THE NEW ALLIES OF HISTORY

I

That history must from time to time be rewritten is an oft-repeated commonplace. Why is this? The past, as ordinarily conceived, seems fixed and settled enough. No theologian has ever conceded to omnipotence itself the power to change it. Why may it not then be described for good and all by any one who has the available information at his disposal? The historian would answer that more and more is being learned about the past as time goes on, that old errors are constantly being detected and rectified and new points of view discovered, so that the older accounts of events and conditions tend to be superseded by better and more accurate ones. This is obvious; but granting that each new generation of historians do their duty in correcting the mistakes of their predecessors, is that all that is necessary? Is there not danger that they will allow themselves to be too largely guided in the choice of their material and in their judgments of it by the examples set by preceding writers? Are historians now adjusting themselves as promptly as they should to the unprecedented amount of new knowledge in regard to mankind in general

which has been accumulating during the past generation, and to the fundamental change of attitude that is taking place in our views of man and society?

The usual training which a historical student receives has a tendency to give him the impression that history is a far more fixed and definite thing than it really is. He is aware that various elaborate attempts have been made to establish the *Begriff und Wesen* of history, that its methodology has been the theme of a number of treatises, and that its supposed boundaries have been jealously defended from the dreaded encroachments of rival sciences. Moreover, he finds the general spirit and content of historical works pretty uniform, and he is to be forgiven for inferring that he has to do with a tolerably well-defined subject matter which may be investigated according to a clear and prescribed set of rules. I am inclined, however, to think that this attitude of mind is the result of a serious misapprehension which stands in the way of the proper development of historical study. Before proceeding we must therefore stop a moment to consider the vague meaning of the term "history."

In the first place, history has itself a long and varied history, which was sketched briefly in the preceding essay. Its subject matter, its purposes, and its methods have exhibited in the past a wide range of variation which suggest many future possibilities when we once perceive the underlying causes of these changes. It has, as we have seen, somewhat reluc-

tantly and partially adapted itself to the general outlook of successive periods, and as times changed, it has changed. In the second place, the scope of historical investigation, as actually carried on at the present day by those who deem themselves historians, is so wide as to preclude the possibility of bringing it into any clearly defined category. The historian may choose, for example, like Gibbon, to extract from Procopius's "improbable story" of Alaric's capture of Rome the circumstances which have an air of probability. He may seek to determine the prevalence of malaria in ancient Greece, or to decide whether the humidity of Asia Minor has altered since the days of Crœsus, or to trace the effects of the issue of some forty billions of francs of paper money in France between 1789 and 1800. As for method, a peculiar training is essential to determine the divergence between a so-called "eolith" and an ordinary chip of flint which does not owe its form to human adaptation; and another kind of training is required to edit a satisfactory edition of Roger Bacon's *Opus Majus*. A judicious verdict on the originality of Luther's interpretation of the words *justitia dei*, in Romans, i. 17, demands antecedent studies which would be inappropriate if one were seeking the motives for Bismarck's interest in insurance for the aged and incapacitated. I think that one may find solace and intellectual repose in surrendering all attempts to define history, and in conceding that it is the business

of the historian to find out anything about mankind in the past which he believes to be interesting or important and about which there are sources of information.

Furthermore, history's chances of getting ahead and of doing good are dependent on its refraining from setting itself off as a separate discipline and undertaking to defend itself from the encroachments of seemingly hostile sciences which now and then appear within its territory. To do this is to misapprehend the conditions of scientific advance. No set of investigators can any longer claim exclusive jurisdiction in even the tiniest scientific field, and nothing indeed would be more fatal to them than the successful defense of any such claim. The bounds of all departments of human research and speculation are inherently provisional, indefinite, and fluctuating; moreover, the lines of demarcation are hopelessly interlaced, for real men and the real universe in which they live are so intricate as to defy all attempts even of the most patient and subtle German to establish satisfactorily and permanently the *Begriff und Wesen* of any artificially delimited set of natural phenomena, whether words, thoughts, deeds, forces, animals, plants, or stars. Each so-called science or discipline is ever and always dependent on other sciences and disciplines. It draws its life from them, and to them it owes, consciously or unconsciously, a great part of its chances of progress.

