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A table of contents for *Journal of the Transactions of the Victoria Institute* can be found here:

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JOURNAL OF THE TRANSACTIONS

OF

The Victoria Institute

VOL. LXXXVIII

1956

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THE TRANSACTIONS
OF
The Victoria Institute
OR
Philosophical Society of Great Britain

VOL. LXXXVIII

1956



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 1886-1903.—Sir GEORGE GABRIEL STOKES, Bart., D.C.L., F.R.S.
 1903-1921.—The Right Hon. The EARL OF HALSBURY, P.C., F.R.S.
 1921-1923.—The Very Rev. H. WACE, M.A., D.D., Dean of Canterbury.
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 F. F. BRUCE, M.A., *Editor*.

Auditor.

- G. METCALFE COLLIER, A.C.I.I., *Incorporated Accountant*.

Assistant Secretary.

- Mrs. L. I. HARGREAVES.

CONTENTS

	PAGE
REPORT OF THE COUNCIL FOR THE YEAR 1955	vii
THE ANNUAL GENERAL MEETING HELD ON MONDAY, 28TH MAY, 1956	xv
THE FIGURE OF CHRIST IN JUNGIAN PSYCHOLOGY. BY REV. ERASTUS EVANS, M.A.	1
THE PLACE OF MYTH IN THE INTERPRETATION OF THE BIBLE. BY REV. J. STAFFORD WRIGHT, M.A.	17
SOME MAJOR MODERN TRENDS IN OLD TESTAMENT STUDY. BY REV. H. L. ELLISON, B.A., B.D.	31
DIVINE HEALING AND THE ATONEMENT: A RESTATEMENT. BY L. F. W. WOODFORD, Dip.Th.	47
THE PRESUPPOSITIONS OF SCIENCE: A SYMPOSIUM. By J. W. HAWTHORNE, B.Sc., Ph.D., and R. E. D. CLARK, M.A., Ph.D.	63
<i>Discussion.</i> —Dr. R. J. C. Harris, Mr. G. E. Barnes, Mr. A. K. Weaver	74
PHILOSOPHICAL PRINCIPLES IN THE TEACHING OF SCIENCE AND RELIGION. BY GORDON E. BARNES, M.A.	79
THE PRINCIPLE OF UNIFORMITY IN GEOLOGY, BIOLOGY AND THEOLOGY. BY PROFESSOR R. HOOYKAAS	99
ANNUAL ADDRESS: THE PLACE AND PROGRESS OF BIBLICAL ARCHAEOLOGY. BY D. J. WISEMAN, O.B.E., M.A., A.K.C....	117

DISCUSSIONS

THE FIGURE OF CHRIST IN JUNGIAN PSYCHOLOGY.	
<i>Discussion.</i> —Dr. Ernest White, Mr. R. Macgreggor, Mr. E. W. Crabb, Mr. E. J. G. Titterington	129
<i>Communications.</i> —Rev. J. Stafford Wright, Dr. R. E. D. Clark, Professor F. F. Bruce, Rev. Glyn Prosser, Dr. R. A. Porter, Mr. H. V. Goold, Miss Mary Coston	133
THE PLACE OF MYTH IN THE INTERPRETATION OF THE BIBLE.	
<i>Discussion.</i> —Rev. Philip E. Hughes, Major C. W. Hume, Dr. E. White, Dr. C. T. Cook, Mr. G. W. Robson ...	145
<i>Communications.</i> —Rev. H. L. Ellison, Mr. B. B. Knopp...	149
SOME MAJOR MODERN TRENDS IN OLD TESTAMENT STUDY.	
<i>Discussion.</i> —Professor W. D. McHardy, Dr. C. T. Cook...	153
<i>Communications.</i> —Professor H. H. Rowley, Mr. B. B. Knopp	155

DIVINE HEALING AND THE ATONEMENT: A RESTATEMENT.			
<i>Discussion.</i> —Mr. E. J. G. Titterington, Dr. Ernest White, Mr. D. A. Burgess	...	...	161
<i>Communications.</i> —Rev. H. L. Ellison, Professor F. F. Bruce, Dr. G. F. Frohwein, Mr. Donald Gee, Major R. B. Withers	...	...	164
PHILOSOPHICAL PRINCIPLES IN THE TEACHING OF SCIENCE AND RELIGION.			
<i>Discussion.</i> —Mr. E. W. Crabb, Mr. W. E. Filmer, Mr. H. K. Bentley, Mr. B. C. Martin	...	...	175
<i>Communications.</i> —Dr. R. E. D. Clark, Mr. E. J. G. Titterington	...	...	178
THE PRINCIPLE OF UNIFORMITY IN GEOLOGY, BIOLOGY AND THEOLOGY.			
<i>Discussion.</i> —Dr. R. J. C. Harris, Dr. Douglas C. Spanner, Dr. D. M. MacKay, Rev. Philip E. Hughes	...	...	185
<i>Communication.</i> —Mr. E. J. G. Titterington	...	...	189
<hr/>			
LIST OF FELLOWS, MEMBERS AND ASSOCIATES	...	...	xvii
CONTENTS OF PREVIOUS VOLUMES	...	...	xxx

VICTORIA INSTITUTE

REPORT OF THE COUNCIL FOR THE YEAR 1955

READ AT THE

ANNUAL GENERAL MEETING, MAY 28TH, 1956

1. *Progress of the Institute*

In presenting the Eighty-ninth Annual Report, together with a Balance Sheet and a Statement of Income and Expenditure, the Council is thankful to God for the continuation of the work of the Institute.

The Council expresses its thanks to all who have contributed papers, and to those who have taken the chair at the meetings. Gratitude is also due to the continued valuable services of the Honorary Secretary, Mr. E. J. G. Titterington, and to the assistant secretary, Mrs. Hargreaves, for her efficient labours for the Institute.

It will be remembered that a questionnaire was circulated to the members asking what kind of papers they preferred, whether technical concerning scientific research, or papers which relate Biblical and scientific and philosophical concepts. Members were also asked to choose from a list of topics those they favoured, and to make suggestions for other subjects not included in the list. Well over a hundred replies were received.

In reply to the question whether subscribers prefer technical papers, or papers which relate to Biblical and recent scientific and philosophical concepts, or some of each, the majority voted for some of each, but with a distinct preference for the second category.

With regard to subjects, theology headed the list. Next came natural science, followed by archaeology, philosophy, medicine and spiritual healing, psychology and parapsychology, education, ethics and law.

There would appear to be a call for more papers dealing with spiritual healing, education and parapsychology than we have had in the past. A number of suggestions were made of subjects for future papers.

The Council considered methods for making the Institute more widely known, and as a result action was taken.

There were three insertions of advertisements in *The Listener* and two in *The Spectator*. These brought a number of enquiries, but very few applications for membership. In view of the small returns for heavy expenditure it was decided that there should be no further advertising at present.

The Christian Graduate published an article on the history and work of the Institute. *The Life of Faith* also published an article about the Institute, the material for which was provided by an interview between the Editor's representative and the Chairman and Honorary Secretary. The Council expresses its thanks to the Editors of both these magazines for their willing help and co-operation.

Members will observe from a perusal of the accounts and balance sheet that there has been a steady improvement in the financial position of the Institute.

During the year the number of new members joining has not more than balanced the number lost by resignation and death. The Council would impress upon members the need for making the Institute more widely known, and the desirability of recruiting more members. It is believed that the Institute can fulfil a useful function in aiding thoughtful men and women in their knowledge of the relationship between Christianity and modern knowledge and that the aims and work of the Institute should be more widely known.

2. Meetings

Seven Ordinary Meetings were held during the Session, in addition to the Annual General Meeting and Annual Address.

“The Psychology of St. Paul's Epistles,” by ERNEST WHITE, Esq., M.B., B.S.

Rev. Erastus Evans, M.A., in the Chair.

“Genesis 10: Some Archaeological Considerations,” by D. J. WISEMAN, Esq., O.B.E., M.A., A.K.C.

Rev. S. Clive Thexton, M.Th., in the Chair.

“Secular Records in Confirmation of the Scriptures” (Gunning Prize Essay), by D. J. WISEMAN, Esq., O.B.E., M.A., A.K.C.

E. W. Crabb, Esq., Dip. Litt., Dip. Th., in the Chair.

“Trends in New Testament Interpretation,” by Professor
F. F. BRUCE, M.A.

Rev. H. L. Ellison, B.A., B.D., in the Chair.

“Neoplatonism and Christianity,” by Rev. PHILIP S.
WATSON, M.A., B.D.

Rev. S. Clive Thexton, M.Th., in the Chair.

“Karl Barth’s Doctrine of Inspiration,” by Rev. G. W.
BROMLEY, M.A., Ph.D., D.Litt.

Rev. C. T. Cook, D.D., in the Chair.

“The Large Numbers of the Old Testament,” by R. E. D.
CLARK, Esq., M.A., Ph.D.

Ernest White, Esq., M.B., B.S. in the Chair.

Annual Address—“Freedom and the Christian Mission,” by
SIR KENNETH GRUBB, C.M.G., LL.D.

Ernest White, Esq., M.B., B.S., in the Chair.

3. *Council and Officers*

The following is a list of the Council and Officers for the year
1955:—

President

Vice-Presidents

Professor J. N. D. Anderson, O.B.E., M.A., LL.B.

The Rev. Principal H. S. Curr, M.A., B.D., B.Litt., Ph.D.

The Rt. Rev. H. R. Gough, O.B.E., T.D., M.A., H.C.F. (Bishop of
Barking).

Professor Malcolm Guthrie, Ph.D., B.Sc., A.R.S.M.

Trustees

Ernest White, M.B., B.S.

Francis F. Stunt, LL.B.

E. J. G. Titterington, M.B.E., M.A.

Council

(In Order of Original Election)

Douglas Dewar, B.A., F.Z.S.	W. E. Filmer, B.A., F.Z.S.
Robert E. D. Clark, M.A., Ph.D.	D. J. Wiseman, O.B.E., M.A., A.K.C.
Ernest White, M.B., B.S. (Chairman of Council).	Professor F. F. Bruce, M.A.
Rev. C. T. Cook, D.D.	A. H. Boulton, LL.B.
Rev. J. Stafford Wright, M.A.	E. W. Crabb, Dip.Litt., Dip.Th.
E. J. G. Titterington, M.B.E., M.A.	Gordon E. Barnes, M.A.
R. J. C. Harris, A.R.C.S., B.Sc., Ph.D.	D. M. MacKay, B.Sc., Ph.D. Rev. H. L. Ellison, B.A., B.D
Francis F Stunt, LL.B.	

Honorary Officers

Francis F. Stunt, LL.B., *Treasurer.*

Professor F. F. Bruce, M.A., *Editor.*

E. J. G. Titterington, M.B.E., M.A., *Secretary.*

Auditor

G. Metcalfe Collier, Esq., A.C.I.I., *Incorporated Accountant.*

Assistant Secretary

Mrs. L. I. Hargreaves

4. Election of Officers

In accordance with the Rules the following Members of the Council retire by rotation: R. E. D. Clark, Esq., M.A., Ph.D.; R. J. C. Harris, Esq., Ph.D., B.Sc., A.R.I.C.; Ernest White, Esq., M.B., B.S.; Douglas Dewar, Esq., B.A., F.Z.S., and A. H. Boulton, Esq., LL.B., of whom the first three offer (and are nominated by the Council) for re-election.

G. Metcalfe Collier, Esq., F.S.A.A., Incorporated Accountant, of the firm of Metcalfe Collier, Hayward and Blake, offers (and is nominated by the Council) for re-election as Auditor for the ensuing year, at a fee of ten guineas.

5. Obituary

The Council regret to announce the following deaths:—

Col. W. G. S. Benson, C.B.; Major H. B. Clarke, R.E.; Rev. F. Martyn Cundy, M.A.; Lt.-Col. L. Merson Davies, M.A., Ph.D., D.Sc., F.G.S., F.R.S.E.; Rev. D. J. Huxley Evans, B.A., F.Ph.S., Dip. Ed., Dip. Th.; W. F. Freeman, Esq.; Miss A. M. Hodgkin; V. E. J. Hussey, Esq., B.A.; Col. F. C. Molesworth; Col. G. M. Oldham, D.S.O.; Charles Phillips, Esq., F.R.C.S., and Lt.-Col. R. L. D. Whitfield.

6. *New Fellows, Members and Associates*

The following are the names of new Fellows, Members and Associates elected in 1955:—

FELLOWS: George S. Cansdale, Esq., B.A., B.Sc., F.L.S.; Rev. Robt. Duce; Rev. Alfred M. Engle, A.B., Th.B.; Nigel S. Fox, Esq.; T. H. Leith, Esq., M.A.; Rev. C. K. S. Moffatt, D.Th., D.D., D.Litt.; Major A. J. M. Rutherford, M.C.

MEMBERS: C. E. J. Aston, Esq., B.Sc., A.T.I.; Rev. C. E. N. Brown (on transfer from Associate); Derek C. Burke, Esq. (on transfer from Associate); Miss N. E. W. Collie, M.A.; Rev. Harlan L. Harris, A.B., B.D.; Major C. W. Hume, M.C., B.Sc.; Arthur R. Lord, Esq.; Donny Mantile, Esq.; Rev. John K. Mickelson, B.I.S.; Wm. Millar, Esq.; Miss Jean D. Mullinger; Victor Perry, Esq. (on transfer from Associate); Rev. B. P. Phillips, B.A., B.D.; M. G. Polson, Esq. (on transfer from Fellow); G. W. Robson, Esq.; Alexander Squire, Esq., S.B.; Rev. James D. Strauss; M. J. Turner, Esq. (on transfer from Associate); J. V. Wilson, Esq., M.D., M.R.C.P.

ASSOCIATES: A. F. Hawker, Esq.; M. J. Bradshaw, Esq.; E. Levine, Esq.; R. J. Vinjevoid, Esq.

LIBRARY ASSOCIATES: Bosworth Memorial Library, Lexington; Duke University, North Carolina; Grace Theological Seminary, Winona Lake; McCormick Theological Seminary, Chicago; Southwestern Baptist Theological Seminary, Fort Worth.

7. *Membership*

Life Fellows	20
Annual Fellows	120
Life Members	33
Annual Members	237
Associates	39
Library Associates	61
	—
Total Nominal Membership	510
	—

Thirty new Fellows, Members and Associates were elected during the year, and there were eight deaths and twenty-three resignations.

8. *Donations*

W. E. Filmer, Esq., £35; Dr. B. P. Sutherland, £6 17s.; Rev. S. M. Robinson, £4 18s. 11d.; T. McGavin, Esq., £1 17s.; G. E. Hoyer, Esq., £1 16s. 1d.; E. E. Oakes, Esq., £1 10s.; H. Dana Taylor, Esq., £1 8s. 1d.; J. B. Henderson, Esq., £1 1s.; Rev. H. McKerlie, 17s.; Miss M. F. Coston, 14s. 6d.; Rev. E. L. McMillan, 10s. 1d.; Rev. Dr. J. W. Wenham, 10s.; J. A. Thompson, Esq., 3s. 1d.; Anon., 11s.; Total, £57 13s. 9d.

ERNEST WHITE.
Chairman.

**INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 1st JANUARY, 1955 TO
30th SEPTEMBER, 1955**

Year to 31.12.54	EXPENDITURE	£ s. d.	£ s. d.	Year to 31.12.54	INCOME	£ s. d.	£ s. d.
£	PAPERS, LECTURES, ETC.—			£			
297	Printing		396 19 1		ANNUAL SUBSCRIPTIONS:—		
4	Lecturers' Expenses		12 6 6	412	Fellows	360 10 5	
16	Hire of Halls		13 15 0	462	Members	472 12 7	
			<hr/>	64	Associates	35 11 7	
317			423 0 7	68	Library Associates	62 18 7	
	ADMINISTRATION:—					<hr/>	931 13 2
218	Salaries and National Insurance ..	162 18 8			LIFE SUBSCRIPTIONS:—		
23	Rent	9 15 0		36	Proportion for the period		13 19 3
19	Rates	19 1 3		61	Sales of Publications		86 11 2
12	Lighting and Heating	12 9 6			DONATIONS:—		
14	Cleaning	10 18 6		35	Casual	17 10 8	
			<hr/>	64	Covenanted (gross)	60 17 6	
68	Office Stationery and Duplicating ..	21 2 1	215 2 11			<hr/>	78 8 2
17	Telephone and Sundries	11 3 9		13	INTEREST FROM CRAIG MEMORIAL FUND		6 11 8
—	Advertising	80 0 0					
3	Bank Charges and Cheque Books ..	10 0					
			<hr/>				
10	Audit Fee		112 15 10				
57	Postages		10 10 0				
			<hr/>				
758			47 19 9				
457	Excess of Income over Expenditure for the period		809 9 1				
			<hr/>				
			307 14 4				
			<hr/>				
£1,215			£1,117 3 5	£1,215			£1,117 3 5

PRIZE FUND

	£	s.	d.
BALANCES IN HAND at 30th September, 1955:—			
Gunning Trust	84	8	4
Langhorne Orchard Trust	62	11	8
Schofield Memorial	59	16	11
	206 16 11		
	£206 16 11		

	£	s.	d.
AMOUNTS IN HAND at 1st January, 1955:—			
Gunning Trust	72	12	11
Langborne Orchard Trust	58	1	0
Schofield Memorial	52	14	11
	183 8 10		
INCOME:—			
Gunning Trust	11	15	5
Langhorne Orchard Trust	4	10	8
Schofield Memorial	7	2	0
	23 8 1		
	£206 16 11		

CASH BALANCES

	£	s.	d.
LIFE COMPOSITIONS FUND	616	4	0
PRIZE FUND	206	16	11
	£823 0 11		
	£823 0 11		

	£	s.	d.
BALANCES AT BANK:—			
General Account	335	3	7
Prize Account	206	16	11
	542 0 6		
BALANCES IN HAND			6 8 7
GENERAL FUND OVERDRAWN			274 11 10
	£823 0 11		
	£823 0 11		

THE ANNUAL GENERAL MEETING OF THE VICTORIA INSTITUTE WAS HELD IN THE CAXTON HALL, WESTMINSTER, S.W. 1, ON MONDAY, 28TH MAY, 1956.

Professor MALCOLM GUTHRIE, Ph.D., B.Sc., A.R.S.M., in the Chair.

The Minutes of the Annual Meeting held on Monday, 23rd May, 1955, were read, confirmed and signed.

The Report of the Council and Statement of Accounts for 1955, having been circulated, were taken as read.

The Chairman then put to the Meeting the *FIRST RESOLUTION*, as follows:—

THAT THE REPORT AND STATEMENT OF ACCOUNTS FOR 1955, PRESENTED BY THE COUNCIL, BE RECEIVED AND ADOPTED.

In the absence of the Hon. Treasurer, the Hon. Secretary made certain explanations, calling attention to the change in the accounting year, so that the accounts only cover a period of nine months. There being no further comments or questions, the Resolution was carried unanimously.

Mr. Filmer then moved, and Dr. Harris seconded, the *SECOND RESOLUTION*:—

THAT THE VICE-PRESIDENTS, PROFESSOR J. N. D. ANDERSON, O.B.E., M.A., LL.B.; REV. H. S. CURR, M.A., B.S., B.LITT., PH.D.; THE RIGHT REV. H. R. GOUGH, O.B.E., T.D., M.A., H.C.F.; AND PROFESSOR MALCOLM GUTHRIE, PH.D., B.Sc., A.R.S.M.; THE HONORARY SECRETARY, E. J. G. TITTERINGTON, M.B.E., M.A.; AND THE HON. TREASURER, FRANCIS F. STUNT, ESQ., LL.B., BE, AND HEREBY ARE, RE-ELECTED TO THEIR OFFICES.

There being no comments or amendments, this Resolution was carried unanimously.

The *THIRD RESOLUTION*, which was also carried unanimously, was proposed by Capt. W. A. Ewbank and seconded by Dr. C. E. A. Turner, as follows:—

THAT R. E. D. CLARK, ESQ., M.A., PH.D.; R. J. C. HARRIS, ESQ., PH.D., B.Sc., F.R.I.C.; AND ERNEST WHITE, ESQ., M.B., B.S., RETIRING MEMBERS OF THE COUNCIL, BE, AND HEREBY ARE, RE-ELECTED TO THEIR OFFICES.

The Hon. Secretary referred to the services rendered to the Council by A. H. Boulton, Esq., LL.B., and Douglas Dewar, Esq., B.A., F.Z.S., who were not seeking re-election, and voiced the regret of the Council at losing their services.

The *FOURTH RESOLUTION* was then moved from the Chair, and carried unanimously, as follows:—

THAT G. METCALFE COLLIER, F.S.A.A., OF MESSRS. METCALFE COLLIER, HAYWARD AND BLAKE, BE. AND HEREBY IS, RE-ELECTED AUDITOR AT A FEE OF TEN GUINEAS, AND THAT HE BE THANKED FOR HIS SERVICES.

There being no other business, the Meeting was declared closed.

932nd ORDINARY GENERAL MEETING

OF THE

VICTORIA INSTITUTE

AT

THE CAXTON HALL

WESTMINSTER, S.W. 1

ON

MONDAY, 14th NOVEMBER, 1955

ERNEST WHITE, M.B., B.S., in the Chair

**THE FIGURE OF CHRIST IN JUNGIAN
PSYCHOLOGY**

By

THE REV. ERASTUS EVANS, M.A.

THE VICTORIA INSTITUTE
22 DINGWALL ROAD, CROYDON, SURREY

THE FIGURE OF CHRIST IN JUNGIAN PSYCHOLOGY

BY THE REV. ERASTUS EVANS, M.A.

SYNOPSIS

1. *The Background of the Discussion.* The present "demythologizing" controversy is concerned with the significance of Biblical history and the permanent value of Myth, and Jungian psychology has raised similar issues by its own methods. Both are sifting the traditional motion of Revelation.

2. *Jung's Attitude to Christ.* Jung has declared Christ to be an inadequate symbol of the human totality which he terms the Self. Christ symbolizes for him only the "light" aspect of man and God. This, to him, implies a defect in the Christian revelation.

3. *The Real Question.* The question thus arises whether Christ is merely the expression of what is "light" in God and man, and whether a more historical consideration will not reveal that the Christ of the New Testament was aware of both the "light" and the "dark" attributed by Jung to God, and was in a sense beyond both.

4. *Preliminary Considerations.* (a) Christianity is not merely a matter of myths and archetypes arising from the human soul; the historical kernel in Christianity has always tested such things. (b) Jung's concern that the conventional notion of Christ as all "light" leads to a fatal dichotomy between God and man is appreciated. (c) Jung's notion of the Self is ambiguous, being capable of at least three interpretations.

5. *The Inquiry.* In the Synoptic tradition we find (a) that the God preached by Christ is by no means all "light" in the Jungian sense; (b) that Christ is well aware of the "dark" as well as the "light" aspect of His work, and shows a consciousness that is beyond both the good and evil of His contemporaries.

6. *Jung's References to the Man Jesus.* Jung's interest is mainly in the dogmatic figure of Christ, but he does make observations about the historical Jesus. (a) Jesus created an important new stage in the awareness of man, in that His moral and spiritual emphasis separated things that had been confused in man's living. (b) Jung sees the following of Jesus not in slavish imitation of Him, but in treating life as He did. (c) Like Bultmann, Jung sees the real incarnation in the crucifixion.

IN the new attempt to understand the meaning and validity of the Christian Revelation which is characteristic of our Modern Age, there are two trends which, while they seem poles apart in sphere and interest, must nevertheless at some point ultimately meet and confront each other. They are the historical and the psychological. By the historical in this particular reference I mean the study of the Bible and especially the New Testament. The great critical movement in this realm has been a sincere effort to come to grips with the reality of Revelation: of what nature are the documents that make up the New Testament, out of what kind of movement did they arise, what sources do they contain, and what historical validity can be ascribed to them, what legendary accretions are present, and into what mythological texture are they woven? In the course of this study the modern intellect can be seen emerging, and asking itself what it is possible to believe, and in what way it is possible to understand and believe it. It has been a great manifestation of the conscious reflective mind, dealing with Christianity as a conscious reflective thing, dealing with the adequacy of its notions, statements, myths, and so on, in relation to the historical inquiring intellect, and the scientific world out of which the modern man must perforce do his thinking. The historical method and mode of thought have domiciled themselves in the modern Christian intellect, and can no longer be exorcized. In spite of himself the modern Protestant Christian, at any rate, accepts the fact of growth within the New Testament, and in matters of dogma he no longer sees these things as deposited, as it were, *en bloc*, by direct supernatural action, into the nature and manner of which no inquiry is possible. I doubt if he can ever be brought back into a realm of naïve acceptance. For the modern man no claim of supernatural origin for a religion will invalidate the necessity for historical inquiry, and no declaration that Christianity is spiritually or psychologically necessary for man will stop him asking the question as to what Christianity really is and in what way it came into being. He wants to know what things really are, as well as what things are spiritually and psychologically necessary.

We move to a totally different realm of considerations when we turn to depth psychology. During the last fifty years or so the mind of man has turned to examine what is within himself, in order (whether he is aware of this or not) that he may compensate for the hard reality of the outward world as revealed by modern science, by the establishment of the reality of the inward. Freud was the great pioneer of this movement, but he may be said to have stopped at the layer of the personal unconscious, with which his mind was contented as sufficient explanation of the inward powers that affect the conscious mind of man. Jung, however, went beyond this realm to a deeper layer which he calls the collective unconscious, from which the dim symbols or images which he terms the archetypes emerge. It is in this deep realm and among these archetypal images that he finds the origins of religion. Here we are no longer really concerned with a historical figure or historical considerations, but with

dream figures and modes of imagination and thought that are deep in the unconscious mind of man. Here some of the figures are seen which are of great significance in the mythology or mode of revelation which is within the New Testament, for example the Saviour, or Christ figure. Jung, however, holds that in order that the human soul may be kept healthy and may move toward integration, it is necessary that the changefulness or ambivalence of such figures should be brought to consciousness, and in particular their interrelatedness with figures of a very different character, and the constant tendency of the unconscious to run from one state in which one figure is in control to another in which quite other factors are at work. Jung is not concerned with historical facts merely as such; he has to do with perennial factors in the human soul, and so he does not deal with mythology as a somewhat outworn mode of human reflectiveness which has been superseded by a scientific world-view, but with the reality of the way in which the unconscious factors of the soul operate. He thinks about psychological necessity which arises because the human soul is such as it is, and the vital need to understand this. But whether he will or no, he moves into the same realm as the New Testament scholars are working in; from a completely different point of view, he too must consider the Christ figure, the mythology of the New Testament, and their adequacy as far as the human beings about him are concerned, but here primarily not from the necessity of historical or scientific thought, but from the point of view of the right dealing with the realities that remain in the unconsciousness of every human being. However different his task and interest, he finds himself often dealing with the same stuff, and so we find that a kind of dual criticism of the Christian revelation is going on—one from the standpoint of historical inquiry, with its main concern as reflective thought, and the necessity of getting the Christian mind and spirit into the set-up of the world and life in which modern man finds himself; the other from the investigation of the deep unconscious of man, and a necessity of making conscious and dealing in a healthy psychological way with the factors that are found in it.

Are these two points of view too different in approach and outlook to clash fruitfully? It is true that there is a radical difference of vocabulary, and, in a sense, of experience, between the two. Nevertheless, in spite of themselves they have entered into the same realm, and must ultimately confront each other. It may be however, that the answer to the question as to how the mythology of the New Testament can be made profitable and intelligible to modern man may come from an acknowledgement of the basic structure of human consciousness. In this there is a possibility of the inquiry moving into a new dimension, as there is also a possibility that the basic elements of the soul may find, through a new assessment of the historical reality of the New Testament, something which makes them more conscious and criticizes the wild way in which they may develop if left merely to themselves and which gives them a higher direction and purpose.

It may seem that both these inquiries are far removed from the practical problems of life, and that they move merely in a realm of advanced New Testament scholarship, or have to do with psychological depths of the soul with which the ordinary man has little to do. A little reflection will show that this is not so. There is nothing so vital as that modern man should have a real spiritual insight, and here in the West at least he has found such a vision always within the Christianity which he has traditionally received. But there is certainly a lack of understanding of that tradition abroad. In spite of the well-meant preaching from Christian platforms it is plain that the Christian vocabulary, thought-world and symbolism, are somehow not in contact with the modern world. The long inquiry into the nature and mode of the revelation within the New Testament has resulted in recent times in the demythologizing controversy in Germany. This controversy is by no means a fight between scholars on a matter of abstruse interest within the New Testament, it is nothing less than an attempt to reassess the value of the Christian revelation in its practical adequacy in reaching and meeting the needs of the modern generation. Schniewind, for example, who joined in the controversy as a critic of Bultmann, mentions how the effort of chaplains to preach the ascension and the resurrection of Jesus Christ totally failed, and appeared quite unintelligible to the soldiers for whom it was made. Thus the scholarly controversy has its origin in something of which every padre is aware, namely the great gulf that is fixed between the thought-world of the New Testament and that of the average conscript. This is not a mere matter of vocabulary, but far more so of imagery and symbolism, of a realm of considerations which seems to the ordinary private completely removed from the sphere in which he moves and has his being. The Christian revelation is an isolated pocket in the vastness of his experience, and not merely in this matter of understanding. There is a great moral and spiritual cleft as well. The soldier is prepared for war, and for its horrors, and the realities with which he has to do in this dreadful work imply different things about man and about the world from those often set up by the more conventional Christianity. The conscript is thus faced with a split world, and something has to be done to unify it, in order that the Christian revelation may be seen to have relevance to life. The issue that was raised by Bultmann was thus an attempt to provide an answer to a very practical problem, but in the demythologizing controversy as it arises from the study of the New Testament, the matter is all concerned with reflective thought, with a conscious attempt to deal with the mythological element in the New Testament as though it were merely a matter of conscious world-view which somehow has to be related to the world view of the modern. But this is not the way in which Jung faces the problem or the validity of Christian symbols and experiences. He is as conscious of the problem as any who take part in the demythologizing controversy. In his essay "Über das Selbst", *Erano Jahrbuch* 1948, he declares that the world has long since ceased to hear a message, and that the words that

are uttered from the pulpit cry out for interpretation. How is it that the death of Christ has redeemed us, when nobody feels that he has been redeemed? How is it that Christ is God and Man, and what is such a creature; what shall we make of the Trinity, and of the Virgin Birth, and of the eating of the Body and Blood of Christ? How do such things stand in relation to the matters of daily life which are now for the most part to be found in a scientific setting? We live some sixteen hours a day in this waking world, and some eight hours in the other unconscious one, but where on earth do we come into contact with such things as angels, miracles of feeding thousands, miraculous healings, resurrection from the dead, in this waking world? Jung goes on to comment that such mythological motives do however appear in the dream condition, the same motives that emerge in wonder stories, and actually concern themselves with similar things to those that are the objects of faith. Here Jung is speaking of the same problems as those which beset the Christian task of evangelization, he is well aware of the lack of understanding which is abroad of the matter of faith and dogma, but he is not trying to meet them by anything in the nature of reflective thought about them which seeks to make them more intelligible by a historical approach and rationalizing explanation, but he is pointing to the seedbed of the unconscious where similar things are continually growing, and where it is possible to take the modern man through experiences which give him an understanding of what the ancient world thought and experienced.

It is plain that neither of these two movements can be left out of account when we are considering the problem of religion to-day. The heart of Christianity is in the Christ figure, and our generation must come to an assessment of Him through its own thought-forms. If that figure is ultimately something for which unconscious factors can satisfactorily account, then it is difficult to see the necessity for the Christian religion as a movement in history, for it seems that a kind of understanding of religion can arise which would cut it adrift from its moorings in history. It would seem as though the firm Christian thing could be psychologized away. On the other hand it is hard to bring home to modern man the relevance of the things that are spoken of in the New Testament unless he knows some realm in which he can experience similar things. There are two things that must be considered in this regard: first of all that there is such a thing as a Christ archetype, and that this was in some sense always within the human soul, and secondly that there was in history a particular man, namely, Jesus of Nazareth, on whom this archetype came to rest, as it were. The association of the archetype with that particular man means that Christianity is tied to history and cannot be blind to historical research in any new understanding of itself; on the other hand the fact that this same man appears in an archetypal and **mythological** setting means that the Christian mind cannot be indifferent to the **psychological** investigation of archetype and myth. The effort to bring these two things together may seem to many minds an attempt to

join what God has put asunder, but there can be no doubt that in the modern situation they are more and more being forced together.

It might have been very reassuring to Christians who took the Jungian psychology seriously, if Jung had identified the figure of Christ with the Self. The New Testament phrases about being in Christ, and having Christ dwell within us, would thus have had, as it were, a psychological backing. But this Jung has resolutely refused to do. He insists constantly that Christ can be no more than a partial symbol of the Self, and a somewhat inadequate symbol at that, as it leaves the other part of the Self to be symbolized by very different figures. This insistence poses a problem for the reflective Christian, as to whether in fact, as against conventional Christianity, Christ is simply an expression of one side of the Self, and whether perhaps a more careful consideration would not reveal this as an oversimplification of the case. To examine this question properly would mean an inquiry into the way in which the conventionally accepted figure of Christ has been built up, and the only place in which we could start seriously on this problem would be within the Bible, and especially within the New Testament itself. It is plain, that the figure of Christ within the New Testament is built up from two kinds of content. The first of these is the Historical Jesus. There would have been no Christian Christ, as it were, unless Jesus of Nazareth had lived. The mythology laid hold on something that was already present. There is no doubt about it that Christianity is an historical religion, and not merely a type of mythological thinking, or an intuitive philosophy that expresses itself in symbols. There is a hard historical core somewhere although it may be wrapped about with mythology and legend. On the other hand it cannot be denied that the mythological element is present, and that the Jesus who lived and died in Palestine is presented to the world by means of it. Can any light be thrown on the growth of the figure of Jesus into the Christ figure, and will an examination of this process prove in some measure a criticism of the thesis that the dogmatic figure of Christ is largely to be identified with the light aspect of man and of God? There is no doubt perhaps that in popular thought Christ is purely identified with these light aspects, but then is the conventional picture of Christ the real one, and can it be shown that in fact the real picture which is inherent in Christianity is of another nature?

At any rate Jung, if he is correct in his insight, is placing Christianity before a dilemma. If, as he says, the Christ figure must be identified with what he regards as the light aspect of man and God, then either a large part of man and life is left undealt with, or that attitude which makes the identification without thought must be brought to book. On a profounder and more secular level he raises an issue analogous to that which emerged when Liberal Christianity was faced with the discovery of the apocalyptic element within the New Testament. This was a very hard fact for the liberal interpreters of Christianity to swallow, for it meant facing an irrational, crude, and antiquated way of thought and expectation which

simply destroyed the picture of Christ as a moral teacher and martyr for God on which they had based their theology. In the actual development of modern Protestant thought, however, digestion of this hard consideration did a lot of good, it really opened the way to a larger conception of the work of Christ than the liberal rationalism could achieve. Jung's impugning of the dogmatic figure of Christ as inadequate to be the symbol of human totality may seem to the believing Christian to be blasphemous, but having to face the consideration that there is much more in man than the Christian consciousness has been willing to admit at times, and perhaps wrestling with Jung's statement of what is, after all, a very old problem, may produce a new appreciation of orthodoxy, and the stressing of the light side may prove something that has developed away from and overlaid the true emphasis. The real figure of Christ may show a consciousness that is beyond both aspects of humanity, both the light and the dark.

