FRANK PLUMPTON RAMSEY ON TRUTH

Edited by

Nicholas Rescher

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FRANK PLUMPTON RAMSEY

On Truth

Original Manuscript Materials (1927–1929)

from the Ramsey Collection at the University of Pittsburgh

edited by

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FRANK PLUMPTON RAMSEY
"On top of Red Pike in the Lake District" 1925 (Photo by Letitia Ramsey).

PREFACE

The present publication forms part of a projected book that F. P. Ramsey drafted but never completed. It survived among his papers and ultimately came into the possession of the University of Pittsburgh in the circumstances detailed in the Editor's Introduction. Our hope in issuing this work at this stage – some sixty years after Ramsey's premature death at the age of 26 – is both to provide yet another token of his amazing philosophical creativity, and also to make available an important datum for the still to be written history of the development of philosophical analysis. This is a book whose appearance will, we hope and expect, be appreciated both by those interested in linguistic philosophy itself and by those concerned for its historical development in the present century.

EDITORS' INTRODUCTION

1. THE RAMSEY COLLECTION

Frank Plumpton Ramsey (22 February 1903 – 19 January 1930) was an extraordinary scholarly phenomenon. Son of a distinguished mathematician and President of Magdalene College, Cambridge and brother of Arthur Michael, eventual Archbishop of Canterbury, Ramsey was closely connected with Cambridge throughout his life, ultimately becoming lecturer in Mathematics in the University. Notwithstanding his great mathematical talent, it was primarily logic and philosophy that engaged his interests, and he wrote original and important contributions to logic, semantics, epistomology, probability theory, philosophy of science, and economics, in addition to seminal work in the foundations of mathematics. His original editor spoke the unvarnished truth in saying that Ramsey's premature death "deprives Cambridge of one of its intellectual glories and contemporary philosophy of one of its profoundest thinkers,"[1] and J.M. Keynes characterized one of his papers as "one of the most remarkable contributions to mathematical economics ever made."[2] Considering the scope and variety of his achievements, it is astonishing to contemplate that Ramsey died (just) before attaining his 27th birthday.

In 1982 the University of Pittsburgh acquired through the mediation of Nicholas Rescher a substantial collection of Ramsey's manuscripts, consisting of notes, lectures, and various unfinished writings. The collection was augmented in 1986 by a gift of further autograph material from Ramsey's daughter, Mrs. Jane Burch, who generously vested the publication rights to the Ramsey manuscripts in the University of Pittsburgh. With these subsequent additions, the collection currently (1988) comes to some 120 items amounting to some 1200 holograph pages. This Ramsey Collection forms part of the Archives of Scientific Philosophy in the Twentieth Century housed in the University's Hillman Library, and bears an impressive silent witness to the astonishing versatility and intellectual power of this English prodigy.

The Ramsey Collection consists of manuscripts of variable time of origin,

length, and value. The earliest manuscripts are notes and essays dating from his undergraduate days; the latest represent substantial writings on which he was still working at the time of his death. The shortest manuscripts are brief notations and memoranda of only a few lines; the longest are substantial chapters or essays ranging in length up to a manuscript of 45 pages devoted to issues on *The Foundations of Mathematics*, which was published under that title as the lead essay in the Braithwaite anthology of Ramsey's work.[3] The least significant papers are notes and abstracts on books Ramsey was reading; the most valuable are drafts or even virtually completed versions of researches that Ramsey himself destined for publication.

Topically, the collection covers the whole diverse range of Ramsey's extensive interests, ranging from logic, probability, and the foundations of mathematics to the theory of knowledge and the philosophy of language and beyond to issues of economics and social philosophy. The overall spectrum has a rather wider range than is represented in the Ramsey material published to date (there is, for example, an essay on sex, sexuality, and perversion). But even when the same ground is covered, the contentions and views put forward in the manuscript often supplement and sometimes differ significantly from those that have seen the light of print.

Although the manuscripts only rarely carry notations of date, they can in most cases be dated at least approximately, even without using physical evidence of paper or ink. Internal evidence apart, Ramsey often worked in interaction with the published literature and treats issues whose topicality can be dated from other sources.

The manuscripts present no graphological difficulties. They are written in a good English school hand, without use of special notations or abbreviations. The distribution and ordering of the manuscripts in the elegant cloth-bound boxes in which most of them reached the University of Pittsburgh is neither chronological or topical. To some extent, the material was arranged by genre, but no very systematic order was established. Ramsey himself was certainly not responsible for this arrangement; such order as there is is due to those who collected his scattered papers together after his death.

2. THE TRUTH PROJECT

The most substantial unpublished item in the Ramsey Collection relates to a projected book on *Truth and Probability*. It is a portion of this project that is at issue in the present publication.

The manuscript contents of Box I of the Ramsey Collection come to 210 foolscap pages, most of them tightly filled with Ramsey's flowing script. They differ from the materials contained in the other boxes in that they

deal with a connected and clearly interrelated way with one overarching question: the nature of truth. Unlike the other materials in the collection, they constitute a single large-scale thematic unit.

The box contains eighteen folders of manuscripts in all. Two of them (nos. 10 and 16) consist of brief memoranda. The rest, however, constitute a unifed whole. The thematic of the material and its complex interrelationship is set out in Appendix A to this Introduction.

The overall project bears the title "Truth and Probability," as Ramsey himself indicated in the Alpha table of contents. For Ramsey presented several somewhat divergent table-of-contents sketches for the project, which are set out in Appendix B. The latest of them (Delta) agrees with the manuscript material as we have it, except for one missing final chapter on "The Object of Judgment."

The development of Ramsey's overall project was foreshadowed in the 1926 essay "Truth and Probability," subsequently published by Braithwaite, whose table of contents stood as follows:

1. The Frequency Theory
2. Mr. Keynes's Theory
3. Degrees of Belief
4. The Logic of Consistency [= Probability Logic]
5. The Logic of Truth [= Inductive Logic]

As these rubrics indicate, this range of themes largely coincides with the second (probabilistic) part of the projected work on *Truth and Probability* in the version of the Alpha table of contents, which is roughly contemporary (1926/27). The book was presumably planned to extend the materials of this essay into new areas (chance, causality), as well as adding a wholly new initial treatment of truth, judgment, and logic.

It is thus clear that Ramsey initially contemplated a very extensive project – a substantial book on *Truth and Probability* with an initial section on semantics and epistemology, a midsection on logic, and a final section on probability and induction. However, with the passage of time, and the unfolding realization of the initial parts of the project, its character changed. The initial, semantic-epistemological section expanded from three chapters into six. The mid-section on logic also expanded substantially (compare Alpha with Gamma) and increasingly assumed a life of its own as Ramsey came to project a logic book for which we also possess a projected table of contents (see MS 002-22-03). And with the expansion of the first two sections, the third section on probability, which had given the initial impetus to the whole project, was left aside.[4] The newer interests became absorbing and displaced the old. Ramsey's original project *On Truth and Probability* thus evolved into two: a book *On Truth* and a treatise on *Logic*.

