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**Rational Evolution
(The Making of Humanity)**

Robert Briffault



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(THE MAKING OF HUMANITY)



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BY
ROBERT BRIFFAULT



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PUBLISHER'S NOTE

Rational Evolution is a completely rewritten edition of a book by the same author published originally in 1919 under the title *The Making of Humanity*. In its first editions it enjoyed wide reading, provoked considerable discussion, and brought much commendation to its author. Its publishers have pleasure in presenting this new edition, printed for the first time in the United States from new plates.



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CONTENTS

CHAPTER	PAGE
I. MAN THE CREATOR	I
II. MAN'S MEANS OF EVOLUTION	9
III. PRIMAL STUPIDITY	20
IV. CIVILIZATION AND IRRATIONALISM	30
V. THE SECRET OF THE EAST	38
VI. THE HELLENIC LIBERATION	54
VII. PAX ROMANA	82
VIII. BARBARISM AND BYZANTINISM	107
IX. DÂR AL-HIKMET (<i>The Home of Science</i>)	133
X. THE REBIRTH OF EUROPE	154
XI. THE SOI-DISANT RENAISSANCE	176
XII. THE BIRTH OF NATIONS	190
XIII. REASON'S BATTLE FOR JUSTICE	205
XIV. EUROPEAN LIBERATIONS	219
XV. THE MORALITY OF PROGRESS AND THE PROGRESS OF MORALS	235
XVI. WHAT IS PROGRESS?	270
INDEX	287



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I

MAN THE CREATOR

THE intellectual revolution of the nineteenth century has transformed the conception of history in much the same manner as the intellectual revolution of the seventeenth century changed that of the cosmic universe. Like the pre-Copernican world, encased in crystalline domes adorned on their outermost layer with adherent stars, the notions that were entertained less than one hundred years ago concerning the career of the human race were dingy, stunted, and mean. History was, like the primitive epic whence it evolved, exclusively concerned with racial, dynastic, and religious edification. The date 4004 B.C. was gravely accepted as the boundary of its retrospect, and long before reaching back to it, the conventional fable faded into pure legend and mythology.

As when awakening science crashed through the tinsel vaults of puerile cosmologies, discovering the sun-strewn infinities through which speeds our quivering earth-mote, so have the mists of legend lifted, and it is given unto us to view the panorama of man's long and wonderful career in something of its natural perspective and proportions. Those ages that were once peopled with the myths and monsters of fable now show a world of teeming nations. Peering down the vista of Time we may perceive our own civilisation in the making, Europa that is to be, borne on forked-prowed Kretan galleys that seam, from the Nile-land and the Aegean shores of Italy and Spain, the mid-

land sea; jingling donkey-caravans which bear from the Twin Rivers, through the realm of the pig-tailed Hittite, to the Euxine and Phrygia the freight of a culture that reaches farther back than Archbishop Usher's date of the creation of the world. Ten thousand years before, the Magdalenians of the Pyrenean foothills are seen decking with strange frescoes their temple-caves, and weirdly dancing their rites accoutred in the masks of beasts—prototypes of those which Attic maidens shall don at the shrine of Artemis Brauronia, and of those through whose brazen mouths shall be chanted the lapidary lines of Aeschylean choruses. Yet even that savage culture of the last Ice Age is a mature fruit, the culmination of successive eras of human growth computed by hundreds of thousands of years. Beyond stretch æons of time as unseizable to our imagination as are the distances of sidereal space.

Transferred to the open vastness of those expanses the whole perspective, the meaning itself, of history is changed. As in the geocentric theory of the universe, the view which obtained was not merely untrue; it was an exact inversion of the truth. The career of mankind was conceived as one of continuous degeneration. It was held to have had its beginning in the perfection of a divinely endowed humanity, to have run a downward course into deeper and deeper corruption, sinking to the level of modern humanity, the debased and decrepit progeny of the mighty men of old. Savage races found in remote lands were held to be the descendants of once noble and civilised ancestors. Degeneration was the law of history. The Past was the repository of virtue and lost wisdom. It stood exalted above the puny Present in proportion to its antiquity. The revelation of the eternal standards of truth and good were to be sought in what were deemed the most ancient human records. Learning and scholarship consisted in the study of the ancients, not on account of para-

mount interest attaching to historical enquiry, but because culture was to be obtained only by drawing from its undefiled source in the Past. The function of historical studies was to hold up the excellences of our forebears as a paradigm to a waning age.