The characteristic of Christianity lies precisely in the interaction between myth and history. The Christ archetype is already present in the Old Testament, partly as the figure of a divine hero, and partly in the form of the Suffering Servant. But this archetype is not working merely *in vacuo*. The particular form which the realization of the Christ archetype as Suffering Servant took was affected by history. The great fifty-third chapter of Isaiah is not simply something that rose from the prophet's unconscious. Whether we take it as referring to the idealized nation or whether we regard it as a comment upon the good king Josiah and his tragic end, or whether we regard it as referring to Jeremiah, there is no doubt that the archetype is in contact with something that actually happened. This is particularly true of the way in which the saviour archetype is applied to Christ in the New Testament. It is not allowed to run wild, as it were (the temptations of Jesus are examples of the way in which it could have run wild), but it is attached continually to the person of Jesus of Nazareth and what did in fact happen to Him. The archetypal contents come in in reflection on what happened to Jesus. For example, all the way in which man feels about sacrifice to God, and the picture of Christ as the Lamb of God, could never have been applied unless Jesus had been crucified as a felon. The archetype, and the mythological phrase or setting, are in the nature of interpretation, and this is shown by the fact that in various environments the expression of the archetype changes. For example, in the Palestinian setting, Jesus is regarded as the coming Son of Man, which is the mythological evaluation of His person which was natural to the indigenous Jew of the time who believed in Him. But when the Gospel passed over into a Hellenistic setting, other phrases are used to express the archetype. The Son of Man becomes the Son of God, and the word Lord is used in a manner that perhaps could not be employed in the thoroughly Jewish setting. But in view of the fact that the one talked about was a specific man about whom certain definite things could be said in reference to His teaching and

character, this use and expression of the archetype could not just run on of itself, uncriticized, with no standard by which it could be judged. In Gnosticism we have a great upsurge from the unconscious, and that movement was not merely a matter of the adaptation of Christianity to Hellenistic thought, as the older interpretation of Gnosticism opined. Now the danger of Gnosticism, as far as Christianity was concerned, was that the particular Christian thing was in danger of being buried under what was merely mythological and archetypal in character. Christianity was saved from this by the fact that it had a historical founder, and arose from a historical religion, namely Judaism, so that it could not just be swept away by things arising from the soul. This is not to deny that Gnosticism powerfully affected Christianity, but Christianity did not become Gnosticism; it could not merely be fascinated by the realities which are in the soul; it had a given standard of things moral and spiritual in what had happened in the teaching and the work of Christ. There is no doubt about it that for the naïve man of the time archetypal contents clustered about Jesus of Nazareth and His story, but that story was not merely a matter of archetypal contents. There is certainty that Jesus was interpreted to the world by means of mythology, but it is also true to say that this very mythology was held in check by the fact that it was applied to a historical person, and thus was brought continually to the standard of a particular work and mind in history. In the modern situation also these two elements will have to be kept in mind. In the midst of scientific findings, it will be impossible to deny that there is much that is in the New Testament which is not historical fact, but at the same time it will not be possible to allow Christianity to evaporate away into merely psychological considerations. There is in Christianity a spiritual and moral standard which is also a test of what is within the soul.

The objection of Jung to identifying the Self with the figure of Christ, is that when all the good that is in man is identified with divine figures the consequence is that only the evil and dark aspects of the soul are left over for man himself. This leads to an attitude in which all good is ascribed to God and all the evil is taken as being of human derivation. This produces a horrible situation in which the human being is destroyed; he cannot under any circumstances do real good, because by the very notion he has of good as pertaining only to certain divine figures, he is excluded from it. This kind of attitude is illustrated in modern theological thought in Barthianism. Man is simply to be condemned, he is just nothing without divine grace. Thus man cannot really be understood in his nature, he is simply there to be preached at. Moreover Jung sees a moral danger in this attitude as well, which arises from the law of enantidromia, which is that every thing tends to pass over into its opposite, and all the more so when it is emphasized and stressed. Stressing that the human nature is really Christ nature, according to Jung, means that a man becomes identified with one aspect of himself and therefore the other aspect is all the surer of coming up and overwhelming him. But enquiry

should be made into the notion of the Self in Jung's psychology. It seems to me that there are three different notions, which come up when Jung is speaking about the Self. The first notion of the Self which is in Jung is that of the totality of the psyche; all that is in the soul is seen as a unity which is called the Self. But this notion is not the same as a second which is often implied in his writings, namely that the Self is a centre of the soul, that is, the source of energy by which it is ruled, and the source of all the powers which affect it. But this notion in turn is not the same as the third, which is often hinted at in his works, and this is the notion of the Self as the significance of the whole psyche. These notions are by no means such as can be equated with each other. I do not think that Christianity has ever claimed that all that is in the soul is of Christ; on the other hand it has claimed that the true centre of the soul is Christ, and has claimed that the real significance of the soul is to be found in Him. Possibly if the matter were thought through, the Christian thinker could accept Jung's decision that the Self is not to be identified with Christ, but it may be that there is more duality in the notion of Christ than is admitted in Jung's identification of Christ with the light aspect only of the soul, and that Christ is closer to the notion of the Self than he would grant.

In order to see whether the witness of the Synoptics is really to a Christ whose message and work and personality could be entirely identified with the light aspect of man and of God, let us glance for a moment at the background of the preaching of Jesus. All that Jesus has to say, as is well known, is in one framework, namely that of the Kingdom of God. Now there is no doubt that the notion of God as Father played a great part in the teaching of Jesus, and that the emphasis on His love and righteousness is continually present. But even so, there are texts which, taken simply as teaching, have a far grimmer import. Take, for example, the saying that those who kill the body are not to be feared, with the sequel that He is to be feared who can cast soul and body into hell. This text puts forward a God who is by no means all light and simply to be regarded as love. The same is implied often in the parables, where the incalculability of God is often emphasized, as for example in the parable of the rich fool, or in the parable of the unjust steward where very questionable conduct is praised by the Lord. Then there is the quotation of Old Testament texts which imply that God deliberately hardens the heart of the people so that they cannot understand the word of salvation. The comment of Jesus on the parable of the Sower in the fourth chapter of Mark has always been a hard nut for the commentators from this point of view. The fury of the master at the refusal of the unforgiving servant to forgive his brother is far beyond anything that implies a mere God of love. The parables are shot through with something far darker, a kind of sadism almost; in the background is always the fire of Gehenna, and the worm that dieth not. Incidents like the endorsing of the action of God in the falling of a tower upon certain people, seem to imply that God is not

conceived as simply light in a sense that has no reverse side to it. The fact of the matter is that the Gospel is preached in an apocalyptic setting, and there is an implication of coming destruction and the break-up of all things behind the things that are said about love, and the Fatherhood of God. However simplified Jesus's version of apocalyptic may have been, there is no doubt that He preached in the expectation of judgment and destruction on a cosmic scale, and the fact that He accepted the apocalyptic set-up shows that He knew another side of God. It was necessary to hack away the right hand for some people to get into the Kingdom of God. If there is light in the teaching of Jesus about the Fatherhood of God and His love, there is also fire in His notion of the imminent break-up of all things. In the preaching of Jesus, God is on the one hand full of grace, but on the other is regarded as incalculable; He will bring famine and destruction on the Jewish nation. Whether the apocalyptic chapters of Mark are to be ascribed to Jesus directly is of course very debatable, but there is no doubt about it that Jesus believed in the apocalyptic woes. The day of God would come as a thief in the night. There was certainly an aspect of God which was beyond anything which was covered by the mere reiteration that He was Father. The apocalyptic God was an incendiary and a wrecker, and there is no doubt that these aspects of Him are also present in the Synoptic Gospels. All the struggle in Gethsemane implies that Jesus was faced with something in God that was of an apocalyptic nature, and did not fit in immediately with the notion that He was conventionally beneficent in all His actions. I think that there is perhaps more ambivalence in the notion of God that is in the preaching of the Kingdom than Jung would allow.

Another point to be made is that the archetype Christ is also ambivalent; it does not always imply that light aspect which Jung regards as its sole characteristic. This is true in the Old Testament, where while the Christ is usually regarded as the righteous hero, there are sayings which imply something different, as for example, the Psalm which warns folk that it is better to kiss the Son lest he destroy them. The picture here is not merely loving and righteous; the Christ is determined to be master at all costs and does not seem to mind how much destruction he causes. This is also the case with regard to the archetype within the New Testament itself. The Christ figure plays a large part in the Book of the Apocalypse, and it has been shown by Jung that the picture that is there is really a kind of shadow of the usual notion of Christ, as a matter of fact the Christ of the Apocalypse does all the things which we regard with horror in our view of humanity to-day for he lets loose catastrophes on the world which are like those of the atom and hydrogen bomb. It appears that it is not right to equate the Christ archetype merely with the light side of things in the New Testament itself. Behind the things that are said about the love of God and the necessity for the love of man, there are expressions which imply a God of cruelty, and which have been a trouble to Christian reflection down the ages. Even when, as in the parable of the

sheep and goats, the lesson that is taught is of the necessity for sympathetic imagination, and the judgment actually turns on the presence of this in the righteous or its lack in the unrighteous, the background is still one of apocalyptic, and the unrighteous are condemned to the fire prepared for the devil and his angels, with a complete lack of sympathetic imagination. Thus in the Christ figure that sits upon the throne in this parable there is a consciousness which claims that all judgment should turn upon loving and sympathetic imagination, while there is also a consciousness that the lack of this is punished with a fierceness beyond all computation. The same Christ figure that sets up loving imagination as the standard is most completely cruel in his treatment of those who lack it. It cannot be said that the Christ figure is simply full of light.

Surely the only way in which we can consider the matter is by regarding the work and teaching of Jesus as a whole, and asking ourselves whether it reveals a shadow side, and whether Jesus Himself was aware of that shadow side. Jung, in his book *Aion*, mentions in a footnote a Gnostic myth, in which it is said that Jesus cut Himself free from His shadow, that it was detached from Him. But, if we look at the historical figure, we can see that Jesus was Himself quite aware of the shadow side of what He was doing, and the suffering and the confusion that it would cause. A man who declares that he has come to cast fire on the earth, with all the associations that the word fire had in apocalyptic imagery, and who could say that he came not to bring peace but a sword, can hardly be said to be unaware of the obverse side of what he was doing, and to be detached from his shadow. The saying in which Jesus declares that He has come to set members of a household against each other, might, in a sense, have been spoken by the devil. The releasing of fire upon the earth, the provocation of war, and the creating of confusion in natural relationships can not unfairly be spoken of as the devil's work. The refusal to allow a man to return to the burial of his father, and the declaration that He has no lasting relationship with His mother, can certainly be severely criticized from the standpoint of ordinary morality. It seems that the work of Jesus is rationalized for the purposes of collective religion, and that if we were to judge His sayings from the effect they had on the more well-meaning of His contemporaries we would get a much harsher picture of Him. His attitude was beyond the accepted spirituality and morals of his day, and therefore must have appeared often as the devil's work. The fact that He ate with publicans and sinners implies a different attitude to evil from that of His contemporaries, namely, that He was prepared to find good in evil. The sweeping aside of what was regarded as the law of God in the interests of something directly personal must have been to His contemporaries essentially sinful. His attitude to the law is still regarded by the Jews as something completely disruptive. His attitude to the woman who was a sinner, who washed His feet, implied that there was something essentially good in conduct that the Pharisee could only see as evil. As far as Jesus, in His relationship with his contemporaries, was

concerned, there is no doubt that He was beyond good and evil, and perhaps, when we move out of the system of collective religion, it would appear the same again. It certainly showed an awareness of the shadow side of righteousness and religion, and the promise in material that was regarded as worthless and sinful. There is in it a morality which is beyond the collective standards, and therefore as far as they were concerned beyond the good and evil that they proclaimed.

Indeed the religious soul of to-day, who must somehow get closer to the historical Jesus than the more conventional set-up would allow, finds in the merely devotional, light interpretation of Jesus, which is characteristic of some piety, something which is a hindrance to any real experience of the world and of religion. In so far as Jung protests against such a picture, he is likely to get support from some genuinely religious people. But all this attitude of Jesus springs from a new consciousness, which sees far more deeply into life than the collective expression of religion and morality seems to do. Whether that consciousness, in the case of Jesus, had a scientific attitude to evil, is of course questionable, but then in His time there was no scientific attitude to anything. The thought was intuitive and fluctuated through different images and expressions. That there was another side to the God of the Old Testament which was really the devil is shown by Jesus in His remark to the disciples who wished to call down fire on an inhospitable village, a punishment which the God of the Old Testament allowed, "Ye know not of what spirit ye are". The historical Jesus was aware of the ambivalence of things, and of the opposites, and His consciousness was not to be identified with anything that was simply what is regarded as light and spiritual. Jesus also was aware how what He had said and done could be easily used in a manner far from His consciousness. He was aware of the possibility of the antichrist, as is shown by the saying that others would come after Him in His name, doing things that were directly contrary to His spirit. Thus one who was aware of the soul of goodness in some things which were regarded as evil, and of the ambivalence of much that is regarded as religious and moral, and was also aware of the evil effects of what He said and did as well as the good, and was aware of the antichrist latent in His work, cannot be simply identified merely with a light aspect of man, as though His consciousness were rigidly attached to what is regarded as moral and spiritual.

When we turn away from the archetypal Christ figure and ask whether Jung has anything to say about the historical Jesus, we find that his observations are few, but of great significance. In the quotation which heads his book *Aion* he puts forward a picture of Jesus as the one who distinguished the things that were confused together. The thought that seems to be behind this emphasis is that Christianity brought man to consciousness in a new and decisive way. Before man could in any way deal with the dark side of his nature, he needed to have a firm knowledge of value, and to know what goodness might be. Before Christ he was largely in a state of unconsciousness about this. Righteousness had to be

revealed in a way that penetrated right through into the soul. The one pole had to be revealed in order that the nature of the other might be shown. The evil side of man could not be understood until it was clearly shown up. Thus the thought seems to be that the moral and spiritual standard set up by Christianity made this possible. There is much truth in this observation. It is also in line with much that is said about Christ within the New Testament. For example the Epistle to the Hebrews shows Christ as the divine word, and says that the word of God penetrates right within man, laying bare the thoughts and intents of the heart and cutting asunder joints and marrow. This implies that what was revealed by Jesus goes right through a man and shows up what is within his consciousness. There is no doubt that man would never have been the problem to himself that he is apart from the Christian revelation. Both sides of the soul, the light and the dark aspect, are shown up by it, and a tension is created which is very painful, but has on the whole been most fruitful for man. There is a certain sense in which it can be said that the one who sharpened the problem of evil for man to an unbearable point was Jesus. He raised the question of the moral nature of man in all its problematic, and showed up the immoral nature of much that is happening in the collective world, and in the world of nature. Without the work of Jesus in all its ambivalence there could not be a psychology which is conscious of a dark aspect of the soul, and seeks to understand it. The light has thrown the dark into relief and made it a problem. There is no doubt that Jesus faces man with a moral absolute, but the question of the precise sense in which He does this, is one that needs more than a surface inquiry to get a real answer. In this connection the matter of the interpretation of the Sermon on the Mount comes up. There are many different interpretations of the nature of the precepts which Jesus gives there. Were the precepts intended to be an absolute law for the Christian in the way that the Mosaic law was absolute for the Jew? Were these precepts intended as a general ethic for the use of society and the international world? They have been regarded as interim ethics, in which the whole tone and appeal was decided by the notion that the kingdom of God was at hand. They were certainly a deepening of the moral law until by its very intensity it produced other reflections. Morality is so intensified here that it raises the problem of the nature of man and whether in fact he could ever keep such a law. Their real power is that they penetrate right through humanity and show up all the intents of the heart, and show him ultimately that his salvation cannot lie in the keeping of any law. At the same time they reveal absolute values, and show how far human nature is from achieving them. Their real power is that they light up the soul most intensely and make the situation of man in moral matters clear. Man must contend with this light at every step forward he takes. There is great truth in the remark of Schweitzer, that we have to fight for every step in the progress of civilization with Jesus of Nazareth. Real ethics cannot be achieved in any comfortable complacency. They are not

found by the acceptance of any law which involves no struggle for personal understanding. The absolute ethic of Jesus is one that awakens man to a consciousness of himself, it is a challenge to self-knowledge and honesty of intention, a call to integration on a level that mankind has hardly known. His precepts are a constant irritant and challenge to anything in the nature of a false compromise in the thought and action of man. The modern man who tries to achieve a new balance by psychological means must take them into consideration. In any case they will not leave him alone, for they have entered through the ages into the unconscious of man, and challenge him in spite of himself. The knowledge of them creates in man an impulse towards the examination of his own soul. Their ultimate point seems to be that there is no real ethic in any partial moral precept, in something that is merely a moral law understood as such. The claim that is behind them is on the whole man, and the ethic that comes when they are considered is one that arises from the depths. This insight that Jesus in his teaching is a constant challenge to our civilization is one that Jung shares with Schweitzer.

But this is dealt with in a particular way by Jung, for another of his insights concerns the way in which Jesus is to be followed in the modern age. He distinguishes carefully between the real following of Jesus and what he calls the *imitatio Christi*, which is a mere literal following of a figure in a book, as it were, the doing what he did, and the uncritical acceptance of His sayings. In the real following of Jesus a man has found himself somehow in the position of Christ in his own situation and destiny, he is determined to work out what is really within him with the same courage, sincerity and love as were in Jesus of Nazareth. From this point of view the following soul is not a mere slave, but one who in the understanding of his own existence is near to Jesus. In this Jung is in line with much that is said by New Testament scholars who are thinking about what Jesus means to the man of to-day. It is obvious that we are separated by a great gulf of history from the historical figure of Jesus, and that in some respects we cannot hand over our minds to His. He lived, for example, in an unscientific world. In particular His expectation that the world was coming to an end has not been justified, and it is no use blinking this and trying to dodge it by making out that Jesus Himself never held such views, as Glasson does on this point. But Jesus was new in that He did not allow His actions to be governed by any authority, however sacrosanct it might be, and that He reacted to a situation quite simply and spoke what was in Him with regard to it. The way to understand Jesus is in being in His situation in the world to-day. This carries out a thought of St. Paul, who makes quite clear that his following of Christ is not a mere matter of imitating the historical Jesus; it is far more of the kind which Jung indicates. The trouble has been too often that the following of Christ has meant not merely the wooden imitation of Jesus, but also following according to some particular sect which has a very partial reading of what He was. But the being in the position of Christ

in working out what has been entrusted to us, gives us an insight and understanding with regard to Him which is of a totally different kind; it is a case of in most loving bondage—free.

This matter of the facing of what sense can be given to the following of Christ in our generation is one that will have to be faced, as will be the devotional value of Jesus to some people. The way through here also is not in any dogmatism but in the sincere facing of historical fact. At this point Jung seems to admit that it is possible to be one with Jesus in the depths of our own existence, and this seems to qualify what he has to say about Christ being an inadequate symbol of the Self, for when the modern is sincerely working out the implications that come from the Self, then he can feel himself very near to Jesus.

Another great insight which Jung has with regard to the historical Jesus is one which concerns the crucifixion. Jung insists in his picture of the Christ figure in the book on Job, that Christ is not precisely in the middle between God and Man, that he inclines rather to the Godward side. In making this remark he is largely influenced by considerations which come from the legendary parts of the New Testament, as for example the birth stories. If the Saviour was literally born of a virgin then of course He was not born after the manner of other men, and is separated from them in His very becoming human. But any sincere historical method which is trying to find what fact there is behind the New Testament would have to admit at once that the birth stories can be paralleled in the descriptions of others who were heroes and great sages, as for example Augustus and Buddha, and that there is no reason to take them as literal fact; they are rather expression in legend of a particular significance which is found in the person concerned. If the incarnation is to be seen as a real thing for modern man it must have an origin not in legend but in the actual fact of which we are sure in our historical reading of Christ. Now we are certain that Jesus was crucified, and the real incarnation should be in accordance with such a fact and not with a legendary notion of a super-hero. In his *Answer to Job* Jung points out that the real answer to Job was in the cry from the cross, "My God, why hast thou forsaken me?" It was at this point that the depth of the incarnation took place, and this is in line with what Bultmann says in the same consideration. It was when Christ experienced the depth of human abandonment that God really entered the human situation. In the modern situation the Christian thing has become something that seems questionable, like every other thing. Unless there can be an incarnation in the midst of this questionableness, then there can be no real incarnation.

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THE CAXTON HALL

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ON

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REV. PHILIP E. HUGHES, M.A., B.D., in the Chair

THE PLACE OF MYTH IN THE INTERPRETATION OF THE BIBLE

By

THE REV. J. STAFFORD WRIGHT, M.A.

THE VICTORIA INSTITUTE

22 DINGWALL ROAD, CROYDON, SURREY

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SYNOPSIS

There has been a revival of interest in Myth among archaeologists, psychologists, and theologians. Myth is a story, or way of thinking, that produces a katharsis through identification. In relating myth to historical fact some theologians regard the alleged facts as a hindrance, others as irrelevant, others as essential. The Biblical concept of the three-storey universe is important for the consequent teachings about God, heaven, the Ascension, and the Second Coming: it is valuable and necessary. Theologians should consider whether there may not be more of historical fact behind the story of the creation and the fall than is commonly allowed. Belief in Satan and evil spirits need not be discarded. It is vital to hold to the historical and objective facts of the atoning death and resurrection of Jesus Christ, or Christianity becomes no more than the subjective Mystery Religions.

I

ANYONE who attempts to write on Myth is entering upon controversial ground. This is true, not only of Biblical interpretation, but of the concept of Myth in general. The battle which raged towards the end of the last century, between powerful exponents of particular theories of the origin of myths, died down for a time. The advances in the physical sciences threw a sense of unreality over mere fairy tales, with which myths tended to be lumped. Indeed, in the minds of many, religion itself assumed an air of unreality, inappropriate to a scientific age.

But for some time now there has been a rising interest in myth. This has partly come through the researches of archaeologists. For them the old myths have had a twofold interest. In the first place they have been sifted for the sake of the germ of historical truth that may underlie them. This was the interpretation of myth adopted by the Greek writer, Euhemerus, in the fourth century B.C. Euhemerus held that the gods of the myths were originally men, who had had a real existence. Similarly in his new book, *The Greek Myths*, Robert Graves finds historical origins for many of the classical myths that he records. Indeed, he writes in his introduction: "My aim has been to assemble in harmonious narrative all the scattered elements of each myth, supported by little-known

variants which may help to determine the meaning, and to answer all questions that arise, as best I can, in anthropological or historical terms" (Vol. I, pp. 22 f.).

The second interest that the myths hold for archaeologists is the light that they throw upon the culture and religion of the past. Myth is closely connected with ritual, and many of the old stories were recited during the great religious ceremonies: the recitation was not simply the telling of a tale, but was regarded as the word of power that made the ceremony effective. Much, for example, has been written in recent years on the Babylonian New Year Festival. During this festival the Creation conflict was re-enacted, and the Creation story was recited, the whole ceremony being designed to create a prosperous new year.

From another quarter also there has come a rehabilitation of Myth. Jung, with his Analytical Psychology, has pushed Myth to the forefront. He points to the basic figures and situations of the great myths of the world as the constantly recurring archetypal images of the Collective Unconscious of mankind. They express the movement of the human psyche towards wholeness, and may recur in the dreams of individuals to-day. All down the ages there have been certain ways of interpreting the phenomena of nature and of history, so that man in some way became inwardly one with them.

Two recent books have taken up this thought, though not simply with Jung in mind. Joseph Campbell, in *The Hero with a Thousand Faces*, has traced the underlying structure of the myth of the hero who goes out on the unknown journey, finds supernatural aid to overcome in the test that confronts him, and returns successfully. The hero may be seen as Everyman, or someone with whom Everyman can identify himself. The other book is *The Golden Well*, by Dorothy Donnelly. This approaches the subject by way of symbolism, but again the author shows the unity of theme in the traveller who leaves his home, and returns with his quest accomplished.

There is a further aspect of Myth, that may be mentioned briefly, as we shall not have room in this paper to relate it to the Bible. This is the aetiological aspect, where the story is told to account for the origins of things. Some of these myths link up with the ritual recitals, but the majority are more of the nature of folk tales, the deliberate inventions of witty minds, and have little more relevance for this paper than the *Just-So* stories of Rudyard Kipling.

It is at this point that we may conveniently attempt to define and to classify Myth. Aristotle's words about the significance of the Greek Tragedy may perhaps be given a wider relevance. He spoke of the Tragedy as effecting the purging of pity and terror in the spectators. It is true that there has been some disagreement over the precise meaning of Aristotle's words, but I take it that, through his identification with the characters and the theme, the spectator experienced a moral katharsis

(or purging). In other words, the story became dynamic; it was not simply a tale, but it was Everyman's life. It is in this sense that we use the term *Myth*. The events of the narrative may be actual or fictitious, possible or impossible; but they carry overtones of reality that wake a response in the minds of the hearers. Myth transforms "I—It" into "I—Thou". In this sense Myth is necessary for the maturing of personality. I personally believe that a child who is deprived of fairy tales, in the sense in which the term is used of Grimm's *Märchen*, lacks something which is his inheritance. In the realm of ogres and witches he experiences a needed katharsis, a katharsis which probably owes much to the free working of his imagination as he hears or reads the story. It would be interesting to know whether Dan Dare, seen in strip cartoon form, can attain the honourable status of Myth.

One further preliminary point must be noted. This concerns the origin of individual myths. Here we have a difference of opinion between the Diffusionist School and those who regard the human mind as likely to express itself in similar types of myth at different periods and in different places. We cannot discuss this in detail. It must suffice to refer to Robert Graves (*The Greek Myths*) and Lord Raglan (*The Origins of Religion*) as examples of recent writers of the Diffusionist School; while Jung follows the belief of J. G. Frazer (*The Golden Bough*) that similar mythical ideas could arise independently.

II

This somewhat lengthy introduction is far from being irrelevant to a discussion of the place of Myth in the interpretation of the Bible. The concept of Myth is very much to the fore in Biblical interpretation at the present time. Much of the discussion centres round the views of Rudolf Bultmann, and it would be possible to spend the rest of this paper in a consideration of his writings. But this would be to give too restricted a compass to the subject, for the problem goes far wider than Bultmann. There was a period when critical theories appeared to have taken the heart out of the Old Testament, bringing it down to a set of documents that might be used to illustrate the religious development of Hebrew thought. Then it was seen that one cannot separate the New Testament from the Old; that the New can only be understood in the light of the Old. So scholars began to turn afresh to the Old Testament as a book of revelation, though the revelation was not regarded as propositional, but as arising out of the historical experiences of the nation, in which the saving hand of God was to be seen. The original event might, or might not, have happened precisely as the narrator says; but basically there was something which was rightly interpreted in terms of divine intervention. The interpretation could often be spoken of as Myth. Thus C. D. Kean, writing of Biblical interpretation, says that "Myth is the

description of man's existence in terms of a story related to history but oriented toward eternity" (*The Meaning of Existence*, p. 149). And again, Myth is "a description of Existence, the importance of which is its revelation of the meaning of experience rather than the truth or untruth of the details of its story" (p. 115).

But Myth need not be confined to the Old Testament. There are scholars who are unconvinced of the historical truth of the Virgin Birth, the bodily Resurrection, and the Ascension, of the Lord Jesus Christ. But the concept of Myth enables them to keep the values of these alleged events while keeping an open mind as to their historicity. In fact C. D. Kean in his book just quoted rejects "Biblical fundamentalism, because no appreciation of mythology is possible if the myths themselves are literalized" (p. 150).

It is from this standpoint that we must try to understand Bultmann and others. Bultmann holds that the language of Myth in the New Testament is so frequently understood as literal fact that its real meaning is obscured to modern man. Through concentrating upon obsolete thought-forms, we may miss the essential encounter with God. Therefore we must try to express the reality of this encounter in terms that will produce in modern men and women the same experience of God as was enjoyed by the Church of the New Testament.

Now it will be seen that there are three approaches to the concept of Myth in the Bible. Two of them have already been mentioned. There is the radical view, which treats the terms of the alleged historical record as a hindrance to the understanding of the truth to-day; that is to say, on the occasions when we are concerned with Myth, we must shun any literal interpretation. There is the less extreme view, which holds that in mythical interpretation enquiry after literal truth is irrelevant; the interpretation does not depend upon the truth or falsity of the details of the narrative, though we may be sure that "something" happened; the whole story is not pure romance. As someone has said, the Hebrews turned the whole of their history into Myth.

The third view has not been touched upon as yet. It is the view that the recorded events are both true facts of history, and at the same time pregnant with dynamic meaning, in the sense required by the mythical interpretation. To say that care for the literal sense kills the mythological significance is not borne out by experience. One might perhaps find an analogy in poetry. We sit on the cliffs and watch the sun sinking across the sea, and the words of Tennyson's poem rise in our mind as the myth of the close of life's day:

" Sunset and evening star,
And one clear call for me,
And may there be no moaning of the bar
When I put out to sea:

But such a tide as, moving, seems asleep,
 Too full for sound and foam,
 When that which drew from out the boundless deep
 Turns again home. . . ."

It is because there is a real sunset and a real sea that the myth has meaning. The difficulty that some of us find with much modern poetry is that its myth is divorced from any literal reality that we know.

III

It is now time to turn to some of the Biblical themes for which the concept of myth may be relevant. The most obvious of these is the so-called three-storey view of the universe. It is quite usual for writers on the Old Testament to produce a diagram of Hebrew cosmogony, whereby God sits in a place that is situated above the solid firmament of heaven, while Sheol, the place of the departed, is somewhere in the bowels of the earth. In the New Testament God is still spoken of as being "above", in the sense that Jesus Christ and the early Christians lift up their eyes to heaven when they pray. Moreover, when He finally departs from this earth, Jesus Christ ascends to heaven; and it is from the heaven that He is said to descend at His Second Coming. If modern scientific thought compels us to abandon this three-storey idea of the universe, what becomes of the Biblical teaching that is based upon it?

Before we are rushed into a snap decision, let us notice that several points are involved. First, how are we to think of God and His presence in relation to this world? Secondly, did Jesus Christ indicate to His disciples that He was passing to a new plane of existence by ascending upwards while they were watching Him? This is a matter of history. Thirdly, in what manner will He appear to wind up the present course of history? This is a matter of faith, instructed by revelation.

How, then, are we to think of God and His presence in relation to this world? Certainly the Bible uses the terminology of *Above*, but I see no reason to suppose that the descriptive language of the Bible indicates a belief in a substantial heaven that could be reached by a passage through a solid firmament and possibly through waters above that firmament.

If the scope of this paper allowed, it would indeed be well worth while to investigate the common assumption that the Bible does actually teach the view of the earth and the sky that many commentators assert. I personally believe that this is one of those things that each expositor copies from another without ever examining the matter for himself. It must suffice to point out that those passages which use "solid" language of the earth and the sky come in poetical sections; i.e. Job 26: 11 ("pillars of heaven"); Job 37: 18 (the sky is "spread out" and "strong as a molten mirror"); Proverbs 8: 27, 28 ("He made firm the skies");

Amos 9. 6 (" He buildeth His chambers in the heavens, and hath founded His vault upon the earth "). All these passages should be seen in their context, particularly Job 26: 11, where verse 7 states that " He hangeth the earth upon nothing ". The story of creation in Genesis 1 yields a perfectly straightforward interpretation if the firmament is regarded as the expanse of air above the earth, which supports the water-bearing clouds (vv. 6, 7), and in which the birds fly (v. 20), and in which the heavenly bodies appear (vv. 14-18). It is difficult to credit the Biblical writers with such lack of observation that they never connected rain with clouds, but supposed that holes were opened in a solid firmament to let the waters through. At first sight the use of the term " windows of heaven " in the Flood story (Gen. 7: 11; 8: 2) might seem to require a literal interpretation, but the other two uses of the term in 2 Kings 7: 2 and Malachi 3: 10 (and perhaps a similar phrase in Isaiah 24: 18) are so clearly metaphorical and proverbial, that the phrase may be taken in the same way in the Flood story.

This metaphorical use of words is an important consideration. Even that which we instinctively class as myth may be no more than metaphor. Thus the ancient Egyptians represented the vault of heaven in various ways. It was " the under-belly of a celestial cow, studded with stars, and providing the Milky Way along which the boat of the sun might make its heavenly course." On the other hand the god Horus " was imagined as a gigantic falcon hovering over the earth with outstretched wings, the coloured clouds of sunset and sunrise being his speckled breast and the sun and the moon his eyes " (*Before Philosophy*, by Frankfort, Wilson, and Jacobsen, pp. 55, 29). Quite obviously no Egyptian could really have supposed that the sky was a cow or a falcon, but the picture gave a metaphorical assurance of divine supply and protection.

Such metaphors are used perfectly naturally to-day. The language of psycho-analysis and analytical psychology is a case in point. We read of the Subconscious, the Super-Ego, the depths of the Psyche, the threshold of consciousness, and similar terms. A critical reader a thousand years hence might well think that the twentieth century held the idea of a three-storey solid mind, with doors and gates. We know how wrong he would be; but we would still maintain that these phrases are legitimate metaphors, and indeed almost essential metaphors, to translate non-spatial ideas into spatial and comprehensible language.

This is precisely what the Bible is bound to do with the Person of the Godhead and with heaven. Anyone who uses the prayer that the Lord Jesus Christ taught us must face the question. What do I mean when I pray: " Our Father, who art *in heaven* . . . Thy will be done on earth, as it is *in heaven* "? I am making an assertion, on the authority of Jesus Christ Himself, that there is a Somewhere where God is manifested and served perfectly; and that this Somewhere is not on earth. I am bound to have some pictorial concept of the relationship between this Somewhere and

this earth. Since Jesus Christ lifted up His eyes when He prayed (John 17: 1), and used the term "heaven" of this Somewhere, it would seem that He found the most helpful concept to be that of God as above. Alternative concepts, such as *Below*, *Around*, or *Within*, have a significance in certain connections; *Within* is the concept that is used of the Holy Spirit in the individual and in the Church (e.g. 1 Cor. 3: 16; 6: 19), but it is not used of the initial approach to God, nor of the approach in prayer; in this way the Biblical revelation steers us clear of pantheism. The concept of God as above, and of heaven as above, is necessary for man who has fallen, who knows that he and his fellows are not doing the will of God, and that he is accountable to a transcendent Creator, from whose fellowship his sin excludes him. The effect of the Gospel is to remove the barrier of sin, and to bring the believer in Christ into the heavenly Somewhere (Ephesians 2: 6), where he sets his mind upon "the things that are *above*" (Colossians 3: 1-4).

Bultmann and others see the necessity of insisting upon the divine encounter, and dread the idea of an "I-It" conception rather than the personal "I-Thou" relationship. Yet a true experience of God in Christ must begin, according to the Bible, with the already existing separation of God from man. God must be seen as the One who stands over against us, the One against whom we have sinned, the Supreme Fact of the Universe. If I understand him aright, Bultmann has no patience with this concept. He writes in one of his essays in *Kerygma and Myth*: "The invisibility of God excludes every myth which tries to make him and his acts visible. Because of this, however, it also excludes every conception of invisibility and mystery which is formulated in terms of objective thought" (p. 210).

Here we encounter a point of cleavage between Bultmann and orthodox Christianity. Both are at one in stressing the need for the existential experience of God, but orthodox Christianity still finds it necessary to speak of God objectively, and to present certain concepts of God-as-He-is, which are believed to be concepts of God-as-He-has-revealed-Himself, that is, in the pages of Scripture as well as in existential experience. If Bultmann is right in attempting to reduce the New Testament to the terms of man's experience of his own existence, then obviously the concept of God above and heaven above must go. But if it is right for us to have an objective theology which forms the ground of a valid subjective experience, as the New Testament professes, then the aboveness of God must remain as a permanent concept. The abandonment of this Biblical concept leads to the abandonment, that Bultmann makes, of the juridical and sacrificial terms in which the atoning death of Jesus Christ is presented in the New Testament. Yet these are terms that most Christians have found to be expressive of objective realities, and which have played a powerful part in the presentation of the Gospel to outsiders.

Before leaving the question of the three-storey universe, we must notice the other two points that we mentioned. The Ascension can be briefly

discussed. The detailed account of it occurs in Acts 1, and the author, St. Luke, has repeatedly been vindicated for his historical accuracy. There is no alternative tradition of how Jesus Christ brought the period of resurrection appearances to an end. All that is said in the Epistles about the heavenly session and the return from heaven presupposes something equivalent to an ascension. Jesus Christ showed His disciples that His risen body was now removing to a new plane of life, and that His presence *with* them was shortly to be exchanged for His presence *in* them by His Holy Spirit. All this is meaningless for those who reject the bodily resurrection of Jesus Christ, and who regard the resurrection appearances as visionary. But since to the Jew the word *resurrection* meant bodily resurrection, it is clear that the bodily resurrection of Jesus Christ formed part of the earliest Kerygma, while it is equally clear that the appearances on earth of the risen Lord are regarded as having come to a sudden end at His exaltation or ascension. It is difficult to deny the historicity of Christ's ascent upwards in the light of the Biblical evidence.

But what of His Second Coming from above? The picture that the New Testament presents is of a descent from the sky, and, if we may believe St. Luke, the angelic messengers compared the manner of the Second Coming with the manner of the Ascension (Acts 1: 11). I cannot myself see that there is anything unscientific in such a conception, except on the ground that science has no place for any divine winding-up of the present world-order. Bultmann and others transmute the Biblical eschatology into the present realization of the eternal kingdom. This is certainly one strand of teaching which is well-defined in the New Testament, and which has been held by Evangelicals for a very long time. But Evangelicals have not thereby ceased to look for the final breaking-in of the kingdom at the Second Coming of Jesus Christ, any more than St. John in the Fourth Gospel and in the Epistles dismisses the idea of the Second Coming (e.g. John 5: 28 f.; 14: 2 f.; 21: 22 f.; 1 John 3: 2 f.).

