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JOURNAL OF THE TRANSACTIONS
OF
THE VICTORIA INSTITUTE

VOL. LXXVIII

1946

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OF
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OR
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VOL. LXXVIII
1946



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* * The object of the Institute being to investigate, it must not be held to endorse the various views expressed either in the papers or in the discussions.

VICTORIA INSTITUTE

REPORT OF THE COUNCIL FOR THE YEAR 1945.

TO BE READ AT THE

ANNUAL GENERAL MEETING, MAY 27TH, 1946.

1. Progress of the Institute.

In presenting the Seventy-Ninth Annual Report the Council express their gratitude to God that in the strain and pressure of what proved to be the last year of the war, they were able, not only to maintain the meetings of the Institute, but to increase their number. This is the more remarkable, because many Societies found it impossible to continue. The war has had its effect upon the numbers present at meetings, but the Council anticipate a larger attendance will be possible in the future.

There has been a satisfactory increase in subscriptions from Fellows, Members and Associates. The Council believe that the Institute has important work to do, especially in present conditions when the world is suffering from the direct result of false philosophies and disregard for the truths of the Scriptures.

2. Meetings.

War conditions again made it impracticable to hold Ordinary Meetings in the early part of the year, the first three papers of the Session were circulated to subscribers and discussed by written communication. Four Ordinary Meetings were then held in addition to the Annual General Meeting and the Presidential Address.

(Circulated and published.)

“The Place of Intellect in the Christian Faith,” by The Rev. J. W. WENHAM, M.A., B.D., R.A.F.V.R.

“The Medical Miracles of Our Lord,” by H. J. ORR-EWING, Esq., M.C., M.D., B.S., F.R.C.P.

“Antisemitism: Its Causes, Palliatives and Cure,” by The Rev. CHARLES FISHER, M.A.

(Read and published.)

“Modern Science and The Nature of Life,” by R. E. D. CLARK,
Esq., M.A., Ph.D.

F. T. Farmer, Esq., B.Sc., Ph.D., in the Chair.

“The Biblical Doctrine of Divine Revelation,” by The Rev.
G. W. BROMILEY, M.A., Ph.D.

Rev. A. M. Stibbs, M.A., in the Chair.

“Archæology and Literary Criticism of the Old Testament,” by
Air Commodore P. J. WISEMAN, C.B.E.

Sir Frederic Kenyon, G.B.E., K.C.B., D.Litt., LL.D., F.B.A., in the Chair.

“The Fourth Gospel,” by SIR F. G. KENYON, G.B.E., K.C.B.,
D.Litt., LL.D., F.B.A.

F. F. Bruce, Esq., M.A., in the Chair.

“Presidential Address,” by SIR CHARLES MARSTON, F.S.A.
“The Bible and Present-Day Developments.”

Air Commodore P. J. Wiseman, C.B.E., R.A.F., in the Chair.

3. Council and Officers.

The following is a list of the Council and Officers for the year
1945 :—

President.

Sir Charles Marston, F.S.A.

Vice-Presidents.

(Limited to seven.)

Prof. A. Rendle Short, M.B., B.S., B.Sc., F.R.C.S.

Sir Frederic G. Kenyon, G.B.E., K.C.B., D.Litt., LL.D., F.B.A.

Trustees.

Wilson E. Leslie, Esq.

Air Commodore P. J. Wiseman, C.B.E., R.A.F.

Lt.-Col. T. C. Skinner (late R.E.)

Council.

(Limited to twenty-four.)

(In Order of Original Election.)

Lt.-Col. T. C. Skinner, late R.E., F.R.Met.S.	P. O. Ruoff, Esq.
Rev. H. S. Curr, M.A., B.D., B.Litt., Ph.D.	Robert E. D. Clark, Esq., M.A., Ph.D.
Douglas Dewar, Esq., B.A., F.Z.S.	Air Commodore P. J. Wiseman, C.B.E., R.A.F.
Lt.-Col. L. M. Davies, M.A., Ph.D., D.Sc., late R.A., F.G.S., F.R.S.E.	Rev. C. T. Cook.
Wilson E. Leslie, Esq.	Ernest White, Esq., M.B., B.S.
	O. R. Barclay, Esq., M.A., Ph.D.

Honorary Officers.Wilson E. Leslie, Esq., *Treasurer*.Lt.-Col. T. C. Skinner, late R.E., F.R.Met.S. *Secretary* (to Nov., 1945).Rev. Principal H. S. Curr, M.A., B.D., B.Litt., Ph.D., *Editor*.**Auditors**Messrs. Luff, Smith & Co., *Incorporated Accountants*.**Assistant Secretary.**

Mrs. L. L. M. E. Malcolm-Ellis.

4. Election of Officers.

In accordance with the Rules the following Members of the Council retire by rotation : Rev. H. S. Curr, M.A., B.D., B.Litt., Ph.D., Lt.-Col. L. M. Davies, M.A., Ph.D., D.Sc., F.G.S., Wilson E. Leslie, Esq., of whom the second and third offer (and are nominated by the Council) for re-election. Dr. Curr is unable because of his present duties to accept re-election.

The Auditors, Messrs. Luff, Smith & Co., Incorporated Accountants, offer, and are nominated by the Council, for re-election as Auditors for the ensuing year, at a fee of five guineas.

5. Obituary.

The Council regret to announce the death in November of their Hon. General Secretary, Lt.-Col. T. C. Skinner. A memoir of him and appreciation of his work for the Institute will appear in the 1945 volume of Transactions which it is hoped the printers will be able to issue shortly.

Our President, Sir Charles Marston, has made a gift of £100 to the Institute as a memorial to Lt.-Col. Skinner, and this sum has been passed on to the widow.

Any contributions which Fellows, Members or Associates may wish to give to this Memorial Fund will, with the consent of the widow,

be used by the Institute to provide a Prize Essay in memory of Lt.-Col. Skinner.

The Council also regrets to announce the deaths of the following Fellows, Members and Associates :—

Rev. F. L. Gruber, D.D., LL.D., H. W. Alexander, Esq., R. Duncan, Esq., M.B.E., I.S.O., Sir Ambrose Fleming, F.R.S. (late President), Mrs. C. M. Craig, G. A. Heath, Esq., Rev. T. W. Fawthrop, D.D., D.Litt., Miss E. Chave Jones, B.A., Rev. C. Graham Swann, M.C., M.A., Sir Francis Outram, Bt., O.B.E., Rev. C. Cameron Waller, M.A., D.D.

6. New Fellows, Members and Associates.

The following are the names of new Fellows, Members and Associates up to the end of 1945 :—

FELLOWS : D. M. Connan, Esq., M.D., B.S., D.P.H., Ninian Lewis, Esq., S. Hay Wrightson, Esq., O. R. Barclay, Esq., M.A., Ph.D., W. B. Stansfield Esq., Rev. Isaac Hartill, D.D., LL.D., Rev. J. Hominuke, B.Sc., M.A., B.D., G. J. E. Askew, Esq. (Life Fellow), Rev. D. T. Poole, G. H. Ramsay, Esq. (Life Fellow), James McWhirter, Esq.

MEMBERS : J. H. Baxter, Esq., W. E. Filmer, Esq., B.A., Lt.-Col. (S.A.) W. M. Powell, B. E. Osborn, Esq., Gp./Capt. D. J. Wiseman, O.B.E., B.A., (Life Member), Thomas C. Denton, Esq., Rev. Paul R. Bauman, D.D., E. W. Coleman, Esq., Rev. F. S. J. Oram, M.A., B.E., Rev. D. T. Casson, M.A., Kenneth M. Walker, Esq., M.A., F.R.C.S., Miss Ruth M. Filmer, B.Sc., D. A. Quadling, Esq., Major C. E. Griffith, late R.A., Basil C. F. Atkinson, Esq., M.A., Ph.D., J. B. Stonebridge, Esq., F. F. Bruce, Esq., M.A., C. E. Elliott, Esq., M.R.C.S., L.R.C.P., W. L. Emmerson, Esq., Miss C. Hussey, Mrs. E. B. Titchener (Life Member), A. D. Norris, Esq., M.A., D.Phil., S. J. Wooldridge, Esq., Prof. A. C. Schultz, Ph.B., M.A., B.D., Th.D., G. C. D. Howley, Esq., Rev. Prof. C. F. H. Henry, M.A., Th.D. (Life Member), Robert L. Woolley, Esq., B.A., James Eynon-Tiffin, Esq., Stanley G. Browne, Esq., M.B., B.S., F.R.C.P., M.R.C.S., D.T.M., A.K.C. (Life Member), John G. Roberts, Esq., B.A., Henry F. Morgan, Esq., Rev. W. F. Freeman, Esq., Arthur J. Belcher, Esq., B.Sc., Hendrik J. Oorthuys, Esq., B.S., M.S., Rev. N. L. Hutchings, John Philip Cohen, Esq.

ASSOCIATES : Major E. F. Holland, Rev. H. W. Hinde, M.A., R. Harkness, Esq., H. W. Browne, Esq., J. M. Houston, Esq., M.A., Francis Grim, Esq., Rev. W. H. Warmington, B.Sc.

7. Membership.

Life Fellows	...	...	...	21
Annual Fellows	...	...	...	101
Life Members	...	...	...	33
Annual Members	...	...	...	264
Associates	...	...	...	76
Library Associates	...	...	...	43
<hr/>				
Total Nominal Membership				538
<hr/>				

8. Donations.

Lt. Spurgin, 17s. ; H. W. Bryning, Esq., £1 ; S. H. Flook, Esq., £1 ; Rev. R. Audley Smith, £5 5s. ; H. H. Goodwin, Esq., £2 ; Conway Ross, Esq., £1 ; Miss A. A. Philpotts, 9s. ; J. B. Nicholson, Esq., £3 11s. ; J. C. Scott, Esq., 10s. ; Adam Rutherford, Esq., £1 1s. ; D. E. Prismall, Esq., 4s. 6d. ; Rev. Stuart M. Robinson, 6s. 10d. Total, £17 4s. 4d.

9. Finance.

The Balance Sheet and Income and Expenditure Account for the year 1945 which accompany this Report reveals a more satisfactory position than for many years past. The Council has much pleasure in presenting these accounts which at last breaks the long sequence which have shown an excess of expenditure over income. This year the Institute has had an income greater than its expenditure, but as the over expenditure has been constant for some time past it will take time to put the finances of the Institute on the secure basis the Council desire.

P. J. WISEMAN,
Chairman.

BALANCE SHEET, 31ST DECEMBER, 1945.

LIABILITIES.				ASSETS.				
		£	s.	d.	£	s.	d.	
SUBSCRIPTIONS PAID IN ADVANCE ....	....		13	8	6		
SUNDY CREDITORS FOR EXPENSES .....	....		267	2	7		
LIFE SUBSCRIPTIONS :—								
Balance at 1st January, 1945....	....	394	0	0			
Additions ....	....	141	14	0			
		535	14	0				
Less Amount carried to Income and Expenditure Account ....	....	14	14	0			
		521	0	0				
“ GUNNING ” FUND (<i>per contra</i>) ....	....	508	0	0			
Balance at 1st January, 1945 ....	....	64	13	2			
Dividends and Interest receivable ....	....	23	16	10			
		88	10	0				
“ LANGHORNE ORCHARD ” FUND (<i>per contra</i>) ....	....	200	0	0			
Balance at 1st January, 1945 ....	....	22	18	7			
Dividends and Interest receivable ....	....	9	2	9			
		32	1	4				
Less Prize and Expenses ....	....	15	16	6			
		16	4	10				
“ SCHOFIELD ” MEMORIAL FUND (<i>per contra</i>)		220	0	0				
Dividends receivable ....	....	9	9	4			
CASH AT BANK :—								
Current Account ....	....	478	10	11			
“ Gunning ” Prize Account ...	....	64	19	0			
“ Langhorne Orchard ” Account ...	....	7	3	6			
“ Craig Memorial Trust ” Account ...	....	19	15	0			
		570	8	5				
PETTY CASH AND STAMPS IN HAND						4	11	7
INCOME TAX Reclaim					31	11	3
SUBSCRIPTIONS IN ARREARS :—								
Estimated to produce					125	0	0
INVESTMENTS (AT COST) :—								
“ Gunning ” Fund :—								
£673 3½ per cent. Conversion Stock		508	0	0				
“ Langhorne Orchard ” Fund :—								
£258 18s. Od. 3½ per cent. Conversion Stock	200	0	0				
“ Schofield Memorial ” Fund :—								
£378 14s. 6d. 2½ per cent. Consolidated Stock	220	0	0				
“ Craig Memorial Trust ” Fund :—								
£376 7s. 4d. War Stock 3½ percent	400	0	0				
		1,328	0	0				

"CRAIG MEMORIAL TRUST" (*per contra*)

400 0 0

INCOME AND EXPENDITURE ACCOUNT:—

Balance at 1st January, 1945 247 14 6

Deduct Excess of Income
over Expenditure for
the year 1945 £46 6 2

Donations received.... 17 4 4

63 10 6

184 4 0

£2,243 15 3

£2,243 15 3

We report to the members of the Victoria Institute that we have audited the foregoing Balance Sheet dated 31st December, 1945, and have obtained all the information and explanations we have required. We have verified the Cash Balances and Investments. No valuation of Furniture, Library or Tracts in hand has been taken. In our opinion the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the affairs of the Institute according to the best of our information and the explanations given to us and as shown by the books of the Institute.

Drayton House,
Gordon Street,
London, W.C.I.
10th April, 1946.

LUFF, SMITH & Co.,
Incorporated Accountants.

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1945.

EXPENDITURE.				INCOME						
	£	s.	d.	£	s.	d.	£	s.	d.	
To Rent, Light, Cleaning and Hire of Lecture Room	77	19	2	By SUBSCRIPTIONS :—						
„ Salary	200	0	0	Fellows	240	12	2			
„ National Insurance	4	2	4	Members	249	3	2			
„ Printing and Stationery	234	8	7	Associates and Libraries	49	3	5	538	18	9
„ Postages, etc.	40	11	3	„ Proportion of Life Subscriptions				14	14	0
„ Audit Fee	5	5	0	„ Sale of Publications				71	14	1
„ Insurance	12	0		„ Income transferred from “Craig Memorial Trust” Fund				13	3	4
„ Sundry Office Expenses	29	5	8							
	592	4	0							
„ Balance, being Excess of Income over Expenditure for the Year 1945	46	6	2							
	£638	10	2							

A SPECIAL GENERAL MEETING

of the Institute was held on Monday, May 27th, at 5.20 p.m.

The following proposal made by Dr. R. E. D. CLARK and seconded by D. DEWAR, Esq., was agreed :—

“ That the second paragraph of Section IV, 4 of the Objects, Constitution and By-Laws of the Victoria Institute be deleted and the following substituted :—

‘ The claims of Fellows, Members and Associates to take part in a discussion are prior to those of visitors, other than those who have been specially invited by the Council to attend and join in considering the subject before the Meeting. All who wish to join in the discussion must submit their names to the Chairman of the Meeting who will determine the order in which discussion, including written communications, shall take place.’ ”

THE ANNUAL GENERAL MEETING

OF THE

VICTORIA INSTITUTE

WAS HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, ON
MONDAY, MAY 27TH, 1946, AT 5 P.M.

AIR COMMODORE P. J. WISEMAN, C.B.E., IN THE CHAIR.

The Minutes of the Meeting of June 25th, 1945, were read, confirmed and signed.

The Report of the Council and Statement of Accounts for 1945, having been circulated, were taken as read.

The Chairman of the Council (Air Commodore Wiseman) referred to the death on the previous Tuesday of the President of the Institute, Sir Charles Marston, and to the interest he had taken in the work of the Institute. His outstanding interest had been the bearing of archaeological discoveries on the truth of the Bible. He had been generous in his gifts towards the cost of excavations in Palestine and his books, with their appeal to a wide circle, would have a long influence.

The *First Resolution* as under was read and explained, the Chairman then calling on the Rev. C. T. COOK to propose and Dr. R. E. D. CLARK to second it :—

"That the Report and Statement of Accounts for the year 1945 presented by the Council, be received and adopted ; and that the thanks of the Meeting be given to the Council, Officers and Auditors, for their efficient conduct of the business during the year and that the Auditors, Messrs. Luff, Smith & Co. be, and hereby are, re-elected Auditors at a fee of five guineas."

The Resolution was put to the Meeting and carried unanimously.

The *Second Resolution* as under was proposed by the Rev. A. E. HUGHES and seconded by Mr. LUUFF-SMITH :—

"That Lt.-Col. L. M. Davies, M.A., Ph.D., D.Sc., F.G.S., and Wilson E. Leslie, Esq., retiring Members of the Council be, and hereby are, re-elected."

The Resolution was put to the Meeting and carried unanimously.

The *Third Resolution* as under was proposed by Air Commodore WISEMAN and seconded by Dr. CLARK :—

"That the Vice-Presidents, Prof. A. Rendle Short, M.B., B.S., B.Sc., F.R.C.S., Sir Frederic Kenyon, G.B.E., K.C.B., D.Litt., LL.D., F.B.A., and the Honorary Treasurer, Wilson E. Leslie, Esq., be, and hereby are, re-elected to their offices."

The Resolution was put to the Meeting and carried unanimously.

The Chairman then announced R. E. D. Clark, Esq., M.A., Ph.D., as winner of the Gunning Competition for 1946 for his paper on "The Spheres of Revelation and Science." A cheque for £40 was then handed to Dr. Clark.

The Schofield Memorial Prize for 1947 was next mentioned. The subject chosen being "How Old is Man ? What is the reliable evidence ?" The length of the Essay is not to exceed 10,000 words. Printed rules of the Competition were being circulated to all Fellows, Members and Associates.

A hearty vote of thanks to the Chairman for presiding terminated the Meeting.

(This paper was not *read* before the Institute, but was circulated in proof form).

PRECOGNITION.

By C. A. RICHARDSON, Esq., M.A.

THE term "precognition" is used with various shades of meaning, but, for the purposes of this paper, I shall define it in a very general way as the apprehension in some sense or other by an 'observer'—and I use this neutral kind of term deliberately—of an event which is temporally located in his future, or located in the time-system of some other observer or observers at a period correlated with a time in the future of the first observer.

Two main kinds of question arise in a study of precognition. One is the investigation of the empirical evidence for the occurrence of precognition. The other is the consideration of metaphysical reasons which might seem to make the occurrence of precognition possible, and, if possible, likely.

I shall be concerned chiefly with the second of these questions, for the first has already been fairly thoroughly traversed in the light of the facts available to date, and the corresponding records may be consulted.

I will make a brief reference at this point, however, to some of the main sources of the empirical evidence for precognition. In the first place there is the evidence discussed in various parts of the *Proceedings of the Society for Psychical Research* and in the works of such writers as F. W. H. Myers.* I shall not consider these further here, but there are two more recent pieces of research relevant in this connection which deserve a special word of mention.

The first of these more recent inquiries is the work of J. W. Dunne† which falls into two parts, concerned respectively with a description of the evidence Dunne had accumulated in regard

* See, for example, his article on "Retrocognition and Precognition", in the *Proceedings S.P.R.* vol. xi, pp. 334–593.

† See *An Experiment with Time* (A. & C. Black, 1927) and *The Serial Universe* (Faber & Faber 1934).

to the occurrence of precognition, both in the dreaming and the waking states, and with the presentation of a theory of the nature of time designed to account for the empirical facts.

The nature of the evidence which Dunne describes, and the manner in which it was collected, leave little doubt as to the factual accuracy of the record. Just what is the most likely interpretation of the facts recorded is, of course, another matter. To account for these facts Dunne presents a most ingenious and thought-provoking theory of the nature of time. I have made some comments on this theory elsewhere,* and will only remark here that, in spite of certain suggestive and significant elements in it, I do not find the general principle involved in it by any means convincing.

A second recent investigation, carried out during the past ten years, which has produced evidence relevant to the occurrence of precognition, is that conducted by Dr. S. G. Soal into the question of telepathy. Dr. Soal has described his experiments in papers forming part of the *Proceedings of the S.P.R.*, but a comprehensive though concise account of these experiments and their results has been given by C. D. Broad in *Philosophy*, Vol. XIX, No. 74 (November, 1944).

Very briefly Soal's experiments consisted in the "guessing" by a "percipient" of cards invisible to him but viewed in succession by another person, the "agent". The records were then subjected to the most rigorous statistical analysis, as a result of which it appeared that the odds against the proportion of successful "guesses" obtained with certain percipients and certain agents being due to chance alone, and therefore the odds in favour of the occurrence of some process which might most appropriately be called "telepathy", were enormously high.

That feature of the results, which is especially significant for our present discussion, was that the card guessed by the percipient was generally *not that viewed at the moment by the agent*, but the card which the agent *would* view next or next but one, or which the agent *had* viewed last or last but one. Whether the card mentioned by the percipient was next or next but one was apparently determined by the length of the time interval between the viewing of successive cards by the agent. With an interval of 2 to 3 seconds between "guesses", many "fore-

* See *Happiness, Freedom, and God* (Harrap, 1944), pp. 87f.

hits" one ahead were scored. When the interval was halved, these forehits nearly vanished and were replaced by forehits two ahead. It was also noted that the percipient frequently did not form a mental image which was a replica of what the agent saw on the card, but gave a response closely associated in some way with the latter. Thus, for example, when the agent looked at the picture of an animal, the percipient would write down almost automatically the initial letter of the animal's name. Accordingly Broad concludes that what has been established is "precognition" only in the purely *behaviouristic* sense of "cognition", *i.e.*, presumably cognition either as represented or as constituted by appropriate overt behaviour on the part of the percipient.

However that may be we clearly have in the results of Soal's experiments evidence which is almost as certain as anything can be of the occurrence of something which can properly be called "precognition", and incidentally also of retrocognition, and the fact that the time-intervals involved were short does not affect the principle.

Taking the results of these experiments in conjunction with the other sources of evidence I have mentioned we cannot but come to the conclusion that, so far as the ascertained facts are concerned, the *prima facie* case for the occurrence of precognition is very strong indeed. We are then left with the question as to whether there are metaphysical reasons regarding the nature of the universe which would render intelligible to us the occurrence of facts of this kind, and so reinforce the empirical evidence indicating the occurrence of precognition, rather than causation by chance factors, as the true interpretation of the facts.

Precognition may take various forms. In the first place it may take the form of a replica of a future event, that is a sense-experience, or perhaps a particularly vivid image complex which may be difficult to distinguish from a true sense-experience, which is closely similar in essential respects to some future sense-experience. On the other hand precognition may take the form not of a replica of a future event, but of something signifying or symbolising that event, or otherwise closely associated with it. I quoted an example of this kind of thing in connection with Soal's experiments.

On the other hand precognition may in some cases not be an apprehension of a sense-experience at all, but rather of such things as emotions or attitudes of mind. Typical examples of this occur in what are often called "premonitions", which may vary from more or less vague feelings of uneasiness, depression, or excitement to a rather clearly defined sense of the *kind* of event which is impending. In all the types of precognition mentioned, it may occur either in the waking or in the sleeping state.

Finally precognition may refer to an event in the observer's own future or to an event in someone else's future. In the second case it is evidently closely connected with telepathy, and again we have examples of this (it is true only at short range) in some of Soal's experiments.

It is perhaps worth considering briefly this question of "short range". The estimation of lapse of time is largely a relative matter depending both on psychological factors and on physical factors such as the observer's particular time-scale. Not only will it vary from one *human* observer to another according to the circumstances of the individual case, but there are also strong general grounds for believing that wide differences of time sense exist between human observers and sub-human sentient beings, and it is to be presumed that similar wide differences would, or could, exist between human and super-human beings, if the latter were to form part of the universe as they may well do. It follows that the important thing is the establishment of the occurrence of precognition in principle. Though a particular example of precognition may appear short-range to the observer or observers concerned, its very occurrence indicates the possibility of the occurrence of other examples of precognition which might seem long-range to the same observers, while it might itself appear long-range to different observers or in different circumstances.

In considering the question of precognition in a metaphysical setting, I should venture to say in the first place that it seems very difficult to make the occurrence of precognition intelligible on any metaphysical theory which regards time as something objective and independent of all observers; and, in the second place, I think it is equally difficult to make precognition intelligible if we regard the analysis of the stream of an observer's experience into separate, or separable, existentially independent events as anything more than a process necessary and convenient

for thinking about experience. But the difficulties I feel in these respects will, I hope, become apparent in the remainder of this paper.

If for a moment we speak in the usual terms of time, especially in regard to the way in which it appears in current physical science, it seems to me that the fact of telepathy, if it may now be regarded as an established fact, must involve pre-cognition or retro-cognition or (more probably) both. For the theory of relativity shows that there is no absolute sense in which a pair of events, where the two members of the pair occur to different observers, can be said to be simultaneous. Hence if event A, occurring to observer X (the "percipient") is a replica of, though not identical with, event B occurring to another observer Y (the "agent"), event A can never be said to be "simultaneous with" event B. The time component of the invariant interval between A and B will always have a non-zero value, either "past" or "future" in sense, whichever time-system of reckoning is taken, and this is true even though the relative conditions of the two observers may be such that the time-value is small, as will generally be the case in experimental telepathy.

It follows that telepathy implies pre- or retro-cognition, and as, when we are dealing with different observers in this context and not with the same observer, the idea of pre-cognition presents no greater theoretical difficulty than that of retro-cognition, there seems no reason why both should not occur. These considerations are of course quite different in principle from those arising from the evidence for pre-cognition in Soal's experiments on telepathy. In the case of the latter all those concerned were naturally assumed to have a common time-system—and this was obviously very nearly true—and the time-intervals between the observations of agent and percipient were reckoned in this assumed common time-system, and were of an order and a kind different from those I have just been discussing.

In view of all the foregoing it seems to me that precognition is so closely bound up with telepathy—or, as I should prefer to call it, "telecognition"—that any empirical evidence for the latter is equally evidence for the former, while a metaphysical theory which helps to make the occurrence of telepathy intelligible will also apply likewise to precognition.

I think this is true whether the agent cognises something in his own future or in the future of someone else. The second case is clear, and, as regards the first, precognition of events in the agent's own future is really a form of telepathy or telecognition within one individual experience. It is true that the "distance" or "interval" involved is then temporal in character, whereas in ordinary telepathy from one person to another the emphasis is usually placed on spatial separation. But this is not strictly justified for, as I have already pointed out, the relation between the experiences of two different "observers" is never purely spatial but always spatio-temporal, at any rate in the conventional meanings of those terms.

It may be asked whether the occurrence of telecognition of the future implies a rigid determinism. The answer to this question depends on the way in which determinism is conceived. I have dealt with this point elsewhere,* and any adequate discussion of it here is not possible. But briefly I should say that precognition is just one other sign of that interrelatedness of all experience without which reality would not be a cosmos but a chaos, and so indeed hardly consistent with existence at all. On the other hand, if it were held that precognition implies that the agent has no *control* of the future, I should regard the contention as ill-founded, for clearly there is no logical contradiction in the agent's precognising a future which is, to some extent, controlled by him. In other words, he may cognise a future the nature of which will have been partly fashioned by his own activity.

This brings me to the essence of the metaphysical question. I have tried to show the close interdependence of precognition and telepathy, and to suggest that the former is a particular case of the spatiotemporal interrelationships both within the experience of one individual and between the experiences of different individuals, of which telepathy in the widest sense is the general manifestation. The question then is to determine those features of a metaphysical theory of the structure of reality, which will render intelligible the occurrences of telepathy both in its general and in its more special manifestations.

It seems to me that the salient facts here are the unity of the individual experience and the organic interrelatedness of the

* See *Spiritual Pluralism*, Chapter IV, and *Happiness, Freedom, and God*, Chapter IV.

experiences of different individuals at all levels, which are facts, I would suggest, partly of direct apprehension and partly of an inferential belief without which experience is unintelligible. In brief, telepathy and precognition arise from the unity of reality and the necessary consequence that every individual is to some degree and in some way *en rapport* with every other individual.

Now, in the case of those who are, in the conventional spatio-temporal sense, "near" to us, this *rapport* is a matter of immediate apprehension which is the basis of normal human intercourse and of our dealings with the realm of "animate" and "inanimate" Nature at large. But, if it be true that each individual is *en rapport* with all others, how is this manifested in the case of individuals who, spatio-temporally, are greatly "distant" from one another?

I am inclined to think—and the idea has been mooted in one form or another before—that the answer to this question is to be found in the phenomena of the sub-conscious. By the "sub-conscious" I mean that mass of images, feelings, and so on, which normally lie below the threshold of consciousness, but which do on occasion rise above that threshold without, in general, any special *voluntary* procedure on the part of the individual concerned (though the manifestations may in certain circumstances be helped by such procedure) and without the application to him of any special technique. It is to be carefully distinguished from the "unconscious", which consists of those emotionally toned constellations of memories and ideas which are suppressed from consciousness, and can be brought to consciousness only by the use of a highly specialized technique involving, in general, treatment of the individual concerned by a skilled psychiatrist.

I should say, then, that the conscious and subconscious together—and they merge into one another—constitute the field of apprehension by the individual of his interrelatedness—indeed I think "interaction" is a quite appropriate term here—with all other individuals in the universe, and that, whether an effect is conscious or subconscious and, if the latter, whether it passes over into consciousness, are matters depending on the factors in the particular case, one salient factor being the spatio-temporal relationships involved.

It would not be in place here to discuss the various types of phenomena in which subconscious relationships and activities

are concerned or the particular conditions favourable to their occurrence, though I have attempted this elsewhere.*

But certain general considerations suggest themselves. For example, in the individual's precognition of his own future it is the essential unity of the individual experience which is presumably involved. As a result of this unity the *whole* experience of the individual will be in some way inherent in what, in analytical thinking, we regard as the "parts" of that experience. This concept of the inherence of the whole experience in its parts is the analytical symbol corresponding to what, in concrete fact, is the indivisible unity of experience, and here the merging of conscious and subconscious will be fundamentally involved.

Perhaps the prime observable example of this particular relationship of whole and parts is provided by memory experiences in which we evidently have an inherence of the "past" in the "present". We should also expect some evidence of the inherence of the "future" in the "present". But no doubt it will at once be asked why examples of precognition are relatively so fragmentary and uncertain as compared with the definite and regular nature of memory processes.

Stated in such a form I doubt if that question is really significant, for we are here dealing with ultimate facts. The characteristics of telecognition vary with the parts of experience concerned, and this variation is a main factor in distinguishing that part of the individual experience which is "past" from that part which is "future". To inquire then as to why there should be such striking differences between precognition and retrocognition is rather like asking why there should be a "past" and a "future" at all.

Summing up then, we may regard the conscious and the present as coterminous, or, alternatively, we might perhaps say that the conscious is the "field" of the spatio-temporal present; for evidently the conscious is always present, while nothing is present to us in experience (in any appropriate meaning of "present") of which we are not conscious. The sub-conscious is then the field of the inherence in experience of events which are past or future, the conscious and subconscious together

* See *Spiritual Pluralism*, Chap VIII, and *The Supremacy of Spirit*, Chaps. V and VI.

constituting the field of the interrelatedness both of the parts of the whole experience of the individual concerned, and of that experience with the experiences of others.

I suggest that some such metaphysical theory as I have outlined is required to order in an intelligible manner the combination of plurality and diversity in unity which we apprehend in experience; and that, if we adopt such an hypothesis on these general grounds, the substantiated facts in regard to telepathy, and the closely associated phenomena of precognition and retrocognition, fall readily into place.

The particular conditions in which these phenomena occur, and the way in which they vary, are matters for observation and experiment according to the methods of the empirical sciences. A number of interesting points crop up which can only be briefly mentioned here. For instance, it has, I think, sometimes been held that we do not cognise a definite future, but only a *probable* future, perhaps those future events which have, at a given present, maximum probability. Again, in the opinion of some there is a common field of subconsciousness and not a number of distinct individual fields. There is, too, some evidence that in certain cases there is a kind of "time-lag" in the subconscious in the operation of the process of telecognition. There is also evidence that the occurrence of telepathy depends in part on the kind of relations existing between the individuals concerned, especially emotional relations. Finally, it has been suggested that there may be two kinds of telepathy, one operating through the medium of the subconscious in the way that we have been considering, the other having a physical basis in the form of radiations from the brain analogous to the electro-magnetic radiations which make radio communication possible. That telepathy is not always, and perhaps not usually, physical in basis seems to follow from evidence which shows that its effects are not modified by distance in the way that the effects of electro-magnetic radiation are modified. But this does not rule out the possibility of something in the nature of "brain-waves". Presumably the intensity of such waves would vary with the distances involved, and observation of the occurrence of forms of telecognition depending on distance—remembering that "distance" is spatio-temporal and not purely spatial—would provide the strongest kind of evidence for the existence of "brain-waves".

The precise determination of the facts in regard to the particular points I have just mentioned must await further experiment. Such experiment is likely to develop more rapidly now that it is no longer regarded in certain nominally "scientific" circles as hardly respectable even to entertain the idea that such phenomena as telepathy and precognition may possibly occur. But in this paper I have been concerned for the most part simply to suggest that one result of a metaphysical theory arrived at on general grounds would be, not only to show that the occurrence of the various forms of telecognition are possible and intelligible, but that it would be really surprising if they did not occur.

WRITTEN COMMUNICATIONS.

Dr. R. E. D. CLARK wrote: I have found Mr. Richardson's paper exceedingly difficult to follow. He appears to be asserting that events are inter-related but it is not at all obvious to me how this explains, or even helps us to understand, the existence of precognition. It seems strange that in a paper on this subject no mention is made of W. W. Carington's recent book *Telepathy*. Could Mr. Richardson be induced to explain his theory more simply by contrasting it with Carington's views?

By an appeal to relativity Mr. Richardson attempts to show that "telepathy . . . must involve precognition or retrocognition." The argument is difficult to follow. There is no *metaphysical* difficulty about asserting that two events are simultaneous. Relativity asserts that it is impossible to devise a *practical test* of simultaneity, *not* that simultaneity is non-existent. The impossibility of devising such a test arises, of course, from the fact that light travels at a finite speed and that no means of communication known to physics travels with a velocity greater than that of light. But we know nothing at all about the velocity with which information is transmitted by means of telepathy. The velocity may be finite for all we know or it may be greater or less than that of light. In view of our complete ignorance on such matters it is very difficult to see why Mr. Richardson introduces relativity at all. In using the language of relativity (*e.g.*, "distance is spatio-

temporal and not purely spatial") he apparently implies that telepathy travels with the speed of light but he does not tell us why he holds this view.

Mr. W. E. LESLIE wrote : While this Paper has interest because of the light it may throw on the nature of Prophecy, its primary value is philosophic because of its bearing on the relation of Persons to Space-Time and to each other.