As Professor J. F. Kemp has so graciously said of his own subject, geology, it could not have matured without the aid of those sister sciences which necessarily preceded it. "The great, round world in its entirety cannot be grasped otherwise than with the assistance of physics, mechanics, astronomy, chemistry, zoölogy, and botany." Not only was geology in its earlier growth "based upon the sister sciences, but now progresses with them, leans largely upon them for support, and in return repays its debt by the contributions which it makes to each." The historical student should take a similar attitude toward his own vast field of research. If history is to reach its highest development it must surrender all individualistic aspirations and recognize that it is but one of several ways of studying mankind. It must confess that, like geology, biology, and most other sciences, it is based on sister sciences, that it can only progress with them, must lean largely on them for support, and in return should repay its debt by the contributions which it makes to our general understanding of our species. Whatever history may or may not be, it always concerns itself with man. Would it not then be the height of folly and arrogance for the historian to neglect the various discoveries made about man by those who study him in ways different from those of the traditional student of the past?

In order to understand the present plight of the historian we must go back to the middle of the nine-

teenth century, when for the first time history began clearly to come under the influence of the modern scientific spirit. Previously, as we have seen, it had been a branch of literature with distinctly literary aims, — when it was not suborned in the interest of theological theories or called upon to stimulate patriotic pride and emulation. But about sixty years ago a new era in historical investigation opened which has witnessed achievements of a character to justify in a measure the complacency in which historians now and then indulge. The most obvious of these achievements seem to me to be four in number, and the historian owes all of them, if I am not mistaken, largely to the example and influence of natural science. He undertook, in the first place, to test and examine his sources of information far more critically than ever before, and rejected partially or wholly many authorities upon which his predecessors had relied implicitly. Secondly, he resolved to tell the truth like a man, regardless of whose feelings it might hurt. Thirdly, he began to realize the overwhelming importance of the inconspicuous, the common, and often obscure elements in the past; the homely, everyday, and normal as over against the rare, spectacular, and romantic, which had engaged the attention of most earlier writers. Fourthly, he began to spurn supernatural, theological, and anthropocentric explanations, which had been the stock-in-trade of the philosophers of history. I do not propose to dwell upon these

achievements, for no one will be inclined to question their fundamental character. They have cost a tremendous amount of labor, and they were the essential preliminaries to any satisfactory progress. Are they, however, more than essential preliminaries? Do they not, on examination, prove to be rather negative in character? To resolve to tell the truth about what you have taken pains to verify according to your best ability; to reckon with the regular and normal rather than with the exceptional and sensational; and to give up appealing to God and the devil as historical explanations, are but preparations for the rewriting of history. They furnish the necessary conditions rather than the program of progress. Moreover, they are by no means all of the necessary conditions. Still further preparations are essential before the historian can hope to understand the past.

Professor William I. Thomas well says: —

> The general acceptance of an evolutionary point of view of life and the world has already deeply affected psychology, philosophy, morality, education, sociology, and all the sciences dealing with man. This view involves a recognition of the fact that not a single situation in life can be completely understood in its immediate aspects alone. Everything is to be regarded as having an origin and a development, and we cannot afford to overlook the genesis and stages of change. For instance, the psychologist or the neurologist does not at present attempt to understand the working and structure of the human brain through the adult brain alone. He supplements his studies of the adult brain by observations on the workings of the infant

mind, or by an examination of the structure of the infant brain. And he goes farther than this from the immediate aspects of the problem — he examines the mental life and the brain of the monkey, the dog, the rat, the fish, the frog, and of every form of life possessing a nervous system, down to those having only a single cell, and at every point he has a chance of catching a suggestion of the meaning of the brain structure and of mind. In the lower orders of brain the structure and meaning are writ large, and by working up from the simpler to the more complex types, and noting the modification of structure and function point by point, the student is finally able to understand the frightfully intricate human organ, or has the best chance of doing so.

