

THE REIGN OF RELATIVITY

BY VISCOUNT HALDANE

THE PATHWAY TO REALITY

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THE CONDUCT OF LIFE

AND OTHER ADDRESSES.

**UNIVERSITIES AND
NATIONAL LIFE**

Three Addresses to Students.

HIGHER NATIONALITY

A Study in Law and Ethics. An Address
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P R E F A C E

THE topics of this book are Knowledge itself and the relativity of reality to the character of Knowledge. Some of the questions considered in the book are more than two thousand years old. That fact need not disturb us. For there appears to have been steady progress in the forms of the answers which have gradually been evolved. If the substance of these turns out to be more akin to doctrines originally produced by the Greeks than we had expected to find, that again need not disturb us. It would not trouble us in the case of literature or art, and we have to learn to study philosophy, and even to a considerable extent science, as we study these, with the circumstances and language of the particular period steadily kept in our view. To say this does not mean that we are to treat lightly either truth itself or the imperative necessity for exactness in its statement. But it does mean that we must have in mind that truth in its full significance imports quality as much as it imports quantity, and therefore variety in standard. We have read the history of human endeavour in its many aspects to little purpose if we have not learned this.

The subject discussed involves reference to metaphysical inquiry. I regret that this has to be so, for metaphysical discussions are not popular in the world as it is at present. But that world is casting about in search of a basis on which gradually to build up renewed faith. If it continues in earnest in its searchings I believe that it will find in the end that it is not possible to shirk encountering philosophy in some shape. I can only say that I have tried to assist the general reader to realise the single principle on which the book is based and built up, by putting that principle before him in the variety of its applications. I have been fully aware that for those

specially trained in various branches of inquiry touched on this has involved some repetition. But the protean form in which the principle appears where least expected afforded justification for my concern lest I should have failed at any point to drag it out for continuous recognition.

Some sixteen years since, I published Gifford Lectures, delivered at the University of St. Andrews. These appeared in two volumes which bore the title of *The Pathway to Reality*. Through the two volumes there ran a thread which remains intact in the present book: the principle of degrees in knowledge and reality alike. But since the two volumes were written much new knowledge has come into existence, and the treatment has been consequently refashioned. The remarkable ideas developed by Einstein, as the result of his investigation of the meaning of physical measurement, have provided fresh material of which philosophy has to take account. These, and yet other ideas which are affecting the scientific outlook profoundly, have appeared to me to call for a fresh route of approach to a view of nature towards which philosophical reflection was already being impelled. The advantage which the methods of science possess is that by them results can be reached and formulated with a precision that is unrivalled, so far as they can go. A price for this advantage has, however, to be paid, and science is apt to find itself in strange regions if it does not limit its scope with genuine self-denial. The inquiry entered on by Einstein has, perhaps because of the presence to his mind of something like this reason, stopped short in his hands of the general problem of the Relativity of all Knowledge. The question that remains is whether the investigation of that problem can be carried further, and if so, whether the philosophical method which appears to be required is a reliable one. The answer I venture to offer to the question is contained in the pages that follow.

The subject is one that has occupied me for many years; over forty, I think. During much of that period I have had other and pressing calls on my time, calls both of an official and a non-official nature. But if on occasions the general significance of knowledge has had to be relegated to the background, it has throughout

PREFACE

xi

been in my thoughts. On the day of my release from office as Lord Chancellor in 1915, I projected this book on Relativity, and it is now finished, for what it is worth. I part from it as from a child whom I have watched over and brought up, and who has occupied a foremost place in my affections. The volume, such as it is, now goes out into a world where it remains to be seen whether it will be received well, or received at all.

HALDANE.

LONDON,
April 1921.