In a Paper on Telepathy read before the Institute in 1924, I suggested that minds were in some sense in contact with each other apart from Space-Time, and suggested that this might throw light upon apparently well-authenticated cases of prevision. Now prevision, or, to use the present phrase, precognition seems fairly based upon experimental evidence.

We seem now to be touching an aspect of Reality which our minds, conditioned by our practical contact with Space-Time, have great difficulty in grasping. In any case the old categories of mechanistic materialism are hopelessly out of court, and it seems a pity that the author should have toyed with the idea of "Brain-Waves." After discussing the theory in the *Proceedings of the Society for Psychical Research*, Mr. Whately Carrington says "Frankly if it were not for the currency the notion has gained in the popular mind, I would not consider any radiative theory worth powder and shot, or even the small amount of space I have felt necessary to devote to it here." (XLVII, p. 171.)

Mr. JOHN EVENDEN wrote : An important difficulty in the development of any metaphysical theory is that its nature makes it hard to either substantiate or overthrow. In his fascinating and thought-provoking paper the author has wisely made no extravagant claims for his theory, and has allowed for possible substantiation and modification. The following comments might be found useful.

The paradox to be met in a theory on this subject is firstly that it must allow three observations about the nature of time : (1) That the past is irretrievable, (2) that there is a probability or free will element in the future (I speak as a Christian, hence ruling out determinism), and (3) the inevitability of the progression of the

present ; whilst secondly the unity of spatio-temporal experience must be taken into account. The Author has met this paradox in his paper which he bases on the unity of experience but there is also the possibility of basing the metaphysic on the other aspect of the paradox, and having (if possible) explained telecognition and precognition, bridging the gap to the unity of experience, with the aid of these phenomena. It is a problem of which end to start from. I have for some time been working on the second type of theory, but would not care to claim that it is superior to the author's, and see no easy way of resolving this problem.

In establishing the unity of experience it should be useful to study the work of psychologists on the "specious present," to which no reference is made in this paper. References to this work can be found in the bibliography in M. F. Cleugh's book *Time*.

The analysis given of relativity and telecognition appears to afford two further possibilities of great interest, making three in all. They are : (1) That telecognition is subject to the laws of space, that is, it can be associated with a velocity, c , whilst not being necessarily a wave motion ; thus meeting "the possibility of something in the nature of brain-waves" mentioned in the penultimate paragraph of the paper. (2) The statement given in the paper. (3) That telepathy is independent of physical laws, and hence provides a criterion of instantaneity that physical signals can never provide. This reinstates instantaneity by introducing a new criterion, and seems a more convincing statement than (2). Strictly, possibility (2) is independent of (1), but if (1) is correct the nature of telecognition is no more bound up with precognition than is any other sort of physical signal. However, these possibilities seem at present to be only of academic interest.

In arranging for the publication of these papers on this subject, the Council of the Institute was asked if the scope of the papers and the discussion could be limited to the elucidation of the precise meaning of the Hebrew grammatical construction and words of Genesis i, 2, explicitly excluding all scientific aspects of the problem which could not adequately be discussed on this occasion. The aim of the papers being to obtain a conspectus of linguistic arguments for or against different renderings.

It will however be observed that the rule stated above has been transgressed in some instances, and in fairness to those who have observed the rule, any such transgression should not be considered part of the proceedings.

"AND THE EARTH WAS WITHOUT FORM AND VOID."

An enquiry into the exact meaning of Genesis I, 2.

By P. W. HEWARD.

THE suggestion that this verse unveils a condition when the earth "became" thus, as distinct from God's creation in verse 1, demands reverent and prayerful care, in translation and comparison.

- (a) What would appear to be the meaning and implication of each word?
- (b) If two renderings seem possible, do the context and language elsewhere clarify?

(c) Are there confirmatory allusions in the Divine writings, or the reverse?

All conclusions need testing by harmony with "all Scripture" (2 Tim. iii, 16), of which the inspiration and unity provide unique evidence.

The opening word "And" of verse 2 is significant. It seems to place verse 1 alone, and introduce in verse 2 a different event.* In verse 2 the *noun* is before the verb, whereas in all the subsequent verses (till ch. ii, 4) the *verb* comes first in the Hebrew (Lit. "and-said God," etc.). The verb in verse 2 that follows earth (**הָיָה**, hayah) is said, in the Oxford Hebrew Lexicon to signify, "Fall out, come to pass, become, be." It is important to see that the Kal, or simple conjugation of the verb, does have the force "become." In standard Hebrew translations of the New Testament (Delitzsch and Salkinson-Ginsburg) the Kal is employed for the Greek *γίνομαι* (ginomai, become) in more than half the occurrences in Ephesians and Colossians,—and no other conjugation. Genesis i, 3–8, the immediate context has the Kal of the same verb as in verse 2 nine times. The ancient Septuagint renders eight by "become." The A.V. elsewhere has both "be" and "become"—the former may include a change (e.g., "should have been," Isa. i, 9). Moreover, our definitional or descriptive "be" is often *unexpressed* in Hebrew (hence the italics in Gen. vi, 5, Ex. 6, 6). This form of speech is not found in Genesis i, 2.

Stronger evidence still is afforded by Exodus vii, 9, where the Kal is explained in verse 15 by "turned" (both with **לַ**, l) and verses 17 and 20 "turned to blood" (cf. Ps. 78, 44, 105, 29) are elucidated by verse 19 (Kal, without **לַ**, l).

New Testament quotations corroborate. The "Septuagint is not always employed: there are many variations. God's own approval of *γίνομαι* (ginomai, become) for the Kal in Matthew xxi, 42, and Romans ix, 29, is clear.

Let us now come to less technical points:

Verse 2 contains two sentences—concerning (1) the *earth*, (2) the *deep*. The descriptive words are rendered (a) "without form," (b) "void" and (c) "darkness."

* 1 Kings xv, 6, 16, 32 illustrate, with the same form. In like manner, the beginning of *each* "day" with "And God said" differentiates verse 2.

The first occurs twenty times in Scripture, eleven in Isaiah. The renderings are italicized.

	A. V.	R. V.
Deut. xxxii, 10	“Waste howling wilderness”	—
1 Samuel xii, 21	“Vain things,” “vain” (twice)	—
Job. vi, 18	“To nothing”	“Into the waste.”
Job. xii, 24	“A wilderness”	—
Job. xxvi, 7	“The empty place”	“Empty space.”
Psalm cvii, 40	“The wilderness”	“The waste.”
Isaiah xxiv, 10	“The city of confusion”	—
„ xxix, 21	“A thing of nought”	—
„ xxxiv, 11	“The line of confusion”	—
„ xl, 17	“Less than nothing and vanity” (confusion, R.V.M.)	—
„ xl, 23	“As vanity (confusion, R.V.M.).”	—
„ xli, 29	“Their molten images are wind and confusion.”	—
„ xliv, 9	“All of them vanity” (confusion, R.V.M.)	—
„ xlvi, 18	“He created it not in vain” (“A waste” R.V. text.)	—
„ xlvi, 19	“I said not, Seek ye Me in vain (as in a waste R.V.M.)”	—
„ xlxi, 4	“My strength for nought”	—
„ lix, 4	“They trust in vanity.”	—
Jeremiah iv, 23	“The earth . . . without form.”	“Waste.”

Not one passage suggests the beginning of an excellent yet unfinished work: many imply the exact opposite. Nor can the element of Divine judgment be eliminated from most. Even one that might seem distinct is not without such thoughts in the context (Job xxvi, 5, 6, 11, 12, 13). Does not God guide us by His consistent testimony, and help us by comparison, in accord with the unity of Scripture? And the omission of the word “heaven”, in this scene of waste, is full of instruction.

The second term בָּהֵן (vohu) only comes twice elsewhere, in both cases significantly added to the word just cited (Isa. xxxiv, 11, *emptiness*, Jer. iv, 23, *void*), and thus never alone. Observe that these words are kept in the *same order*, the first example of emphasis by “rhymed-sound.” And the other verses are most definite as to judgment, on Edom and Palestine (or the earth). “Land” is mentioned in each, and there is a reference to darkness (Isa. xxxiv, 4).

If a human writer should employ two rare words thus, and intend to convey entirely different meanings, we should be surprised. There is something far more than a return to a preparatory condition, as some have thought. The Author of Scripture is

perfect in wisdom, and has written to instruct us. An opposite meaning in Genesis i would require strongest contextual evidence.

“Darkness.” This word is *not* associated with the description “good” in Genesis i, 4, nor is it said to be made by God: rather is an antithesis suggested. And frequent use elsewhere would confirm this (e.g., Ps. cv, 28, Isa. v, 30, xiii, 10, Joel ii, 2, Amos v, 18, 20, Zeph. i, 15). But is not “darkness” God’s “secret place”? Yes, in judgment and the awe of Sinai, with bounds about its mount. (Deut. iv, 11). Yet who would identify this with Psalm civ, 2, or 1 Timothy vi, 16? At the end of Scripture we have “the blackness of darkness for ever” (Jude. 13), and the abyss contrasted with “the glory of God did lighten it, and the Lamb is the light thereof” (Rev. xxi, 23). The final emphasis, too, on “there was no more sea” (Rev. xxi, 1) is significant.

Returning to all the three descriptive words, the writer submits that their use by God would afford accumulative *probability* of a *change from* an earlier condition of harmony with God’s glory.

But *probability* is not certainty. Nor are we accepting any testimony outside Scripture. Assumption, overstatement, and disparagement of others, to gain a point hurriedly, are sin. Do other verses of Holy Writ refer to this passage? Some have been brought forward against what is here set forth. Should we not seek a Divine anointing? Its absence leads to bitterness, and deprives of the moral courage to own oneself wrong, and to seek *truth* alone. *One certainty from God* lays low every probability—however carefully, and even prayerfully, built up. God’s word must stand (Isa. xl, 8).

Genesis i, 31 and ii, 1–4 have been adduced. But does not i, 31 refer only to everything God had *made*? It does not assert the absence of results of *judgment*. Ch. ii, 1, does not state when the beginning was, but only the *completion*. Regarding ii, 3, it has been asserted that “created and made” (“created to make”, margin) is parallel, in Hebrew, with “hastened to find,” and should be rendered “creatively made,” and that “create” and “make” are “virtually synonymous.” But is this so? The verb “to find” is the complement of an *incomplete* verb “hasten.” Is this at all parallel? Why should not the infinitive here denote purpose? “Begin to do,” “command to do,”

“ observe to do ” illustrate the wide Hebrew use. See other ten examples of תַּעֲשֵׂל (l'asoth) in Genesis. Moreover “ make ” is carefully distinguished from “ create ” in ch. i, and its wider meaning throughout Scripture is illustrated by “ the souls that they had gotten ” (Gen. xii, 5), “ he hasted to *dress* it ” (Gen. xviii, 7), “ one lamb shalt thou *offer* ” (Num. xxviii, 4), and the references to “ keeping ” the passover ; in each case this verb.

The literal rendering “ created to make ” rather puts creation *first*, (as in Gen. i), and the “ making,” (which includes “ the fruit tree *yielding* fruit,” Gen. i, 11, the same verb), may well show God’s after-appointment and arrangement.

Genesis ii, 4, should not be read without noticing that it may imply by the word “ generations ” (see v, 1, x, 1) more than one time. It is *not* “ when they were *created in the day*, ” etc. The comma, (preferably a semi-colon), indicates the two parts of the verse, the first associating “ the heavens and the earth ” with the word “ create ” without a time mark (lit : “ in their being, or having been, created ”), and the *latter* half, with the word “ made,” giving a time mark (“ day ”), inverting the order (“ earth and heavens ”) omitting the *article* (as in Gen. i, 8, 9, rather than verse i), and introducing, in *this* connection, the name LORD *for the first time* (in the inspired precision of the Divine Names in these sections), concerning Adam and the Lord God’s appointment to him.

These details are more than trivial, their very minuteness is the more significant : there is no parade, but a Divine harmony, only seen when the key is found.

Exodus xx, 11, is a difficulty only if, and when, we wrongly assume that “ make ” = “ create ”. *But* this ignores the perfect distinction of these very words in the Hebrew text. The six days are associated with the making, by the Holy Spirit, which is not synonymous with “ creation,” but may, as we have seen, follow. Hence not only is the difficulty removed, but the Holy Spirit’s deliberate choice of another verb may rather be confirmatory that we are on the right track.

Passages speaking of “ the beginning of the creation ” (Matt. xix, 4, Mark x, 6, see also John viii, 44) have been advanced to suggest there could not have been the creation of heaven and

earth before. But their context deals only with "man" (*cf.* Deut. iv, 32), and would rightly emphasize "the first man, Adam" (1 Cor. xv, 45). It is important to see that, though God is *from everlasting*, He gives us *little* information as to Himself ere the time of creating man, though referring to His covenant-redemption plan before the ages. That was no after-thought. In like manner, do not the prophets and the book of Revelation describe the Lord's kingdom on this earth, but speak little of conditions in "A new heaven and a new earth"? This may meet the objection that if Genesis i, 3-ii, 3, is not primeval creation we have *no* record of this. The *detail* here is appropriately of preparation for man, though, Genesis i, 1 and Job xxxviii do state that which God wishes us to know, ere Adam was formed.

Hebrews xi, 3, has been used as an objection, but it seems to the writer to be a Divine witness in support of the interval. What *Scriptural* authority at all have we for rendering *aiōnes* (aiōnes) by "worlds," or for the *plural* term "worlds" at all? *aiōn* (aiōn) is quite distinct from *kosmos* (kosmos). The only seeming support (Heb. i, 2) speaks fittingly, in a context dealing with "times" (1), of making the "ages." Making is not only material with God (Acts ii, 36): times and seasons are in His authority and appointment. An unsupported meaning for a word should not be introduced when the normal one suffices. Hebrews xi alludes to a "word" of God before Abel (verse 4)—no reference to man. In connexion with His work in nature God's first recorded word immediately follows Gen. i, 2, with exact fulfilment. An "age" plainly followed: this verse unveils an "age" before, and their fitting together. The word "framed" is apt, being employed of mending a net (Mark i, 19). In Hebrews the three "fittings" of x, 5, xi, 3, xiii, 21, are impressive, and ch. xi, 3, would corroborate God's language elsewhere. The added witness that things now seen did not "*become out from*" (there is no word "made") things which do appear would deny "e-volution" and ascribe all to HIS fiat, as in Psalm xxxiii, 9, and the terms "see," "appear" are appropriate to the command "Let there be *light*."

Let us now examine references which may enhance the probability of the rendering "become" and of the interval. God will not confuse but guide His children, redeemed by the blood of His beloved Son.

Isaiah xlvi, 18-19 contain the expressions "create," "without form," and "darkness." There is no doubt as to the allusion. Some have taken the words to mean God did not complete the work with "tohu," viewing that as a stepping stone. But the passage does not say this: the context does not seem to me to imply it. "Tohu" is ruled out from seeking Him (19) because he did not speak in darkness, but spoke righteousness. Should not "tohu" ("in vain," "without form,") be equally ruled out from His creative work? It seems in both verses to be associated with that which is judged. Whether we render (a) "To be inhabited He formed it," or (b) "For the sabbath," His work is contrasted with the desolation which "tohu" suggests—the more impressively when we remember Isaiah contains more than half its occurrences usually indicating reverse of initial blessing. If this verse were not in Scripture, and a commentary contained such allusions to the wording of Genesis i, would the writer's standpoint be viewed as quite doubtful?

What is the testimony of 2 Corinthians iv, 6? Plainly it is based on Genesis i, 3, "God, Who commanded the light to shine, out of the darkness, hath shined in our hearts." Rightly we emphasize "God," but this does not alter the fact that the darkness typifies the heart of one removed from God's glory. Such parallelism is not forced. To ignore would seem to make the full illustration void, or dim. We realize that God made man upright, even as in the beginning He "created the heavens and the earth." Then man was shut out from the garden, even as, we submit, the earth became desolate. Thus the references to "the *Spirit* of the Lord" (2 Cor. iii, 17-18) and to "the light of the gospel of the glory of Christ" are appropriate.

The order in Genesis reminds that when God's Spirit quickens a sinner, the weight of judgment is lifted. Then we enjoy light, and bring forth "fruit," the climax in both first and second *half* of the week (Gen. i, 11, 28). May His glory be central even in an exposition of this character, for knowledge is vain, unless the Holy Spirit's ministry of Christ leads to fruit, united with "abiding" in Him (John xv, 7), and with the obedience of love.

Does not Job xxxviii, 4-11 imply:—

- (a) There was *light* ("the morning stars") when God laid earth's foundations?

(b) The sea broke forth *afterwards*, and *darkness* then covered it (9) ?

To maintain that darkness subsisted before light appears out of harmony with all Scripture revelation. "I form the light, and create darkness" (Isa. xlvi, 7), occurs in a totally different context : but even there light is first.

Is any passage of Scripture exactly parallel with Psalm 104 ? It is a complete panorama. Beginning with God's personal glory (1, 2), before mentioning creation, it goes on, beyond the renewing of the face of this earth (30), to the closing judgments of 2 Peter, iii, 10, 11 (32), and, yet beyond, to the new heaven and new earth (35) "wherein dwelleth righteousness" (2 Pet. iii, 13). We have the heavens before the earth (2), light first (4), the subsequent covering of earth with the deep (6) next God's voice (7), and a *second* ascending of the deep (8, Gen. vii), followed *then* (and not till then) by a fixed bound (9) of which the rainbow is a covenant remembrance to this day.

If our enquiry unfolds the perfect harmony of "All Scripture," the glory belongs to its Divine Author.

**"AND THE EARTH WAS WITHOUT FORM
AND VOID."**

An Enquiry into the Exact Meaning of Genesis I, 2.

By F. F. BRUCE, M.A.

THE first three verses of Genesis run as follows in Hebrew :—

(1) *Be-reshith bara Elohim eth ha-shamayim we-eth ha-arets* : (2) *we-ha-arets hayethah tohu wa-bohu we-choshek al-pnē tehōm we-rūach Elohim merachepheth al-pnē ha-mayim* : (3) *wayyōmer Elohim "yehi ör" wa-yehi ör.*

The question before us is whether (a) "ver. 2 implies the occurrence of some change of catastrophic order subsequent to creation, and that the earth had become 'without form and void,'" or (b) "ver. 2 merely defines the condition of the earth at its creation." The terms of reference prescribe a strictly linguistic discussion, excluding all considerations of the relation between these verses and theological or natural science.

If, as the former alternative maintains, ver. 2 indicated an event subsequent to the creation of ver. 1, we might have expected a text differing from the actual one in two respects : (1) "*waw consecutive*" with the imperfect tense instead of "*waw copulative*" with the perfect (i.e., *wattehi ha-arets* instead of *we-ha-arets hayethah*), and (2) the preposition *le* before *tohu wa-bohu*, if the verb in this clause really has the meaning "became," as some hold. *Wattehi ha-arets le-tohu wa-bohu* would certainly mean that, after the creation of ver. 1, "the earth became waste and emptiness"; but the construction which we do find implies more naturally something quite different, namely, alternative (b).

The construction of ver. 1 must itself be examined. "The verse gives a summary of the description which follows, stating the broad general fact of the creation of the universe; the details of the process then form the subject of the rest of the chapter." So writes S. R. Driver in his volume on Genesis in the Westminster Commentaries, but he mentions in a footnote that many modern scholars, following the Jewish scholars Rashi (1040–1105) and Ibn Ezra (1092–1167), make ver. 1 a note of

time relating to what follows. Robert Young *, following Ibn Ezra and Grotius, makes ver. 1 subordinate to ver. 2, thus : "In the beginning of God's preparing the heavens and the earth, the earth then has existed waste and void . . ." ; but Dillmann and most modern scholars who thus subordinate ver. 1, following Rashi, make ver. 2 a parenthesis and ver. 3 the principal clause, thus : "In the beginning of God's creating the heaven and the earth (now the earth was waste and emptiness, and darkness on the face of the deep, and the Spirit of God hovering on the face of the water), †God said 'Let there be light,' and there was light." This perfectly legitimate way of taking these verses is powerfully supported by the fact that the noun *reshith* ("beginning") is regularly in the construct state, i.e., the state which a noun assumes when it is followed by a genitive. The present writer is almost persuaded that this is the true construction here, after conversations on the matter with his colleague Dr. S. Rawidowicz, Lecturer in Hebrew in Leeds University and Editor of *Metsudah*. Rashi reads the verb in ver. 1 as *berô* (infinitive) instead of *bara* (perfect), but this is unnecessary, for there are several OT passages where a noun in the construct state is followed by a clause as its genitive (*cf.* A. B. Davidson, *Hebrew Syntax* § 25, where some 35 instances are referred to). J. Skinner (International Critical Commentary, *ad loc.*) is favourable to Rashi's construction, though he does not reject the view that ver. 1 is an introductory statement summarizing the creative work described in fuller detail in the rest of the chapter : "a decision is difficult," he says, and "it is necessary to leave the alternative open."‡

* *Concise Commentary on the Holy Bible*, p. 1; cf. his *Literal Translation of the Bible*, p. 1.

† The "waw consecutive" in *wayyōmer* (and-said) after the time-note in ver. 1 is necessarily left untranslated in English; *cf.* Gen. xxii, 4, lit., "On the third day *and* Abraham lifted-up his eyes"; Isa. vi, 1, lit., "In the year of King Uzziah's death *and* I saw the Lord" (*cf.* Davidson, *Hebrew Syntax*, §50).

‡ Skinner adds in a footnote on p. 14: "The view that ver. 1. describes an earlier creation of heaven and earth, which were reduced to chaos and then re-fashioned, needs no refutation"—an excessively cavalier dismissal of a view which (improbable as it is in my view) has been supported by men of the calibre of E. B. Pusey (*Lectures on Daniel*, 3rd ed., pp. xviii-xxi), H. P. Liddon (*Explanatory Analysis of Romans*, p. 103), W. Kelly (*In the Beginning*, 1894, pp. 5-23), and G. H. Pember (*Earth's Earliest Ages*, 15th ed., pp. 27-33). It received more fitting respect from Franz Delitzsch, whose arguments against it are given in his *New Commentary on Genesis*, Eng. tr., pp. 79 f.

Ver. 2 is what is called a “circumstantial clause,” expressing the circumstances concomitant to the principal statement. As for the particular kind of circumstantial clause which we have here, “the noun-clause connected by *waw copulative* to a verbal-clause, or its equivalent, always describes a state *contemporaneous* with the principal action” (Gesenius-Kautzsch, *Hebrew Grammar*, Eng. tr., §141 e). Such a clause need not have the verb “to be” expressed, but sometimes it has, as here (*hayethah*) ; another instance is Jonah iii, 3b : *we-Ninweh hayethah ir gedolah l'Elohim* (lit., “and Nineveh was a city great to God”). This clause is obviously not one of a succession of incidents ; it describes the circumstances under which the principal action—Jonah’s rising and going to Nineveh—took place. It is grammatically on all fours with Gen, i, 2, and if Gen. i, 2, means that the earth *became* waste and emptiness *after* God created it, then Jonah iii, 3b, should mean that Nineveh *became* an exceeding great city *after* Jonah went to it.

The words *tohu wa-bohu* require further consideration. From the occurrence of *tohu* in Isa. xlvi, 18, it is frequently inferred that if God did not create the earth *tohu*, then its appearance in this condition in Gen. i, 2 must be later than its creation in Gen. i, 1. This would follow only if *tohu* had the same meaning in both places. But the context in Isa. xlvi, 18 shows that here *tohu* is an adverbial accusative (“in vain”, “for nothing”) ; it was not to no purpose (*tohu*) that God created the earth, but with a definite aim in view—namely, to be inhabited. The same adverbial force of *tohu* re-appears in the next verse : “I said not unto the seed of Jacob, Seek ye Me *in vain*.” The meaning of *tohu* in Gen. i, 2 does not fit the context of these two verses in Isa. xlvi. More relevant to Gen. i, 2 are the two other places in OT where *tohu* and *bohu* occur together, Isa. xxxiv, 11, and Jer. iv, 23. The former passage predicts the desolation of the land of Edom, a desolation comparable with the state of the earth described in Gen. i, 2 ; while in the latter Jeremiah has a vision of the earth reverting to its pristine condition of waste and emptiness. So Skinner (*loc. cit.*) speaks of “Jeremiah’s vision of Chaos-come-again . . . , which is simply that of a darkened and devastated earth, from which life and order have fled” (this last clause, of course, is intended by Skinner to apply only to Jeremiah’s Chaos-come-again, and not to Gen. i, 2). The idea in Gen. i, 2, he continues, “is probably similar, with this

difference, that the distinction of land and sea is effaced, and the earth, which is the subject of the sentence, must be understood as the amorphous water mass in which the elements of the future land and sea were commingled " (p. 17).

In fine, whether we regard ver. 1 as an independent statement or as a subordinate clause of time, the meaning of ver. 2 is that when God began to make the universe, the world was in an unorganized state. In other words, the raw material was first brought into being, and the rest of the chapter tells how the raw material was organized into the ordered world so aptly denoted by the Greek word *kosmos*. The reference thus far is only to the universe of matter; for the later production of living beings to populate the earth fresh acts of creation were necessary (*cf.* Gen. i, 21, 27).

WRITTEN COMMUNICATIONS.

Mr. E. H. BETTS wrote: It is with extreme diffidence that I, having no qualifications beyond a rooted interest in the subject, submit the following points for consideration by the authors of the two papers.

The verb might have been omitted altogether in Gen. i, 2a (as it actually is omitted in 2b). That would have made the verse contemporaneous with v. 1. *Waw* consecutive followed by the imperfect would, undeniably, have made v. 2 subsequent to but also linked in continuous narrative with v. 1. The writer of Genesis avoided both these constructions. The form of verb chosen, *viz.*, the perfect, preceded by its subject with *waw* copulative, indicates past time *not linked in continuous narrative with the perfect of v. 1*, and we are free, therefore, to understand of it any past time, and so, if required from external considerations, past time far subsequent to that of v. 1.

We can admit that v. 2 is a "circumstantial clause," but not that it is necessarily circumstantial to v. 1. Indeed Delitzsch says, in dealing with v. 2, "The perfect thus preceded by its subject is the usual way of stating the circumstances under which a following narrative takes place, iii, 1; iv, 1; xviii, 17-20; Num. xxxii, 1; Judg. xi, 1, vi, 33; 1 Kings i, 1 sqq.; Prov. iv, 3 sq.; Zech.

iii, 3 sq.” (*New Com. Gen. Eng. Tr.*, Vol. I, p. 77.) A following narrative, be it noted. And such a construction we have in Jonah iii, 3b. I submit that here 3b is much more closely linked with 4 and 5 *et seq.* than with 3a. It describes, not the circumstances of Jonah’s rising and *going to Nineveh*, but the circumstances, *viz.*, a city of “three days’ journey,” under which an entry of “one day’s journey,” with preaching, was effective in producing repentance. Further to be noted as to Jonah iii, 3b, is the fact that the rendering “became” for *hayethah* is forbidden by *the context* and not by the grammar. In Gen. i, 2, it is not thus forbidden by the context and some such translation remains allowable. “Became” needs guarding however. It must be understood to mean simply “was (at a subsequent time),” and the verse must not be taken to imply, though it may allow, process of decay, or action, but only condition in the past time of v. 2, circumstancing Elohim’s speaking of v. 3.

As to the various translations which subordinate v. 1, in addition to obvious objections, we have Delitzsch’s damaging confession : “We must admit that the language proceeds paratactically. The sole ground for the periodizing construction is that *bereshith* requires a nearer genitive definition, and that without such it must rather have been, instead of *bereshith*, *bareshith*, as it is transcribed in Greek *bareseth* (Lagarde, etc.), although even then the *a* may be but a disguised sheva.” (*New Com. Gen. Eng. Tr.*, Vol. I, p. 75.)

The only other passages in which *tohu* and *bohu* occur together (Is. xxxiv, 11 and Jer. iv, 23) strongly indicate that *tohu wa-bohu* connotes a descent to ruin from former order. Mr. Bruce observes the closeness of the analogy as drawn by Skinner, between Jer. iv and Gen. i. If order, once reigning, had fled in Jeremiah’s vision, it may equally well have done so in Gen. i, 2.

Air Commodore WISEMAN wrote : After carefully considering both these papers I find that I cannot but agree with Mr. Bruce (and the translators of the A.V., the R.V. as well as with the overwhelming majority of Hebrew scholars) that the word “was” accurately expresses the meaning of the Hebrew.

In regard to the use of the Hebrew word translated “and”,

it is the simple Hebrew conjunction and it cannot be used as the equivalent of "in contrast to." Can it therefore possibly be correct to emphasize as Mr. Heward does, its use in this instance as a separating word?

The assumption that v. 1 is a statement of a completed creation all finished prior to verses 3 to 31 involves the further supposition—and this is its weakest point—that v. 2 refers to a destruction of an ordered and tenanted earth, that is the opposites of "*tohu wa bohu*." Scripture says nothing of such a destruction, neither does the Bible in all its references to creation, ever suggest that there were two separate and distinct creations, a creation and a recreation.

Is it not strange that the advocates of this theory suggest that while the interval was an immensely long period, an age, yet on page 19 there should be a reference by Mr. Heward to the "second half of the week"? The word week is not an expression used in Gen. i.

Does not Mr. Heward imply that the word "darkness" means a condition created by some power opposed to God? (Incidentally is not this the theosophic and pagan view?) I suggest that Psalm civ, 20, "Thou makest darkness and it is night" negatives this idea (see also Deut. v, 23 and Is. xlvi, 3). In all these verses the same Hebrew word for darkness is used as is employed in Gen. i, 2. There is a further reference in Psalm civ to Gen. i, 2, not touched upon in the penultimate paragraph of Mr. Heward's paper. And does not the use of the same Hebrew word for "deep" in v. 6, as a creative work of God, imply that the condition described in v. 2 is also a part of God's work?

Do I understand Mr. Heward rightly that he intends to refer to Heb. x, 5, xi, 3 and xiii, 21, as if they were all equivalent to "mending"? Can this possibly be the meaning in regard to the body of the Lord?

Mr. Heward says of v. 2 "This verse unveils an age before." This is very difficult to understand seeing that elsewhere in his paper he endeavours to explain why Scripture never in any other passage unveils any such thing. Is it right to build up a theory of a tremendous "happening" such as this having been deliberately left out of the account, yet the knowledge of which is (according

to paper number one) vitally necessary to the understanding of Gen. i, 2 ?

I agree with Mr. Heward in his remark that many have assumed that the word "make" in Exod. xx, 2, is the equivalent of "create." I submit that it is here that the mistake has been made by commentators, and it is I believe, the key to the solution of the difficulties of the "days" of Gen. i, but this is too lengthy a subject to discuss here, I have already written at length on it, and intend to publish it elsewhere.

Mr. DOUGLAS DEWAR wrote : I am glad that the VICTORIA INSTITUTE has arranged this discussion and I hope it will be published as a brochure immediately after it is completed, because I know of no document in which are set forth fully the views of those who accept and those who reject what is commonly called the "gap theory". I feel that there is a great need for such a document.

It seems to me that Mr. Heward's interpretation of the second verse of Genesis is the correct one. A point against the other interpretation is that it necessitates a noun being turned into an adverb (Is. xlv, 18.) The whole structure of the first chapter appears to support Mr. Heward's belief. If the narrative refers to a single continuous series of events, it is difficult to account for the great difference between the phraseology of vv. 1 and 2 on the one hand, and the rest of the chapter on the other. Why does v. 3 not run : " And God created light and divided the light from the darkness " ? or conversely why does not the first verse contain the command : " Let there be heaven " ? The answer which suggests itself is that the creative acts recorded in Gen. i, do not form an unbroken series, but that in the beginning God created the heaven and the earth out of nothing ; that later the earth became waste and all life on it was destroyed, and that the remainder of the chapter describes how God utilized the materials He had already created to recondition the earth and to bring into being new living organisms.

Not only does v. 1 contain no command, but v. 2 does not say that the heaven and the earth were "good" : on the contrary

it says that the earth was "without form and void and darkness was on the face of the deep." These words seem to describe a scene of desolation.

Dr. A. L. Higley gives, in his *Science and Truth*, published in 1940 by the Fleming H. Revell Company, New York, what seem to me to be good reasons for the view that v. 2 records destruction. This he believes was the consequence of the wickedness of those, whether angels or other responsible beings, to whom was given dominion over the rest of creation. In support of the view that vv. 3 and onwards describe a process of restoration and re-creation, he points out, *inter alia*, that the command "Let the earth bring forth grass, the herb yielding seed and the tree yielding fruit" strongly suggests that plants of these kinds formed part of a creation that was destroyed.

Thus there seems to be nothing in Genesis opposed to the view that the earth has been in existence during an immense stretch of time, or to the theory that there was at least one creation of living organisms before that of those now inhabiting the earth.

Lt.-Col. L. M. DAVIES wrote : As Skinner says, the words *tohu* and *bohu* are NOUNS (*Crit. Exeget. Comm. Gen.*, p. 16); and since our English noun "worthlessness" fits all the contexts of *tohu* fairly well, it may be a passable equivalent for *tohu*. I see that Mr. Bruce, like myself, renders *bohu* by our noun "emptiness."

I question Mr. Bruce's idea that Jonah iii, 3b supports his rendering of Gen. i, 2. He himself admits that Nineveh's greatness was not due to Jonah's visit; so any grammatical parallelism actually indicates that the state of the earth in Gen. i, 2 was no more produced by the creation in the preceding verse, than the state of Nineveh was produced by Jonah's visit. Thus :

Gen. i, 2 : "And/Now the earth was/had* become (as) worthlessness and emptiness" ;

Jonah iii, 3b : "And/Now Nineveh was/had become (as) a city great to God."

* The Rev. J. I. Munro uses the Pluperfect here (*Trans. Vict. Inst.*, Vol. XLVI, 1914, pp. 151-2).

I emphatically deny that the context of Is. xlv, 18, justifies treating a noun as an adverb. The passage can surely be rendered : “ He created it not (as) worthlessness ; He formed it to be inhabited ” ; and the later words could equally be rendered : v. 19 : “ I said not . . . Seek ye Me (as) worthlessness.”*

Skinner’s (also Driver’s and Delitzsch’s) talk of “ reverting ” to a “ primitive state ” itself invites doubt whether that state was ever really primitive. The picture of a ruined earth once inhabited by man is hardly “ primitive.” Yet *tohu va-bohu* expressly suits it ; while *tohu* habitually appears as a term of extreme disparagement.†

Mr. Bruce frankly admits that good judges like Pusey, Liddon, Kelly and Pember supported the restoration view. Even Driver called it “exegetically admissible” (*Book of Genesis*, p. 22); and Professor T. Jollie Smith, who also disliked that view, wrote to me saying “I think that vv. 1 and 2 in Gen. i may legitimately be separated. . . . *Hayah* does generally mean ‘became’ or ‘came to pass’ . . . Its use as a mere copulative is most extraordinary” (letter of August 23rd, 1923).

