of the value of a " college education " in the eyes of the average American. As I sense the matter, it implies that university graduates tend to gravitate to the ' directing ' classes, and also that they often represent some of the best moralising influences in the civic life of the day. Or, yet again, their advantage is symptomatic of the zeal for education which, after a kind, marks the American, just as the Englishman thinks of it as a Scottish characteristic, although he attaches small ' social ' value to an Aberdeen degree. Like this, the American degree bears no stamp of social superiority, but it induces respect and, sometimes, expectancy. At the same time, its worth is general, never specific. For the A.B. lacks utterly the prestige attaching to a high Honour degree in Britain. It may mean something, no doubt, but this something may

turn out anything. It will be objected here, and properly, that "anything" is synonymous with nothing.

We may ask, accordingly, Is it possible to assign specific causes for the value attached to a "college education"? I am inclined to think not. The reference must be rather to the main drift of society as it reflects the attitude of the universal middle class that is so prominent the United States over. This is an elusive cause, unquestionably, but the real one nevertheless. Americans may claim, without fear of contradiction, that in their common schools, technical institutes, engineering, medical, legal, agricultural, mining, and cognate university departments, they supply to the whole body of the people, none being in any way excepted, a kind of preparation that fits men in an admirable manner for the work exacted by their geographical environment and civil conditions. The development of the material resources of the United States since the Civil War amounts to a miracle. And the educational scheme concentrates itself upon rendering the same development more rapid and much more intensive within the coming years. Europe begins to study the situation, partly because these traits are present, partly because success has ensued, partly because the resources constituting the point of attack are endless; even Americans hardly

realise that their country is but scratched. Thus, in a word, American higher education represents an amazing achievement in so far as it nourishes the *body* of life, an achievement the more splendid on account of its national or popular availability. This holds especially with respect to the State universities, from Michigan westward. "The whole thing is intensely practical — possibly too practical for the retention of a high standard of liberal education and traditions of culture; for the pressure of commercial life seems to be driving the universities to shorten or whittle down the academic and literary side of their training. To the outsider it seems as if some of the universities and colleges were trying to do too many things in too great a hurry, without taking pains to define and consolidate the foundations of liberal culture which a university training is usually supposed to guarantee." As a consequence, university men are seldom so differentiated from the masses as to turn popular prejudices topsy-turvy. They do not "behave themselves strangely," to adopt Lander's phrase, nor exasperate by exacting a standard too high for the 'common' man, or quite beyond his horizon. Hence the university hall-mark, being "of and from" the people, acquires a certain significance unfamiliar in England. Because the universities "provide fairly well for the intellectual needs of the

average citizen," and "hardly enough for the training of special ability," they are rehearsals of life, and therefore come to be taken at their word. The graduate finds *a* place easily, but not a *special* place. He achieves better than his fellow who has not had "the advantage of a college education." But he achieves *as* his fellow, not in other pursuits which presuppose something distinctive and to be obtained only in the academic halls. In brief, the gregariousness of the A.B. is the root of his — and its — prestige! Statistics show that the "college" graduate adds to the period of individual productiveness, and that he increases public happiness. And as the public is intent precisely upon material productiveness and upon happiness, it tends to appreciate the manifest advantages of the higher education which favours these results. Or, to use a phrase constantly upon the lips of administrators the university, through its graduates is "the great asset of the commonwealth." As an item on the balance sheet, an item which all can grasp, the degree carries clear value. So much for the passman.