TABLE OF CONTENTS

PART I—THE PROBLEM OF RELATIVITY

CHAPTER I

INTRODUCTORY

The changing attitude towards religion, politics, and literature. The absence of settled conviction in the public mind is the result of reflection and can be made good only by reflection. There seems to be no reason for misgiving. But it is not the less important to seek out foundations on which faith can be rested. These foundations must in the end be mainly spiritual in character, in the comprehensive sense of the word "spiritual," and co-operation in the inquiry between the various classes of spiritual reformers is therefore important. A great obstacle to such co-operation is the sense that there is little harmony between the various phases of knowledge. Can such harmony be established? A scrutiny of the history of reflective thought, if it makes more allowance than is usual for relativity in the standpoints of the different orders of thinkers, seems to suggest that the great systems are not really in such conflict as is currently imagined. The history of philosophical thought is no record of mere supersession of opinions. It is rather the exhibition of advance in ideas which have been antagonistic mainly in their one-sided expression. If we apply the historical method over sufficient periods of time, we discover continuity in progress little broken, provided that we bear in mind the influence of relativity in the successive standpoints which the narrative discloses. Relativity of this kind must always be taken into account, for it bears on the real significance of truth. Truth implies more than the mere agreement of an idea with something treated as having an independent existence apart from it. The test may require an adequacy more complete, and may have to take account of standpoint and include value as well as measurement.

pp. 3-15

CHAPTER II

THE DOMAIN OF SCIENCE

There is some analogy between the methods of science and those of art, for both require the use of symbols, although their standpoints are quite different. The disposition to-day in the domain of science is to search for and detect unconsciously made assumptions. The Victorian idea of reality as coming under two distinct phases, one objective and self-subsistent, and the other only subjective and for science negligible, is an illustration of this kind of assumption. The tendency of the new century

is to relegate that idea to the lumber-room, and to regard the universe in all its phases as an entirety. The Victorians really inherited their idea from Locke, though Kant had partially superseded this idea, had they but understood what he did. Modern science looks on meaning as inseparable from experience. Kant's own shortcomings. He still sought to get behind the final fact of knowledge, and this cannot be done. We cannot resolve it into anything beyond itself; we can only observe and study it in its self-development. If we do so, we find that our perplexities have arisen from taking it to be merely an attribute or instrument of a thing called a self. This is an idea which is only relatively admissible, and will land us in difficulties if employed without restraint. The actual character of experience. The distinction between knower and known is one that really falls within knowledge. Each is as real as the other within the entirety of knowledge, to which both belong. Knowledge as a whole is itself the final fact behind which we cannot get. But it has forms and stages within it characterised by their relativity.

pp. 16-32

CHAPTER III

RELATIVITY AND WHAT IT MEANS

The antiquity of the principle of relativity. Its acceptance by modern science. The far-reaching importance of this acceptance, and the meeting over it of science with philosophy. The various meanings of relativity. The expression as used in this book. The real nature of knowledge. How Kant approached the subject. The confusion latent in the question as to the origin of knowledge. The way in which the principle of relativity is now formulated by physicists. Entities and their relations. The method of abstraction as employed in mathematics. Why our knowledge appears in experience as conditioned. Its early stages. Space and time. Newton and Einstein. All that the physicist can actually observe is variation and coincidence in the situations of things relatively to each other. Of force physics can form no notion. The relative character of space and time. Coincidences of events as studied in physical science. Events imply interpretation as essential to their actual nature, and in this sense and to this extent are of a mental character. The relation of the general to the particular in knowledge. What is actual contains both, and this is the key to the nature of knowledge and of its object. The explanation applies in art and in estimates of value as much as in science. The ultimate character of knowledge itself.

pp. 33-50

CHAPTER IV

RELATIVITY IN AN ENGLISH FORM

The revolution in physical conceptions made by Einstein. Motion and rest. Gravitation. The British Astronomical Expedition of 1919. The basic controversy. Inertia and Energy. Diverging views about the principle of relativity. Moritz Schlick. Whitehead. The latter's position as a logician. The conclusions to which he has brought himself. Analysis of his theory. "Events" and their "passage." "Objects." The method of "Extensive Abstraction." The larger issue raised by the fresh view of relativity set forth in Professor Whitehead's books.

pp. 51-81

CHAPTER V

EINSTEIN

The genesis of Einstein's discovery of the special and general principles of relativity in physics. The elimination of force as a concept in physics. Action at a distance. The relation of phenomena as observed to the space-time continuum. The "world-line," and the inseparability in it of the spatial from the temporal. The significance of Einstein's physical theories for philosophy. The metaphysics of Tensors. Euclidean space. Professor Eddington's suggestions about the relation of mind to nature. Comparison with the Hamiltonian theory of Representative Perception. The ultimate physical basis. Riemann, Freundlich, and Schlick on the ultimate ground of the continuum. Contrast with the views of Professor Whitehead. The controversy is superseded if we cease to hypostatise nature into something of a different character from mind, and give up insisting on disjoining particular from universal in our experience. Relation to mind is essential for the existence of nature, for apart from such a relation congruence would be unintelligible. Professor Whitehead's logical methods seem to guide him towards this result. It constitutes a difference between his view and the merely physical theory of Einstein, and the question the former raises is inevitable. It really, however, belongs to the domain of philosophy.* Bergson on the spatialisation of time and the fourth dimension. Gauss, Riemann, and Minkowski at Göttingen. The doctrine of relativity in physical measurement leaves several questions to be answered, including one as to the character of the universe in which we have our place. It opens up possibilities of knowledge of a new kind. . . . pp. 82-118