What we have in Box I, then, is an effectively complete version of Ramsey's book *On Truth*, except for a missing sixth chapter on "The Object of Judgment." Additionally we have (in two versions) the opening discussion of the *Logic* book, and this has been included here because it is eminently suitable as an introduction to Ramsey's overall project.

In relation to the survey of the Box I material given in Appendix A, the principal offerings of the present publication are as follows.

1. The aforementioned Introduction in its later version.
2. Chapters I, II and III in their later versions.
3. Chapter IV, in its sole versions.
4. Chapter V in its later version.

To this material we append also the earlier versions of *all* of the preceding items, with the exception of Chapter IV, which exists only in one single version and, of course the missing Chapter VI on "The Object of Judgment." However, this "missing chapter" is really no mystery. It was unquestionably intended to deal primarily with "propositional reference" and its materials were absorbed into the revised version of chapter III, "Judgment", which was now no longer qualified as *Preliminary*, and which discussed "the object of judgment" (viz., propositional reference) at considerable length. It is thus probable that the *On Truth* material as we have it represents an effectively complete, albeit unpolished version of Ramsey's book.

The project *On Truth* is far and away the most substantial item in the Ramsey Collection that has not yet been published. This failure is not without its reasons. The state of the manuscript itself indicates that Ramsey's thought on matters *in* the book was developing rapidly, with the result that his ideas *about* the book were also in a state of flux. In the end, Ramsey's first editor, R.B. Braithwaite, who prepared Ramsey's unpublished papers for the press soon after his death at the invitation of his widow, decided against publishing this obviously unfinished material on the ground that "he <Ramsey> was profoundly dissatisfied with it, and the preliminary matter that remains is quite unsuited for publication" (Braithwaite, pp. xiii–xiv). However, with the wisdom of two generations of hindsight it is clear that the value of this material is far greater than was apparent at the time and its preliminary character nowadays seems far less of an obstacle. Moreover, Ramsey's own dissatisfaction with the material – motivated by some radical further transitions in his own philosophical development – is less significant for us than it was for his friends. What matters for us are not his putative feelings about his manuscripts but the obvious importance and interest of his ideas.

3. INTELLECTUAL DEVELOPMENT

In point of time, Ramsey's work on the project *On Truth* fell during the period from 1927 to early 1929. The manuscript itself makes various references to material published in 1927 and 1928, and has for its latest citation the paper on "The Growth of the Perception of the External World" by H.W.B. Joseph in the January 1929 issue of *Mind* (see Chapter IV, footnote 15). Further evidence for this dating is given by the close kinship between the issues treated here and those treated in the "Fact and Propositions" paper of 1927 on the one hand and the so-called "Last Papers" of 1929 on the other (both published by Braithwaite).

In both *On Truth* and in "Facts and Propositions" Ramsey defends his redundancy theory of truth: "It is true that Caesar was murdered" means no more than that Caesar was murdered, and "It is false that Caesar was murdered" means that Caesar was not murdered" ("Facts and Propositions," p. 42). Indeed, Ramsey's commitment to this theory dates from his undergraduate days and forms an ongoing Leitmotiv of his thought.[5] But in *On Truth* Ramsey went on to maintain that the redundancy theory is not only compatible with a correspondence theory of truth but actually constitutes the heart and core of such a theory.

Internal evidence marks that "On Truth" as something of a way-station in Ramsey's transit from his early logicism via a pragmatic position towards the version of intuitionism he favored at the end of his brief life. For despite its close relationship to the 1926 "Truth and Probability" essay published by Braithwaite, the 1927–28 project *On Truth* betokens a significant shift in Ramsey's thought. In "Truth and Probability" Ramsey viewed induction as a useful habit which 'is reasonable because the world is so constituted that inductive arguments lead on the whole to true opinions" (p. 197). (Note that Ramsey thus foreshadows Braithwaite's own inductive justification or vindication.) In *On Truth*, however, he accepts the pragmatic standpoint more extensively and sees his own theory of truth as supporting a Peircean justification of induction. Thus *On Truth* stands far closer to Ramsey's 1927 publication "Facts and Prospositions" than to his 1926 essay on "Truth and Probability."

The project *On Truth* shows the beginnings of Ramsey's conversion to finitism and intuitionism as manifested in the "Last Papers." In "The Foundation of Mathematics" (1925) and "Mathematical Logic" (1926), Ramsey endorsed the logicist standpoint of Russell and Wittgenstein which regarded universal and existential statements as propositions and specifically as *infinite conjunctions or disjunctions* of particular statements. This is a view with which Ramsey is now no longer satisfied, and which he later rejects explicitly in "General Propositions and Causality" (1929). In *On Truth* Ramsey inclined to the

"holistic" view of Norman Campbell and Heinrich Hertz that theories (and the universal and existential statements they comprise) are not to be seen as propositions subject to the *tertium non datur* principle of having to be either true or false. Rather, they are "*secondary systems*" (to use Campbell's expression),[6] propositional superstructures that are only capable of highly indirect verification, and are best characterized in terms of probability rather than truth-status. In this respect, then, *On Truth* marks a break between the earlier logicist Ramsey of "Facts and Propositions" and the later intuitionist Ramsey of the "Last Papers."

4. HISTORICAL CONTEXT

The 1927–1929 period when Ramsey wrote the material *On Truth* was not a propitious time for a philosophical treatment of this subject. Between the work of Russell and Wittgenstein in the period up to the close of World War I and the publication in 1935 of Alfred Tarski's monumental "Der Wahrheitsbegriff in den formalisierten Sprachen," the field belonged predominantly to the representatives of neo-Hegelian idealism. In the 1920's, truth was simply not a theme that engaged the best philosophical minds of the day. This circumstance, combined with the difficulty of producing, and indeed even of seeing the need for constructing, a conceptually appropriate definition of the expression "true statement" such as Tarski was to produce in 1935 was not as yet appreciated. People were still inclined to regard as mere puzzles the semantic antinomies for whose resolution such a definition was needed. Those few theorists who appreciated the significance of the issues were inclined to see them as insuperably difficult. In Cambridge, a G.E. Moorean attitude prevailed, anticipated by the thesis of Frege's *Logical Investigations*: "It thus appears likely that the content of the word "true" is altogether unique and indefinable." The new-model mathematical philosophers did not yet see the elucidation of truth as a pressing issue and inclined to leave the matters to the more traditional philosophers (then principally idealists). Against this background it is less surprising that Braithwaite did not appreciate the importance of Ramsey's project than that Ramsey himself was impelled to pursue it with such vigor and commitment.

It is in fact remarkable how close Ramsey came to anticipating Tarski's theory of truth – in spirit if not in letter:

> We can say that a belief is true if it is a belief that *p*, and *p*. This definition sounds odd because we do not at first realize that "p" is a variable *sentence* and so should be regarded as containing a verb; "and p" sounds nonsense because it seems to have no verb and we are apt to supply a verb such

> as "is true" which would of course make nonsense of our definition by apparently reintroducing what was to be defined. (P. 13 of MS 001–02.)