Mr. THOMAS FITZGERALD wrote : I would suggest that there need be no objection to retaining the translation “was,” so long as the Hebrew idiom is understood. This applies to English and Hebrew. We might write “W. E. Gladstone was an Englishman.” His friend Harcourt might write “When I called on Gladstone, he was ill.” A stranger to English might be perplexed as to the meaning of “was” in these statements, unless he understood the different uses of the verb and the English idiom. Gladstone was born an Englishman and was always an Englishman, but he was not always ill. He became ill, and consequently he was ill when Harcourt called.

* Cf. Driver’s rendering : “ I said not, Seek ye me as a *tohu* ” (*Book of Genesis*, p. 4). “ In vain ” is a gloss, obscuring the more significant wording.

† Cf. Job, xxxviii, 4-7. Did the Sons of God shout for joy over chaos ? Or the morning stars sing together—without spoiling the darkness by shining before their own creation ?

Major R. B. WITHERS wrote that after the clear objective words of v. 1, the vague—indeed meaningless—“without form” is most unsatisfactory and demands revision.

Mr. W. M. POWELL wrote: The idea in 2 Cor. iv, 6, like all other metaphors must not be pressed too far or made to show what was not intended. That Man’s heart had become a place of “darkness” through Sin, or through God’s presence and light being withdrawn, into which darkness God shines when the Sinner repents and turns to Him can by no possibility be made to show that this material earth, without volition or will power, other than God’s, to move it, had fallen into chaos, or that God had reversed His creative work and destroyed it. I entirely agree with Mr. Bruce in all his conclusions.

Mr. W. A. NUNN wrote: The subject has been well covered linguistically by both papers, and the two opposite views ably presented.

In the few passages such as Is. xlvi, 18, 19, the Hebrew words dealt with are very rare, and apparently caused the translators considerable difficulty, and should not be pressed as interpreting Gen. i, 2.

There seems very little can be added to the arguments already stated. I would, however, submit the following citations.

Thomas Newberry, in the Introduction to his Bible, dealing with the Hebrew tenses, says of this verse:

“And the Earth was without form.”

“‘was’ is also the short tense.”

“It was at that precise time.”

Rev. Stanley Leathes, D.D., Professor of Hebrew, King’s College, in his Grammatical Analysis of Gen. i (p. 191) (v. 2) “And the earth ‘was’—from root ‘He was’—‘was’, verb third person singular, past tense.”

Then (p. 147), on Construction of Sentences:—“If the subject is emphatic, the noun will precede the verb. Hence also the position of the nominative in Gen. i, 2.” “And the ‘earth,’ it

‘ was ’ waste and desolate.” The emphasis then must be on the earth.

I understand that *Hayah* translated “ was ” correctly in Gen. i, 2, with the Accusative Case takes the force of “ became,” as in Gen. xix, 26 : “ She ‘ became ’ a pillar of salt.”

Mr. TITTERINGTON wrote : The Institute is to be congratulated on originating this symposium ; and its restriction to the linguistic aspect of the problem should be most valuable, whatever the resultant outcome of the discussion. Perhaps at some future date it may be possible to follow with a further symposium dealing with the scientific aspect.

The quotation from Genesis on page 23 of Mr. Bruce’s paper is a hard nut to crack and it would be interesting to know if there is any answer to it. If not it would seem to settle the question once for all.

I find it very difficult however to accept Mr. Bruce’s reading of the two verses Gen. i, 1-2. My objection is not based so much on the grammar, on which I am not competent to speak (though I do not know why *reshith* should be regarded as being in the construct state), as on consideration of style. The construction suggested would seem to be altogether out of harmony with the direct narrative style of the context, and I cannot believe that even a secular writer of any literary feeling would have allowed himself to begin a work with a sentence like this. The point does not appear to me at all necessary to Mr. Bruce’s argument, which I think it does much to weaken.

AUTHOR’S REPLY.

Mr. P. W. HEWARD : Welcoming the helpful criticisms, may I summarize and annotate ?

1. “ And.” (a) Why not “ *waw* ” consecutive ? Not expected when there is a *fresh*, distinct statement or section, e.g., Jud. vi, 33, 1 Kings xiv, 30, xv, 6.

(b) The quotation from Genesis (*waw* copulative contemporaneous) is only a half-truth : it *assumes* a certain dependence in the added clause. But this is not always the case ; *waw* may also introduce a new paragraph, as 1 Kings i, 1, at the very beginning of a book, not contemporaneous with or dependent on 2 Sam. xxiv, 25. We may also notice the other references given from Delitzsch, and 1 Kings x, 1, xx, 1 ; 2 Kings iv, 1, v, 1.

(c) "It cannot be used as the equivalent of 'in contrast to'." *But it is* : Gen. ii, 17, vi, 8, xlvi, 10b ; Eccles. vii, 29 ; Is. lxiii, 10 (and even *waw* conversive, Deut. xxxii, 15). The *context* surely indicates the meaning. Generalizing almost always hinders true accuracy.

(d) Regarding Jon. iii, 3b, is it parallel ?

(i) The association with the *succeeding* context has been helpfully demonstrated.

(ii) Only if the preceding sentence had spoken of one building Nineveh would there be a similarity of subject.

2. *Le* with *Hayah* for "become" is not necessary in the Hebrew of Scripture ; Gen. xix, 26, Ex. vii, 19 may suffice to illustrate.

3. *Reshit*—a proposal of *construct*.

(a) The construct *cannot* be viewed as *constant* in view of Lev. ii, 12, Deut. xxxiii, 21, Is. xlvi, 10.

(b) There is *no* case of *reshith* followed by a clause as its genitive.

(c) Is there not a danger in assuming the unusual if the straightforward grammatical sequence is suitable ?

4. The claim that Scripture says "nothing of such a destruction."

(a) This claim is questionable : The omission of *details* is quite different.

(b) Limited information is in full accord with the standpoint, and object, of Holy Scripture, namely, to make us wise unto salvation (2 Tim. iii, 15) : many things are not yet revealed.

(c) May we not compare Satan's fall, implied in Gen. iii, 1, but not detailed?

(d) The new heavens and new earth are mentioned in Is. lxv, 17, xlvi, 22, Rev. xxi, 1, but most conditions therein are designedly omitted (likewise "the ages to come" for God's redeemed, in Eph. ii, 7, are not explained).

(e) God is "from everlasting" but how little is said of His glory in the past, apart from the preparation for His dealings with men (Eph. i, 4, 2 Tim. i, 9).

5. My reference to an "age" respecting Gen. i, 2, and a "week" in Gen. i, 3 to ii, 4, has been questioned.

We have seven days in the latter and they *are* a week, and the Holy Spirit's language in Heb. xi, 3, implies a previous "age."

6. "Darkness." I am deeply grateful for criticism calling attention to a very possible misunderstanding of one sentence ("nor is it said to be made by God"). I had *no* thought of "a condition created by some power opposed to God," but of *God's* judgment, and in *this* sense certainly made by Him—the reverse of the pagan view, which I abhor, as utterly unscriptural. The passages cited too are helpful but seem to confirm the thought of judgment—for Deut. v, 23 illustrates Ps. xcvi, 2, and God's veiling of Himself from sinful men; Ps. civ, 20, 21, implies "death" (prey), and Is. xlv, 3, a victory over foes, laid low by God. None deal with pristine glory. All remind of God's holy dealings after sin has involved separation from Him, death and conflict.

7. Ps. civ, 6. Is not the "deep" viewed as subsequent to the foundation of the earth (5), and are not the waters removed by "rebuke" (7) suggestive of judgment?

8. "Fitting together" and Heb. xi, 3. Is not "mending" only mentioned as *one* mode in one case? The body prepared for the Lord Jesus is by no means linked with this word: but surely it was "fitted together." That is the point, so there must have been a prior "age" to cause fitting together of "ages."

9. Is. xlv, 18, 19. Nothing said would invalidate the suggestion that *tohu* (in both verses) seems contrasted with that which has God's approval, and that other references to *tohu* (and *bohu*) confirm this.

10. Is. 2 Cor. iv, 6 overstressed ? It seems to me we can hardly be pressing too far to emphasize that the parallel which God Himself has indicated is most suitable if the darkness is in both cases one of judgment. Would it be so appropriate if in one case it were a primitive appointment ? The reference to the Spirit of God removing the veil in the context (iii, 15-18) seems corroborative and spiritually helpful. God's unfailing of the *Way of Salvation* in the very opening page of Holy Scripture, illustrates, even as the type of Adam and his wife, His full prophetic inspiration of the Old Testament with a view to the New, and His purpose of grace and redemption as the central theme of the one complete Book.

AUTHOR'S REPLY.

Mr. F. F. BRUCE : The correspondence on the interpretation of Gen. i, 2, has been interesting and helpful.

Of the relation between Natural Science and the narrative of Gen. i, I am, to my loss, quite incompetent to say anything ; but this relation is, by the terms of reference, excluded from the present discussion. So also is the theological bearing of this scripture, but (as the correspondence makes very plain) it is difficult to keep the Queen of Sciences out of any discussion, especially one conducted under the auspices of the VICTORIA INSTITUTE !

I am fully conscious of the *theological* attractiveness of the gap theory. It fits in so well with the viewpoint expressed in our day by Stephen Hobhouse and Arthur Hopkinson—a viewpoint going back through William Law and Jacob Boehme to the Early Fathers, especially Origen—which postulates a Creation and Fall (the Fall of the Angels) anterior to the Creation and Fall of Gen. i-iii. This “myth” (in the strictly technical sense of the word) of a prior Creation and Fall contains features of instructiveness and value, and can be suggestively correlated with the doctrine of a cosmic fall as propounded by N. P. Williams and Peter Green ; but we

must not read it into the second verse of Genesis unless we find that the plain grammatical sense of that verse implies it. We must not interpret Scripture so as to make it fit in with our *theologoumena*, but base our *theologoumena* in the grammatico-historical exegesis of Scripture. Incidentally, many of our commonest *theologoumena* with regard to the Creation and Fall are unconsciously, but potently, influenced by Milton's *Paradise Lost*, and in thinking about these subjects we must make allowance for this influence, the effects of which have not been uniformly happy.

Whatever be the truth in the views referred to, we must make an effort (as, indeed, I myself have found it necessary to do) to lay aside theological preferences and examine the grammatical sense of our Hebrew text. As a philologist, I see no reason, after reading the contributions to our discussion, to modify my earlier statement. What the Germans call *Sprachgefühl* is an important consideration in an argument of this kind ; and I am encouraged in my opinion by my colleague already referred to, probably the greatest living Hebrew stylist, who assures me that the interpretation which I have undertaken to support accords with the natural sense of the wording, as it appeals to the ear of a native Hebrew speaker, even when one makes allowance for the differences between Biblical and Modern Hebrew.

But, to particularize, I may be permitted to add the following notes :—

(1) I do not press the interpretation of *reshith* as construct. This is not essential to the main argument. But as some 45 out of the 50 occurrences of *reshith* in the Old Testament govern a genitive, its use in the absolute state is the exception rather than the rule.

(2) To be sure, the preposition *le* may be omitted after the verb *hayah* when the sense “ become ” is obviously demanded by the context, in Gen. xix, 26, Ex. vii, 19. But this sense is not obviously demanded in Gen. i, 2, so that here we should expect the addition of *le* if the meaning of *hayethah* were indeed “ became.”

(3) As the Greek verb “ to be ” (*eimi*) has no aorist of its own, the defect is frequently supplied by the use of the aorist of *ginomai*,

which accordingly we sometimes find in the Septuagint and New Testament in the sense "was" rather than "became."

(4) It is no argument against the interpretation I have suggested for Is. xlvi, 18, to say that it necessitates taking a noun in an adverbial sense. Most adverbs in Hebrew (and in Greek, Latin, and some other languages as well) are primarily nouns. We may, if we please, translate *tohu* in this verse by the one adverbial phrase "as worthlessness" instead of by the other adverbial phrase "in vain"; but the following words "He formed it to be inhabited," show in what sense we are to understand either the one adverbial phrase or the other, whichever we prefer as a rendering of *tohu* here.

(5) That the quotation from Gesenius-Kautzsch cannot apply where an entirely new section is introduced by *waw copulative* (as in 1 Kings i, 1, x, 1, xx, 1, etc.) should go without saying. The quotation is no half-truth; the words, "connected by *waw copulative* to a verbal-clause, or its equivalent," cannot apply to the first clause in a section, but they apply most appropriately when the noun-clause in question is the second clause in a section, as is the case with the clause we are considering.

(6) This brings us to the parallel in Jonah iii, 3b. That this clause is linked in subject-matter with what follows is as obvious as that Gen. i, 2a is linked in subject-matter with what follows. But this is not the point. Grammatically Jonah iii, 3b, bears the same relation to what precedes as Gen. i, 2a bears to what precedes. I said nothing about Nineveh's greatness being or not being *due* to Jonah's visit, just as I said nothing about *tohu wa-bohu* being or not being *due* to the event of Gen. i, 1. My question was one of *post hoc*, not of *propter hoc*. Jonah iii, 3b, let me repeat, "is grammatically on all fours with Gen. i, 2, and if Gen. i, 2, means that the earth *became* waste and emptiness *after* God created it then Jonah iii, 3b should mean that Nineveh *became* an exceeding great city *after* Jonah went to it."

(7) The grammatical structure of Gen. i, 2, is independent of the interpretation of Job xxxviii, 4-7. The latter is in the grand poetic

style, and highly metaphorical; the former (I judge) is prose, even if it be stately, schematic and pictographic prose. The morning stars, we may infer from the parallelism with "sons of God," were not the material stars but their angels, who discerned in the raw material of creation the shape of things to come. If we wish to take the words literally, however, the morning stars may well have shone while the earth had not yet emerged from the condition described in Gen. i, 2. Gen. i, 16-18 need not relate the *creation* of the stars. There is the further consideration that, in the Septuagint, Job. xxxviii, 7, reads: "When the stars came into being, all my angels praised me with a loud voice." But I do not think that this has much bearing on the subject of our discussion.

(8) As Heb. xi, 3 has been mentioned in the course of the discussion, I may say that I take the plural of *aion* in this verse and in Heb. i, 2, to denote comprehensively the universe of space and time, so that these verses give but little guidance in interpreting the *details* of Gen. i, 2 ff.

In conclusion, I wish to express my personal gratitude to the contributors to the discussion, and not least to the protagonist for the other view. I trust I shall not be considered lacking in modesty for hoping that he and his supporters have learned as much from the case which I have been invited to conduct as I have learned from theirs. And it is certain that readers of the discussion will derive more help from the juxtaposition of the two cases than they would from the uncontested exposition of the one or the other alone.

(This paper was not read before the Institute, but was circulated in proof form).

FAITH AND REASON.

By J. E. BEST, PH.D., B.Sc.

INTRODUCTION.

IN this paper I wish to bring together certain facts and ideas, and in doing so I have the object of presenting through them as a medium a fair picture of my subject, "Faith and Reason." The picture is not altogether an ordinary one, for it sets out two aspects. In one of them the view is mainly from an historical and psychological standpoint. In the other it is more from a philosophical standpoint. Corresponding to these aspects the paper falls naturally into two parts. The first is concerned largely with clashes of personality and with clashes that may occur within the personality of one individual. The second part treats the matter more after the manner of analytical philosophy and regards faith and reason as two independent means of access to truth, different in their nature and in what they can achieve, but having a proper function of mutual co-operation.

I. The Historical and Psychological Aspect.

That "Faith is that faculty we possess by which we believe what we know to be untrue" is a "chestnut" I would not reproduce if it did not epitomize so neatly one particular and important point I wish to make. Of course taken literally the definition is absurd. That is why it is able to appeal to our humour. Yet it builds on an unfortunate fact, that rational thought on the one hand and belief on the other have all too often stood in mutual opposition. Their antagonism is regarded as traditional. Before, however, I deal with any details of this antagonism I think it of value to make certain issues more clear. By "rational thought" for instance I do not mean that kind of thinking often termed "rationalist." This thinking is thinking

with an axe to grind. It wants simply to abolish religion. At heart it is not rational at all. Its drive primarily is emotional. I am, however, intending to refer to a kind of thinking that is not inspired by an emotional bias but is careful, that is distinctively consequential, that has the one aim of arriving at the truth and is not daunted by the possibility of mistakes by the way. This is not to be taken as any definition of the "pure reason" with which I shall be concerned in the second part of this paper. It is meant to convey, as well as I am able in a few words, what I have in mind when I speak here of rational thought. Then there is "belief." It is possible to mean many things by this term. There is the belief, or faith, which is the common everyday reliance on persons and things, something *far* more frequent than rational thought. And then there is something on a higher level, which is more rare, but which when it exists, can have greater effect still in everyday living. This is belief that is less superficial, that grasps the more ultimate. It includes religious belief. Among other things it includes political belief. As compared with the belief which is everyday trust it is by far the more variously graded. With a certain few individuals it is characterized by the clarity of vision. With a greater number it is held largely on the authority of those who "see" more distinctly. And with certain others it seems to be held for little more reason than that they have never troubled to think whether anything else could possibly be true. Disregarding, therefore, the lower level of belief which makes up so much of common experience, it will be more apparent what I am meaning by belief when I refer it to the age-old struggle between faith and reason.

As a very early instance of this struggle it is of true interest to outline the circumstances attending the death of Socrates. Socrates was more than a great philosopher, at least as we understand the term to-day. He held himself to be entrusted with a highly special mission to mankind. This mission was to direct men into the pathway of goodness. He believed it to be laid on him as a duty by God, and he insisted upon it at his trial. He was, he said, an envoy from God. Rather than be false to this duty he chose death. As a philosopher, of course, there is equally no doubt of his greatness. It was his philosophy that Christian doctrine was to find so natural to its expression in the centuries to come. He was certainly the most righteous and the wisest man of his day. However he subjected to the

criticism of reason the ethics and the traditional religious beliefs of his time, and this criticism proved intolerable to his fellows. He was charged with "corruption of the young" and moreover with "neglect of the gods when the city worships, and the practice of religious novelties," and by a majority he was condemned to death. This was the penalty for assailing with rational thought the beliefs of a great civilization.

The story marks out what may be regarded as the beginning of the as yet unterminated battle between religion and philosophy. But if it is unhappy, at least it is inspiring. It is not so easy to perceive this redeeming feature in later aspects of the struggle. Listen to the battle in early Christian times. Tertullian is hurling his defiance at this never-too-greatly-to-be-detested reason. He is deriding its essence. "Because it is impossible," he declares, "therefore I believe." He rejoices in regarding his faith as irrational, and if, that being so, philosophy cannot accept it, well then! so much the worse for philosophy! But if at one time he feels so much its victor that he can deride this philosophy to its face, at others he feels the need for more serious denunciation. "It is this philosophy," he bitterly complains, "which is the subject matter of this world's wisdom, that rash interpreter of the divine nature and order. In fact, heresies are themselves prompted by philosophy. . . . Wretched Aristotle! . . . What is there in common between Athens and Jerusalem?" Since Tertullian there have been other champions, Calvin, for instance, and Barth. It was Calvin who held that reason by itself could provide man with no certain knowledge at all. Moreover, not merely that, but that man's thoughts of God aided solely by reason are not just imperfect, they are altogether false. And to-day Barth employs reason in the service of dogma, but dogma is an aristocrat and reason is only a poor serf who has to toil and moil on the aristocratic fields, whose lot it is to be ridden down—without a prick of conscience—should he stand in the way of the aristocratic coach.

Now it is expressing it a little tamely to say that it seems in this struggle that rational thought has been treated unjustly. The attitude of man taking a stand upon the ground of faith in opposition to reason has sometimes been wickedly wrong. Socrates is not an isolated figure in a dim past. A Christian abbot has had only to expound a rational denial of the doctrine of transubstantiation to be pulled limb from limb by his brother

Christians. And if at times the treatment has been wicked at others it has been simply ridiculous. Instinctively one seeks for some explanation. Why should things be thus? When one reads Karl Barth, for instance, one cannot fail to see a man with a wide grasp and firm hold of Christian truth. But then, when he is faced with a logical contradiction between two dogmas, one finds he is able to brush the difficulty on one side with the lightest of unconcern. To him the truth of neither dogma is affected. If there is any fault to be found, it is logic that must take the blame. The impression naturally created upon intelligent non-Christians is deplorable. At least the position is most unsatisfactory. How does it come about? I think there is a clue that will suggest an answer. It is common to find in Barthian writing a very liberal use of exaggeration. This makes his meaning often hard to ascertain, because it follows that his ideas become conveyed with a corresponding lack of precision. Exposition in this manner, I need hardly say, is repugnant to any man of developed logical sensibilities. But Barth will use even blatant contradictions in the attempt to express his thoughts. Can one by any stretch of imagination hear Kant elucidating himself as a matter of course in terms of "impossible possibilities"? Thus I find it hard to escape the conclusion that for Barth and others like him the significance of reason has scarcely dawned. Like Calvin he towers as a giant in spiritual insight, but equally like Calvin he is a babe in matters of analysis.

This brings us to an issue of the greatest significance. Rational undevelopment is not something of comparatively minor account. It is a great handicap in arriving at truth. Faith, it is readily conceded, may alone be able to perceive some objects. But does it always see without aberration? Can it even detect if there is any aberration in its vision? The answers to both those questions are certainly, No. But reason is often able to detect an error, by the use of its principle that truth must agree within itself. To put the matter differently, and in a way that Kant has expressed it, reason has the function of saying what is open to belief. The proposition *The whale swallowed Jonah whole*, for example, is. But the proposition *Jonah swallowed the whale whole*, is not. Because there is no contradiction in the former. But the latter, unless it speaks in riddles like an ancient oracle, clearly declares that the lesser of two things is also the greater, which, of course, is absurd. It is on this principle that rational

thought works. Everything is open to belief unless it contains a contradiction. So faith errs when it strays beyond the bounds of rational possibility.

On the other hand if faith will co-operate with reason it can save itself many an error. Here, however, arises a difficulty. The determination of rational possibility is not always simple. It may require abstruse thinking and tedious and patient study. But the temperament from which faith springs most readily is one that is naturally impatient and impulsive. The apostle Peter stands for a classic example. Thus I should not expect a faith-temperament, particularly such a temperament of an extreme kind unbalanced by any appreciable rational development, to regard the probings of a slow reason with a sympathetic eye, especially of a criticising reason. In this I see the root of the matter, that is to say when faith does battle with a truly reasonable reason. In general I think there is really no more to be said.

Before, however, leaving this side of the conflict I want to draw special attention to the instance of Tertullian. It is of considerable note from the standpoint of psychology. As I have indicated I regard both Calvin and Barth as unable to perform a synthesis between their own worlds of faith and the world of reason external to them in other men. Thus with them the clash is something, so to speak, outside themselves. They are not at strife within. This, however, I want to suggest is just what Tertullian was. If this be correct, it accounts for the outstanding vehemence of his denunciations. It is at least an inference from his considerable acquaintance with philosophy, unusual amongst those otherwise like him. When he was a young man philosophic enquiry greatly attracted him. But suddenly he turned upon it and from that point never ceased to rage at it. The only sufficient explanation for this behaviour, it seems, is to be found in the strong urge to sacrifice that is associated with all religion. Something has to be given, whether it be an offering, perhaps human, to appease the gods, or the forfeit of an animal's life to obtain God's forgiveness. It may be merely the salve to conscience, or the denial of some delight in the hope that God will be pleased, or it may be the dedication of a man's life to God. Tertullian offered the sacrifice of his intellect. In the language of modern psychology he effected an act of repression. For the rest of his life he was unconsciously

devoted to the stifling of his reason. Men like Calvin and Barth never had to experience the same acute struggle as did Tertullian. Reason could not press such ever present claims with them or nearly so cogently. There is little wonder that he should find himself compelled to shout so loud.

But there is another view to be taken of the struggle. Up to this point I have laid the blame upon faith, that is to say, I have discovered the cause of the trouble in the natural intolerance of what one might term in some instances a highly specialized faith-temperament, but in general merely an unbalanced faith-temperament. Moreover, thus far I have discovered the cause exclusively in this way. That, however, is because I have been particular in the selection of my instances. Other instances point to the fault in a different direction. If a temperament can be intolerant because little else is developed in it but faith, in the same way it may be intolerant because little else is developed in it but reason. This is the basis of the other side of the conflict between faith and reason. The instances that constitute this side are mostly, though not entirely, of recent date. They make up essentially the war between religion and science. To a consideration of the follies that have attended the unbalanced reason-temperament I want, therefore, now to turn, with science singled out as the chief perpetrator of these follies. Not, however, that I propose to discuss matters of biology and geology. There is another issue where science has been far more truly at fault.

Against philosophy, as we have seen, religion has laid the charge that it makes men heretics. With far weightier justice religion can today claim that science makes them atheists. This is the issue I mean. If men of Christian persuasion have, on the whole, but little to say upon it, and seem comparatively unconcerned by it, it is, I feel sure, because the very great majority of them have so little true acquaintance with the subject matter of science or with men of scientific attainment who are not avowedly Christian. Among the various views held today upon the nature of the Universe that of the normal man of science is peculiarly his own. He thinks that the Universe bears the character of a machine, and that this characteristic exhausts its nature. This view goes by the name of *materialism*, and the normal scientist really believes it true. Sometimes one hears it said that the danger it threatens to Christian belief is now largely past. This

is so to some extent. A few of the greater intellects of science in recent years have appeared to indicate a certain dissatisfaction with materialism. And the Christian Church today includes more than a few capable minds equipped to appreciate both what materialism has to say and also its shortcomings. Nevertheless, speaking as a scientist, it is my view that the generality of scientific men, because of their specialist training, think materialistically, and not only so but that they infect to a most regrettable degree the mind of the general public. I am not suggesting that the average man of science is militant in his beliefs. He merely carries with him a high prestige, endowed by his seemingly miraculous powers. There is little doubt of the fact that in the public eye the minister of religion, despite his normally more careful thinking, ranks a very poor second by comparison. The danger, in fact, persists acutely.

Now if this danger is to be dispelled it must be dispelled by reason. For it has arisen through reason. It is, of course, true that materialism, the doctrine of mechanism, is no new thing, that it was philosophy before Socrates and that it was held again in Greece after the bright light of Plato and Aristotle had paled and waned. In the sense, however, in which it is endemic to science it traces back no farther than to the Renaissance. During the Middle Ages such science as there was lay within and formed part of a broad scheme of thought which, for all its ignorance, had at least one virtue. It did justice to all the many aspects of the Universe that exist. Broadly speaking it was a scheme deriving from Plato and Aristotle. Its key words were *classify*, *reason*. These were the implements of research. With the Renaissance there came, however, a far reaching change. The old implements for gaining knowledge were not abandoned, but the emphasis was laid on new ones. It became the vogue to *experiment*, to *measure*. As it happened the new method of research met with striking success. Astronomy was understood. And then one field after another in physical science in brilliant succession. And all in consequence of that frame of mind that induced Galileo to drop the heavy and the light balls from the tower of Pisa. The Universe revealed itself as understandable through the science of mechanics. If you were good at the logic of mathematics or mechanical devices—but not otherwise—the Universe could hide no secrets from you. That seemed to be the position that emerged from the Renaissance. And roughly

speaking most scientists today seem still to hold to it. The Universe is in fact, in their view, a happy hunting ground for which all the rights are reserved for reason and none for faith.

For a genuine philosophy of the Universe this position is simply ridiculous. Its absurdity is plain merely by tracing it to its source. The scientists have investigated the Universe with implements that are capable only of discovering *matter*, and then, because they have not discovered anything else but matter, they say they have found that the Universe contains nothing else except matter. It is as though a man wears spectacles to give him clear vision, but because he so happens to choose blue-coloured glasses, he comes to the remarkable conclusion that, if you only provide yourself with the proper means to perceive it, everything is coloured blue. Science although it makes a great show of reason has much to learn and appreciate concerning reason. When it becomes more truly reasonable it will not find it so hard to make its peace with faith.

Saying this it seems fitting, as a conclusion to the historical study of the subject, to quote from two men who achieved in no small degree the happy synthesis between faith and reason that is so plainly proper. Firstly Justin : "Christ," he declares, "is the first born of God . . . the reason (Word) of whom the whole human race partake, and those who live according to reason are Christians even though they are accounted atheists. Such were Socrates and Heraclitus among the Greeks, and those like them . . ." Further, he declares, "Whatever has been uttered aright by any man in any place belongs to us Christians ; for, next to God, we worship and love the reason (Word) which is from the unbegotten and ineffable God ; since on our account He has been made man, that being made partaker of our sufferings, He may also bring us healing. For all the authors were able to see the truth darkly, through the implanted seed of reason (the Word) dwelling in them." And secondly Clement of Alexandria : "Thus philosophy," he lays down, "was necessary to the Greeks for righteousness, until the coming of the Lord. And now to assist towards true religion as a kind of preparatory training for those who arrive at faith by way of demonstration. For 'Thy foot shall not stumble' if thou attribute to providence all good, whether it belongs to the Greeks or to us. For God is the source of all good things ; of some primarily, as of the old and new Testaments ; of others by consequence, as of philosophy.

But it may be, indeed, that philosophy was given to the Greeks immediately and primarily, until the Lord should call the Greeks. For philosophy was a 'schoolmaster' to bring the Greek mind to Christ, as the Law brought the Hebrews. Thus philosophy was a preparation, paving the way towards perfection in Christ."

Against these affirmations one might set the inspired introduction of the *Gospel according to St. John*. Its bold synthesis of Peter's declaration of faith with the Logos doctrine of Greek philosophy is standing testimony to the true bond that exists between belief and rational thought.

II. *The Analytical Aspect.*

I wish now to consider the topics of reason and of faith in a more formal and abstract way. I wish to refer each to the question of knowledge, so that against this setting the intrinsic nature of both is seen more clearly and the mutual relations between them. Thus I wish to think of each as a particular mode of access to knowledge. There are other modes, of course. This paper on which I am now writing is *white*. I do not know that by any process of reasoning, nor by any act of faith. I know it by that mode which is given me in my sense of sight. On the other hand my power of vision cannot inform me whether what I write is *sense* or *nonsense*. That is a matter for my reason. If I write *A thing can create itself* and *A thing cannot create itself*, then in fact I have written two statements one of which is sense and the other of which is nonsense. But if I merely content myself with *looking* at them then I shall never know which is which. My reason, however, can tell me. Let me take the first statement. Whatever this statement may mean I certainly have to understand by it action of some kind. But action is a thing of which I cannot conceive without prior to that conceiving of something that can act. Thus I have to think of something that already exists. But according to the statement the action of which I have to think is self-creation, so that the thing that acts thus does not already exist. The statement, therefore, says that at the same time and in the same sense something both exists and does not exist. It therefore conveys nothing whatever to the mind, that is to say it is nonsense. But it will be evident that there is no contradiction in the other statement that a thing cannot create itself. It is

therefore sense. It is also true. For it is either true or not true, and we have seen that to state that it is not true is simply to state nonsense.

These analytical examples show the nature of pure reason. It discovers implications. It must be fed with material, and it then shows what is contained in that material. The material may be facts. It then deduces what is involved by the facts. On the other hand the material may be an hypothesis or hypotheses. It may then show that the hypothesis contains in itself its own denial, so that it cannot possibly be true, or, it may show that one hypothesis contradicts the other, so that one at least must be false. This is the kind of knowledge that reason can give. By it, on the basis of what we have already argued, we can know, for example, that if the ideas of "spontaneous generation" or "emergent evolution" mean in any sense that something forms itself out of nothing then they are patent absurdities, and false. But, as we have seen, it has to be supplied with something on which to work. It then has the ability to display this something from all angles. Using another analogy, it is as though the something were a portmanteau which reason opens, and the contents of the portmanteau, which reason brings to light, the logical deductions that reason makes. Reason, however, does not provide the "portmanteau" in the first place. Other powers are required to do that, such as sense, judgment, intuition. These supply us with knowledge directly, reason always indirectly. Sense, judgement, intuition "give" directly. Reason "proves" indirectly. What the latter proves is as certain but not more certain than the *data* given by the former. This seemingly trivial and obvious point is nevertheless exceedingly important. There are persons who become obsessed with "proof." If they can prove a thing, they are happy that it must be so. But if it is one of those things which by its nature cannot be proved, because it falls into the category of data, they become worried and fall into doubt and may even deny the thing altogether. This position is absurd. Certainly I cannot prove that the paper on which I am writing is white. But that is no ground for denying that it is so. My power of sense tells me so and there the matter ends. Likewise I cannot prove that what I am writing is not scandal or sedition. To know that, I must rely on my powers of judgement. If they are weak I may not know, or I may have but a hazy notion. Yet

these things will not be because what I judge of does not exist or has only, so to speak, the haziest of outlines. They will be due to a lack of development of a particular one of my powers. It is conceivable that I might deny this. If I did, however, the most likely explanation of my denial would be in that natural inclination not to find the fault in myself, but somewhere outside of me. It scarcely needs saying that in this same inclination is to be found the basis for many a denial of those things which are known by that particular mode of apprehension which is faith.

In so far as most of the denials of what is held in the Christian Faith have come from men of science, it seems a thing worthy of note, if not altogether striking, that the tenets of science are held in a way that is not fundamentally different from that by which we as Christians hold the basic truths of our Faith. The tenets of science are its laws. Each law of science is a detailed confession of belief, in its own special way, that order, regularity, is a characteristic of the Universe. No law of science can be proved. It is a direct perception, more or less accurate, of something that is quite beyond reason to attain. In science, for instance, we observe a certain specific set of conditions to be attended on every occasion by certain happenings. We suppose that the happenings are bound in some way to the conditions, so that it was not chance coincidence that we observed them on the finite number of occasions that we did, but on the contrary we ought always to be able to observe them whenever we observe the conditions. That is to say we suppose something universal to be true, a definite relation that holds between every particular set of conditions and what we now term its consequences. The universal relation is a law of science. There is no bridge by reason from the particular events that suggest it to the law itself. It is not held by rational conviction. Yet it is held by conviction. How strong this conviction may be is not, perhaps, easily clear. A simple analogy that bears both on the convictions of science and of religion may, however, aid.