CHAPTER VI

RELATIVITY IN EXPERIENCE GENERALLY

Einstein's principle of the relativity of measurement in space and time cannot be taken as isolated. It has its counterpart in the other domains of nature and of knowledge. For, however we may interpret it, there remains before us the basic principle that knowledge everywhere enters into reality with transforming power. Illustrations from biology. The meaning of "cause"; its relation to the concept of "end." The contrast between end and conscious purpose in the intelligent organism. The doctrine of degrees or levels in reality and knowledge, and of their relations to each other. All the sciences belong to one entirety, and all their methods are required for the interpretation of experience. What science owes to philosophy. It turns out that observer and observed everywhere stand as inseparable in fact as well as in logic. Knowledge is of differing kinds, and what determines these kinds is the standards employed. They belong to different orders, as we find in the observation of a mind or a living organism when contrasted with the observation of a machine. The conception employed takes the place in the former of the co-ordinates of reference used in the case of the latter. Mind, when the abstractions we make are allowed for, includes the whole of these within its entirety. The inherent tendency of knowledge towards self-completion. Illustrations of this tendency. The full explanation has always in the end to be from above downwards. The true character of

mind, and the way in which knowledge becomes relative. The finite self and the object-world from which it is distinguished. The outlook is really larger than that in which realism is differentiated from idealism. It is in consequence of abstractions made to serve practical purposes that the limited forms of knowledge arise. The meaning of truth. Knowledge is something more than an instrument applied *ab extra*, and its various forms require investigation in detail of appropriate kinds. pp. 119-142

PART II—THE METAPHYSICAL FOUNDATION OF RELATIVITY

CHAPTER VII

THE SELF IN KNOWLEDGE

My knowledge of myself as included in my object-world is a fact as obvious as it is extraordinary. The difficulty in understanding it arises from my having taken my mind to be a thing of which my knowledge is a property. This cannot be true, for the distinction of my mind from its object appears on scrutiny to be the result of reflection from a partial standpoint. I turn out to be more than at first sight I took myself to be. In my experience subject and object are never separated, but are at every point mutually implied. They are not independent entities, but the outcome of points of view which may be only relatively true. These give me different kinds of objects, and of concepts through which they are interpreted. When I say "I" the concept employed is, and must be, of the character of a universal, and of general application. For other men say "I" with identically the same meaning. Their bodies and experiences and histories are different from mine, and in respect of these we are independent beings. But we think correspondingly in a correspondence that is based on identity in concepts. These are not occurrences in time, but are the very same thoughts despite their differences in detail. Reality itself and the distinction between dreams and apprehension of what is actual depend on this. The relation of knowledge to my organism. I know what other people feel only by knowing what they think. Interpretation through concepts. The Leibnitzian monad. The meaning of the identity of the world we all perceive. Mind and body represent, not different entities, but different orders in experience. The unreality of both universal and particular when taken in isolation. The real is individual and never static. The relation of personality to organic life. The finite centre. The range of reflection is unlimited, notwithstanding that my mind is conditioned by having to express itself in my organism. I am no mere object in an external nature. The character of the self, and the interpretation of its finiteness. The tendency of experience towards self-completion. Mind finds mind even in forms that have aspects belonging to externality. . . . pp. 145-168

CHAPTER VIII

MEANING AS ENTERING INTO REALITY

The "I," with my reference of my experience to it, is the foundation of congruence in the various forms of that experience. The difficulty felt in accepting this view arises from the tendency to separate the self