What form will the final winding-up take? For this we are either dependent upon speculation or upon revelation. Speculation may either be rigidly scientific, and may calculate the probabilities of the gradual cooling of the sun and the consequent extinction of life on this planet, or the possibilities of Hoyle's theory of continuous creation: or speculation may be semi-theological and look for a gradual permeation of the world by Christian ideals without committing itself to any final irruption by God into world history. Or we may accept the Biblical picture as essentially true, and suppose that God has revealed the manner in which He will next appear on earth.

Here a comparison with the First Coming is instructive. There is sufficient in the Old Testament to indicate that a perfect Messiah would come, that He would have divine attributes, and that He would be born of a woman. Now what could be more unscientific and more in need of being demythologized than this? Surely one must translate the predicted

incarnation into other terms, and hold that the words mean no more than that the presence of God would be realized in a new way. Yet the Christian holds that the prediction was literally fulfilled. This analogy would not hold good for Bultmann, because it is not at all clear what he holds about the incarnation. But many Christians who accept the incarnation as a fact of history, spiritualize away the historicity of the visible appearing of Jesus Christ from heaven at the end of the present age. Yet very few seem to have thought the matter through and stated even approximately what they suppose will happen, so that we might judge whether their version is a reasonable transmutation of the Biblical picture and any more likely than an appearance from heaven.

One is tempted to conclude this consideration of heaven as above by trying to think how one might describe it in more scientific terms. Occultists and spiritualists describe it in terms of vibrations and wave-lengths, or in terms of denser and less dense matter. Possibly one or other description is correct, but I do not think that it is more helpful for devotion. Even if I found myself praying "Our Father, who art on a higher vibration", the only meaningful term in the description would be the word "higher".

The conception of Sheol as *below* can be dealt with briefly. The *belowness* of Sheol is a valid concept based upon two facts: (1) The dead person is buried in a grave below the surface of the earth. (2) The dead person (in whatever form) is no longer *on* the earth, nor is he in heaven *above* in the place where God manifests His presence directly. It should be noted that after the death and resurrection of Jesus Christ, the equivalent term *Hades* is used of the state of death without any downward adjective. The believer at death departs to be with Christ (Phil. 1: 23), and is brought with Jesus from heaven above at the Second Coming (1 Thess. 4: 14).

IV

The greater part of this paper has been occupied with the one subject of the three-storey universe, because this is the point with which all discussions of myth begin and on which so much else depends. In the concluding portion we must briefly note a few other very relevant points.

I should like to have filled the whole paper with a discussion of the Creation story. Here also I am sure that we must beware of being too ready to speak of myth. We have too few theologians who have tried to think out the relation between the opening chapters of Genesis and what is actually known about modern man. I notice that in the new book by Carleton S. Coon, *The History of Man*, agriculture and domestication of animals is placed at about 6000 B.C., and L. Dudley Stamp in *Man and the Land* (p. 108) says that the grasses from which wheat first came into existence are found in south-west Asia and in Turkestan. The Garden of Eden would not be so far away, and the record there is concerned primarily

with plants that are good for food. I believe that Sir Richard Paget has tentatively dated the beginnings of speech at about 6000 B.C. Is there any evidence that the man-like creatures before this date had spiritual capacities? Cave paintings, even if one or two are interpreted as being of sorcerers, and the staining of the dead bodies with red ochre, are no evidence for the worship of God or gods.

Suppose it is true that God made a new beginning with a man and a woman with moral and spiritual capacities in the region of the Upper Euphrates, round about 6000 B.C. Why should not a true tradition have been transmitted of actual events, including a test, which was given a sacramental form in the eating, or not eating, of a specified tree? By eating of this sacrament man would indicate that he wished to be his own arbiter of right and wrong. In the light of such evidence as is available, I am most reluctant to regard the story of the creation and fall of man as myth. I hope that this is not an obscurantist attitude, but if the historical and anthropological evidence is strong enough to disprove the Genesis record as a story of essential fact, it should be strong enough to offer an alternative suggestion of where the first modern man and woman appeared, and how sin came into the human race.

May we admit mythology in the records of Satan as the serpent and the dragon? Inasmuch as dragons do not exist in fact, obviously the dragon picture is mythological. Now dragon myths occur in the folk-lore of many nations, and the dragons are almost always evil, and usually hostile to the gods. The Mesopotamian creation story introduces Tiamat, the primeval chaos, as the dragon goddess, against whom the gods fight. In the Old Testament there are allusions to Leviathan (who, as Lotan, occurs on the Ras Shamra tablets), the dragon-serpent, and Rahab (e.g. Isaiah 27: 1; 51: 9; Psalm 74: 13 f.) and, while it may well be that the words that the Biblical writer uses are common coin of several ancient stories, we ought to press behind the stories, and ask whether the pagan religions may not themselves be preserving a primeval truth that underlies the Biblical conception of the fall of Satan and the warfare between Satan and God. Again we are back with the problem of how to translate spiritual realities of one order into the language that can be grasped by the ordinary mind. The Bible teaches the qualities of Satan by depicting him as the subtle serpent and the serpent-like conglomeration of certain destroying creatures. The character of Satan as an unseen being, if it could clothe itself without disguise in a physical form, would be serpent-like and dragonish.

But again we cannot find any common ground with Bultmann, who states categorically: "It is impossible to use electric light and the wireless and to avail ourselves of modern medical and surgical discoveries, and at the same time to believe in the New Testament world of daemons and spirits" (*Kerygma and Myth*, p. 5). Bultmann gives no indication that he has ever investigated the case for demon-possession. Admittedly the

belief has fallen on evil days, and demons are now equated with autonomous complexes, but it is extremely probable that, when the first enthusiasm for the explanations given by psycho-analysis and analytical psychology has passed away, there will still remain a residue of hard fact which can best be explained by accepting the Biblical conception of the real existence of good and evil spirits. For a consideration of some of the evidence one can refer to Dr. J. L. Nevius's book, *Demon Possession and Allied Themes*, and to the more recent theological discussion in Victor White's *God and the Unconscious*. I have dealt with the subject myself in a recent book, *What is Man?* Incidentally Bultmann is wrong in implying that the Bible suggests that all illness is ascribed in the Bible to demons. Jesus Christ did not always heal by rebuking and casting out a demon.

The last subject with which we can deal is that of the Person and Work of Christ. Bultmann holds that the language of the story of the coming of Christ in the New Testament is based upon "the contemporary mythology of Jewish Apocalyptic and the redemption myths of Gnosticism" (*Kerygma and Myth*, p. 3). What Bultmann objects to as mythological is the idea of the pre-existing Son of God, who comes down from heaven and dies for man's sin and then rises again. Here the orthodox Christian feels that he must either be true to the Biblical presentation, or renounce the claim to be a Christian. Jesus Christ is the pre-existing Son of God, and the wonder of the Christian faith is not that some man, however holy, lived and died, but that God Himself became incarnate; in giving His Son, He gave Himself. This cannot be renounced in favour of an existential experience of the Divine.

Not so long ago it used to be argued that because other religions had myths of a dying and rising saviour-god, Christianity was equally a mythical religion. But Christianity, from New Testament times, has stoutly maintained that its truth lies in its history. Jesus is really divine; He really died; He rose physically from the dead on a definite date. The other saviour-gods had no such real existence, nor did they profess to have. Often they were personifications of the dying and renewed year, but in union with them the worshippers somehow shared in their renewal. Jungian psychology has shown how powerful are the symbols that man finds in the world around. It would seem that again and again the human race has found its longing for renewal partially met in the death-and-life interpretation of the cycle of the year, and of the sun and the moon. The Christian claims that Jesus Christ in His actual death and resurrection fulfilled historically and objectively the mythical and subjective longings of the Gentiles, just as He fulfilled the types of the Jewish Law.

But to hold to this uniqueness of Christianity, one must hold to the historicity of the Incarnation, the Crucifixion, and the Bodily Resurrection, and the objectivity of the Atonement. It would seem that

Bultmann, in brushing aside the facts in favour of the experience has brought Christianity again to the level of the Mystery Religions. One says this in spite of his statement: "I would not call dying and rising again with Christ a subjective experience, for it can occur only through an objective encounter with the proclamation and the act of God which it mediates" (*Kerygma and Myth*, p. 112). One can only say that Bultmann has his own idea of Kerygma, and is determined to maintain that at all costs. When he writes, "I cannot accept 1 Cor. 15: 3-8 as kerygma" (p. 112), he makes it clear that we must choose either Bultmann or the New Testament; we cannot have both. For here is the rehearsal of the objective facts of the Gospel which paves the whole of the New Testament. May it not be fair to say that for the New Testament conception of faith Bultmann has substituted the technique of suggestion, whereby ideas are accepted without reference to the adequacy or inadequacy of the grounds of acceptance?

V

Conclusion. In our definitions of Myth we saw that a story or picture was mythical if it produced an inward katharsis, by giving us an "I—Thou" relationship with gods or powers or situations. In this simple sense the Bible is full of myth, and so is every religion and culture. But man is so made that he cannot finally be satisfied by experience alone if that experience cannot be grounded upon objective truth. Initiation into the Mystery Religions can never be as satisfying as initiation into the crucified and risen Christ. Salvation through Analytical Psychology leaves us staring into a dark void as we query whether the archetype of God as an experience of the psyche has an objective reality beyond itself.

Since, then, Myth is so subjective a term, it is wise to use it as little as possible in interpreting the Bible. Biblical religion, and Christianity in particular, is meaningless unless it is both experienced and also grounded upon precise historical and factual bases.

NOTE ON BOOKS

This paper has deliberately not concentrated upon Bultmann, since Bultmann represents only an extremist position. But the book of essays, *Kerygma and Myth* (S.P.C.K., 1953), gives several of Bultmann's essays and essays by other writers in criticism and appraisal of them. A shorter statement will be found in *Myth in the New Testament*, by Ian Henderson (S.C.M., 1952).

The following are particulars of other books mentioned in this paper. in order of mention:

Robert Graves, *The Greek Myths* (Penguin, 1955).

Joseph Campbell, *The Hero with a Thousand Faces* (Bollingen Foundation, New York, 1949).

Dorothy Donnelly, *The Golden Well* (Sheed & Ward, 1950).

Lord Raglan, *The Origins of Religion* (Watts, 1949).

J. G. Frazer, *The Golden Bough* (Macmillan, 1 vol. edn., 1922).

C. D. Kean, *The Meaning of Existence* (Latimer House Press, 1947).

Henri Frankfort, Mrs. H. Frankfort, John A. Wilson, and Thorkild Jacobsen, *Before Philosophy* (Pelican, 1949).

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AT

THE CAXTON HALL

WESTMINSTER, S. W. 1

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MONDAY, 16th JANUARY, 1956

PROFESSOR W. D. McHARDY, M.A., B.D., D.Phil., in the Chair

**SOME MAJOR MODERN
TRENDS IN OLD TESTAMENT STUDY**

By

THE REV. H. L. ELLISON, B.A., B.D.

THE VICTORIA INSTITUTE
22 DINGWALL ROAD, CROYDON, SURREY

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SYNOPSIS

OLD Testament studies were stagnating thirty years ago, but they have so revived and extended that no single individual can cope with them to-day. Literary criticism has lost its pride of place both owing to the influence of archaeology and its own inherent weaknesses. Archaeology, though not throwing much direct light on the Old Testament, has allowed us to see it against its contemporary background. The concepts of Oral Tradition, Comparative Religion and Type-Analysis have led to new approaches to the Old Testament. There has been significant work on the Prophets and the Psalms, and the revival of Old Testament Theology has been the most significant feature of the period. The paper closes with a rather fuller description of the present position in Textual Criticism, Grammatical and Lexicographical studies, Translations and Commentaries.

IN my college days, some thirty years ago, I was given to understand that Old Testament studies had virtually dried up and that anyone specializing in them might expect to find himself merely rehashing the work of his predecessors. Though there was an element of strong exaggeration in this, it was not altogether unjustified. The nineteen-twenties represented the lull before the storm, during which influences were building up which have in recent years transformed the scene, widened the field of study enormously, and swept Old Testament studies along new paths, the end of which no man can foresee.

The very vastness of the field makes it impossible for this paper to make a complete survey of these modern trends. I shall confine myself to those I consider most significant, even though thereby I shall doubtless be criticized not merely for what I write but also for what I include. I have no intention of acting as a prophet about future developments, for normally those scholars that know most are least prepared to commit themselves in such matters. Above all, my task is mainly descriptive rather than critical, although I shall obviously not be able to refrain from judgments from time to time.

I am above all aware that this paper is destined for readers who, however great their acquaintance with the text of the Old Testament, have for the most part only hearsay knowledge of my subject. I give therefore a theoretically undue prominence to the practical results of modern trends and pay insufficient attention to those aspects that will always remain the domain of the specialist.

Though for convenience my material has been divided under various headings, it must be clearly realized that they are largely arbitrary, and that above all nothing in the nature of water-tight compartments exists. Many of my statements will only be fully intelligible in the light of the paper as a whole.

LITERATURE

The whole subject has been surveyed in considerable detail in *The Old Testament and Modern Study* (1951), a volume of essays edited by Prof. H. H. Rowley; it deals with the past thirty years of work in the Old Testament field (cited as OTMS). Three Introductions to the Old Testament should also be mentioned, the first and third being particularly valuable for their bibliographies. That of Pfeiffer (2nd edition, 1948) is probably the last major work of its type that will substantially represent the position of Wellhausen and S. R. Driver. That of Bentzen (1948) derives its special importance from the modified and sometimes critical picture it gives of the modern Scandinavian school, a picture that can scarcely be obtained in its entirety elsewhere in English. For the conservative, Young's (1949) will be of special interest for its very wide reading and sane judgment.

LITERARY CRITICISM

Though literary criticism plays a relatively minor role in modern Old Testament study, popular thought sees in it the centre, mainspring and real interest of critical studies. For that reason I am according it pride of place.

It would be in measure a false picture, but no one could be blamed, if after reading a classical exposition of the literary criticism of the Old Testament like S. R. Driver's *An Introduction to the Literature of the Old Testament* (1st edition, 1891; 9th edition, 1913), he decided that it was based on a study of the Old Testament entirely divorced from its setting in life, and that the only criteria used were linguistic and stylistic with the scholar's own concepts of the probable and reasonable.

This attitude, in whatever measure it existed, more with some scholars, less with others—but its real existence cannot be denied—has been seriously discredited by some of the studies to be mentioned later. But even if it could have been carried on in an ivory tower isolated from all other influences, certain weaknesses inherent in the whole approach would have seriously impaired its authority. In what follows I shall confine myself almost exclusively to the literary criticism of the Pentateuch. It is here that the main weight of scholarship has fallen and the most far-reaching conclusions drawn. The whole validity of its traditional methods depends on the measure in which it can carry conviction by its work on the Pentateuch.

It is probable that its greatest exponents would reluctantly have agreed that an inherent defect of the method is an inescapable subjectivity, which may easily be recognized once we pass from the general to the more detailed analysis of a passage and compare the opinions of different scholars. As a result not all the prestige of the classic Graf-Wellhausen theory could restrain the scholar seeking new fields to conquer in this branch of Old Testament studies.

On the one hand new sources have been discovered in the Pentateuch: L (Eissfeldt), K (Morgenstern), S (Pfeiffer). On the other the established sources have been shaken in various ways. J and E now appear quite regularly as J₁, J₂, E₁, E₂, and not infrequently further subdivisions are found. The amount of Deut. left for the law-book discovered in Josiah's reign has been in some hands drastically reduced. P has been divided into P^A and P^B with considerable portions left over (von Rad), or into seven with subdivisions (Baentsch). Even more drastic is the increasingly frequent denial (e.g. by Volz, Rudolph, Winnett) of the existence of E as a recognizable document, and even of P as a historian (Volz).

Not only have the sharp lines of the Pentateuchal documents been blurred, but the efforts to get behind them and to decompose them into their original materials has tended to reduce them to collections of materials of varying age—strata is the technical term—and the old concept of documents has largely been lost. This means that the dating of the Pentateuchal "documents" has ceased to have much meaning, for it tells us nothing of the dating of the constituent parts. This is peculiarly of importance where P is concerned. The virtual admission of the existence of the priestly system, if not the priestly document (P) in the pre-exilic period is ultimately fatal to the still dominant Graf-Wellhausen theory.

The many-sided challenge to a date for D shortly before 621 B.C. and the willingness to place H (Lev. 17—26) not merely before Ezekiel, but even earlier than D (so Oesterley and Robinson), is an indication of the extent to which scholars are prepared to venture down lines of research, which a few decades ago would have seemed closed to them.

Though, as Pfeiffer, North (OTMS, pp. 80 f.) and Bentzen (II, pp. 60-63) show, the average older scholar is not inclined greatly to modify his views on the Pentateuch, yet it is clear that there is a growing tendency towards lack of confidence in the traditional methods of literary criticism. We are likely to find an increasing number of scholars, like the Jewish Martin Buber, who essentially ignore it. It is worth quoting Bentzen, to a great extent a champion of the old (II, p. 61): "We must refrain from the minute separation of 'documents', cutting out verses, half-verses, and single words in order to establish a complete disentanglement of 'books inside the books', as is done, e.g. in the Polychrome Bible."

Literary criticism had never been pursued so intensively in other parts of the Old Testament, and hence there was far less agreement as to the results to be drawn. As a result there is less realization of the change of

atmosphere here. But the approach of Noth and Alt to Joshua and Judges or of the Scandinavian school to the Psalter can only be called revolutionary.

Little of real value from the conservative side has appeared in this period on the problems of literary criticism, but there has been a welcome growth of readiness to adopt a more positive attitude towards them. Young's work already mentioned is an example of this.

ARCHAEOLOGY

The chief cause of the change in Old Testament studies has been the great advance in Near Eastern archaeology. Since 1920 this has been in two different directions. For the first time Syria and Palestine have been brought as fully into the ambit of archaeological knowledge as had Mesopotamia and Egypt last century. Then the sheer quantity of material discovered and assimilated has made the history and daily life of the Fertile Crescent from the third millennium B.C. onwards something living. Pre-history became proto-history, and proto-history, history.

The direct bearing of archaeology on the Old Testament has been relatively small. Climate and history have made Palestine a land that offers few hopes of major discoveries to the archaeologist. (The climate of Jericho and Qumran is not typical, and Qumran lies aside from the highways of daily life.) The frequently made claims that archaeology has proved the truth of the Old Testament have little foundation in the sense in which they are normally intended to be taken.

What is really important is that we are now able to set the life, history and literature of the Old Testament into the contemporary setting of the Fertile Crescent. In certain cases we find direct confirmation of Biblical statements; in a few cases like that of the Exodus and conquest the evidence is far from clear. But when we take the Old Testament as a whole, we find that it bears everywhere the stamp of a product from the time and setting from which it professes to proceed.

There are many scholars who have no first-hand knowledge of archaeology and on whom it has made little impact. But the more its facts become known the more the tendency has grown to accept the essential accuracy of the Old Testament and to regard it as a historical document of high order. Albright can say (*Archaeology and the Religion of Israel*, p. 176): "There can be no doubt that archaeology has confirmed the substantial historicity of the Old Testament tradition. Divergencies from basic historical fact may nearly all be explained as due to the nature of oral tradition, to the vicissitudes of written transmission, and to honest, but erroneous combination on the part of Israelite and Jewish scholars. These divergencies seldom result in serious modifications of the historical picture."

Though probably only a minority would go as far as Albright, it is not unfair to say that whereas formerly it was assumed by the majority of

scholars that the Bible was historically unreliable unless it could be proved true, rapidly to-day the onus of proof is being moved to the doubter.

The real importance of archaeology for Old Testament studies to-day is that it provides a background against which and a framework within which it can be studied. It will be possible to indicate only some of the new paths opened to the Old Testament scholar.

ORAL TRADITION

For the older literary criticism it was axiomatic that it was dealing with written documents. These were normally assumed to date back to 1000 B.C. at the earliest; everything earlier was dismissed as due to oral tradition, to which little importance could be attributed. Even the archaeological stress on the early beginnings of writing was largely circumvented by the claim that the cultural level of Israel before the time of David would not have admitted the practice of writing.

The whole picture has been transformed by the stress of the Scandinavians on oral tradition. They maintain that writing only obtained its modern significance comparatively late. It served as a check on human memory and was a precaution in time of crisis, but the true vehicle of tradition was oral. Its constant repetition in public in the presence of others who knew it was a guarantee of the purity of its preservation. In addition oral tradition of this type offers a far better guarantee of the purity of the transmission of the text as we now have it than did writing in its earlier forms. This theory holds that even when the various portions of the Old Testament were written down the oral tradition remained normative for a long period of time.

There can be no doubt that this theory is too firmly anchored in the known facts of the Ancient Near East not to win its way to a great extent. There are, however, two criticisms to be made of it. Widengren has brought strong evidence to suggest that quite apart from legal enactments (where, after a certain level of culture has been reached, it can be taken for granted), both in poetic and prophetic compositions writing and oral tradition may have been combined from the first. The other is that much of their application of oral tradition in practice seems to carry little probability with it.

An area where the rehabilitation of oral tradition and archaeology has met with particularly fruitful results is that of the patriarchal narratives. There is an increasing number of scholars prepared to follow Albright and H. H. Rowley in recognizing in them narratives of major historical value.

The bearing of the new views on oral tradition upon textual criticism is dealt with later.

COMPARATIVE RELIGION

Julius Wellhausen with his immense talents was able to leave a permanent impress on most branches of Old Testament studies. But the hypothesis most closely associated with his name, both in his lifetime and now, in his theory of the development of Israelite religion. This was a combination of the popular evolutionary ideas of the time with a Hegelian dialectic. The theory was only possible because no certain knowledge of old Canaanite religion was available. This allowed Wellhausen to base his views on the evidence of ancient Arab religion, in which field he remains an acknowledged authority.

The archaeological discoveries at Ugarit (Ras Shamra) have permanently altered the position. There are differences of interpretation of the material already discovered, and our views may need minor modification as a result of the most recent discoveries there, but the evidence so conforms both to the remnants of a later period and to what could have been *a priori* deducible, that we may be certain that no major surprises await us. Though those trained in the views of Wellhausen will find it in many cases difficult and even impossible to reconcile themselves to this new archaeological knowledge, and will continue to reaffirm the old theories of development, it is safe to say that they have no longer any relevance for the Biblical period.

The most important deductions from the discoveries at Ugarit are that the background of the Old Testament is throughout, until the rise of Cyrus, one of developed polytheism, and that this background was fundamentally a unity throughout the Fertile Crescent, however much it might vary in its various lands and in different periods. This latter had in fact already been assumed by many even before the discussions at Ugarit confirmed the theory at least in its broad outline.

As a result of this widened outlook it is now possible to obtain a very much clearer picture of that popular religion in Israel which was so consistently denounced by the prophets. Though there remain elements where considerable doubt will have to continue owing to lack of definite archaeological evidence, it is now abundantly clear that the idolatry condemned by the prophets was in its main essence not a forsaking of Yahweh, but some form of assimilation of His worship to the general pattern of the Fertile Crescent. This in turn implied the assimilation of the character and attributes of Yahweh to those of the pagan and especially Canaanite gods. Cultus and theology cannot be disassociated, the former being merely the outward expression of the latter.

The real focus of controversy in Old Testament studies to-day is in the realm of the "legitimate religion" of Israel. In varying degrees the concepts of comparative religion have replaced Wellhausen's theory of development (not that he did not appeal to comparative religion, when it suited him). Though the historicity of the figure of Moses is recognized

probably by all responsible scholars, there has probably never been as much subjectivity in the interpretation of his work.

A. Alt's identification of the apodeictic law within the Book of the Covenant (Ex. 20-23, 34), the Code of Holiness (Lev. 17: 26) and Deuteronomy—in contrast to the casuistic law which he attributes to the Canaanites—is generally accepted. His linking of it, in some form, with Moses is still, however, by many regarded with strong suspicion. Though not a few names of front rank can be cited as supporting a Mosaic origin of the Ten Commandments in a shortened form, others are doubtful or hostile. Pfeiffer can even maintain the extreme view that there is no evidence that they were known to Jeremiah.

There is general agreement that Israel's general civil law, the casuistic law, was borrowed from the Canaanites, though not necessarily in the precise form in which we now have it. It should, however, be pointed out that not only would the law suit the time of Moses, but also that the only "evidence" for a Canaanite origin is our almost complete ignorance of the details of Canaanite law.

It is universally recognized that the general picture given by the cultus and its ministers in Israel bears a strong general resemblance to the general cult pattern of the Fertile Crescent in general and that of Canaan in particular, strong corroborative evidence being available from Jewish tradition in the Mishnah and elsewhere. On the basis of this, much stimulating study is being devoted to a reconstruction of those portions of Israel's culture that find no complete description in the Bible or in tradition. The two most important fields of study are Israel's great autumn New Year feast of Tabernacles and the position of the king within the cultus. Much that is proposed seems to be well-founded, but for me some of the theories propounded are just fantastic.

A minority, while acknowledging the similarities between Israel's cultus and that of her neighbours, stresses the undoubted differences and refuses to attribute these to writers in and after the Exile. It maintains that the stamp of Sinai extends to all parts of Israel's religion and that the accommodation to the general cult pattern is merely superficial; the prophets were correct in considering the popular religion as being something different and apostasy.

The majority considers Israel's pre-exilic religion as being a struggle between two discordant elements, the Mosaic, developed by the prophets, and the cultic, derived from the Canaanites. For them the conflict was not terminated till the exile, and the pre-exilic cultic picture was then distorted by the writers of the "priestly" school.

There remains a minority that almost completely discounts the Mosaic element in Israel's religion. It may be a champion of the traditional Wellhausen theory like Pfeiffer, who sees like his master the beginnings of spiritual religion in the written prophets. On the other hand it may be exponents of the Scandinavian school who are so preoccupied by the similarities between Israel and its neighbours that they have no eyes for

the differences. They are even less able to explain the rise of Israelite monotheism than were Wellhausen and his school. The views of this minority find little whole-hearted acceptance just because it is felt that they do not really do justice to the facts.

Mention should be made of the view of the American archaeologist W. F. Albright, which has found its classic expression in his *From the Stone Age to Christianity*. Basing himself on the general archaeological evidence of the Fertile Crescent as well as on the Old Testament, he believes that the religion of Israel was monotheistic from the time of Moses, even though the popular mind was always inclined to fall away into polytheism or semi-polytheism. This runs counter to the general trend of present Old Testament scholarship, but has the support of a number of younger men, especially among Albright's pupils.

TYPE ANALYSIS

One of the most interesting by-products of archaeology has been the development of type-analysis or *Gattungsforschung*. This goes back to Gunkel, who insisted that in the conservatism of the ancient world, and particularly in its religious conservatism, literature had to conform to recognized forms and purposes. For the proper understanding therefore of the Old Testament it is necessary both to identify the various forms of literature that appear and to suggest the conditions under which, and for which, they were likely to have been composed—their *Sitz im Leben*.

Our greatly increased knowledge of Ancient Near Eastern literature has verified the general correctness of Gunkel's approach, especially in the Wisdom Literature and the Psalms. Type-analysis has helped to impose a check on unduly subjective exposition and literary criticism. In the psalms it has led to the attribution of a pre-exilic date to a high proportion of them. Engnell, perhaps perversely, claims that only Ps. 137 is clearly not pre-exilic. Elsewhere, by identifying the cultic purpose of a passage, it has made division among a number of sources virtually impossible.

Here again, however, as with the data of comparative religion, there is a strong tendency to underestimate the uniqueness of the Old Testament and to apply criteria that would be in order elsewhere, with unhappy results.

THE PROPHETIC LITERATURE

However much certain scholars may have devoted themselves to other areas of Old Testament studies, the prophets still occupy the pride of place they have held for at least a century. Very much in recent literature is merely a reassessment of older study and a reappraisal of old problems.

It is doubtful whether much of the modern literature is really worth the labour that has been lavished on it, and except in minor details the position of the better older commentaries has hardly been impaired. Lack of space prohibits more than a brief reference to the more important modern developments.

(a) *Cult Prophecy*. The recognition of the place of popular prophecy in the cultus lies outside our period, but since it has hardly penetrated to more popular levels, a passing reference is justified. The use of archaeology has enabled comparative religion to make it as good as certain that the prophet stood beside the priest as a cultic person at the sanctuaries. Since the canonical prophets do not condemn the existence of the popular prophets, but only their misuse of their position, it is only reasonable to suppose that they accepted the presence of the prophet beside the priest in the Yahweh sanctuaries as legitimate.

To-day, however, Haldar is the protagonist of the view that the pre-exilic canonical prophets were themselves cult prophets. Though there can be no *a priori* objection to such a view, and while I am prepared to consider the possibility in the case of some of the minor prophets, I consider the view is impossible in the case of Amos, Isaiah and Jeremiah and improbable with most of the others.

The theory is less important in itself than in its being a powerful reinforcement for the view going back to Nyberg and Birkeland that the prophetic books do not represent the words of the prophet whose names they bear, but their words handed down, enlarged and actively transformed to fit new circumstances by their disciples. For Haldar their disciples are replaced by the groups of cult prophets of whom they formed part. Such a view is reconcilable with the inspiration of the prophetic books, but it seem to cut across much of the evidence of their contents.

Another deduction from the theory that the canonical prophets were cult prophets is that their messages are to be interpreted in a cultic setting. Apart from the possible exception of Obadiah and Nahum the exponents of the theory seem to be unable to find much exegetical support for it.

(b) *The Psychology of Prophecy*. Our period has seen a great deal of work on the psychology of the prophetic experience, but for the most part I consider it inconclusive and disappointing. The very importance given to the eighth-century prophets by Wellhausen and his school often led to a view of their inspiration not markedly dissimilar to the usual Jewish view enunciated by Maimonides (twelfth century A.D.), that they were men of exceptional spiritual gifts and training. The modern scholar on the other hand is inclined to minimize the obvious differences between the popular and canonical prophets and to explain both by the same yardstick. Much of the discussion has been vitiated by its having been carried on largely by theologians who were not professional psychologists, and by psychologists prepared to regard prophetic phenomena as abnormal rather than supra-normal. In addition the use of the word ecstatic has been

fatal; it is a word which is so vague in its own nature that it either leads to views in flat contradiction to the prophetic books themselves or it becomes a mere truism.

We may expect the problem of the psychology of prophetic experience to become a major subject of study in the near future. Efforts up to the present to solve the problem have done little more than to disprove those views that unduly stressed the prophets' intellectual approach to religion.

(c) *Isaiah*. Though any denial of the division of the book into three main parts attributed to separate authors (ch. 1-35, *Isaiah*; ch. 40-55, during the exile; ch. 56-66, after the return) is regarded almost as a sign of mental aberration, the older view of accidental juxtaposition has been abandoned. To-day a complicated inter-relation of groups of disciples is postulated. Indeed it is hardly an exaggeration to say that we are returning to the conception of the unity of the book, though not of authorship.

The fairly general recognition of the Servant Songs (at least 42: 1-4; 49: 1-6; 50: 4-9; 52: 13-53: 12) as a separate unity within Deutero-*Isaiah* has enabled scholars to deal more objectively with the figure of the Servant. A large majority now holds him to be an individual, though from this point interpretations diverge. It is gratifying, however to see a growing willingness to see a Messianic figure in him.

(d) *Ezekiel*. The book of *Ezekiel* has become the centre of modern critical study in the prophets. At present the two main tendencies seem to cancel one another out. One school would deny the bulk of the book to the prophet, attributing it to later disciples, another (excellently expounded by Pfeiffer) would recast the outline of the prophet's activities, making him in the earlier part of his career a prophet to the doomed city of Jerusalem rather than to the exiles. In addition some have sought to move the book back to the time of Manasseh or forward to that of Alexander the Great. My own feeling is that when the dust has had time to settle we shall find that scholarly opinion as a whole will probably have remained true to older views.

THE PSALMS

Nowhere can the difference between Old Testament studies in the heyday of Wellhausen and to-day be more clearly seen than in the treatment of the Psalms. Then they were "the hymn-book of the Second Temple", an expression of "post-prophetic" piety. Now they are for many, especially among the Scandinavians, the key which unlocks the inner secrets of Israel's religion.

The reason for this change is above all, that together with the Wisdom literature, the Psalms offer the closest parallels to the literature of the Fertile Crescent and can in many cases be reasonably interpreted in the light of these parallels. In addition their study proved attractive because

while the prophets had to be studied within a rigid framework of Pentateuchal criticism of which men were growing doubtful and weary, the Psalter gave an opportunity for unfettered study. It is my conviction that if the Graf-Wellhausen theory of the Pentateuch is ever rejected by the majority of scholars, the modern study of the Psalter will have contributed more to this than anything else. As it is, there is an obvious contradiction in the views of many scholars to-day, for I cannot see how their interpretations of Pentateuchal criticism and of the Psalms can be reconciled.

The psalms have been moved backward in date. Not only is the possibility of Maccabaeian psalms denied (a conclusion that seems supported by the Qumran discoveries) but it is generally accepted that the Psalter is firmly anchored in the pre-exilic cultus, (though not by Pfeiffer), whatever the proportion of post-exilic psalms may be.

Many scholars, led by the Scandinavians, go much further. For them it is axiomatic (and surely they are correct) that the royal psalms must come from the period of the monarchy. They are, however, prepared greatly to extend the category of the royal psalms, for they recognize in the first person singular, especially when it alternates with the first person plural, the voice of the king leading the prayers or praises of his people. From these there has been evolved a picture, for which there is much other evidence, of the cultic position of the king, though in the hands of some it has been carried to lengths that denies other evidence.

It is certain psalms too that have supplied the main evidence for the reconstruction of an Enthronement Feast of Yahweh during the Autumn New Year festival. Though the majority of scholars have refused to accept Mowinckel's theory in its fulness, it is clear that few reject it in its entirety. It opens vistas for much stimulating study in the future, and personally I consider it virtually certain that Israel did celebrate the sovereignty of Yahweh during the feast of Tabernacles, even though it may not have been in the way suggested by Mowinckel.

OLD TESTAMENT THEOLOGY

Theology, whether biblical or dogmatic, presupposes that behind the phenomena which it describes and brings into a system, there is some unifying spirit and goal. The views of Wellhausen could at the best find these in evolution and a Hegelian dialectic, a poor basis for Biblical theology. As a result the classic works on Hebrew religion, of which that by Oesterley and Robinson is the last in English, have been, with the exception of A. B. Davidson's *The Theology of the Old Testament*, merely a description of Hebrew religion and its development.

To-day there has been a radical change in outlook. Though there are many scholars who stand outside the movement, and though much of Old Testament study is carried on as though this change had not taken

place, increasingly it is being recognized that the theological interpretation of the Old Testament is the real goal and justification of Old Testament studies. This shows itself along three paths.

The feeling mentioned at the beginning of this paper that the Old Testament field of studies was exhausted went hand in hand with a conviction among many that the Old Testament had lost all relevance for the Church. It took the challenge of the *Deutsche Christen* under Hitler to the Old Testament to waken up the Church both inside and outside Germany to how far it had drifted. Since then the question of the relevance and place of the Old Testament in the Church has been a major subject of debate and study. Unfortunately it cannot be said that it has penetrated very far into the consciousness of the average church member, whether liberal or conservative. This is largely due to both sides living in the outmoded conflicts that had raged round the views of Wellhausen and his school. It is probable that the Old Testament will never find its true place in the Church until these theories are decently and finally buried.

In increasing number there are appearing monographs on Biblical theology in which certain aspects of Old Testament teaching are examined and co-ordinated. In other words a serious effort is being made to grasp what the spiritual elements in Israel understood by the theological terminology it used. Its value lies in its freedom from any obligation to make its findings square with any *a priori* conception of what the New Testament teaches and still less with the philosophical moulds of some system of dogmatic theology.

Finally there are the efforts to produce theologies of the Old Testament. These fall sharply divided into two classes. There are those that seek to construct a theology of the Old Testament alone, and there are those that consider that without a Messianic, i.e. Christological focus, the task is impossible. Though none of the works yet produced in this field can be called entirely satisfactory, they have gone far in deepening our general understanding of the revelation of God. There can be little doubt that increasingly the centre of gravity of Old Testament studies is moving towards its theological side, and here I see the surest promise of its future health.