X, I will suppose is a friend of mine. That being so I shall know that he is. Now how do I know? Every act of his directed to me, perhaps, is friendly. But that is not a sufficient basis for my reason to build on if it is to conclude that *X is my friend*. Each single act might bear behind it some ulterior motive foreign to friendship. There is always that possibility,

that reason cannot rule out. And his acts to me taken altogether might only be those of a very subtle enemy. But I know that if, through thinking in this way, I should come to doubt his friendship I might very well lose it. The fact, if I did lose it, that I should know that I had lost it would in itself show that I knew before that I possessed it. How then did I know? Simply by an act of direct perception, of intuition, of apprehension based on the fact of his acts. My conviction that he is a friend is a matter of faith. It is by attaining conviction in this way that scientific knowledge is built up. Likewise in religion "the eyes of the blind are opened" and the blind *see*.

Reason and faith are not mutual antagonists. They have different specific functions, but they are partners. And this most surely St. Augustine realized when he said, with his peculiar and subtle skill in words: "Not all who believe think. But he who thinks believes. For he believes in thinking and thinks in believing."

WRITTEN COMMUNICATIONS.

Mr. F. F. BRUCE wrote: Dr. Best's timely treatment of this important subject deserves our warm gratitude. It is refreshing, too, to find a scientist quoting Justin, Clement and Augustine so appreciatively and aptly as he does! Many contemporary theologians need to be reminded that all truth is God's truth, and as such is self-consistent.

The position assigned to Calvin on the anti-rational side between Tertullian and Barth gives one pause. Calvin, to be sure, accepted his theological *principium*, the Biblical revelation, by faith and not by reason; but, his premisses once granted, the system based thereon was almost (not quite) flawlessly logical. He had his full share of Gallic logic, and it is arguable that the less digestible elements, for example, in his doctrine of predestination are due to his drawing what seemed to him to be the logical consequences of the Pauline doctrine, and as a result carrying it to an extreme not contemplated by Paul. But Calvin was not insensible to the advantages of philosophical training and liberal culture; it is no accident that his first literary venture, published when he was twenty-three, was a commentary on Seneca's *De Clementia*. Unlike

Barth, Calvin gave a due place to the natural revelation of God and emphasized the manifestations of His "common grace" in the world and in mankind, despite the corruption resulting from the Fall. So, for instance, speaking of the truth to be found in profane authors, he says : " If we consider the Spirit of God to be the only source of truth, we shall neither repudiate nor despise the truth itself, wherever it may appear, unless we wish to insult the Spirit of God ; for the gifts of the Spirit are not lightly esteemed without despising and reviling the Spirit Himself " (*Institutes* II, ii, 15).

The Logos-doctrine of the Johannine Prologue is fundamentally Hebraic, firmly rooted in the Old Testament. The term Logos, however, formed a bridge between Biblical revelation and Greek philosophy, as Justin, Clement and others saw ; but some of the elements in the Hebraic concept never succeeded in crossing the bridge, and some essential differences between the Johannine and Greek Logos-doctrines survive to this day. Canon Phythian-Adam's paper, "The Logos-Doctrine of the Fourth Gospel," in the *Church Quarterly Review* for October-December, 1944, is specially worthy of study in this connection.

These are but passing observations occurring in the perusal of a paper which is a welcome and valuable contribution to the prime object of the VICTORIA INSTITUTE.

Major R. B. WITHERS wrote : This is an admirable and most timely paper, but to comment adequately on it would mean writing another equally long.

Dr. Best's comments explain why it is so difficult to read Barth if the aim is objective truth. A statement can be precise yet not true ; but if it comes short of precision, it must correspondingly come short of truth. A man's spiritual insight is worthless to anyone but himself if he is unable to express it with precision. Here Dr. Best understates his case. Rational undevelopment is worse than a great handicap in arriving at truth ; it positively inhibits it. This is because even if a truth be apprehended, we cannot apart from reason distinguish it from an untruth. Moreover we either perceive the distinction, or we do not ; there are no

degrees of perception in his sphere. Nor should Dr. Best have conceded that faith may alone be able to perceive some objects. The function of faith is not to perceive, but to believe and to trust what is perceived by the mind. We expect the sun to rise to-morrow, and we act accordingly. That is faith as defined in Heb. xi, 1, correctly translated.

From this it follows that only if our perception be true ; that is, in accord with reality ; will our corresponding faith be true also. Hence, for genuine faith we require two things, reliable data in the first instance, and reason in order to ensure that we do not so misuse the data as to involve a contradiction or even a meaningless form of words.

The scientist usually conforms to the first, but when he goes beyond precise measurement and experiment into philosophical speculation he is apt to fail in the second.

The theologian is more prone to fail in the first, to be misled by faulty data, inaccurate translations or through permitting his mind to be prejudiced by preconceived theories. The enormous power of such prejudice is shown by the opposition evoked by any attempt at scientific translation of the Scriptures or the application of scientific method to their study. That we should still have to argue about the second sentence in the Bible speaks for itself ; and this is but one problem out of thousands.

Another form of irrationalism is in Brunner's statement, quoted in the *Journal*, Vol. 76, pp. 102 and 105, "We can neither experience nor understand divine revelation, but only believe it." It was remarked that it was difficult wholly to agree. I find it impossible to agree with it at all. Nobody can really believe what he cannot understand. We may believe *that* a statement is true, on the ground of faith in the one who utters it ; but we cannot believe the statement *itself* unless it conveys some clear-cut concept to our mind ; that is, unless we understand it.

Divine revelation, once ascertained, can be understood by anyone of ordinary intelligence ; but only the grace of God can enable anyone to believe it.

Mr. W. F. SPANNER wrote : I think we are all under a debt to the author for presenting us with this paper on a subject of such

vital and fundamental importance, indeed never more important than at the present day. I, for one, would like to thank him for his effort.

I now pass on to make a few comments on some of the points raised by the author. In the first place I see that he has made a number of statements concerning Calvin and Barth without giving any references to the works of these theologians to support his assertions. I think it would increase the value of this paper if this omission could be remedied. To take up one point in particular, the author states that Calvin taught that man's thoughts of God aided solely by reason are altogether false. This is, I think, unjust to Calvin who clearly teaches that all men by nature enjoy a certain knowledge of God; this knowledge may be corrupted by the fall but is nevertheless sufficient to leave men without excuse for their sin and rebellion against God, although it is insufficient to bring them to a saving knowledge of God. Calvin's teaching is made clear by a study of Chapters II to V, *Institutes of the Christian Religion, Book I*. I agree with the author that Barth (in so far as I can understand Barth) seems to teach that faith is irrational. This, however, is certainly not Calvin's teaching. Calvin defines faith as "a steady and certain knowledge of the Divine benevolence towards us, which being founded on the truth of the gratuitous promise in Christ, is both revealed to our minds and confirmed to our hearts, by the Holy Spirit." Also "Faith consists, not in ignorance, but in knowledge" (*Institutes of the Christian Religion, Book III, Chapter II*). Faith far from being a "leap in the dark" consists in knowledge derived chiefly from the Word of God. This is reasonable faith. The author does not seem to fully appreciate the gulf which here separates Calvin from the irrational view of faith so widely held to-day. This latter so-called Modernist view, which seems to be accepted by Kierkegaard and Barth, looks upon faith as a "leap in the dark," an "adventure into the unknown," an "abandonment of oneself"; it is in sharp antagonism to the classic view of faith embodied in the creeds of the Christian Church such as the 39 Articles, and the Westminster Standards both of which substantially embody—I think it may be said with fairness—Calvin's view.

As I understand it faith is reasonable, and yet at the same time goes beyond reason. In his learned work, "Creeds or No Creeds" (1922), Canon Harris rightly points out that the whole structure of classical science and philosophy is based in the ultimate analysis upon faith. Faith that among other things includes :—

- (a) Faith that we live in a rational universe.
- (b) Faith that the processes of human thought known as reason are reliable as far as they go.
- (c) Faith that the evidence of the human senses is reliable provided it is treated with discrimination.

Faith must precede reason in the logical order of events. We must, for instance, believe in the existence of truth before we can seriously engage in the quest for truth. It may be of course that due to a person's faith being misplaced his faith is unreasonable but faith in itself is not necessarily unreasonable, and it is certainly an essential to any kind of achievement. Christian faith, in particular (by which I mean faith in Christ, the Son of the living God) is in the very highest degree conformable with right reason, and it is the grand task of the theological science of apologetics to demonstrate this in order that the world may be saved.

Bergson, whose theory of emergent evolution is accepted by Bernard Shaw,* is dominated by the anti-intellectual and irrational bias of a large section of modern philosophers when he declares : "The intellect is characterized by a marked inability to comprehend life."† If this statement was true we might, of course, just as well give up thinking, which is just what the majority of Germans did prior to the advent of Hitler. The logical result is a purely emotional approach to life which leads to totalitarianism in the realm of politics and finally (unless people wake up in time) to national suicide.

I have made some further remarks on this subject in a brief article in the January issue of *Peace and Truth*, entitled "Pragmatism and Christian Faith" and to which the author of the present paper may like to be referred.

* *The Rationalist Annual*, 1945, p. 7.

Quoted by Canon Harris, "Creeds or no Creeds," 1922, p. 94.

AUTHOR'S REPLY.

I should like to thank those who have contributed comments for their kindly expressed appreciations. I feel in considerable debt to them for so valuably adding point and clarity to the paper by their remarks.

In so far as their criticisms indicate disagreement it seems clear that the divergence of view does not relate to prime issues or matters of main practical importance. On the other hand it is most heartening to find such full support on two implicit propositions of a principal order: that the expression of faith must be fully rational; and that in Barthianism there is the gravest danger.

On the first of these it is scarcely necessary to say anything further. In so far as a statement of faith is not rational it is mutilated, since it contains contradictory parts neither of which can be believed, because what one gives the other with equal force denies. If nothing remains that is not contradicted then the statement amounts to nothing at all: it is nonsense.

On the second proposition one may say of Barthian writings that it seems possible to take either of two views: that words are used apart from their ordinary meanings; or that they are used in mutual contradiction. In either event the reader is left in the greatest uncertainty as to what in the view of the writer is what—although the strongest impression may well be forced upon him that the writer is infallible and that everyone else is totally wrong. With stuff of this character paraded as Christianity who will condemn the ordinary man if he passes Christianity by as not for him, and the more intelligent man as not worthy of his consideration? Moreover the minds of earnest and honest young Christians are disturbed and filled with anxiety by this kind of writing. That they are standing on false ground they are left in little doubt; but when they look for rescue from the quicksands no visible hand, no tangible aid is held out to assist them. Major Withers' quotation of Brunner could not be more apt in illustration. What is this special faith we are supposed to have in which we are illumined in no conceivable way? If statements

like Brunner's were made in a court of justice the judge would either ignore them or direct the jury to ignore them as meaningless. Jabberwocky may be great fun in the adventures of Alice, but it cannot be tolerated in the serious business of living.

Concerning Calvin, Mr. Bruce gives good evidence to show that rather like Tertullian he had it in him to join the opposite camp to that in which I have placed him. This is a most interesting point. Moreover, I entirely agree that Calvin is to be distinguished from Barth. However, there seems not to be any doubt that Calvin had it both ways: and reviewing the whole matter as carefully as I am able I find it difficult to assure myself that Calvin lies truly in the category of full rational development. Many a scientist to-day who makes considerable use of the logical machine in the court of his work I would not place in this category.

I think that where Major Withers differs from me on the nature of faith it is more a matter of definition of words than substance. I regard the dawning of faith like the awakening of vision, and the blind eye made to receive sight, in which trust and confidence follow naturally as the darkness is pierced and objects are seen in the light. Faith is not as the Barthians assure us a leap into the dark—although this is true enough to their obscurantist doctrines—but like a step into the light; and entry into the attitude of confidence is spontaneous with the increase of vision.

I am glad that Mr. Spanner should emphasize the disastrous consequences of anti-rationalism by reference to Germany of recent times. When Church or State abandons reason it places itself at the mercy of every storm of emotion within it.

The references I would give to the works of Calvin and Barth are: *Institutes* I, iv, 1; v, 11, 12, 13 and *Credo* (as translated by J. Strathearn McNab), p. 36.

863RD ORDINARY GENERAL MEETING

HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, AT 4.30 P.M.
ON FEBRUARY, 18TH, 1946.

THE REV. C. T. COOK IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN then called on Mr. P. O. Ruoff (in the absence of the author who lives in America) to read Dr. Henry's paper entitled "The Relation between Conduct and Belief."

The following elections have been made : Rev. Professor Charles Ferguson Ball, M.A., Th.D., Fellow ; Stephen S. Short, Esq., M.B., Ch.B., Life Member ; D. R. Paterson Foot, Esq., Member ; Ernest J. Duffield, Esq., Member ; Rev. W. H. Beales, M.A., Associate ; Rev. R. S. Roxburgh, L.Th., Associate.

THE RELATION BETWEEN CONDUCT AND BELIEF

(*being the Langhorne Orchard Essay 1944*)

C. F. H. HENRY, M.A., Th.D.

*Professor of Philosophy of Religion—Northern Baptist Seminary,
Chicago, U.S.A.*

If one surveys the past, from which the 20th century mood has so delightedly cut loose, he soon is tempted to convert the inquiry, whether one's intellectual convictions superintend his behaviour, into the question, whether in the long run anything else so clearly influences it. The affirmation that conduct is not conditioned by belief rests, in the last analysis, on the *belief* that conduct is not conditioned by belief. The modern mind, for all its anti-intellectualism, is moulded at this point, as at others, by certain basic assumptions implicit in its approach to the problem of human conduct.

If it could be demonstrated from human experience that man invariably acts contrary to his beliefs, then modern experimentalism should define man as an irrational animal. But if one takes merely the ground that man's conduct affects his beliefs, the problem is not so easily dismissed. The present international slaughter is, even in most surprising quarters, driving thinkers to reassert the sinfulness of man. Yet even here it can be shown that the denial of man's sinfulness, a corollary of the denial of a personal God who is the precondition

of human sinfulness, actually made possible an age of human misconduct that would have been impossible in a believing generation. The most that can dogmatically be contended for, from the vantage point of any particular generation, is that beliefs and conduct act and react upon each other. Which has the primacy, however, can become apparent by appeal, not to a single generation only but to the whole history of human thought and activity. That basic ideas are determinative for behaviour is the contention of the writer ; to substantiate this, we propose to survey the effect of underlying beliefs upon morals, as the problem was attacked successively by the ancient, medieval and modern minds.

Additional emphasis on the significance of such reconnoitering may not be inappropriate. For no question has resident within its answer, consequences of further reach, practically as well as speculatively. More important than the relation of finite to infinite reality, of body to mind, of time to eternity, is this inquiry into the relatedness of conduct and belief. For, if they are not allied, then whatever we believe about anything *practically* makes no difference ; the only position, dialectically, which can justify a paper of this sort is that some relationship exists between them. And if, near the other extremity of the pendulum's swing, they are allied, one cannot escape raising a question vitally important for those who are seeking to convert "faith in a fiction" into a satisfactory basis for life : whether beliefs need to conform to truth, or whether a postulated ethics is sufficient ?

I

If the history of philosophy has pedagogic value, among its favourite lessons are these two theses :

(1) That one's beliefs are determinative for his conduct or, as German scholars of a more enlightened generation were prone to express it, one's *Weltanschauung* directly moulds one's *Lebensanschauung*.

(2) That ethics and religion are so related that the idea of the good appears everywhere the corollary of the idea of the holy. Nothing is clearer than that pre-Renaissance thinkers were not committed to the viewpoint that elimination of supernaturalism and metaphysics is the precondition for a sound individual and social morality.

The thesis of this paper is that a man's conduct will be shaped by his conviction about the space-time universe of which he is a part. The determinative question may be expressed : *Is there, or not, a reality beyond nature?*

That nature alone is real—and that man, therefore, is only a complicated beast—was not first affirmed by the modern mind. For the early Greek naturalists contended that the universe alone is necessary to account for man and for all else, religion and morals included. The ground for this view was, simply, that the five senses reveal nothing of a world beyond nature.

Leucippus and his student Democritus (c.460–357 B.C.) proclaimed this materialistic philosophy. Mind, like body, is reducible to mechanically determined atoms. Even the gods are composed of such particles and are dependent upon them. In this system of mathematical necessity there was no room for moral duty measured by a standard of good and bad, and since nature was regarded as ultimate reality, man was viewed only as a clever animal. Epicurus (341–270 B.C.) constructed his ethics within this naturalistic framework, but misconstrued its main difficulty. Epicurus thought materialism was embarrassed by its failure to answer the problem of death ; hence he taught that the dissolution of atoms takes the sting out of mortality. But the Sophists discerned that man, if limited to his perceptions, is swallowed up in a relativity which makes impossible a claim to absoluteness for anything whatever, philosophic naturalism included. Materialism's big failure was its inability to make room for intelligibility.

But Epicurus did detect an aspect of materialism that is fraught with meaning for ethics. Nature, the only reality, obeys specific laws to which man the creature is subject ; whoever constantly disregards them, breaks himself. Hence Epicurus urged man to seek only higher, long-term, mental pleasures. The way to get pleasure, he cautioned, is to outwit nature by overreaching her laws.

Later Cyrenaicism, admittedly, exegeted "tomorrow we die" into "eat, drink and be merry," but that was not as Epicurus wished it. These lovers of the lower, short-term, sensuous pleasures argued that, since man has no supernatural reference and since death holds no dread because it deprives him of feeling and existence, there is no obvious inducement to seek pleasure

by repression of pleasure. Pleasure that involved future pain might be every bit as pleasureable as the pleasure of bridling pleasure, if not more so. But Epicureanism, taking the higher road in its effort to retain meaning for human existence within a materialistic context, ran into a further difficulty. Because nature is ultimately real and man is wholly subject to his environment, Epicureanism came finally to mean *ataraxia*, or the refusal to get excited over anything—pleasure or pain. For it was inevitable that the humanly-indifferent causal necessity of nature would sooner or later jilt a fortunate man again into equilibrium ; the way to avoid suffering when such a day of reckoning came, then, was to withhold oneself reservedly from delight of any sort. The dilemma of naturalistic ethics is that man, just because nature alone is real, is only an animal, and that man, just because he has cognitive insight into nature as a system with persistent laws, refuses to behave like an animal. His rationality, in other words, embarrasses the one-sided animality stressed by naturalism. If he surrenders to animality he outrages his reason ; if he enthrones rationality, he goes beyond the bounds of a materialistic philosophy. Unable to find a home for his reason in a world of whirling atoms, from which all things come and to which they go, he is unable also to find either mental or physical pleasure and rather, his house divided against itself, comes to restlessness in *ataraxia*.

The gods of Greek thought were unable to help man out of this plight since they, too, were dependent in the long run upon the cosmos. And for precisely similar reasons some more modern thinkers find themselves enmeshed, despite the fact that their ethical theories make sentimental room for a phantom god of sorts, by a type of naturalism. Such thinkers have often unconsciously absorbed features of the medieval view, which is inserted historically between the ancient and modern minds. Christianity had taught the middle ages that nature is purposive, working to the final advantage of God's covenant people. Now this optimism about nature was retained even by British hedonists who cut loose from the main outlines of the supernaturalistic tradition : John Stuart Mill (1806–73) expresses confidence that his utilitarianism is but an exegesis of the golden rule. One reads Mill, however, suspicious that God is related to his theory of morals no more closely than a mother-in-law tolerated largely for sentimental reasons ; yet Mill has pervading confidence that

natural law works together for good to them that trust altruistic hedonism.

It is not surprising, therefore, to recall that David Hume (1711-76) before Mill's day felt that morals, if not legislated by God, ought to be derived from public utility, and this sentiment is with us still. Whereas God decreed the fall of every sparrow in 30 A.D., by 1700 he was, in enlightened circles, somewhat of a vestigial remnant who had originally been the source of natural law. The modern scientific method cannot find Him at all, except as He is identified with some aspect of the space-time universe. But to-day, as in Mill's day, the Christian confidence in a "happy ending" carries over, and that is why modern science is enthusiastic about evolutionary process.

For another group of modern naturalists, it is scientific optimism rather than religious optimism which begets their overestimation of nature. Though the order of nature is inviolable, modern science is the key that will enable man to gain the advantage over the materialistic universe that gave him birth. But here, again, the Epicurean problem is revived ; the precondition for discerning the system in nature is a human rationality which inevitably takes the pleasure out of a pleasure ethics.

Both the religious and scientific optimism combined to yield a philosophic optimism—the evolutionary view that reality is somehow constructed as to make progress inevitable.

What these naturalistic optimists failed to discern was that, once Christian supernaturalism is undercut, there is no adequate ground for the belief that nature subserves final causes. There is nothing startling, therefore, in the fact that naturalism gave rise, over against the optimistic, soft-wing altruists, to a hard-wing power ethics, convinced that the laws of nature are not put together for man's good.

Just as for Epicurus man compromises pleasure to outwit nature, so for Hobbes (1588-1679) man sacrifices his power to a ruler, so that a moral code will guarantee his survival in a bloodthirsty world. In both cases, the *ought* is man-made ; both tendencies, assuming materialism, do not escape self-preservation as the ultimate drive in man ; moral authority is rooted in man's recognition that only by a specific conduct is self-preservation possible. There is no distinction between right and wrong beyond that derived from this context. Hence Nietzsche (1844-1900) is quick to see that right and wrong are

artificial inventions of the weaker class, who seek thereby to hold down the superman; nature reveals only the will to power, and the ideal man gives full expression to this will. Contemporary totalitarianism concurs with Nietzsche.

The modern mood, in the shadow of history's most bloody slaughter, is losing the optimism that had been retained for a number of generations even after the medieval mind had lost its hold. Just as ancient Greek naturalism did not regard an evolving universe as an antidote to pessimism, so the moderns are coming at last to see that nature might unravel without human good as its goal. More recent thought is returning, within its naturalistic context, to the pessimism of the Greek materialists. The tender-minded, middle-of-the-road hedonists, had they discerningly read the outcome of ancient naturalistic ethics in *ataraxia*, would more quickly have yielded place to Bertrand Russell and Joseph Wood Krutch. It was non-materialistic teleology that charged man with optimism about nature, and delayed the descent to pessimism.

" . . . if human conceit was staggered for a moment by its kinship with the ape, it soon found a way to reassert itself, and that way is the 'philosophy' of evolution. A process which led from the amoeba to man appeared to the philosophers to be obviously a progress—though whether the amoeba would agree with this opinion is not known. Hence the cycle of changes which science had shown to be the probable history of the past was welcomed as revealing a law of development towards good in the universe—an evolution or unfolding of an ideal slowly embodying itself in the actual. But such a view, though it might satisfy Spencer and those whom we may call Hegelian evolutionists, could not be accepted as adequate by the more whole-hearted votaries of change. An ideal to which the world continuously approaches is, to these minds, too dead and static to be inspiring. Not only the aspirations, but the ideal too, must change and develop with the course of evolution; there must be no fixed goal, but a continual fashioning of fresh needs by the impulse which is life and which alone gives unity to the process."*

* Russell, Bertrand. *Selected Papers*, p. 323f. New York: The Modern Library.

Increasingly, modern writers are merely assuming, and not even bothering to argue, a non-theistic position. Walter Lippman's *A Preface to Morals* and Krutch's *The Modern Temper* provide examples. Having broken the ties with traditional teleology, Lippman affirms that nobody has maturely looked at the heavens until he "feels the vast indifference of the universe to his own fate."* Krutch avers that "scepticism has entered too deeply into our souls ever to be replaced by faith."† Yet, he adds, though "ours is a lost cause and there is no place for us in the natural universe," we are not therefore sorry to be human, rather than mere animals. Here again, modern thought and conduct is caught in Epicurean *ataraxia*; having cut loose from supernatural revelation, we know nothing from nature that would disclose that we are more than animals, yet the mere fact that we alone of the creation raise the question confirms us in the conviction that man is not an animal only—in this dilemma modern man stands, unable to make up his mind. Now and then, however, there comes a foreboding voice from the wilderness, as that of George Jean Nathan, from whose words, as one commentator has neatly remarked, "even the *humanism* seems to have completely evaporated":

"To me pleasure and my own personal happiness are all I deem worth a hoot. The happiness and welfare of mankind are not my profession; I am perfectly willing to leave them to the care of the professional missionaries of one sort or another; I have all that I can do to look out for my own happiness and welfare I am against all reform and all reformers The world, as I see it, is defective only to those who are themselves defective."‡

Modern scientific naturalism, of course, is more cautious than were the Greek naturalists, in asserting grounds for non-supernaturalistic morals. For sense experience is not the limit of contemporary belief. It is by rational inference, admittedly, that modern science contends for the cell as the ultimate unit in biology, or for the electron in physics. The modern scientific world is not seen but rather is *thought*. And just so, the naturalistic moralist cannot *see* that the space-time universe is the *only*

* Lippman, Walter, *A Preface to Morals*, p. 187. New York: Macmillan, 1929.

† Krutch, Joseph Wood, *The Modern Temper*, p. 247ff. New York: Harcourt, Brace, 1929.

‡ *Living Philosophies*, pp. 222f, 227. New York: Simon and Schuster, 1931.

reality, but rather, he *thinks* it is ; he is not coerced, by his "five windows" on the cosmos, into believing that nature alone is real and that man is an animal only. His moralistic pessimism, ultimately, is tied up with his assumption that nothing is more ultimate than nature. Since he permits only the phenomenal world to write upon his mind, every idea must be explained by him wholly in terms of a phenomenal context.

II

The classic Greek mind, recognising that a view which involved the unintelligibility of the universe made impossible fruitful discussion of any subject, was convinced that nature is intelligible. For the greatest Greek thinkers there was no way to find meaning in the realm of change and flux other than the assertion of *an eternal, unchanging moral order*, participation in which made the finite sphere intelligible. Plato, in the *Republic*, becomes explicit about this objective *ought* without which, he reminds the Greek materialists, nature and man alike lose significance.

What made possible a science of morals, for the classic Greek mind, is the fact that man is not only an animal, subject to the laws of nature, but that he also partakes of rationality, which gives him a reference to a world of supernature with its unchanging absolutes, its eternal ideas and forms. Although the realm of nature and that of supernature were regarded as having co-ordinate existence—non-revelational thought having nowhere risen to a clear creation concept—it was the moral rather than the physical order that was logically prior for Greek classicism. Deep down, the abiding spiritual realm was the real order, and nature only participates in it or manifests it ; cut loose from the sphere of objective truth, goodness and beauty, the world of particulars—man included—loses meaning. Affirm that nature alone is real, the Greek mind seemed to say, and you are doomed to lose the significance not only of man's rationality but of his whole moral quest, for you will end up only with his animality.

Whereas for Plato and Aristotle the existence of the spiritual realm was a reasoned conviction, for Immanuel Kant (1724–1804) it was a faith to which he clung. Kant declared that the moral order is postulational ; that is, it must be accepted if man is to

live above the animal level. The moral life is not logically provable, but man must choose it, unless he is ready to surrender to animality. The moral law is a categorical imperative which man must obey lest he lose his manhood ; either man accepts it, or he denies his self-consciousness that he is more than a beast.

That Kant's moral law is cut loose from God objectively and from reason subjectively, is a necessary consequence of his view that the categories of human thought have no relevancy to supersensible entities ; spiritual realities, while not knowable, are necessary demands upon our faith. Admittedly, for Kant, it is the absence of knowledge about spiritual entities that permits full faith in their reality. This appeal to a postulated moral law, to ignore which is to betray one's true self, has run through the ethics of a great majority of writers on morals within the last century, and it is preached contemporarily in religious circles which affirm that the divine in man can be nurtured only by striving to fulfil this postulated moral ought. It involves, on the one hand, man's refusal to admit that he is only a beast and, on the other, a refusal to admit that the eternal spiritual moral reality, confessedly demanded by man's moral nature, is knowable. The former concession Kant refuses, for it would rob all reality, phenomena included, of intelligibility and significance ; the latter he cannot concede because he has committed himself in advance to a non-Christian epistemology.

There are difficulties, nevertheless, in these views which insist upon an objective moral order, whether rationally knowable or postulational. What Plato and Aristotle lacked, for all the superiority of their moral codes over most pagan ethics, was, on the supersensible side, a clear assurance that the gods were speaking, and on the human side a dynamic that would permit achievement of the enunciated standards. Plato never did settle the question whether the supreme deity is subject to the idea of the good, or vice versa. Moreover, throughout the *Republic* he seems to grapple for something momentous in the heavenlies to which to fasten the moral order of which he writes ; lacking a personal God and any concept of revelation, he rests content that his moral order be instilled in a rising generation by deception, as though it were mediated by the gods. But for Kant the difficulty is even worse. Those who accepted his premise, that faith in God and an eternal moral order rests upon

the absence of knowledge, pressed this same ignorance to justify full doubt as to the existence of such an order. Kant's position did not safeguard itself against the scepticism of David Hume, whom he sought to refute, and who had pared man's knowledge to a mere animal awareness and to scepticism about the moral and spiritual order.

The religious modernism of the contemporary pulpit, which emphasizes the necessity of a harmonious, unified self, but which is doctrinally indifferent as to the theological context within which that unification may be promulgated, has some of its roots in Kant, through Schleiermacher and Ritschl. For liberalism, Christ is regarded, in his life and teaching, as the exemplar of the fullest possible religious experience. Such dogmatism, however, is inconsistent with the sympathy which theological liberalism professes for scientific methodology, and the religious humanists, with good reason, have insisted that modernistic thinkers, if sincere in their empirical approach, must regard Christ as only tentatively the perfect wayshower. Since man's moral values are relative to his changing experiences, on the viewpoint of the humanists who, obviously, have fallen to the naturalistic context previously considered, such values cannot be identified with the life and experiences of someone many centuries remote.

The significance of the period 1914–1945 for philosophy, we are told,* is that we can no longer accept the presuppositions of the inherent goodness of man, and of the inevitability of progress. Whether the future is bright or dark will turn inevitably upon whether the assumptions which displace these are grounded in objective reality.

III

When one approaches the question whether Christian metaphysics is significant for ethics, one already has the proclamation of secular philosophy that, everywhere, ideas and conduct stand related. The attempt of theological liberalism to produce a Christian ethic without a Christian ideological framework has scarcely succeeded ; the waywardness of the so-called Christian nations is only an enlargement of individual inability to live on a revelational plane without a revelational regeneration.

* Trueblood, D. Elton, *The Predicament of Modern Man*, p. 8. New York : Harper, 1944.

One is not surprised, therefore, that while the late Dr. Shailer Mathews was lecturing on Christian ethics, a student should have interrupted with the question whether Jesus' deity significantly bore on the subject at hand. Dr. Mathews replied that, when a person summons a dentist or a plumber, he does not inquire into the technique of dentistry or plumbing. "True," assented the pupil, "but if I am the man with the toothache I want to know whether it is a plumber or a dentist that is working at my teeth."

Christianity has its own answer—and that not merely experimental, not philosophical, but confessedly revelational—to the questions which are most determinative for conduct. It assumes, with other theories, that nature is real, but it denies that nature is ultimate reality. It admits, as some other theories also, that there is beyond nature some kind of moral order, but it goes further. It grants to that moral order a chronological priority, and not merely a logical priority as did the classic Greek mind. For, in the Christian view, the space-time universe is a creation *ex nihilo*, and everything not identifiable with deity is contingent, finite and unoriginal. The destruction of nature, which has a dependent reality, would not in any way impair the essential glory of God as ultimate reality, on Christian premises. Furthermore, whereas Greek classicism spoke of a moral order within the setting of an impersonal ultimate reality, the Christian insistence on a providential order is possible only in a theistic setting, for it implies a God who provides. Thus, for the Christian the divine moral demand involves also a divine enablement and a divine judgment.

More specifically, within this creation context, man is viewed peculiarly from this revelational vantage point. He is surely an animal*, as the Greek classic mind insisted, being subject to the laws of nature. Moreover, he is destined never to transcend his animality, for by creation he is a compound being, comprised of body and soul. The violent disruption involved in physical death, viewed as a punishment for sin, is swallowed up in the work of the Redeemer, extending "far as the curse is found"; hence even in eternity man will not deny his bodily nature, as the doctrine of resurrection attests.

* Prior to modern evolutionism, man's *animality* did not suggest a brute ancestry.

But it is not upon this aspect of man's existence that Christian emphasis falls. For man, as relationally depicted, is not an animal only, nor does he merely possess a unique dignity of the Platonic-Aristotelian type by virtue of his rationality, but rather he is distinct from all other animals because of his creation in the image of God. Hence man not only has physical being, but has spiritual being also, and his rationality is but one aspect of the latter, yet of tremendous import. The modern definitions of man, which differentiate him from the beasts mainly by his upright walk, the paucity of hair upon his body, or some other such cosmic excellence, all issue from a scaffolding which, if it were to become explicit, would involve a denial not only that man is a spiritual being, but also that he is more than a crafty animal.

What Christianity insists, therefore, is that God legislates morals for man. It denies on the one hand that there is no trans-subjective moral order, and on the other it denies that the moral order is ultimate with nothing beyond it. Christianity roots the moral order in God. But, lest some higher idealists contend that this position fully satisfies them, the Christian metaphysics at the heart of Christian ethics demands a narrower explication. For the Christian, God is not only immanent, but also transcendent ; the destruction of the space-time universe, man included, would not involve elimination of the Absolute. It is as transcendent that the Christian God is creator. Not only so, but it is as tri-personal that He projects the creation. Not that this personalism is dependent upon the multitude of finite selves in the universe, but rather the opposite, that the finite selves are personal because they are creatures imaging forth the divine. Thus God is personally interested in His creation ; even the entrance of sin into the universe cannot beget in Him the indifference characteristic of Aristotle's prime mover, who neither created the world, nor loved it, nor revealed himself to it. Of neither Plato's "idea of the good" nor Aristotle's "self-thinking thought" could revelation be predicted, since they were not persons. The belief in revelation immediately lifts the moral obligation to a different setting ; it overrides the limits of human reason or the postulations of an unenlightened faith ; it disputes the fluctuating demands of relativistic naturalism and of shallow scepticism.

It is only on revelational ground that a world life view so noble and lofty has confronted man. For only on revelational ground has a clear monotheism appeared in the history of religions ; Christianity finds its outlines in Judaism, and Mohammedanism is an illegitimate offshoot. Only on revelational territory did the early Christians find the regenerative power to attain the high moral standard to which Christ called them. It was in a revelational context that, for 1,500 years, Christianity succeeded in overreaching the pagan mind and the pagan walk.