It would seem as if this discovery of the incalculable value of genetic reasoning should have come from the historians, but, curiously enough, instead of being the first to appreciate the full significance of historical-mindedness, they left it to be brought forward by the zoölogists, botanists, and geologists. Worse yet, it is safe to say that, although the natural scientists have fully developed it, the historian has hitherto made only occasional use of the discovery, and history is still less rigidly historical than comparative anatomy or social psychology. Even in recent historical works one finds descriptions of events and conditions, which make it clear that the writer has failed to perceive that all things have an origin and a development, that we cannot afford to overlook their genesis and stages of change, "that not a single situation in life can be completely understood in its immediate as-

pects alone." Of course the historian has long talked of the "rise" and "fall" of empires, the "growth" and "decay" of institutions; he has of late devoted much attention to the development of institutions, and to this extent he adopts a genetic treatment; but none the less there lies back of all his work the long tradition of what we may call the episodal treatment of the past. He is still discovered making the futile attempt to describe *wie es eigentlich gewesen* without knowing *wie es eigentlich geworden.* The popular misunderstanding of the French Revolution, for instance, is due to the anxiety of the historian to depict the striking events from 1789 onward rather than to interpret them in the light of their antecedents, which are commonly dispatched in an introductory chapter which furnishes no sufficient clue to what follows. The "Renaissance" has been pretty completely misconceived, owing to the ignorance of Burckhardt and Symonds in regard to the previous period. The culture of the Middle Ages in turn remains a mystery to one who has not scrupulously studied the *Weltanschauung* of the fourth century.

The historian still puts himself in the position of one who should wake up in a strange bed and hope to comprehend his situation by taking a careful inventory of the furniture of his room. The strangeness can only be dispelled and the situation understood by falling back on the past — in this case a simple historical consideration such as that one had,

on his way from Chicago to San Francisco, been delayed and obliged to spend the night in Ogden. Should the historian give us, for instance, the most minute description of the conditions in the village of Salem in the year 1692, telling us just where Goody Bishop's cellar walls stood in which the fatal "poppets" were found, and pointing out the spot where Nehemiah Abbot's ox met an untimely and suspicious end by choking on a turnip, we should still fail to grasp this lamentable crisis in the affairs of New England, for the really vital question is, Why did our godly ancestors hang old women for alleged commerce with the devil? Only some knowledge of comparative religions and of the history of the Christian church can make that plain. Cotton Mather was the victim of a complex of squalid superstitions which the Protestant reformers had done nothing whatever to reduce or attenuate.[1] He is not to be understood by even the most prayerful study of his immediate surroundings.

The modern historical student's tendency to specialization, his aspiration to master some single field, often stands in the way of his really understanding even what he seems to know most about. The difference between the best historical writing, which is rare enough, and the ordinary run of histories, lies in the historical-mindedness of the author. This is susceptible of far greater development than it has

[1] See below, pp. 117 *sqq.*

hitherto received,[1] for it should ultimately permeate all historical treatises that pretend to be both constructive and instructive and do not merely confine themselves to the accumulation of the raw material of history.

Historical-mindedness is by no means the only great debt that historians owe to workers in fields seemingly remote from theirs. Two historical facts of transcendent importance were discovered in the latter half of the nineteenth century. Neither of them was in any way attributable to historians. It was the zoölogist who proved that man is sprung from the lower animals, and it was an English geologist who first clearly and systematically brought together the evidence that man has been sojourning on the earth, not for six thousand years only, but mayhap for six hundred thousand. The methods and outlook of the historian prevented him from making these discoveries. He may exonerate himself for his failure to suspect these truths on the ground that the data used to establish man's animal ancestry and his vast antiquity are wholly unfamiliar to him. Granting

[1] An interesting paper could be written on the common view entertained by historians that it is impossible to write the history of our own times; that historical methods cannot be applied to recent events. Those who at one moment proclaim this doctrine at the next will freely acknowledge Thucydides, who confined himself to his own time, to be the greatest of all historians! It is most essential that we should understand our own time; we can only do so through history, and it is the obvious duty of the historian to meet this, his chief obligation.

the propriety of this excuse, it may be asked whether he has seriously reckoned with these two momentous facts after they were pointed out to him by Darwin, Lyell, and others. He has certainly been slow to do so. They were new to the last generation of historians, and they would have seemed quite irrelevant to Ranke or Bancroft in their undertakings. Even to-day I find that members of the guild are some of them inclined to deny that man's descent from the lower animals is, strictly speaking, an historical fact, although they would concede that Henry II's descent from William the Conqueror is such.