The fundamental resemblance with Tarski's definition of truth accordingly consists in the circumstance that Ramsey too proceeds by way of *contextual* definition according to which "is true" applied to a proposition (belief, claim, etc.) is equated with its *assertibility* pure and simple: "Suppose a man believes that the earth is round, then this belief *is* true if and only if the earth *is* round." In this particular regard, Ramsey – like Tarski himself – follows the lead of Frege who was the first to mention the redundancy thesis to the effect that "is true" is seen as invariably eliminable in all contexts of its application to propositional objects since any such application is simply tantamount to asserting the proposition itself.[7]

To be sure, Ramsey's definition is more primitive than Tarski's in applying only to propositional objects and leaving aside the difficult issue of propositional functions (and thus of quantificational theory in general). And beyond this strictly technical difference there is also a deeper philosophical difference that should be noted.

For Ramsey, the analysis of truth begins rather than ends with its definition. For as he sees it the pivotal question of the *range* of objects to which the characterization "is true" can apply must also be addressed, and one must ask just what it is that beliefs, opinions, claims, statements, and the like have in common in virtue of which "is true" can be predicated of them. This line of thought led Ramsey to the idea of "*propositional reference*" and to the problem of its clarification. A great part of the early chapters of the *On Truth* project were devoted to this issue.

Where Tarski rests content with remarking the equivalence of the sentence-predication "*p* is true" with the objective assertability of '*p*' itself, Ramsey thus pressed on into an inquiry to clarify the very idea of assertability and to determine the range of objects over which the variable at issue ranges. And he approached the question "what constitutes propositional reference?" by way of the conception of correspondence with fact – at least as a first approximation. However, he saw this as a matter that needs further clarification and refinement. And in this regard he considered the pragmatic theory of truth as less a rival than a supplement to a correspondence approach. In consequence, the discussion of *On Truth* shows that Ramsey regarded such pragmatic factors as simplicity, definiteness, utility as crucial for clarifying the basis for claiming the truth of scientific contentions when entire theories rather than mere observation claims are at issue.

On the view of science which Ramsey shared with Hertz and Campbell, scientific theories are not propositions but complexes replete with conditionalized and hypothetical propositional commitments whose assertibility

conditions we cannot verify through (inevitably limited) observations, and whose links to cognitively manageable reality proceeds less through their verifiability than through their *utility* for the production of verifiable predictions. Clarifying the way in which the idea of truth bears on such theories is something that cannot be achieved by logic alone but requires the development of a theory of induction, an *inductive* logic. This hard-gained conviction led Ramsey on the one hand to push his truth project out beyond the standard range of logical and linguistic philosophizing and on the other hand confronted him with a task of such magnitude that its completion, even in preliminary form, required a labor which, massive effort notwithstanding, was simply unachievable given the time constraints imposed by an uncooperative fate.

But when everything is said and done, there is no question in our minds about the importance of Ramsey's book. Since it remained unpublished, it obviously exerted no historical influence. But its ideas are of the highest historical and systematic interest. Ramsey's articulation of a redundancy theory of truth greatly surpassed what had gone before and pointed the way towards what lay ahead. His theory of "propositional reference" opens up semantical teaching that has still not been adequately explored even now. And his critique of the Coherence Theory of Truth as propounded by the English Idealists – deeper and more serious than Russell's – is still among the most insightful and probing evaluation of the position that we have.

However, the real value of Ramsey's work lies not in its critical but in its constructive contributions. In his work in semantics and logic, Ramsey both projected and realized a high ambition: "to show how truth and reasonableness can be defined without assuming any unique unanalyzable logical relations, and further to show that the current modes of explaining logic by means of such relations as altogether untenable."[8]

5. EDITORIAL PRELIMINARIES

The printed text presented here reproduces the substance of Ramsey's manuscript, but departs occasionally from its letter, as follows:

1. When Ramsey has struck a passage out, we generally include it, duly placed within square brackets [ ], when this could conceivably provide useful information for an interpreter.
2. We occasionally interpolate conjectural omissions, always indicating this by placing them in pointed brackets < >.
3. Ramsey is totally unsystematic in using the single and double quotes. We regularly use single quotes for single words and double quotes elsewhere.
4. In many instances, we have filled in Ramsey's incomplete footnote references.

5. We have occasionally emended Ramsey's punctuation and sometimes, though rarely, even his paragraphing.

Throughout such changes, it has been our guiding principle to preserve Ramsey's text intact while enhancing its readability. No printed version can present a draft manuscript exactly as it stands, but we have tried to keep the clang of editorial machinery from intruding too loudly – although in a project of this sort its noise cannot be eliminated altogether.

The editors are grateful to David Carey, Laurie Eck, and especially Christina Masucci for their help in checking the accuracy of the transcription from Ramsey's manuscript.

NICHOLAS RESCHER
ULRICH MAJER

NOTES

1. R.B. Braithwaite, Editor's Introduction to Frank Plumpton Ramsey, *The Foundation of Mathematics and other Logical Essays* (London, 1931), p. ix.
2. Quoted by Braithwaite, *ibid*, p. x.
3. *The Foundations of Mathematics and other Logical Essays* by Frank Plumpton Ramsey, edited by R.B. Braithwaite (London: Routledge & Kegan Paul, 1931). The essay was subsequently reissued in F.P. Ramsey, *Foundations: Essays in Philosophy, Logic, Mathematics and Economics*, edited by D.H. Mellor (London, Routledge & Kegan Paul, 1978). This latter anthology includes substantially the same material as Braithwaite's. (It deletes some discussions dealing mainly with matters of probability and adds two important papers on economic issues).
4. To a considerable extent the material on probability is contained in "Truth and Probability" (1926) which was read at the "Moral Sciences Club" and later published by Braithwaite.
5. The final page of MS 006–05–01 which contains a lecture on "The Nature of Propositions" that Ramsey read to the Moral Sciences Club on November 18, 1921, at age 18, reads as follows:

> Lastly we come to truth, which I shall deal with as briefly as possible. The most certain thing about truth is that '*p* is true' and '*p*', if not identical, are equivalent. This enables us to rule out at once some theories of truth such as that "to be true" means "to work" or "to cohere" since clearly '*p* works' and '*p* coheres' are not equivalent to '*p*'. There are I think only three sensible theories of truth (1) that a true belief is defined to be one which has a certain relation with a fact, (2) truth is indefinable and has no connection with a relation between belief and fact, (3) truth is indefinable but as a matter of fact true beliefs do have a certain relation to facts which false beliefs do not have.
>
> (3) I think we can dismiss; we have seen no reason to suppose there are facts and if truth be indefinable, I think none can be drawn from the nature of truth; so if truth be indefinable we have no reason to suppose there are facts and therefore no reason for thinking true beliefs are related to facts in a way which false ones are not. Of course in the special case of events we have seen that some true propositions and therefore true beliefs are related to events in a way false ones are not, since false beliefs have no quasi-subjects.