The modern attacks on Christian metaphysics, without exception, are the outgrowth of assumptions which preclude an open hearing for this great tradition. The attempt to divorce Christian ethics from Christian metaphysics, and to salvage the former while discarding the latter, is only a deceptive, transition movement to open anti-supernaturalism. The spirit that collapsed with the fall of Rome has risen again. Having ruled out the Christian world view, and unable in the modern context to retain the Christian life view, the modern mind is ready to relegate to mythological unreality that which most reflects ultimate reality. This is the cardinal sin of contemporary thought ; this it is which, more than anything else, reflects the contemporary blindness. For it cannot thus treat Christianity without doing violence to history. The lessons of paganism, and the answers of redemptionism, are written too large on the pages of time. The pagan gods entered only into the minds of men, but they never controlled the destinies of nations nor guided history, which has a way of revealing the impotency of dreams. But the God of the Jewish-Christian tradition entered into history ; indeed, human history is possible because of Him, and has significance through Him. At its beginning, center and consummation, He stands. A single generation may lose itself because it severs itself from Christ for a season, but it is impossible for eternity to lose God, or for God to lose that generation, since He is the context for both.

That is what makes the Christian world-life view so compelling. Even the modern man, when he is not first indoctrinated with distinctively anti-theistic assumptions, finds his sense of dependence paralleled by the doctrines of creation and providence ; his guilt alleviated only by the recognition of the substitutionary atonement of Christ for sinners ; his moral sense lifted to its highest level only when he stands, redeemed, before Christ as

the personal Saviour and Lord of life. The modern mind, in its most recent turn, has resisted the descent along the humanism-pessimism route, and is seeking to offset its departure from history and an authoritative revelation by a neo-supernaturalistic ideology which emphasizes direct confrontation of every individual by the Divine Invader. But, once again, this solution is not sufficiently high to prevent modification or relapse. It is only as the God of eternity, of creation, of incarnation, of regeneration, and of ultimate consummation, is rightly seen and related, that human behaviour will cease to be a dwarfed, miserable and inconsistent thing. The early Gnostics introduced violence into their world-life view, because they denied Christ's true relation to the cosmos while seeking to emphasize the incarnation ; it matters little how the modern Gnostics juggle and reconstruct the component parts of the revelational structure ; if there be revelation, it must stand as an organism, and if not, it must be denied as an organism. An animalistic amoralism will always be appropriate to animals, but a godly ethic always appropriate only to those created in the divine image.

DISCUSSION.

The CHAIRMAN, the Rev. C. T. COOK said : In his *Modern Essays* F. W. H. Myers relates how at Cambridge he was walking one evening with George Eliot in the Fellows' Garden of Trinity. Taking as her text "the three words which have been used so often as the inspiring trumpet calls of men—the words *God*, *Immortality*, *Duty*—(she) pronounced with terrible earnestness, how inconceivable was the *first*, how unbelievable the *second*, and yet how peremptory and absolute the *third*. Never, perhaps, have sterner accents affirmed the sovereignty of impersonal and uncompromising Law." Describing the impression her words made upon him, Myers says : "It was as though she withdrew from my grasp one by one the two scrolls of promise, and left me the third scroll only, awful with inevitable fates. And when we stood at length and parted, amid that columnar circuit of the forest trees, beneath the last twilight of starless skies, I seemed to be gazing, like Titus at Jerusalem, on vacant seats and empty halls, on a sanctuary with no presence to hallow it, and heaven left lonely of a God."

There, in words, of course much more vivid and rhetorical, Myers states the age-long problem which Dr. Henry has discussed with such scholarly ability in the Essay now before us. How can men and women maintain what the Victorian novelist called "the sovereignty of that impersonal and uncompromising (Moral) Law," when they no longer believe in a world of reality beyond the phenomenal universe? The author has no difficulty in showing that the dilemma of the modern Scientific Humanist is almost precisely that of the ancient Greek naturalist.

May I remind you of Dr. Henry's words (at the foot of page 4)— "Having cut loose from supernatural revelation, we know nothing from nature that would disclose that we are more than animals, yet the mere fact that we alone of the creation raise the question confirms us in the conviction that man is not an animal only—in this dilemma modern man stands, unable to make up his mind."

That dilemma is apparent in the answers given by philosophic materialists to the question What sure basis is there for belief in an eternal, unchanging moral order? The school of thought represented by Dr. Julian Huxley—the naively optimistic school—holds that the universe is constructed to make progress inevitable.

In a recent broadcast Huxley affirmed "that man's burning ideals are both a product of past evolution and an agency for its further advance; and supported by the long vista of life's progress in the past, he can soberly and reverently accept the fact that on man's shoulders, and still more on his brains, lies the responsibility for seeing that that progress shall be continued into the future."

There can be little question, however, that modern rationalism, as Dr. Henry demonstrates, is tending more and more to revert to the pessimism of the Greek materialists. What could be more revealing of this tendency than the candid confession of Bertrand Russell in his essay, *The Free Man's Worship*? Here he speaks of man as "the product of causes which had no prevision of the end which they were achieving," and he goes on to say of man that "his origin, his growth, his hopes and his fears, his loves and his beliefs, are but the outcome of accidental collocation of atoms, that no fire, no heroism, no intensity of thought and feeling can preserve an individual life beyond the grave; but that all the labours of

all the ages, all the devotion, all the inspiration, all the noonday brightness of human genius, are destined to extinction in the vast death of the solar system, and that the whole temple of man's achievements must inevitably be buried beneath the debris of a universe in ruin—all these things if not quite beyond dispute are yet so nearly certain that no philosophy which rejects them can hope to stand." (As you see, dogmatism is not all on one side !) Then Russell draws what he regards as the inevitable practical conclusion : " Only within the scaffolding of these truths, only on the firm foundation of unyielding despair, can the soul's habitation be safely built." Right well does Dr. W. R. Inge characterize *The Free Man's Worship* as " a religion of hopeless rebellion." Bertrand Russell presents his imaginary " free man " with the choice, " Shall we worship force or shall we worship goodness ? " He himself and a few others, who owe more to Christian tradition than they are prepared to admit, may cling, with pathetic earnestness, to an abstract " goodness " that is really an importation into their philosophy from the revealed religion which they reject, but we fear that the ordinary man, once he has been persuaded that he is no more than " a helpless atom " in an unmoral universe, will have little incentive to the self-discipline and self-denial that virtue entails. Why should he worship goodness when to do so cannot make a particle of difference to his destiny ?

Over against the blind groping of philosophic materialism, we have the self-revelation of God in the Scriptures of the Old and New Testaments. As Luthardt says : " What history proves, and the nature of man requires, Christianity teaches." God is revealed as the Creator of all things in heaven and on earth. Man is not animal only, but made in the divine image and likeness, related not merely to time but to eternity, alone of all God's creatures endowed with a capacity for worship. History is not a succession of changes without meaning or purpose, but the unfolding of a moral order and a providential order. For the individual, religion and morals are seen to be two vitally related aspects of one developing spiritual life. Lastly, and this is the culminating point, the Gospel is a revelation of redemption. God, who in His essential nature is love, was in Christ His Son reconciling a lost world unto Himself

by way of the Cross and the Resurrection. The Gospel of salvation issues in a life of holiness and love. We rebut therefore, the pessimism of Russell with the sublime confidence of Paul: "Wherefore, my beloved brethren, be ye steadfast, unmoveable, always abounding in the work of the Lord, forasmuch as ye know that your labour is not in vain in the Lord."

WRITTEN COMMUNICATIONS.

Mr. W. E. LESLIE wrote: Instead of discussing The Relation between Conduct and Belief, the author considers one kind of conduct (good and bad actions) and a particular group of beliefs—ethical and theological.

The relation between conduct, actions, behaviour and belief in general, is wider and deeper than the particular relation discussed in the paper.

Perhaps a very simple illustration of the kind of psychological issues involved might be given. A man in a burning building says, in all good faith, that he believes the fire escape would bear his weight: but he refuses to use it. Should we infer either that he was insane, or wished to commit suicide, or that he did not really believe what he honestly thought he believed?

Mr. ARTHUR CONSTANCE wrote at length but only a part of his communication can be produced.

One can only be grateful for this paper, which strikes at the root of what is surely the main cause of the weakness of Christian witness in the world to-day: that incongruity of spiritual and social life which, when apparent in any professing Christian, is seized upon by observing unbelievers as a justification of their own unbelief—their preliminary requirement towards conviction being sincerity, and (by implication) the absence of hypocrisy in the testimony of any Christian.

But although this paper strikes at the root of the problem, it surely does not strike deeply enough—in fact it merely stirs the surface soil, and leaves the harder ground undisturbed. This is seen in the writer's presentation of his own problem, as he says: "The thesis of this paper is that a man's conduct will be shaped

by his conviction about the space-time universe of which he is a part. The determinative question may be expressed : *Is there, or not, a reality beyond nature?*" For there is one obvious fault in this form of presentation—the determinative question, as stated, is not (and cannot be) determinative.

Surely—if the question is to be applied most efficiently and crucially towards *the relation of conduct and belief* it must go further than this? Surely our concern is not with the mere *existence* of a reality beyond nature, but with the relationship of that Reality to ourselves—and this in no ambiguous or philosophic sense, but in an intimate and personal category. I respectfully suggest that the determinative question might well have been determinative had it been worded : *In what way can the individual come into harmony of life with the Reality beyond nature?* This re-expression, of course, implies belief in the Reality before the question is posited—but surely such belief is imperative to any discussion of the relation of conduct and belief: in fact if it is not assumed there can be no logical discussion between rational creatures. . . . But belief, in the Christian sense, cannot be proven or defined historically—it has to be experienced by every believer, who begins with the ABC of it and learns it for himself as if he were the only individual in the universe. This is the true relationship between God and each human soul. Belief involves a "leap" which is illogical—a leap beyond the confines of human reason. But once the "leap" of faith in Christ is taken, new problems of conduct must necessarily arise. For the believer finds himself at war with the world. He is born again—and as a new creature has nothing in common with the fallen creation. His desire to do the Will of God—which simply means that he wants to come into harmony with God—implies that he fixes a standard of conduct, and that standard is a Personal one: His Lord and Saviour Jesus Christ. But the clearer his vision of that standard the more conscious he becomes of his own shortcomings in the flesh. This continual realization is a continual challenge—if he, as a believer, fails to meet that challenge then his belief fades into complacency, loses its life and power, and his last state may well be worse than his first. He has put his hand to the plough and gone back. The major mistake of modern

Christendom is its failure to recognize the vital fact that adherence to Christ involves this continual challenge to conduct. The power of the early Church lay in its acceptance of the challenge, by the grace of God, as a heart-searching acid test of Christian belief. Only when this truth is realized and put into daily practice is there any hope that the relation of conduct and belief in any individual life can become subject to the Will of God, so that the two may become increasingly identified in progressive sanctification of life.

864TH ORDINARY GENERAL MEETING

HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, AT 4.30 P.M.
ON MONDAY, MARCH 4TH, 1946.

R. E. D. CLARK, Esq., M.A., Ph.D., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN then called upon the Rev. Isaac Hartill. D.D., LL.D., to read his paper entitled "The Faith of Newton."

The following elections have been made : Arthur J. Constance, Esq., Fellow ; Professor J. Frederick Doering, M.A., A.M., Th.M., Ph.D., D. Litt., Fellow ; James Hollingworth, Esq., Fellow ; Rev. Charles T. Cook, Fellow ; Mrs. B. Skinner, Hon. Life Fellow.

THE FAITH OF NEWTON.

By the REV. ISAAC HARTILL, D.D., LL.D.

THE Religious Opinions of a great man, especially of a scientist, and of so great a man as Sir Isaac Newton, cannot fail to be of interest and value. It is well known that Newton devoted the latter years of his life to the study of Theology, a subject in which he had always been deeply interested. John Locke declared Newton to be the most profound theologian of his day. That claim, I think, cannot be allowed. There were theological giants in those days, such men as Goodwin, John Owen, Thomas Fuller, Jeremy Taylor, Edward Calamy, Pearson, Leighton, Tillotson, Stillingfleet, Richard Baxter, Isaac Barrow, Philip Henry and John Bunyan. It was scarcely to be expected that Newton would achieve the same eminence in theological work as he had done in the scientific field. Cases are on record in which men have abandoned one form of activity for another and have been equally successful in both. Sir Walter Scott won fame as a poet, but on the rise of Byron, gave up poetry for fiction, and became as famous as a novelist as he had been as a poet. Although it cannot be claimed for Newton that he was as great a theologian as he was a scientist, he was a much greater theologian than many people think. His theological writings may not seem particularly impressive, but they are characterized by the same great qualities which distinguish his scientific work. There is the same patience in investigation, the

same assiduity, the same intense concentration, the same great learning and acumen. From every point of view Newton was well-qualified for theological work. First of all he was a Christian, a great Christian. Bishop Burnet, who was never lavish in praise, described him as "the whitest soul I ever knew." His fine Christian spirit, his deep humility, his sincerity, his entire freedom from prejudice, his large and tolerant views, all marked him as pre-eminently fitted for theological study. Accustomed as he had been to study Nature as the handiwork of God, he now proceeded in the same humble and reverent spirit to study the Scriptures as the revealed record of God's Will. And he went to work in precisely the same way. Apart from the merits of his theological productions, is there not something grand in the spectacle of a great and distinguished man of science applying to religious questions the same intellectual strength which he had applied, and successfully applied, to so many of the problems of the natural universe? All too often genius has been allied with scepticism, and the union of philosophy with religion, as we have it in Newton, is a refreshing and stimulating example of a combination which was never meant to be dissolved. There was not the slightest inconsistency in turning, as Newton did, from scientific studies to theological. He was the sort of man we want to study religious matters, and to report to us what he finds. The transition from science to theology was not in Newton's case as sudden or abrupt as it seems. All his great discoveries had been made; his reputation as a scientist was firmly established, and it was a mental relief to him to turn from the very abstruse and severe mathematical and astronomical studies to which he had devoted so many years to the more serene study of theology.

Always fascinated by the subject, he had from his youth given a good deal of attention to it. Attempts have been made to throw discredit on the value of Newton's theological work, especially in Chronology, by saying that they were the productions of old age when his intellectual powers had considerably declined. M. Biot, in his anxiety to establish this point, fixes the date of Newton's chief theological writings as between 1712 to 1719, when Newton would be from 70 to 77. M. Biot is wrong as to his dates, but even if he were right, Newton's mind was at that period as clear and powerful as ever. This is sufficiently proved by his ability to attack the most difficult mathematical

problems with success, for it was in the year 1716 that Leibnitz, in a letter to the Abbé Conti, submitted a most abstruse problem for solution which none of the Continental mathematicians were able to solve. Newton received the problem at about five o'clock in the evening when returning home from the Mint and although fatigued with the labours of the day, sat down at once and attacked the problem with complete success. Also his "Four Letters to Richard Bentley," dealing with evidence for the Existence of God—letters which displayed much thought—were written at this later period of his life. In addition to the criticism as to old age, there were writers who delighted in referring to what they termed that "fateful year" 1692. That was the year when Newton suffered from nervous strain due to overwork. He complained of serious loss of appetite and sleep.

In a letter to his friend Samuel Pepys, he admitted that he had not "his former consistency of mind." These symptoms soon became common knowledge, and there were exaggerated rumours as to the state of his mind. There were not wanting those who, in order to disparage the value of Newton's theological writings, deliberately insisted that he had gone out of his mind. His breakdown was by no means so serious as that. All through his illness, which was limited to the period 1642-1643, he carried on a correspondence with Pepys and others of a particularly rational kind without showing the least trace of a disordered mind.

Whatever the value of Newton's theological writings, they are certainly much more extensive than usually imagined. It must be remembered that in addition to his published works, Newton left a vast mass of Manuscripts dealing chiefly with Prophecy, Chronology and Church History. His writings on Prophecy alone, a subject in which he had always been profoundly interested, consist of more than one-and-a-quarter million words. Many of these Papers have not as yet been published. It is difficult to assess them at their true value, but Newton himself always regarded them as the most important of his theological works. He believed that the pursuit of Prophetic knowledge was the noblest use to which the human intellect could be applied.

Also his unpublished MSS. on Chronology, a subject vitally connected with Prophecy, amount to nearly a quarter of a million words. His writings on these two themes, Chronology and Prophecy, show Newton to have been most widely read in

Church History and in Patristic Literature. His first religious publication was entitled "Observations upon the Prophecies of Daniel and the Apocalypse of St. John."

This work is supposed to have been written before 1693, but it was not published until 1732. It is a learned and elaborate attempt to show the fulfilment of the Prophecies. Voltaire, who was greatly interested in Newton, considered that in this work Newton had only said what had been already said by other authors, but that was an under-estimate. Newton filled in many gaps in our knowledge, and all subsequent commentators have been largely indebted to his labours. Newton says, "If I have done anything which may be useful to following writers, I have my design. The folly of interpreters has been to foretell times and things by this Prophecy, as if God designed to make them prophets. By this rashness they have not only exposed themselves, but have brought the Prophecy also into contempt. The design of God when He gave them this and other prophecies of the Old Testament was not to gratify men's curiosity by enabling them to foreknow things, but to the end that after they were fulfilled they might be interpreted by the event, and His Own Providence, not the wisdom and skill of the interpreters, be thus manifested to the world."

Newton has written extensively on Chronology. "The Chronology of Ancient Kingdoms," although not free from mistakes, was one of his most successful efforts. He told Bishop Pearce that he had spent thirty years at intervals in reading over all the authors, or parts of authors, which could furnish him with materials for his "Chronology," and that he had written the work sixteen times with his own hand. Newton's ideas on Chronology would now in the main be regarded as obsolete. They were based on the assumption of accuracy in the older Greek astronomers, an assumption which to-day cannot be allowed. Still, Newton's work does honour to his ingenuity and scholarship, and shows him to have been widely-read in the learning and literature of the ancients.

One of the best known of Newton's Theological writings is his "Historical Account of Two Notable Corruptions of Scripture." The two passages he criticises are I. John 5, 7, and I. Timothy 3, 16, both of which strongly support the Doctrine of the Trinity. As Newton regarded these passages as mistranslations, it was natural that he should be suspected of Unitarianism. The first

passage is : " For there are three that bear record in heaven, the Father, the Son, and the Holy Ghost, and these Three are One." Newton maintained that the words were not contained in a single Greek manuscript earlier than the 14th century, a view endorsed by F. J. Hort and other modern scholars. Nor are the words quoted by a single Greek Father during the whole of the great Trinitarian controversy.

St. Jerome does not appear to have known the words, and Martin Luther omitted the words in the last edition of his "Bible," though they were afterwards restored by his followers. The words were also omitted by Erasmus in his first two editions of the Bible, but were inserted in the edition of 1522. They were discussed by Richard Simon in 1689, and by Richard Bentley in a public Lecture. It is true that there are two manuscripts in Latin in which the words appear, but Newton considered that in translating from the Vulgate, a mistake had been made, or the manuscript had been tampered with. So he argued strongly for the omission of the passage. The second passage which Newton considered to be corrupt, was I. Timothy 3, 16 : " Great is the mystery of godliness : God manifest in the flesh." It is the word used for God to which Newton objected ; he challenged the accuracy of the translation. It is certainly true that the word used here for God does not appear till about the close of the 4th century, and Newton places it at a still later date. It does not necessarily follow that because Newton attacked these particular Passages that he himself was Anti-Trinitarian.

It is difficult to speak of Newton's Creed or Religious Beliefs with absolute certainty. He was, as I have said, a deeply religious man. To overlook that would be to ignore what was deepest in him. Religion was to him of the greatest importance, and its expression was always the result of much careful thought. He was one of those Christians who think and feel deeply, but who say very little. His reserved disposition made it difficult to secure from him a full and clear declaration of his religious belief, or of his religious life, what Methodists would call his "experience." Nor can we secure from his theological writings any great certainty or precision ; they seem to allow of considerable diversity of opinion. His unpublished MSS. throw some additional light upon matters, but not sufficient to clear up certain points in dispute or to justify a definite pronouncement. Deism was very prominent in the 17th century, and many think that

Newton had considerable sympathy with it. He was certainly regarded as unorthodox in his views. It is definitely claimed by some that he held the Unitarian position.

He was undoubtedly greatly interested in the Trinitarian Controversy, and left a number of important MSS. dealing with it. One of these is entitled "Paradoxical Questions concerning the morals and actions of Athanasius and his followers." Newton formulates 16 questions, and to each of them he gives an answer overwhelmingly in favour of the Arians. In another unpublished MSS. entitled "Trinitarianism," he again propounds a number of questions which he does not attempt to answer, but the form of their statement indicates Arianism. Here, for instance, is the first question : "Whether Christ sent His Apostles to preach Metaphysics to the unlearned common people, and to their wives and children ?" That is a strong hint at the Athanasian Creed. Newton also wrote a Church History in which he deals at length with the Arian Controversy. In a Common Place Book which he kept and which consists of 40,000 words, he makes a number of observations upon the works of Athanasius. Writing to John Locke, he says that he quite agrees with him that Christ's words, "I and my Father are one" should be interpreted to mean "one in *purpose*, rather than one in personality." All this, together with the fact that he refused to take Holy Orders as required by his Fellowship of Trinity College, looks like a case for his Unitarianism. On the other hand, it is contended that he was a firm believer in the Doctrine of the Trinity as also in all the other doctrines of the Christian Revelation, and that his objection was not to the doctrine of the Trinity itself, but only to the way in which it is formulated by Athanasius, and to the unfair manner in which certain passages of Scripture have been treated and twisted about in order to support the Trinitarian doctrine. Newton's silence, or want of definite committal as to his religious beliefs, might have been influenced by the official position which he held. Unitarians in those times were debarred from all positions of trust, and men were sent to prison for holding such opinions. As Newton was Warden of the Mint, a position of great trust and responsibility, he would certainly have been deprived of his position had it been known that he, the most honoured man in the Kingdom, shared those same beliefs. His religious opinions, on the assumption that he was a Unitarian, are difficult to reconcile with his official position.

There is one other matter to which I ought to refer. It is this : The problem of the reconciliation of Science and Religion did not trouble Newton : he never even faced the problem. There were two reasons for this. First, his Science and his Theology were quite separate things. In "Seven Statements on Religion," one of Newton's unpublished MSS., the first statement is : "That Religion and Philosophy are to be preserved distinct. We are not to introduce Divine Revelations into Philosophy, nor philosophical opinions into religion." Michael Faraday at a later period, and most of the thinkers of Newton's time, held the same view.

So they never even faced the problem of reconciliation. For them, the problem did not even exist, although there were many indications that it soon would appear, and would have to receive attention. The second reason why Newton did not face the problem of reconciliation was that even if such a problem existed, it was not urgent at that time. It did not become really pressing until the growth of the Biological Sciences in the 19th century. It was not until the Evolutionists by representing life and its functions as part of a vast mechanical process, and thus reducing the status of man to that of a cog in a machine, that the problem of reconciliation became urgent. The 17th century had opened with an extraordinary wealth of scientific discovery.

A mass of fundamental work was produced, and the acceptance of observation and experiment as the true method of scientific research, methods by which Newton himself worked. The sciences were becoming more and more differentiated, and the introduction and revelations of the microscope had led to considerable advances in Biology. But all this scientific progress left the theological world almost unmoved. Even the idea of the automatism of animal movements and reactions developed by Descartes, and further extended later in the century, had little or no effect on the position. It was much the same with the work of the chemists. The only two departments of Science which created a stir among the theologians were Physics and Astronomy.

Discoveries in these departments attracted theological attention from the first. It was inevitable that they should do so. The concept of God as the Great Engineer, or to use the term then employed, the Great Artificer, dominated scientific thought

in Newton's time, and continued to do so until the beginning of the 20th century. This view of God seemed to many people to carry with it the mechanistic conception of the Universe, a conception, the validity of which is now challenged and largely discredited. The new physics have created a mental climate unfavourable to a mechanistic interpretation of the Universe. It has encouraged Sir James Jeans and others to think of God as a Great Mathematician rather than as a Great Engineer : "To my mind, the laws which Nature obeys are less suggestive of those which a machine obeys in its motion than of those which a musician obeys in writing a fugue, or a poet in composing a sonnet. The motions of electrons and atoms do not resemble those of the parts of a locomotive so much as those of the dancers in a cotillion." This change in the conception of God and the Universe has been mainly brought about by the revision of the old concepts of Space and Time involved in the Theory of Relativity, and by the statistical laws associated with the Quantum Mechanics. It is satisfactory to know that the leading exponents of these modern views of Space and Time, Einstein and Prof. Planck, strongly repudiate the idea that they involve any break with the notion of universal causation. Newton, by his mechanical conception of the Universe, has been accused of strengthening materialism. To strengthen materialism was the last thing he wished to do. It was said that his discovery of the Law of Gravitation, if it did not banish God completely from the Universe, at least pushed Him to the confines ; that it treats God as a kind of engineer who set the world in motion at the beginning of things, and has since been simply a spectator of its working. The Universe is conceived as a complicated piece of mechanism whose inter-acting parts never go wrong.

Substantially, this was the view of the 18th century Deists. So far from being a materialist, Newton cherished a sublime belief in God as the Ultimate Cause of the order of which, in all directions, He had found such satisfactory evidence. Here are the words with which Newton closes the Principia : "The Master of the Heavens governs all things, not as being the soul of the world, but as Sovereign of the Universe. A God without Sovereignty, without Providence, and without object in His Works, would be only Destiny or Nature. Now from a blind metaphysical necessity, everywhere and always the same, could arise

no variety, none of that diversity of things according to places and times (which constitute the life and order of the Universe) could only have been produced by the thought and will of a Being who is the Being existing in Himself and necessarily." No wonder that Newton was astonished when Leibnitz, in a letter to the Princess Caroline, insisted that the philosophy of the Principia was subversive of the Christian Religion, and that Newton's God was merely a super-mechanic whose universe could not be kept going without constant repairs. In 1932, a team of Russian scientists visited this country to confer with our own scientists, and among the remarkable papers read was one by Prof. B. Hessen on "The Social and Economic Roots of Newton's Principia." It contained this interesting acknowledgment: "Newton's appeal to the Divine Mind as the highest element, Creator and Prime Motive Power of the Universe, is not in the least accidental, but is the consequence of his conception of the principles of mechanics." The object of the paper was to explain Newton according to the principles of "historical materialism." The effect of it is rather to display the efficiency of a creative mind drawing upon the resources of that invisible world of relationships behind all outward nature.

From what I have said, it is quite clear that Newton was a firm believer in God as the Ultimate Cause of this Universal System. He believed, as did Lord Kelvin, who lies buried by his side in Westminster Abbey, that "Science positively affirms Creative Power." In fact one of Newton's principal purposes in writing the Principia was to establish God's supreme authorship of the Universe. The tremendous flights of Newton's genius which enabled him intuitively to reach such remarkably true conclusions, were based on his profound belief in God. Not only did Newton believe in a personal God, but with equal firmness and humility, he believed in Christianity as a Revelation from God. He always spoke of Christ with great reverence, and although we may not be able to speak very definitely as to his view of Christ's Personality, it is well to remember, especially as there are those who still claim that he was a believer in the Doctrine of the Trinity, that his adverse criticism of the Athanasian Creed might after all only have meant a strong objection to the authoritative use that was made of it, and to the unfair manipulation of Scripture passages which were supposed to endorse it. There are many to-day who in their presentation of

the Trinitarian position come very close to Tri-theism, and Newton's objection might have been against Tri-theism rather than Trinitarianism.

In any case the capture and permanent retention of so great and brilliant an intellect as that of Newton must be regarded as one of the greatest triumphs of Christianity over the intellectual life of man.

DISCUSSION.

Dr. R. E. D. CLARK, the Chairman said : In the name of the VICTORIA INSTITUTE I should like to thank Dr. Hartill for his scholarly and deeply interesting paper on the Faith of Newton, which for clarity and completeness could scarcely be improved upon.

It is a noteworthy fact that interest in Newton never dies with the passing of the years. In part this is, of course, due to the fundamental nature of his discoveries, but in part only. Of equal importance is the fact that his highly imaginative and original mind can never become quite out of date : his suggestions still interest us as they interested his contemporaries.

Here, for instance, are two striking instances of Newton's up-to-dateness. Entropy had never been heard of before the nineteenth century and so we tend to look upon the argument that the universe is unwinding, and so must have once have been wound up by a Creator, as relatively new. But in his *Letters to Bentley* we find that Newton has argued along the same lines hundreds of years ago—for he pointed out that hot bodies and cold bodies exist together in nature, a condition that cannot have existed backwards for ever.*

Then again, there has been much talk in recent years of the principle of indeterminacy in physics. But as Frenkel† has so aptly pointed out, it was Newton who first postulated physical indeterminacy when he ascribed fits of transmission and of reflection to his corpuscles of light.

* See *Hibbert Journal*, 1939, 37, 425.

† J. Frenkel. *Wave Mechanics and Elementary Theory*, O.U.P., 1932, p. 35.

With regard to the Trinitarian question, little need be added to what Dr. Hartill has already said. But perhaps it is worth pointing out that, of all the thousands of papers left by Newton, only a very few bear on the subject. If the volume of his writing has any relation to his interest in the things he wrote about, we must certainly conclude that even if he was an Arian, he had no overwhelming passion to disprove the Trinitarian doctrine.

It would be interesting to know Dr. Hartill's views on the influence of the Cambridge neo-Platonists on Newton. Under their influence Newton seems at times to write as if he thought that space was God. Yet, at other times, both his religious faith and his science forced him to think of God as transcendental. Is it possible to say how these two views were related in his mind? Were they contemporaneous?

The Rev. A. W. PAYNE thanked Dr. Hartill for his valuable paper and said he felt that in taking the attitude he did to the two passages respecting the truth of the Trinity 1 John v, 7; 1 Tim. iii, 16; Sir Isaac Newton was emphasizing the authority of Holy Scripture rather than attacking the doctrine of the Trinity. In the Scrivener Greek Testament one usually consults, both passages have the orthodox text. The point of contention in 1 Tim. iii, 16, is of course a very fine distinction between "He was," or "God was" manifest in the flesh, and microscopic investigations have been made as to whether the small line is in the θ (theta), or omitted, which, of course, makes the difference in the reading of the passage. Sir Isaac is frequently described as a Christian, and, as this paper says, always spoke of Christ with great reverence. Though he may have criticized the terms of the Athanasian Creed he must have continually in his Church and public meetings repeated "The Apostles Creed" which is clear enough on this matter. Indeed the very word Christ or *Xpiotos* emphasizes this point for it includes the Trinity, the One Who is anointed by the Father, with the Holy Spirit.

The speaker then read a translation from the Latin of the record of Sir Isaac Newton's monument in Westminster Abbey.

WRITTEN COMMUNICATIONS.

Mr. ARTHUR CONSTANCE wrote at length (a part of his communication is reproduced below).

This excellent paper surveys the generally accepted facts regarding Sir Isaac Newton concisely and clearly—it is to be regretted that Newton's life and works are not given much more attention to-day.

But I respectfully suggest that the title of this paper is misleading and inaccurate if intended to imply that Newton's faith was that of a Christian.

Positivism found in him its most loyal and brilliant disciple. His religion was a religion of the intellect, his faith a faith in no personal God, and assuredly not in any Saviour of faulty sinners. If the term "faith" can be applied at all, it was in a system of thought, a hard, lifeless, all-explaining principle : the Analytical Method. That he paid lip-service to Christianity, and became engrossed in the numerical and factual equations of prophecy, does not affect the plain truth that his interest was entirely intellectual.

Sherwood Taylor, in *The Fourfold Vision* (Chapman and Hall 1945) contrasts Newton with Blake, and the contrast is vitally apposite to the paper now under discussion. He says (page 100) :

"Now we can see what Blake meant by

. . . God us keep

From single vision and Newton's sleep.

For Blake, Newton is the symbol of the mechanical philosophy in which everything is to be explained as *necessarily* occurring as the result of forces operating upon dead matter. Newton, it is true, believed in God and in the soul, but this belief took only a nominal or at least ineffective part in the world-view that constitutes the philosophy called Newtonian. He conceived his absolute time and space as being constituted by God, all pervading and eternal : yet if the idea of God be taken away, the Newtonian philosophy still remains : for the idea of God is not necessary to it and did not survive in it. It is, as Blake says, a *single* vision. Sense is excluded, for the perceptions of man are not regarded as giving a true picture of what they portray. There is in it no artistic or spiritual vision of the universe ; but simply the intellectual presentation of science. . . ."

I earnestly commend to the thoughtful attention of the seekers after Divine truth who are considering this highly stimulating and provocative paper, the thought contained in this paragraph of Sherwood Taylor's book. It is a thought which is so relevant, so piercingly appropriate to discussion of *The Faith of Newton* that I beg you neither to ignore it nor to treat it lightly. For if indeed—and the study of Newton's life and works can only deepen and intensify the conviction—if indeed it is possible to omit God entirely from the philosophy called Newtonian, in the sense that Marxian Socialism can use it as a basis for its godless materialism, then how can it be said that Newton's faith was in any sense fundamentally a Christian belief: in fact how can one say that Sir Isaac Newton, for all his contributions to human science, had (in the Biblical sense) any *faith* whatever?

AUTHOR'S REPLY.

I am pleased with the kind reception given to my lecture, and with the favourable and valuable criticisms.

Dr. R. E. D. Clark is undoubtedly right in his assertion of the perennial interest in Newton, and he is also right in attributing this to the fundamental nature of Newton's discoveries. With regard to the Trinitarian Controversy, while I think that the number of papers left on the subject by Newton is probably greater than Dr. Clark has in mind, I am sure that he will agree with me when I say that the intensity or otherwise of a man's interest in a particular theme is not to be measured by the quantity of his literary output. That would be an unreliable standard of measurement in many instances. Dr. Clark asks for my view as to the influence, if any, of the Cambridge Platonists on Newton. In my reply to Mr. Constance, I have referred to the influence on Newton of Henry More, one of the leaders of the Cambridge Platonists, and my reply confirms Dr. Clark's statement that Newton seems at times to write as if he thought that space was God. As Dr. Clark rightly says, both Newton's religious faith and his science forced him to believe in God as Transcendental. But Newton believed equally firmly in the Immanence of God. His difficulty was how to reconcile them, a difficulty rendered all the greater by Newton's habit—a habit of which Faraday is another illustration—of regarding

Religion and Science as completely separate departments. There were many influences at work on Newton all of which are more or less reflected in Newton's views. First, there was the powerful Deistic Movement. Closely associated with that was the newly-created interest in the study of nature, and of the Religion of Nature. The results achieved in the study of nature were becoming apparent. The discoveries of Galileo, Kepler, Harvey, Leibnitz and Newton had shown that the outward world is organized and governed in accordance with uniform law. The inference was natural and inevitable that if God revealed Himself in Nature, He would also reveal Himself in the constitution of man, and that in a religion according to Nature must be sought the principles which should guide human conduct, and the basis of certitude in the knowledge of God. The great advantage of the religion of nature, as it was then understood, was its simplicity as contrasted with the intricacies of revealed theology, as also its universality as compared with the divergent and often contradictory teaching of hostile sects. It commanded itself to the people as an unalterable religion, being built upon the eternal and uniform laws of nature.