What is more important, most historical students would frankly confess that they saw no way in which man's descent or his long sojourn on the earth could be brought into any obvious relation with the problems on which they were engaged. In this they would be quite right. It is certainly true that most historical investigation can be carried on without reference to man's origin. If one is endeavoring to determine whether Charles the Fat was in Ingelheim or Lustnau on July 1, 887, it makes little difference whether the emperor's ancestors talked with their Creator in the cool of the evening or went on all fours and slept in a tree. If one is locating the sites of French forts on the Ohio River or describing the causes of Marie Antoinette's repugnance for Mirabeau, the jaw of the Heidelberg man may safely be neglected. Whole fields of historical research can be cultivated not only

without any regard to man's origin, but without any attempt to understand man as such. But there are many other, and perhaps even more important, fields, as I trust may become apparent later, in which it is essential that the investigator should know everything that is being found out about man, unless he is willing to run the risk of superficiality and error.[1]

[1] In order to avoid the suspicion that I am misrepresenting the position of what may be called the orthodox historical student I beg to call the reader's attention to an address delivered by Professor George Burton Adams of Yale before the American Historical Association, December 29, 1908. He describes what, for convenience, he calls five hostile movements directed against the methods, results, and ideals of the established political historian. These "attacks" proceed from political science, geography, political economy, sociology, and "folk-psychology." "For more than fifty years," he says, "the historian has had possession of the field and has deemed it his sufficient mission to determine what the fact was, including the immediate conditions that gave it shape. Now he finds himself confronted with numerous groups of aggressive and confident workers in the same field who ask not what was the fact — many of them seem to be comparatively little interested in that — but their constant question is what is the ultimate explanation of history, or, more modestly, what are the forces that determine human events and according to what laws do they act? This is nothing else than a new flaming up of interest in the philosophy, or the science, of history. . . . The emphatic assertion which they all make is that history is the orderly progression of mankind toward a definite end, and that we may know and state the laws which control the actions of men in organized society. This is the one common characteristic of all the groups I have described; and it is of each of them the one most prominent characteristic" (*American Historical Review*, January, 1909). It is the aim of the present essay to put the whole situation in a different light from that in which Professor Adams presents it.

II

While, then, the historian has been busy doing his best to render history scientific, he has, as we have seen, left the students of nature to illustrate to the full the advantages of historical-mindedness and to make two discoveries about mankind infinitely more revolutionary than all that Giesebrecht, Waitz, Martin, or Hodgkin ever found out about the past. To-day, he has obviously not only to adjust himself as fast as he can to these new elements in the general intellectual situation, but he must decide what shall be his attitude toward a considerable number of newer sciences of man which, by freely applying the evolutionary theory, have progressed marvelously and are now in a position to rectify many of the commonly accepted conclusions of the historian and to disabuse his mind of many ancient misapprehensions. By the newer sciences of man I mean, first and foremost, Anthropology, in a comprehensive sense, Prehistoric archæology, Social and Animal psychology, and the Comparative study of religions. Political economy has already had its effects on history, and as for Sociology, it seems to me a highly important point of view rather than a body of discoveries about mankind. These newer social sciences, each studying man in its own particular way, have entirely changed the meaning of many terms which the historian has been accustomed to use in senses now discredited —

such words as "race," "religion," "progress," "the ancients," "culture," and "human nature." They have vitiated many of the cherished conclusions of mere historians and have served to explain historical phenomena which the historian could by no possibility have rightly interpreted with the means at his disposal. Let us begin with prehistoric archæology.

The conservative historian might be tempted to object at the start that however important the development of man would seem to be before the opening of history, we can unfortunately know practically nothing about it, owing to the almost total lack of documents and records. Archæology has, of course, he would admit, revealed a few examples of man's handiwork which may greatly antedate the earliest finds in Egyptian tombs; some skulls and bones and even skeletons have been found, and no one familiar with the facts doubts that man was living on the earth thousands of years before the Egyptian civilization developed. But what can be known about him, except the shape of his jaw and the nature of his stone and bone utensils, which alone survive from remote periods? If we feel ill-informed about the time of Diocletian or Clovis, how baseless must be our conjectures in regard to the habits of the cave man!

It is certainly true that the home life of the cave man is still veiled in obscurity and is likely to remain so. Nevertheless, the mass of information in regard to mankind before the appearance of the earliest sur-

viving inscriptions has already assumed imposing proportions. Its importance is perhaps partially disguised by the unfortunate old term "prehistoric." The historian glances at case after case of flint eoliths, fist hatchets, arrow points, and scrapers, pictures of animals scratched on bits of bone, fragments of neolithic pottery and bronze "celts," with emotions of weariness tempered by some slight contempt for those who see anything more in these things than the proofs that there used to be savages long ago similar to those that may still be found in regions remote from civilization. Further reflection should, however, convince him that the distinction between "historic" and "prehistoric" is after all an arbitrary one. "Prehistoric" originally meant such information as we had about man before his story was taken up by Moses and Homer, when they were deemed the earliest surviving written sources.