   When he wrote this, Ramsey was still an undergraduate. (He took the Tripos examination in June of 1923.)
6. Ramsey does not actually use Campbell's term until his 1929 paper on "Theories," but already here he is drawn into the range of the "holistic" consideration of Campbell and Hertz that constitute its natural habitat.
7. Frege's seeming self-contradiction in maintaining both the redundancy thesis and the indefinability of truth is removed by the consideration that a merely *contextual* definition is at issue which, as such, explains the *use* of the term rather than establishing its *conceptual content*.
8. Introduction, 001–18 version, *ad fin.*

APPENDIX A

EXPLANATORY INVENTORY OF BOX 1 MATERIALS RELATING TO THE BOOK *ON TRUTH [AND PROBABILITY]*

Folder	*Content Description*	*Title Given by Ramsey*
001–01	Older version of Chap. I	Chapter I. The Nature of Truth [Preliminary Considerations]
001–02	Newer version of Chap. I	Chapter I
001–03	Older version of Chap. III	—
001–04	On some issues discussed in the second half of MS 001–02	—
001–05 (first two pp.)	On some issues discussed towards the end of MS 001–02	—
001–05 (rest)	The coherence theory of truth	—
001–06	Absolute vs. coherentist truth	—
001–07 to 001–08	Arguments for the coherent theory refuted	—
001–09	Older version of Chap. II	Chapter II. The Coherence Theory of Truth
001–10	Assorted notes and jottings	—
001–12	Chap. IV in its sole version	Chapter IV. Knowledge and Opinion
001–13	Newer version of Chap. V	Chapter V. Judgment and Time
001–14	Older Version of Chap. V	Judgment and Time (The Problem of Judgment)
001–15	A misconceived defense of the coherence theory from the philosophy of science	—
001–16	Assorted notes and jottings	—
001–17	Introduction to a treatise on logic	Chapter I. Logical Values
001–18	Older version of the preceding introduction	Chapter II. Introductory

APPENDIX B

RAMSEY'S SUCCESSIVE TABLES OF CONTENTS

ALPHA (MS 001–01–01)	BETA (MS 001–15–02)	GAMMA (MS 001–01–02)	DELTA *(MS 001–15–02)*
Truth	Truth	Truth Preliminary	Truth Preliminary
—	—	Truth and Coherence	Truth and Coherence
Judgment	—	Judgment Preliminary	Judgment Preliminary
Knowledge and Opinion	Knowledge and Opinion	Knowledge and Opinion	Knowledge and Opinion
—	Theories of Judgment	Judgment and Time	Judgment and Time
—	—	The Object of Judgment	The Object of Judgment
—	Representative Ideas	Representation	
Negation and Disjunction	Negation and Disjunction	Negation	
—	—	Disjunction	
Generality	Theories of Generality	—	
Formal Logic and Consistency	—	Tautology and Contradiction	
Partial Belief	—	—	
—	—	Definition	
—	Universals and Particulars	Particulars and Universals	
—	Existence	Extistence	
The Calculus of Probability	—		
Mr Keynes' Theory of Probability	—		
—	Identity and Number		
Place of Formal Logic and Probability in Theory of Knowledge	—		

Appendix B (continued)

ALPHA (MS 001–01–01)	BETA (MS 001–15–02)	GAMMA (MS 001–01–02)	DELTA *(MS 001–15–02)*
—	Generality further considered		
—	Implication		
Causality	Causal Laws		
Chance	—		
Attempts to Justify Induction	—		
Nature of Knowledge and of Rational Belief	Degrees of Belief		
Scope of Inductive Logic	—		
[Theory of Statistics]	—		

Yet another table of contents, which stands close to Alpha in its concern with probability, is given in MS 002–22–01. It runs as follows:

1. Belief and Truth
2. Terms
3. Logic and Consistency
4. Partial Belief
5. Keynes' Probability Relations
6. Meaning of If
7. Causality
8. Chance
9. Justification of Induction
10. Rational Belief

ON TRUTH

The obvious reason for disputing this lies in the possibility that judgments may be vague in the same sort of way as the words we use to express them. How many hairs must a man have not to be bald? There is no definite number, and if someone is judging that he is bald, his judgment may be so vague as not to be definitely either true or false*. But this cannot be

* For further on the theory of vagueness see below p

our opponents' ground of objection, since a system of vague judgments would be no less vague than its members, and as they so contend that such a system is capable of truth in a higher degree than its members the obstacle they see to absolute truth cannot lie in

* cg a system of psychology" consisting of such general laws as "All bald men are more foolish" vagueness.

The arguments which they do put forward in support of their contention seem to be four.

(a). The first is a mere confusion between truth and certainty. It may be that I cannot be absolutely certain that Julius Caesar crossed the Rubicon; perhaps he did no such thing; but this absence of certainty does not prove that if he did, it is not absolutely true that he did. and that merely partially true. This confusion is a very common one for those different reasons who assume us that they make no claim to absolute truth generally

<INTRODUCTION>[1]

It is a commonplace that Logic, Aesthetics, and Ethics have a peculiar position among the sciences: whereas all other sciences are concerned with the description and explanation of what happens, these three normative studies aim not at description but at criticism. To account for our actual conduct is the duty of the psychologist; the logician, the critic, and the moralist tell us not how we do but how we ought to think, feel, and act.

The triad of critical disciplines, Logic, Aesthetics, and Ethics correspond to the three so-called fundamental values, truth, beauty, and goodness, but the correspondence is by no means exact. For, whereas the chief question in Ethics is undoubtedly "what is good?", and is Aesthetics "what is beautiful?", the question "what is true?" is one which all the sciences answer, each in its own domain, and in no way the peculiar concern of Logic. What Logic studies is not so much the truth of opinions, as the reasonableness of arguments or inferences. As the distinction is an important one it may be as well to dwell on it.

Truth is an attribute of opinions, statements, or propositions; what exactly it means we shall discuss later, but in a preliminary way we can explain it as accordance with fact. (If a man thinks that Mr Baldwin is prime minister he thinks truly because Mr Baldwin is in fact prime minister.) If we have an opinion or statement by itself the most important point of view from which we can criticise it is that of truth and falsity,[2] and the proper person to do this is not the logician but the expert on the particular matter with which the statement deals. Opinions and statements however, generally occur not by themselves, but as the result of some mental process, such as perception, memory, inference, or guessing. The logician is concerned with the particular method of forming opinions known as inference or argument, and the inferences he approves of are not so appropriately called 'true', and 'valid', but 'sound', or 'rational'. Of course, since the whole purpose of argument is to arrive at truth, there must be some relation between the soundness of arguments

and the truth of opinions, but it is not easy to say exactly what the relation is. It is not so simple as it would be if true opinions were never based on unsound arguments, and inferences of high probability never led to error. But whatever the relation may be, the fact remains that the primary subject of the logician is inferences or arguments, not opinions or statements, and his predicate of value is rationality not truth.

Nevertheless, before coming to his real point the logician is bound to begin by preliminary investigations into the nature and forms of opinions and statements, which must be conceded to belong properly to psychology since they are concerned not with values but with the actual characters of mental processes. Since, however, psychologists grossly neglect the aspects of their subject which are most important to the logician, they are commonly regarded as belonging to logic, and logic as the term is ordinarily used consists to a great extent of psychology. In the same way, students of ethics and aesthetics are obliged to undertake for themselves all sorts of psychological preliminaries.