It was a religion peculiarly fitted to meet the scepticism and the decline of morality which set in with the Restoration of Charles the Second. The Cambridge Platonists who flourished in the latter half of the seventeenth century, proclaimed Reason to have a divine quality. Whichcote believed that there was no incongruity between the grace of God and the use of the reason. Rationality had a divine foundation. "The spirit in man is the candle of the Lord, lighted by God, and lighting man to God." To go against reason was to go against God, for reason was the very voice of Deity. Archbishop Tillotson affirmed that every doctrine before it could be received must be "judged by its accordance with those ideas of the divine character which are implanted in man by nature." With all these influences acting upon him, to which others could be added, it is not surprising that Newton's Articles of Belief are not as traditional and dogmatic as many would like. But in his belief that "Science positively affirms Creative Energy," to use Lord Kelvin's fine phrase, Newton never wavered in the least. It is in this way that Newton gave the true and right direction to Science.

In regard to the Rev. A. W. Payne's remarks I find myself in substantial agreement. There is much to be said for his contention that Newton's rejection or dislike of the Athanasian Creed did not necessary mean his rejection also of the Apostle's Creed. Newton was a good Greek scholar, and his attack on the "Two Notable Corruptions of Scripture" was made in the interests of accurate translation, and was not intended to invalidate other passages of Scripture.

Mr. Constance is not without some justification for the fault he finds with the title of my Paper. If, as he considers, Newton was entirely destitute of religious faith, it is not surprising that he should regard "The Faith of Newton" as a misleading and inadequate title. I may say that when negotiating for the Lecture, I submitted two titles, the one, "Newton as Theologian," and the other, "The Faith of Newton." I expressed my preference for the first of these, but was informed that the second title was regarded as the better, and I agreed to its adoption. But Newton's Faith in my opinion covered much more ground than Mr. Constance is prepared to admit. In the "Principia" and elsewhere Newton makes it perfectly clear that he not only believed in a First Cause, but also that First Cause to be Personal, a Personal God. This is essentially a Religious conception of the Universe. If as Mr. Constance believes, and rightly so, Newton held a mechanistic view of the world, he only held it unwittingly as it were. He believed that behind the world-mechanism there was the Divine Mechanic, the Great Engineer, the Great Artificer. There was no Godless science or philosophy underlying Newton's conception. In many cases it would be different. The mechanistic conception would be made to rest on a purely materialistic basis. In the eloquent and important extract from Sherwood Taylor given by Mr. Constance, a quotation for which I thank him, urges that as Marxian Socialism can and actually does use Newton's mechanistic conception as the basis of a godless materialism, Newton's Faith cannot have been very pronounced. My reply to that is that Marxian Socialism has no right to make use of Newton in this way. It is unfair to Newton, as it fails to acknowledge his underlying religious conception of the Universe. The fact is that Newton was greatly puzzled with

the questions of Time and Space, especially the latter. His trouble was with "action at a distance." In no machine known to us can one part act on another part some distance away except through some intermediate agency—a system of cogged wheels, or a belt, or a crank, or something of the sort. But the force of gravity appeared to be an example of one body operating on another at a remote distance, and Newton's problem was how to account for this without some intermediary. The idea that space instead of being "an empty void" was occupied by gravitational fields was unknown in Newton's day, or if suspected, was certainly undeveloped. With his strong belief in a Divine Mind ruling throughout the Universe, Newton was forced to regard Absolute Space as the *sensorium* of God, the organ of "tactual conjunction" between the material world and the Divine Mind, a view which he evidently borrowed from the philosophy of Henry More, one of the Cambridge Neo-Platonists. The concept of God as the Great Engineer dominated scientific thought from the time of Newton to the beginning of the twentieth century. The new conceptions of Space and Time involved in the Theory of Relativity, and the statistical laws associated with the Quantum Mechanics have led to a re-assessment of the mechanical conception of the Universe but it must be remembered that Einstein, Prof. Planck and other exponents of these Theories have repudiated in strong terms the idea that they involve any breach with the conception of Universal Causation.

865TH ORDINARY GENERAL MEETING

HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, AT 6 P.M. ON
MONDAY, MARCH 25TH, 1946.

L. RICHMOND WHEELER, ESQ., PH.D., M.Sc., B.A.,
F.L.S., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN then called upon O. R. Barclay, Esq., M.A., Ph.D., to read his paper entitled "The Meaning of the Word 'Evolution' and its Bearing on the Christian Faith."

The following elections have been made: Miss Joyce Van Straubenzee, Fellow; Rev. A. H. Hawley, B.A., B.D., LL.D., Fellow.

THE MEANINGS OF THE WORD EVOLUTION IN BIOLOGY AND THEIR BEARING ON THE CHRISTIAN FAITH.

By OLIVER R. BARCLAY, M.A., Ph.D.

TO anyone who attempts to study the relevant literature it soon becomes apparent that a great diversity of meanings has been given to the word *evolution* in both scientific and religious circles. The idea naturally suggests itself that some at least of the controversy that has raged round the subject may have been due to the use of the same word in different senses. In this paper, then, we shall attempt (a) to analyse the main biological ideas which have been conveyed by the word evolution; (b) to assess their present scientific status and, finally, (c) to discuss their bearing on the Christian Faith.

In the first place it is necessary to differentiate between the main scientific problems which arise in the study of evolution. In the past this has been done in various ways and a good deal of confusion has been caused by inadequate analysis. The following divisions appear, however, to be scientifically necessary and, from our present point of view, of considerable importance.

Three main biological problems are involved. First of all there is what we may term the problem of *descent with modification*. Are species absolutely rigid in type, or can there be

modifications in successive generations ? Originally this was merely a problem of genealogy, but today we might ask : Are animals and plants capable of adaptation to a changing environment or should we regard them as rigid types, each fitted for a particular ecological niche, and therefore doomed to extinction if the corresponding conditions should cease to exist ? Secondly, if descent with modification takes place at all, how far has this process gone ? This may be termed the problem of *the extent of descent with modification*. Is descent with modification limited to a process within the species by which new varieties are produced, or are all the species of each genus related phylogenetically—or all the members of each family, class or phylum ? Indeed, are all forms of life descended from a common ancestor ? Thirdly, if descent with modification has taken place, how has it been brought about ? What is *the mechanism of descent with modification* ? Is it an *élan vital*, an orthogenetic trend, natural selection acting on heritable variation, or direct Divine control ?

Our answer to this third problem has some bearing on our answers to the other two, because, if the evidence for descent with modification were slight and by itself inconclusive, we should be even less ready to adopt the idea if no possible mechanism for its accomplishment could be proposed. Equally if the known mechanism could only account for variations within a species we might be hesitant to accept a more extensive process. The distinction between these problems is well illustrated by the Conclusions of Darwin's *Origin of Species*. After discussing the question of the mutability of species he goes on to say : "It may be asked how far I extend the doctrine of the modification of species. . . . I cannot doubt that the theory of descent with modification embraces all the members of the same great class or kingdom. I believe that animals are descended from at most only four or five progenitors, and plants from an equal or lesser number. Analogy would lead me one step farther, namely, to the belief that all animals and plants are descended from some one prototype. But analogy may be a deceitful guide." This is followed by a discussion of the mechanism of descent with modification.

Unfortunately these distinctions have all too rarely been made : indeed the three separate problems have all at times been covered by the single term *evolution*. *In addition* the

word has been given a large variety of meanings innon-biological spheres of knowledge, notably in ethics and astronomy. These other senses of the word have, I believe, no real logical relation to the biological problems, and it has been in large measure the attempts to deduce sweeping philosophical theories from the biological evidence which have been the cause of controversy. In some cases this movement of thought, from the biological to the philosophical, has been clearly recognized; but the most troublesome writers on both sides of the disputes have been those who have confused the two (probably unintentionally) and have suggested that reasoning which applies to the one could be carried over to the other. This is not to deny that there may be important philosophical and religious implications in some of the scientific theories which have been proposed, but these implications have been too much assumed and insufficiently subjected to critical analysis. When a scientist, knowing little theology, announced that his science had disproved fundamental tenets of Christianity, no one can fairly censure the Christian who, understanding little biology, retorted that in that case something must be wrong with the science. Often the facts were right but the deductions drawn by the scientist from these facts were very questionable. At the same time it must be said that the arguments for teleology advanced by scientists in the early nineteenth century were open to similar criticisms. It is part of the function of this paper to examine the legitimate implications of the various scientific concepts involved.

It is necessary first, however, to review very briefly the history of the word *evolution*, for this history will help us to understand, at least in part, the difficulties which have arisen. The word *evolution* first appeared in biological writings in the earlier half of the eighteenth century. It was used, however, in a sense totally different from that given to it to-day. It described a particular theory (now known to be incorrect) of the development of the individual from the ovum. Bonnet, one of its most eminent advocates, used the words "evolution" and "development" as synonymous, and meant by both: "the expansion of that which was invisible into visibility." Later, when Bonnet's theories had been shown to be wrong, the word nevertheless retained an embryological significance and became a general term for development in the sense in which that word is used to-day. Evolution was apparently first used to cover

the idea of the mutability of species (*i.e.*, descent with modification) by Lyell in 1832, and Herbert Spencer (in 1852) popularized it in the sense of the general production of higher forms from lower, a sense which it is important to note contains the philosophical idea of progress as well as a scientific element. But although the idea of descent with modification was familiar from the writings of Erasmus Darwin, Goethe, Treviranus, Lamark and others, it was not until the publication of Darwin's *Origin of Species* (1859) that it found any general acceptance. It is notable that Darwin scarcely used the word "evolution" in this book. He spoke always of "the theory of descent with modification" and the passage already quoted sets out some of his conclusions. He believed firmly in descent with modification. Further, he believed that this process had been extensive, though he adopted an admirable caution with respect to the idea that all forms of life are descended from a common ancestor. These were not altogether new features, but the main reason for the tremendous impact of the book on the scientific world was apparently that for the first time he proposed a plausible mechanism by which descent with modification might have been brought about. Moreover it was a mechanism which, for a variety of reasons, appealed greatly so the scientific public of the day. Almost immediately the word *evolution* was applied indiscriminately to Darwin's theories. It was used to imply descent with modification; it was used equally to convey the idea that all forms of life are descended from a common ancestor, and it was employed as a synonym for Darwinism, that is, for his theories about the mechanism of descent with modification. But this was not all. Herbert Spencer had already given to the word a philosophical meaning, and evolution rapidly became associated with the idea of the inevitability of progress and a mechanistic view of the universe.

A passage from T. H. Huxley written in 1878 illustrates the contemporary confusion. He writes: "Evolution, or development, is, in fact, at present employed in biology as a general name for the history of the steps by which any living being has acquired the morphological and the physiological characters which distinguish it. (It) . . . falls naturally into two categories—the evolution of the individual, and the evolution of the sum of living beings." Under the first head he discusses embryological development, and under the second he apparently

includes not only the whole range of biological problems mentioned above but also the philosophical ideas associated with them in the writings of Spencer and Haeckel. The confusion between the biological and philosophical ideas is quite understandable. If descent with modification has been very extensive, changes appear to have taken place which almost every one would describe as "progressive," and confusion has easily arisen between the fact of change and the quality of such change. Nevertheless this distinction must be enforced, especially since no real agreement has been reached as to what constitutes biological progress.

From the very first then the philosophical and scientific concepts have been confused. The same confusion appears again very obviously in such books as *Creation by Evolution* (edited, F. Mason, London, 1928). Here D. M. S. Watson uses the word in a sense implying a moderately extensive descent with modification, while C. Lloyd Morgan in the same volume defines it as the "upward passage from lower to higher," though he recognizes that this goes much further than other current scientific usages. Many nineteenth-century writers did not trouble to define the sense in which they used the term, and there remains to-day a considerable ambiguity in the writings of a number of authors. J. S. Huxley, for instance, writes: "Evolution in biology is a loose and comprehensive term applied to cover any and every change occurring in the constitution of systematic units of animals and plants, from the formation of a new sub-species or variety, to the trends, continued through hundreds of millions of years, to be observed in large groups. The main processes covered by the term are as follows: (1) Long-continued trends . . . a few towards that all-round biological improvement which may be styled evolutionary progress. . . . (2) Minor systematic changes." (*Evolution: the Modern Synthesis*, 1942.)

With such a variety of different ideas covered by one word it is not always easy to discover exactly what the evidences which various authors present are intended to prove, and the idea of progress slides over almost imperceptibly into a philosophical system. Recently, however, there has been a tendency to restrict the meaning of evolution rather drastically and to define it as "descent with modification." If any usage can be said to be generally accepted in scientific circles to-day

it is this limited one of descent with modification. Thus J. B. S. Haldane (*The Causes of Evolution*, 1932) writes: "By evolution we mean the descent from living beings in the past of other widely different living beings. How wide the difference must be before the process deserves the name of evolution is a doubtful question." K. Mather (*Biological Reviews*, 1943, **18**, 3.2) similarly says: "Evolution is the occurrence of persistent changes in the hereditary constitution of a population of organisms." The whole subject would be greatly clarified if the word were restricted to this meaning or else abandoned altogether in scientific writings in favour of Darwin's more descriptive but more cumbersome phrases.

We have now reviewed the main ideas which, in the realm of biological thought, have passed under the title of evolution. It remains to assess their scientific status and to discuss their bearing on the Christian Faith. It is not my purpose in any of these matters to discuss personal opinion. I wish only to point out the issues raised and to set out the main positions which are adopted today. The function of this paper is analytical and informative rather than polemical.

Descent with modification may be said to have been recognized as a scientific fact. The most extravagant theories which have been proposed almost all accept a limited change, at least within a species. The races of man provide a good example. It is universally recognized that all are of common origin and yet several quite distinct types are clearly defined, showing differences, which might be given specific rank in other families. On a small scale descent with modification has been demonstrated to have taken place. The appearance of the grass *Spartiana townsendii* (apparently a hybrid of *S. stricta* and *S. alterniflora*, C. L. Huskins, *Genetica*, 1931, **12**, 531) is only one amongst a number of cases where distinct and stable new types have arisen from other different and equally stable types of organism. There seems to be little doubt that descent with modification has taken place at least on a very small scale.

When we turn to consider its possible bearing on the Christian faith, however, we find that the fact that new varieties may arise within a species has of itself no theological or philosophical significance. This has been too often forgotten, partly because of a failure to draw the distinctions made above, with the consequent failure to realize that the fact of change in itself

in no way proves or disproves the philosophical ideas which have also passed under the name of evolution.

The question of the extent of descent with modification, however, raises far more complex questions. Most biological authorities are agreed that it has been considerable and that at least all the members of each phylum are related. The majority would go farther and assume that all forms of life are descended from a common ancestor. But the degree of certainty involved here is quite different from that involved in the question of the fact of descent with modification. Here there is no direct evidence available and we are limited to indirect evidences similar to those discussed by Darwin in *The Origin of Species*. In the nature of the case no experimental evidence is available because it concerns events in the past which cannot be repeated. The most that can be said is that there is a considerable array of facts which can most readily be understood on the hypothesis that there is a descent relationship between the members of each phylum. Arguing, as Darwin says, by analogy we may conclude that all forms of life are descended from a common ancestor, though the evidence here is very slight and "analogies may be a deceitful guide." It can only be said that this appears to be (or not to be) the most convincing explanation advanced so far. But its possible bearing on the Christian faith is considerable. It is necessary to decide how much (or little) is stated by the Genesis account of the Creation, and in particular what is to be believed about the origin of man's body. If the Genesis account is understood as stating that all the species were created separately within the space of four periods of twenty-four hours then clearly the Biblical view is in conflict with any but the most limited descent with modification (*i.e.*, within a species), though the difficulty of defining a species remains acute. If, on the other hand, the "days" of Genesis 1 are interpreted as indicating arbitrary periods of time, this conflict is removed. The Biblical account may then be taken as a statement of the sovereign action of God in the Creation, which gives no clue as to the method of creation, whether sudden or gradual, in each case *de novo*, or by descent with modification. It is a question of interpretation which is at stake and not of necessity a matter of loyalty to Scripture. Even the view that all forms of life are descended from a common ancestor is not incompatible

with the fullest respect for Scripture if it is held that the Bible states nothing about the method of creation, but only that it was His sovereign action. This view may be wrong, but it is not easy to demonstrate that it is disloyal, especially if it is maintained that there were six periods of special creatorial activity. It has of course often been pointed out that the order of creation given in Genesis corresponds closely with the supposed evolutionary order. The question of the creation of man's body has been dealt with similarly by some Christians. They maintain that although man is created in the image of God this cannot refer to his physical body, which is surprisingly like that of an ape, but only to his spiritual nature, which has its crowning expression in the possibility of fellowship with God. Physically, they would maintain, man may, or may not, have been created by a process of descent with modification. The matter is of no importance to the theologian, for the physical and spiritual natures are different and the latter has been profoundly affected by the Fall. The suggestion that a physical evolution necessitates or even implies a similar spiritual history simply is not true.

The scientific problems connected with the mechanism of descent with modification are by far the most complex, but they do not concern us much here. The first issue is whether or not a mechanism has been found adequate to account for descent with modification. About this there is little disagreement. Several mechanisms might have played a part and natural selection acting on gene mutation, which may be termed the Neo-Darwinian theory, could account for limited changes, at least theoretically. Such a process appears to have been responsible for some at least of the differences between the races of *Drosophila*. On the wider question of whether this mechanism could have been responsible for the origin of all forms of life from a common ancestor there is difference of opinion. On the one hand it is argued that this is only a matter of degree and on the other that the type of variation produced by gene mutation (and inversions, etc.) could only account for a very limited range of change (*c.f.* Goldschmitt, *The Material Basis of Evolution*, 1942). Nevertheless no other scientific theory has been nearly so widely accepted and most of the recent work on genetics goes to show that its scope is wider than was at first thought by some workers. The real scientific difficulties

concern the nature and frequency of mutations and at present our knowledge of this subject is too sketchy to allow any dogmatic conclusions, but there are a number of technical objections to the belief that such a mechanism can be responsible for an increase in complexity (e.g., Müller, *Biological Reviews*, 1939, 14, 261). Nevertheless the view that this Neo-Darwinian mechanism is an adequate explanation cannot be said to be unreasonable. If it is proposed that mutations have been subject to Divine control there can be little objection, and so little is known about the causes of mutations that such an idea is perfectly possible.

Whatever view is taken, however, there is raised the problem of the relation between God's sovereign action and the laws of nature, a problem which demands more attention than it is at present receiving. In the nature of the case it can never be proved that any one mechanism has been responsible for the whole course of descent with modification nor can Divine interference ever be ruled out as a possibility, though it might be shown that other mechanisms are probably adequate by themselves. Certainly the extremely confident pronouncements of some scientists in their popular writings bear little relation to the tentative conclusions and opinions proper to a situation involving so many scientific uncertainties. The mechanism of descent with modification therefore raises no new problems in addition to those raised by an extensive descent with modification alone, except in so far as the general problem of the relation of scientific laws to the Divine action is raised, a problem which is common to almost every branch of science and which is not in any way peculiar to the subject of evolution.

The real conflicts appear when we consider the interpretations which have been placed on these scientific findings. The distinction has already been drawn between the fact of change and the quality of change. Now, if it is true that all the vertebrates, for instance, are descended from common ancestors, we have in this group a development which is generally recognised as "progressive." Just what is meant by progress, however, it is extraordinarily hard to define. There is certainly an increasing complexity of structure and organisation, but the reverse process leading to degeneration is also seen in many groups and descent with modification of itself might be in

either direction. Natural selection, given the appropriate mutations, may lead to adaptive changes ; but adaptation can be either progressive or degenerative. The idea of progress is therefore not bound up with the fact of descent with modification nor with the Neo-Darwinian mechanism of descent with modification, but progress has apparently occurred in the course of the process if it has extended to the whole of the vertebrates. J. B. S. Haldane writes : " We must remember that when we speak of progress in evolution we are already leaving the relatively firm ground of scientific objectivity for the shifting morass of human values " (*The Causes of Evolution*, 1932, p. 154). The first question raised by the interpretation of the facts then is this : Has progress occurred in the course of descent with modification ? To this it may be answered that there may have been an increase of physical complexity, but that there has been progress in any ethical or moral sense we have no evidence. If there has been an increase of physical progress in any sense, however, some serious difficulties are raised in the way of a mechanistic explanation. These were discussed by R. E. D. Clark (*Trans. Vict. Inst.*, 1943, 75, 49) and will not be re-examined here except to state that if there has been a real decrease of " entropy " (in the wider sense of the word) it seems necessary to postulate Divine control over whatever mechanism has been responsible.

Secondly, it may be asked : If progress has occurred, by what means has it been brought about ? The confident assumptions of some writers support a philosophy fundamentally opposed to the Christian view. They assert (a) that a rigid Neo-Darwinian mechanism, over which God had no control, has been responsible for the whole of descent with modification and (b) that there has been real progress brought about by this means. But the first of these assumptions can never be fully substantiated. Even if a Neo-Darwinian mechanism could be shown to have been responsible for the process there is no scientific reason for dismissing the idea of God's sovereign action in it and some of the difficulties of the idea of progress have already been raised. This is the crux of the modern controversy and it is a philosophical and not a scientific dispute. The scientific facts cannot at present support or oppose these theories. Because there is considerable evidence that a Neo-Darwinian mechanism has played a part in descent with modification people have jumped

to the conclusion that this is the entire explanation and that it disposes altogether of the Christian idea of God's creation. Such a position could only be maintained by an already developed materialistic prejudice. Although the scientific findings may be capable of being fitted into such a system they are at least equally capable of a fully theistic interpretation. But from these articles of philosophic faith an attack has been launched on the Christian position. Progress, it is said, is a fact. It has been brought about by these purely material forces, and apparent design is really only adaptation brought about by natural selection acting on chance variation. Bolder spirits have even urged that "progress" is therefore inevitable, that man is continually improving and that the Fall, if it ever occurred at all, must have been a fall upwards. God is politely bowed out of the Universe. But these are not scientific inductions and they are not based on assured premises.

The main concern of this paper has been to distinguish things that differ and to show how far the criticisms of Christianity which have been made in the name of evolution are truly science and how far pure philosophy. No attempt has been made to offer a proper answer to the basic problems raised, but it is demonstrated that the main conflict has arisen over philosophical issues which have no necessary connection with the findings of science and ought never to have been associated with the word "evolution." The sooner this word is limited to an exact scientific meaning or else abolished altogether from scientific literature the better it will be both for science and Christianity and for the general clarity of thought.

DISCUSSION.

The CHAIRMAN, Dr. L. RICHMOND WHEELER, said : The paper they had just heard covers many interesting matters in biology and philosophy, and he could allude only to some of these. I hope that any botanists present will contribute to the discussion, as Dr. Barclay has dealt with the problems of organic evolution mainly from the zoologist's point of view.

As regards the concept of progress in evolution, one criterion for this lay in increased power by organisms of dealing with their physical environment (*cf.* J. Needham in *Science and Ethics*, 1942,

ch. 3). Leading botanists, such as Scott, Tansley, Bower, Seward, and Thoday (references given in *Hibbert Journal*, April, 1944, p. 205), stressed the existence of large, unbridged gaps between the main groups of plants; these were indicated for animal orders by M. A. C. Hinton for rodents (1c) and A. D. Imms for insects (*Encl. Brit.*, 12, 421). These great gaps indicated the occurrence of creative activity or, at least, of large mutations. Dr. Willis had argued strongly for their occurrence in flowering plants (*Course of Evolution*, C.U.P., 1940); he, like myself, agrees with Drummond, Kropotkin, Allee, and others in challenging the struggle doctrines of Darwinism; co-operation, not inter-organismal struggle, was the main principle of the maintenance and evolution of species. The views of A. R. Wallace had been neglected by materialistic biologists; he claimed some new cause for at least three big events—the origins of life, of animal consciousness, and of mind in Man (*Darwinism*, p. 474). All these authoritative views made for harmony between biology and Christian belief.

I hope that the reference to Dr. Clark's paper will lead to re-reading of a very valuable contribution to the productions of the VICTORIA INSTITUTE. Even on the extreme, and, as I consider, erroneous view that evolution had occurred continuously from the nebula stage, T. H. Huxley had admitted that there was no answer to the idea that a Supreme Mind might have ordained it all from the beginning. We can certainly agree with Dr. Barclay that biological facts and legitimate scientific hypotheses based upon them do not controvert the Christian Faith. I have much pleasure in proposing a hearty vote of thanks for a very thoughtful and able paper.

WRITTEN COMMUNICATIONS.

Mr. DOUGLAS DEWAR wrote: Dr. Barclay has given us a most interesting paper, but, in my view, it is open to a few criticisms.

I am surprised that Dr. Barclay has not mentioned that a number of writers, both biologists and non-biologists, have distinguished between the two kinds of biological evolution. In this connection D. Gabriele Rabel wrote (*XIX Century and After*, June, 1945, p. 262): "Most important of all was his (Lamarck's) distinction

between two kinds of evolution, one creating new architectural plans, the other adapting the new types to conditions.

"Recently the distinction between Big and Small Evolution has become fashionable. Most scientists imagine that if one could follow up Micro-evolution for a sufficiently long time, one would arrive at Macro-evolution. Others have recognized the completely different character of these two processes, and some suggest reserving the term 'Evolution' for the creation of new types. The superficial changes which give rise to species or genera, may be called 'Diversification' (Vialleton) or 'Differentiation' (Dewar) or 'Adaptive Radiation' (Osborn)."

Among those who are not biologists Arnold Lunn has suggested the terms "Major Evolution" and "Minor Evolution," and H. C. Morton "Evolution and Parvolution."

The reason why this obvious distinction is not stated in every textbook is not far to seek. Many modern biologists have adopted Evolution as a creed, and such defend their belief with religious fervour. As the only evidence adduced in favour of evolution applies to the lesser type, if the distinction were adopted in books written for the public or for students, it would soon become generally known that the evidence for major evolution is to all intents and purposes NIL !

Minor evolution postulated changes in animals and plants which are not obviously impossible ; whereas major evolution involves changes which are fantastic. For this reason I am surprised that Dr. Barclay, while stating that "there is a considerable array of facts which can be most readily understood on the hypothesis that there is a descent relationship between the members of each phylum," without pointing out that this hypothesis involves transformations in animals which cannot have been effected *gradually*, such as the conversion of a reptile into a mammal and a land mammal into a whale. The former involves, *inter alia*, the quadrate and two jaw bones becoming forced into the skull and the hinge of the lower jaw on the skull being changed. The latter change involves a series of animals in which the pelvis was too small to enable them to walk on land and too big to enable them to swim after the manner of the whale.

As to the Biblical account of the creation. The idea that every species was separately created was enunciated by Linnaeus and not by the writer of Genesis. Genesis tells us that many kinds of animals were separately created, but it does not say how many kinds, or whether or not these were equivalent to the zoological species, or genus, or family, or whether they were equivalent to any of the categories of the classification now adopted by biologists.

Lt.-Col. L. M. DAVIES wrote : I appreciate Dr. Barclay's references to the many meanings given to the word "evolution," and long ago defined the doctrine of organic evolution as the one which postulates unbroken genetic continuity between all present forms of life and those which first appeared on this earth ; for Continuity is the basic dogma of modern evolutionary faith (*Journ. Trans. Vict. Inst.*, Vol. LVIII, 1926, p. 214 ff. ; Vol. LXI, 1929, p. 191 ff.).

I cannot, here, discuss all the issues raised by Dr. Barclay ; but the idea that the "days" of Genesis represent geological epochs instead of 24-hour periods, raises far more serious difficulties than it seeks to remove. And I cannot possibly agree that "the Bible states nothing about the method of creation" (cited as a possible contention), because that method, as regards both Eve and Adam himself, is stated in terms which show that talk of their evolution is quite "incompatible with . . . regard for Scripture" (*cf. Journ. Trans. Vict. Inst.*, Vol. LXXI, 1939, pp. 174-5). I also deny that "The suggestion that a physical evolution . . . implies a similar spiritual history is simply untrue" ; for only the other day I was asked by a student at what point I could postulate a spiritual influx in a genetic series insensibly graded from monkeys to modern men. I told him that that series only existed in his—and his teachers'—imagination ; but it is obvious that if such a series were objective fact, man would be a risen creature, not a fallen one. The first man would be the lowest conceivable one—and so be far below the level of any existing race. The first sin would then be the most excusable, as by the most bestial representative of the race. So it would be doubly absurd to attribute the first death, and the Curse upon all nature, to that sin ; and since the

race has (*ex hypothesis*) advanced far beyond that sub-barbarian level, it is clear that any talk of Salvation would be incongruous with regard to those who had done so well.

Nor do matters stop there; for the empty tomb, on the first Easter day, itself implies that physical death was not man's ancestral lot before the Fall. The doctrine of literal Creation alone justifies the physical Resurrection of the Christ. To the logical evolutionist such a Resurrection—as distinct from glorified personal survival—is a sheer anomaly. Meaningless, to him, is Paul's insistence that if Christ be not thus Risen we are still in our sins (1 Cor. xv, 17). Only if physical death were not natural to man, but due to the Fall and Curse, could the PHYSICAL death of the sinless Christ be our "Ransom" (1 Tim. ii, 6), and the PHYSICAL Resurrection prove the *completed payment*. That empty tomb is the clearance certificate of the logical Christian, the credal enigma of the "Christian" evolutionist.*

MR. JOHN EVENDEN wrote: The paper will arouse interest among both those who study philosophy and those who study science, in that it provides a basis for a discussion of what definition, if any, is to be given to the word Evolution. Consideration of this problem is obviously of immense value and long overdue, and so lucid a paper as Dr. Barclay's cannot fail to be of value.

The better to discuss definitions, consider first the following points which would not, from their philosophical nature, be included in the paper:—

Where a development is continuous it becomes easy (though not of necessity correct) to postulate the absence of external guidance, or of creative will, and this must, if only subconsciously, have given considerable impetus to men's belief in the extravagant extrapolations upon the biological theory so rightly criticized by the author. Later, when Lamarckianism and similar theories that support an effectively continuous descent with modification, began

* Note that "as in Adam all die, even so in Christ shall all be made alive" (1 Cor. xv, 22). All, good and bad alike, must rise again, the first death being finally cancelled in Christ. The Second Death (Rev. xx, 14-15; xxi, 8) then awaits the lost, for their own sins as distinct from Adam's sin (*cf.* John viii, 24).

to fail, the exponents of the "philosophical evolution theories" held out vigourously against such suggestions as creative mutations and "evolution" began to become a general word for "development without creation or external guidance," this applying to all spheres of thought. In the public eye purely scientific definitions of evolution then became of secondary importance.

Considering now the problems of definition, it will be seen from the author's paper that the word Evolution might with profit be used as the word for "biological descent with modification," whilst by contrast I have at a previous time suggested the use of the word for the co-ordination of certain philosophical conceptions, an example of which was quoted (discussion on *Evolution and Entropy*, by E. H. Betts, B.Sc., *Trans.*, VI, 1944). But this problem is not simply one of scientific or philosophic priority, it is also a question of "strong meat," for the word "Evolution" has become associated with a particular interpretation, and if used in either of the above senses it will be misinterpreted by the undiscerning, besides going against the indecisive, but popularly accepted meaning of the word (see Mr. Betts' reply). It would thus seem best to withdraw both the above definitions in favour of more cumbersome but less confusing phrases. But a name is required for the theories of "evolution philosophers," as these theories exist, however misguided they may be, and in fixing the definition of the required word an attempt must be made to express the underlying root of these theories. Then why not re-define the word Evolution in some such way as the following: "An Evolution theory is one that believes in the existence of non-repetitive progressive developments, that can be thought of as conditioned solely by cause and effect within the system considered. Such a development is termed Evolution." By limiting the word in this way the theories of nearly all the non-Christian workers who call themselves Evolutionists are included, confusion with purely scientific theories is avoided and, incidentally, a certain light is thrown on what many of the exponents of evolution are really basing their theories.

Dr. Barclay's opinion on these points arising from his paper would be very valuable.

AUTHOR'S REPLY.

I am grateful for the criticisms and suggestions which have been made. In reply to Mr. Dewar I would say that the distinction between "Big" and "Small" evolution is an extremely difficult one to draw and each author would probably draw it in a different place. I did not use it because, from a biological point of view, it is impossible to define it satisfactorily and I was concerned with definition. The concept, however, I agree is a useful one (see also R. Goldschmitt "The Material Basis of Evolution," Yale U.P., 1940) but I thought it more exact to draw attention to the same problems under the heading of "The extent of descent with modification." From a philosophical point of view this matter also arises on the question of "progress." I am sure Mr. Dewar will agree with me that from a strictly scientific point of view there is still room for difference of opinion as to the extent of evolution.

Lt.-Col. Davies defines evolution in the sense of a very extensive descent with modification and adds the concept of continuity as the basic dogma of "evolutionary faith." I presume, therefore, that he regards evolution as primarily a matter of philosophy. Mr. Evenden also suggests another philosophical definition. Personally I would be sorry to have to adopt this position because (speaking as a biologist) it suggests a necessary relation between the fact of descent with modification and anti-Christian philosophies. Because of its biological origin the word evolution will probably always be used in biology for the fact of descent with modification. I hope that in biology it may be restricted to this sense. At the same time I believe it would be eliminated from philosophy as a current term conveying any intelligible meaning, and in fact this process of elimination is, I believe, already taking place.

866TH ORDINARY GENERAL MEETING

HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, AT 6 P.M. ON
MONDAY, APRIL 15TH, 1946.

E. W. CRABB, ESQ., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN then called on Ernest White, Esq., M.B., B.S., to read his paper entitled "The Relation of Instinct and Emotion to Religious Experience."

The following elections have been made : Walter J. Beasley, Esq., Fellow ; Rev. Basil H. Williams, B.A., Member ; Lieut. James Clark, R.N.V.R., Member ; P. W. Petter, Esq., Fellow.

THE RELATION OF INSTINCT AND EMOTION TO RELIGIOUS EXPERIENCE.

BY ERNEST WHITE, M.B., B.S.

INSTINCT has been defined in various ways by different psychologists according to their respective views of its relation to emotion, to intelligence, and to the environment. Amid all the varying attempts at definition, there are three common factors with which most psychologists, except those of the Behaviourist school, who appear to ignore instinct altogether, would probably agree. Firstly, that instinct is inherited and not acquired, secondly, that it produces behaviour of a definite pattern, and thirdly, that such behaviour occurs in response to an external stimulus. Instinctive behaviour is not due only to an urge from within, nor is it a series of mechanical responses or reflexes arising from external stimulation ; both factors are present. A living organism cannot be seen in true perspective apart from its environment, and the true study of mankind is man, not as an isolated individual but in relation to the whole of the factors which constitute his environment. Much stress has been laid on this conception during recent years. The study of mental disease and of disease in general is directed more and more toward a study of social conditions. Behaviour, in the widest sense of the term, is the product, not only of causes lying

within the individual, but of action and reaction between the individual and his social and natural environment. If we add an ætiological concept, we may say that instinct is directed toward the successful adaptation of the individual to its environment, and to the continuation of the species. Failure of such adaptation leads ultimately to the death of the individual and the destruction of the species.