I must not conclude, however, without reference to that part of the university organisation unexampled in Britain, I mean the "Graduate School," and the "Higher Degrees." Just as the early college was a reproduction of a single

Oxford or Cambridge college of that day, so the modern Graduate School may be called a reproduction of the German university; at all events, German methods rule it, not English. It is the machine for the preparation of specialists — scholars and scientific men. After graduation, the A.B. may proceed to an A.M. at the end of one year, or to a Ph.D. at the end of three years' farther residence and study. The Master's degree may be dismissed — at present it has not found its function. But the Ph.D. enjoys decided rank, because it has become, and tends to be more and more the conventional path to appointment on a college or university staff. Its qualities, like its defects, are traceable to its 'commercial' value; "I need it in my business," as one of my students said to me a few weeks ago. The method is this. Having proven his competence or discovered his bent in the A.B. course, the candidate selects a major study in the graduate school; with this one or two minor studies are associated. As a rule the subjects are more or less closely cognate. This, for instance, is a common case in my own experience: candidates for a doctorate, with a major in Greek or Latin, tend to take Latin or Greek as their first, and ancient philosophy as their second, minor. The actual work proceeds on the German *Seminar* model, and ought to be under the direction of the ablest and most experi-

enced scholars on the staff. The ideal is not so much to impart information as to develop original research. Very likely, in many cases, this remains, and must remain, an ideal. In the second year, the candidate adopts an approved subject for a thesis, on which considerable stress is laid. It is expected that he will here make a first-hand contribution to learning or discovery, however slight. The thesis is presented and adjudicated towards the end of the third year of post-graduate study, and, if accepted, the candidate may then proceed to examination. The examination is oral, as a rule, although certain departments exact a preliminary written test. All things considered, it may be viewed as a remnant of the mediæval *disputatio*. In the case of the smaller colleges generally, and often in that of universities of the second rank, the candidate quits his *alma mater,* and proceeds to one of the great universities, where facilities are superior; oftentimes he goes abroad, commonly to Germany. Migration from university to university does not take place in America as in Germany during the period of graduate study, however. Whether a bachelor can be received as a supplicant for the doctorate depends on the grade of institution whence he came; and some universities, like my own, will accept no 'foreign' A.B. as a candidate for the Ph.D. till he has proved himself by one year of

residence and trial. Englishmen who have studied in Germany will understand at once the methods and ends of the Graduate School. Those who have not enjoyed this experience will sense the situation with difficulty. They might, no doubt, as they sometimes do, compare the Ph.D. with the B.A. in Honours. But one great difference is written large everywhere. Taking my own experience: I have seldom examined a Ph.D. candidate who commanded such a store of learning as the good English or Scots first-class man, and, only once, an examinee who could set forth his knowledge with similar elegance or even skill. Farther, the oral examination is neither so severe and sustained nor so wide in range and thorough as a British Honours school. On the other hand, an American of equal ability with the British first-class man is rather more likely to become a contributor to the advance of knowledge, especially in some of the laboratory sciences, because a very different environment surrounds him. He is never a "competition wallah," to use Sir George Trevelyan's phrase, but studies, or should be taught to study, purely for the sake of mastery in his subject, and with a conscious endeavour after productive scholarship. The aim of his teachers is to place him in a position of independence, whence he can review the field for himself. Without doubt the

Graduate School sometimes falls lamentably short of these ends; and, so far as I can see, it will continue to do so until a more systematised and severe preliminary requirement comes into general force. If the American universities were to grade their bachelors, and permit only those of the first rank to enter the Graduate School, then the value of the preparation presupposed would become enhanced immensely. The present weakness of the doctorate course arises from the haphazard supply of human material. Within the universities themselves, it is occasionally regarded as a luxury, or as a mere appanage, and not as *the* university course *par excellence,* which happens to be its real purport, as it should be its actual status. It is also most desirable, if not altogether indispensable, that the doctorate itself should be graded, as in Germany. To place all doctors, good, bad and indifferent, on the same level constitutes an unfortunate error, and tends to bring the degree into disrepute. A specialist should stand forth stamped at his precise worth. For, the degree is not, as so many view it, an end in itself, but simply a token.