The three normative sciences: Ethics, Aesthetics and Logic begin, then, with psychological investigations which lead up, in each case, to a valuation, an attribution of one of the three values: good, beautiful, or rational, predicates which appear not to be definable in terms of any of the concepts used in psychology or positive science. I say 'appear' because it is one of the principal problems of philosophy to discover whether this is really the case [whether, that is to say, 'good', 'beautiful', 'rational' (or for that matter 'true') represent undefinable qualities which ...].

It is, of course, possible to take one view in regard to one kind of value and the other view with regard to the other kinds; it could be held, for instance, that whereas goodness and beauty could be defined in terms of our desires and admirations, rationality introduced some new element peculiar to logic, such as indefinable probability relations. But the arguments that can be used are so much the same, that when the alternatives that can be used are clearly stated, any normal mind is likely to make the same choice in all three cases. It would be out of place to discuss goodness and beauty in a book on logic,[3] but it will be one of my chief objects to show that the view, which I take of them, that they are definable in [ordinary factual] natural terms, is also true of rationality and truth: so that just as ethics and aesthetics are really branches of psychology, so also logic is part, not exactly of psychology, but of natural science in its widest sense, in which it includes psychology and all the problems of the relations between man and his environment.[4] But this is not a matter which can be settled in advance: logic tries to discover what inferences are rational; we all have some idea as to what this means, but we cannot analyse it exactly until we have made considerable investigations, which are commonly regarded as belonging to

logic which is expected not merely to determine the application but also the analysis of its standard of value.

NOTES

1. <Ramsey himself gave the rubric: *Chapter I; Logical Values* and in the earlier version *Chapter I: Introductory*. That it was intended as the opening of the *Logic* book is evidenced by Ramsey's table of contents for this project.>
2. Besides this we can of course criticize its verbal expression as felicitous or otherwise, and we can say that it is important or trivial.
3. For an excellent treatment of these ideas see Mr I.A. Richard's *Principles of Literary Criticism* (London, 1924). See also Professor G.E. Moore's *Principia Ethica* (Cambridge, 1903).
4. [Logic cannot be altogether contained in psychology, because the soundness of our thought depends on that thought agreeing with its object, and hence in part on the properties of the object, to an extent not in general regarded as belonging to psychology.]

CHAPTER I

<1. WHAT IS TRUTH?>

What is truth? What character is it that we ascribe to an opinion or a statement when we call it 'true'? This is our first question, but before trying to answer it let us reflect for a moment on what it means. For we must distinguish one question, "what is *truth*?", from the quite different question "what is *true*?" If a man asked what was true, the sort of answer he might hope for would either be as complete an enumeration as possible of all truths, i.e., an encyclopaedia, or else a test or criterion of truth, a method by which he could know a truth from a falsehood. But what we are asking for is neither of these things, but something much more modest; we do not hope to learn an infallible means of distinguishing truth from falsehood but simply to know what it is that this word 'true' means. It is a word which we all understand, but if we try to explain it, we can easily get involved, as the history of philosophy shows, in a maze of confusion.[1]

One source of such confusion must be eliminated straight away; besides the primary meaning in which we apply it to statements or opinions, the word true can also be used in a number of derived and metaphorical senses which it is no part of our problem to discuss. Obscure utterances such as "Beauty is truth, truth beauty" we shall make no attempts to elucidate, and confine ourselves to the plain work-a-day sense in which it is true that Charles I was beheaded and that the earth is round.

First we have to consider to what class of things the epithets 'true' and 'false' are primarily applied, since there are three classes which might be suggested. For we use 'true' and 'false' both of mental states,[2] such as beliefs, judgments, opinions or conjectures; and also of statements or indicative sentences; and thirdly according to some philosophers we apply these terms

According to the philosophers who believe in them, it is these propositions which are true or false in the most fundamental sense, a belief being called true or false by an extension of meaning according as what is believed is a true or a false proposition. But in as much as the existence of such things as these propositions is generally (and to my mind rightly) doubted, it seems best to begin not with them but with the mental states of which they are the supposed objects, and to discuss the terms true and false in their application to these mental states, without committing ourselves before we need to any doubtful hypothesis about the nature of their objects.

The third class consisting of statements or indicative sentences is not a serious rival, for it is evident that the truth and falsity of statements depends on their meaning, that is on what people mean by them, the thoughts and opinions which they are intended to convey. And even if, as some say, judgments are no more than sentences uttered to oneself, the truth of such sentences will still not be more primitive than but simply identical with that of judgments.

Our task, then, is, to elucidate the terms true and false as applied to mental states, and as typical of the states with which we are concerned we may take for the moment beliefs. Now whether or not it is philosophically correct to say that they have propositions as objects, beliefs undoubtedly have a characteristic which I make bold to call *propositional reference*. A belief is necessarily a belief that something or other is so-and-so,[3] for instance that the earth is flat; and it is this aspect of it, its being "that the earth is flat" that I propose to call its propositional reference. So important is this character of propositional reference that we are apt to forget that a belief has any other aspects of characters at all, and when two men both believe that the earth is flat we say they have the same belief, though they may believe it at different times for different reasons and with different degrees of conviction and use different languages or systems of imagery; if the propositional references are the same, if they are both "beliefs that" the same thing, we commonly ignore all other differences between them and call them the same belief.

It is usual in logic to express this resemblance between the two men's beliefs not by saying as I do that they have the same propositional reference, but by calling them beliefs in the same proposition; to say this is not however to deny the existence of such a character as propositional reference, but merely to put forward a certain view as to how this character should be analysed. For no one can deny that in speaking of a belief as a belief that the earth is flat we are ascribing to it some character; and though it is natural to think that this character consists in a relation to a proposition; yet, since this view has been disputed, we shall start our inquiry from what is undoubtedly real, which is not the proposition but the character of propositional reference. We shall have to discuss its analysis later, but for our immediate purposes

we can take it without analysis as something with which we are all familiar.

Propositional reference is not, of course, confined to beliefs; my knowledge that the earth is round, my opinion that free trade is superior to protection, any form of thinking, knowing, or being under the impression that — has a propositional reference, and it is only such states of mind that can be either true or false. Merely thinking of Napoleon cannot be true or false, unless it is thinking *that* he was or did so and so; for if the reference is not propositional, if it is not the sort of reference which it takes a sentence to express, there can be neither truth nor falsity. On the other hand not all states which have propositional reference are either true or false; I can hope it will be fine to-morrow, wonder whether it will be fine to-morrow, and finally believe it will be fine to-morrow. These three states all have the same propositional reference but only the belief can be called true or false. We do not call wishes, desires or wonderings true, not because they have no propositional reference, but because they lack what may be called an affirmative or assertive character, the element that is present in thinking that, but absent in wondering whether. In the absence of some degree of this character we never use the words true or false, though the degree need be only of the slightest and we can speak of an assumption as true, even when it is only made in order to discover its consequences. For states with the opposite character of denial we do not naturally use the words true or false, though we can call them correct or incorrect according as beliefs with the same propositional reference would be false or true.