Before going on to consider the relation between instinct and religious experience, it is worth while to discuss briefly what is meant by the latter term. It is at once obvious that when we talk of religious experience, we imply a conscious mental process relating to a sphere of thought and activity which we call religion.

The late A. S. Peake, in his book *Christianity, its Nature and its Truth*, describes religion as "Fellowship with the Unseen." Although this definition is rather vague and inadequate, it brings out the essential difference between religion and other branches of our experience. While most of our experiences are concerned with ourselves and the material world in which we live, religion is concerned primarily with the invisible world of the spirit. In religious experience man is reaching out beyond the material universe in which he lives, behind the world of sense, to an invisible realm above and beyond anything directly or indirectly apparent to his sense perceptions.

There are two great facts about religious experience which have been confirmed equally by historical research and by study of the races of mankind living in the world to-day. The first is that religious observances evidencing religious experience of some sort are universal, and secondly that the conduct of man whether considered individually, socially or nationally, is profoundly affected by the nature of his religious beliefs. There is no need to bring evidence forward in proof of these assertions—they are self-evident to any thoughtful person with even slight knowledge of history and ethnology.

Various theories have been put forward as to the origin of religion, and the evolution of religious ideas, but it is more than doubtful as to whether some of these theories are more than guesses or speculations, with no satisfactory archaeological or scientific background. It seems probable that religion is inherent in man, and that it is as much part of his nature to seek for fellowship with the unseen as it is for him to seek for food and drink. As one said long ago, "The God that made the

world and all things therein . . . made of one every nation of man to dwell on all the face of the earth . . . that they should seek God, if haply they might feel after Him" (Acts xvii, 24-27).

Any conscious experience is the product of a combination of stimuli reaching the mind from without, with instinctual force rising from the unconscious. The mind is no longer conceived as a purely receptive organ, registering and combining sensations received from the outer world, a clean slate upon which anything may be written. It has an active, selective function, and is causative and creative. These dynamic mental energies arise from instinctual urges driving toward expression in experience and conduct. No mental experience is purely passive. Therefore in considering religious experience, the question at once arises, what is the nature of the instinct which lies behind it, and supplies its energy? The answer to this question given by various writers may be divided under three different headings.

There are those who seek to explain the psychology of religion by saying that religious experience is a sublimation of one or more of the normal instincts, singly or in combination. The word sublimation is used here in the Freudian sense, and implies the partial repression of an instinct and its re-emergence on a higher level of consciousness. In this process the instinct becomes divorced from its primary biological goal and subserves an apparently different function. That process may be illustrated by the childless woman who develops a strong affection for animals, or takes up nursing, or orphanage work in an attempt to sublimate her unsatisfied maternal instinct.

Secondly, there are those who hold that religion primarily centres round a sentiment, with one or more instinctive forces in the background. T. H. Hughes (*The New Psychology and Religious Experience*, ch. 3) maintains this view. He defines a sentiment as an "organised system of emotions," and goes on to say that "The instinct of self-preservation is undoubtedly the basal one in the religious sentiment, because that is the basal and primary urge of life at its deepest." McDougall supports the emotional view of religion, making it arise as a feeling of awe and reverence, compounded of the elements of fear and curiosity.

In the third class, and in the minority, are those who hold that there is a specific religious instinct.

The first view, that religion is a sublimation of instinct, is put forward by the Psycho-Analyst school. Freud and Jung both regard the sex instinct as the basis of religion. In his book *Totem and Taboo*, Freud, after an elaborate and somewhat obscure argument, states, "I want to state the conclusion that the beginnings of religion, ethics, society and art meet in the Oedipus Complex."

In another book, *Group Psychology and the Analysis of the Ego*, he derives certain religious manifestations as seen in Church life, from the herd instinct, but argues that the herd instinct has a sexual basis. Many other statements scattered through his writings support the theory that religion is an illusion derived from the sex instinct and the relation of the child to the father. Jung, in his book, *The Psychology of the Unconscious*, while admitting the practical value of Christianity, regards religious feeling as due to a transformation of incestuous libido. It may be granted that in some religious experiences and expressions the sex instinct is sublimated. Some of our hymns, and many of the writings of the saints and mystics, and even some Bible language, as for example in the books of Hosea and the Song of Solomon, have a very strong and evident sexual basis. The facts that our instincts are drawn into and sublimated by religious experiences is not sufficient argument to prove that religion itself rests on a sexual foundation, and is derived from it alone.

Perhaps even more open to criticism is the theory that religion is the product of the self-preserved instinct. There is a certain line of teaching, now less to the fore than in former years, which overstresses the wrath of God, regards salvation as primarily a flight from the wrath to come, and deliverance from hell as a motive for serving God. To state that religion derives from the desire for self-preservation ignores many of the phenomena of religious, especially Christian, experience. Such a theory hardly accords with the words of one who out of the depths of his heart could say "the love of Christ constraineth us" (2 Corinth. v, 14).

The two greatest and chief commandments, to love the Lord thy God, and to love thy neighbour as thyself, the selflessness of saintly lives, the cheerful suffering of the loss of all things, even of life itself, for the love of Christ, can hardly be reconciled with a theory of self-preservation as motive, except on the

cynical principle that these things were obeyed and done with the ulterior motive of deliverance from hell and the attainment of final bliss.

It cannot be denied that, just as certain aspects of religious experience exhibit a sublimation of sex instinct, so some experiences, especially in connection with conversion, show the presence of a self-preserved instinct at work. An individual may be so terrified by the fear of a future hell, or so alarmed by the prospect of the possible future consequences of his sins, that he flees for refuge to the Christian faith ; but this is, or should be, only a beginning.

Fear is ultimately an inhibitory influence, and does not make for liberty and fulness of life. It is negative rather than positive, and, if continued in, will prevent or stultify the experience of happiness and liberty in Christian life and service which otherwise might be enjoyed.

The truth appears to be that both the sex and the ego instincts play some part, varying in proportion according to the mental structure of the individual, and the kind of instruction he receives. Religion concerns itself with the whole life of man, and where it rises above superstition it makes demands upon his intellect and will, as well as bringing the whole instinctual and emotional life under its control. A true science of psychology will not be content with an analytical view which tends to regard the mind as formed by the common conjunction of many parts. Therein lay the error of the old faculty Psychology, and later the associationist theories. Analysis is of value in discovering the structure and function of the mind, but there is a risk of regarding the parts as separate entities, rather than as different aspects of an organic unity. The mind acts as a living whole, and every mental act contains elements of will, emotion, and intellect.

For these reasons, as well as for others which might be brought forward, the description of religion as a sentiment seems to be inadequate. A sentiment is a cluster of emotions centring round an object. The extent of its driving power depends upon the instinctual forces lying behind it, and it may be described as weak or strong according to the degree to which it influences conduct. Patriotism is a sentiment, and it is seen in varying quantities of manifestation from the calm, almost disinterested talk of the armchair philosopher to the fiery activities of a great

national leader. In both there is a sentiment present, but in the latter case conduct is altered and motivated by a sentiment plus instinctive drives. A sentiment may be regarded as a by-product of mental life, not in the direct line through which instinct is directed outward into conduct. Sentiments are concerned more with what a man is, than with what he does.

In contrast with sentiment, instinct motivates behaviour toward the achievement of a specific goal, with definite biological aims concerned ultimately with the preservation of the individual and the species. Instinctive behaviour is related to particular objects in the environment, and it is activated by stimuli arising from the presence of those objects in the perceptual field.

It is worth while to consider whether religious behaviour and experience can be satisfactorily explained by the hypothesis of a specific religious instinct. Does such a theory agree with our theory of instinct and with the facts observed?

In the first place, the universality of religion suggests that it is due to an innate quality of mind. Wherever *homo sapiens* is found, there are traces of religious rites showing evidence of some consciousness, however dim, of a higher power, of something or someone outside and beyond the material environment. To describe this as merely an illusion raises more difficulties than it seeks to explain. Whence this illusion, and how are we to explain its universality?

Secondly, if there is a specific religious instinct, what particular behaviour does it motivate? Amid all the varying religious practices, from the lowest form of idolatrous and fetish rites, to the highest manifestation of monotheism, where can we find a common denominator of behaviour pointing to a common instinctual origin? Surely the answer is to be found in worship in all its varying forms. Acts of worship are the essential and central feature of all religions. Worship is closely allied with submission and with sacrifice, and sacrifice is deeply connected with guilt, an emotion which seems to play an important part in both normal and abnormal mental processes.

Attempts have been made to regard religion as a system of ethics, and to banish worship of a higher power as an unnecessary appendage. Perhaps the most famous example of such an attempt was seen in the original conception of Buddhism. It has been thought that this religion was based at first on an ethical system which was atheistic, although this is a debatable question.

Even if we admit that Nirvana represents something more positive than annihilation, suggesting rather a fusion of the self with the Eternal Spirit, such high philosophy soon became unacceptable, because insufficient to satisfy the multitude who followed the new light. The Buddha himself became the object of universal worship amongst his numerous converts. Temples enshrining idolatrous representations of the venerated god were erected wherever the new religion spread, and priests, votive offerings, and all the paraphernalia associated with worship, appeared to minister to the religious sense of the devout.

Worship lies at the heart of religion. It is the means by which man seeks fellowship with the unseen. If he expresses submission, it is to win the favour of the god, and express his sense of a superior being to whose will he would be subject. If he offers sacrifice it is that he may at once placate the deity offended by his transgressions, and remove the guilt from his own soul by projection on to the sacrificial offering. Both these methods seek to win the approval and assure the future goodwill of the deity who is the object of his worship.

Seeing then that religion is an inborn trait of mankind, and that it is manifested in a specific response, namely worship, we must now look for the third factor concerned in instinctive behaviour if we are to regard religion as an instinctive phenomenon. That third factor has been described as behaviour in response to an external stimulus. Instructive behaviour is constantly brought into action by environmental influence. It might be said that the necessary stimulus is supplied by the instruction and example of those who train the growing child. This explanation is at once seen to be insufficient, for it merely pushes the question back in time. The deepest religious experiences are not the product of what a person has been taught, or of his reading, nor are they the product of imitation. They possess a quality different from anything realised on the material plane. An individual may be instructed from earliest childhood in the doctrines and practice of the Christian religion, and yet never know the experience associated with worship in spirit and in truth.

It is not in the material environment we find the stimuli which call forth the operation of the religious instinct. We believe that man is a spiritual being, and as such he has a spiritual

environment, and that environment is God "in Whom we live and move and have our being."

Reference has been made to the teleological aspect of instinct. The object and purpose of the religious instinct is to enable man to attain successful adaptation to his spiritual environment. He feels himself out of tune. There is a feeling of weakness and failure. An underlying sense of guilt at once separates man from joyful communion with God, and demands appropriate judgment and punishment. The idea of guilt and the necessity for some form of atonement are deeply embedded in mental structure.

The analysis of cases of neurosis, especially those of the obsessional type, has revealed in many instances the presence of a strong guilt complex, and the symptoms are found to be due to an unconscious self-punishment on the part of the sufferer conjoined with the desire to atone for sin. In effect, his illness is produced unconsciously as a means of attempting to satisfy a guilty conscience.

Various religious doctrines and observances seek to satisfy the same urge. If man is to find God, he must somehow get rid of the barrier of guilt which separates him from God. The Christian religion has solved the problem by its doctrines of the Atonement and the forgiveness of sins. Even in the Christian church, however, we find practices which suggest a failure to solve the problem of guilt. Asceticism lies in this category. By punishing his body, the ascetic hopes to purify his soul, and so obtain closer communion with God. He may argue that the object of his acts of self-denial or infliction of pain upon himself, or other harsh methods of treating his body, is to mortify his flesh. It is more than probable that a guilt complex lies at the root of these self-inflections of punishment, and that the guilt is associated closely with sex. A young candidate for holy orders once related to the author that he had been advised by his superior at a training college to strip himself naked and beat himself with a stick should he ever be guilty of self-abuse. The obsessional neurotic who feels compelled to wash his hands repeatedly and at great length, is striving to wash away his sins, although he is unconscious of this explanation of his conduct, until analysis reveals the hidden guilt complex. Pilate, who called for a basin of water and washed his hands to demonstrate his innocence, rather demonstrated the opposite to those who can see beneath the surface of conduct the deeper motives which inspire it.

Freud states that an instinct may undergo one of four possible transformations. It may be turned in on the subject, changed into its opposite, sublimated, or repressed. It is not without interest to trace the vicissitudes of the religious instinct along these lines, and if it proves possible to do so, to perceive a reinforcement of the evidence for a specific religious instinct.

There has been a tendency both in ancient times and in modern thought to deify man. The Cæsars, by their own orders and with the consent of their subjects, asserted their divinity and were worshipped as gods. It may be doubted whether the Roman emperors actually believed in their own divinity, or whether they proclaimed their godhead in order to assure the allegiance of their subjects by ministering to their superstitions. The late dictators of the axis powers went far in the same direction, and tended to receive honours from their servile subjects suggesting their elevation above the common human species. We still see the strange spectacle of a nation which has in many respects accepted western ideas regarding their Emperor as divine, and of their prime minister excusing his attempt at suicide on the grounds that a successful outcome would have rendered him divine and given him the power to direct the future of his race from this exalted position. In worshipping man rather than the Creator we see perhaps an illustration of the first of the vicissitudes of instinct referred to by Freud.

Some writers go even further in this direction and suggest that to find God we must look within ourselves. The opinion is expressed that as the only God we can know lies within our own hearts it is superfluous to assume the existence of an external or supernatural Deity. The Humanism of the latter part of last century with Frederick Harrison as one of its chief advocates and apologists, maintained that we know of no God except Humanity, that the only object worthy of worship is man himself, and that the only rational religion would be exhibited in the service of man, and the denial of a supreme Deity. Thus the religious instinct has been turned in on the subject, seeking to find satisfaction within. Recent history has provided a revelation of the folly and error of such ideas, without perhaps thoroughly eliminating them.

Atheism may be regarded as an example of the religious instinct undergoing the second of the vicissitudes of instinct

described by Freud. For students of human nature it is a curious and interesting reflection that atheism thrives most in the countries where Christian teaching is most widely propagated. A missionary who had travelled widely and over a long period of years amongst the native tribes of Africa stated that he had never discovered a professor of atheism amongst even those tribes which might be considered the most degraded. The reason for atheistic opinion may be discovered in the lofty ethical and moral claims made by the Christian religion together with the natural depravity of human nature which it teaches. The self-regarding instinct, so often disguised as pride and self-satisfaction, prevents the educated, and perhaps still more the half-educated man from admitting the truth of a religion which allows no place for human pride, and declares human nature to be essentially evil. He finds himself equally unable either to admit the need for repentance, or to accept the necessity of humbling himself before a Power outside himself and infinitely greater. It becomes more convenient, and accords better with the conception of himself to deny the existence of God, and such denial offers the additional advantage of at once relieving him of any sense of guilt he may possess, and absolving him from moral responsibility. Thus his religious instinct becomes reversed, and leads him to decry and to affect to despise all religion. If he hopes for no future reward he is compensated by the absence of any fear of future punishment. In view of these apparent advantages, it is a matter for surprise that the doctrine of atheism is not more widely held, but this fact is further evidence of the compelling power of the instinct which drives men to seek God, and prevents them from denying Him altogether.

In the apparent indifference of so many of our fellow-countrymen to the claims of religion, we may discern the repression of the religious instinct. Repression in the Freudian sense is an unconscious process, the word suppression being reserved for conscious attempts to expel ideas from consciousness. This accords with the observation that, in the case of so many individuals, religion is ignored rather than consciously opposed or rejected. Men do not feel their need. They remain content to accept the many advantages which have accrued to society as the direct or indirect result of Christian teaching without troubling to discover for themselves the power of the Gospel. They are

often willing to approve and even to actively advocate the ethic of religion, whilst remaining blind to its dynamic.

One result of repression of an instinct is the formation of abnormal symptoms. Instinctive energy, denied its normal channel of discharge, finds a circuitous mode of expression, often far removed in quality from the original goal. Herein lies the reason for the flourishing condition of strange and various cults, entirely alien from Christianity. The widespread popularity of astrology and the growth of Spiritism illustrate this process. They may be considered as spiritual neuroses, and as attempts to find satisfaction for an instinct diverted from its true goal. Ignorance or rejection of truth provides fertile soil for the growth of superstition.

Finally, we may discern in the religious instinct a parallel with other instincts in its manifestation as a need demanding satisfaction. This satisfaction is never attained until the goal has been reached. That goal is God, Who made us for His pleasure, and without Whom no life is complete. The Spirit of man is the lamp of the Lord, and without His kindling touch, man lives in darkness, for ever unsatisfied until he finds his fulfilment in God, through Christ the Light of the World.

DISCUSSION.

The CHAIRMAN (Mr. E. W. CRABB) said : When I was invited to act as Chairman of the present gathering, my first doubt was "Suppose I disagree with Dr. White's conclusions." When I read the paper, however, I realised very forcibly the unifying nature of the Christian faith. Given a deep and balanced faith in the essentials of the Christian evangel there must always be an extensive common ground between Christians of widely differing cultures and temperaments. In the Christian faith we have a touchstone by which we may test the validity of contemporary life and knowledge.

With a deep knowledge and practical experience of psychology, Dr. White has been led to a diametrically opposed interpretation of his data to the interpretation arrived at by Freud, Jung and their followers. Freud has stated clearly his final viewpoint : "The extensive realm of the supernatural is to be swept away by scientific explanation" whilst one of his followers, Miss Hinkle, avers "Man may become a self creating and self determining being." Leuba

and Jung, whilst agreeing that religion has served a useful purpose in the past, suggest that that usefulness has now been outlived.

Dr. White's paper has demonstrated the variety of deductions which may be drawn from the available data. A common mistake of much contemporary thought is to assume that the expert who collects the data is necessarily the one best fitted to draw general principles from such data. Prat has pointed this out when he says "Psychology must however content itself with the description of religious experience. It cannot pronounce on the question of its truth." In so far as it does, it is trespassing on the realms of philosophy. The distinguished work of the Freudians in many branches of psychology does not give their words more weight than that of a theologian or philosopher.

I should like to draw attention to one or two points which the paper raises. The definition which Dr. White cites for religion is sufficient for its purpose but needs amplification such as is given in Waterhouses's definition, which though not a brilliant epigram, does endeavour to take into account the data which differentiates religion from cruder forms of thought "Religion is man's attempt to supplement his felt insufficiency by allying himself with a higher being which he believes is manifest in the world and can be brought into sympathetic relation with himself, if rightly approached."

The two great facts of religious experience which Dr. White emphasises are unassailable: It is universal and it profoundly affects human life. Many vested interests have combined to assail this position. Materialism in all its manifestations, political, artistic or philosophical, has done its best to explain away the evidence, but with no lasting success. The mighty edifice of Sir James Frazer is very far from being unassailable. Many very cogent arguments are cited by E. Bevan in "Symbolism and Belief" against the materialist conception of primitive man living without religion. The earliest kings were priests, the earliest law courts were shrines, the earliest medical service was bound up with the priest and the medicine man, whilst science was the handmaid of the priestly watcher of the stars. The origin of religion is inexplicable on any other grounds than Dr. White's "It is inherent in man."

I feel that the three views which Dr. White notes as being possible explanations of the underlying bases are not intended to be exhaustive; other views are advanced which are not relevant to scope of the present discussion. There seems to be a real need for an examination of basal tenet of Freudian view of sublimation. The doctrine of infantile sexuality in the Freudian system is by no means fully proven and it would be both interesting and helpful to hear expert opinion on this matter.

Many psychologists have suggested that religion is a sentiment compounded of awe, reverence, fear, and curiosity and there is matter for some debate over Dr. White's choice in placing religion as a primal instinct with its characteristic motivation of worship. Drevers' statement that an instinct carries at its heart a vague sense of need and a sense of worthwhileness is of interest when one applies to religion and it will readily be seen that these criteria are amply fulfilled in the case of religion.

In conclusion I should like to direct your attention to the extraordinary interest of Dr. White's discussion of the psychology of atheism and of the spiritual neuroses which have such strange outcrops in our day. Their study is worthy of the closest study by every sociologist, for in its lies the analysis of a chief ill of our present very sick civilisation.

867TH ORDINARY GENERAL MEETING

HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, AT 6 P.M. ON
MONDAY, MAY 6TH, 1946.

THE REV. PRINCIPAL P. W. EVANS, D.D., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN then called on F. F. Bruce, Esq., M.A., to read his paper entitled "What Do We Mean by Inspiration?"

The following elections have been made : David A. Penny, Esq., Associate ; Peter Barraclough, Esq., B.A., Associate ; William White Balloch, Esq., Fellow ; Leslie W. Moscrop, Esq., Fellow.

WHAT DO WE MEAN BY BIBLICAL INSPIRATION ?

By F. F. BRUCE, M.A.

LET me make two preliminary observations : first, that this paper is an attempt to *state* what is meant by the Christian doctrine of the inspiration of Holy Scripture, not to *prove* that inspiration ; and secondly, that the attempt is made by one who is not a trained theologian, and therefore falls short of that degree of system and precision which may be regarded as desirable.

The inspiration of Scripture is that operation of the Holy Spirit as a result of which words spoken or written by men are also the Word of God. The Greek adjective *theopneustos*, used of "every scripture" in 2 Tim. iii, 16 (whether predicatively, as in Authorised Version and Revised Version marg., or attributively, as in Revised Version) means literally "God-breathed" ; and the breath of God is a regular Biblical idiom denoting the Holy Spirit. Our task is therefore to examine the work of the Spirit in communicating the divine revelation to men by means of the Biblical record.

The Nicene Creed describes the Holy Spirit as the One "who spake by the prophets." This description is in accordance with the language of both the Old Testament and New Testament.

In the Old Testament men prophesied when the Spirit of the Lord came upon them in power (*cf.* 1 Sam. x, 6, 10; xix, 20, 23; 1 Kings xxii, 24 = 2 Chron. xviii, 23; 2 Chron. xv, 1; xx, 14; xxiv, 20). “The Spirit of the Lord spoke by me,” said David, “and his word was upon my tongue” (2 Sam. xxiii, 2).* Ezekiel (xi, 5; xxxvii, 1) claims to have prophesied under the control of the same Spirit. In the historical retrospect of Neh. ix, the Levites say of the Israelites in the time of Moses, “Thou gavest also thy good Spirit to instruct them” (ver. 20), and of those in later days, “Thou . . . testifiedst against them by thy Spirit through thy prophets” (ver. 30). Zechariah similarly speaks of the nation’s refusal to “hear the law, and the words which the Lord of hosts had sent by His Spirit by the hand of the former prophets” (vii, 12).†

So, too, our Lord describes David as having spoken “in the Holy Spirit” (Mark xii, 36; *cf.* Matt. xxii, 43); Peter speaks of words “which the Holy Ghost spoke before by the mouth of David” (Acts i, 16); Paul says to the Roman Jews, “Well spoke the Holy Ghost through‡ Isaiah the prophet unto your fathers” (Acts xxviii, 25); and the writer to the Hebrews introduces a quotation from Ps. xcvi with the words, “as the Holy Spirit says” (iii, 7), and one from Jeremiah with the words, “And the Holy Spirit also bears witness to us” (x, 15), while he teaches that the Holy Spirit “signified” spiritual truths through the details of the Mosaic tabernacle, that “parable of the time now present” (ix, 8 f.). The whole New Testament attitude to the operation of the Spirit in the prophets is summed up in two passages in the Petrine epistles, one of which asserts that the witness of “the Spirit of Christ” in the prophets was concerned with “the sufferings of the Christ and the glories that should follow” (1 Pet. i, 11), and the other that “no prophecy ever came by the will of man; but men spoke from God, being carried along by the Holy Ghost” (2 Pet. i, 21).

* An interesting method of control is indicated in 1 Chron. xxviii, 12, 19, where David is said to have received by the Spirit the pattern of the Temple: “All this have I been made to understand in writing from the hand of the Lord.”

† Note how regularly throughout the Pentateuch divine authority is claimed for the Law, *e.g.*, in the recurring phrase, “the Lord said unto Moses.” Similar authority is claimed by the prophets in such formulæ as “Thus saith the Lord.”

‡ The use of this preposition (Greek *dia*) here and elsewhere in this sense is significant.

Thus the revelation of God, given in Law, Psalms and Prophets alike, is said to have been communicated by those who spoke under the control of the Spirit of God. This revelation found its culmination in Him who possessed the Spirit in permanent fulness : " God, having of old time spoken unto the fathers in the prophets by divers portions and in divers manners, hath at the end of these days spoken unto us in His Son " (Heb. i, 1 f.). Inspiration, in this sense, is a *means* of revelation. Not the only means, for God spoke also in mighty acts—in the Exodus from Egypt, in the deliverance from Babylon, and supremely in the redemptive work of Christ. Yet the significance of these revelatory acts required to be made plain by men divinely inspired for the purpose.

Our Lord promised on the eve of His betrayal that the same Spirit who spoke by the prophets should be present with His own disciples, in order (among other things) to bring to their remembrance all that He Himself had told them, to guide them into all the truth (including much that they were not ready to receive while their Master was with them in bodily presence), and to show them things to come (John xiv, 26 ; xvi, 13). This is the source of the unique authority investing the teaching of the apostles, because of which the Church placed the apostolic writings of the New Testament alongside the prophetic writings of the Old Testament.

But inspiration may be viewed as a quality of the *record* of revelation, as well as a means of the revelation itself. Thus Paul, as we noted, ascribes *theopneustia* to the writings themselves. Just as man became a living soul when God breathed into his nostrils the breath of life (Gen. ii, 7), so the effect of the God-breathed character of the Scriptures is that they are living, and not only living but life-giving. The Spirit not only spoke in ancient days to and through the prophets and apostles, but still speaks to us to-day through the written record of that revelation, saying, " Hear, and your soul shall live." Thus in the Bible we hear not only what the Spirit said to the Churches of the first century, but what He is still saying to those of the twentieth.

For this reason the Church has acknowledged the supreme authority of the Bible as " God's Word written," as the deposit of the message of salvation, as " the only rule of faith and

obedience," teaching "what man is to believe concerning God, and what duty God requires of man."

It is commonly supposed that, provided we recognise the authority of Scripture in the realm of religion and morals, we need not trouble if it proves to err in other respects, such as matters of history. Since, however, the God of the Bible has revealed Himself in history, we may well expect the record of His revelation to be historically trustworthy, and in point of fact we have good reason to accept it as such, quite apart from questions of inspiration.* We must, of course, be as sure as possible of the faithful transmission and translation of the original text, and thus Biblical philology and criticism have a necessary and important place in the study of the Scriptures.

The inspiration of the Bible does not imply that all the actions recorded in it have the divine approval, or that all the words reported have the divine authority. We are not obliged to defend Jacob's deception of his father or Elijah's calling down fire from heaven, or to accept as the utterances of the Most High the arguments of Job's friends or Deborah's commendation of Jael. These deeds and words are not part of God's revelation, but they are part of the context in which the revelation was given, and they are recorded for our admonition. Great harm has been caused by isolating parts of the Bible from the whole. The Old Testament is to be read and understood in the light of the New Testament; the earlier stages in the revelation appear in their proper perspective when seen in the context of the completed revelation in Christ.

One important aspect of inspiration lies in the *selection* of the events and sayings recorded. In an earlier discussion† we noticed the part played by such an "inspiration of selection" in the Gospels, and it can be traced everywhere in Scripture.

* Thus Professor W. F. Albright says of the Old Testament: "Our documentary sources for the history of Israel from the late thirteenth to the early fourth century B.C. [i.e., from Moses to the Chronicler] are, in general, remarkably reliable" (*From the Stone Age to Christianity*, 1940, p. 208); and again, "There can be no doubt that archaeology has confirmed the substantial historicity of the Old Testament tradition" (*Archaeology and the Religion of Israel*, 1941, p. 176). Similarly, with regard to the New Testament, we have Sir F. G. Kenyon's statement, "Both the *authenticity* and the *general integrity* of the books of the New Testament may be regarded as finally established" (*The Bible and Archaeology*, 1940, p. 289). These are non-theological assessments, based on external evidence.

† *Journal of Transactions of the Victoria Institute*, lxxv (1943), pp. 13, 18.

This is why the Biblical history records events in quite different proportions from those we expect to find in secular historians ; the selection is made with regard to the particular purpose of unfolding the story of redemption.

If we ask *how* the Holy Spirit so controlled those prophets and scribes as to give their writings this unique quality, we must answer in the words of Heb. i, 1, "in many parts and in many ways" (*polumerōs kai polutropōs*). Two different kinds of control, for example, were required to pen Isa. xxxvi and Isa. liii. The former chapter is a narrative of historical events recorded by an eye-witness ; the latter scales the highest heights of revelation. There is nothing mechanical about divine inspiration. Nor is it to be confused with dictation. The Koran (it is claimed) was dictated from heaven ; not so the Bible. Dictation leaves no room for the writer's individuality of thought and diction, but this individuality gets the fullest scope in the Bible.

" He who chose the writers of the Holy Scriptures, many men scattered over many ages, used them each in his surroundings and in his character, yet so as to harmonize them all in the Book which, while many, is one. He used them with the sovereign skill of Deity. And that skilful use meant that He used their whole being, which He had made, and their whole circumstances, which He had ordered. . . . He can take a human personality, made in His own image, pregnant, formative, causative, in all its living thought, sensibility, and will, and can throw it freely upon its task of thinking and expression—and behold, the product will be His ; His matter, His thought, His exposition, His Word, 'living and abiding for ever.' "*

The Biblical writers were not secretaries or penmen ; they were authors in the full sense of the word, yet authors under the overruling guidance of God the Holy Spirit, the *auctor primarius*. No adequate parallel can be found to the phenomenon of Biblical inspiration, unless those theologians are right who find an analogy to it in the hypostatic union of the divine and human in our Lord Jesus Christ.

* H. C. G. Moule, *The Epistle of St. Paul to the Romans* (Expositor's Bible), pp. 7 f.

Can we properly speak of the *verbal* inspiration of Scripture ? The expression seems unexceptionable, if we do not understand it in the sense of dictation or any other mechanical process. One so little suspect of obscurantism as Professor Robertson Smith could aver that “ the inspired writers were so led by the Spirit that they perfectly understood, and *perfectly recorded*, every word which God spoke to their hearts.”* If we think of inspiration as a quality of the prophetic message, that message was conveyed in words ; if we think of it as a quality of the Biblical record, that record is couched in words ; in either case we have inspiration associated with words—that is to say, literally, verbal inspiration. Commenting on Paul’s description of the apostolic doctrine as “ words which the Holy Spirit teaches ” (1 Cor. ii. 13), Bishop Lightfoot says :

“ Indeed the notion of verbal inspiration in a certain sense is involved in the very conception of an inspiration at all, because words are at once the instruments of carrying on and the means of expressing ideas, so that the words must both lead and follow the thought.”†

Certainly the minute attention paid by scholars to the verbal and grammatical details of Biblical language betokens a belief in verbal inspiration of some sort. It has been noticed, for instance, that the avoidance of Greek *hiereus* in the New Testament as a title of a Christian minister has in the light of later Church history a significance beyond what first-century writers might have been expected to see. And the quite remarkable care with which tenses are employed in the Greek New Testament is but one example of what may well be regarded as divine guidance, not only in the choice of words, but even in the choice of parts and forms of words.

A further phase of the Spirit’s work in connection with the Scriptures is noted in that clause of the *Westminster Confession of Faith* which insists that notwithstanding the many external

* *The Old Testament in the Jewish Church* (1st ed., 1881), Lecture I, p. 9. (*Italics mine.*)

† *Notes on Epistles of St. Paul*, p. 180. He goes on to say, however : “ But the passage gives no countenance to the popular doctrine of verbal inspiration, whether right or wrong.” By “ the popular doctrine of verbal inspiration ” he probably meant something approaching dictation.

and internal evidences of their excellency, yet “ our full persuasion and assurance of the infallible* truth, and divine authority thereof, is from the inward work of the Holy Spirit, bearing witness by and with the word in our hearts.” This *testimonium internum* is the one valid proof of inspiration, proceeding as it does from the same Spirit under whose guidance the revelation was originally recorded. “ The things of the Spirit of God are spiritually discerned ”; and one of the gifts of the Spirit is “ discerning of spirits.” The Spirit’s inward witness is exercised not only in the individual believer (thus justifying the Protestant insistence on the right of private judgment), but also in the Church, as was outstandingly exemplified in the recognition of the New Testament Canon. We in our day can appreciate the gulf separating the New Testament books from other early Christian literature, but the early Church seems to have been guided by a wisdom higher than its own in this matter. What a mercy, for example, that the *Shepherd* of Hermas was finally excluded from the Canon. It nearly got in !

The Holy Spirit is also the supreme Interpreter of the Scriptures, doing for us to-day as we read them what Christ did for the disciples on the road to Emmaus when He expounded to them in all the Scriptures the things concerning Himself. Thus we receive the fulfilment of our Lord’s promises about the Spirit : “ He shall testify of me ” (John xv, 26); “ He shall glorify me ; for he shall receive of mine, and shall show it unto you ” (xvi, 14).

From many points of view the Scriptures show a manifold variety, but they present an impressive unity when considered in the light of the purpose for which they were given, to make us wise unto salvation through faith in Christ. This unity we believe to be the result of their inspiration, and it is to be appreciated by the illumination of that same Spirit who controlled the writers in their recording of the revelation and guided the Church in its discerning of what was so inspired. To quote Robertson Smith again :

“ If I am asked why I receive Scripture as the Word of God and as the only perfect rule of faith and life, I answer

* Exception has often been taken to the word “ infallible ” used thus ; but I take it that “ infallibility ” is the Latin equivalent of Greek *aspaleia* used by Luke in the Prologue to his Gospel (i, 4). The whole Bible assures us of the *aspaleia* of those things which Christians most surely believe.

with all the fathers of the Protestant Church, ‘ Because the Bible is the only record of the redeeming love of God, because in the Bible alone I find God drawing near to man in Christ Jesus, and declaring to us, in Him, His will for our salvation.’ And this record I know to be true by the witness of His Spirit in my heart, whereby I am assured that none other than God Himself is able to speak such words to my soul.”*

DISCUSSION.