TEXTUAL CRITICISM

Thirty years ago it was still an article of faith with not a few scholars that the Massoretic text, i.e. the traditional Hebrew text that can in most essentials be inferred back to about A.D. 200, was in a perilous condition. As Rowley with some self-confessed exaggeration puts it (OTMS, p. 1): "Towards the text of the Old Testament, as represented by the Massoretic Hebrew, there was a rooted suspicion, and commentators vied with one another in the ingenuity with which it was emended. Where any version

could be invoked in favour of a change its support was welcomed, but where no version could be laid under contribution it mattered little. Any guess was to be preferred to a text which was assumed to be untrustworthy." An interesting example of this attitude is the readiness with which the semi-conservative H. M. Wiener appealed to the Septuagint and other versions, whenever it suited his theories.

The pendulum has swung right back and the discovery of the Lachish ostraka in 1935, and the Qumran scrolls¹ in 1947 have only strengthened the general modern belief in the essential reliability of the traditional consonantal text and the general reliability of the vocalic system that has been added to it. Bentzen sums up well (I, p. 101): "Many instances show, according to what has been said, that texts have suffered corruptions in the course of the centuries. But as emphasized above: it has never touched religiously, or rather theologically relevant matters. And the view more and more gains ground that the *Massoretic text* upon the whole is the best form of the text, even if versions in many single cases may have a better reading." More briefly Albright can say (OTMS, p. 25). "We can rest assured that the consonantal text of the Hebrew Bible, though not infallible, has been preserved with an accuracy perhaps unparalleled in any other Near Eastern literature."

The publication in 1937 of the 3rd edition of *Biblia Hebraica* was a major event in Old Testament textual studies. It gave the student for the first time access to the oldest known form of the Massoretic text, that of Ben Asher, and with it an easily handled critical apparatus containing both the main MSS. and versional variants and the chief conjectural emendations of value. The latest edition includes the main variants from the Isaiah A MS and the Habakkuk commentary discovered at Qumran.

A completely new edition is, however, needed. There have been second and third thoughts on emendations that once seemed attractive, though others have more than held their own. The Isaiah B MS from Qumran strongly suggests that the beginnings of the Massoretic text go back not to the second century A.D. but to the second century B.C. This with improved textual criticism of the versions and growing textual knowledge, shows that a more conservative attitude towards the text is called for. I give two examples of this recognition. Rudolph in his commentary on Jeremiah (1947) treats the text more conservatively than he did when editing the text of Jeremiah for *Biblia Hebraica* ten years earlier. The Revised Standard Version shows an attitude towards the text which must have surprised many scholars by its moderation; in this respect I feel it may even have been too conservative.

The textual criticism of the Hebrew text has been greatly helped by improved textual criticism of the versions. It has now been realized that a variant in them need by no means necessarily imply a variant in a

¹ No special reference is made in this paper to the Qumran discoveries, for, apart from textual and to some extent linguistic matters, their importance is really for New Testament studies.

Hebrew MS. It might equally come from an idiosyncrasy of the translator's or from an error in the MS transmission of the version itself. Lack of space compels me to confine myself to the Septuagint, the oldest and most important of the versions. The student has since 1935 the critical edition of Rahlfs at his disposal, while for the expert the massive Cambridge Septuagint, the first volume of which appeared in 1906, draws near its conclusion.

GRAMMAR AND LEXICOGRAPHY

The study of the cognate Semitic languages has made giant strides in the past half century. Many of the problems of Hebrew grammar have found their solution when seen in a wider comparative setting, and we have a far better understanding of the *hapax legomena* and the difficult vocabulary of the poetic books than when the standard lexicon of Brown, Driver and Briggs was finished in 1907.

Unfortunately it is not easy for the English student to obtain access to all this new knowledge. We have Gray's *Introduction to Semitic Comparative Linguistics* (1934), but the standard Gesenius-Kautzsch's *Hebrew Grammar* (2nd English edition, 1910) has not been brought up-to-date. The reprint of Brown, Driver and Briggs has corrected many typographical errors, but we have not yet received the promised supplement. Koehler and Baumgartner's *Lexicon in Veteris Testamenti Libros* (1953) goes a long way towards bringing us the latest lexicographical knowledge, but it can hardly be regarded as a definitive work.

ENGLISH TRANSLATIONS AND COMMENTARIES

The wealth of new ideas on the Old Testament has been too great for ready assimilation. As a result they have not had time to find adequate expression either in translations or commentaries.

Only four translations need be mentioned. J. Moffatt's *New Translation of the Old Testament* (1924) has had a wide circulation, but I suspect its popularity has come mainly through the translation of the New Testament. It is gravely handicapped by idiosyncrasies of its author and above all by its being made at least a decade too early. It bears the stamp of dead theories and in spite of its real merits is not likely to survive for long.

The Old Testament: An American Translation, edited by J. M. P. Smith (1927), is little known in England. It is probably a better work than Moffatt's, but it suffers also from having been made too early.

R. A. Knox's *The Old Testament newly translated from the Vulgate* (1949) has the invincible drawback of being a translation from the Vulgate. Further, though Knox is a master of English and one of the best translators of our day, he has not that knowledge of Hebrew that his task demanded.

DIVINE HEALING AND THE ATONEMENT: A RESTATEMENT

BY L. F. W. WOODFORD, DIP.TH.

SYNOPSIS

Recent years have witnessed a marked interest in the subject of divine, or miraculous, healing and the view is now widely held that the ministry of healing should hold a definite place in the witness and service of the Christian Church.

A doctrinal foundation for this teaching and practice has been sought in the Scriptures and it has been maintained by many that provision for divine healing has been made in the atoning work of Jesus Christ on the Cross: that He died for sickness as well as for sin and that healing is therefore available for all, in that atonement, on the same basis as the forgiveness of sins.

This view, put forward by various evangelical writers, gives rise to serious perplexities and difficulties, doctrinal and practical. A doctrinal restatement is here outlined, on the basis of the New Testament, seeking to define in fresh terms divine healing in relation to the atonement. The vital place occupied in this connection by the resurrection of Jesus Christ is emphasized and its significance assessed. The leading Scriptures used in support of the view above mentioned are then carefully examined and an interpretation of them submitted, in full keeping with the doctrinal restatement now put forward.

I

OF the various evangelical writers who have related divine healing to the atoning work of Jesus Christ, Dr. A. B. Simpson has been acknowledged one of the most well-known and respected. His exposition, set forth in *The Gospel of Healing*, has been largely followed by a succession of teachers who have taken as their main foundation—Scriptures: “Surely he hath borne our griefs, and carried our sorrows . . . and with his stripes we are healed” (Isaiah 53: 4 f.); “He cast out the spirits with his word, and healed all that were sick, that it might be fulfilled which was spoken by Esaias the prophet, saying, Himself took our infirmities, and bare our sicknesses” (Matthew 8: 16 f.); “By whose stripes ye were healed” (1 Peter 2: 24). Dr. Simpson’s exposition is typical of this school, declaring concerning Isa. 53: 4 f.:

“The translation of our English version does very imperfect justice to the force of the original. The translation in Matt. 8: 17 is much better: ‘Himself took our infirmities, and bare our sicknesses.’ The literal translation would be: ‘Surely he hath borne away our sicknesses, and carried away our pains.’ Any person who will refer to such a familiar commentary as that of Albert Barnes on Isaiah, or any other Hebrew authority, will see that the two words here used denote respectively sickness and pain, and that the words for ‘bear’ and ‘carry’ denote not mere sympathy, but actual substitution and the removal utterly of the thing borne. Therefore, as He has borne our sins, Jesus Christ has also borne away and carried off our sicknesses; yes, and even our pains, so that abiding in Him, we may be fully delivered from both sickness and pain. Thus ‘by his stripes we are healed’ . . . That one cruel ‘stripe’ of His—for the word is singular—summed up in it all the aches and pains of a suffering world; and there is no longer need that we should suffer what He has sufficiently borne. Thus our healing becomes a great redemption right, which we simply claim as our purchased inheritance through the blood of His cross.”¹

Dr. A. J. Gordon followed a similar line of exposition, whilst making certain qualifications along the line of the sovereign will of God in healing,² and Dr. Andrew Murray held the same view of Isa. 53: 4 f., although moderately enforcing it.³ Of more recent writers, the Rev. E. Howard Cobb pursues a similar view: “Christ bore our sicknesses in the same way as He bore our sins . . . He bore them as our substitute. The bearing of our sicknesses is . . . a part of the work of Atonement.” Mr. Cobb, writing very persuasively, admits difficulties in holding this view uncompromisingly and is finally obliged to come to the logical conclusion: “Why not face the facts boldly, and accept the teaching of the Bible that there

¹ *The Gospel of Healing*, pp. 12, 32.

² *The Ministry of Healing*, pp. 19–23, 256–60.

³ *Divine Healing*, pp. 111–13.

are only two reasons for unhealed sickness, i.e. want of faith, and disobedience? ”¹ His statement is softened by adding that the lack of faith may not be the sufferer’s fault and the sickness may be the result of the sins of his fathers, rather than any particular sin of his own. But does the teaching of the Bible impel us to such a conclusion? The present writer holds that it does not do so, whilst fully acknowledging that the two reasons advanced may be valid, but along with other reasons.²

II

In the explicit teaching of the New Testament, atonement was the provision of God in Christ Jesus for the putting away of sin by the sacrifice of Himself—using the word “atonement” in its current sense of expiation, propitiation (Hebrews 9: 26). When the New Testament sets forth the interpretation of the death of Christ, in the sense of atonement, it is always, without exception, related to the putting away of *sin* and the resulting effects of that work. From whatever aspect the atonement is viewed it is fundamentally related to sin. Thus: It was a work of propitiation—of expiation of *sin*.³ It was a work of reconciliation, through the *sin*-bearing of Christ.⁴ It was a work of justification, through the suffering for *sins* of the Righteous One.⁵ It was a work of redemption from *sin* of the Lamb of God, Who bore the *sin* of the world.⁶

The death of the Lord Jesus was essentially substitutionary in character. He died:

- (a) Instead of us—“ a ransom for (ἀντὶ) many ” (Matt. 20: 28).
- (b) On behalf of us—He “ gave Himself for (ὕπερ) me ” (Gal. 2: 20).
- (c) With respect to our sin—“ God sent His own Son . . . for (περὶ) sin ”, i.e. as a sin-offering (Romans 8: 3).
- (d) On account of our sin—“ He was delivered for (διὰ) our offences,” i.e. on account of the fact of our sin and need (Rom. 4: 25). So also—“ Christ died for (ὕπερ) our sins ” (1 Cor. 15: 3)—concerning, in relation to, our sins.

The New Testament gives us rich unfoldings of the divine truth in its interpretation of the significance of the atoning death of the Lord Jesus Christ—drawing deeply from the wealth of Old Testament types, symbols and prophecies (especially in the Epistle to the Hebrews)—and everywhere the stress is laid repeatedly upon the fact that His death was fundamentally and essentially concerned with *sin*. The great arguments elaborated in the Epistles (especially Romans) make this the heart and soul of the Christian evangel.

¹ *Christ Healing*, pp. 20 f., 98–102.

² It has been well observed that theological propositions have to be tested by the facts of life.

³ Heb. 2: 17; 9: 26–8; 10: 12.

⁴ 2 Cor. 5: 18–21; Rom. 5: 10 f., R.V.

⁵ Rom. 3: 23–6; 4: 25; 5: 18 f.; 1 Pet. 3: 18.

⁶ John 1: 29; 1 Pet. 1: 18 f.; Titus 2: 14.

But the work of atonement was not consummated by His death. Apart from His triumphant resurrection, His death alone would not have possessed atoning value. His resurrection from the dead is an integral and inseparable part of the evangel.¹ The work of propitiation on the Day of Atonement was not completed until the blood of sacrifice was presented in the holiest by the high priest (Lev. 16), the New Testament truth thus typified being set forth in Heb. 9: 7-28. The efficacy of our Lord's atoning death was assured by the triumph of His resurrection on the third day.

The New Testament, further, makes clear that the death and resurrection of the Lord Jesus have a wider significance than atonement for sin, a significance touching God's creation at all points, for by His death and resurrection:

(a) The prince of this world—the devil—has been cast out, thrown out, banished (ἐκβάλλω): "Now shall the prince of this world be cast out" (John 12: 31). The usurper has lost his authority and power.

(b) The devil has been brought to nought (καταργέω: I make of no effect, I annul, abolish, bring to nought, Heb. 2: 14). He no longer has the power (κράτος: might) of death.

(c) The works of the devil have been destroyed (1 John 3: 8, λύω: I break, destroy, set at nought).²

(d) Principalities and powers were spoiled (Col. 2: 15, ἀπεκδύομαι: I throw off, I put off as a garment) and were made a spectacle (θριαμβεύω: I make a show, I lead around), holding them up as an example (δειγματίζω). They were completely overmastered.³

(e) He abolished death (καταργέω—as in Heb. 2: 14 quoted above) and brought incorruption and life to light through the gospel, 2 Tim. 1: 10. "Death has been swallowed up in victory . . . the victory through our Lord Jesus Christ" (1 Cor. 15: 54-7). He drew the sting of death—sin—by His atoning sacrifice, and arose out of death which could not hold him. He gained the complete mastery over death as the Living One, and is Lord of the living and dead.⁴

(f) All authority (ἐξουσία) is in His hands and He exercises that authority over all creation without exception: "All power (authority) is given unto me in heaven and in earth" (Matt. 28: 18).⁵

All this is of supreme importance in connection with the subject under consideration—supernatural divine healing for the body—for the Scriptures thus declare that by His death and resurrection the Lord Jesus has fully met and covered every need of this disordered creation. Sin, at the

¹ E.g., Rom. 10: 8 f.; 1 Cor. 15: 3 f.

² Cf. Acts 13: 43; 27: 41—to disintegrate, break in pieces; 2 Pet. 3: 11—dissolve.

³ Cf. John 1: 5, Gk., and Eph. 4: 8 ("He led captivity captive").

⁴ Acts 2: 24; Rom. 6: 9; Rev. 1: 18, Gk.; Rom. 14: 9.

⁵ Col. 2: 10, 15; 1 Pet. 3: 22; 1 Cor. 15: 24, 28; Phil. 3: 21.

very root of the disordered creation, has been for ever put away by His atoning sacrifice; the devil has been deprived of his authority, and cast out, having been brought to nought and his works destroyed; the powers of darkness have been completely overmastered and thrown off by the Lord of life and power; death has been brought to nought, its sting (sin) removed and life and incorruption have been brought to light through the gospel; the Lord Jesus, from His throne, has all authority and power to administer the fruits of His atoning sacrifice and victorious resurrection and ascension, in the salvation of mankind.

We have the definite promise that this disordered creation will be restored, on the basis of our Lord's death and resurrection: delivered from the bondage of corruption into the liberty of the glory of the children of God (Rom. 8: 21).

III

We now enquire in what way sickness and disease have been fully met and covered by the death and resurrection of the Lord Jesus.

Sickness and disease are clearly universal manifestations present in our existing disordered creation, affecting the animal and vegetable kingdoms as well as mankind. They were not present in the original creation, pronounced very good (Gen. 1: 31); they will not be present in the future New Creation, to be pronounced perfect: "I make all things new" (Rev. 21: 5). They are manifestations originating with sin and are part of that bondage of corruption which awaits the deliverance of God. The atonement of the Lord Jesus dealt with the *sin* behind this corruption, thus providing the basis for the deliverance from, and elimination of, its manifestations in His due time and purpose.

The New Testament makes a clear distinction between the atonement wrought by the Lord Jesus in respect of sin, and the cosmic effects that spring forth from that atonement in relation to all else—sickness, disease, death, the devil and his works, and the principalities and powers of darkness. We may discern the distinction very simply.

Sin, however viewed in the Scriptures, interposes between the soul and God. It requires and demands expiation, satisfaction, removal—i.e., atonement. *Sickness* and *disease* are manifestations of a sin-dominated creation. They exist on the plane of the natural and physical—whether human, animal or vegetable, and they are, of themselves, non-moral and non-spiritual elements. They may arise in man from moral or spiritual causes, but sickness and disease of themselves do not possess these qualities. *They have no power at all to interpose between the soul and God.* The word of God makes this abundantly clear, and the experiences of the ripest saints of God down the centuries confirm this fact. That God has at times employed them for His purpose (e.g., the plagues of Egypt) manifestly places them in a vastly different category from sin. (Demon-power may be behind much sickness and disease, but this consideration does not disturb the present line of thought.)

Sickness and disease, as non-moral and non-spiritual manifestations on the plane of the physical and natural, did not require atonement as a basis for any forgiveness or reconciliation: they required—of themselves—removal by authoritative intervention. The Scriptures declare, as noted above, that our Lord did not atone for the devil and his works, or for death; *He conquered them all*. Similarly, He did not atone for sickness and disease; He *conquered* them as elements present in a world of corruption.

The New Testament always speaks concerning the divine activity towards sickness and disease in this light: sicknesses were removed, demons (declared to be the source of various sicknesses) were expelled, fevers were rebuked (as, e.g., Luke 4: 39, a strong word: used of our Lord rebuking demons, and the winds and waves, Luke 4: 35; 8: 24), and the work was always one of *deliverance*.

Sin has thus been expiated by the atoning sacrifice of the Lord Jesus; *sickness* and *disease* have been conquered by the victorious resurrection and ascension of the Lord Jesus, who lives in the power of an endless life and who, having all authority within His hands, as the Lord of life releases that life to meet the need of man.¹ "As He passes out of death, He comes into a new life which He may now communicate, and which is to be for paralysed men a new dynamic and a new purity, in the power of which all life may be transformed, and all victories won" (G. Campbell Morgan).

This dual conception of deliverance, by the *blood* of atonement and by the *power* of resurrection, is found repeatedly in the Scriptures. In type it is to be noted in the redemption of Israel from Egypt: the Israelites were delivered from death by the provision of the *blood* of the Passover lamb; they were delivered from the bondage of Egypt by *power*, and the mention of three days' separation from Egypt is surely richly typical of the three days between the death and resurrection in power of the Lord Jesus Christ. Redemption was thus twofold—by blood and, based on that shed and sprinkled blood, by power.²

So, for the believer, redemption is twofold: (a) from *sin*, by the atoning blood of the Cross and, resulting from this, (b) from the *bondage of sin* by the power of His risen life.³ We note Eph. 1: 18-19 and its specific reference to the "exceeding greatness of His power" towards the believer "according to the working of the might of His strength which He wrought in Christ when He raised Him from the dead."

Again, the redemption of the body will be (a) for the purchased possession—by *His blood*, and (b) by the emancipating and transforming power of *His risen life*.⁴ This principle is implicit in Rom. 8: 11, whether viewed as a present quickening of our mortal bodies by the indwelling Spirit, or as a future quickening by resurrection: "If the Spirit of him that raised up

¹ Heb. 4: 15; 7: 16, 25.

² Eph. 1: 7; Rom. 6: 3-14; 1 Pet. 1: 18 f.

³ Rom. 8: 23; Eph. 1: 14; 4: 30; 1 Cor. 15.

⁴ Ex. 6: 6 f.; 15: 13.

Jesus from the dead dwell in you, he that raised up Christ from the dead shall also quicken your mortal bodies by His Spirit that dwelleth in you."

"The resurrection therefore is the unanswerable argument for the accomplishment by Jesus Christ of God's purpose of destroying the works of the devil. There are infinite possibilities of application. Let it only be said that it is from the empty grave that the true song of hope has sounded. Every worker with God is conscious of the presence of evil in the world. Let that consciousness always be held in connection with the glorious fact that over all, Christ is absolute Master. . . . The glories of the resurrection demonstrate for ever the absolute and final victory of the Man of Nazareth over every form and force of evil."¹

In full keeping with this, the Rev. John Maillard has stressed one of these infinite possibilities of application, relating to divine healing, when he writes:

"If we have been in doubt as to the source of the healing power of Jesus Christ, the miracle of His resurrection will remove that doubt, for it explains everything: the power which restored life to the withered arm, which staunched the issue of blood, which recovered sight to the blind, and which healed every sickness and every disease among the people came from God. It is unquestionable that the power of God, which was able to rise to the height of a resurrection from physical death, can also overcome and heal the physical diseases, which are the symptoms of death. The miracle of the Resurrection is then the vantage-point from which we contemplate our Christian Faith. . . . A faith, inspired by the truth of the Risen Life, can face all the vicissitudes of life, and meet unflinchingly every adverse condition."²

IV

In the light of the foregoing considerations we may thus summarize our basis of approach for a restatement of the doctrine of divine healing:

(a) By the atoning sacrifice of the Lord Jesus and His triumphant resurrection, the fundamental relationship between sinful man and a righteous God has been for ever restored and the forgiveness of sins is granted to all mankind as a free gift, on the basis of that accomplished work. "If we confess our sins, He is *faithful and just (righteous)* to forgive us our sins and to cleanse us from all unrighteousness" (1 John 1: 9). The believing sinner avails himself directly of the "finished work" of atonement. He "receives" the reconciliation provided, on the basis of the righteousness of God.³ He accepts what has been done for him. He

¹ G. Campbell Morgan, *The Crises of the Christ*, pp. 318 f.

² Rev. John Maillard, *The Sacrament of Healing*, pp. 23 f. Dr. A. B. Simpson (*The Gospel of Healing*, pp. 32-7) stresses this aspect of healing, whilst also holding to the view of a substitutionary sacrifice for sickness.

³ Rom. 3: 26; 4: 25; 5: 11.

requires *no mediation* on the part of man, to dispense to him the forgiveness of sins.

(b) By the atoning death of the Lord Jesus and His triumphant resurrection all the disorder of creation, caused by sin, has been dealt with—including sickness and disease—and overmastered by the power and authority of His risen life. Their removal from God's creation are all within the supreme administrative authority of the Living Christ, in the all-embracing purpose of God. The first-fruits of this victory, in delivering and healing power over sickness and disease, are being shared by the living Church, and the basis of this ministry from the Throne of God is *His grace and compassion*.

(c) Our Lord has not delegated authority to His people to act in a mediatorial way in the forgiveness of sins: He is our only Mediator in this respect. "There is . . . one Mediator between God and men, the man Christ Jesus" (1 Tim. 2: 5). But He has delegated authority to His people to mediate deliverance and healing from sickness and disease, in His name and by His power. The first (forgiveness of sins) is based upon an accomplished fact, atonement for sin, which requires no mediation of man to be secured; the second (healing of the body) is a present, direct, supernatural intervention on the part of the Lord of life; and the communication of that life may be granted by the mediation of His servants within the Church. It is based on the ever-present fact of the Ascended Lord who lives in the power of an endless life and who, in grace and compassion, makes His life available to the sick and afflicted, delivering them by the very expulsive power of that life, even as in the days of His flesh.

(d) Deliverance from sickness, disease and demon-power is most frequently granted by God through a mediated ministry possessing delegated authority from His throne. This renders it therefore an entirely different matter from that of the forgiveness of sins, for a mediated ministry is subject to the sovereign will and grace of God for its operation. Such gifts are "grace-gifts" (*charismata*) set in the Church and dispensed in His will as He pleases¹—thus, the operation of gifts of healings, the laying on of hands, and the prayer of faith (which is subject to the laws of prayer common to every other exercise of prayer).²

V

The subject of this paper can be fruitfully followed up from this point, in many directions. It is submitted that the restatement put forward will provide what seems to be still greatly needed—a means of reconciling supernatural divine healing with healing through the given resources of nature. The New Testament declares that it is the Lord Jesus Christ who "upholds all things by the word of His power" (Heb. 1: 3) and it is

¹ 1 Cor. 12: 4-11; 12: 28; Heb. 2: 4.

² Mark 16: 18; James 5: 13-18.

“in Him all things subsist”—hold together and maintain their cohesion (Col. 1: 17). His creative and restoring work is manifest in supernatural divine healing, but as the Creator He has richly endowed both nature and man’s physical constitution with great restorative and recuperative power. Modern science constantly speaks of the *conquest* of sickness and disease, and of their displacement and elimination by the release and application of the healing and restorative powers derived and harnessed from nature—residing there by the upholding power of the Lord the Creator. Indeed, the seasons manifest the direct activity of the Spirit of God in renewing power year by year. The discovery of marvellous latent properties in nature, designed for the use of man, and increasingly employed with skill and understanding in the conquest of disease, is a fact too well-known to require elaboration. The mission fields of the world amply testify to it on every hand. But the conquest of disease by the release and application of life-giving forces provided by God in nature, working co-operatively with the God-given recuperative powers within man, are only manifestations through human channels of the very principles we have been noting in connection with direct supernatural healing: the conquest of sickness and disease through the power of the risen Lord and by the expulsive energy of His life. The principles now accepted in the realm of medical science were laid down and demonstrated in supernatural power in the New Testament, and the revelation given in the Word of God is being vindicated and endorsed by modern discovery along its own lines in this great field. Basically there should surely be no conflict between the promotion of healing by supernatural and natural processes respectively, although the former is specially within the sphere of activity of the Spirit-filled Church of God and the latter is promoted through an acquired and applied natural science. It is believed that the line of approach here indicated provides a means whereby the two can be shown to be complementary the one to the other.

Certain questions arise at this point which invite further investigation but which take us beyond the scope of this paper. Such questions include: (a) the relative place occupied by natural and supernatural processes of healing and the action and interaction of divine providence and divine grace respectively in such healing, (b) the place of the sovereign will of God in miraculous healing, (c) the place of pain and suffering in God’s redemptive purpose, and (d) the continuance of the *charismata* in the Church and their relation to the evangel of the Kingdom of God: the New Testament indicates such a relation.

VI

It is now necessary to consider carefully the Scriptures referred to at the beginning of this paper, which, it is held, set forth the substitutionary death of the Lord Jesus in respect of sickness, i.e. Isa. 53: 4 f.; Matt.

8: 16 f.; 1 Pet. 2: 24.¹ But it is submitted that, when examined, these Scriptures will be found not to support this view but that, on the other hand, they are in harmony with the main line of thought advanced in this paper.

i. *Isaiah* 53: 4 f. "Surely he hath borne our griefs and carried our sorrows." The Gk. LXX renders this: "He bears (φέρει) our sins and is pained for us."

(a) As Dr. A. B. Simpson has pointed out, *Isaiah* clearly speaks of the Servant in language pertaining to sickness, infirmity, pain and affliction, and the terms for "bear" and "carry" in 53: 4 have in the Hebrew a substitutionary significance. But it seems to have been quite overlooked that the precise definition of a word is one thing, but the actual *use* to which the word is put is of course quite another thing. It may be used literally or figuratively, e.g. by way of a simile or a metaphor, and the language of prophecy abounds in these literary forms. This consideration is vital to the interpretation of the passage before us.

(b) The whole of the section (52: 13–53: 12) relates to the nation in apostasy, and *Isaiah* turns to the outstanding symbol for sin—leprosy—and uses this in describing the substitutionary sacrifice for sin of the Suffering Servant of Jehovah. He had employed similar terms previously, as e.g. ch. 1: 4–6, when describing the "sinful nation": "The whole head is sick, and the whole heart faint. From the sole of the foot even unto the head there is no soundness in it; but wounds, and bruises, and putrifying sores . . ."; and ch. 6: 5–7 on the occasion of the death of the leper king, Uzziah: "I dwell in the midst of a people of unclean lips". Jeremiah used similar terms when describing the apostate state of the people of his time, e.g. ch. 17: 9: "The heart is deceitful above all things and desperately sick."²

(c) The *figure of the leper* underlies *Isaiah* ch. 53 in a striking way, from v. 3 onwards. It has been pointed out³ that the word "stricken" (v. 4) is the same as that rendered "plague" 57 times in Lev. 13 and 14 (detailing leprosy regulations); the word "healed" in the precise form in v. 5, only occurs elsewhere in Lev. 13: 18, 37 and 14: 3, 48 (in connection with the leper); and the "offering" (*'asham*) in v. 10—"when thou shalt make his soul an offering for sin"—is the same as that prescribed in Lev. 14: 12, 21. It is also of particular interest to note Spurrell's rendering of ch. 53: 3: "As from one with covered lip we turned our faces from Him", with the footnote—"Here seems to be an allusion to the leper who was commanded to cover the upper lip." Again, v. 4, "stricken, smitten of

¹ Dr. Henry Frost, in *Miraculous Healing*, chs. 5–6, gives a reasoned criticism of the teaching of Dr. A. B. Simpson and Dr. A. J. Gordon in this connection. I cannot, however, fully agree with Dr. Frost in his limited and localized interpretation of Matt. 8: 16 f.

² Cf. Jer. 15: 18; 30: 12–17.

³ Dr. Kay, *Speaker's Commentary*.

God ", aptly fits the leper's state, as, e.g., 2 Kings 15: 5 of Azariah: " The Lord smote the king, so that he was a leper unto the day of his death."

(d) The whole section is of one piece throughout. Its essential and repeated burden relates to sin, transgression and iniquity and to their removal by atonement. Verse 4 is no exception, the prophet employing in vivid terms applicable to the state of the leper the sin-bearing of the Servant of Jehovah. The intimate connection between verses 4 and 5 is manifest, as referring to sin—" But he was wounded for our *transgressions*, he was bruised for our *iniquities* "; and furthermore the figurative language of v. 4 is interpreted by the plain language of verses 11 and 12, where the very terms for " borne " and " carried " (*nasa* and *sabal*) are repeated in relation to sin and iniquity: " He shall bear their iniquities, . . . he bare the sin of many."

Thus Isaiah 53: 4, in full keeping with the whole of this section of Scripture, declares the substitutionary work of the Suffering Servant of Jehovah for sin, set forth in terms of the stricken, smitten and afflicted leper. For " He was made sin for us, who knew no sin, that we might become the righteousness of God in Him " (2 Cor. 5: 21).¹

ii. *Matthew 8: 16 f.* " Himself took (ἑλαβεν) our infirmities and bare (ἔβραστασεν) our sicknesses."

The precise significance of this quotation from Isa. 53: 4 may be determined by reference to the method of the writer, the immediate context, and the particular value of the words he used.

(a) Matthew's method of quotation from the Old Testament Scriptures is of importance. On no less than eleven occasions (R.V.) he uses the phrase, " That it might be fulfilled ", and on every occasion he draws upon the Scriptures quoted in order to relate their fulfilment to the actual events there and then recorded, as e.g. the Virgin Birth (1: 22), the time spent in Egypt (2: 15), the mourning of the women of Bethlehem (2: 17), and so on.² In this passage (8: 17) Matthew was not referring to our Lord's coming passion when he drew upon his quotation, but he was referring to the actual events he was then describing.

(b) The passage under consideration is in keeping with all the others in this respect; the context makes this quite clear. Matthew, recording the casting out of demons and the healing of the sick (v. 16) stressed the fact that our Lord was thereby fulfilling His Messianic ministry as the Servant of Jehovah, supporting this by the great prophecy of Isa. 53. That prophecy, as we have noted, was directly dealing with the Messiah as the sin-bearing One, but Matthew here pointedly showed that bodily sickness and infirmity as well as spiritual sickness and infirmity came within the

¹ Cf. *New Bible Commentary* (I.V.F.) on Isa. 53: 3; " C. R. North translates 'acquainted with sickness', i.e. leprosy; a picture of the Saviour's contact with sin. Cf. 2 Cor. 5: 21."

² *Matt.* 2: 23; 4: 14; 12: 17; 13: 35; 21: 4; 26: 56; 27: 9.

range of His mighty ministry and that He had come to deal with bodily needs as well as spiritual needs.

(c) Matthew therefore makes use of the Isaiah passage in its *literal* sense, not in its primary *spiritual* sense. Here we specially note that Matthew makes very significant changes in key words. His quotation entirely avoids any rendering into Greek of the substitutionary value of the Hebrew words used by Isaiah (bear . . . carry). Nor does he use the Greek verb "to bear" (φέρω) used by the LXX in Isa. 53: 4. The latter verb is used in Scripture in a substitutionary sense (e.g. 1 Peter 2: 24 and Heb. 9: 28—He "bare" our sins—with Isa. 53: 12, He "bare the sin of many": ἀναφέρω). But in place of φέρω, Matthew uses the verb βαστάζω for "bear", which verb is *never* used in the New Testament in a substitutionary sense. This change of word is certainly arresting and is in keeping with the assertion that there is no thought of substitutionary sacrifice for sickness in the mind of Matthew in this Scripture. His quotation was related to the life-ministry of the Messiah, not to His sacrificial death, and his rendering of Isaiah was adapted accordingly and to definite purpose.

(d) The most natural and fitting meaning to be attached to this passage is that given by Moffatt: "He *took away* our sicknesses and He *removed* our diseases", and that was exactly what our Lord was doing at the time, in His great healing ministry.¹ The verbs employed certainly hold this meaning:

λαμβάνειν—to take up, to take away: Matt. 5: 40, "take away thy coat"; Matt. 16: 9, 10, "how many baskets ye took up".

βαστάζειν—to take up, to carry away: John 20: 15, "borne hence"; John 10: 31, "took up stones"; John 12: 6, "having the bag, took away what was put therein", R.V. (or, "used to steal", Weymouth).

(e) The verb βαστάζειν ("bare", A.V.) thus holds the meaning of "carrying away", but it also holds a further meaning of compassionate sharing with those in need.² Our Lord was moved with compassion and then healed in His compassion, with all authority and power:³ "Jesus, . . . moved with compassion, . . . healed their sick" (Matt. 14: 14).

(f) Matthew's statement is therefore entirely in line with the full testimony of the Scriptures concerning the work of the Lord Jesus in respect of sickness and disease. Here is no reference to substitutionary sacrifice but a demonstration of the truth that in His grace and compassion, with His word and touch of power and authority as the Resurrection and the Life, He loosed the bonds of Satan, expelled demons, lifted the burden of sickness and disease from the crushed and broken and delivered them.

¹ See H. A. W. Meyer's exposition of this verse (N.T. Commentary, Matthew), in full keeping with the above line of thought. ² Cf. Rom. 15: 1; Gal. 6: 2.

³ Stressed by Alford, on Matt. 8: 17 (*Greek N.T.*), and so, also, C. J. Ellicott's *Commentary*.

iii. 1 *Peter* 2: 24. "By whose stripes ye were healed" (R.V.).

Peter was quoting from *Isaiah* 53: 4 and his statement has reference to the death of Christ for sin; there is no reference here to His death for sickness, as the following points make clear:

(a) The plain meaning of the context in 1 *Peter* 2: 22–25 shows that the phrase refers to the healing of the soul through the remission of sins. Peter refers to *Isa.* 53 four times in these verses, each time in relation to Christ's work as the sin-bearer.

(b) The whole context of *Isaiah's* prophecy, vv. 5 f., has relation to atonement for sin. "He was bruised for our iniquities."

(c) The connecting link between v. 24 and v. 25 is emphatic: "For (γάρ) ye were as sheep going astray"; enlarging upon the statement of v. 24, clearly dealing with sin and not with sickness.

(d) It was Peter's manner of writing constantly to refer to the death of Christ as His "sufferings": "Christ suffered for sins once" (3: 18);¹ hence, his quotation alluding to Christ's death as a "bruising" was in full keeping with his style of reference throughout his epistle, and it was particularly appropriate here in view of his writing to slaves who were being buffeted (2: 20).

(e) He was writing to the Dispersion and their healing pointedly refers us back to *Isa.* 6: 9–10 and the judgment on apostate Israel, "Lest . . . they be healed", quoted in *Mark* 4: 12, where the healing is plainly declared to be *the forgiveness of sins*. In the New Testament, to be healed is used of spiritual healing or restoration, a conception fully Scriptural but one that is liable to be overshadowed by our constant thought of purely physical healing. Conversely, to be physically healed is spoken of in the New Testament, frequently, as being saved: e.g. *Matt.* 9: 21–22, "Thy faith hath made thee whole (saved thee)."²

(f) The word used by Peter—"bruise"—is not found elsewhere in the New Testament, being taken from *Isa.* 53: 5 (μῶλωψ³, a wound, a scar, a bruise, a weal), and the thought is behind *Isa.* 53: 8 (margin): "For the transgression of my people was the stroke upon Him." It is very significant that Peter did not use any of the three words employed in the New Testament for beating, flogging or scourging. Jesus was scourged (μαστιγῶω: *Luke* 18: 33; *John* 19: 1; φραγελλῶω: *Matt.* 27: 26, *Mark* 15: 15). Peter did not use either of these words, nor yet the common word for stripe (πληγή, as of Paul and Silas's many stripes, *Acts* 16: 23, 33). If he had desired to refer to the scourgings of the Lord Jesus he would surely have used one of these appropriate words, but in fact he did not do so.