TABLE OF CONTENTS

xvii

from the object-world in its knowledge. We have to do this for practical purposes, but the interpretation so obtained is only relatively true. The differentiations made within the entirety of knowledge. The meaning of finiteness as characterising the self. Symbolism. Summary of the position reached in the discussion. The terminology of metaphysics. How meaning is essential for reality. The necessity of adequate concepts for the apprehension of the real. The principle of degrees. How knowledge itself must be studied. The view put forward is really no new one, but as old as Greek philosophy. Truth and value. The differences between individuals. To imagine that there can be numerically different universes is to imagine what is meaningless. For knowledge depends on identity of the concepts in which any universe arises. Knowledge is no arbitrary procedure. It unfolds its own character. There is no properly statable problem of the genesis of knowledge, and reality is always conceptual, and of the character of a concrete universal in which a relation of object to subject is implied.

pp. 169-188

CHAPTER IX

APPEARANCE AND REALITY

It is only metaphorically that we can speak of nature as closed to mind. Our intelligence is presented as finite and as confronted by nature, but that intelligence turns out to be more than it takes itself to be, and to this fact the principle of degrees is the key. The character of finite knowledge. The implications of the conception of personality. Our point of departure is the "this," in which we are here and now, but it is only a point of departure for the activity of reflection, although the world is there independently of our particular minds. The beginning in time of knowledge. The treatment of thought in books on logic. The full character of thought, and its tendency to search for the whole. Criticism of the views of Mr. F. H. Bradley, Professor Bosanquet, and Professor Pringle-Pattison. Cardinal Newman. The Hegelian "Phenomenology." Summary of the chapter.—The meaning of divine immanence. Relativity in this connection.

pp. 189-215

CHAPTER X

MANIFOLD ORDERS IN KNOWLEDGE

In the same individual phenomenon there are present a variety of degrees in knowledge. Our thinking takes place by imagery, in which multitudinous concepts are implicit. The consideration of what we pass by as merely inorganic nature illustrates this. Symbols. The use and abuse of metaphor. The difficulty of its employment in philosophy, although that employment is unavoidable. The example of our language about death. The view of the self required for the doctrine of degrees. Evolution. Darwin frees from the characteristic failing of the Victorians. Knowledge and instinct. The dialectical tendency in explanation. Goethe. Mysticism. What we presuppose in our knowledge. The hypostatization of conceptions into images supposed to be exhaustively descriptive. The far-reaching influence of relativity. Illustration from the controversy

about free-will. The doctrine of degrees lays many spectral appearances. All adequate explanation is from the concrete to the abstract, and from above to below. . . . pp. 216-235

PART III—OTHER VIEWS ABOUT THE NATURE OF THE REAL

CHAPTER XI

GREEK PHILOSOPHY

The temptation to read too much into Greek Philosophy. One of its attractions is its freedom from modern obsessions. Its abiding character. Its deliverance from the difficulty which has led in modern times to the separation of knower from known, and to subjective idealism. Aristotle's relation to Plato. Form and matter. The relation of the principle of Becoming in Aristotle to the doctrine of degrees. The obscurities in his presentation of his principle, and the consequent divergences between his commentators. But Aristotle did insist that the relation between percipient and perceived was the creation of knowledge itself. He was not embarrassed by the modern tendency to reduce all conceptions to those of externality and cause and substance. The principle of degrees is implied in his system. The *De Anima* and the *Metaphysics*. His view of mind. The price we have paid for getting beyond Aristotle, and the defects of his view of the world. Knowledge as foundational in his system. The conflict of views in it, about Logic and Metaphysics. Comparison between the systems of Aristotle and Plotinus. The personality of the latter. Neither ever got rid of a certain tendency to dualism. The great value to us of Greek thought is its insistence that no view is sufficient which excludes any important aspect in which reality and the truth about it can be presented. The ethical shortcoming of Hellenism. pp. 239-260

CHAPTER XII

NEW REALISM

The effort of New Realism to confine itself to the methods of science. The various schools of New Realists agree in attributing self-subsistence apart from knowledge to a non-mental world. Differences in the views of these schools. The domination in New Realism of the category of substance. The inclusion of universals in the non-mental world. Its view of consciousness. The barrier it puts in the path of subjective idealism. Professor Alexander. Mr. Bertrand Russell on the relations between logic and mathematics. Number. The possible relation of New Realism to biology. Ought not the New Realists in consistency to claim that morals, beauty, and religion also all of them belong to the non-mental world? Is not the distinction between this and the mental world a disappearing one, and have they not proved too much? What mind really is. . . . pp. 261-287