Those views are not the quaint fancies of the Middle Ages. It is only a matter of a generation or two since they were generally approved, and the dust of the last rear-guard battles is hardly laid. In his great work on *Primitive Culture*, Edward Tylor had occasion to devote a lengthy chapter to the considerate refutation of 'the theory of degeneration,' and he cites long passages from distinguished contemporaries in hot defence of that theory. Tylor's book was published in 1871. Delusions which have held sway for centuries trail their shadows after them, and although the theory of degeneration is heard of no longer, it is still customary to set down every evil to 'corruption,' and theorists win applause by representing every nastiness of uncultured humanity as the effect of corruption on a pristine state of virtue.

It is now currently known that the human world has risen out of savagery and animality, that its dawn-light shines on no heroic or golden ages, but on nightmares to make us scream in our sleep. During an incalculable period of time our ancestors were ruder and more brutal than the primitive races whose fast-dying remnants survive. Man's life was, as Hobbes surmised, "poor, nasty, brutish, short." Throughout a tale of ages compared to which the name-and-date period of history is of negligible amplitude, mankind has roamed the wild earth among other animal herds, differing little from them in its mode of life, in its mentality, driven by the same exigencies, by cold, famine, drought, urged by the same impulses as all other animality which it was but imperceptibly transcending.

Our imagination, corrupted by creation-myths, still fails to function in terms of less crude conceptions. It is still asked: 'When did man first appear?' To which enquiry the proper answer is that he never did. So imperceptible was man's emergence out of animal conditions that nowhere in the age-long transition can a line other than an arbitrary one be drawn to mark the event. Scores of animal races have probably hovered for millenniums on the brink of the transition. Fossil remains are for the most part those of animals which have been drowned; apes are too alert to be drowned and not sufficiently imaginative to bury their dead companions. But for those circumstances the earth would probably be strewn with 'missing links.' The proto-human races stood higher than any anthropoid race, yet fell short in many respects of human characters. The power of speech, for instance, was slow in developing; it was lacking in races that may otherwise be accounted human. If possessed at all by the Piltdown and the Peking races, it can have been only miserably rudimentary. It cannot have been much more highly developed in Neanderthal man.

The first tottering advances of human culture have been crowded in a few hundred thousand years. Fire, pottery, horse-taming, weaving, tillage, cattle-herding, and the going down to the sea in ships were world-shaking discoveries and adventures which, at millenniums of interval, commoved a bewildered humanity which found itself raised one giddy step above the brute.

Man has not 'appeared,' he has grown.

The blunt disclosure of human origins was, like the discovery of the starry heavens, accounted an intolerable affront to human dignity. Feudalism still runs in our tradition; birth is of more account than worth. To be descended from a baron puts pride into a blackguard. Victorian wits gloried in claiming descent from ineffectual

angels, and in proving themselves insufficiently intelligent to apprehend the revelations which graced their age.

In sober truth, no myth of miraculous creation is so marvellous as the fact of man's evolution. The elevation of the progeny of the ape by the sole operation of powers and qualities inherent within him, in the face of the buffets of hostile nature, of the intractabilities of his own character, into MAN, the thinker, the deviser, the aspirer after truth and justice, greater in his achievements and his endeavours than all the gods he has been capable of conceiving—if there is in the universe of known facts one apt beyond all others to inspire wonder, it is the grotesque fact in which Victorian wits could perceive only a theme for hilarity. Man, whom Hebrew ignorance had made a fallen angel, was revealed by nineteenth-century science as the creator of whatever is godlike within him.