¹ Thus also 1: 11; 2: 21; 4: 1; 5: 1. ² Cf. *Matt.* 14: 36; *Acts* 14: 9; *James* 5: 15.

³ It is significant that the word is in the singular in both the Hebrew and the Greek.

The statement he made did not refer to the scourging of the Lord Jesus but to the stroke of death laid upon Him by God, on our behalf.

(g) Finally, we recall that the whole divine concept of atonement was that of a life surrendered to death by the outpouring of the blood. It was the blood *given upon the altar* that made atonement, for the blood is the life, and the blood given is the life given (Lev. 17: 11, R.V.). Our Lord declared this great truth (Matt. 26: 28): "My blood which is shed for many for the remission of sins."¹ Nowhere is there any ground for the assertion that atonement was made, either for sin or for sickness, by virtue of the scourgings of the Lord Jesus. The substitutionary value lay in the life laid down, and to this all Scripture abundantly testifies. That is not to underestimate the terrible cost to Him of treading the path to the Cross, but Scripture makes clear that it was the crowning act of surrender to the death of the Cross that constituted His atonement and without that final act all that preceded it would have failed in its redemptive significance.

This Scripture has undoubtedly been used with great blessing in the actual healing of the body—the underlying principle is there: the virtue of the atoning blood of Christ has released the power of His risen life for the physical need of man. But that does not give us ground for basing upon the Scripture a doctrine of atonement for sickness which it does not teach and which was not in the mind of Peter, or of the Holy Spirit, when it was written.

In this vital and practical truth of supernatural healing of the body, it is therefore submitted that the focal point is found in the victory of our Lord's resurrection and ascension, just as the focal point for sin is found in His atoning death upon the Cross. The Scriptures indicate this distinction, and whilst the death of the Lord Jesus is inseparably bound up with His resurrection and ascension, *the particular significance of both* requires to be recognized, stated and applied.

¹ Cf. Mark 10: 45.

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936TH ORDINARY GENERAL MEETING

OF THE

VICTORIA INSTITUTE

AT

THE CAXTON HALL

WESTMINSTER, S.W. 1

ON

MONDAY, 26th MARCH, 1956

R. J. C. HARRIS, Ph.D., B.Sc., A.R.I.C., in the Chair

THE PRESUPPOSITIONS OF SCIENCE: A SYMPOSIUM

By

J. N. HAWTHORNE, B.Sc., Ph.D.

AND

R. E. D. CLARK, M.A., Ph.D.

THE VICTORIA INSTITUTE

22 DINGWALL ROAD, CROYDON, SURREY

THE PRESUPPOSITIONS OF SCIENCE

I

By J. N. HAWTHORNE, B.Sc., PH.D.

BEFORE opening the discussion on "The Presuppositions of Science" I think I ought to define "science" as I am going to deal with it here. I have taken science to mean natural philosophy in the old sense: the study of nature by observation, and by the inducing of generalizations, which we call scientific laws, from those observations. I do not think that anything is immune from such treatment. The method of science can be applied to any subject, though with more success to some than to others. For instance, if you describe a Beethoven symphony in scientific terms of frequencies and overtones, you get a complete description in one sense, but many people would think that it had missed the whole point of the music. So that is the way in which I have taken "science", and this Natural Philosophy will cover physics, chemistry, biology, psychology and so forth.

Now my first presupposition is that Nature is orderly: that it is uniform. I think this is the basic presupposition. If the universe were chaos then there could be no science. The interesting thing is that though we often find exceptions to our laws when we study phenomena more carefully, we do not give up at that point and assume that the laws were delusions, that things are not orderly, after all. We assume that Nature is orderly and we look for a new and more general law. But it is difficult to prove this supposition that Nature behaves in an orderly way.

One example comes from the study of radioactivity. If you take a sufficiently large group of radio-active phosphorus atoms, for instance, half of the atoms will have decomposed within fourteen days. If we take any particular atom, though, we cannot say when it will decompose. There is no law to help us here. We could say, then, that there are three possibilities: (1) that the decomposition of radio-active phosphorus atoms obeys no law; (2) that the atoms have minds of their own, or something equivalent, so that they decompose when they want to; (3) that there *are* laws governing the phenomenon, but scientists cannot yet tell us anything about the forces involved. Falling back on the regularity presupposition, the idea that Nature is uniform, we take the third viewpoint.

It is interesting that this uniformity presupposition does come in quite often in the arguments of scientists. For instance, there has been a lot of discussion on the subject of parapsychology. The phenomena studied by people like J. B. Rhine do not seem to fit in with our present scientific ideas and a very bitter attack on their findings has recently been published in *Science*¹. The basis of that attack on parapsychology is merely that it does not fit in with our idea of Nature's orderly behaviour.

¹ *Science*, 122, 359 (1955).

and would upset some of our present scientific laws. It seems to me that this is rather an unreasonable view. If fuller observation establishes the results our present science will have to be modified considerably. The Greeks were great thinkers, yet their science collapsed after more than a thousand years! Because our studies seem to have been "of a piece" since the sixteenth century we need not assume that they will remain so indefinitely.

One final general point about the uniformity presupposition. Science as we know it today had its origin in the work of men like Bacon in the seventeenth century. If you look at the lives of some of the early members of the Royal Society, of Bacon and his contemporaries, people who were most interested in the study of Nature, you generally find that they had a very definite Christian faith. They felt that they were studying the handiwork of God, and they expected Nature to be orderly, and to be worth studying: and that was the incentive for their scientific work. It is rather ironical that the same science which is still using their methods has sometimes been used, more recently, to attack the Christian position.

Extending this uniformity presupposition, scientists say that things have behaved up to the moment in an orderly way in the universe and that they will *go on* behaving in that way. We have dropped the apple ninety-nine times and it always fell; therefore it will fall in the same way when we drop it for the hundredth time. We extend all our scientific laws into the future, and back into the past as well. Several of the findings of the physicists suggest that the universe had an origin at some point. Entropy, which seems to be increasing, points not only to a definite beginning, but in addition points to the eventual "heat-death" of the universe, as I think Sir James Jeans calls it, in which everything reaches a sort of lukewarm position! These ideas of a beginning, with its implied discontinuity, seem to be repugnant to physicists, and various theories have been put forward to overcome the difficulty. For instance, Gamow and other scientists have suggested a cyclic universe which runs down and winds up again, so continuing indefinitely. That gets us over the beginning and ending difficulty; and, in one sense, keeps the universe running, keeps it uniform. Yet in another sense it dispenses with the uniformity principle. It would involve, for instance, a reversal of the law of entropy every few billion years, but if we have got to assume this then we have thrown away the uniformity presupposition! In a similar way there is the cosmological theory of Hoyle at Cambridge in which matter is being continuously created and destroyed, so that the universe goes on for ever. It has no beginning, and no end. If one understands Hoyle's book correctly, he says that matter is created from nothing. This again dispenses with one of our laws—the conservation of mass-energy. Moreover, we have never observed this! If we are to believe that, something has had to go in order to try and preserve the overall uniformity of the universe.

One final thought. Some philosophers might argue than man's own liking for order is responsible for the apparent order in the world of science, that it is only a reflection of his own tidy mind. Yet even they admit order in one part of the universe—man's mind—so why not say that the order scientists discover is the reflection of another and greater mind?

My second presupposition is that scientific observation is trustworthy. First of all, we assume that there is a universe outside our own minds which we can know objectively; secondly, we assume that science conveys the whole truth about the universe: not, necessarily, that it has yet done so, but that it will do so eventually.

There has been a lot of discussion among philosophers as to whether anything exists outside a man's own mind: the views of Bishop Berkeley and the idealist School are well known. Science in its present view of the universe tends towards this. Compare the results of physicists to-day with the findings of physicists of thirty to forty years ago, and you will see the great change in outlook. In the old days they were confident that they were describing a real world. Pictures were given of the working of it, and it was described in terms which anyone could visualize—solid atoms in vigorous movement, electrical forces obeying mathematical laws, and radiation travelling in waves through a sea of ether. Today it almost seems as if we have given up the attempt to understand the universe outside our minds. Atoms became first planetary systems of electrical particles, then probability waves, and gravitational forces became irregularities in a space-time continuum. No longer was it possible to visualize reality. When one experiment revealed light as a wave motion, and a second showed it to be a stream of photons, the physicists expressed both results in one mathematical equation, and left reality there. But I am not a mathematician, and I really find myself a long way from reality! So, many physicists say that scientists must not claim that they are studying reality, when they are merely correlating their observations; whether those observations are connected with an underlying reality is another question. In spite of this, the ordinary working scientist, when he does an experiment, makes the presupposition that it will tell him something about reality, and about the world outside his experiment.

The second sub-division of this presupposition (about science telling us the whole truth) has, I think, given rise to a lot of difficulty. For instance, the schoolboy who finds no mention of God in his science textbooks and who has been told that however good a microscope or a telescope may be, he will never be able to find the Creator with it, has assumed that science ought to be able to tell us everything about the universe: that it can give us the whole picture. This is a wrong assumption.

I want just to deal with a point about the mind, as an illustration of the tendency of scientists to present their results as if they were the whole story—to "explain things away" in fact. The argument runs as follows.

First of all, brain activity is accompanied by detectable electrical changes: you can detect the electrical changes, and measure them, when, for instance, a man is thinking, or when he is asleep, or when he has taken drugs. We know that mental activity is accompanied by electrical changes. Secondly, we know that complex electronic calculating machines can do a lot of the things that a human mind can do. Therefore it can be concluded that thought is merely very complex electrical activity in the brain and that there is no such thing as "mind". It is merely a *subjective* feeling. Again they describe sexual love, for instance, in terms of hormones, as a chemical phenomenon; or they describe fear in terms of adrenaline secretion. They are claiming to describe the whole arrangement of the mind, whereas in fact they are only discussing one aspect of it. It is, in a sense, a complete picture; but in another sense it is far from being the whole story. I think this is rather a dangerous presupposition which we, as scientists, sometimes make: that science is showing us the whole of reality, whereas generally it is only giving us one aspect of it.

Moreover, if science can convey the whole of reality, it ought to be possible to deduce a morality from scientific observations alone; but there have been no very satisfying attempts to do this. From evolution, for instance, as far as I know, it has never been done, without at some point begging the question. You can get a sort of ethic from evolution by saying that the things which survive are the desirable things: those things which tend towards the survival of the human race are ethically good. But always to do this sort of thing you have got to make an assumption somewhere. For instance, in this case you decide, to begin with, that the human race ought to survive—that that is a good thing. It seems to me that science unaided can never give us an ethical standard: we need some other source.

Now the final point I want to make, the final presupposition, is that the human mind is trustworthy. There is no reason to suppose from the scientific point of view that the universe was created by an intelligent being. From science itself we cannot prove that. We can only say that the universe is. In a similar way life's first appearance on the earth can only be regarded as an immensely improbable accident. The same thing therefore applies to man's mind, the latest result of purely physical interactions. If this is so, why should our minds be reliable—how can we use them to deduce scientific or any other sort of truth? The same difficulty has been expressed by Haldane in the essay *Possible Worlds*: "If my mental processes are determined solely by the motions of atoms in my brain, I have no reason to suppose that my beliefs are true . . . and hence I have no reason for supposing my brain to be composed of atoms." A recent attempt to defend the trustworthiness of our minds has been made by Mrs. M. Knight.¹ She says this: "Someone asks us how many cats there are on the hearthrug. We look and say that there are two.

¹ *Penguin Science News*, 25, 1952 (p. 97).

What happens, in physiological terms, is that images are formed on the retinae of our eyes, electro-chemical impulses are transmitted along the optic nerves to the visual areas of the brain, and so on: and as a result of this we see two cats, and form the related belief that two cats are in fact there." She claims that the belief arises from purely material antecedents but she makes quite a few presuppositions. She talks about electrical impulses: that idea was only arrived at by a long train of human thinking, which assumes that the thought was reliable. We have got to have a conception of what a cat is, gained from previous experience. So the decision that we see cats depends on our memory. The conception of "two" is similarly dependent on previous experiences in which identical objects were seen: we had to be taught that one and one make two. Every link in this chain is not a material one.

In another place Mrs. Knight says in effect: "If electronic calculating machines are reliable, why not the brain, which is the same type of thing? Surely it will give us the right answer." It seems to me that it all depends on how the calculating machine is made. The ones in common use are made by men who understand mathematics and are made to give the right answer! It is quite possible, presumably, to make calculating machines that always give the wrong answers. A machine made by shaking together the various components until they came into some working arrangement, which is roughly the materialist view of man's mind, would very often be the "wrong answer" type! I think that Mrs. Knight's defence of this presupposition does not really stand a careful scrutiny. It seems to me that if we are to assume validity of thought it is much easier to do so from the Christian position, than from the atheistic or agnostic position.

The calculating machine analogy, which has often been used to show that human minds are merely subjective impressions gained from brains working in a purely electro-chemical way, thus turns out to be a dangerous weapon for the materialist. If our minds are to be trusted, it is better to think of them as having been designed by Someone who knew the right answers and made them accordingly, whatever the method used. The argument becomes similar to the one in which our minds are reflections of an Eternal Mind who has made "all things well".

II

By R. E. D. CLARK, M.A., PH.D.

DR. HAWTHORNE has given us a very able and clear exposition of the more commonly discussed presuppositions of science. I do not want to attempt to go over the ground again, since it has been fairly comprehensively covered. He has told us that the main presuppositions of science are three in number—firstly, the orderliness of nature; secondly, some sort of causality (the word may seem objectionable in view of the

recent developments in physics, and Martin Johnson has suggested that we might replace it by "intelligibility"); and thirdly, the trustworthiness of human reason and of scientific observation. Dr. Hawthorne has reminded us that presuppositions have theological foundations; and on this point I should like to make a few additional comments.

Modern science developed from theological presuppositions. In this connection a book which appeared quite recently—Smethurst's *Modern Science and Christian Beliefs*—contains an excellent summary of the views of those who have studied in this field. The following are a few of the points of which Smethurst reminds us. Descartes, after much thought, decided that the only reason why we should think that a clear and distinct idea is true (or has a good chance of being true) is a theological one: God is not a deceiver; God would not have given me a mind in order to lead me astray. Descartes has been much criticized, but nobody has ever suggested a satisfactory alternative to his view; and it is most noteworthy that the modern philosophies of Marxism, Logical Positivism and Freudianism—all of which deny God's existence—are led in the end to doubt the reliability of human reason. Similarly the idea of orderliness, or intelligibility, arises *only* if we believe in a God who is the author of the universe. Smethurst reminds us of the Trojan war in Homer, the deities of each side trying to tamper with the forces of nature in order that their own side might win. We might well picture the universe as being like that but for monotheism. Similarly, primitive peoples do not assume that the seasons will come round automatically; they perform unending rites to ensure that this will happen. Science cannot develop in this mental atmosphere since its presuppositions are denied.

It is a tacit assumption of science that matter is itself worthy of study. Because they did not believe this to be true the devotees of Eastern religions were never able to initiate science. For Eastern religions matter is bad, and you have to emancipate yourself from it. Even in Buddhism, the best of these religions, you have to detach yourself from material things to live the good life. It is the Christian dogma of creation, repeated again and again in Genesis I, where we read that God made everything and saw that it was good, which makes science possible. Christians hold that matter is good and holy enough to have been the dwelling-place of God Himself. The Christian believes that God has lavished His thought and care upon a material universe. No wonder if Christians think, therefore, that the devotion, the care, the patience and the thoughtfulness necessary for the development of science are worth while. Christianity itself—or at least monotheism—is the really basic presupposition of science, and its historical development shows this to be so. Non-Christians may enjoy the Christian scientific heritage today, but it is not theirs by right. There is much more to be said, of course, but time forbids.

What I am going to say next is really a matter of crossing the t's and putting in the full stops to what Dr. Hawthorne has said, and although I

shall be raising one or two new points, only one of them is, I think, as fundamental as those which have already been raised.

Let us start again at the beginning. Science, I take it, is concerned to find out about the material universe. Why must we make presuppositions to do this? An analogy will be helpful. Suppose you want to find out what is in Joanna Southcott's box; then a little thought will show that, consciously or unconsciously, you will have to make certain presuppositions in order to carry out your task. You must assume, for instance, that the box is the right box. (There are a great many rival boxes, or used to be in the days when Joanna was in the news.) Likewise in science you have to assume that the universe is not there to deceive you. Again, you must assume when you open the box (or X-ray it, if you like) that the things in it will not mysteriously disappear. Similarly, in science you must assume that nature is not magical, that you can get at the truth in the end.

This analogy helps us to understand how the presuppositions of science develop. But now another point arises. Sometimes presuppositions settle down to dogmatic form: to make your trouble worth while you have to assert rather firmly that, shall we say, immediately the box is opened, the things in it won't disappear. At other times presuppositions do not quite settle down to dogmatic form, but they get very near it. You never could be *quite* sure that a given box was Joanna's own genuine legacy to our nation: it was safer to open all the Joanna boxes you could find.

Let us consider, first of all, an example in which a presupposition almost, but not quite leads to a dogma. One of the practical presuppositions of science is that we may only find out knowledge in certain ways. The chosen ways are the way of observation, employing the messages which come through the sense organs, and the way of experiment. It is presupposed that we shall not take any notice of the other possible ways in which information might come to us. Mankind is familiar with many other possible ways of obtaining knowledge—augury, intuition, dreams, telepathy, messages from spirits, prayer, and so on. But these are never referred to in scientific journals.

Now we know that, in fact, a great many scientific discoveries have come through these other ways. Goodyear dreams that if you put sulphur into rubber you will take away the stickiness. He does it the next day, and discovers the wonderfully useful properties of rubber which make motor tyres and other articles possible. Kekulé dreams of atoms gambolling before his eyes, and develops his structure theory of organic chemistry; he dreams again, this time of strings of atoms like snakes eating their own tails, and founds his theory of the structure of benzene which still holds us in good stead to-day.

We may be sure that the materialist would *like* to say that all scientific knowledge must come by the scientific method. But he just cannot say quite that, because he knows it is not true; knowledge *does* come in other ways. But when you write your scientific paper you pretend it does not;

you hide the real source of the knowledge. So what some people would like to develop into a dogma, just fails to do so.

Very often, however, real dogmas of science do develop. Now we do not, as a rule, like to talk of dogmas in science, so it is worth while comparing scientific dogma with Christian dogma. Ordinary simple Christians live their lives without worrying over much about creeds. Nevertheless, creeds are a formulation of the way in which the Christian life is lived. In the same way the scientist gets along very well without thinking of dogmas, without thinking in terms of any scientific creed, and would probably be horrified to see one put into shape. Nevertheless, an outsider watching the way he does his experiments might very well construct a creed for him. And if he were to do so, I think the result might be something like this:

“ I believe in the absolute difference between truth and error, and that it is man’s duty to discover and accept truth.”

Note that truth, error and duty enter here. They are not, in themselves, scientific ideas, and no science can verify their existence. To continue:

“ I believe that knowledge is better than ignorance, and truth than error.”

We note the scale of values. Again, the idea that one thing is *better than* another cannot be discovered or verified by science.

“ I find myself placed in a universe the truth about which it is my duty to discover. This universe influences me by reacting upon my sense organs, and I believe the impressions I receive are meaningful and significant. What I call the universe is not a hoax, or a nightmare, and I am in duty bound to take it seriously.”

We are only too familiar with hoaxes and nightmares, but we do not take them seriously, and we have to assume that the other half of our existence corresponds with something we must take seriously.

“ Though I cannot directly compare my own sense impressions with those of other people, I believe, nevertheless, that other people have experiences similar to mine.”

Again I have to make this assumption, or else science could not develop. I could not, and would not, attempt to communicate ideas to other people without this presupposition.

“ I believe that the human mind is so constituted that it can understand the universe.”

Notice, we specify here the “ human mind ”. (There are plenty of other minds, the minds of animals, and so on, but we make no assumption about them.) The word “ understand ” calls for further discussion, but I forbear.

“ I believe in the unity of nature, and of all natural events; and since I accept this unity, I believe that all natural events are potentially observable.”

If there were two natures, with no interconnections at all, nature would not be a unity.

“ In seeking to understand nature, I presuppose four axioms: Firstly, that order is not self-creating, but must be explained as the result of pre-existing order, the arm of coincidence not being very long.

“ Secondly, and arising from this, the law of cause and effect statistically interpreted.

“ Thirdly, that nature is fundamentally simple.

“ Fourthly, that the elegance and beauty of theories is in some way connected with their truth.”

There is much here that calls for comment, but I must content myself with stressing the first two axioms, which may be summarized by the statement that order is not self-creating.

This is, perhaps, the most basic of all the presuppositions of science. It is the one, in fact, which Descartes proposed as the foundation stone upon which science should be built, the basic concept which made him and still makes us moderns part company with Aristotle and the ancients. For Aristotle the final cause—for remember that his imaginary self-ordering forces were purposeful—was contained *within* matter. Matter for Aristotle was divine or semi-divine. But to-day we no longer hold this view, and modern science could never have developed were it not for its overthrow.

But oddly enough, this presupposition seems to have come under a cloud, judging by the rarity with which it is mentioned. Not that it altogether escapes attention—one does very occasionally see it referred to. For example: P. W. Bridgman (the “ high pressure physicist ”; if I may respectfully so call him) says in his book *The Nature of Thermodynamics*: “ It is strange that we do not seem to require any explanation for the tendency of a system of many members to increase in the disorder of its arrangements.” In other words, he says, we watch nature at work, but we only ask, “ Why did that happen? ” when we see an order, some sort of non-chance arrangement in time and space, coming into existence. If no such order arises, or if the order disappears, we assume that we need ask no questions.

This is a remarkable assumption to make, but it is one which we make almost unconsciously. Here are a few examples:

Our ancestors were exceedingly interested in what they called the *lusus naturae*—the game or freak of nature. They used to collect stones which they picked up in mountain districts on which they thought they could see the delineation of a human face, a giraffe, or some other object. We are not interested in the *lusus naturae* today. I do not suppose that a

single modern scientific paper has been published on why we get these curious shapes. We attribute them to chance and nothing more. If we thought there was something other than chance, we should try to explain them.

But the scientist would then argue that, odd as they are, they only arise as the result of a *falling* from some other ordered state. In other words, what appears to be the production of order is *really* the production of disorder! And about that no scientific questions need be asked.

Once again, we watch the formation of crystals and explain the new order by saying that it is the result of the shapes and other properties of the molecules. Similarly we assume that the X-ray diagram of a crystal corresponds to the atoms in the crystal. We are not prepared to assume that the shape of the crystal, or the X-ray diagram of it, comes into existence by chance.

People have been worrying their heads for a long time as to why it is that gamboge particles, certain cocci, etc., arrange themselves under the microscope into pearl strings. Is there some subtle unknown force which turns them into those long necklaces? A paper in *Nature* (Fessler, 177, 439) recently argued that the formations are random; we should not ask any more questions about them. Glass beads thrown on glass behave in the same way—though randomness is not the only factor, for the human eye tends to join points together, obscuring slight differences in the distances between them. And if the formations arise by chance, we need not ask *why* they arise.

In his recent Halley lecture to the Royal Society, Ryle argues that since the extended source radio stars are found in the plane of our galaxy, they therefore belong to the galaxy. Similarly since the point source radio stars are distributed at random so far as their direction is concerned, they must belong to other galaxies. Here it is assumed that the order observed did not arise of itself, as we should have to suppose that it did if the universe as a whole had provided radio stars only in the galactic plane, or conversely, that our disc-shaped galaxy had provided radio stars distributed at random in space. In either case it is assumed that the order is *not* the result of coincidence—if real coincidence was involved scientific questions would not arise. We simply do not bother to investigate real coincidence. Once you have convinced yourself that something is the result of chance it is not worth investigating further.

This is a basic presupposition of science, and, theologically, it is rather interesting. For it is at this point that the sceptic often tries to challenge the Christian, particularly in connection with origins. Once you ascribe the origin of the universe, the beginnings of life, or progress in the complexity of life on our planet, to chance, nothing more needs to be said. And this is what the sceptic tries to do. He tells us that the universe winds itself up by a freak in infinite time; that primeval slime produces, by

chance, a speck of living protoplasm, and that natural selection does the rest. And after that, there is no more to be said.

In these ways facts which seem to call aloud for explanation are classified with facts for which no explanation is commonly sought. This facile procedure can hardly fail to arouse suspicion, because it assumes that in all *lesser* respects science is right in its presupposition that ordered systems become more disordered, but that in its *greater* aspects you are at liberty to invoke coincidence.

Scientifically, you explain all manner of instances of order by saying that still greater order produced what you see. You argue backwards in time until you come to the greatest conceivable order. How did that arise? By coincidence; therefore it needs no explanation! Such a view, surely, knocks the bottom out of science. If coincidence can account for origins it can account also, with far greater ease, for *all* subsequent examples of the production of order. And that being so, we need ask no questions about nature. This position, logically, would appear to be the inevitable ultimate standpoint which we must take if we disbelieve in God. So once again, as if by a circle, we finish up with the position with which we started—the basic presupposition of all science is a belief in one God.

Finally, let me emphasize again that these comments are not intended to be a complete account of our subject. All I have done is to make a few scattered comments which may prove helpful in discussion.

III

DISCUSSION

The CHAIRMAN (Dr. R. J. C. HARRIS) summarized the points made by the two speakers. With reference to Dr. Clark's contention that there had never been any successfully developed science outside a monotheistic culture, he asked: "What about the Chinese?"

Dr. CLARK said: I am no authority on Chinese science, but I always imagined that the Chinese, though expert in technological developments of a simple kind, made very little headway with science.

Mr. G. E. BARNES said: As generally used, the word "presupposition" seems to have two meanings. It may mean a belief for which there is no logical justification (it may not on that account be untrue, however), or it may mean a proposition (whether logically justifiable or not) which is essential to a particular intellectual exercise. Now as science is an intellectual exercise, and not a person who can hold a belief, it seems to me that the phrase "presuppositions of science" must have the second of the two meanings, i.e., assumptions without which there could be no science.

Much of what we have heard to-night, however, deals with presuppositions of scientists rather than presuppositions of science; and I suggest it is most important to distinguish between the two. One scientist will approach his work with all the presuppositions implicit in a materialistic world-view, while another will start with the preconceptions of a Christian theist; and yet both may be competent scientists, and use the same scientific method, which is independent of most of their presuppositions. Of course, it may be that some philosophical presuppositions more readily predispose toward the development of science than others. Thus a realist is more likely to become a scientist than is a subjective idealist; and historically it was Christianity rather than Animism or Buddhism which fostered the growth of science. But the fact that to-day the ranks of scientists include those who are neither Christians nor realists shows that such presuppositions are merely predisposing, and not causal, factors.

Dr. Hawthorne's second presupposition (p. 66, para 2) is a case in point. It is true that earlier scientists assumed that there is "a universe outside our own minds", and that to-day "the ordinary working scientist, when he does an experiment, makes the presupposition that it will tell him something about reality", but this presupposition is not essential to the scientific method. As Eddington has pointed out ("The Domain of Physical Science" in *Science, Religion, and Reality*, 1925), science is a closed system which logically need bear no relation to reality at all. The second part of this presupposition, "that science conveys the whole truth about the universe", is similarly, as Dr. Hawthorne shows, a presupposition of certain scientists, and not a presupposition of science. The same applies to much of Dr. Clark's paper, including items 1, 2, 3, 4, 5, and 6b, of his "scientist's creed".

Another matter I should like to comment on is the use of the concepts of order and uniformity. Both speakers appear to equate "order" and "uniformity", and to regard both as presuppositions of science. I should like to suggest, however, that the order in many natural events can be observed by the senses, and that therefore the order in nature is an empirical fact, and not a presupposition of science. Now there may be more than one type of order; and, in fact, man has from time immemorial recognized two types, teleological order and causal order. Until science developed, the causal order was recognized only in simple situations (e.g., when a hammer drives a nail into a piece of wood), but what science did was to extend the causal order to embrace all objects and events in the universe. To do this it ignored other possible types of order and presupposed that the causal order was uniform. The presupposition of science, then, is not that there is order in nature, but that that type of order which we call causal is uniform.

I am not very happy about Dr. Clark's statement that if we observe order disappearing we ask no questions about it (foot of p. 72). That may be true of physicists and chemists—I do not know—but it is not true of biologists, who explain catabolic processes in terms of enzyme activity, or the decomposition of dead organisms in terms of bacterial action. But, of course, I agree that we always ask questions about apparent increase in order.

Lastly, Dr. Hawthorne's third presupposition, the validity of human thought, is not confined to science. It is necessarily a presupposition of all intellectual disciplines.

Mr. A. K. WEAVER said: I am not satisfied that the presupposition of "uniformity" is really essential. It is sufficient for the scientist to suppose that nature is *usually* uniform. This distinction is most important because it allows room for miracle. Perhaps this is best seen by a homely illustration. British Railways operate a regular train service according to the time-table; this is clearly for the benefit of the passengers. But occasionally this uniformity is disturbed, for example, by a special train put on for royalty. May we not say that God "operates" natural processes in a uniform manner for our sakes, so that we may live orderly and rational lives? But on rare occasions a special train is put on for some special purpose, and we call this a miracle. If he only makes the presupposition that nature is *usually* uniform, the scientist has no difficulty in including miracles in his scheme. The term "usually" must mean, of course, a very high percentage of occasions.

The CHAIRMAN, summing up the discussion, then said: I should like on your behalf to thank Dr. Hawthorne and Dr. Clark for their stimulating papers. We have had an interesting discussion and clarified our views. There seems to be one presupposition on which we are all agreed—to quote Mr. Barnes's phrase—"that that type of order which we call causal is uniform". So far as the other presuppositions mentioned are concerned, we are not so sure that these are not derivative. We are sure, however, that the function of the scientist is to observe and to construct a system that can be tested empirically. The chief requirement here is not simply that the scientist should have the *correct* philosophical attitude but—more important than ever to-day—that he should realize the necessity for complete personal integrity.

IV

AUTHORS' REPLIES

Dr. HAWTHORNE said: I agree with Mr. Barnes that the presupposition that there is a universe outside our own minds could be dispensed with, but the science which did without it would no longer be natural philosophy—the study of nature. It would merely be an intellectual exercise bearing

no relation to reality. I feel sure that very few people who really believed that would spend their lives in scientific research. It would be difficult to take a scientist seriously if he continually reminded you that his results did not really tell you anything about the world, only something about his own mind. With regard to the third presupposition, I cannot think less of it because it is universal.

Mr. Weaver's "usually uniform" nature raises more problems than it solves, I feel. In my own view miracles are not the suspension of orderliness but the introduction of a new factor by God. A nature which was occasionally non-orderly would not be uniform in the sense which our science requires—it would not be predictable. A clock which is only "usually" reliable would not be a reliable clock at all. The scientist must have a uniform nature for his work. When he comes to study miracles (which would only be noticed if nature were otherwise uniform), he can only look at the historical evidence with an open mind and ask what higher order might have been brought in, if he sees no other explanation.

Dr. CLARK said: With Mr. Weaver's position I am, in the main, in agreement. It is enough to believe that causal laws are *usually* uniform, and empirical evidence can tell us no more than this. But I hesitate to say that God works miracles by suspending laws—perhaps He does, but how do we know? Elijah went up into heaven: did God provide a force greater than gravitation which lifted him, or did He stop the force of gravity? Again, how can we know?

Mr. Barnes attempts to reduce the bulk of what Dr. Hawthorne and I have said to irrelevancy. May I consider his criticisms a little more fully?

His curiously restricted notion as to what constitutes a presupposition gains little support from dictionary definitions. "To assume . . . to require as a necessary preliminary or antecedent . . ." (Wyld)—such a definition includes what he dismisses as "merely predisposing and not causal factors." (According to the O.E.D. it is correct to speak of a democracy as a presupposition of a monarchy if you suppose that monarchies are only thrown up by democracies, but there is no suggestion here that this is an inevitable trend of events. The distinction between "merely predisposing" and "causal" factors counts for little in history and psychology.)

The notion that science is "an intellectual exercise" is similarly restricted. Science stands also for a great historical movement. Why ignore "a necessary preliminary or antecedent" to this movement? To argue that monotheism is not a presupposition of science because the ranks of scientists *now* contain those who are not Christians is like arguing that men are not necessarily born of women because some men *now* have no

mothers. If we let Mr. Barnes have his way, there will be no presuppositions of science left to discuss—the only one he seems to recognize is not a presupposition at all in Mr. Barnes's sense. You no more have to assume that causal order is uniform in order to discover scientific laws than you have to assume the non-existence of royal trains or railway accidents in order to compile a railway timetable.

To distinguish between the presuppositions of science and the presuppositions of scientists is, I suppose, impossible. Does not this imply that the "intellectual exercise" we call science can take place other than in people's minds? The presuppositions of science are, surely, the "necessary preliminary or antecedent" factors which make the intellectual exercise possible—the beliefs which break down man's laziness, which give him a sense of worthwhileness in his quest, and so on.

The point of the reference to Eddington escapes me. Eddington, we are told, said that science has "logically . . . no relation to reality". But this only confirms what Dr. Hawthorne said. It is a presupposition that this relation exists: it is *not* logical. This, I suppose, was Eddington's view, though he is admittedly a difficult writer. In the place referred to he implies that physical science, though logically a closed system, is nevertheless related to reality in an unknown way: "actual phenomena are more limited in variety than imaginable phenomena" (p. 204). Does not this mean that you could have a thousand "sciences", each of them logically a closed system, yet only one of them would be "right"?

Mr. Barnes's point about the decomposition of dead bodies (he might have added radioactive decay or the fading of photographs as examples of a physical kind) is a useful one. I suspect, however, that what attracts our attention is not the disappearance of order as such, but the *ordered* disappearance of order. The order that once was is replaced by an ordered sequence of events; it is this *new order* that is explained in terms of enzymes, bacteria or whatever it may be.

937TH ORDINARY GENERAL MEETING

OF THE

VICTORIA INSTITUTE

AT

THE CAXTON HALL

WESTMINSTER, S.W. 1

ON

MONDAY, 16th APRIL, 1956

E. W. CRABB, ESQ., DIP.LITT., DIP.TH., in the Chair

PHILOSOPHICAL PRINCIPLES IN THE TEACHING OF SCIENCE AND RELIGION

By

GORDON E. BARNES, M.A.

THE VICTORIA INSTITUTE

22 DINGWALL ROAD, CROYDON, SURREY

PHILOSOPHICAL PRINCIPLES IN THE TEACHING OF SCIENCE AND RELIGION

BY GORDON E. BARNES, M.A.

SYNOPSIS

A. INTRODUCTION.

1. The religious origin of modern science.
2. The development of conflicts between science and religion.
3. The need for integration of science and religion in education.

B. THE LOGICAL BASIS OF SCIENTIFIC KNOWLEDGE.

1. Observation.
2. Abstraction.
3. Induction.
4. Hypothetico-deductive method.
5. Natural laws.

C. THE BASIS OF RELIGIOUS KNOWLEDGE.

1. The inadequacy of Natural Theology.
2. The I-Thou relation.
3. The knowledge of God in Christ.
4. Biblical revelation.

D. THE RELATION BETWEEN SCIENCE AND RELIGION.

1. "Contact-points."
2. Theism and natural law.
3. Creation and evolution.
4. Miracles.
5. The nature of man.

E. THE TEACHING OF SCIENCE AND RELIGION.

The importance and practical applications of the foregoing principles in the teaching of

1. Science, and
 2. Religion.
-

A. INTRODUCTION

SCIENCE, as we know it to-day, is the offspring of a religious faith. It was born necessarily in an environment permeated by the conviction that the universe is intelligible, and, as A. N. Whitehead tells us, this conviction arose out of the "mediaeval insistence on the rationality of God, conceived as with the personal energy of Jehovah and with the rationality of a Greek philosopher".¹ Further, because this God had made man in His own image and had chosen to reveal, in the Bible, some of His thoughts in language which appealed to human reason, then human reason itself must be a reflection (although a very imperfect one) of divine reason. Man should thus be capable of "thinking God's thoughts after Him",

as Kepler put it, and of discerning in nature something of the order which God had ordained.

But as science progressed it slowly forgot its religious foundation, and, by the very nature of its method, came to interest itself in different aspects of the universe from those which had been the concern of its parent faith. New descriptions of the material world were given, using new concepts, and framed in language that had neither scriptural authority nor the warrant of ancient tradition; and many facts were brought to light which undermined centuries-old interpretations of the Bible. Thus there developed between science and religion an apparent antagonism which split thinking Christendom into two warring camps. At times it appeared as if the extinction of Christianity were imminent, and the victory of science assured; or if Christianity were to survive at all, it would do so by degrading itself into a form of humanism that bore little resemblance to the theocentric faith that Christ taught. Christianity has, however, survived, and it is slowly recovering from its humanism which has proved bankrupt. It has survived, not because it has defeated science, nor because it has come to terms with it, but because an uneasy truce has come about. There has so far been little sign of wholehearted reconciliation, or of that harmony which should characterize two disciplines which have the same aim, the exploration of truth.