CHAPTER XIII

REALISM AND IDEALISM

The deflection of the view of New Realism about reality has its parallel in that of Subjective Idealism, with consequent aspects due to relativity in outlook. How Locke was led into a snare by a metaphor. His view of mind as a thing and of knowledge as an instrument. Epistemology and the "two substance" theory. Berkeley was launched in consequence on a slippery slope, down which Hume conducted philosophy to a precipice. They all three treated mind as "substance." Thomas Reid's great service in rejecting the doctrine of "representative perception." "Common sense" as he conceived it. Kant carried the criticism of the "substance" doctrine still further. His view of knowledge. It is presupposed in all experience. His limited conception of the categories and of space and time. The *Critique of Judgment*. The revolution in thought which Kant effected. The defects in his system. The diverging attitudes of the schools which succeeded him. The possibility of access to the "thing-in-itself" through direct awareness. Schopenhauer. The reasons why he founded no school. His personality. His system. His relation to Bergson's principle. The real divergence of the latter from Kant. The true nature of mobility. It is against the limitations of Kant's mechanistic view of the categories that Bergson's great point is really made. His originality in the statement of this. He actually relies on intelligence and assumes it as presupposed in his view of reality. An American critic of Bergson. "Creative finalism." Time. The relation of Bergson to Bradley. . . . pp. 288-312

CHAPTER XIV

AN AMERICAN CRITICISM OF BERGSON

Notwithstanding the open-minded detachment of Bergson, he does not free himself from the dominating influence of his peculiar view of the character of reality. It is difficult in reading him to feel that the actual, as he presents it, has meaning apart from knowledge. His view of time. Professor Watts Cunningham on this. Hegel on time. For Professor Cunningham teleology is no inadequate category, and it implies time as a genuine form of reality, although there is a meaning in which time is transcended in a fuller entirety. The "coherence" doctrine, and Professor Bosanquet's exposition of it. His relation in this reference to Mr. Bradley. The world of ends pp. 313-328

CHAPTER XV.

THE HEGELIAN PRINCIPLE

Schopenhauer and Bergson chose one branch of the path which diverged from where Kant halted. They sought to reach the thing-in-itself through direct awareness. Criticism has, however, tended to insist on this being only a fresh form of knowledge. Hegel denied the reality of the thing-

in-itself, and sought to get rid of the limited interpretation of the nature of knowledge which had forced Kant to postulate that notion. In discussing Hegel's method it is necessary to begin by pointing out what it was not, for most of the current ideas about it are misinterpretations, arising partly from accepting second-hand information from would-be interpreters. If we turn to Hegel himself the first thing we find is that he did not treat things as created by our thinking about them. Nor did he even set up the Prussian Constitution as an ideal, or as more than a fact to be investigated. Other reasons which have led to the current misinterpretation of Hegel are the circumstance that after his death his school split itself into fragments, and also the unattractiveness of his personality. His character. His terminology and his curious pedantry, which is the outcome of his systematic effort after accuracy in expression. The alternative path to that of Schopenhauer and others which he selected was a resolute attempt to discover a wider meaning of knowledge than Kant had attributed to it. He sought to explain the feature of its relativity by observing it in its self-development. Its dynamic activity he called the *Begriff*, and its self-completing system he named the "Idea." The individual was always concrete, and to be actual was for him to be concrete and individual in form. No system of universals, taken *per se*, could for him be real, any more than a merely objective world of particulars could exist dissociated from intelligence. Concrete experience was the true form of the actual, and it was the work of mind in this that had to be studied. The "Phenomenology of Mind"; its scheme. The antithesis of "Logic" and "Nature" as two counter-abstractions, each of which involves the other and is real only in experience. Here the principle of degrees is everywhere apparent. His historical method and his vast learning. His attempt to exhibit the entire universe in systematic form was too ambitious. It is the spirit rather than the letter of Hegelianism that is still important. His influence in Great Britain and America and India is to-day much more alive than it is in Germany. Exposition of his point of view, Knowledge is our "That"; we start from it and never get beyond it. Thought and feeling. Identity in difference. Thought is for Hegel more than merely relational. The nature of the self. The ideal of knowledge. The resemblance of his view of the object-world to that of Aristotle. Substance, cause and effect. The categories are abstractions, and they form the subject of his "Logic," which is really a Metaphysic. The various aspects presented by mind. God is immanent, and experience rightly interpreted is for Hegel reality revealing itself. The finite aspects of mind it derives through nature. His method is what is interesting to-day, and it must still be studied. pp. 329-344