History, however, in the fullest sense of the term, includes all that we know of the past of mankind, regardless of the nature of our sources of information. Archæological sources, to which the student of the earlier history of man is confined, are not only frequently superior in authenticity to many written documents, but they continue to have the greatest importance after the appearance of inscriptions and books. We now accept as historical a great many things which are recorded neither in inscriptions nor in books. It is an historical, not a prehistorical, fact that

the earliest well-defined and unmistakable human tool, the fist hatchet, was used in southern Europe, in Africa, India, Japan, and North America. This is exactly as historical as the recorded word that Julius Cæsar first crossed the English Channel at the full of the moon — and far more important.

Should the historical student still find himself indifferent to what has been called palethnology,[1] let him recollect that if, as it is not hazardous to assume, the oldest fist hatchets were made by men living two hundred thousand years ago, the so-called "historical" period of from five to seven thousand years has to do with but a thirtieth or a fortieth of the time man has been slowly and intermittently establishing the foundations of our present civilization. But the fist hatchet is, comparatively speaking, a highly perfected implement and is pretty well diffused over the globe, so that it suggests a vista of antecedent progress which separates man's speechless and toolless ancestors from the makers of the fist hatchets. It must be clear that if one ignores palethnology, one runs the risk of missing the whole perspective of *modern* change. We have outgrown the scale which served for Archbishop Usher,

[1] The term "prehistoric" and some such term as palethnology (suggested by de Mortillet) are still convenient, since the attempt to trace the stages of development of man previous to the appearance of the higher, and really very recent, forms of civilization which first meet us in Egypt and Babylonia involves a particular technical equipment, including, for instance, some acquaintance with geology and paleontology.

who maintained that man and all the terrestrial animals were created on Friday, October 28, 4004 B.C., and which has led to a great deal of shallow talk about our relation to "the ancients" who are in reality our contemporaries.

It seems quite possible — to suggest a single reflection — that human mental capacity has neither increased nor declined during the trifling period which separates us from Plato and Aristotle. Indeed, could we imagine a colony of infants from the first families of Athens in the fifth century B.C., and another the offspring of the most intellectual classes of to-day, completely isolated from civilization and suckled by wolves or fed by ravens, both groups would start in a stage of decivilization suggesting that of the chimpanzee. No one can tell how long it would take the supreme geniuses which such colonies might from time to time produce, to frame a sentence, build a fire, or chip a nodule of flint into a fist hatchet. Nor is there reason to think that either colony would have an advantage over the other in making the first steps in progress. It is only education and social environment that separate the best of us from a savagery far lower than any to be observed on the earth to-day, lower probably than that of the lowest man of whom any traces still exist.

Then there is the word "race," which historical writers have used and still use with great recklessness. Most of the earlier theories of "races" and of the origin

of man in western Asia were either consciously suggested, or unconsciously reënforced, by the account in Genesis of the Garden of Eden, the Deluge, and the confounding of language during the construction of the Tower of Babel. The Aryan theory set forth, for example, by Mommsen in the opening chapter of his *Roman History*, to-day appears well-nigh as naïve and grotesque as the earlier notion of the Tower of Babel. Since the geological period when man may first have made his appearance on the earth, there have been vast changes in the distribution of land and water, in climate and fauna. These natural changes in physical conditions must have caused all sorts of migrations and fusions; add to these, conquests and invasions, slavery and miscellaneous sexual relations. These have brought the most varied peoples together and produced an inextricable confusion of morals, manners, and tongues. In spite of this, one still finds historical students talking of "races" as if we could still believe Max Müller's persuasive tale of the plain of Iran and the dispersion of the Aryans.

These illustrations should be sufficient to substantiate the importance of prehistoric archæology for all students of history, since they all run grave risks of persisting in ancient error if they neglect its results. We are, however, by no means confined to the remains of man and his handiwork for our notions of what must have lain back of the highly developed civilizations which we meet when written records first become avail-

able. If, as Professor William Thomas has so happily phrased it, "tribal society is virtually delayed civilization, and the savages are a sort of contemporaneous ancestry," those investigators — namely, the anthropologists — who deal with the habits, customs, institutions, languages, and beliefs of primitive man are in a position to make the greatest contributions to the real understanding of history. From the standpoint of man's development, anthropology may be regarded as a branch of history in the same sense that animal psychology or comparative anatomy are branches of human psychology and human anatomy.