To turn for a while to the contemplation of that wonder is well. The vileness, the baseness, the imbecility of humanity are only too vividly thrust upon our notice. It is well to remind ourselves that in spite of them humanity has created whatsoever is of worth within our ken, and that the wonder of that creation is all the greater because it has been achieved in the teeth of that vileness and imbecility. The marvel of man, the transcendency of Pascal's "thinking reed," over all the patible qualities of what he contemplates, is one of the cheap commonplaces of meditative thought. But that prodigy is removed to a far loftier plane when no longer viewed as a privileged endowment, a residual relic of pristine divinity, an illapse from some other sphere of being, but as the fruit of his own slow and toilsome effort. Man was not created; he, on the contrary, has been the creator. His transcendency is not his privilege, but his achievement. Those qualities and powers, those enthusiasms, those heroisms, those aspirations, that creative spirit which has brought forth art,

poetry, eloquence, Parthenons, Odysseys, Giocondas, Hamlets, that masterful intellect which sits over the world, harnesses its forces and transforms it, that sacred flame which rises above life and defies death, defies wrong, defies falsehood, wills right, is loyal to truth—all that man is, has been, and aspires to be, is the accumulated product of a power which has pursued from the dimmest rudiments “the gradual paths of an aspiring change,” built up that dignity which sets him on an equal plane with all the sublimities of the universe. The human world is man-made. Everything which we call precious and divine is the product of human power. It has been wrested by human effort from the dark chaos of brutality and nescience.

It is common for passionate and sensitive natures to be filled with boundless disgust for the human world about them, its ugliness, its vulgarity, its shams, its falsehoods, its obstinate ignorance, its triumphant injustice, its brutality; their souls are racked by the seeming hopelessness of its prejudices and coarse instincts. They long to fly from its besmirching contact, to seek refuge in solitude in the midst of uncontaminated nature, to possess in freedom their soul, their thought-world, unsullied and unexasperated by the meanness, the iniquity, and the ignorance of the world of man. But they do not know, or do not reflect, that those very aspirations, those impulses and delights of the mind, that very sensitiveness to the faults of the human world, that very protest and revolt which fills them with denunciation, those ideals with which they would dwell alone, are products of that same human world from which they recoil as from a thing unclean. It is in such a world that the very substance of their own souls was conceived and formed; it is that same humanity which has through the strifes and struggles of its long evolution brought into being those ideals which lift them upwards. In the course of millions of years, more ugly and more

horrible than the world which surrounds them, humanity itself has fashioned every one of those thoughts and feelings in which they would proudly withdraw themselves.

The human world is at once the most venerable fact in the universe and a thing to make angels weep, a glory and an abomination, an inspiration and a stumbling-block, a thing sacred and vile, sublime and grotesque, a fit object of worship and of contempt, of pride and shame, of hope and despair. According as it is viewed with an eye to the portent of its growth from crudest origins, or in the light of the knowledge that is in us of what should, could, and ought to be, we have cause to be filled with a sense of reverence or of disgust. But our revolt against what is, and our knowledge of what should be are as much a part of the forces of the living world as the evil against which they rise. It is by such revolt and such knowledge that humanity has achieved the miracle of its creation.

The power which created man out of the brute did not stop there. It has never ceased to be at work. The prodigy of mankind's emergence is repeated in every step of the age-long process whereby the human world has been wrested from brutality and savagery. The wonder of it is no less in one part of the creative process than in another. That the brute-ape should be the father of thinking man, that is a prodigy; that the gibbering savage should be the father of the Periklean Greek, that also is a prodigy; that the tenth century should be the father of the twentieth, that is no less a prodigy.

The conception of human progress, which inspired the faith of a Condorcet under the very knife of the guillotine, never, perhaps, stood in less credit than at the present day. Its main connotation in recent times has been the expression of complacent satisfaction with the existing order, the blatant glorification of industrial civilisation.

The existing order is not an object of complacency to modern intelligence.

In point of fact the revolt and protest of modern intelligence, its questioning of the concept of progress as the mere designation of the process which has led up to the existing order of the human world, are far more direct tokens of the forces which have determined the progressive development of mankind than were the complacent apotheoses of the nineteenth century.

More urgent than ever in a world which is in the travail of divine discontent is the need of apprehending clearly the nature of the process that has shaped its course. Setting aside for the present any estimate of the intrinsic quality of that process, we shall best be enabled to form such an estimate if, taking it at its face value, we concern ourselves with the means by which it has been achieved. What is the nature of the power which has enabled brute-born humanity to raise itself from the level of savagery and barbarism to one which, for all the survivals of savagery and barbarism in its midst, is yet higher than any vapid angelical plane whence it once claimed to have fallen?