The mental states, [then], with which we are concerned, those, namely, with propositional reference and some degree of the affirmative character, have unfortunately no common name in ordinary language. There is no term applicable to the whole range from mere conjecture to certain knowledge, and I propose to meet this deficiency[4] by using the terms *belief* and *judgment* as synonyms to cover the whole range of [mental] states in question [although this involves a great widening of their ordinary meanings] and not in their ordinary narrower meanings.

It is, then, in regard to beliefs or judgments that we ask for the meaning of truth and falsity, and it seems advisable to begin by explaining that these are not just vague terms indicating praise or blame of any kind, but have a quite definite meaning. There are various respects in which a belief can be regarded as good or bad; it can be true or false, it can be held with a higher or a low degree of confidence, for good or for bad reasons, in isolation or as part of a coherent system of thought, and for any clear discussion to be possible it is essential to keep those forms of merit distinct from one another, and not to confuse them by using the word "true" in a vague way first for one and then for another. This is a point on which ordinary speech is sounder than the philosophers; to take an example of Mr Russell's, some-

one who thought that the present Prime Minister's name began with B would think so truly, even if he had derived his opinion from the mistaken idea that the Prime Minister was Lord Birkenhead; and it is clear that by calling a belief true, we neither mean nor imply that it is either well-grounded or comprehensive and that if these qualities are confused with truth as they are, for instance, by Bosanquet,[5] any profitable discussion of the subject becomes impossible. The kind of merit in a belief to which we refer in calling it true can be easily seen to be something which depends only on its propositional reference;[6] if one man's belief that the earth is round is true so is anyone else's belief that the earth is round, however little reason he may have for thinking so.

After these preliminaries we must come to the point: what *is* the meaning of 'true'? It seems to me that the answer is really perfectly obvious, that anyone can *see* what it is and that difficulty only arise when we try to *say* what it is, because it is something which ordinary language is rather ill-adapted to express.

Suppose a man believes that the earth is round; then his belief is true because the earth *is* round; or generalising this, if he believes that *A* is *B* his belief will be true if *A is B* and false otherwise.

It is, I think, clear that in this last sentence we have the meaning of truth explained, and that the only difficulty is to formulate this explanation strictly as a definition. If we try to do this, the obstacle we encounter is that we cannot describe all beliefs as beliefs that *A* is *B* since the propositional reference of a belief may have any number of different more complicated forms. A man may be believing that all *A* are not *B*, or that if all *A* are *B*, either all *C* are *D* or some *E* are *F*, or something still more complicated. We cannot, in fact, assign any limit to the number of forms which may occur, and must therefore be comprehended in a definition of truth; so that if we try to make a definition to cover them all it will have to go on forever, since we must say that a belief is true, if supposing it to be a belief that *A* is *B*, *A* is *B*, or if supposing it to be a belief that *A* is not *B*, *A* is not *B*, or if supposing it to be a belief that either *A* is *B* or *C* is *D*, either *A* is *B* or *C* is *D*, and so on ad infinitum.

In order to avoid this infinity we must consider the general form of a propositional reference of which all these forms are species; any belief whatever we may symbolise as a belief that *p*, where '*p*' is a variable sentence just as 'A' and 'B' are variable words or phrases (or terms as they are called in logic). We can then say that a belief is true if it is a belief that *p*, and *p*.[7] This definition sounds odd because we do not at first realize that '*p*' is a variable *sentence* and so should be regarded as containing a verb; "and *p*" sounds nonsense because it seems to have no verb and we are apt to supply a verb such as "is true" which would of course make nonsense of

our definition by apparently reintroducing what was to be defined. But '*p*' really contains a verb; for instance, it might be "*A* is *B*" and in this case we should end up "and *A* is *B*" which can as a matter of ordinary grammar stand perfectly well by itself.

The same point exactly arises if we take, not the symbol '*p*', but the relative pronoun which replaces it in ordinary language. Take for example "what he believed was true." Here what he believed was, of course, something expressed by a sentence containing a verb. But when we represent it by the pronoun 'what' the verb which is really contained in the 'what' has, as a matter of language, to be supplied again by "was true." If however we particularize the form of belief in question all need for the words "was true" disappears as before and we can say "the things he believed to be connected by a certain relation were, in fact,[8] connected by that relation."

As we claim to have defined truth we ought to be able to substitute our definition for the word 'true' wherever it occurs. But the difficulty we have mentioned renders this impossible in ordinary language which treats what should really be called *pro-sentences* as if they were *pro-nouns*. The only pro-sentences admitted by ordinary language are 'yes' and 'no', which are regarded as by themselves expressing a complete sense, whereas 'that' and 'what' even when functioning as short for sentences always require to be supplied with a verb: this verb is often "is true" and this peculiarity of language gives rise to artificial problems as to the nature of truth, which disappear at once when they are expressed in logical symbolism, in which we can render "what he believed is true" by "if *p* was what he believed, *p*".

So far we have dealt only with truth; what about falsity? The answer is again simply expressible in logical symbolism, but difficult to explain in ordinary language. There is not only the same difficulty that there is with truth but an additional difficulty due to the absence in ordinary language of any simple uniform expression for negation. In logical symbolism, for any proposition sympol *p* (corresponding to a sentence), we form the contradictory $-p$ (or $\sim p$ in *Principia Mathematica*); but in English we often have no similar way of reversing the sense of a sentence without considerable circumlocution. We cannot do it merely by putting in a "not" except in the simplest cases; thus "The King of France is not clever" is ambiguous, but on its most natural interpretation means "There is a King of France but he is not clever" and so is not what we get by simply denying "The King of France is clever"; and in more complicated sentences such as "if he comes, she will come with him" we can only deny either by a method special to the particular form of proposition, like "if he comes, she will not *necessarily* come with him" or by the general method of prefixing "It is not true that —", "it is false that —" or "It is not the case that —", where [again] it looks as if two new ideas, 'truth' and 'falsity', were involved,

in connection with the possibility of someone saying or believing it. To take a parallel case, we can say simple "The weather in Scotland was bad in July", or we can think of that fact in reference to its possible effect on one of our friends and say instead "If you were in Scotland in July, you had bad weather." So too we can think of the earth being round as a possible subject of belief and say "If you think the earth is round, you think truly" and this amounts to no more than that the earth has the quality you think it has when you think it is round, i.e. that the earth is round.

All this is really so obvious that one is ashamed to insist on it, but our insistence is rendered necessary by the extraordinary way in which philosophers produce definitions of truth in no way compatible with our platitudes, definitions according to which the earth can be round without its being true that it is round.[12] The reason for this lies in a number of confusions of which it must be extremely hard to keep clear if we are to judge by their extraordinary prevalence. In the rest of this chapter we shall be occupied solely with the defence of our platitude that a belief that *p* is true if and only if *p*, and in an attempt to unravel the confusions that surround it.