The CHAIRMAN (Dr. EVANS) said : In expressing thanks to the reader of the paper, he agreed with Mr. Bruce in the place given to the Holy Spirit in considering the doctrine of Inspiration. The Spirit was not only *auctor primarius* but (in Dr. Abraham Kuyper’s phrase) *auctor perpetuus*, continually speaking to the believing reader. Dr. Evans welcomed Mr. Bruce’s interpretation of “ infallibility ” as being merely the equivalent of *ἀσφάλεια* in Luke i, 4. That gave the notion of stability, assurance, and according to Moulton and Milligan was in the papyri a law term for proof or security.

Dr. Evans thought the term “ Verbal Inspiration ” one which had now served its purpose and could well be disused. Its ambiguity was unfortunate ; qualifications and interpretations were always needed when it was used, and whilst theology might claim to use its terms in a special technical sense, as did the lawyer and the scientist, we had to remember our evangelistic purpose. We should remove stumbling-blocks out of the way of the people. The term only referred to the original writings, to which we have only indirect access to-day, though sufficient for our needs. The term was useless for defence against a treatment of Scripture we should regard as very drastic ; Robertson Smith could use language consistent with Verbal Inspiration ; what then was its value to the evangelical ? To argue that because Inspiration employed words its product must be verbal might be met by suggesting that

* *Answer to the Form of Libel before the Free Presbytery of Aberdeen* (1878), p. 21.

Inspiration necessarily employs men ; we do not therefore speak of the product as "human." A phrase so misleading, so far from self-explanatory, so unnecessary, was better discarded and he hoped that this would be done. He concluded by quoting the words of two Deans : " Always estimate men according as they estimate this book " (Dean Alford) ; " Nothing can strengthen our belief in Inspiration so much as to observe how the whole history of thought only helps us to *understand* St. Paul and St. John better, never to pass beyond their teaching " (Dean Inge).

Air Commodore WISEMAN thanked Mr. Bruce for his very able paper and said that it was stimulating in these days to listen to a person of his ability and breadth of view stating reasons why inspiration must, in the rightly understood sense, be verbal ; yet at the same time making it clear that the theory of mechanical dictation is in no way bound up with Scriptural views of Revelation or Inspiration.

Mr. Bruce has referred to the wording of the Westminster Confession on this subject. That great authority on the history of the Confession and the doctrine of Revelation and Inspiration—Dr. Warfield of Princeton—has made it plain that those responsible for the wording of the Westminster Confession did not introduce this idea of "dictation," but that the theory was formulated subsequent to the writing of the Confession. Dr. Warfield writes (*The Westminster Assembly and Its Work*, Oxford University Press p. 262) : " The Reformers striving for very life had little time or heart to do more than to insist on the sole divine authority of Scripture, and the facts involved in and underlying that authority. The Systematists of the seventeenth century, intrenching a position already won, sought to give to these facts an indeflectable foundation in a special theory of the mode of inspiration, the theory of dictation. The Reformers though using language conformable to, or even suggestive of the theory of dictation, do not formally present that theory, as do the Systematists of the seventeenth century, as the fixed ground work of their doctrine of Scripture. They were concerned rather with the facts which the seventeenth century writers put this theory forward to explain and safeguard ; and

their thinking concerning Scripture appears, indeed, to be rooted in a theory of *concurrus* or *synergism* rather than one of *dictation*. Observing this, over eager controversialists may be possibly misled into supposing that the Reformers were no more strenuous as to the facts involved—the facts as to the plenary or verbal inspiration or infallibility or inerrancy of the Scripture—than as to the theory of the mode of inspiration that would best safeguard these facts. It is a prodigious historical blunder so to suppose. . . . Yet one can at least conceive how such a blunder can be made especially by men who are accustomed to assert that it is only on a theory of verbal dictation that detailed divine authority and inerrancy can be defended for the Scriptures. For us to understand the origin of their error, gross as it is, it is only necessary to suppose that they imagine the doctrines of verbal inspiration and inerrancy to be corollaries of the theory of dictation, instead of the theory of dictation to be, as it was historically an attempt to supply for these necessary doctrines a firm and impregnable basis.”

A comparison of Scripture with other ancient literature is, in this respect, illuminating. For instance, consider the first page of the Bible. I suggest that any person who questions to actual fact of Revelation should compare it with all the accounts of creation whether Sumerian, Babylonian, Assyrian, Phoenician, Greek, Chinese or Roman which have come down to us. I submit that such a comparison will at once reveal the difference between revelation and human guesswork or research.

The second comparison with eternal literature I would make is the difference between the four gospels and the excluded or apocryphal gospels. Those acquainted with the excluded gospels cannot but be impressed with the essential difference between them and the fourfold life of our Lord as we have it in the new Testament.

WRITTEN COMMUNICATIONS.

Mr. L. D. FORD wrote : The prophet Jeremiah (Ch. 1, 9) gives a five-word definition of Inspiration (only two terms in the Heb.), when he tells us what Jehovah said to him at the beginning of his ministry—Behold I have put MY WORDS IN THY MOUTH.

Note, this is more than " my message " in thy mouth, which would only identify God with the general tenor of his remarks. Peculiarly the prophet goes on to tell us of the *modus operandi* (Ch. 36, 18), which was that he pronounced the words to Baruch who wrote them with ink in the book. (And also notice that it was not upon clay tablets or pottery though both were in use at that day.)

The process then appears to have been thus : The words are God's. The speaker of them was a man. The writer of them is immaterial, and can be a mere amanuensis, as Baruch and at a later date Tertius (Rom. 16,12).

Jeremiah goes further and discloses the phenomenon of the archetype of Scripture being cast upon the fire by an unbelieving monarch and entirely consumed (Ch. 36). This constituted a challenge to the God Whose words the roll contained, and threatened to reduce the sum total of revelation. The sequel was however that the words were re-dictated by the prophet (surely more than human unaided powers of recollection were needed for this task) and re-written by Baruch ; and lest there should be suspicion that by this early mischance the volume of Divine revelation has suffered some inadvertent diminution through omission in the re-writing, the prophet says " and there were added besides unto them many like words " (Ch. xxxvi, 32). Rather than the *depositum* of inspiration suffering any loss by this attack upon new writing it is rather augmented thereby, in the event.

This sequence of events seems to indicate that the giving of Scripture was a matter that flowed solely from the Will of God : that God claims ownership of the very words used : that once it has proceeded from God to man it is as imperishable as its Author and is maintained by Divine providence though committed to slight custodianship (a roll and a persecuted prophet) both capable of destruction.

Many questions no doubt are raised by each of these three postulates but space forbids dealing with them here.

Mr. Bruce's article impresses one as being refreshingly free from present day " letting down " tendencies.

The Rev. C. T. Cook wrote : I should like to thank Mr. F. F. Bruce for a most instructive contribution to a subject of supreme importance. I am glad that he has drawn our attention to the fact that the inspiration of the sacred writers was a unique endowment, and that no adequate parallel can be found to the phenomenon. Some preachers are apt to confuse inspiration with the poetical and artistic genius, that of Shakespeare and Milton, for example. But could any of these writers have prefaced their utterances, as Isaiah or Jeremiah did, with a "Thus saith the Lord"? Some years ago a distinguished layman argued that passages from Christian classics, such as the writings of Augustine, Samuel Rutherford, and John Bunyan, might be given a place in the Canon of the New Testament. But it is worthy of notice that none of these men ever considered that anything they wrote was an addition to divine revelation ; they would have been shocked at the suggestion. Bunyan would never have placed his "dreams" on a level with Paul's Epistles.

In regard to "verbal inspiration," I note that Mr. Bruce says : "The expression seems unexceptionable, *if we do not understand it in the sense of dictation or any other mechanical process.*" That is a rather important *if*. Many scholars and others of unquestionable orthodoxy hesitate to employ the phrase, for the reason that all too often it has been understood in the sense which Mr. Bruce rightly deprecates. I recall an occasion when the late Dr. D. M. M'Intyre declined to use the expression, preferring to employ a circumlocution to express his meaning. It is, of course, perfectly true, as Bishop Westcott declared, that "Thoughts are wedded to words as necessarily as soul to body ;" and it is hardly logical to maintain, as some do, that while the Holy Spirit inspired the Apostles' thoughts and ideas, He gave them no assistance in the choice of words wherewith to express those ideas. It does not follow, however, that because the words are God-breathed, the inspired writers could not depart from absolute literality in their record of our Lord's utterances. We have only to compare different versions of our Lord's statements in the four Gospels to perceive that sometimes there are wide differences in the terminology, though the meaning is preserved. May we not say, therefore, that the guidance of the

Holy Spirit has ensured that the phraseology is adequate to express the truth, without, in every case, reproducing the exact words? Moreover, was it not a function of the Holy Spirit not only to bring to the Apostles' remembrance all the things that Christ had taught them, but also to be the *interpreter* of His words and deeds?

I have long felt that "verbal inspiration," in the crude and popular sense of mechanical dictation, represents a much lower view of inspiration than that held by our speaker this afternoon and by our honoured chairman. I have seen this idea of inspiration explained in a manner which suggested that the mental faculties of the inspired writers more or less ceased to function. This surely is to degrade the Scriptures almost to a level with the automatic writing which is a feature of Spiritism. I am grateful, therefore, to Mr. Bruce for his insistence that the Holy Spirit employed each writer's individuality to the full—not his voice only, nor his pen only, but his training and habits of thought, his vocabulary, and his literary style, in which is revealed the nature and quality of his education, and even whether he wrote good Greek or bad Greek.

Lt.-Col. L. M. DAVIES wrote : I agree with much that Mr. Bruce says, and particularly with his insistence, regarding Heb. i, 1, that Bible Inspiration was of several quite distinct kinds, according to circumstances ; but I do not share his antipathy to the idea of what he calls "mechanical" Inspiration or "dictation."

We can, of course, be sure that much of the Bible was not mechanically Inspired. There are, indeed, some passages (a very few) which were not Inspired at all (cf. 1 Cor. vii, 6–10, and 2 Corr. viii, 8, where Inspired and uninspired portions are clearly differentiated). And where human witnesses speak as such (cf. Is., xliii, 10–12 ; Luke xxiv, 48 ; John xv. 27 ; 1 John i, 1), it is clear that their personal qualities must affect their observations and their methods of expressing the same. Good memory and good faith are what we rightly expect of Inspiration here ; and we rejoice to see how Luke, as a medically trained practitioner, and Matthew as a legally trained revenue official, note and speak as we should expect such witnesses to do. It enhances our confidence that the Gospels are not pious forgeries,

when we see such guarantees of genuineness woven into their structure.

But I hold that there are cases where the personal factor does not come in. Thus when dealing with the remote past, or distant future, personal testimony is out of the question, and Inspiration must be of a more absolute kind. Details of the Creation story some antedating man himself, must be either sheer fiction or verbally Revealed. And the same applies to many of the prophecies regarding the still unseen future : they must also be either sheer fiction or verbally Revealed. Indeed, we are definitely shown this. For Daniel failed to understand the words he was told to record, and was informed that they were " sealed " till the time of the end (xii, 8-9) ; in other words, that their understanding was reserved, for those who should live in the days concerned (cf. 1 Peter i, 10-12. Prof. Robertson Smith was obviously wrong in saying that " the inspired writers perfectly understood . . . every word which God spoke to their hearts." Understanding of their message was anything but invariable).

Nor should we forget, in this connection, our Lord's own emphatic claim to the fullest verbal (" mechanical " or " dictated ") Inspiration, repeatedly declaring that the Words He used were not His own, but had been given to Him by the Father (John xii, 49 ; xiv, 24 ; xvii, 8, 14 ; etc.). Never did any other man. I believe, so constantly and completely speak by direct Inspiration as did the Holy One of God, during His Self-limiting incarnation.

Mr. R. MACGREGOR wrote : "All Scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness " (2 Timothy iii, 16). " For the prophecy came not in old time by the will of man, but holy men of God spake as they were moved by the Holy Ghost (2 Peter i, 21).

The Bible is a " God-inspired Record," and it contains accounts of men, good and bad, etc., just as a letter written by someone contains the record of good and bad deeds, the letter being written, by one person.

So God chose certain men and inspired them by the Holy Spirit to write and to proclaim certain statements and facts of God, and

also of men good and bad ; about the past, present and future—God here reveals Himself to man. All that was said under this inspiration was true ; scientifically and historically. The copies of the original, are so numerous, and no doubt God took care about them ; that except for some unimportant details, we have substantially the full Truth. Our Old Testament is practically the same as Our Lord used, and that the Jews have. The Lord Jesus, Who is the Truth, made no mistake. He spoke the words the Father gave Him.

“ For I have given unto them the words which Thou gavest Me ” (St. John xvii, 8). He was filled and led by the Holy Spirit. He took the Old Testament as being true—Noah and the flood—Jonah, Nineveh and the special fish—Sodom and Gomorrah, etc. But He denounced the man-made traditions of the Jews.

After His Resurrection ; in the walk to Emmaus, “ beginning at Moses and all the prophets, He expounded unto them in all the Scriptures, the things concerning Himself,” and upbraided them for being slow of heart to believe all that the prophets had spoken (St. Luke, 24–25–27).

In Genesis i we have the true facts of the Creation—no fact has disproved them. God the Creator is God the Inspirer of the Bible—Science contradicts its past theories and changes. Historically the Bible is true, the excavations also witnessing to its truth, and confounding the critics.

With regard to the New Testament Our Lord said “ But the Comforter, which is The Holy Ghost Whom the Father will send in My name, He shall teach you all things, and bring all things to your remembrance, whatsoever I have said unto you ” (St. John, xiv, 26) and “ When He the Spirit of Truth is come, He will guide you into all truth, and He will show you things to come ” (St. John, xvi, 13), and so we have the Gospels and the Epistles.

The inspiration of the Bible is further evidenced by its unity—during the about 1600 years it was written, through a variety of people.

One Holy Spirit working through them, and unfolding His message and purpose.

The Bible is now translated, whole or part, in 1,100 languages and dialects : and the Bible alone tells of God's love and the forgiveness of sins to fallen sinful mankind, through a crucified and risen Saviour : and in spite of great enmity through the ages, it goes on its way victoriously, to the Glory of God, and the salvation of man.

DR. BARCROFT ANDERSON wrote : I think Mr. Bruce has been misled by all the dictionaries, and by almost all the translations of the Greek Scriptures, in representing the word pneuma—πνευμα—in the Greek New Testament as capable of having the meaning “breath,” or wind, a meaning it had in old heathen Greek writings.

Paul in 2 Timothy iii, 16, referring to the Temple Scriptures, states that : “every writing is God-spirited.”

Jno., iii, 8, translated : “The Spirit, where He willeth, Spiritheth ; And the voice of Him thou hearest. But not canst thou know, whence He cometh, or whither He goeth. So is every one that is begotten out of the Spirit.”

Samuel, iii, 4, is : And was calling Causer to Samuel, and he was saying : “Here am I,” and he was running to Eli, and was saying unto him : “Here am I, for thou called me.” Verse 10. And was coming Causer and He was standing Himself, and He was calling.

Now that was a case in which Samuel did not know whence Causer, being Spirit, came, or whither He went. The word mispronounced Jehovah (I.E.F.E.) unquestionably means “He is causing.” Therefore I have rendered it Causer.

The Rev. A. W. PAYNE was grateful for the very valuable paper read by Mr. Bruce and rejoiced that the Victoria Institute took such an attitude with regard to Biblical Inspiration.

AUTHOR'S REPLY.

It is gratifying to have won so large a measure of agreement in dealing with a subject in which one so readily incurs the charge of obscurantism on the one hand or of heterodoxy on the other.

I agree with Dr. Evans and Mr. Cook that one needs to be very careful in using the expression “Verbal Inspiration.” I have only on this one occasion made public use of it feeling that before this

learned society there was less likelihood of being misunderstood than before the general public ; and even so I judged it wise to safeguard myself by making my meaning perfectly plain. It is monstrous to make the expression a test of orthodoxy, as some do. (See further E. Brunner, *The Mediator*, Eng. tr., 1934, pp. 326 f.)

It is not the isolated vocables of Holy Scripture that have this quality of inspiration, but the words grouped in a meaningful order. Theology is not the only sphere in which we need nowadays to remind ourselves of the wise dictum of Thomas Hobbes : “ Words are wise men’s counters, they do but reckon by them ; but they are the money of fools.” It is the *value* represented by the counters, the *meaning* conveyed by the words, that matters. We may change the counters ; we may put twentieth-century English words in place of first-century Greek words ; what is important is that the *meaning* should be preserved, and if that is so, the inspiration remains unimpaired.

It is amazing at this late date to find how many Christians—and non-Christians too—imagine that the historic doctrine of the inspiration of Scripture implies verbal dictation. Even many who repudiate the dictation theory in theory hold it in practice. Yet it is, as Mr. Cook has rightly said, a lower view of inspiration and not (as its holders may think) a higher one. Air Commodore Wiseman has done us a service here by quoting Warfield’s weighty words on the distinction between the *fact* of inspiration and the *theory* of dictation by which some have attempted to explain it. But if we take dictation literally, it is not merely a lower view of inspiration, but virtually rules out inspiration ; dictation and inspiration being processes differing in kind. One can well conceive of ways in which such passages as the Creation narratives and prophecies of the future, mentioned by Col. Davies, might be the product of inspiration without having recourse to any “ mechanical ” theory. As for our Lord’s teaching, His communion with the Father was so perfect as to take any thought of “ mechanical ” or “ dictated ” inspiration (if there is such a thing) particularly unnecessary in His case. In a unique and superlative sense, as Mr. Macgregor has pointed out, “ He was filled and led by the Holy Spirit,” so that all His words—and deeds—were in the highest degree divinely

inspired ; the Spirit of the Son and the Spirit of the Father are one and the same Spirit ; no wonder, then, that the Son's words were those which He had received from the Father.

But I think Col. Davies may be using the terms "mechanical" and "dictated" in a sense other than that which I attach to them. George Matheson wrote of his hymn *O Love that wilt not let me go* : "It was the quickest bit of work I ever did in my life. I had the impression rather of having it dictated to me by some inward voice than of working it out myself. I am quite sure that the whole work was completed in five minutes, and equally sure that it never received at my hands any retouching or correction" (quoted by A. Gammie, *Preachers I have heard*, 1945, p. 14). This was inspiration of a kind, though not of the special kind we have been considering ; yet we may find in his experience an illuminating analogy. The words came to him *as if* they were dictated, but they were his own all the same—the words of George Matheson at the height of his genius. So the words of the Biblical writers are their own words, spoken or written by them when their spiritual power and insight were most alive and vigorous ; yet, such was the control exercised over them by the Holy Spirit at the time that these words are authenticated by God as His Own. Our theories are all too inadequate to explain the miracle ; but by the inward witness of that same Holy Spirit we can appreciate the fact that here God Himself is speaking to our souls.

Col. Davies, is of course, quite right in criticizing Robertson Smith's statement that the inspired writers "perfectly understood" all that God spoke to their hearts. Smith was being over-orthodox when he said that—perhaps by way of unconscious compensation for his Wellhausenism. His attempt to combine Reformed theology with radical criticism was a puzzle to the old and the new schools alike. "In pure theology he taught his hearers the doctrine of inspiration from the great divines as few had taught it before . . . He led men's minds back to the great Reformation doctrine of Scripture which bases its inspiration not on any external things such as its authorship or literary construction, but on the *testimonium Sancti Spiritus*, which criticism can never touch" (P. Carnegie Simpson *Life of Principal Rainy*, Vol. I, 1909, p. 334 ; see also T. M. Lindsay

" Professor W. Robertson Smith's Doctrine of Scripture," in *The Expositor*, Oct. 1894, pp. 241-264). Yet there was reason in Thomas Carlyle's famous outburst : " Have my countrymen's heads become turnips when they think that they can hold the premisses of German unbelief and draw the conclusions of Scottish Evangelical Orthodoxy ? "

868TH ORDINARY GENERAL MEETING

HELD AT 12, QUEEN ANNE'S GATE, LONDON, S.W.1, AT 5.30 P.M.,
ON MONDAY, MAY 27TH, 1946.

Owing to the sudden death of the President, Sir Charles Marston, the previous Tuesday, the Chairman of the Council called on the Rev. C. T. Cook to read the Presidential Address entitled "Human Nature. The World's Fundamental Problem."

The following elections have been made : *Fellows* : D. S. Milne, Esq., M.B., Ch.B., Lt.-Col. Shewell-Cooper, N.D.H., F.L.S., R. W. Wyse, Esq., G.M., M.B., F.R.C.S., Rev. J. T. Zamrazil, B.Th., D.D., E. O. Wood, Esq., B.A., M.A., Ph.D., L. S. Hawboldt, Esq., M.Sc., C. S. Grant, Esq., P.L. Watts, Esq., Joseph Smith, Esq., Ph.D., M.Eng., B.Sc., P. S. Henman, Esq., A. H. Boulton, Esq., J. J. Carr, Esq.

Members.—J. N. Burgess, Esq., M.B., B.S., D.D.R., Miss Chave Jones, H. L. Harris, Esq., Professor W. C. Young, A.M., Ph.D., T. F. Miller, Esq., M.B., Ch.B., F. L. Denton, Esq., The Very Rev. S. Barton Babbage, M.A., Th.D., H. Grantham-Hill, Esq., B.Sc., Matthew Francis, Esq., F. E. Guest, Esq., James Hislop, Esq., M.A., B.Sc., Rev. M. G. Milmine, M.A., Rev. J. Stafford Wright, M.A., C. W. D. Warburton, Esq., M.A., D. R. Mitchell, Esq., C. B. Sage, Esq., J. B. Messenger, Esq., Miss L. E. Kent, B.A., M.D., R. T. Lovelock, Esq., A.M.I.E.E., E. H. Trenchard, Esq., B.A., Miss M. G. Rice, B.A., L. R. Harris, Esq., B.A., W. T. Stunt, Esq., D. Wallace, Esq., M.A., M.B., Ch.M., A. W. H. Dick, Esq. (Life Member), E. M. R. Smith, Esq., B.Sc., A.K.C., J. H. Boshier, Esq., B.Sc., Rev. H. L. Ellison, B.D., B.A.

Associates.—Pastor R. E. Euston, Miss L. E. West, Rev. R. H. Roxburgh, L.Th., Harding College Library (Library Associate).

PRESIDENTIAL ADDRESS.

HUMAN NATURE.

THE WORLD'S FUNDAMENTAL PROBLEM.

By SIR CHARLES MARSTON, F.S.A.

THESE are days when the world's news is full of warnings of food famine. My Address last year suggested that the famine to hear the words of God, foretold by Amos the Prophet, might also be impending.

Events of this past year have already justified the affirmation that anything might happen, and they continue to move with great rapidity.

Men of science are now beginning to appreciate what really lies at the root of world peace. For example, the B.B.C. series of Sunday Talks on "Can Science Bring Peace" was given on Easter Evening by Michael Polanyi, Professor of Chemistry at Manchester. He traced our troubles back through world politics to human nature. He succinctly pointed out that we were living in a period when propagandists were representing evil to be good, and good, evil. Already, nations could not trust each other. The world needed some accepted moral code such as that contained in the Bible. Here in brief outline was an Address which contained logic and truths so obvious, that they must have appealed to many of the millions that listened to them.

It is in one sense the very simplicity of the problem that has baffled people. Like Naaman the Syrian, they looked for some "great thing," and here is something that is a legacy of all the ages—just human nature.

But in another sense, human nature is not a simple problem. I have stressed in my previous Addresses that too much attention has been paid to the study of the science of matter, and too little to the science of man. Indeed, the 19th century involved one prolonged attempt to sidetrack the problem presented by human nature. With the advent of the doctrine of evolution, what had hitherto been called "sin," was now explained away. It was commonly supposed that sin was no more than a relic of the old animal nature.

The problem was even compared with the problem of dirt in our cities—the kind of thing that could be swept away by the brooms of education, psychology, and socialism—but which was well within the power of man to eradicate. It was tacitly assumed that all man had to do was decide what was right, and then to do it, and the simple fact that there are many people who know perfectly well what they ought to do, *but do not*, was quietly overlooked.

This doctrine became in time almost inseparable from Western civilisation, and, so convinced were we Westerners of its truth, that it very soon became an article of export for the East. We see its fruits to-day in the attempts to bring education to India.

We have been training young Indians at our universities in our ideas of Democracy, and have gradually introduced the curse of politics into that huge, dry, barren land of many races, creeds and castes, all calculated to provoke strife and dissension and bloodshed : whereas what India really needed was water !

Professor Joad has described in the *Rationalist Annual* for 1946 how he used to explain away sin. According to the evolutionary theory it was neither inevitable nor innate. The war upset this theory. "I see now," he writes, "that sin is endemic in man, and that the Christian doctrine of original sin expresses a deep and essential insight into human nature." Without it you fall victim to shallow optimisms.

With the dawn of the present century the shallow views on sin received a number of setbacks. The first came from psycho-analysis.

Freud, despite his anti-religion prejudices, was forced to conclude that original sin was a fact. Outward and apparent innocence, and beauty of human character proved nothing at all, beneath the surface there was a hidden source of evil. Psycho-analysis revealed a whole world of rottenness, villainy and sin, which had not hitherto been suspected by the psychologist—though its presence was clearly enough asserted in the New Testament. The analyst was forced to conclude "that all children, if they were free to respond to their instinctive impulses, would act as criminals."

The evidence from all quarters of the world as a result of this war now completely contradicts the assumption that human nature is anything like as good, or as stable, as has been postulated.

Again, we are all the while hampered by the assumption that uniformity exists in human nature. The Creator has been regarded as a sort of manufacturer of repetition machine work. And this in spite of the fact that everyone of us is daily in close contact with evidence which completely contradicts that assumption. If we can find no uniformity even among children born of the same parents, how is it possible to assume uniformity among nations ?

The fact that the world has been brought so much closer together by rapidity of communication has only accentuated this

problem. Men of foresight have affirmed that it would be almost as difficult "to win the Peace" as it was "to win the War." It would seem now as though this was even an understatement.

So despite last year's complete victory over Germany and Japan, peace and plenty are by no means in sight. We are now facing a world famine of food in the foreground, and a possible epidemic of plague in the background—further restrictions on our freedom at home—the perverseness of Russia—and quarrels with her and many other nations abroad.

These are all in accord with what we have been led to expect, not by prophets of to-day, but by those of thousands of years ago, whose writings and sayings have been preserved in Holy Scripture. In spite of the recent great meetings of U.N.O. in London and elsewhere, the time has surely come when "Men's hearts are failing them for fear" (Luke xxi, 26), as prophesied by Jesus Christ Himself.

We can trace the causes of all that has happened through the pages of the Bible, we can rarely find them in the literature of to-day.

And yet there are intelligent people who still think that Holy Scripture is "old fashioned" and "out of date"!

I write at a time of year when the events connected with Christ's Passion are again fresh in our memories. We have heard again how He wept over Jerusalem, and said "If thou hadst known the things that belong unto Peace" (Luke xix, 41, 42). Is there not a Divine displeasure on our state of civilisation? What He condemned was their attitude to Him, for He knew that it would affect their destiny.

We hear so much about "the rights of man" and not much about "the Rights of God."

I have repeatedly drawn attention to the fact that the Bible is the Text Book of Human Nature; and that during the past twenty years its claims to authenticity have been verified by the science of archæology, and are now being verified by its own prophecies.

A book entitled "The Anatomy of Peace," by Emery Reeves, published in 1945, has pointed out, with devastating logic, that U.N.O. cannot succeed, and that we must have a World Federation, and have it at once. Mr. Churchill appears to have reached

a like conclusion. He has now advocated an Anglo-American Federation as the first step in that direction. But, as yet, the world does not seem ripe even for that movement.

The fact is that the traditions of thousands of years of National Governments cannot be swept aside at short notice, without authority little, if any, short of the Divine.

Here again, the course of world events, as revealed by Bible prophecy, seems to march with the present time. The 38th and 39th chapters of the Book of the Prophet Ezekiel contain a description of a great encounter to be fought in the latter days in Northern Palestine. The aggressors came from "the uttermost parts of the North" (Ezekiel xxxix, 2). Their names are associated with territories which to-day belong to the Soviet Union. It is even more significant that Persia, upon whom Russia is now encroaching, is included among them (Ezekiel xxxviii, 5). And this, too, from the pen of a prophet who wrote more than two thousand five hundred years ago. The complete defeat of Russia, according to this prophecy of Ezekiel, is to come about by direct intervention of the Lord Jehovah, Who is the Lord Jesus Christ of the New Testament. (Hebrews i, 1-12.)

Again, even as I revise these very lines, comes the announcement that our Government have acceded to the urgent demand of Egypt to withdraw altogether from that country, and to give up the guardianship of the Suez Canal.

In anticipation of such an event, the great General Gordon in his lifetime propounded an alternative and better route than the Canal. The Jordan Valley runs through Palestine to the Dead Sea at about one thousand feet below sea level. Gordon's plan was to cut a channel across Palestine from Haifa, so that the Mediterranean would pour through and fill up both the Jordan Valley and the Dead Sea, and to further connect the southern end by a waterway into the Gulf of Akaba.

The last great battle, it would seem from Old Testament prophecy, is to take place round Jerusalem and immediately to precede the filling up of the Jordan Valley. The hostile forces are already accumulating for this conflict. On the surface it would appear that the return of the Jews to Palestine is a fulfilment of Old Testament prophecy, and it is so being used by the Zionist Movement.

But even in St. John's time there were people who "Say they are Jews, and they are not" (Rev. ii, 9 and iii, 9). And in the centuries that have since rolled by, the proportion of pseudo-Jews has greatly increased. It must be remembered that the migration of so-called Jews to Palestine during the past 25 years has been on a basis of money, and not on a basis of character.

We have to-day one great advantage over our forefathers in the interpretation of Holy Scripture, we are approaching the end of the Dispensation. We have been in doubt as to the chronology of events foreshadowed in the Bible. The Second Coming of Christ did not occur when it was anticipated by the Early Church, so it has been assumed by a large proportion of the present-day Church that it would not now occur at all. The men who produced the Theory of Evolution predicted better and better times on earth, and substituted them for the awe-inspiring events foretold in the Bible. Science was to bring us the new Heaven and the new Earth, without regard for the infirmities of human nature. The Jews who crucified "the Man who came to save the World" cried out, "Not this Man, but Barabbas." Our modern outlook has been, "Not this Man, but Materialism will save the world." And now—the Atomic Bomb !

When the present course of events cause the British and American nations to cast aside the delusions of the past half-century, and to recognise that even the Federation of the World is impossible without some Supreme and Unquestioned Authority, then they will give up building the Headquarters of U.N.O. in the United States. Then our nations will return to their Bibles, the Authority that has made them great. They will appreciate that the Book is not a collection of myths, legends and folklore, as German scholars beguiled ours to believe, but contains a Divine Revelation guaranteed by the fulfilment of prophecy. Then they will prepare for the Coming of the Supreme Authority over Human Nature—the Saviour and Redeemer of the World, Our Lord Jesus Christ.

The Bible would seem to foretell other events that will happen at the end of this Dispensation to which I have made no reference. It is to be "a time of trouble such as never was." As we read these accounts and consider the widespread decline in our morals, and the present disregard of religion, we say "What hope is there for us as a nation ?" I think, as we look

back on the last few years, and reflect what hope *there was then for us*, we realise that the Divine Providence has wrought a series of miracles on our behalf. That for some cause which is not yet recognised, we have been treated as a favoured nation by Him. Let us take hope in the thought that the Divine, who has brought us through these present wars, will continue His care for us.

None the less, it is our imperative duty to turn from the vain outlook and teachings of the present, and study our Bibles in the light of to-day. There will be found the cure for human nature, presented, but largely neglected through the ages. There will be found a greater and more effective power than the atomic bomb—the power of prayer. Alexis Carrel, of the Rockefeller Institute, New York, one of the greatest medical scientists of this age, compared this before he died with the power of terrestrial gravity. And there will be found the Record of the Eternal Sacrifice for Sins by Our Lord Jesus Christ, whose Second Coming must now be rapidly approaching.

CHAIRMAN'S REMARKS.

AIR COMMODORE WISEMAN said : Only the day before he died Sir Charles Marston had written him on the subject of this paper. Not only the Institute, but Biblical archeology had lost a generous friend, for with his ample fortune he had given considerable encouragement to the excavation of Biblical sites. The results of these investigations, those at Jericho and Lachish particularly, had been made available to the public in popular form in his books, the last of which *The Bible Comes Alive*, has had a wide circulation ; Thus “he being dead yet speaketh.” Sir Charles had an intense faith that archeology had, and would continue to have, a considerable influence in the minds of men in regard to the authenticity and trustworthiness of the Bible. When at the end of my remarks on his Presidential Address last year, I referred to his books on archeology, he told me after the meeting that the publication of these books “had been the one thing worth while.”

The paper to which we have just listened, which the President had looked forward to reading himself, was written when he was rather unwell, it contains, in a way he was then unaware, his last words to

the Institute ; writing at the end of a full life he sees quite clearly that the world's fundamental problem is human nature itself. The recognition of this takes us back to the Bible where this fact is even more clearly stated. Man still seems to imagine that it is in some environment or system eternal to himself that he will find the root cause of his troubles and sense of frustration. But Scripture makes it plain that the root cause is in himself, his fallen nature, his sin. This is the disruptive force at work blighting even the best intentions of human nature. Biblical Philosophy has much to say about this problem ; it is viewed as the fundamental problem throughout the ages, its origin involved separation from fellowship with God, its continuance the frustration of mankind ; the remedy is revealed in the sinless life and atoning death of the Incarnate Saviour. At this Annual Meeting of the Victoria Institute or Philosophical Society of Great Britain I cannot but affirm my faith in the Biblical Philosophy, especially in view of the bankruptcy of modern philosophies based on a merely mechanistic development of the universe. It is surely significant that while these philosophies continue to replace each other and " have their day and cease to be " the Biblical Philosophy of man and sin remains permanently true.

There was until recently a settled belief in the inevitability of human progress, it was part of the evolutionary theory of all things, and the phenomenal material progress of the past one hundred years gave it the semblance of an " assured result." There is now widespread delusion ; it is quite evident that man has not improved on the Ten Commandments given in ancient time. It is in the realm of man's conduct that the weakness appears and I submit, that its solution is to be found in the right relationship of man to his Maker. Human beings, being what they are, can never be effectively controlled except by a knowledge of the solution made known by Christ. The Philosophies which exclude God and substitute a merely mechanistic universe, may borrow for instance the Biblical philosophy of conscience for a time, but in the end the logic of their atheism kills even this conception of man's guiding principle. The only completely consistent philosophy of the " problem of evil " in man is to be found in the Bible and the remedy revealed in it is the only valid deliverance from pessimism.