PART IV—THE INDIVIDUAL AND HIS ENVIRONMENT

CHAPTER XVI

THE RELATION OF MAN TO SOCIETY

Knowledge is not merely theory; it is action in which we are likewise free. We can select among values, which are not dependent on us indi-

TABLE OF CONTENTS

xxi

vidually. These also belong to the foundational character of mind, and exhibit degrees among themselves. The nature of the universal moment which they disclose. The failure of Hedonism. The Good belongs to the region of the free person. Conscience contrasted with law. Their characters. The contrast of both with *Sittlichkeit* or "good form." This last is the most prominent source of freedom within a civilized community. It depends on general outlook and purpose. There may appear antinomies between morality and law on the one hand, and "good form" on the other. In the larger outlook these are resolved. This outlook discloses man as no static entity but as a dynamic subject. Identity in ends, as in knowledge generally. The choice between ends is influenced by the distinction between values, which may prove to be final. Their quality cannot be determined by reference to any subordinate standards. The average levels of groups of individuals. The value of man as a rational being turns on his capacity to rise above what is external or biological, and to be a citizen in a realm of ends that are unquestionable. The shadow of self. The lesson inculcated by Goethe in the second part of *Faust*. pp. 347-362

CHAPTER XVII

THE INDIVIDUAL AND THE STATE

The real nature of the General Will. The difficulty in admitting its existence arises from the assumption that the self is atomic. The basis of its reality is correspondence arising from identity in conception and purpose. The General Will is thus no entity independent of the private will, but is the latter at a different level. It is no sum of private wills. The standpoint in social purpose is what is important. The character of sovereignty within the state. The controversy between Monists and Pluralists. The mere question of legality is not decisive here. The Church or the Trade Union may prove too strong to permit freedom to the Government in the exercise of theoretical capacity. The true source of sovereignty is the sanction of general opinion. The illusory character of the decisions at the ballot-boxes. The difficulties experienced in consequence by the Ministers who have to interpret their own mandate. A real majority rule is different from mob rule. The position of the Crown in the British Constitution. Bacon and Paley. The Judges co-operate with Members of Parliament in securing that the exercise of theoretical power is kept within the boundaries of the national mandate. The influence of tradition and the utility of "red tape." The nature of a nation and the true foundation of the sovereignty which lies behind legality. In what sense the state itself is subject to obligations towards other states. The idea of a League of Nations. There are levels in human purpose higher than that at which the interests of the state appear as final ends. The reality that is larger than that of the state. pp. 363-377

PART V—THE HUMAN AND THE DIVINE

CHAPTER XVIII

THE RELATION OF MAN TO GOD

The lesson learned from the study of the relation of Man to the State. The present problem is not different in character. The conception of God as no entity separated from ourselves. He can be no far-away Absolute whose nature is to be a *totum simul*; no substance, nor yet subject differentiated from its object. He must be the entirety, to which the principle of relativity points; mind as foundational and in its completeness. We are more than we take ourselves to be from our particular standpoints. Can we work out such a conception adequately? If we regard God as immanent we can get some way at all events towards doing so. Man's knowledge and God's knowledge. The use in this connection of the principle of degrees. The true character of knowledge. Why the Hegelian attempt at the exhibition of an exhaustive system was too ambitious. Goethe's testimony to the power of Art in this connection. The language of Jesus. The use of religion. The light thrown on the nature of the self. Time. Not a mind but mind. Analogues. The necessity for knowledge in addition to emotion. "Man never knows how anthropomorphic he is." Our metaphors. Thought is more than merely relational. In the effort after truth we experience its real nature. pp. 381-400

CHAPTER XIX

ETERNAL LIFE

The significance of the ideal of self-completion implied in our knowledge of God as immanent in us. Even if not accomplished in our particular experience this ideal is a shaping end. It stands for the entirety within which must fall every standpoint from which mind directs itself. Analogies and illustrations. The relationships between human beings are those of spirit to spirit. How this bears on the fact of death. What is really desired in the form of life beyond the grave. Spiritualism falls short of it. The deeper sense in which death loses its reality. The value of images and metaphors in this connection. Art and religion; their relation to philosophy. The application of the principle of relativity. The undertaker and the executor. The true significance of the idea of life as beyond the all-severing wave of time, and of the symbols in which this is expressed. . . . pp. 401-416