Ramm² lists seven factors which he suggests underlay the past antagonism between science and religion and led to the almost total eclipse of conservative Christianity by materialism and scientific humanism. They are (1) the general secular revolt against religion and mediaeval authoritarianism, (2) the premium put upon scepticism by the success of critical methods in the philosophy of Descartes, Locke, Hume, and Kant, (3) the great success of the scientific method in both theoretical advance and practical application, (4) the impediment of the many divisions of the visible church into denominations and schools of thought, (5) the futile strategy of the orthodox protagonists who often used the weapons of sarcasm, vilification, or denunciation, (6) the fact that, after its initial development, science became very largely the pursuit of agnostic or anti-Christian thinkers who put a materialistic interpretation upon their discoveries, and (7) the lack amongst Christians of a well-developed philosophy of science, so that they often dissipated their energies on small details of fact and failed to appreciate the relevance of the whole scientific approach to the understanding of the universe. They failed to develop a Christian "world-view" which would incorporate in one harmonious whole the knowledge gained from the two-fold, scientific and Christian, attitude to reality.

To my mind the last is the most important factor of all. As influential as the other factors may be, it is difficult to believe that they alone could have led to the almost complete abandonment of conservative Christianity in intellectual and academic circles if Christians had been

able to adopt a philosophy which welcomed and incorporated the results of scientific research.

To-day the need for such a world-view is as great as ever. The practical applications of scientific knowledge have made it imperative that man should have not only a satisfactory ethical code but also the power to implement it if he is not to destroy himself. Man needs a religious faith in addition to his scientific attitude, and if Christianity is to meet the need in this scientific age it must come to terms with science. Furthermore, this is a problem which we cannot afford to leave to the academic theologians, scientists, and philosophers, for the majority of citizens neither hear their lectures nor read their books. Rather this is a matter that concerns all who play any part in education—parents, teachers, ministers, Sunday School teachers, and university lecturers. To teach either science or religion in such a way as to make it difficult for a person to accept *both* is highly culpable. And yet it is continually happening. Science is being taught in a manner which inculcates a deistic or atheistic view of the universe and a materialistic view of man, while teachers of religion often give their pupils the impression that science (or certain branches of it) is a sphere of activity in which the devil reigns supreme. A tension is thus being imposed upon the minds of many young people to-day; and if this is to be avoided in future it seems essential that all who teach the young should be familiar with the philosophical principles which relate science and religion.

The object of this paper is to discuss the relevant aspects of the methods of science and theology, in the hope that it will help the teacher in his task. It presents little original thought, but merely brings together into small compass information which is to be found scattered through a wide range of philosophical works.

B. THE LOGICAL BASIS OF SCIENTIFIC KNOWLEDGE

The starting-point of scientific investigation is always observation of objects or events.* They are, of course, observed never in isolation but always against the background of their environment, so that any actual observation is always exceedingly complex, so complex in fact as to be quite unmanageable. From this total observation then the investigator has to abstract those features which he considers relevant to his particular aims. By completely ignoring the numerous other features, he reduces his observation to a set of observational data sufficiently few and simple to be compared or contrasted with corresponding data abstracted from other total observations. This process of abstraction is such a commonplace in everyday experience that when it is performed in the school laboratory it is rarely, if ever, discussed, despite its fundamental impor-

* Strictly, the starting-point is subjective awareness of what we regard as sense data. But throughout this paper the discussion is at the "commonsense" philosophical level at which teaching of science and religion is carried on.

tance in the method of science and its relevance to philosophical problems arising from science. The schoolboy carrying out a gravitational experiment records in his notebook the weights of a number of different objects released, the heights from which they were released, the time taken for them to fall, and possibly a few other data. But he is not told to record the colour and shape of the objects, the atmospheric temperature and relative humidity, the latitude and longitude of his school laboratory, whether the objects landed on his foot or on the floor boards, or whether he was amused or bored by the experiment; neither usually is he told why these data are ignored. Actually they are ignored for different reasons. The factor of the boy's amusement or boredom is disregarded for the reason that it was observed not by the use of the senses but by introspection; and it is a convention of science to handle only those features of the universe which are recognized by means of our sense organs and which are therefore "public property". This has the great advantage that the data can in principle be checked by other investigators, but, at the same time, the serious limitation that whole fields of human experience are beyond the scope of scientific enquiry. The other features mentioned all come within the scope of the scientific method, but they are ignored because the science master on the basis of past experience deems them irrelevant (e.g., the colour, and place of landing) or insignificant in view of the experimental inaccuracies (e.g., temperature, and longitude). Having made the necessary abstractions, the schoolboy now has a manageable number of data which he can compare or contrast, and he discovers that the acceleration of the falling bodies is constant despite differences in weight.

This illustration indicates both the value and the weakness of abstraction. Its value is that it simplifies observations and makes them manageable—without this there could be no science. Its weakness is that any conclusions reached by the investigator cannot logically apply to the whole of reality but only within the limited field of his abstractions. The schoolboy's conclusion, "The acceleration of the falling bodies is constant despite differences in weight," is true only if it is understood to apply to a particular place, constant air conditions, constant wind resistance, and/or rather crude measuring apparatus.

Every object and event in the universe is unique (if only for the reason that it is separated from all others in time or space), but abstraction enables the investigator to classify objects and events on the basis of those features which they share. The classification of things observed is as far as one can go by the use of syllogistic logic, and it therefore marks the final stage in the science of Aristotle. But modern science is not merely interested in classifying past observations; it wants to predict future observations. Therefore, as Stebbing says, "the scientist wants to make assertions about what *always* happens, not about what *sometimes* happens".³

In order to do this, he has to generalize from his particular classified abstractions, and he does so by the logical process of induction (simple enumeration). This is a process which everybody uses repeatedly in everyday affairs, but it was not until the seventeenth century that Francis Bacon systematized it and emphasized its value and importance in scientific research. As a simple example of induction one might consider the following: "All the cats I have seen have tails; therefore it is reasonable to believe that all cats have tails." Now we have only to show one Manx cat to the person who makes this induction for him to realize that his inference is false. Inductive inferences then are always tentative and uncertain, and subject to the possibility of future refutation by subsequent observations. Furthermore, the degree of uncertainty (or the probability of their being incorrect) cannot be determined unless one knows what fraction of the total number of similar objects or events the observed ones constitute. In the vast majority of scientific observations this fraction is unknown. So one can seldom estimate the value of one's generalizations. But there is a further problem. The validity of the method of induction has so far been assumed in this discussion. Hume,⁴ however, in the eighteenth century challenged this, not by denying that it could lead to a true generalization, but by asking what logical justification there was for believing that it could. As far as I know, no completely satisfactory answer has been given to his question. Induction, then, which appears to be a very unsatisfactory process from the point of view of the logician, is nevertheless an indispensable piece of equipment of the modern scientist.

This Baconian use of induction is a great advance on Aristotelian science since it not only leads to generalizations of theoretical importance but also facilitates prediction of future events, and thus makes possible the practical application of scientific discoveries. But a yet greater advance came with the work of Newton, who pre-eminently developed the hypothetico-deductive method which more than anything else produced the great scientific achievements of the last three centuries.

The essence of the Newtonian method is the postulation of hypotheses which could explain the scientist's generalizations, and which could at the same time be tested empirically. Of course, thinking men had always formulated theories to account for natural events, but before the seventeenth century the theories had usually been teleological and often moral. For example, the regular succession of day and night and the rhythm of the seasons had been explained as necessary for providing man with his required sleep and food, while adverse environmental factors such as storms and famines were to teach him moral lessons. Such theories could obviously not be verified by reference to observations; they had merely the endorsement of ancient authority. But the seventeenth century witnessed a rebellion against the authority of classical rationalism, and a new authority, empiricism, was substituted. This requires a different

type of hypothesis, one which answers the question "How?" and not the question "Why?" The Newtonian type of hypothesis is causal and not teleological. As is well known, Newton explained the alternation of day and night by formulating the hypothesis that a force exists between bodies separated in space, and that the magnitude of the force bears a definite relation to the masses of those bodies. Such a hypothesis can be tested empirically by making deductions about special cases and setting up experiments to ascertain if the deductions are true. If the experiments do not yield the predicted results the hypothesis is ruled out as untenable. But if they do, this does not prove that the hypothesis is correct, because it may be possible to construct other hypotheses which would predict the same results. A hypothesis can never be proved correct; it is merely tenable until such time as it is proved wrong. When several hypotheses are capable of explaining the same facts, the simplest one is conventionally chosen as the most valuable or fitting. Sometimes, however, two or more different causal hypotheses may be formulated which cannot be compared for simplicity, because they belong to different logical categories, and therefore different intellectual disciplines. Thus the movement of a human arm may be explained by a physiologist as the effect of a series of nerve impulses, but by a psychologist as the effect of a mental decision. Both hypotheses are valuable, but it should be noticed that the psychological one represents a jump out of the logical category of empirical facts (movement of arm) into a new category of introspective inferences (decision), and if the hypothesis is to be tested empirically the reverse jump has to be taken. In this respect psychology (and certain other disciplines, e.g., social anthropology) differs from the purely empirical sciences (e.g., chemistry, physics, geology, astronomy, anatomy, and physiology), and is more nearly akin to the Arts disciplines, with which it is often classified.

The whole of the foregoing logical apparatus is used, with various practical applications, in all the scientific disciplines, and always with the same ultimate end in view, to explain objects and events by giving an analytical description of them. Matter is explained as being built up of molecules, molecules of atoms, and atoms of electrons, neutrons, and positrons. Even the most complex structures are dealt with in the same way, e.g., a biological community may be analysed into its individual organisms, the individual organisms into organs, organs into tissues, tissues into cells, cells into organelles, organelles into molecules, and so on. If structures are analysed into their constituent structures, so also processes are analysed into their constituent processes, so that the most complex events can all, in principle, be explained as being made up of relatively simple events such as the passage of electrons, or quantum jumps in the atom.

As a result of this analysis it is often found that objects or events which appear very different have in fact common features, and this makes

new generalizations possible. So the further the analysis proceeds the greater the number of objects or events which can be described in terms of more and more fundamental generalizations. Now "natural laws", which have often been mistaken (by both scientists and laymen) for items of divine legislation binding upon every atom and molecule of the universe, are actually nothing more than such fundamental generalizations.

So the scientist's task may be summarized as the attempt to describe individual objective phenomena in terms of fundamental generalizations based upon observed correlations. His logical equipment for the task consists of the processes of abstraction, induction, hypothesis-formation, and deduction.

C. THE BASIS OF RELIGIOUS KNOWLEDGE

The word "religion" has been used to cover such a wide range of human belief and conduct that the concept must be very considerably narrowed if it is to be dealt with even superficially in the space of one paper. I shall therefore use the term synonymously with "the Christian faith" in both senses of the phrase: (a) a humble and dependent attitude toward God revealed in Jesus Christ, and (b) the body of Christian doctrine. Hence "religious knowledge" in this paper means both the personal knowledge of (i.e., acquaintance with) God and the knowledge (i.e., intellectual acceptance) of facts about God. But even the Christian faith is regarded by different people as resting upon different bases, so it ought to be said that this paper is written from a conservative viewpoint.

In the previous section dealing with the basis of scientific knowledge, it was found not necessary to enquire into the causes of, or reasons for, a person's becoming a scientist, but necessary merely to discuss the method he uses once he has become one. The validity of scientific knowledge depends solely on the validity of the scientist's method, whether he understands his method or not. In fact, probably the majority of practising scientists have just grown up into the method without ever pausing to consider its logic. The same principle applies to professing and practising Christians. The reasons why people become Christians are probably as numerous and varied as the reasons why they become scientists. Furthermore, many Christians have never made the effort to consider the basis of their faith, and would be quite unable to "give a rational account of the hope that is in" them. But this does not mean that their knowledge is invalid. The important thing is, not why they became Christians, nor whether they understood the basis of their faith, but whether their knowledge is based upon a firm foundation. The following remarks describe the rational basis of the Christian religion

without implying that people become Christians because they are conscious of this rational basis.

Much Christian apologetic, and probably even more agnostic opposition, have been based upon the assumption that, if religion is to be validated rationally at all, it must be substantiated by a process of ratiocination starting from self-evident truths and empirical facts. Arguments along these lines include the classical "proofs" of the existence of God and the attempts of recent years to demonstrate that the Bible is confirmed by science or archaeology. That the classical "proofs" of Natural Theology are not proofs at all is well known. They do not compel assent to-day, and probably never did. At the most, they are a series of arguments which all point to the need for a hypothesis of a Supreme Being, a First Cause, a Designer, etc., a concept far poorer than that of the God revealed in Christ. The alleged confirmations of Scripture are of no greater value. At best, they merely adduce independent evidence for the truth of historical events mentioned in the Bible, but they can never confirm the spiritual aspects of those events. The prime function of the Bible is not to teach history but to reveal the spiritual causes and implications of history. Such arguments, then, fall an easy prey to the opponents of religion, who retort quite rightly that if they constitute the best rational case for the truth of religion then thinking people have good reasons for being agnostics.

The empirical-ratiocinative method, however, is not the only path to knowledge. If it were, our knowledge of other human beings would be restricted to an anatomical, physiological, or biochemical analysis, and social intercourse and human friendship, as we know them, would not exist. But in our everyday dealings with other people we normally adopt an entirely different approach which leads us primarily to a knowledge of them as persons, and, secondarily, to a knowledge of certain facts about them. It informs us of all those personal qualities which we should value in a friend; it enables us to appreciate the thoughts and emotions of others, their hopes and aspirations, their moral standards, in fact all that goes to make up character. It is therefore of the greatest significance to us as human beings.

The basis of this method is that we adopt a different attitude towards other persons than that which we adopt towards things. We approach them, not as objects to be investigated empirically and critically, but as fellow subjects to be accepted sympathetically. In other words, we enter, not an I-it relation, but an I-Thou relation, which establishes a personal acquaintance. The latter cannot be analysed because it is a direct awareness (to call it sympathetic intuition does not help), but at least one can see the conditions necessary if it is to develop into a fruitful knowledge of a person. Firstly, the person to be known must be prepared to act openly, freely, unreservedly, in our presence, that is, he must reveal himself, not necessarily as a result of any conscious effort to do so, but

just by "being himself". Then secondly, we must be prepared to accept the revelation that he gives. This involves, not only treating him as another subject, but also trusting him. If we do not trust him, but regard all his actions and comments with the critical mind of the scientist, we shall find that we cannot get to know him. In actual fact, in our everyday dealings with other people we do spontaneously trust them until we discover in them some inconsistency which destroys or mars our confidence. If we wait until a person is proved trustworthy before we trust him, then we shall wait until the end of our days.

Having become acquainted with a person in this way, we have a new world of knowledge opened up to us, the world of his own subjective and objective experiences, which he can relate to us. His objective experiences we could in principle confirm by our own use of empirical methods (although we seldom bother to do so—nearly all our scientific knowledge is based upon the testimony of others), but his subjective experiences we could never know apart from his revealing them to us.

Now the religious knowledge of the Christian is based upon the self-same I-Thou relation.* Jesus of Nazareth has revealed Himself to mankind by living and working openly and unreservedly amongst men and women. The Christian is one who has accepted this revelation by faith. (The fact that men cannot encounter Him physically to-day is no hindrance—men and women who have never met have been known to fall in love by correspondence.) Furthermore, as he accepts the Self-revelation of Jesus, he discovers that the Self which Jesus revealed is not merely a good human character, not merely a perfect human character, but no one less than the God of the universe. Jesus was obviously a man, yet He claimed to be God manifest in the flesh: the amazing thing is that everything about Him authenticates⁶ His claim. The Christian then finds that he has not only come to know a man called Jesus, but also come to know God Himself in the Lord Jesus Christ.

This makes it possible for the Christian to be let into the secret of God's own "subjective and objective experiences" if God chooses to reveal them. The writers of the Bible often claim that they are, in fact, conveying such a revelation, and the criterion by which this claim is to be tested is, not whether the Bible can be confirmed empirically, but whether the alleged revelation is consistent with the character of the God revealed in Christ. The Bible passes this test. The truth of the Bible, then, follows from the truth of Christ.

The source of the Christian's religious knowledge is thus the Bible, which he accepts as true because he has become personally acquainted with its Author and knows Him to be a God whom he can wholeheartedly trust.

* Some writers differentiate between the I-Thou relation and the I-Absolute relation, which is the relation of creature to Creator. But the difference appears to be one of attitude rather than logic, which is the concern of this paper.

D. THE RELATION BETWEEN SCIENCE AND RELIGIOUS KNOWLEDGE

Man, then, has two distinct ways of gaining knowledge about things outside himself: the method of empiricism, and the method of faith. Empiricism, as used in developed science, gives us an understanding of the mechanism of the universe. Faith, when placed in Jesus Christ, leads to an insight into the mind of God.

One might at first suspect, therefore, that science and religion are concerned with such different categories of facts that they have no common ground. For the most part this is true. Religion is concerned with the knowledge of, and about, God, and, consequently, man's spiritual relation to God: science, on the other hand, is concerned with the material universe and therefore those physical aspects of man's being which enable him to occupy a place within it. Nevertheless, because God is not only transcendent but also immanent in the universe, there are a few "contact-points", as Malcolm Dixon⁷ has called them, between science and religion. These are "subjects where there is an overlapping of territory between the field of science and the field of religion and in which both religion and science may claim to speak". Dixon lists three such contact-points, but I should like to add a fourth:

- (a) The day-to-day control of the universe,
- (b) The origin of the physical and biological worlds,
- (c) The possibility or impossibility of miracles, and
- (d) The personality of man.

On all these points science and religion have very different stories to tell, and it is this which has given rise to the allegation that science and religion are in conflict. The thesis of this paper, however, is that, far from being an obstacle to the happy relation of science and religion, the different stories are just what one might expect if the scientific and the religious approach to the universe are *both* valid.

The description that a scientist, as such, would give of an oil painting is very different from that which would be given by the artist. The scientist would describe it in terms of chemical formulae, wavelengths of light, etc.; the artist would probably talk about beauty, design, significance, and purpose. Both descriptions could be accurate, but it would be impossible to argue from one to the other because they deal with totally different aspects of the painting. Both descriptions have their peculiar terminologies which properly relate to different logical categories. They are not incompatible or mutually exclusive, but complementary.

The same principles apply to the scientific and religious accounts of the universe, which are similarly complementary. The religious account is derived from the Bible which contains the Artist's revelation concerning His creation, and, like the artist's account of the oil painting, deals with

the design, the significance, and the purpose of the creation. The scientific account, on the other hand, is merely an analysis in the terms of empiricism of what the Artist has created.

The relation between the two accounts is well illustrated by the first of the above contact-points, the day-to-day control of the universe. The biblical view is that God "upholds *all things* by the word of His power",⁸ and that "by Him *all things* hold together";⁹ that He is Sovereign, and free to "work *all things* after the counsel of His own will";¹⁰ and that because He has planned them, "*all things* work together"¹¹ to serve His moral purposes. In fact, "of Him, and through Him, and to Him, are *all things*".¹² Every event is thus of unique significance, and it is this uniqueness which to faith is the feature of greatest importance. But to emphasize the uniqueness of an event is not to deny that it shares features with others. Now, as we have seen, science ignores the unique features, and abstracts the common features, upon which it bases its causal explanation in terms of natural laws. We are thus provided with two accounts of the universe, one which regards it as being controlled by an omniscient, omnipotent, righteous, loving, personal God, and the other which describes it as being controlled by impersonal natural laws; and *both* are true. Needless to say, the word "control" is here used in two different senses.

The second contact-point, the origin of matter, life, and species, again illustrates the same relation between science and religion. "Through faith we understand that the worlds were framed (or "the ages were planned") by the word of God, so that things which are seen were not made of things which do appear."¹³ God has revealed the fact of creation and faith accepts it, but this does not prohibit the scientist from investigating God's creation as it exists to-day to ascertain what he can about the mechanism whereby it came into existence. When he does so he is led to propound theories which postulate the lapse of vast periods of time, during which processes continuous with present-day ones have occurred. He thus speaks of cosmic and organic evolution. If Theism and Natural Law are complementary accounts of the present-day control of the universe, then Creation and Evolution are merely extrapolations into the distant past of the same two complementary accounts. The doctrine of creation implies that God planned the universe for His own purpose, that His will ordained its being, and that His power effected it, but it does not necessarily imply any particular timescale or mechanism. The theory of evolution is the scientist's attempt to describe in the language of empiricism what an imaginary observer might have witnessed of this mechanism had he been present during the process.¹⁴

The third contact-point concerns the fact of miracles, which Christians are bound to accept (because their very faith rests upon certain miraculous historic events), but which science does not recognize. But once again it can be shown that the apparent conflict is logically involved in the methods of science and religion, and is not to be taken as evidence that

one view is true and the other false. It is, in fact, a "phantom problem",¹⁵ to use Max Planck's phrase.

In discussing the problem it is first of all necessary to enquire what the biblical concept of miracle involves. Traditionally a miracle has been regarded as a divine intervention interrupting the normal outworking of natural laws. Aquinas, for example, viewed nature as being controlled by "secondary causes" which were created by God, the First Cause, but which worked "automatically". But from time to time God intervened by a three-fold process, firstly interrupting the causal sequence by a *miraculum suspensionis*, then making the necessary adjustment to the machinery, and finally recommencing the causal sequence by a *miraculum restitutionis*. Although all who adopt the intervention idea of miracle would not feel obliged to accept the Thomist analysis of it, the concept of a miracle as a divine intervention in a "natural" causal chain has become almost universally adopted by the religious mind. It seems to me, however, that for two reasons this view does not do justice to the biblical teaching. Firstly, the Bible teaches that God is in continuous control of all natural events, and that the universe continues to exist only for this reason. If this is so, then it is nonsense to speak of God as intervening, when He is active all the time. Secondly, the recorded details of many miracles (both biblical and post-biblical) include nothing to suggest that any interruption of the normal causal sequence occurred. For example, the details given in Joshua 3: 14-17 of the damming up of the Jordan to allow the Israelites to pass suggest that the event was similar to at least three others which have occurred since, and which are known to be the result of landslides.¹⁶ In some biblical accounts of miracles a normal "natural" cause is mentioned, e.g., winds in Exodus 14: 21 and Numbers 11: 31. So, although many miracles are interruptions of the normal course of nature, this fact cannot be used as the basis of a definition of, or test for, a miracle.

A glance at the scriptural Hebrew and Greek words used for miracles indicates that to the biblical writers the important feature of a miracle was not its peculiar mechanism but its peculiar significance. It was an unusual event which evoked wonder in the observers (Heb. *Mopheth*: Gr. *Teras*), or functioned as a sign (Heb. *'Oth*: Gr. *Semeion*), or betokened supernatural power (Gr. *Dunamis*). A miracle then is to be recognized by its impact upon the whole personality of man; it is to be identified by its subjective effect and not by any objective characteristics. A miracle, as such, is therefore beyond the scope of scientific investigation.

Of course, the objective features of the event may well be investigated empirically, and they may or may not be found to conform to the generally accepted laws of nature. If they do not, science, to be logical, would have to amend its natural laws to cover the new observations. Science must bow to the authority of events, and not events to the authority of science. But it may be objected that we are here dealing with the hypothetical

case of something that could never happen, for is not the uniformity of nature a fundamental principle of science? Yes it is, but not because it has been proved, but because it has been assumed.

A miracle, then, is an unusual event of which the significance is all-important and the mechanism irrelevant. It is not surprising then that religion makes much of miracles while science ignores them.

The problems presented by the last contact-point, the nature of man, have taken many forms, but it seems to me that they can all be resolved into one basic problem, how to reconcile the religious view of man as a being created in God's image with the scientific description of man as a "glorified animal" and complicated machine.

To the scientist, *Homo sapiens* is just one species amongst many. It has the same fundamental, anatomical, physiological, and probably psychological, make-up as have other species of Primates. The scientific differences between man and animals are only differences of degree, the most important being the differences in relative size and complexity of the brain which have made possible the highly complex behaviour which man exhibits. Science recognizes no differences in quality or value between man and animals, and this has been taken by some to imply that man is of no greater significance than an animal. If this were a valid deduction from the scientific facts science would obviously be in conflict with a religion which insists that man is of vastly greater worth than any animal. But the inference is not valid because it fails to take into account the fact that science is once more dealing with an abstraction. Science deliberately ignores those subjective aspects of man's personality which immediately give the lie to this deduction. Even the writing of the poet, the painting of the artist, the experimentation of the scientist, and the prayer of the devoted Christian, are to science just complex behaviour. It is only the realization that these are all the expressions of the interests, aspirations, or faith of thinking, feeling, willing, trusting, subjects which gives them a significance which raises man to his proper status of a creature bearing the divine image.

Another aspect of the problem of human nature is the apparent incompatibility between the scientific view of man as a mechanism whose behaviour is controlled by natural laws (whether physiological or psychological) and the religious view of man as a responsible being whose behaviour is governed partly by free choice. Now "free choice" does not mean "random choice" (if this is not a contradiction in terms); in fact Christianity insists that our choices should be made in the light of our knowledge of the consequences, and that knowledge in turn depends upon our past experience (instruction by parents, teachers, ministers of religion, as well as first-hand observations). Indeed all men, whether Christians or not, do choose in the light of past experience. So one should expect a correlation between behaviour and past experience, and, furthermore, expect science to be able, in principle, to summarize this correlation

in terms of natural laws. That human behaviour appears to conform to empirical laws is, therefore, not an obstacle to, but a logical concomitant of, the religious view of man as a being responsible for his choices. It would be a much greater obstacle if human behaviour were found to be completely random.

In this rapid survey of the contact-points between science and religion it is apparent that the same relation between the two always holds. Where science and religion investigate common territory they do so from totally different standpoints. Religion is concerned with significance and purpose, while science is concerned with structure and mechanism. They therefore give different accounts which are not mutually exclusive but complementary, and which, taken together, give a more nearly complete picture of the truth than either alone.

E. THE TEACHING OF SCIENCE AND RELIGION

The features of science and religion which have been discussed in the foregoing sections are all relevant to the problem of teaching these two disciplines in a satisfactory manner. Very few teachers will be required to teach both subjects, but to teach one of them adequately demands a thorough appreciation of the method, aims, and limitations of that subject, and an understanding of the complementary viewpoint of the other. For only when the teacher has equipped himself with this understanding will his teaching go beyond the mere feeding of information or techniques into separate mental pigeon-holes, and begin to build that intellectual integration which is a *sine qua non* of education. It is not suggested, of course, that the science specialist should attempt to teach religion, or that the divinity specialist or Sunday school teacher should try to teach science, but it is suggested that if one teaches his own subject in such a way as to make it more difficult for his colleague to teach the other then he is not teaching his own subject properly, and is failing in his duty towards his pupils.

The practical applications of the foregoing philosophical principles in the work of teaching science and religion are many and various, but the following are some suggestions of the use to which they might be put (a) in the teaching of science, and (b) in the teaching of religion:

(a) SCIENCE

a. 1. *Limitation of observation.* The importance of using the right instrument for an investigation can easily be impressed upon a child by getting him to try to detect a magnetic field by means of first a thermometer and then a compass. The thermometer, being the wrong instrument, fails to demonstrate the existence of the field, but it would be quite illogical on that account to deny the field's existence. The information which the thermometer gives is quite irrelevant to the investigation, and a compass or some other appropriate tool is necessary for the job. Science itself, like the thermometer, has limitations: there

are fields in which its information is irrelevant. Since its basis is observation by the senses it is powerless to detect any non-material reality, so that it cannot deal with spiritual truths, and can neither prove nor deny the existence of God. To emphasize the fundamentality of sensory observation in scientific work one has only to ask the child to refer to the records of his laboratory experiments or request him to inspect all the apparatus in the laboratory, and he will soon appreciate that even when he uses apparatus to enhance the accuracy of his work he is still dependent ultimately upon his own senses. But if the child grasps the simple fact that sensory observation imposes a severe limitation upon the scope of scientific conclusions, he will have learned something that many of his elders fail to appreciate.

a. 2. *Limitation of abstraction.* The fact of abstraction in scientific work is exemplified by every record that the pupil makes in his practical notebook; and this fact should be emphasized. The philosophical importance of abstraction is perhaps best made clear by the use of some such analogy as that of the scientific description of an oil painting (see section D). The relevance of abstraction to the education of the child is a matter the teacher must continually bear in mind if he is to avoid inculcating unwittingly a materialistic philosophy. To explain the universe by reference to natural laws, to talk about an animal as a machine, or to describe a human being as a complex animal, may all be good science, but they are not good education, unless it is made clear at the same time that they are abstractions which do not exclude other types of description. The scientific materialism which is so prevalent a philosophy amongst those who leave school from the science sixth form is not usually, I suggest, due to the wrong presentation of scientific facts, but is more often the result of a failure to demonstrate to the pupils the bias of science.

These considerations are very relevant to sex education, which is often handled inadequately. Some teachers appear to think that they have discharged their responsibilities to their adolescent pupils when they have given them an account, straight from the biology textbook, of reproduction in the rabbit. That an objective account of reproduction is very valuable no one nowadays would deny, but if it is given alone without the complementary account of mental, moral, and spiritual factors, we cannot blame the pupil if all that he gains from the sex instruction is the desirability of using contraceptives to avoid "getting into trouble".

a. 3. *The uncertainty of induction.* The majority of statements in textbooks of science are generalizations: they are statements about, not one particular bar magnet, or one particular crystal of copper sulphate, or one particular rabbit, but bar magnets, copper sulphate crystals, or rabbits in general. This provides the teacher with a basis for discussing the importance of induction. The facts that the teacher can predict the outcome of properly-conducted experiments, and that engineers can design machines to do particular jobs, in fact, the very existence of an

industrial civilization, are all further evidence of its value and reliability in everyday affairs. Nevertheless, the teacher has a responsibility to point out the uncertainty of scientific induction, and he can use the examples of Manx cats, black swans, the coefficient of expansion of water below 4°C., the modern overthrow of Newtonian physics, or a host of others, to illustrate the point.

Mention might be made here of the objectionable phrase "science proves", which one meets from time to time. Science, of course, proves nothing. The assertions of facts (as distinct from theories) which science makes are either statements about observations of objects or events, or else generalizations from such observations. The observations themselves do not require proof (they are data), and the generalizations are not capable of proof.

Since natural laws are generalizations, it follows that they also are not absolutely certain. I suggest therefore that they should be taught as statements about the *normal* course of events as so far observed, rather than as legislation comparable with that of the Medes and Persians.

a. 4. *The nature of hypothesis.* Hypotheses formulated to explain empirical facts are of two types: those which in principle can be tested empirically, and those which in principle cannot. The former are scientific, the latter philosophical. Now it has already been pointed out that science can neither prove nor disprove the truth of Christianity; the same applies with respect to any other religion or philosophy. Scientific hypotheses, then, are philosophically neutral; they do not necessarily imply any particular philosophy. Metaphysical or moral theories, on the other hand, are necessarily part of a philosophical world-view. The two types of theory must therefore be clearly distinguished in the teaching of science, or there will be a danger of giving the impression that science implies the particular philosophy which the teacher adopts. The science teacher is not normally concerned with philosophical theories in his formal teaching, but he may often be asked philosophical questions concerning the universe. If he is, he will obviously have to give a philosophical answer, but I suggest he should hasten to add that the answer he has given is not implied by his science but is derived from his philosophical faith, and that other people might well give a fundamentally different answer. Perhaps even more often he may be asked a question which is ambiguous in that it permits of both scientific and philosophical replies. This gives the teacher an excellent opportunity of pointing out the differences between, and complementarity of, the two explanations. Such a question is "Why is so-and-so thus?", which may mean "For what purpose is it thus?" or "By what mechanism has it come about that it is thus?"

One other feature of scientific hypotheses that I think is worth stressing is their tentative nature. One has only to touch upon the history of science to emphasize that its concepts are ever changing. We are often inclined to smile at the strange theories of the past and wonder how the scientists

of those days could hold such false notions, and yet we seldom consider that our present theories will probably look just as ludicrous to the scientists of fifty years hence. It is so easy for the science student, with his often inadequate historical perspective, to embrace the latest scientific theory as necessarily the final truth.

In the foregoing remarks on the teaching of science, simple elementary illustrations of the limitations of science have been mentioned to show that these important principles can be introduced one by one at an early stage in the teaching of any science syllabus. The teacher does not need to wait until his pupils can appreciate the abstractions of the philosopher, neither does he need to give special lessons or lectures on the method and limitations of science. In fact, if he mentions these principles whenever he is dealing with concrete examples which illustrate them, the pupil, I think, is more likely to develop that healthy critical attitude to scientific conclusions which characterizes the competent research worker.

(b) RELIGION

b. 1. *The basis of religion.* In the teaching of Christian apologetics it is very easy to give the impression that our beliefs rest upon some sort of logical argument, whether the ontological, teleological, cosmological, or other "proofs" of Natural Theology, or the historical, scientific, or archaeological vindication of Holy Writ. Although the combined weight of all these arguments may make an indelible impression upon the minds of some people who tend to respond "intuitively", it is doubtful whether they will convince a person who, by reason of a scientific training, has become very critical in his thinking. This is not to say that the subject of apologetics is of no value in the teaching of religion: on the contrary, it often serves to remove intellectual impediments to faith, or to strengthen the faith of those who already believe. But I do suggest that in the teaching of Christian evidences one should avoid treating them as the basis of religious faith. In fact, I believe the best apologetic of all is to contrast the relative weakness of the arguments of Natural Theology with the compelling power of the self-authenticating Christ.

b. 2. *The witness of nature.* But if Natural Theology is not the basis of Christian faith, there is a true natural religion that follows from that faith. For, although the heavens cannot declare the existence of God or their creation by God, they do "declare the glory of God" to those who "through faith understand that the worlds were framed by the word of God". There are other biblical passages which deal with the testimony of nature to God (e.g., Acts 14: 17; Rom. 1: 19-20), but they are all evidential of His attributes (His goodness, His power and supremacy), and not of His existence. It is then quite right in religious teaching to point out the witness of the universe, but the argument should take the form, not of "Look around, and learn that there is a God", but rather of "Because we believe that God has created this universe, let us look around and discover how wonderful He is".

b. 3. *Limits of revelation.* Just as science is limited, so also is revelation, but for different reasons. Science is limited by the restrictions imposed by its method; revelation is limited by God's choice. Science has limitations, revelation limits. God could have revealed anything, but He has chosen to reveal only certain of His own thoughts, and sufficient empirical facts to enable man to appreciate those thoughts. When the Bible deals with historical events, it recounts their spiritual significance, and not their mechanism which is irrelevant. The Bible, therefore, does not teach science, and it is illogical to attempt to deduce the scientific description of an event from what the Bible says about the same event. That men have failed to appreciate this point lies at the root of nearly all the science-religion controversies of the past, and, if further antagonism is to be avoided, the limits of revelation must be made clear in the teaching of religion.

b. 4. *Interpretation of revelation.* In teaching, one would be quite justified in treating science and religion as unrelated disciplines, since a knowledge of one of them does not facilitate the understanding of the other. But the result would be that at each of the contact-points the pupil would be given two distinct mental pictures of the same event. Now the human mind is such that it is not very happy with two distinct pictures, and it strives to unite them in a larger picture which incorporates both. There is little to be gained in doing this in this instance, except the satisfaction of having solved an intellectual puzzle; it is of no practical value to science nor spiritual value to religion. But the teacher of religion will often find himself called upon by his scientifically- or philosophically-minded pupils to provide such a picture; and, if the picture is not forthcoming, that pupil may have difficulty in accepting his teacher's religious instruction. The teacher, then, will usually desire, for the satisfaction of both himself and his pupils, to develop a Christian world-view which embraces both his science and his religion.

Now, in order to do this, he will have to go beyond the scriptural revelation to an interpretation of it. The revelation has been given in the thought-forms of bygone ages, and of cultures that are foreign to the majority of Christians; and it has to be translated into the language and concepts of the twentieth-century West. This interpretation is bound to be tentative; it will be continually modified in the light of research into the language and literature of the ancient cultures, and it will change with the changing theories of science. When such interpretations are used in teaching, then, they must be clearly distinguished from the revelation as being, not what God has revealed, but what the teacher thinks, and therefore subject to revision. They are furthermore not an essential ingredient of Christian theology, and the teacher must at all costs avoid being dogmatic. As far as I can see, all the science-religion controversies of the past have been disputes between, not science and the Bible, but science and particular interpretations of the Bible.