II

MAN'S MEANS OF EVOLUTION

THE answer to that question, well-nigh the most momentous to which thought can apply itself, is simple and obvious. Yet—and the difficulties which the operation of that power has been called upon to surmount are thereby conspicuously illustrated—the plain answer has been studiously eluded. In its stead ‘philosophies of history,’ abstract and mystical adumbrations, have been set forth exhibiting the unfolding of providential plans, or of Hegelian ‘Ideas’ floating down in the rarefied atmosphere of German metaphysics towards the mistlands of the Unconditioned. Or human advance has been elucidated by the Development of the Ego, the shaping of Superindividuality, and other vaporous psychological unsubstantialities. What man has achieved has been set down to his religion, to his morals, to his innate benevolence, to everything, in fact, except to his intelligence.

The development of humanity has taken place, like that of every form of life, amid the conditioning factors of its environment. Every phase of it and every aspect have been subject, as is organic evolution, to the determining influence of geographical and economic conditions. But geography and economics are the conditions, not the means, of development. No geographical or economic conditions can bring about evolutionary development in the absence of progressive powers of adaptation. In human history, as in organic history, the material geographical conditions and the economic conditions and in-

terests are the determining factors of every act and form of adaptation, and afford therefore, as after much resistance is now universally recognised, the key to every interpretation of its phenomena. But that interpretation postulates the other term of the reaction, the adaptive powers of the organism upon which material and economic conditions operate. It is with the latter that we are concerned. That adaptive power is not supplied by external conditions. The power by which man has extended his control over the conditions of his life has not been drawn, as he has drawn mechanical power out of coal or water, from his environment. It is by means of a power inherent in himself that he has been enabled to employ the sources of power afforded by the conditions of his environment. If any progressive quality marks the course of his career, it is in the means of adaptation of which he has disposed, and not in the conditions to which he has applied them, that such a quality is to be sought.

A presumptive clue to the nature of that quality is obviously afforded by first answering the antecedent question: 'By what means did man in the first instance become exalted above animality?' It is plausible to suppose that the adaptive powers which have determined the advance of the human race in its subsequent career are related to those which brought about its first emergence. There is here no place for fine metaphysical theories and subtle 'philosophies of history.' Ape-man was not exalted above himself by virtue of his religion, or of his morals, or of the transcendentalism of his ego. The human animal transcended other animals because he was more intelligent.

Progress in organic evolution consists in increased power to cope with the environment by means of greater efficiency in the organs of sensation and of action. Sensation serves to direct the means of action. The power of claw and fang, of limb and wing, is extended in scope by

the keenness of eye and ear. The function of the senses depends upon experience. The sight of a menacing foe or of an attractive prey, being interpreted in the light of experience, forestalls the more urgent sensations of closer contact. Intelligence is but an extension of the same method of inference from immediate to prospective experience. Its efficiency depends upon the correspondence between the two. An animal so stupid as to mistake a ravening lion for a sucking-pig would get itself into serious difficulties. Intellectual honesty is of the essence of the biological mechanism. Doubtless an animal of refined taste would much prefer to come upon a plump sucking-pig than to encounter a hungry lion, but should its preference for pig so far prejudice its judgment as to vitiate the evidence of its senses, and it should persuade itself that the lion's roar is the squeaking of a prospective meal, the consequences to the animal with idealistic propensities would be disastrous. Animal intelligence, rude as it may be, seldom plays such tricks. Only human intelligence does. Its much more complex methods of prognosticating the future from the present, the unknown from the known, have, like all complex and delicate mechanisms, the disadvantage of being liable to perverted use. By virtue of his godlike reason man is the only animal that enjoys the privilege of persuading himself that things are not as they are, but as he would like them to be.

Emergent humanity, fortunately for it and for us, was at first insufficiently human to abuse to any dangerous extent that privilege. It was as yet untroubled by the thought whether its conclusions were in accordance with what is taught at Oxford or what might offend the Non-Conformist conscience. Like all other animal races, the human race was concerned only that the conclusion of its intelligence should agree with immediate experience. It is by virtue of such rudimentary intelligence that some brainy

racess of apes established their title to the lordship of creation.