CHAPTER XX

CONCLUDING REFLECTIONS

Summing up of the result of the inquiry. The bearing of that result on practical life. The necessity of educating the mind of a nation, and

TABLE OF CONTENTS

xxiii

the variety essential in such education. The leadership required for the guidance of the teachers and for the harmony of their work. Democracy. The seriousness of purpose really apparent since the war. The advantages of the reflective habit. Burke on human nature. The progress in national standards. The mind of the State no more stands still than does the mind of the individual. Its outlook is governed by relativity. The principle of relativity teaches us that there are different orders in which both our knowledge and the reality it seeks have differing forms, and that we must be critical of ourselves when we attempt to bring categories to bear. This is a lesson of high importance for practice. Its value in enlarging our outlook on life. pp. 417-427

INDEX pp. 428-430

INDEX

- Absolute, an, 383, 386
 Action at a distance, 89, 130
 Active reason, 246
 Alexander, Professor, 269 *et seq.*
 American bankers, 410
 American philosophy, 309
 Aristotle, 8, 239 *et seq.*, 258, 341, 343, 344
 Arithmetic, 277
 Arnold, Matthew, 8
 Art, 4, 11, 12, 13, 240, 407
 Assumptions, unconscious, 17
 Astronomer Royal, the, 52

 Bacon, Francis, 14, 36, 249, 368
 Bergson, 66, 87, 114, 261, 267, 306 *et seq.*, 313, 329, 333, 355
 Berkeley, Bishop, 9, 21, 30, 126, 264, 289
 Berlin engineer, an, on Energy and Relativity, 57, 58
 Bifurcation of Nature, theory of, 17
 Biology, 10, 12, 120, 121, 122, 126, 129, 280
 Bolland, Professor, 251
 Bosanquet, Professor, 197, 202, 203, 207, 208, 210, 322, 327, 336
 Bosanquet, Mrs., 404
 Bradley, F. H., 197, 202, 203 *et seq.*, 210, 252, 311, 336, 413
 British Astronomical Expedition of 1919, 52
 Brontë, Emily, 402
 Browning, Robert, 400
 Burke, Edmund, 423

 Cæsar, 416
 Caird, Edward, 242, 251
 Carr, Professor Wildon, 126, 313
 Categories, 268
 Cause, 121, 131
 Centrifugal force, 117
 Chemistry, 138
 Christianity, 3, 8, 424
 Cogredience, 78

 Coincidence, 95, 97
 Common Sensibles, the, 247
 Compresence, 265
 Congruence, 77, 79, 80
 Cook, Eliza, 11
 Cunningham, Professor Watts, 309 *et seq.*, 316, 319

 Dante, 11, 343
 Darwin, Charles, 224
 Death, 222, 405
 Degrees in knowledge and reality, 176, 195
 Deism, 382
 Democracy, 4, 421
 Dialectic, 231

 Eclipse of 1919, the, 52
 Eddington, Professor, 80, 92, 96, 101, 104, 119, 120, 124
 Einstein, 33, 34, 39, 43, 45, 51, 52, 55, 56, 68, 82 *et seq.*, 91, 92, 99, 102, 103, 100, 117, 119, 125, 128, 135, 136, 187, 271, 272
 End, 131
 Erdmann, Professor J. E., 251
 Euclidean space, 103
 Extensive abstraction, method of, 71

 Faith, 5
 Faust, 359 *et seq.*
 Finite centres of knowledge, 137, 152, 174, 191
 Francé, R. N., 301
 Freundlich, 62, 106

 Galileo, 126
 Gauss, 59, 93, 114
 Generality, 49
 Geodesic line, 91
 Goethe, 11, 183, 227, 331, 339, 361, 387, 395, 422
 Good form, 352
 Göttingen, 114

- Gravitation, 89
 Greeks, the, 14
 Green, T. H., 314, 338

 Hamilton, Sir William, 35, 106
 Hegel, G., 221, 257, 323, 328, 330
 et seq., 371, 387
 Heredity, 130
 Holmes, Mr. Justice, 279
 Homer, 11
 Hume, David, 9, 21, 264, 289, 297

 Idealism, subjective, 9
 Identity, personal, 151, 155, 156,
 159
 Inertia, 89
 Inge, Dr., 253
 "It," the, 27, 30