In conclusion, it may be remarked that the United States has not yet evolved a distinctively native university organisation, developed from her peculiar conditions and needs without reference to foreign models. At present a period of rapid

transition prevails, and the end no man can tell or dare prophesy. Still, one problem looms so large that it begins to compel attention. There is absolutely no reason why the American university should not, in the future as in the past, supply the masses of the people with good general opportunities. Indeed, to divert it from this service would be perilous in the extreme. But most apposite reasons exist why the system of training should be overhauled, particularly in the humanities. It is necessary beyond all else, to furnish definite provision for the discovery and nurture of exceptional talent, and to stamp this as *the* distinctive product of the Mother Faculty. The English universities have contrived to accomplish this far more effectively, and for two causes. First, they possess the Honours system, which everywhere differentiates ability. Second, their conventions proceed from a dominant social group to whose amplitude of spirit, in the matter of personal culture, American institutions offer hardly any parallel. The American problem is to continue to serve the average man, *and* to find and train the exceptional personality — to develop a new level of culture. The same methods as the British are impracticable, without doubt. But the university in the United States is perfectly well able to evolve its own means to its own salvation. The cure depends upon courage and insight

to detect present ailments. And the men who fight this battle through will serve themselves the greatest benefactors American education has seen since the Puritan forefathers, who laid the foundations broad and sure in the lives of the folk. The necessity is to breed humane beings. The cry for men to direct trades has been upon the United States for a generation; the yearning for masters to mediate life must follow — all history witnesses this surety. But, be this as it may, it must be plain to the English that the university in the United States presents a complication of features quite unfamiliar to them; that it may be misunderstood easily in general conversation; and that it is not to be grasped after a few weeks' rush over the continent. Immense drafts of energy, as of money, are being enlisted in the evolution of the great universities, and another quarter of a century will see profound changes. Indeed, the difficulty of my subject resides here. So rapid and manifold are transitions in the United States that what is true to-day may be false to-morrow, and what holds for one part of the continent may be inapplicable completely to another. "The Land of Contrasts" baffles synoptic presentation.

It needs no prophet, however, to speak a definite word about the future. Not long since I had the pleasure of receiving an expert, sent by the German Government, to investigate the universi-

ties of the United States. He remarked that men were apt to be about thirty years behind the times in their average conceptions of foreign institutions. In Germany, he continued, we hear sometimes of Harvard and Columbia and Chicago, but no one has any conception of universities like Michigan and Illinois — their magnitude and resources are uncomprehended. Little wonder, one may interpolate. Twenty years ago, the total income of the two universities was about equal to the present budget of the University of Edinburgh — £95,000: to-day, it presses hard upon the combined annual resources of Oxford and Cambridge — reaching no less than £785,000! My colleagues, he went on, will hardly believe me when I return and tell them that I found several *German* books in your library, on a special subject now engaging my attention, which I could not obtain at home. Little wonder, one may interpolate again. Twenty years ago, the number of volumes in the Michigan and Illinois libraries was but 108,000; to-day, the total reaches 600,000! The Michigan librarian records, in a recent report to the Regents, that the library has doubled during his incumbency, which covers a decade only! The moral is, that for twenty years past, the great American universities have been laying deep foundations. And when certain difficulties, due mainly to over-lapping, are removed

from the educational system, it is safe to say that "the University in the United States" will challenge, possibly — I think probably — lead the world. The uneasiness of the American in his educational Zion augurs wonderful advances to come. Troubled by this spirit, many scholars would be less pessimistic about the immediate future were they and their colleagues delivered from three besetting sins, as they deem them. They recognise that they are required to teach too much, that the grad-grind of routine is apt to dull them. Thanks to certain national tendencies of civil life, reproduced in academic government, politics absorb and cannot well be escaped — and university politics were ever unfriendly to intellectual achievement. Finally, they are under continuous pressure to construct nice text-books that have no particular significance for the advancement of knowledge, and often foster baseless self-satisfaction. The more widespread the consciousness of these limitations, — and it grows apace,— the greater the proportion of influential men who recoil from Beaumarchais' cynical advice, *Médiocre et rampant, et l'on arrive à tout.*