At least one historian of repute has recognized the truth of this. Professor Eduard Meyer prefaces the second greatly revised edition of his *History of Antiquity* with a whole volume of 250 pages on the "Elements of Anthropology." He says: "To have prefaced my work with such an introduction would formerly have excited the surprise and encountered the criticism of many of my judges at a time when the interests of most historians were entirely alien to such questions. Now, when such matters are the order of the day, no apology is necessary. . . . Indeed, such an introduction is absolutely essential for a scientific and consistently conceived history of antiquity."

The helpfulness of anthropology for the historical student is, however, still much obscured, owing partly to his indifference to the whole question of human development, and partly to a more or less justifiable

suspicion on his part that there is grave danger of being misled in our attempt to interpret past events and conditions by anthropological theories and schematism.

It is one thing, however, to reject a tool because we are too stupid to see its use, and another to be on our guard against cutting ourselves. Even the historical student who is stolidly and complacently engaged in determining past facts (except when he puts on the armor of the Lord to defend the lawful frontiers of history against invaders) would surely find the study of anthropology of value. It would tend to give him poise and insight, preëminently in all matters having to do with religion or religious sanction, or the underlying forces of conservatism, — and with these subjects he is constantly engaged in one form or another. No branch of modern research, indeed, has so upset older historical conceptions as the comparative study of religions, a science which is quasi-historical and quasi-anthropological in its sources and methods. The older historians failed to see very deeply into religious phenomena; manifestations of that class were commonly taken for granted, and their origins excited little curiosity. Yet few phases of human development have proved to be more explicable than the religious. The complex syncretism which resulted in orthodox Christianity has been laid bare, as well as the very ancient and primitive superstitions which were incorporated into the theology of the church fathers.

I have been told by M. Solomon Reinach, the distinguished director of the Museum of St. Germain-en-Laye, that when Mommsen visited the collections some years ago, he had never heard either of the ice age or of totemism! He appeared to think that the terms might be the ingenious discoveries of M. Reinach himself. Now, Mommsen is properly ranked among the most extraordinary historians of modern times. The mass of his work and its quality are familiar to us all. Nevertheless, his ignorance of two of the commonplaces of prehistoric archæology and anthropology prevented him from seeing the Roman civilization in its proper perspective and from thoroughly grasping its religious, and perhaps even the legal, phenomena. Man, as Henry Adams has so neatly expressed it, is now viewed as a "function" of the ice age during a very long period. As for totemism, it has been called upon to explain such different phenomena as the frescoes in the dark caves of the Magdalénien period, the abhorrence of the Jew for pork, and the esteem of a baseball team for its mascot. Many beliefs and practices of the Christian church are now seen to go back by direct or devious ways to totemism, animism, and the mana.

The historical student who realizes this will hasten to acquaint himself, if he has not already done so, with some of the most suggestive works in this field of anthropology and comparative religion. He will be a very dull person indeed if he does not find his con-

ceptions of the past fundamentally changing as he reads, let us say, the extracts which Professor Thomas has so conveniently brought together in his *Source Book for Social Origins*, or the fascinating *Folkways*, of the late Professor Sumner; or Solomon Reinach's *Orpheus*, Conybeare's *Myth, Magic, and Morals*, or De Morgan's *Les premières civilisations*, — to mention only the more obvious examples of this class of literature.

III

So it has come about that the older notions of our relations to the so-called "ancients," of religion in general and Christianity in particular, and of "race," are being gravely modified by the investigations of those who are not commonly classed as historians. These latter have demonstrated the superficial character of the older historians' reasoning and pointed the way to new and truer interpretations of past events and conditions. Other terms which historians have used without any adequate understanding of them are "progress" and "decline," "human nature," "historical continuity," and "civilization." Even a slight tincture of anthropology, reënforced by the elements of the newer allied branches of social and animal psychology, will do much to deepen and rectify the sense in which we use these terms.