The first type of confusion arises from the ambiguity of the question which we are trying to answer, the question "what is truth?", which can be interpreted in at least three different ways. For in the first place there are some philosophers who do not see any problem in what is *meant* by 'truth', but take our interpretation of the term as being obviously right, and proceed under the title of "what is truth?" to discuss the different problem of giving a general criterion for distinguishing truth and falsehood. This was for instance Kant's interpretation[13] and he goes on quite rightly to say that the idea of such a general criterion of truth is absurd, and that for men to discuss such a question is as foolish as for one to milk a he-goat while another holds a sieve to catch the milk.

And secondly even when we agree that the problem is to define truth in the sense of explaining its meaning, this problem can wear two quite different complexions according to the kind of definition with which we are prepared to be content. Our definition is one in terms of propositional reference, which we take as a term already understood. But it may be held that this notion of propositional reference is itself in need of analysis and definition, and that a definition of truth in terms of so obscure a notion represents very little if any progress. If a belief is identified as what Mr Jones was thinking at 10 o'clock in the morning, and we ask what is meant by calling the belief so identified a true belief, to apply the only answer we have so far obtained we need to know what Mr Jones' belief was a "belief that"; for instance, we say that if it was a belief that the earth is flat, then it was true if the earth is flat. But to many this may seem merely to shirk the hardest and most interesting part of the problem, which is to

find out how and in what sense those images or ideas in Mr Jones' mind at 10 o'clock constitute or express a "belief that the earth is flat." Truth, it will be said, consists in a relation between ideas and reality, and the use without analysis of the term propositional reference simply conceals and shirks all the real problems that this relation involves.

This charge must be admitted to be just, and an account of truth which accepts the notion of propositional reference without analysis cannot possibly be regarded as complete. For all the many difficulties connected with that notion are really involved in truth which depends on it: if, for instance, "propositional reference" has quite different meanings in relation to different kinds of belief (as many people think) then a similar ambiguity is latent in 'truth' also, and it is obvious that we shall not have got our idea of truth really clear until this and all similar problems are settled.

But though the reduction of truth to propositional reference is a very small part and much the easiest part of its analysis, it is not therefore one which we can afford to neglect. [Not only is it essential to realize that truth and propositional reference are not independent notions requiring separate analysis, and that it is truth that depends on and must be defined *via* reference not reference *via* truth.][14] For not only is it in any event essential to realise that the problem falls in this way into two parts,[15] the reduction of truth to reference and the analysis of reference itself, and to be clear which part of the problem is at any time being tackled, but for many purposes it is only the first and easiest part of the solution that we required; we are often concerned not with beliefs or judgments as occurences at particular times in particular men's minds, but with, for instance, *the* belief or judgment "all men are mortal"; in such case the only definition of truth we can possibly need is one in terms of propositional reference, which is presupposed in the very notion of *the* judgment "all men are mortal"; for when we speak of *the* judgment "all men are mortal" what <we> are really dealing with is any particular judgement on any particular occasion which has that propositional reference, which is a judgment "that all men are mortal." Thus, though the psychological difficulties involved in this notion of reference must be faced in any complete treatment of truth, it is well to begin with a definition which is sufficient for a great many purposes and depends only on the simplest considerations.

And whatever the complete definition may be, it must preserve the evident connection between truth and reference, that a belief "that *p*" is true if and only <if> *p*. We may deride this as trivial formalism, but since we cannot contradict it without absurdity, it provides a slight check on any deeper investigations that they must square with this obvious truism.

NOTES

1. How difficult the problem is may be judged from the fact that in the years 1904–25 Mr Bertrand Russell has adopted in succession five different solutions of it.
2. I use "state" as the widest possible term, not wishing to express any opinion as to the nature of beliefs etc.
3. Or, of course, that something is not so and so, or that if something is so and so, something is not such and such, and so on through all the possible forms.
4. [It should perhaps be remarked that the late Professor Cook Wilson held that these mental states do not in fact belong ...] It should, however, be remarked that according to one theory this is not really a deficiency at all, since the states in question have nothing important in common. Knowledge and opinion have propositional reference in quite different senses and are not species of a common genus. This view, put forward most clearly by J. Cook Wilson, (but also implied by others, e.g., Edmund Husserl) is explained and considered below.
5. Bernard Bosanquet, *Logic*, 2nd ed., Vol II (Oxford, 1911), pp. 282 ff. Of course he sees the distinction but he deliberately blurs it, arguing that an account of truth which enables an ill-grounded statement to be true, cannot be right. His example of the man who makes a true statement believing it to be false, reveals an even grosser confusion. He asks why such a statement is a lie, and answers this by saying that "it was contrary to the system of his knowledge as determined by his whole experience at the time." Granting this, it would at most follow that coherence with the man's system of his knowledge is a mark not of *truth* (for *ex hypothesi* such a statement would have been false) but of *good faith*; and this is brought in as an argument in favour of a coherence theory of *truth*!
6. It has been suggested by Professor Moore ("Facts and Propositions," *Proceedings of the Aristotelian Society*, Supplementary Volume VII (1927), pp. 171–206; see p. 178) that the same entity may be both a belief that (say) the earth is round and a belief that something else; in this case it will have two propositional references and may be true in respect of one and false in respect of the other. It is not to my mind a real possibility, but everything in the present chapter could easily be altered so as to allow for it, though the complication of language which would result seems to me far to outweight the possible gain in accuracy. See ...
7. In Mr Russell's symbolism

   $$B \text{ is true} :=: (\exists p).\ B \text{ is a belief that } p\ \&\ p.\ \text{Df}$$

8. In a sentence like this "in fact" serves simply to show that the *oratio obliqua* introduced by "he believed" has now come to an end. It does not mean a new notion to be analyzed, but is simple a connecting particle.
9. See below. <Presumably this is a reference to the unwritten chapter on negation.>
10. *Metaphysics*, Gamma, 6 1011b25, Mr Ross' translation.
11. For instance the man we are talking to may have just made the point and we concede it. "Yes, it's true, as you say, that the earth is round, but –" or we may have made it and be questioned "Is that true, what you were saying, that the earth is round?" "Yes, it's perfectly true."
12. Thus according to William James a pragmatist could think both that Shakespeare's plays were written by Bacon and that someone else's opinion that Shakespeare wrote them might be perfectly true "for him." ("The Meaning of Truth," p. 274.) On the idea that what is true for one person may not be true for another see below.

13. See *Kritik der reinen Vernunft*, "Die transzendentale Logik." Einleitung III (A57=B82): "Die alte und berühmte Frage ... *Was ist Wahrheit*? Die Namenerklärung der Wahrheit, dass sie nämlich die Übereinstimmung der Erkenntnis mit ihrem Gegenstande sei, wird hier geschenkt und vorausgesetzt; man verlangt aber zu wissen, welches das allgemeine und sichere Kriterium der Wahrheit einer jedem Erkenntnis sei." The reason why there can be no such criterion is that every object is distinguishable and therefore has something true of it which is true of no other object. Hence there can be no guarantee of truth irrespective of the object in question.
14. [This might perhaps be denied if reference were something essentially different in the cases of true and of false beliefs; e.g., if the precise way in which a man's belief today that it will be wet tomorrow was a belief "that it will be wet to-morrow" depended on how to-morrow's weather actually turned out. But this is absurd for it would allow us to settle the weather in advance by simply considering the nature of the prophet's expectation and seeing whether it had true-reference or false-reference.]
15. It might possibly be questioned whether this division of the problem is sound, not because the truth of a belief does not obviously depend on its reference, i.e., on what is believed, but because reference might be essentially different in the two cases of truth and falsity, so that there were really two primitive ideas, true-reference and false-reference, which had to be separately analysed. In this case, however, we could tell whether a belief that *A* is *B* were true or false, without looking at *A* by simply seeing whether the manner in which the belief was a "belief that *A* is *B*" was that of true-reference or false-reference, and infer with certainty that to-morrow would be fine from the fact that someone believed in a particular way, the way of false-reference, that it would be wet. See below.