F. CONCLUSION

The thesis of this paper, then, is simply this: Science and religion are for the most part unrelated disciplines, having different bases, different aims, and different languages. They are concerned with different fields, which, however, overlap in four areas. Of the regions where they overlap they give different descriptions, which are the peculiar products of their respective methods, and which are therefore complementary and not contradictory. If science and religion are to be taught in the future in such a way as to obviate conflicts similar to those of the past, the teacher must not only teach the aims, method, and limitations of his own subject, but also appreciate its relation to the other in those four areas in which both are interested.

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**THE PRINCIPLE OF UNIFORMITY IN
GEOLOGY, BIOLOGY AND THEOLOGY**

By

PROFESSOR R. HOYKAAS

THE VICTORIA INSTITUTE
22 DINGWALL ROAD, CROYDON, SURREY

THE PRINCIPLE OF UNIFORMITY IN GEOLOGY, BIOLOGY AND THEOLOGY

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SYNOPSIS

THE principle of uniformity (actualism) is not a law of nature, but a methodological principle, showing the advantages and the weaknesses of analogical reasoning. It is an empty form, which, in practice, has been made conformable to the data of geology and biology, so that even conceptions which virtually amount to catastrophism have been fitted in with it.

As a consequence of a metaphysical prejudice, the "horror miraculi", the principle is sometimes applied in a dogmatic way. On the other hand, orthodox Christians, wanting demonstration of divine interference in the regular course of nature, have often been biased against uniformitarianism.

The biblical conception of nature liberates the scientist as well as the theologian from constraint and bias, as it admits a free application of the principle of uniformity, restricted, however, by submission to the facts revealed in nature.

I. THE PRINCIPLE OF UNIFORMITY IN GEOLOGY

THE methodological principle underlying modern geology and evolutionary biology is *the principle of uniformity*, which implies that "the course of nature has been uniform from the earliest ages, and causes now in action have produced the former changes of the earth's surface" (Ch. Lyell, *Principles of Geology*, sec. ed. I [1832], p. 357). This principle, accordingly, proclaims firstly that the *actually* operating causes have been always active (actualism) and, secondly, that their effect and their tempo has been always the same (uniformity). All geological changes of the past should be explained by forces not differing in *kind and energy* from those now in operation and all causes not supposed to belong to the present order of nature should be rigorously excluded from scientific explanations. Catastrophes might be introduced into speculations respecting the past, provided they are not supposed to have been more frequent or general than they are expected to be in the future (Lyell, I, 101).

On the other side there is *catastrophism*, which holds that the causes now in operation are not sufficient to explain the geological events of the past and that causes differing in kind and energy from those now in operation have to be introduced into geological theories (G. Cuvier, *Discours sur les*

révolutions de la surface du globe [1826], pp. 14, 20). Paroxysmal volcanic upheavals and universal floods are deemed necessary for explanation and while the uniformitarians are liberal with time and parsimonious with energy, the catastrophists are parsimonious with time and liberal with energy.

The principle of uniformity includes two things:

1. The physical laws now in operation have been always in operation.
2. The causes of geological changes (the geological forces) now in operation have been always in operation and their energy has always been the same.

These two things have been confounded in discussions about uniformity. Consequently, catastrophism has often been misrepresented as scientifically absurd and impossible from the methodological point of view. However, it ought to be stressed that catastrophists like Cuvier, Sedgwick, and Buckland never propounded the idea that the *physical* laws have changed in the course of ages.

The real controversy centred around the second point, and the catastrophists, while maintaining the constancy of physical laws, advanced the view that at certain intervals an unusual coincidence of circumstances caused revolutionary changes. Lyell, on the contrary, did his utmost to "reconcile" phenomena with the principle of uniformity in its most rigorous conception (op. cit., I, 189, 190). Consequently, though he did not make the mistake of speaking about a "law" of uniformity, his conception of the *principle* of uniformity certainly showed a tendency in this direction. He preferred a suspension of judgment to an abandonment of the principle in its strictest form. However, the best thing one can do seems to be to adapt the hypotheses to the facts to be explained, without violating the laws of physics. Strict uniformitarianism may often be a guarantee against pseudo-scientific phantasies and loose conjectures, but it makes one easily forget that uniformity is not a law, not a rule established after comparison of facts, but a methodological principle, preceding the observation of facts. It is the logical principle of parsimony of causes and of economy of scientific notions. By explaining past changes according to the analogy of present phenomena a limit is put to conjecturing, for there is only one way in which ancient causes are equal to recent ones, but there is an infinity of ways in which they could be supposed different. This sound methodological attitude, however, easily degenerates into a narrow dogmatism, namely when it is considered to be a physical law. In this case scientific theory becomes static, to the great detriment of science. Facts not supporting the supposed analogy between ancient and modern causes may then easily be overlooked or adapted to the established prejudice. Openmindedness towards the unexpected may disappear. However, it seems to be good policy in science to adjust

principles and theories to the data of observation instead of adapting these data to prejudices of any kind whatsoever. The first attitude might certainly give free play to phantasy, but it might also open new vistas. The uniformitarian position, at its worst, forces past phenomena into a preconceived frame built upon events occurring in our epoch; the catastrophist attitude, at its best, adapts scientific theories and notions to the records of the past. It seems, therefore, that the principle of uniformity should be abandoned or re-interpreted as far as strictly necessary, when a better co-ordination of the phenomena of the past could be attained by doing so.

On the other hand, it should be recognized that uniformitarianism ought to be adopted as much as possible. It seems indeed to be an innate quality of the scientific mind to strive after simplification of its conceptions of the world system by means of "economy of causes" and "analogy of causes". These are the mental keys by which we open the door to the treasuries of knowledge. Hutton was enough of a philosopher to recognize this. Though his deistic metaphysics implied a rather rigorous uniformitarianism, his epistemology led to a less strict conception: "It is not given to man to know what things are truly in themselves, but only what those things are in his thought" (James Hutton, *Theory of the Earth; Transact. Edinb.*, 1788, p. 297). This critical idealism mitigated the dogmatic character of his interpretation of uniformity, as perhaps the uniformity might be in the human mind rather than in nature herself (op. cit., p. 301).

Consequently, one can share with Hutton and Lyell a bias for uniformitarian reasoning and try to "reconcile" phenomena as much as possible with it, without losing sight of the fact that it is but a *method*, which ought to be revised as soon as this seems expedient. However, as the great protagonist of this principle hardly succeeded in remaining quite free from dogmatism, this was even more so with his followers. To quote only some fairly recent ones: L. Kober (1928) spoke of "the law of actualism"; W. Salomon (1926) maintained that "every kind of rock has been formed at every epoch"; W. J. Vernadsky (1930) was of the opinion that "most certainly the minerals have always been the same . . . and also their paragenesis and their relative amounts have always been the same." Many geologists revolted against this uniformitarian dogmatism. Some of them (e.g. Erich Kaiser, 1931; *Z. deutsch. geol. Gesellsch.*, 83, pp. 389-407) held that the same forces formerly under dissimilar circumstances worked with greater energy; others, without resorting to catastrophes, yet recognized "ancient causes" differing in *kind* from those at work now (Lucien Cayeux, *Causes anciennes et causes actuelles en géologie*, 1941). Emmanuel Kayser (1921) advanced the opinion that actualism does not oppose the possibility that, as a consequence of dissimilar circumstances, former manifestations of force may have been more powerful. E. Kaiser, J. Walther (1893; 1924) and K. Andree (1930) arrived at the conclusion that the actualistic method should be applied

only with great prudence to geological history, especially to the palaeozoic formations. Before the continents were covered with plants, weathering, erosion, and sedimentation were different from the same processes going on at present. The humid, vegetationless primeval desert is not to be compared with the recent vegetationless dry deserts. Cayeux pointed out that phosphate deposits in the ocean are now very rare and differ much from ancient phosphate deposits, and for this and other reasons he concluded that in the modern epoch a whole series of activities has come to rest, which formerly played an important rôle in the formation of sediments (Cayeux, *op. cit.*, p. 75).

The *facts* adduced by Cayeux are accepted by his opponents Laffitte and M. Rutten, who, however, combat his "ancient causes". Yet these two defenders of uniformity recognize that the same events did not occur in all geological epochs (Rutten, in *Geologie en Mijnbouw* 11 [1949], pp. 222, 227), or that, if the same events did occur, the intensity was not the same (R. Laffitte, in *Annales Hébert et Haug*, 7 [1949], p. 245). The circumstances were different and, consequently, also the effects caused by forces of the same kind differed. According to Laffitte, in order to save actualism it is sufficient to imagine the actual causes working upon a world differing from that which we see at present, and, accordingly, producing different effects (*op. cit.*, 255, 258). He concludes that "there are permanent causes which have a different effect in different periods" and that "the variable states of the globe are the result of the variation in activity of internal causes which work in cycles, making periods of rest alternate with periods of activity" (*ib.*, p. 258). Thus critics of actualism (E. Kaiser, J. Walther) demonstrated that *external* geological forces (erosion, etc.) are not always the same, whereas defenders of actualism (Laffitte) demonstrated that *internal* geological (orogenetic) forces are not always equal.

Strictly speaking, the defenders of actualism maintain the equality in *kind*, but abandon the equality in *energy*; actualism (but an actualism with some qualifications) rather than uniformitarianism would be the right name for the now prevailing doctrine.¹ Historical geology is a reconstruction of past events within the limits of the analogy of recent occurrences. This analogy, however, does not exclude the supposition of multiplied "energy" of the causes active in the past, provided they be of the same kind with those now in action. Moreover, it admits that certain circumstances prevailing now are eliminated from the picture of the past and that circumstances not occurring now are imagined to have prevailed in the past.

¹ It should be noticed that continental writers almost always use the term "actualism", whereas in English publications the term "uniformity" is prevalent.

II. THE PRINCIPLE OF UNIFORMITY IN BIOLOGY

As to the history of the organic world several views have been propounded.

A. There is no progressive development of the organic world.

1. Species are variable within very narrow limits only. The species that are now, have always existed. This is the opinion of medieval Averroists and of many conservative Christians.

2. Species are variable within very narrow limits only. The species that are now have not been always; they replaced extinct species which were on the same level of organization. This was the view of Lyell in 1830.

B. There is a progressive development of the organic world.

3. Animals of a higher degree of organization suddenly arose by new creation (Buckland, Sedgwick, Hugh Miller).

4. Animals of a higher degree of organization suddenly arose by transmutation of lower forms (Étienne Geoffroy St. Hilaire, Schindewolf).

5. Animals of a higher degree of organization arose by transmutation of species in a continuous mode and an extremely slow tempo (Lamarck, Darwin and most modern evolutionists).

The adherents of the theory of development (B) may also be divided into *progressionists* (3), who accept saltatory changes in the organic world by means of creative intervention, and *transmutationists* (4 and 5), who hold that evolution always takes place through descent with modification from lower forms (cf. Lyell, *The Antiquity of Man*, sec. ed. [1863], p. 395).

About 1800 palaeontology seemed to support geological catastrophism (Cuvier, op. cit., p. 145). Cuvier, who mainly investigated vertebrate fossils, was of opinion that the geological marks of each great revolution of the earth's surface are accompanied by the appearance of a new batch of fossils. According to him the sudden appearance of reptiles and mammals corresponds with the beginning of subsequent geological eras (op. cit., p. 55). He rejected the transmutation of species on rather actualistic grounds; there is practically no difference between mummified animals from Egyptian tombs and recent animals. Lamarck answered that a few thousand years is too short a period to have a perceptible effect, whereupon Cuvier retorted that multiplication of zero yields zero (cf. op. cit., p. 63).

It stands to reason that a catastrophist in geology is also a catastrophist in biology. Similarly, on the same principle (viz. the parallel between geological and biological history), one would expect an actualist in geology also to be an actualist in biology. However, it turns out that this biological actualism may be conceived in different ways:

(a) Geological uniformity means that the earth has always been as it

is now, whereas in the organic world the scale of beings is gradually extending to higher organization (Lamarck, *Philosophie Zoologique*, 1809).

(b) Geological uniformity means a gradual "development" of the earth and also a gradual development of the organic world (R. Chambers, *Vestiges of Creation*, 1844).

(c) Geological uniformity means that the earth has always been as it is now, and that the organic world also did not essentially change (Hutton, 1785; Lyell, 1830). Only in the two latter cases is there a true parallel between the history of the organic world and the history of the earth; the geological and climatological circumstances influence living matter. From the strictly actualistic standpoint there is no progression in the history of the earth and, consequently, neither is there any progression in the history of the organic world (Hutton, Lyell). In the second case there is a parallel between biological evolution and the history of the earth and this requires (against Hutton and Lyell) a "progressive" evolution of the earth (whatever that may mean), which influences living matter in such a way that in the course of time more complicated forms arise (Chambers; Ét. Geoffroy St. Hilaire, 1825, 1828, 1833). If, however, geological uniformitarianism is strictly maintained and at the same time the progressive character of biological development is put forward, the parallel is abandoned and an additional explanatory principle has to be introduced. In that case biological evolution bears no cogent relation to geological uniformity. If T. H. Huxley's contention (cf. *Darwin's Life and Letters*, II, p. 190) that "consistent uniformitarianism postulates evolution as much in the organic as in the inorganic world" be true, most evolutionism is *inconsistent*.

In a certain respect Cuvier was more actualistic than Lamarck. He rejected the progressive change of species because it is not demonstrable at present, whereas Lamarck, on account of the supposed scale of beings ("échelle de la nature", i.e. the continuous series of animal types from the lowest organisms up to Man) posited an imperceptibly slowly working "tendance de la nature", which caused evolution by descent with modification. While true actualism *starts* from causes now in operation, the effects of which are indeed *observed* directly, the actualism of Lamarck (and of many modern biologists) is in one respect a perverted one. It *starts* from a great *progressive* change effectuated in millions of years, and supposes this to be the sum total of small actual variations of which the progressive character is not evident. However much small variations in the animal world may be going on at present, there is no warrant in experiment or immediate observation for concluding that these changes, in the majority, are going in a certain direction. Certainly, Lamarck pointed to variations which arose in the organisms in response to external circumstances, but—as his *geological* theory was strictly uniformitarian and actualistic—this "inheritance of acquired characters" could not be the cause of an evolutionary *progress*. Therefore it should be emphasized

that the heart of Lamarck's theory of evolution is not, as is generally supposed, the "inheritance of acquired characters", but a "tendency of nature to progressive improvement". However mystical and purely verbal this "cause" of evolution may be, it shows at least an awareness of the fact that not only the *transmutation* of species, but also the *progressive character* of that transmutation would require an explanation.

Uniformitarianism required gradual changes, slow changes, and changes of the same character as those now occurring. In fact only the *slowness* and the *continuity* of change, posited by the uniformitarians, were borrowed from geology and transferred to biology when Lamarck, Chambers and Darwin put forward the extreme slowness and the continuity of biological progression. However, as to the fact of the transmutation of species this procedure failed and it was not the present but the past that led the way. The slow *geological* changes might be clearly perceptible within the period covered by human history, as K. A. von Hoff pointed out, but the animal world only showed new varieties which were not "progressive" and which could only be interpreted as "incipient species" on arguments borrowed elsewhere. That is why Lyell was antagonistic to Lamarck's theory and—in spite of his opposition to catastrophism and to the doctrine of progressive creation—accepted Cuvier's views concerning the constancy of species (Lyell, *Principles*, II, 21). Of course, he recognized that there are fluctuations in the history of the earth and that, similarly, animal species disappear and are replaced, but this happens, according to him, within the limits of a genus (cf. Lyell, *Antiq.*, p. 422; *Principles*, II, c. xi; III, pp. 156–157). Consequently, the remarkable situation was that to the progressionists (Buckland, etc.) the lack of mammalian fossils in the most ancient strata of the earth's crust needed no further explanation, whereas Lyell had to suppose that they had disappeared (*Princ.*, I, 145–153). Actualism in the historical sense excluded evolution as well as progression, it is a-historical. Progressionism, on the contrary, admits a *history* of the animal world; it is foreshadowed in the first chapter of Genesis (if conceived neither in a too literal nor in an allegorical sense). The doctrine of evolution, as enunciated by Darwin, borrowed from actualism the idea of extremely long periods and extremely slow and continuous changes, but not the idea of progress, which (as Lyell recognized after his acceptance of Darwinism) was held mainly by the opponents of actualism.

In one respect, however, Lyell never was a strict uniformitarian, nor (after his conversion to evolutionism) an orthodox Darwinist. The origin of the human rational mind was regarded by him as a break in the uniformity (*Princ.*, I, 176–179; *Darwin's Letters*, II, 210–211; *Antiq.*, 469). A. R. Wallace, the co-founder of the theory of evolution by natural selection, held the same opinion (*More Letters of Darwin*, II, 36–39; Wallace, *Darwinism* [1889], p. 391). Wallace believed that in the course of evolution three times a "new cause" had been introduced, to

wit at the rise of unconscious life, conscious life, and spiritual, intellectual life (Wallace, op. cit., pp. 474-475).

Darwin absolutely rejected any break in the continuity of development, whether by new creations or by saltatory development. The idea of Étienne Geoffroy St. Hilaire, St. G. Mivart and many others, who, in analogy with the birth of monstrosities, supposed the sudden transformation of the reptilian embryo so that a bird-like creature would arise, gave him "a cold shudder". Biological uniformity in his opinion was closely tied up with the small variations upon which natural selection worked. In spite of his great authority, however, these theories cropped up again and again, and recently the American geneticist Richard Goldschmidt (*The Material Basis of Evolution*, 1940) has put forward the theory of saltatory evolution by "systemic mutations" arising from early embryonic changes. Amongst his supporters the German palaeontologist O. H. Schindewolf (*Grundfragen der Paläontologie*, 1950) takes a prominent place. He starts from the fact that in the palaeontological record large gaps exist, and this the more frequently the higher the systematic category concerned. He deems it an exceptionable method exclusively to admit micro-evolutionary changes; the occurrence of monstrosities gives a plausible analogy for the sudden rise of new animal types. He supposes that there have been periods of explosive origination of new types of organization (typostrophes) and he is of opinion that biological theory should *explain* the gaps in the palaeontological record *instead of explaining them away*, as the orthodox Darwinists do.

The opponents of saltatory development, the American triumvirate Th. Dobzhansky, E. Mayr, and G. G. Simpson tenaciously cling to micro-evolution in small steps. The difference is not about the paleontological data; Simpson too acknowledges that "the facts are that many species and genera, indeed the majority, do appear suddenly in the record, differing sharply and in many ways from any earlier groups", and this appearance of discontinuity becomes more common on a higher level, until it is virtually universal as regards orders and all higher steps (G. G. Simpson, *Tempo and Mode in Evolution* [1947], p. 99; cf. p. 107). He deems it too easy simply to refer to the imperfection of the palaeontological record; the gaps occur too systematically for that. But, according to him, palaeontology clearly indicates intervals of time between the beginning and the end of a transformation, and this would be impossible in Goldschmidt's theory. Therefore some reason must be found for these gaps and this is the postulate that during the transitions the number of individuals was small and the tempo of evolution very fast, so that there was little chance of fossilization (Simpson, op. cit., p. 117; cf. Schindewolf, op. cit., p. 293). Both parties recognize the constancy of physical laws and both parties have to infringe strict uniformity. External circumstances of a geological and climatological character in one case cause large mutations, in the other case they cause exceptionally great velocities of evolution.

III. THE LOGICAL CHARACTER OF THE PRINCIPLE OF UNIFORMITY

It has become evident from the above that the protagonists of the principle of uniformity differ widely as to their conception of the implications of this principle.

1. What happens now, happened always in the same manner, in the same tempo, on the same level. (Graphically this means that there are small fluctuations about a horizontal line in a diagram with "time" and "events" as co-ordinates.) This is Lyell's original view.

2. There is a gradual evolution with a constant velocity. One can accept 1 in geology and 2 in biology (Lyell's later view) or admit 2 in both disciplines (Chambers's original view). The uniformity is in the *change* of the situation (in the gradient of the curve).

3. Geological change is supposed to happen in alternative periods of orogenetic activity and periods of rest in which erosion preponderates. (These geological cycles may be represented by a sinusoidal curve.) The repetitive unit consists of a period of activity and a period of rest. This is the theory of neo-Huttonists.

4. In palaeontology periods of rapid evolution (Simpson), or even extremely rapid evolution (Schindewolf's *typostrophes*) alternate with epochs of gradual orthogenetic development (to be represented by an ascending line broken by steeper stretches). An actualistic interpretation demands either that a stretch covering an explosive phase and an orthogenetic phase should be considered as a unit, or that the principle be applied to each kind of change separately.

5. There have been periods of great geological activity, but now all things are almost at rest. If it is supposed that a new sequence may occur in the future, this is also uniformitarian, as this but requires "causes now in operation, or causes that *could be* now in operation".

From the catastrophist point of view the line of history breaks off abruptly and then continues on a higher level.

It may be concluded that there is no sharp borderline between actualism and catastrophism, nor between change of tempo and change of mode. The interpretation of events as catastrophic or actualistic largely depends on the interval of time considered and on the entity taken into account (the state of things or the velocity of events).

Now uniformitarianism makes use of analogical reasoning. The value of analogies, however, depends on the choice of the qualities or functions that are compared. In natural science analogical reasoning is founded upon resemblance, not upon equality of two relations. And this resemblance may be rather superficial, the choice of the things compared may be an unhappy one, so that Davy's judgment on chemical analogy ("the substitution of analogy for fact is the bane of chemical philosophy; the legitimate use of analogy is to connect facts together, and to guide to new

experiments ") could be applied, *mutatis mutandis*, also to geology. The difficulty, however, is that nobody can give a rule to test the "legitimacy" of the use of analogy. Uniformitarian geology demands that the change in the earth's crust in a certain period is to the duration of this period, as the change in another period is to the duration of that other period. And actualistic geology demands that a geological change now is to its cause now in operation, as a geological change in the past is to the cause in operation then.

Uniformitarianism proclaims that something is repeating itself in the course of time, but it does not say anything about the length of the period that ought to be taken into account in order to perceive such a repetition. If we take as the "present state" the situation since the dawn of civilization, biological evolution stands upon weak ground. On the other hand, the introduction of almost limitless time offers an easy escape from rigorous uniformity (as conceived by Hutton and Lyell) and it has made evolution more acceptable. But to the adherents of saltatory evolution should also be granted the right of introducing millions of years in order to state the regular recurrence of macrosaltations suggested by palaeontological finds, as well as to account for the great difficulty of finding an example of them in the immediate present. Thus analogical reasoning, which is always behind actualism, once more turns out to be an empty form, which, under the pressure of facts and theories, may be filled up with widely different contents. It only propounds that *there is some kind of uniformity*, not of *what kind* this uniformity is. It is a methodological principle, no *law of nature*. That form of uniformitarianism or actualism has to be chosen which is most conformable to the available data of geology and palaeontology and (this only in the second place) which can be made plausible by modern experiments and observations which may serve as *models* of past events. This should be preferred, even when it virtually amounts to catastrophism.

The "horror miraculi".

Geologists and biologists, even when virtually accepting a mild form of catastrophism, will proclaim their allegiance to the uniformitarian creed and their disgust at the supernatural or the marvellous in general. This *horror miraculi* is so deeply ingrained in the scientist's soul that it is often used as a formidable threat: unless a certain theory be accepted, a miracle will be introduced. In order to discredit the theories of an opponent, scientists sometimes label them as "miraculous" explanations. The protagonists of the doctrine of spontaneous generation (Haeckel, Naegeli) as well as those of the diametrically opposite doctrine of the eternity of life (Preyer), pretended that their hypothesis was the only one that avoided "miracles". Darwinists charge Goldschmidt and Schindewolf with introducing "miracles" (e.g. Dobzhansky, *Genetics and the Origin of Species*, sec. ed. [1941], p. 53), whereas Schindewolf deems the liberal use

of "missing links" by the Darwinists verging on "faith in miracles" (op. cit., p. 131), and Goldschmidt thinks it an advantage of his system that there is "no mysticism" in it (op. cit., p. 206).

Here three causes may be in operation: (1) scientific methodology, (2) scientific rationalism (versus empiricism), (3) a metaphysical doctrine.

Let us first consider the first two points. Scientific method tries to classify all phenomena under certain rules and laws of nature. The scientist as such has a passion for laws, he does not deny miracles, just as he does not deny moral laws, but he is simply blind to them. The scientist as such has a bias for order and, consequently, for the principle of uniformity, for parsimony of causes, and for the "analogy of nature", and therefore he will not admit more diversity in the scientific system than is strictly necessary. These laudable principles, however, easily stiffen into dogmas: anything not standing the test of these dogmas is rejected as "unscientific" or "miraculous".

Theoretical explanations have often been discarded as "miraculous" or "supernatural", because they seemed "irrational", and facts have been denied because they were "extraordinary". But as long as catastrophic or unusual events are reducible to physico-chemical laws or are analogous to well-known physico-chemical phenomena, uniformitarianism cannot dismiss them as "miraculous", but at best as "improbable". Dobzhansky, who regards Goldschmidt's "hopeful monsters" as miraculous ("the assumption that such a prodigy may, however rarely, walk the earth overtakes one's credulity") has to admit that the existence of life in the cosmos "is in itself an extremely improbable event" (op. cit., p. 53). As to the charge of being "irrational", this seems to be on the epistemological level. The old war between rationalism and empiricism continues to be waged. The history of science shows so many examples of the "irrational" notions and theories of to-day being the "rational" notions and theories of to-morrow that it seems largely a matter of being *accustomed* to them whether they are considered rational or not. The rejection of "uncommon" things and the rejection of "unreasonable" things are psychologically on the same level.

IV. THE PRINCIPLE OF UNIFORMITY IN THEOLOGY

THE principle of uniformity being a methodological principle, it should be independent of metaphysical or religious convictions. In reality, however, metaphysics has played a large part in the acceptance or rejection and in the interpretation of the uniformitarian doctrine.

I. *Atheism* (monism, materialism, naturalism) holds that the necessity of immanent laws rules nature. No design or plan, no final causes, are admitted. People taking this point of view mostly are strict uniformitarians. Darwin, though no theoretical atheist, virtually assumed this position. Lyell's suggestion that creative power made man supervene was energetically rejected as a "miraculous addition" to the theory of

descent. When Wallace propounded his non-evolutionistic conception of the origin of the human mind, Darwin answered: "I hope you have not murdered too completely your own and my child" (*More Letters*, II [1869], 39). He spoke of natural selection in religious terms and Lyell was of the opinion (not without reason) that he (and Huxley) deified secondary causes too much (*Antiq.*, p. 469; *Lyell's Life and Letters*, II, 363, 384). Wilhelm Preyer, a German zoologist, went even further. His (negative) religious prejudice made him prefer to revolutionize the whole science of life and matter rather than "concede" that a divine creative act had taken place. Consequently, he supposed life to be eternal: in the incandescent state of the earth there must have been "glowing organisms . . . whose blood perhaps was liquid gold" (in *Kosmos* [1877], p. 382).

II. *Deism* supposes that God created matter and endowed it with laws from which the world and all its inhabitants ensued according to the plan and design originally laid down in matter to be realized in the future. This world-view too is uniformitarian. Hutton's *Theory of the Earth* (1788) was largely inspired by his wish to demonstrate that God's work is absolutely perfect and that all forces and events are "wisely adapted to the purpose for which they are employed" (*Edinb. Transact.*, I, p. 213), to wit the construction of a world habitable for mankind (op. cit., p. 294). The principle of uniformity was rooted in his belief in the infinite wisdom of God and, consequently, in the absolute perfection of the world, which, like an organized body, renovates itself in endless repetition of geological cycles (ib., p. 216), so that we find "no vestige of a beginning, no prospect of an end" (ib., p. 304). For Hutton "tout va pour le mieux dans le meilleur des mondes", and therefore the idea of evolution is not accepted, as it would imply that still higher perfection would be possible.

Yet it was easy to give deistic uniformitarianism a twist by which evolution became possible without abandoning "design" and "perfection". "Perfection" could be conceived as a potentiality not fully realized all at once and a beneficent deity could have endowed matter with permanent laws of *constant physical order* as well as with permanent laws of *continuous development* and improvement. This type of evolutionism has been advanced by Erasmus Darwin in his *Zoonomia* (1791) and in his *Temple of Nature* (1803).

By firm, immutable immortal laws
 Impress'd on Nature by the Great First Cause,
 Say Muse! how rose from elemental strife
 Organic forms, and kindled into life

(*Temple of Nature*, canto I, lines 1-4).

He described how "from embryo births her changeful forms improve" (ib., line 225). Robert Chambers, the anonymous author of the *Vestiges of Creation* (1844), assumed a similar position. Both were of opinion that

“there is more dignity in our idea of the supreme author of all things, when we conceive him to be the cause of causes, than the cause simply of the events, which we see” (*Temple of Nature*, add. notes, p. 1; Chambers, op. cit., sec. ed., pp. 153-158).

III. It may appear odd to place a large number of orthodox Christians (Buckland, Sedgwick, Conybeare, etc.), who were defenders of catastrophism, in the deistic group. But in their very combating of uniformitarian deism by the demonstration of “divine intervention in the course of nature”, they practically accepted the basic assumption of their opponents; they grafted a “theistic” branch on the deistic tree. In the deistic scheme God is too exalted to meddle with “unimportant” or “special” things, and the orthodox, whose faith had been unconsciously shaken by the attacks of deism, seem to have held virtually the same belief. Although they recognized God’s sustaining of all things, they wanted to demonstrate His special care by “interventions” in the course of nature. This attitude was heralded by Thomas Aquinas, who held that God’s “common” activity coincides with the natural order of events as it had been logically deduced by Aristotle, whereas deviations from that regular course could be recognized as supernatural interventions (cf. R. Hooykaas, “Science and Theology in the Middle Ages,” *Free Univ. Quarterly*, 2, 77-163). In his inaugural lecture William Buckland attacked the deistic interpretation of the results of science, which implied that the universe is carried on by the force of the laws originally impressed upon matter, without the necessity of fresh interference on the part of the Creator. Geology, however, gives “proofs of an overruling Intelligence continuing to superintend, direct, modify, and control the operations of the agents which he originally ordained” (*Vindiciae Geologiae* [1820], p. 18-19). Similarly, palaeontology gives evidence of the beginning and end of several systems of organic life and thereby affords “proof of the repeated exercise of creative design, and wisdom, and power” (W. Buckland, *Geology and Mineralogy considered with reference to Natural Theology*, vol. I [1836], p. 55).

It appears that the arguments for divine intervention based upon the data of science in the long run turn out to be founded upon quicksand. In the sixteenth century new stars and comets presented the believers with so many proofs of God’s “intervention”. However, when astronomy had divested them of their marvellous character, geology came to the fore and God’s interference with the regular course of nature was considered evident from universal floods, or—when Neptunism had been substituted by Plutonism—from volcanic catastrophes. The triumph of uniformitarianism left only the organic world as a sign of God’s intervention, but when the belief in the sudden creation of animals was shaken, the origin of Man, and finally, only the origin of Man’s mind, was considered to be above the laws of nature. This elastic retreat clearly shows that, as J. D. Hooker put it, Natural Theology is “the most dangerous of all two-edged weapons” (*Hooker’s Life and Letters*, vol. II [1868], p. 67).

Natural theology as well as natural anti-theology tried to interpret scientific facts and hypotheses each in its own way; each new victory of scientific "law" was regarded as a triumph not only of science but also of the "scientific view of life", and each alleged proof of "miracle" or of "divine intervention" was considered as a triumph of religion. This shows that the antagonists fought their battle on a common ground and that they had more affinity than they were conscious of themselves.

IV. The *biblical view* (which is not always the view of religious orthodoxy) does not accept the alternative put by the contending parties mentioned above; it does not regard wonder and law as mutually exclusive. A miracle is not considered as an *intervention* in a world that otherwise runs its own course; rule and exception to the rule are equally wonderful to religious contemplation. God cares even for the sparrow on the roof; His activity is behind *every* thing, however unimportant it may seem. The scientist, even when he is a believer, tries to reduce miracles as much as possible; the believer, even when he is a scientist, discovers miracle in the most familiar things.

Now it has often been said that such a "spiritual" view is the last refuge for a religious belief which sees its elastic front break down before the progress of science. However, this charge appears historically unjustified. From Nicole Oresme in the fourteenth century, to Isaac Beekman and Pascal in the seventeenth century and Asa Gray and Charles Kingsley in the nineteenth century this view has been upheld by people who as scientific thinkers belonged to the vanguard of their time. It was the nominalist Oresme who proclaimed God's absolute power and recognized miracle where scholastic rationalism was blind to it, but it was also Oresme who dismissed many of the marvels his contemporaries believed in as perfectly "natural" phenomena or as deceit of priests or magicians (cf. Hooykaas, op. cit.). And the nominalist Jean Buridan propounded a geological theory not less uniformitarian than that of Hutton. Beekman pointed out that the more we understand God's reign in nature, the more wonderful it is (cf. R. Hooykaas, "Science and religion in the seventeenth century," *Free Un. Q.*, 1, pp. 169-183). Yet, he was one of the founders of the "mechanical philosophy", which lies at the basis of the modern scientific world picture. But he recognized that "science proceeds from wonder to non-wonder, whereas religion should go from non-wonder to wonder".

According to the American botanist Asa Gray (1810-1888), Darwin's biological theory of evolution was neither theistic nor non-theistic; he maintained that the birth and development of a species is as natural as that of an individual, but evidently he deemed them also equally wonderful. So far as the argument of design in nature is concerned "it makes no difference whether there be evolution or not, or whether the change be paroxysmal or uniform" (A. Gray, *Evolution in Theology*, 1874). It seem strange, says Gray, that a convinced theist should be so prone "to

associate design only with miracle ” and then he understands miracle as a suspension of natural laws.

C. Kingsley’s interpretation of Darwin’s theory did not tend to discard God more and more from nature but, on the contrary, he saw in the effects of natural selection special “ providences of Him without whom not a sparrow falls to the ground, and whose greatness, wisdom, and perpetual care I never understood as I have since I became a convert to Darwin’s views ” (*C. Kingsley’s Letters*, 7th abridged ed. [1880], II, p. 155). Below all natural phenomena he recognized “ a miraculous ground ”. This generalization of miracle could be an evading of the biblical miracles. However, Kingsley’s uniformitarianism did not in any way weaken his Christian conception of miracle, for it was precisely this conception that was behind it. “ After the crowning miracle of the Incarnation all miracles are possible. ” The biblical miracles which, if necessary, we would have once more, are “ not arbitrary infractions, but the highest development of that will of God, whose lowest manifestations we call the Laws of Nature, though really they are no Laws of Nature, but merely customs of God, which He can alter as and when He will ” (op. cit., II, p. 85). This is the truly biblical conception, which makes no division between nature and supernature and regards “ miracle ” as another aspect of everything that presents natural law at its face value.

It should be stressed that Kingsley, who shared the English prejudice against Calvin, unwittingly repeated Calvin’s view. Small wonder: Calvin’s teaching contains little “ Calvinism ”, as it is one of the most scholarly and successful attempts to build a theology on Scripture alone without falling into the error of biblicism. In his *Institutes* Calvin did not make any *essential* distinction between ordinary events, belonging to the order of Nature (the rising and setting of the sun), extraordinary events (great drought) and miraculous events. The term “ supernatural ” is not used; there are regular, less regular, and even unique manifestations of God’s will. The idea that only “ special ” events require divine intervention is rejected; God is present in the most insignificant things (references to Ps. 104: 27; Acts 17: 28; Matthew 10: 30), and all deviations from natural order are the best proof that God is also active in all other things (*Inst.*, Bk. I, c. XVI, §§ 4, 5, 7).

This conception may be found with “ creationists ”, progressionists as well as evolutionists. Among the progressionists Hugh Miller, the well-known defender of the cause of the Free Kirk, sometimes talked about natural theology in the way of Buckland, but much more than with the Bucklands there will be found with him a continuity by which general revelation in nature and special revelation in Christ are blended into one exalted view of the destiny of the cosmos, in which the “ adorable Monarch of all the future ” is the crown of the progression that started with the creation of matter (H. Miller, *The Testimony of the Rocks* [1857], pp. 155–156; cf. pp. 243–245). Consequently, Miller deemed a belief in

the existence of God, evoked by natural science, but dissociated from a belief in the Mediator and Redeemer, of as little ethical value as a belief in the existence of the great sea serpent.