That *homo sapiens* owes his biological supremacy to his brain is an anatomical truism which goes undisputed. It is, perhaps, not quite so simple, or even so true, as it appears. Brain development is, of course, the outstanding anatomical mark of the evolutionary approach to humanity. The ape's brain foreshadows it. The extinct apes which left one of their babies at Taungs, in Bechuanaland, considerably excelled any living ape in brain growth. Pithecanthropus, in Java, proceeds farther along the same path of cerebral increase. The brute-man of Chou Kou Tien and the Piltdown woman take us apparently a little way across the indefinite border. But human emergence was not simply and solely a matter of brain growth. A big brain is not necessarily human. Some birds and rodents, as well as some of the lower monkeys, have a bigger brain, proportionally to their bodies, than man. Man is not the result of an hypertrophic growth of brain-substance, but of the circumstances which led to that growth. Brainy animals are slow-growing. Their brain growth is the effect of prolonged babyhood. It is consequently no mere congenital hypertrophy, but development organised under the direct control of actual experience. Brain-matter which is not laid down under the direct influence of that control, but is turned out ready-made by heredity, is of inferior quality; it is not intelligent, but instinctive. The intelligence to which man owes his specific advantage is not the result of his having a big brain, but of his having a brain slowly matured during an abnormally long infancy through the immediate action of experience. The ape's brain is the result of a babyhood more prolonged than that of any other brute animal, man's brain of a babyhood about twice as long as that of any living ape.

Prolonged infancy gives rise not only to an intelligent

brain, but also to a persistent sense of dependence upon the assistance and goodwill of other individuals. It results not only in intelligence, but in social dispositions. Apes tend to hang about in troops. In infant humanity that tendency, and the disposition to look to others for protection, assistance, and guidance, to require their approval and sympathy, were at least twice as strongly implanted. Man was not only intelligent, but social. His emergence out of animality was not only a biological phenomenon marked by the growth of a big brain. It was also an entirely new kind of phenomenon: it was a social event.

Not the individual animal is thenceforth the theme of the story, but society; not natural history, but history. The whole method of operation of evolutionary forces had itself to be adapted to the new phenomenon, and modified in its scope. These forces no longer operated upon the individual, but upon the social organism. Their medium was no longer mainly anatomical, but predominantly psychological and social.

It is not infrequently enquired whether the form of man may be expected to undergo startling changes, whether he is not likely, by the transforming operation of organic evolution, to put forth wings or to grow eyes in the back of his head. There is little likelihood of any such interesting developments. Except for modifications of almost negligible importance, man's bodily form is, to all intents and purposes, withdrawn from the action of those causes which have brought about the transformations of organic forms. And the reason is that, as a consequence of the specific conditions of human society, the operation of those causes has become transferred from the individual to the social organism. The products of human evolution are not physiological organs, but ideas, habits, opinions, devices, social institutions, organisations, relations, traditions. It is upon these, and not upon the bodily form

of the individual that the conditions which impose adaptation and efficiency, conformity to facts, operate. It is upon these that natural selection exercises its eliminative action. In a social organism, the weakness of the individual, his inadaptation, are to a large extent shielded from the penalties of natural inadaptation. The penalty is paid by society; it is the society, not the individual, which is penalised for defying facts. Individual dishonesty may command success; social dishonesty dooms itself.

The products of human evolution are not transmitted by the method of physiological reproduction. Each successive generation acquires them anew from the social environment in which it develops. They are not located in germ-cells, but in social tradition. The individual organism, its glands and plasms, and physiological mechanisms, are not the bearers of human heredity, but the race as a whole. A man's place in the scale of human evolution is not determined by the anatomical structure of his body, but by the social structure in which he develops. It is not determined by the fact that he belongs to the nine hundred and sixty-second generation since his ancestor danced painted with woad, but by the fact that he belongs to the twentieth century; it is not determined by biological, but by historical conditions. Not the loins of man, but the cultural tradition of humanity is the bearer of human evolutionary characters.