Social psychology, as yet in an inchoate condition, is based on the conviction that we owe our own ego

to our association with others; it is a social product. Without others we should never be ourselves. As Professor George H. Mead expresses it: "Whatever may be the metaphysical impossibilities or possibilities of solipsism, psychologically it is non-existent. There must be other selves if one's own is to exist. Psychological analysis, retrospection, and the study of children and primitive people give no inkling of situations in which self could have existed in consciousness except as the counterpart of other selves."

It may at first sight seem a far cry from the origin of the ego and its dependence on the *socius* to such historical questions as the dates of Sargon's reign, the meaning of the Renaissance, or Napoleon's views of the feasibility of invading England. There are, however, plenty of matters of still more vital importance on which the judgments of historical students are likely to be gravely affected by some acquaintance with the recent discussions in regard to the laws of imitation, with which Tarde's name is especially associated, and with the relation of our reason to the more primitive instincts which we inherit from our animal ancestors. Indeed, the great and fundamental question of how mankind learns and disseminates his discoveries and misapprehensions — in short, the whole rationale of human civilization as distinguished from the life of the anthropoids — will never be understood without social psychology; and social psychology will never be understood without animal psychology;

these studies alone can serve to explain the real nature of progress and retrogression — matters to which no historical student can afford to remain indifferent. There is obviously no possibility of explaining adequately in a brief essay this rather perturbing proposition, but its importance seems to me so great that I am going to venture to present the situation very briefly.

In the first place, is it not clear that we still permit ourselves, as is not at all unnatural, to be victimized by the old anthropocentric conception of things? This has been so long accepted by the western world that in spite of the discoveries of the past sixty years we find many unrevised notions from the past still lurking in the corners of our judgment. We are constantly forgetting, I fear, that man was not created, male and female, in a day, as Mark Hopkins and those of his generation commonly believed. We did not begin our human existence with pure and holy aspirations, a well-developed language, and a knowledge of agriculture, but are descended from a long line of brute ancestors, unable either to talk or to cultivate the soil. All animals that now live or ever have lived on the earth, including man, "are mayhap united together by blood relationship of varying nearness or remoteness." Every one of us has a pedigree stretching back not merely a couple of hundred generations, but through all geologic time since life first commenced on the globe. Man's *bodily* resemblance to the anthropoid apes has long been a subject of comment. Ennius

gave expression over two thousand years ago to the disconcerting discovery: —

Simia quam similis, turpissima bestia, nobis?

With the modern development of zoölogy and comparative anatomy more intimate structural similarities were brought to light; Darwin sketched a portrait of the *turpissima bestia*, our hairy ancestor, with his tail, prehensile foot, and great canine teeth. This hypothesis has since been substantiated by the discovery of numerous vestigial muscles and organs, atavistic reversions, and pathological conditions which can be readily explained only on evolutionary grounds. But if our bodies and their functions so closely resemble those of our nearest relatives among the animals, what shall we say of our minds? Are these altogether different from the animal minds from which they have gradually developed, or do they perpetuate, like our bodies, all the old that is still available and perhaps not a few traits that now merely hamper us or tend to beget serious disorders? May not the minds of our remote ancestors, who had not yet learned to talk, still serve us not only in infancy and when senile dementia overtakes us, but may they not be our normal guides in the simpler exigencies of life? I think that it is not hazardous to affirm that the perpetuation in man of psychological processes to be observed in the other primates would be acknowledged by all students of animal psychology. If this be true, may we not look

to the study of animal psychology, as it develops, for information which will enable us to discover and appreciate for the first time what really goes to make up a human being as distinguished from his humbler relatives?

Comparative, or animal, psychology has only recently found a place in some of our universities. Professor E. L. Thorndike was perhaps the first, some twelve years ago, to attempt to put the subject on a modern experimental basis. Since then much has been done, especially in the United States. We can hardly hope to know very clearly what an ape is thinking about as he looks out from under his wrinkled brow. "Les animaux ne nous font pas des confidences," as Reinach has truly observed. But scientific observation and experimentation are throwing light on the educability of apes and other animals and on the ways in which they appear to learn. They have already proved that the chimpanzee can readily master a vast number of acts over and above anything that his ancestors have ever known in the jungle. He is marvelously teachable. He appears to learn by "trial and error" and by a process which we may term "trick psychology," stimulated by rewards and punishments. The exact nature and rôle of "imitation" is not yet very clear, but I think that no one can doubt its importance. Now the obvious question forces itself on us, Do we not all learn, for the most part, much as the chimpanzee learns, by trial and

error and by mastering tricks, stimulated by rewards and punishments, and by "imitation"? The answer will be, I am convinced, that almost all our education is based on modified simian principles. To a believer in the continuity of history that should be a cheering discovery, humiliating as it is in other respects.