 Jena, 338
 Jesus, 389, 416
 John the Baptist, 183
 Johnson, Dr., 30
 Julian, the Emperor, 260

 Kant, 21, 22, 23, 26, 27, 33, 38, 60,
 65, 105, 126, 134, 135, 292 *et*
 seq., 299, 307, 329, 333
 Knowledge, 6, 29, 137, 140, 146,
 163

 Law, 351
 Leadership, the Higher, 421
 League of Nations, 374
 Leibnitz, 11, 33, 126, 153, 412
 Life, nature of, 89, 123, 130, 156,
 161
 Light, velocity of, 45, 82, 83, 87
 Literature, 4
 Locke, John, 20, 21, 288 *et seq.*
 Lord Chancellor, a Victorian, 18
 Lorentz-Fitzgerald contraction, 85,
 88
 Lucretius, 259

 Mackenna, Stephen, 253
 Mathematics, 16, 39, 40, 48, 53, 175
 Matter, 218
 Maxwell, Clerk, 71
 Meaning, 21, 164, 175
 Measurement, 14
 Meresjowski, 260
 Metaphors, 221
 Mind, 123, 128, 132, 156, 168, 171,
 286
 Minkowski, 90, 96, 116 187
 Molke, 332

 Monads, 154
 Morality, 350
 Mysticism, 227

 Napoleon, 183, 338
 Nation, nature of a, 371
 Nature, 17, 20
 Nelson, 416
 New Realism, 66, 133, 239, 261 *et seq.*
 Number, 275

 Orders in reflection, 32
 Organism, the living, 31

 Paley, 369
 Parallelism, 73
 Parliament, 366
 Particular, 47, 48
Pathway to Reality, preface
 Perception, representative, 35, 106
 Perpendicularity, 78
 Personality, 223
 Philosophy, history of, 8, 9
 Physicists, what they really observe,
 47, 89
 Planck, Max, 61, 107, 301
 Plato, 8, 133, 240, 241, 344
 Plotinus, 8, 239, 253 *et seq.*, 258
 Poetry, 10
 Political opinion, 4
 Politics, 3
 Porphyry, 256
 Pragmatism, 139
 Pringle-Pattison, Professor, 202,
 208, 209, 210
 Progress, 10; in philosophy, 267
 Protagoras, 37
 Prussian Constitution, 330, 342

 Quanta theory, 107

 Realism and Idealism, their con-
 vergence, 235
 Reformer, task of the, 6
 Reid, Thomas, 264, 291
 Relativity, various meanings of, 34
 Religion, 3, 389, 408, 409
 Renaissance, 8
 Renan, 371, 426
 Riemann, 59, 79, 106, 115
 Rossetti, Christina, 408
 Rotation, 117
 Russell, Bertrand, 63, 273 *et seq.*

 Sabine, Professor, 317
 Scepticism, 21
 Schlick, Professor, 59, 96, 106
 Schopenhauer, 299 *et seq.*, 329 333

- Science, 16 *et seq.*
 Self, 29, 145 *et seq.*, 148, 165, 167
 Sellien, Ewald, 60, 62
 Shakespeare, 11
 Shortest path, 94
 Simultaneity, 101
Sittlichkeit, 374
 Sovereignty, 366, 373, 381
 Space, 90
 Space and Time, relativity of their
 reality, 83
 Space-time continuum, 73
 Spinoza, 426
 Spiritualism, 3, 403, 406
 State, the, 373, 375, 377
 Strauss, David, 3
 Symbols, 16, 17

 Teleology, 323
 Tensors, 96 *et seq.*
 Terminology, metaphysical, 175

 Time, 90, 149, 226, 323, 325
 Truth, 10, 11, 12, 13, 14, 15, 128
 Tyndall, 259

 Universe, whether finite, 117

 Value, 10, 15, 347, 349, 357
 Victorians, the, 17, 18, 19, 64

 Wallace, Professor, 336
 War, the Great, 3, 5
 Whitehead, Professor, 17, 39, 63
 et seq., 101, 107 *et seq.*, 119, 121
 Whittaker, Thomas, 253, 255
 Will, the, 303, 349
 Will, the general, 349, 363
 Wordsworth, 11, 393, 394
 World-line, 90, 96

 Zeller, 242, 244, 251
 Zelter, 332

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