As a consequence of that unique biological situation, not only has social man not developed by any physiological process those wings he has so intensely desired, but having become provided with a brain equal to the demands of social existence, he has not even proceeded farther in the matter of brain development. Rather to the embarrassment and perplexity of the older evolutionists, and to the gratification of the fundamentalists, the brain of fossil man is found to be not conspicuously inferior in size

to that of modern man. Normal human brains range roughly from 1200 to 1900 cubic centimetres in capacity. The Piltdown woman, who scarcely possessed the anatomical means of articulate speech, had a brain capacity of no less than 1200 c.c., and possibly of as much as 1300 c.c. The Gibraltar woman, the smallest-brained individual known of the Neanderthal race, had 1200 cubic centimetres of brain, an allowance which suffices many a modern man going about his business in a normal and satisfactory manner. Other Neanderthal people, such as the La Chapelle man, with a horribly missing-link-like form of countenance, had a brain of 1600 c.c., which many a professor might envy. An Australian savage goes about performing his incantations and mummeries with a brain which falls only by a trifle of some 100 c.c. below the average of a Londoner, and which might quite well serve all the purposes of an Archbishop of Canterbury.

The lack of progressive development in man's brain, perplexing to thought hemmed in by the time-honoured notion that man is a self-contained 'ego,' is due to the fact that the operation of natural laws does not proceed on that assumption. As an individual animal organism, man has not appreciably evolved since he was a roaming savage; modern man is not markedly, if at all, more intelligent than his ancestor of the Stone Age. He is in a position to make an immeasurably greater use of his intelligence for the same reason that a schoolboy of the present day is in a position to instruct Archimedes and Aristotle.

Hence, incidentally, the utter futility of the goose chase after causes of human evolution in processes taking place within the individual, in the growth of his 'ego,' whatever that may mean, or in intellectual, moral, or humanitarian refinement of his natural disposition. The individual cannot be made more intelligent, or more moral, or more just and less cruel, unless those improvements are effected

in the social organism from which he derives his mental constitution.

One of the floundering notions endemic in historical philosophising is the fallacy that "history is the biography of great men." Great men are, like other men, the products of their environment. If by virtue of the character of that environment they are enabled to go a little beyond it in clearness of vision, they can influence their age only by appealing to qualities and tendencies—far more complex than any of which individual evolution is capable—already present and ripe in the medium which brought them forth. A much more important question, it has been realised for some time, than 'Who was the originator of that idea, of that device?' is 'How came that idea to grow? by what steps was that invention, that discovery evolved?' The men whose names are associated with the most revolutionary changes in human history and ideas, such as Gautama, Muhâmmad, Luther, Columbus, Copernicus, Newton, Darwin, hark back to so long and farspreading a mental genealogy of precursory ideas, and their influence so thoroughly harmonises with the tendencies and ideas ripening in the mental atmosphere and conditions of their age, that it is often difficult to say which is their individual contribution and which that of the collective agencies of the times; and that we may in many instances doubt whether those revolutions would not have taken place in much the same manner had the particular individuals with whose names they are associated been absent from the stage. A society gets not only the government it deserves, but the thought, the art, the science it deserves and determines. The thought, the art, the science for which it is not fit, it takes good care to eliminate by ignoring them.

Even the 'supermen' whose colossal figures traditionally loom as the very embodiment of overpowering individual-

ism, violating fate, diverting with their strong hand the course of history, seizing mankind by the hair and curbing the age to their own strong will, a Cæsar, a Napoleon,¹ can on a closer scrutiny be seen to have been called forth, evoked, created by the operation and natural selection of circumstances, to have been drawn into the current of events and carried away breathlessly in a stream in which they struggled, gasping and fearful, and in their boldest hour to have been driven by the necessity of an environment whose awful pressure they were powerless to withstand.

The progress of human intelligence is not due to the almost negligible, and as often as not neglected, contributions of this or that individual, but to the fact that its fruits accumulate through all time at compound interest. Every advance it achieves extends the field of subsequent achievement, and every element of the human world which is subject to its operation is thus subject to a process of progressive development.

Not only is the operation of intelligence progressive because it enlarges the foundations of knowledge and experience in geometrical ratio, it is also progressive because its logical operation cannot stop short of ultimate conclusions. A new principle, an idea, does not proceed at once to its last consequences. Its beginnings are in most instances timid and inconsistent. Yet once it has been formulated, nothing is more inevitable than the unfolding of its remotest implications. It is a logical process, and logic cannot stop halfway. That development may be wholly unforeseen at the origin of the process. The most direct and obvious implications of the new principle may be not only foreign to the thought of those who have

¹ See Ferrero, *Giulio Cesare*, and A. Vandal, *L'avènement de Bonaparte*.