<APPENDIX 1 TO CHAPTER I>*

Objections to such a definition are of two kinds, [merely] formal and serious. By a formal objection I mean one which does not deny that a belief that *A* is *B* is true when and only when *A* is *B*, but says that this, though a correct statement, is not the right definition or explanation of truth. For instance it might be argued that a true belief is a belief in a true proposition, and that though the proposition '*A* is *B*' is true, when and only when *A* is *B*, yet for the proposition '*A* is *B*' to be true and for *A* to be *B*, are two different (though equivalent) facts, and that the former, not the latter, is the one which should be used in defining true belief. [This sort of niggling] These formal questions I propose to leave till later, and devote the present chapter to examining the objections of a more serious sort, which deny that a belief is true if and only if it is a belief "that *p*" and *p*, and propose instead definitions such as that a belief is true if it is useful, or if it is part of a coherent system, definitions which are not merely formally but materially at variance with ours.

I must confess I find it hard to see how anyone can dispute that a belief that *A* is *B* is true if and only if *A* is *B*. Let us take the three sentences.

The earth is round
It is true that the earth is round.
Anyone who believes the earth is round believes truly.

It is clear that the first two of these are equivalent; anyone who said "The earth is round but it is not true that it is," or "It is true that the earth is round but the earth is not round" would be contradicting himself. I think they have, in general, the same meaning, and that when we use "It is true that the earth is round" in preference to the shorter formulation we do so for what may be called in a broad sense reasons of style; for instance

*<Editor's note: This discussion elaborates matters treated in the second half of Chapter I.>

about redness) in the one being fulfilled by green in the other; so that if one belief has the same structure as the fact so also does the other, and the difference between truth and falsity clearly cannot be simply a difference of structure.

But to knock down such men of straw is not to give any serious reason for abandoning the obvious truism that a "belief that *p*" is true if and only if *p* [which is what our opponents propose, and it behooves us to consider what positive reasons they can have for their theories] and the motive forces behind the Coherence and Pragmatist theories must be found elsewhere.

NOTES

1. So Kant, *Kritik der reinen Vernunft*, A57=B82.
2. Harold H. Joachim, *The Nature of Truth* (Oxford, 1906), p. 12.

<APPENDIX 2 TO CHAPTER I>*

On the other hand, if a description <of truth> in terms of correspondence *is* possible, then our definition might be criticised for failing to mention this correspondence. That a belief that *A* is *B* is true if and only if *A* is *B*, is, it might be said, a correct statement but it is not a correct definition of exactly what we mean by a true belief, which is one corresponding to a fact; no doubt the belief that *A* is *B* corresponds to a fact if and only if *A* is *B*, yet these are different things and it is the former not the latter which gives the meaning of truth. So also believers in propositions might say that a true belief is a belief in a true proposition and that though the proposition "*A* is *B*" was true if and only if *A* is *B*, yet for the proposition to be true and for *A* to be *B* were different things and the former not the latter gave the meaning of true belief. The difficulty, of course, only arises if one, at least, of these rival formulations should turn out to be legitimate, that is, if there are such things as propositions or such a relation as this correspondence; [this we do not yet know,[1] but supposing it does arise it does not go very deep] and in any event it is not very serious since the alternative definitions are *ex hypothesi* logically equivalent to ours and do not really define different notions. [It is never or hardly ever possible and if it were possible, it would be futile to chose between two equivalent definitions except on the score of convenience. Does "great-uncle" mean grandparent's brother or parent's uncle?]

A man, we may suppose, is believing that *A* is *B*; two cases are possible, either *A* is *B* or it is not. In the first case in which *A* is *B*, the proposition "*A* is *B*," if there is such a thing, is true, and the belief that *A* is *B* corresponds to a fact, namely the fact that *A* is *B*. In the second case *A* is not *B*, the proposition is false, the fact does not exist. We are all agreed that the belief is true in the first case and false in the second, and differ only as to whether it is *A* being *B*, the proposition being true, or the existence of the fact

*<Editor's note: This discussion elaborates matters treated towards the end of Chapter I.>

that gives our meaning when we say that the man's belief is true. [Since by hypothesis they must all happen together always, I know not how one can decide which we mean by ...] It is surely a futile question, like asking whether "great uncle" really means parent's uncle or grandparent's brother; but if we have to choose there is every advantage in choosing the definition which says that the belief is true simply if *A* is *B*, and avoids all the psychological and metaphysical difficulties involved in the correspondence of beliefs with facts or the existence of 'propositions.'

Not that these difficulties will not have to be faced. [If we wish really to get to the bottom of the notion of truth we must not be content merely to reduce it to propositional reference but must proceed with the analysis of that in turn. But for many philosophical purposes such a reduction to propositional reference will suffice; we often do not need to....] To give a complete analysis of truth it is not enough merely to reduce it to propositional reference but this too must be analysed [in turn]. So long as we accept it [that notion] without analysis there is [still] an element of obscurity in talking of "belief that *p*," a feeling of lurking difficulties which must not be shirked. And since truth depends on and is defined in terms of [propositional reference] this notion of "believing that," obscurity [and ignorance] with regard to propositional reference means obscurity with regard to truth. For instance we do not yet know whether there really is a general notion of propositional reference so wide as to embrace all cases of believing, or whether the term "believing that" may not really be ambiguous and its different meanings have nothing important in common. Since in this latter case 'truth' too would be ambiguous and the 'correspondence' between 'true' beliefs and facts would be quite different for different kinds of beliefs, we shall clearly not have finished with truth until we have got to the bottom of propositional reference.

[Nor till then can we conveniently answer a certain sort of objection to our definition that a belief that *A* is *B* is true if *A* is *B*. I mean the kind of criticism which allows that this is a correct *statement about* truth but objects to it as a *definition* [of truth]. For instance, some people hold that a true belief is a belief in a true proposition and that though the proposition "*A* is *B*" is true when and only when *A* is *B* yet for the proposition *A* is *B* to be true and for *A* to be *B* are two different (though equivalent) facts; and, so they think, it is the former and not the latter of these facts that should be used in defining true belief. Clearly this objection can only, or at any rate can much more easily be disposed of when we have decided whether propositional <reference exists>].

But for many philosophical purposes it is not necessary to go so deep: we need not go into the analysis of the notion of a "belief that *p*" and can be content with a definition of truth which tells us what is meant by calling a belief true when its propositional reference is given. At all events,