I am aware that to most students of history the results of comparative psychology will seem at first sight too remote to have any assignable bearing on the problems that face them. This impression is, however, erroneous, at least where questions of the character and transmission of culture are involved. We cannot understand the nature of culture, as distinguished from our merely animal heritage, without some notion of animal psychology. It seems probable that the historical student will deal far more intelligently with the changes of thought, the development of institutions, the progress of invention, and almost all religious phenomena when he learns to distinguish between the higher and rarer manifestations of peculiarly human psychology and the current and fundamental simian mental modes upon which we still rely so constantly with the assurance of ancestral habit.

I will give but a single illustration from this field of speculation. Gabriel Tarde has emphasized the fact that every minutest element in civilization, every atom of culture that we have, over and above our animal outfit, must either be handed on from one

generation to the next, or else be rediscovered, or lost. Now it should be part of the historian's business, and no unimportant part, to follow out the actual historical workings of this rule. Civilization is not innate, but transmitted by "imitation" in the large sense of the word. A word, or a particular form of tool, or a book, will die out as surely as an organism unless it is propagated and regenerated. Let us apply this law in a single case. How little addition to the general disorder and to the chronic discouragements of learning is necessary to account for the fatal disappearance of Greek books in the West after the dissolution of the Roman Empire! Suppose only half as many people in Gaul read Greek in the time of Gregory of Tours as had known it in Constantine's time. How greatly would this increase the chances of the complete disappearance of Xenophon's *Cyropædia* or Euripides's *Elektra?*

In concluding these reflections I am painfully conscious that they may suggest serious dangers to some thoughtful readers. The historical student may be ready to grant that he has neglected the influence that discoveries in other fields should have on his own conclusions; but how, he will ask, is he to find time to acquaint himself with all the branches of anthropology, of sociology, political economy, comparative religion, social psychology, animal psychology, physical geography, climatology, and the rest? It is hard for him even to keep up with the new names, and he

has a not unnatural distrust of those who tender him easy explanations for things that they still know so little about. Some of the more exuberant representatives of the newer social sciences remind the historian disagreeably of the now nearly extinct tribe of philosophers of history, who flattered themselves that their penetrating intellects had been able to discover the wherefore of man's past without the trouble of learning much about it.

But the historical student who classes the modern social sciences with the old and discredited philosophy of history is making a serious mistake. The philosophers of history sought to justify man's past in order to satisfy some sentimental craving, and their explanations were, in the last analysis, usually begotten of some theological or national prejudice. The contemporaneous student of society, on the contrary, offers very real and valuable, if obviously partial, explanations of the past. It is true that he sometimes forgets what Hume calls the "vast variety which nature has affected in her operations," and tries to explain more than his favorite cause will account for, but this ought not to blind us to his usefulness.

It is obvious that, like the geologist, the physiologist, and the biologist, the historian is forced to make use of pertinent information furnished by workers in other fields, even if he has no time to master more than the elements of the sciences most nearly allied to his own. He may use anthropological and psychological

discoveries and information without becoming either an anthropologist or a psychologist. These discoveries and this information will inevitably suggest new points of view and new interpretations to the historian, and will help to rectify the old misapprehensions and dispel the innumerable ancient illusions which still permeate our historical treatises. Above all, let the historical student become unreservedly historical-minded, avail himself of the genetic explanation of human experience, and free himself from the suspicion that, in spite of his name and assumptions, he is as yet the least historical, in his attitude and methods, of all those who to-day are so eagerly attempting to explain mankind.

It may well be that speculation in the newer fields has often far outrun the data accumulated, and the historical student has not infrequently been offered explanations of the past which he has done well to reject. The sociologist, anthropologist, and economist have doubtless often thought too fast and too recklessly, and this has engendered an excessive reserve in the historian, who has sometimes flattered himself on not thinking at all. But there is, in the long run, more risk in thinking too little than too much, and the kind of thought suggested by the new allies of history should serve, if judiciously practiced, greatly to strengthen and deepen the whole range of historical study and render its results far more valuable than they have hitherto been.