The biblical miracles are intended as "signs" (cf. A. M. Stibbs, "Miracles as Signs," *Christian Graduate*, 9 [1956], pp. 2-5), and as such it does not matter so very much whether such a sign is wrought in a "natural" way or seems quite "supernatural". The "prescribed order of nature" as well as events outside the regular course of nature are signs of God's power (Calvin, op. cit., §§ 5 and 7). In order to recognize these signs for what they are, one ought to have eyes "anointed with eyesalve": many "scientific" people do not see evidence of God's design and presence in the works of nature and many "religious" people will, just as the scientists, escape from miracle by seeking for a "natural" explanation. Darwin could not imagine that the creator of countless worlds should have made myriads of worms by individual acts of His will (cf. *The Foundation of the Origin of Species*, Two Essays written in 1842 and 1844, ed. by F. Darwin, 1909; Essay of 1842, p. 51), whereas to Kingsley the generation of lower polyps as well as the general law of gravitation show "absolute Divine miracle at the bottom of all". Darwin was well aware of the unbridgeable gap existing between him and Asa Gray, whom he regarded, from the point of view of biology, as a "tower of strength" to his cause.

It is perhaps an unconscious semi-deism which since the eighteenth century prompted so many Christians eagerly to seek for signs of divine intervention. There is the possibility that not only religious zeal but also the little faith of a generation which might be ranked with those of whom it was said, "Except ye see signs and wonders ye will not believe", played a certain part (cf. A. Gray, *Darwiniana* [1878], p. 389). The scientist, even when he is a Christian, will as a scientist try to be as actualistic as possible, and at the same time recognize the merely methodological character of the principle of uniformity. Accordingly, as a *scientist* he will adjust his interpretation of the principle of uniformity to the data of observation and experiment, even when this might imply the admittance of the seemingly marvellous.

Those who praise themselves as "progressive" thinkers and, perhaps because of their dislike of Christianity, tenaciously cling to rigorous uniformity, should remember that strict actualism and conservative theology often converged: orthodox people like Buridan in the fourteenth century and the Rev. John Fleming (Professor of Geology at the Free Church College) were rigorously uniformitarian.

The scientist as a *Christian* will not be eager for divine interventions and breaches of uniformity; because, from the religious point of view, it makes no difference whether geological changes be paroxysmal or uniform, and also because, though God glorify Himself sometimes in doing a miracle, "yet there is in every miracle, a silent chiding of the world, and a tacite reprehension of them, who require, or who need miracles" (John Donne; *Sermon* on March 25th, 1627).

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OF THE

VICTORIA INSTITUTE

AT

THE CAXTON HALL

WESTMINSTER, S.W. 1

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Professor MALCOLM GUTHRIE, Ph.D., B.Sc., A.R.S.M., in the Chair

ANNUAL ADDRESS

THE PLACE AND PROGRESS OF BIBLICAL ARCHAEOLOGY

By

D. J. WISEMAN, O.B.E., M.A., A.K.C.

THE VICTORIA INSTITUTE

22 DINGWALL ROAD, CROYDON, SURREY

THE PLACE AND PROGRESS OF BIBLICAL ARCHAEOLOGY

By D. J. WISEMAN, O.B.E., M.A., A.K.C.

RECENT years have witnessed the continued growth in the importance of archaeological research both in fact and in the public estimate. While many factors conduce to this interest in the scientific study of material remains from ancient life, the widespread knowledge of the Bible story remains the initial view-point of many to whom it is almost their only introduction to remoter antiquity. Yet few seem to realize the scope of this comparatively young branch of human inquiry which has been rewarded by finds which would appear far to outweigh the comparatively small effort expended. The influx of evidence has been such as to cause the majority of individual scholars to limit their work to a well defined field of study, to a period such as pre-history, to a group of objects according to type or material or to languages which can be grouped by affinity of structure or script. Moreover, each of these specializations is repeated in the varying geographical or cultural areas in which archaeological research is pursued. Thus to the student of the ancient Near East the results of excavations, quite apart from the earlier discoveries which may need publication or re-evaluation, come faster than can be easily absorbed. A single mind can no longer compass with authority a wide range of interests, and scholars are led to specialize in the interpretation of the finds from Palestine, Egypt, Syria, Assyria and Babylonia, Persia, or the Hittite or other territories.¹ This necessary narrowing of focus has resulted in a corresponding dearth of syntheses, yet it will be obvious that any progressive science needs a periodic review, or stock-taking, if its results are to be made readily available to those whose main interests lie elsewhere.

It is to the credit of this Institute that in these days of increasing specialization it continues to bring together a wide variety of interests to the common focal point of the Christian faith and thus of the Bible. Throughout its history the Institute has not lacked the support of those equipped to present to it the results of archaeological findings in their relation to the Bible. We need now name only such men as my predecessor in office, Professor T. G. Pinches, who almost annually from 1900 until his death in 1928 covered the expanding field of Babylonian studies, or our late President, Sir Frederic Kenyon, whose mastery of Biblical Manuscripts and wide learning in matters archaeological provided more than one Annual Address.² It is in this tradition that I address you this evening.

¹ There are, of course, a few exceptional scholars such as Professor W. F. Albright, who still contrives to write on, and contribute to, all these fields of study.

² E.g. "Greek Manuscripts and Archaeology" (1943); "The Fourth Gospel" (1945); "The Bible and Criticism" (1947); "New Testament Criticism To-day" (1948); "The Institute and Biblical Criticism To-day" (1950).

However, first we must discuss the place of Biblical archaeology in relation to other branches of science to-day. By Biblical archaeology is generally meant the selection of the results of archaeological research in the Near East relating to the Bible or, more precisely, the study of the material remains of antiquity in Palestine and in those countries which from earliest times to the first century of the Christian era were brought into relation with it. This includes the remains of buildings, sculpture and art, pottery, inscriptions on whatever substance they may have been written, indeed any artefact which leads to an understanding of the history and life not merely of the Hebrews or of Palestine, but of those countries, especially Syria, Egypt, Jordan, Asia Minor and "Mesopotamia", which bear more or less closely on the Biblical record.¹

Now this very act of selection, though common to the archaeological and other scientific workers, has created a divergence of opinion concerning the place of Biblical archaeology to-day. There is suspicion of the purpose and manner which dominate the selection made by some. By many, Biblical archaeology is treated as an unco-ordinated body of knowledge summoned as an ally to defend or confirm the Scriptures as they understand them, and a vague idea thus abounds in some quarters that the Bible is confirmed, or proved increasingly, with each discovery.² Partly in reaction to this attitude others stress that the value of the Bible lies not in its historical or literary but in its religious teaching, the great themes of which lie outside the scope of archaeological inquiry. These would argue that religious truth is one thing and historical fact another. Both parties would agree that an increasing understanding of Bible history has come principally from the field of archaeology and that this has tended to bring a return to a more conservative attitude in some questions, notably the historical credibility of the Patriarchal Age, and the disposition to credit more of the Biblical poetry, now comparable with similar forms from early Canaan, than formerly.³ It has led also to the general appreciation of the greater reliability of the Massoretic text of the Old Testament than was allowed earlier in this century. Moreover there is general agreement on the legitimacy and value of selecting evidence which *illustrates* the Biblical record, its life and times, its places, peoples, customs, literature and even words. It would not seem just to belittle any evidence which directly corroborates the historicity or accuracy of the Bible at any point any more than it would be right, as sometimes also happens, to interpret the evidence either of archaeology or of the Bible itself out of context in order to find proofs of Biblical accuracy. Happily the dichotomy resulting in these two extreme attitudes is less than formerly; and Old Testament theologians and archaeologists, at least,

¹ Sir F. G. Kenyon, *The Bible and Archaeology* (1940), p. 17.

² Millar Burrows, *What mean these Stones?* (1941), pp. 2-3.

³ H. H. Rowley, *The Old Testament and Modern Study* (1951), pp. xx-xxi.

are to-day quicker to appreciate each other's disciplines, thanks largely to the influence of such men as Professors W. F. Albright, H. H. Rowley, A. Guillaume, Millar Burrows and G. E. Wright. Although *direct* confirmations of the Bible from external sources are rarer than the indirect illustrations gained they are being more carefully noted. As would be expected, such points are largely those where the divine revelation is made in, or concerns, a time or place otherwise now known to us from archaeology. The fact that Sennacherib did besiege Hezekiah in Jerusalem, and that Nebuchadrezzar did capture Jerusalem in 597 B.C. are such points at which archaeological facts can be unequivocally said to prove or confirm the Biblical reference (not the whole Bible!) as true. This is not, of course, to assert that the truth of the Bible cannot be demonstrated on other grounds.

Having thus said something of the general setting of Biblical archaeology, let us now review its progress as a science. Obviously it would be impossible in this address to cover the whole of the hundred or more years in which archaeological discoveries have been brought to bear on the Scriptures. Such reviews have been given in other places. In a paper on *Recent Trends in Biblical Archaeology* read to this Institute in 1950 I sought to point out the most important development of the preceding ten years. Since then much has been found which illustrates and not a little, in my opinion, which directly substantiates the Bible story. Despite this there have been few comprehensive surveys of Biblical archaeology and only one published here in England—*The Old Testament and Modern Study* (S.O.T.S., 1951). In this the American Professor W. F. Albright has outlined the archaeology of Palestine and surrounding lands in the thirty years from 1920 to 1950. More recently in his *The Bible after Twenty Years of Archaeology* (1932–1952) he has drawn attention to special points in that progress, a number of which I had myself covered in my earlier paper, viz. (1) The general agreement (for there remains but a narrow margin of disagreement) in the correlation of Babylonian, Egyptian and Syro-Palestinian chronologies before about 1500 B.C. This is an essential factor in the understanding of the events and history of these civilizations. (2) The results of excavations at Mari and Ugarit (Ras Shamra). The former are important for the light they shed upon the North-West Semitic life of Patriarchal times; the latter as illustrating the thought and life of the Canaanites, and not least in that Ugaritic poetry has led to Albright's dating such Hebrew poems as the Song of Deborah (Judges 5), the Song of Miriam (Exodus 15) to the time of Moses, the Oracles of Balaam (Num. 22–24) to the thirteenth century and the Blessings of Jacob (Gen. 49) and the Blessings of Moses (Deut. 33) as not later than the eleventh century B.C. Similarly, in opposition to the widely accepted results of literary criticism, he would assign many psalms to this early date, including Psalm 68. though "this psalm has often been attributed to the Maccabean Period (second century B.C.) in spite

of the fact that Jewish scholars who translated into Greek in the same century did not understand it any better than did the Massoretes a thousand years later. This is typical of the utter absurdity of much so-called 'critical' work in the biblical field".¹ The Ugaritic tablets have also done much to make apparent the gulf between the religions of Israel and of Canaan. Albright also stresses the importance of the new finds relating to the Exilic period and of the Dead Sea Scrolls, to both of which subjects I will return. He also wisely draws attention to the early Gnostic and Manichaean codices from Egypt which are important for the study of the background of the thought, and for the date, of the gospel of John. Further discoveries of papyri in Egypt may well be expected to give new light on the gospel narratives.

To illustrate the actual progress and the type of development which may be expected from Biblical archaeology it will be, perhaps, most helpful if I confine myself to discoveries and researches made since Professor Albright's review in 1952, i.e. to the last three years.

Excavations

With the cessation of actual hostilities conditions in Israel have allowed an increasing archaeological effort, partly by way of excavating sites before their modern development and partly in survey of the terrain itself. As a result of the latter in the Galilee area, excavations commenced last autumn on Tell-el-Qedah, the city of Hazor mentioned in both Mari and El-Amarna correspondence and cited as "the head of all kingdoms" in the days of Joshua (11: 10); the first season's work under Y. Yadin has resulted in evidence for the destruction of the city at the end of the eighth century (i.e., probably by Tiglathpileser III in 732 B.C.), for the existence of a flourishing city (Level IV) of the Ahab period and for an earlier city of about 40,000 inhabitants which met its end in the thirteenth century, that is at the very period considered by most scholars as the date of Joshua's conquest of the country. The discovery of a Canaanite temple of the late Bronze Period with a number of statues and stele, including a simple but effective carving of two hands raised as if in prayer to a deity represented by the sun disc, will go far to showing us the hitherto little known art of Canaan and the influences upon it. The excavations also produced a pottery fragment bearing two letters in the Proto-Sinaitic alphabetic script similar to that previously found at Lachish.²

Excavations at Biblical Dothan and Dibhon have as yet produced little evidence which relates to the Biblical period. Work at Jericho has continued for three months each year from 1952 under Dr. Kathleen Kenyon, but since it has mainly concentrated on the early Neolithic period and the seventeenth-century city there, it is of less importance for direct Biblical

¹ W. F. Albright, *op. cit.*, reprinted from *Religion in Life*, 21, No. 4 (1952), pp. 543-4.

² A preliminary report on the Hazor excavations by Y. Yadin in *The Illustrated London News*, April 14th, 1956.

than for general archaeological studies. The clearest picture is of the town in the Patriarchal period. This is partly due to the unusual conditions which have preserved objects of wood and textiles in the tombs of the period outside the town. This city with its streets and well-built drains and little shops appears to have been sacked by the Egyptians c. 1560 B.C. and then lain in ruins till c. 1400 B.C. and with its elaborate defences may have been the work of the Hyksos peoples. Of the succeeding city of Joshua's time little has been found in all areas so far examined by the present expedition—only one house wall and part of a kitchen.¹ It is thus probably too early to make a detailed comparison with the results of the previous work done at the same site by Professor J. Garstang.

Further afield work continues at Ras Shamra (Ugarit) and at Mari (Tell Hariri) in Syria. The publication of the fourteenth-century texts from the former site by Professor J. Nougayrol will help,² with the Alalakh texts to which I refer below, to a clearer understanding of Syria at the time of the conquest or just before. The British expedition to Nimrud (Iraq) has continued work from 1952–1956 with one year's respite (1954). The results as they affect Old Testament studies can be summarized as follows:—

- (i) The earliest levels were marked by Ninevite V type pottery—a fact which may support the tradition of Genesis 10: 11 that the city was founded, as were other Assyrian cities, by people moving north from Sumer.
- (ii) A stela of Ashur-nasir-pal II gives the population of the city in 879 B.C. as 69,574 persons, which may be a useful indication that Jonah (4: 11) did not exaggerate the population of the northern capital, the ruins of which cover an area more than twice that of Nimrud.³
- (iii) Texts found include slave-contracts which may show that the amount of fifty silver shekels per head demanded of the Israelites was a redemption from slavery.⁴ Other documents of the reign of Tiglath-pileser III include letters which show the extent of his control of Phoenicia and Palestine.⁵ A further historical text, unpublished, of the same king refers to Hazael and to Israel. In this connection it is well to note that Hazael is to be read rather than Naphtali in the documents previously made known of this king. A text of Sargon II

¹ For preliminary reports see *The Palestine Exploration Quarterly*, 1952, pp. 62–82; 1953, pp. 81–95; 1954, pp. 45–63; 1955, pp. 108–117, and *The Illustrated London News*, May 12 and 19, 1956 (esp. pp. 552–5).

² J. Nougayrol, *Textes accadiens et hourrites des Archives est, ouest et centrales (Le Palais royal d'Ugarit III)*, 1955.

³ D. J. Wiseman, *Iraq*, 14 (1952), p. 28.

⁴ D. J. Wiseman, *Iraq*, 15 (1953), p. 135.

⁵ H. W. F. Saggs, *Iraq*, 17 (1955), pp. 128–54.

found at Nimrud describing operations in Babylonia in 710–709 B.C. contains passages which have a striking resemblance to Isaiah 13: 19–22.¹ A polyptych or group of eight ivory writing boards with inscriptions on wax (*is le'u*) of the same king dated about 707 B.C., the oldest known “book”, gives added point to the contemporary prophets' words in Isaiah 30: 8². Last year massive clay tablets were found, each originally containing about 800 lines of inscription, outlining the treaty obligations of the Median vassals of Esarhaddon. When these are published we shall no doubt have more information by which to compare the treatment and reactions of Israel and Judah to their Assyrian overlords. These finds might be considered typical of the indirect evidence to be expected from excavations at places distant from Palestine.

Published Texts

(i) *Alalakh and the Old Testament*

The publication of more than 500 inscribed clay tablets found by Sir Leonard Woolley at Atshana (Alalakh) in 1938–1949 and published in 1953 has afforded additional light on the life of a typical Syrian community in the eighteenth and fifteenth centuries B.C.³ This is to be welcomed as giving evidence more closely linked geographically with Palestine than that often quoted for the Patriarchal period (e.g. the Nuzi or Mari and other Old Babylonian texts). Again summarizing some of the results:

- (1) The classes of society included tenant-farmers or “free proletarians” (the Hebrew *hofshi*), a free-born people who as a social group stood between the small class of land-owning aristocracy and an equally small class of slaves.⁴
- (2) An extradition clause in a treaty between two sovereign states in North Syria and a practical example of its implementation helps in the understanding of the problem of fugitive slaves in the Old Testament. Thus in 1 Kings 2: 39–40 we are told that Shimei entered Philistine territory to search for his two slaves and by demanding their return of King Achish of Gath returned with them. This would imply a treaty with such extradition rights between Solomon and the king of Gath. The Alalakh texts would similarly throw light on the Deuteronomic provision prohibiting the extradition of fugitive (presumably Hebrew) slaves (23: 15–16).⁵

¹ D. J. Wiseman, *JT VI* 87 (1955), pp. 35f. C. J. Gadd, *Iraq*, 16 (1954), p. 193.

² D. J. Wiseman, *Iraq*, 17 (1955), pp. 3–13.

³ D. J. Wiseman, *The Alalakh Tablets*, 1953.

⁴ I. Mendelsohn, *Bulletin of the American Schools of Oriental Research*, No. 139 (October, 1955).

⁵ I. Mendelsohn, “On Slavery at Alalakh”, *Israel Exploration Journal*, 5 (1955), pp. 65–72.

- (3) The Alalakh practice of the exchange of cities—whether to preserve inter-state boundaries along natural features of the terrain or not, we do not know—is possibly reflected in the transactions of 1 Kings 9: 11. One unpublished Alalakh tablet of this class is of particular interest as it involves seven cities on each side. The ceremony of exchange involves the declaration of the inviolability of the transaction to be confirmed over a slaughtered sheep and the participants declaring: “if ever I take back what I have given you . . .”—i.e. implying “may the gods similarly cut off my life”, or some such phrase, an idea paralleled in the Old Testament oaths (cf. 1 Sam. 3: 17). This same text gives further evidence for the presence of Hittites in Syria in the eighteenth century and there is no reason why they might not be found further south in the same period (Gen. 23).¹ Among other small details from this neighbour of early Israel we find the names of Abina‘mi (Hebrew: Abino‘am); Aiabi (Job) and Saps (cf. Heb. Samson).² While of course these are not references to the actual, and later, Biblical persons they give helpful early parallels for the existence and form of the names.
- (ii) While on the subject of texts which illustrate the patriarchal period it should also be pointed out that the publication in 1953 of Old Babylonian texts found at Ur provides a source for closer parallels to the Abrahamic story than do the fifteenth-century Nuzi texts from which so many illustrations of the patriarchal customs have been drawn. While not providing new evidence these texts do show that customs, such as the adoption of a slave as heir, etc. were long established practices and in force in Abraham’s first home town.³
- Although no new discovery, the official publication of the *The Early Period* uncovered by Sir Leonard Woolley in the Ur excavations will be of especial interest to Bible students for the clear account given of the Flood level first reported in 1929. In his description Woolley reaffirms his opinion that the eight-foot clean deposit of silt was of riverine origin and marked no normal inundation. He disassociates this from similar third millennium B.C. deposits found at Kish and thinks that this marks the historical flood, reflected in the Babylonian and Hebrew accounts and which, according to Sumerian king-lists, caused a violent break in the continuity of the land’s history. Woolley places the event after the Al ‘Ubaid and before the Uruk period, that is before the first written texts are found.⁴

¹ To be published by D. J. Wiseman.

² W. F. Albright, *Journal of the American Oriental Society*, 74 (1954), pp. 226–27.

³ H. H. Figulla and W. J. Martin, *Ur Excavations Texts*, Vol. V (British Museum, 1953).

⁴ *Ur Excavations*, Vol. IV (British Museum, 1956), pp. 15–19.

(iii) An instance of the direct corroboration of the history of Judah from the Babylonian records is found in the recently published Chronicle tablet which relates the history of the Battle of Carchemish in 605 B.C. and the capture of Jerusalem by Nebuchadrezzar in 597 B.C.¹ The entry reads: "In the seventh year, the month of Kislev, the Babylonian king mustered his army and marched to the Hatti-land (i.e. Syria-Palestine), and besieged the city of Judah and on the second day of the month of Adar he seized the city and captured the king. He appointed there a king of his own choice, received its heavy tribute and sent (them) back to Babylon." Here is a direct reference to the attack on Jerusalem which played so prominent a part in Biblical history. It is the divine punishment foretold by the prophet Isaiah and more especially by Jeremiah who read the political and military portents in the days which followed the battle of Carchemish. This event was henceforth to mark the beginning of the Jewish exile with all the religious and cultural changes and influences that period was to bring. The capture of the Judaeian capital in this year was also to be a preliminary step in the war which led to the close siege and heavy destruction of the city in 586 B.C.

The participants, if not all the details, in this year's happenings are well known from Biblical sources. The captured king was Jehoiachin, the successor of Jehoiakim, who with his queen, family, state officials and local craftsmen was taken off a prisoner to Babylon. The heavy tribute included the Temple vessels. The king of Nebuchadrezzar's choice, appointed to succeed him, was Mattaniah whose royal name was designated or changed to Zedekiah. This change of name appears to testify to the position held by him on oath to Nebuchadrezzar "that he would certainly keep the kingdom for him and make no innovation nor any league of friendship with the Egyptians". The date of this conquest of Jerusalem is now known precisely for the first time, namely the second of Adar, i.e. 15/16 March, 597 B.C., thus affording us an exact date within both Biblical and Neo-Babylonian history. It seems that the Babylonians took some time to collect the captives who numbered three thousand according to Josephus, or ten thousand according to the Hebrew records which add the number of soldiers to those of the royal party. Thus their exile began "at the turn of the year" (2 Chron. 36: 10), that is in the month following the capture of the city, in the month which marked the commencement of the eighth regnal year of Nebuchadrezzar (2 Kings 24: 12). It is perhaps relevant to say that we have a further glimpse of these exiles who are mentioned in ration tablets from Babylon published by E. F. Weidner in 1939. These

¹ D. J. Wiseman, *Chronicles of Chaldaean Kings*. British Museum, 1956.

The extract here is taken from my Lecture to the British Academy on February 22, 1956. A report on this appeared in *The Times* of February 23, 1956.

tablets are dated in the tenth to thirty-fifth years of Nebuchadrezzar (i.e. 595–569 B.C.) and name Jehoiachin, king of Judah, and his sons together with Judæan craftsmen and other prisoners who receive their sustenance from the royal storehouses.¹ The importance of these chronicle tablets is, however, not merely in their direct bearing on the Old Testament history. Since they cover the years 626 B.C.–594 B.C. with but one short break they enable Neo-Babylonian history to be accurately recovered for the first time and thus indirectly the bearing of that history on Judah. Moreover they should put an end to the speculations which have hitherto abounded, if we may judge from learned publications, concerning the date of the Battle of Carchemish and of Jehoiachin's capture. They also give a reasonable background to the defection of Jehoiakim from Nebuchadrezzar after three years of subservience (604–601 B.C.). Suffice it to say that as with most discoveries these tablets do not answer all the known difficulties and even raise several new problems.

The Dead Sea Scrolls

Probably the most widely known of recent discoveries are the Biblical scrolls and fragments found in Wadi Qumrân. Nine years have passed since seven scrolls were accidentally found by shepherds in the wilderness and although all there have not yet been published (only Isaiah of the Biblical scrolls), the work on the fragments continued as a whole and a whole literature on the field has developed, of which H. H. Rowley's *The Zadokite Fragments and the Dead Sea Scrolls* gives a summary up to 1952. Millar Burrows, *The Dead Sea Scrolls* (1955), is also an excellent up-to-date study of the scrolls with some translations. *The Journal of Biblical Literature*, 74, Part 3 (September, 1955), discusses various phases of the current work on the scrolls to which more than one hundred books or monographs have been so far devoted. Only last year, however, the initial cache of scrolls was re-united by the purchase by the Hebrew University of Jerusalem of those that had been for long on the market in America. In the same year discoveries, though few, were continuing by the excavation of a further four caves near the Khirbet Qumrân. This year has seen the unrolling of a scroll containing the text, with commentary or expansion, of part of Genesis, previously thought to have been the book of Lamech. In this survey it is possible to give only a brief summary of some of the finds and not to enter far into the discussions on their contents which will continue for many decades.

About 400 individual manuscripts have been identified among the fragmentary finds at Qumrân and of these the majority are from Cave

¹ E. F. Weidner, *Mélanges Syriens offerts à M. René Dussaud*, II, pp. 923–35.

Four, of which Professor Cross has given an introductory report.¹ From this it is clear that after three years' work 330 manuscripts have been identified of which ninety are Biblical and represent all the books of the Hebrew Canon except Esther. Of these forty-seven columns of 1 and 2 Samuel are the best preserved. The text is unusual and reflects the Alexandrian Septuagint. Where passages in Samuel and Chronicles overlap this manuscript is closer to the text of Samuel used in the Chronicles than to the traditional text of Samuel. The most popular books from the Essene scriptorium and its neighbouring depositories, as preserved in Cave Four are Deuteronomy (13 MSS.), Isaiah (12) and the Psalms (10), which books are the most frequently quoted in the New Testament from the Old. "We cannot avoid the conclusion," writes Dr. Cross, "that in the historical books the Septuagint translators faithfully and literally reproduced the Hebrew text in their hands. This does not mean that the Septuagint presents a text which is superior to the Massoretic text, though this is not infrequently the case. It simply means that the LXX accurately reflects the Hebrew textual tradition at home in Egypt, and perhaps in Palestine, in the second century B.C. The new manuscripts of the historical books are thus not only valuable textual witnesses in themselves; they reconstitute the LXX in these books as a textual authority, and give us the means to control its evidence." The texts also show the three major textual traditions current at Qumrân for the Pentateuch, some showing a close affinity to the Massoretic text, others to the long neglected Old Samaritan recension and others to the Alexandrian Septuagint. The text of Isaiah appears to have been stabilized in the main earlier. It is certain that the Qumrân scrolls inaugurate a new and welcome period of Old Testament textual studies.

However, it is not so much the Biblical scrolls as the non-Biblical which have latterly caught the public imagination in their bearing on the rise of Christianity. The idea that Christianity is in a measure based on the teachings of the Essenes, a sect now better known from these manuscripts, is largely the result of the studies of Dupont-Sommer,² which have been popularized by a journalist, Edmund Wilson.³ While it is beyond all doubt that the scrolls will be of great importance to New Testament studies, the conclusions now being advocated must be subject to careful study before acceptance. The recent assertions of Allegro and others that the "Teacher of Righteousness", a dominant figure in the Habbakuk commentary (probably dated before 41 B.C.), was Jesus Christ, whose death is recorded in the new texts and other sources, is denied by many scholars including Dupont-Sommer, Rowley and Young.⁴ While the

¹ F. M. Cross, *Bulletin of the American Schools of Oriental Research*, 141 (February, 1956), pp. 9-13.

² English translations:—(1) *The Dead Sea Scrolls, A Preliminary Survey* (1952). (2) *The Jewish Sect of Qumran and the Essenes, New Studies on the Dead Sea Scrolls* (1954).

³ *The Scrolls from the Dead Sea* (1955).

⁴ E.g., E. J. Young, "The Teacher of Righteousness and Jesus Christ," *Westminster Theological Journal*, 18 (May, 1956), pp. 121-45.

scrolls may reveal certain ideas and practices which may have some formal resemblance to Christianity it is not a necessary conclusion that Christianity is merely a result or development of the teaching of the scrolls. There may have been claimants to Messiahship who sought to follow the Old Testament pattern, but the profound differences between the Master shown in the scrolls and Jesus Christ Himself must not be ignored. As with so many archaeological discoveries this seems to illustrate the danger of premature speculation before the complete results have been published. For the Dead Sea scrolls this is not likely to be for some years and there are indications that additional material may soon be expected.¹

This brief summary will have been all too inadequate but may have helped to show the nature and scope of the new evidence brought forward by recent discoveries in the realm of Biblical archaeology, taking this (as I feel it should always be) in its broadest sense. When it is realized that this is the work of but a few men over a few years, the quick pace of progress in knowledge which illustrates and, in a smaller way, directly relates to the Bible will be appreciated.

In closing this Annual Address I can but express the hope that the Victoria Institute by its inquiries and papers may continue to ensure that Biblical archaeology shall be granted its rightful place among other branches of science related to the Bible and that its progressive results be made available to those interested in every branch of learning.

¹ E.g., *The Times*, May 26 and 28, 1.

THE FIGURE OF CHRIST IN JUNGIAN PSYCHOLOGY

By REV. ERASTUS EVANS, M.A.

DISCUSSION

THE CHAIRMAN (DR. ERNEST WHITE) said: Mr. Evans is an old friend of mine, and it is a great pleasure to take the chair for him, and to listen to his address. He has been a student of Jungian Psychology for many years, and has published several papers on the subject.

In estimating the value of Mr. Evans's paper, we need to take into account the strange realm which Jung's psychology explores. He is dealing with the images or archetypes which he has discovered in the unconscious in the course of his analytical work, and not with historic facts. Just as men's bodies conform to ancestral type, following the laws of inheritance, so the mind inherits a tendency to produce certain basic images possessing emotional content. These images occur in dreams, and Jung has shown that they occur also in myths, and to them he has given the name of archetypes. He postulates a personal unconscious which contains the repressed experiences of the individual, and a collective unconscious which contains inherited tendencies common to mankind. The archetypes are to be discerned in the collective unconscious, and amongst them is the Saviour archetype with which Mr. Evans's paper is concerned.

The problem is to decide how far Jesus of the Gospels was an expression in history of the archetypal Christ image, and thus fulfilled the unconscious archetype. Conversely, how far was the Person of Christ as portrayed in the Gospels coloured by the unconscious Christ image of those who wrote the Gospels?

Other important questions which Mr. Evans raises are: did Christ Himself cope with the problem of good and evil in human nature, and to what extent did He exhibit the dark side, the shadow self, which is, according to Jung, an essential part of every human being? These are very difficult and profound questions to discuss.

At more than one point I strongly disagree with Mr. Evans. I cannot accept his statement that we must reject the historicity of parts of the New Testament records—e.g. the Virgin Birth. I am not a theological expert, and it might be said that I should accept the findings of modern scholarship. The difficulty is that the theories of Biblical students are in a state of flux. A commentary published just after the first World War under the editorship of Dr. A. S. Peake made many statements denying the historical accuracy of some Old Testament records. Recent archaeological discoveries have confirmed the truth of many of the Old Testament stories which the scholars once declared to be untrue. Many higher critical theories have been discarded,

and there is no obligation laid upon us to accept the opinion of modern scholars where they deny the truth of any part of the Gospel narratives.

Jung himself rejected the Protestant tradition in which he was nurtured, and I believe I am right in saying that he has not found a satisfactory answer to his own religious problems. May it not be that as a result of dwelling so long in the strange and fantastic world of the unconscious, his own vision of Christian truth is somewhat obscured?

It must ever be borne in mind that neither Jung nor any other psychologist, however brilliant he may be in his own sphere, has authority to write about religious truth. On the other hand, the mind should be kept open to receive and assimilate any positive enrichment which may be contributed to religion by the findings of those engaged in psychological research.

MR. R. MACGREGOR said: I believe the Bible is all true, historically and scientifically. "God is light, and in Him is no darkness at all." Christ is God—God the Son—and what He said is absolutely good and absolutely true. When He said that children would be against fathers and fathers against children, it was because, when people are living in a bad way and one becomes good, the others are upset and oppose, since darkness and light are opposed. What people need is a Saviour from sin, and not to have a gospel planned according to their own ideas.

MR. E. W. CRABB said: The author of this attempt to constrict the Christian faith into the narrow framework of Jungian psychology comments on p. 5 of his paper: "The scholarly controversy has its origin in something of which every padre is aware, namely the great gulf that is fixed between the thought-world of the New Testament and that of the average conscript." In general it might be said that the thought-world of the paper under discussion is more foreign to modern man than the thought-world of the New Testament. The conflict is rather in the mind of the student of Jung's psychology who is seeking to equate his Christian Faith with a system which allows little place for divine intervention in human life. The implications of the Christian faith, when presented in New Testament terms, are clear enough to the man of to-day. They are so clear, indeed, that he is unwilling to allow them to hold sway in his daily life. The evangelical message is as clearly understood to-day as it ever was, and as in every age, arouses a reaction which is positive or negative. Men understand the implications but do not wish to implement them.

The author of the paper does not distinguish clearly between his own views and his quotations from Jung and others, so that it becomes difficult to know when he gives his own view and when he is making a précis of Jung's comment. The remark on p. 6, although apparently from Jung, is allowed to pass without correction. I refer to lines 4-6, in particular to the statement: "nobody feels that he has been redeemed". I can only comment on this that the author of the remark has not obeyed the first principle of research and has not submitted

his theory to the test of observation. Very large numbers of people will bear witness to the fact that they both feel that they are redeemed and that they know that experience as the deepest reality of their lives.

The theological confusion revealed by the remark on p. 7 should be mentioned at this point. The author states: "It might have been very reassuring to Christians who took the Jungian psychology seriously, if Jung had identified the figure of Christ with the Self." The Christian faith states that Christ is in the life of the believer when a man becomes "a new creature in Christ". Attention should be drawn to the author's attitude to and dismissal of many Christian beliefs in his sweeping statements: "There is a hard historical core somewhere although it may be wrapped about with mythology and legend. . . ." The author obviously finds similar difficulty to the liberal theologians he mentions on p. 8 in bringing his theory into any approximation to historic Christianity.

On p. 8 again, the author's attitude to prophecy is clearly revealed by the three theories he mentions in explanation of Isaiah 53. His comment that this "is not simply something that rose from the prophet's unconscious" has no place for the work of the Holy Spirit either in inspiration or in the prophet's soul. The remark on p. 10, "I do not think that Christianity has ever claimed that all that is in the soul is of Christ," indicates the difficulty he has in his theory of approximation to Jung, who is quoted earlier as "stressing that the human nature is really Christ nature." Later, however, in the same paragraph, the conclusion is reached: "Jung's decision [is] that the Self is not to be identified with Christ. . . ." The author's inconsistencies increase when he seeks to show the "dark side" of the Christ figure by reference to the historical Jesus. His use of words in this section would in themselves make an interesting psychological study. The words "incalculability", "incendiary and a wrecker", "fierceness beyond all computation", "another side to the God of the O.T. which was really the devil", in reference to God, are worth noting. The comment on p. 13, that Jesus "was prepared to find good in evil" may not be intended to mean what it says, but as the further discussion does not clarify the intention, it might be well to note that many would prefer to believe that "He came to seek and save that which was lost", and to redeem out of evil.

It is with a sense of melancholy that one surveys such a paper as this, of which perhaps the most positive section is to be found in pp. 14 and 15, for when we reach the end we are faced with the strange and unexplained paradox for the New Testament scholars (p. 15) that the Jesus whom they present to the men of to-day has no power over their lives and cannot command their allegiance. The peroration, especially the first two paragraphs of p. 16, indicating the perplexity in the mind of the author, and the concluding sentences, with their introduction of an entirely new conception at variance with the historic Christian faith, do little to bridge the alleged gulf between the thought world of the New Testament and the modern man. One fails to see any clarity in the closing section: "It was when Christ experienced the

depth of human abandonment that God really entered the human situation. . . . Unless there can be an incarnation in the midst of this questionableness, then there can be no real incarnation." One might be forgiven for detecting in such phrases the author's own longing for the noble clarity of the New Testament statement: "God was in Christ reconciling the world to Himself." Such a sentence as this needs explanation, but it is capable of explanation by reference to the Jesus Christ presented in the Christian Gospel. The closing of the paper under discussion refuses to yield such an explanation, whilst the thesis of the whole paper fails to convince that along these lines we have an answer to the presentation of the Christian faith to the present generation whose need will be met only by "Jesus Christ, the same yesterday, to-day and forever."

MR. E. J. G. TITTERINGTON said: I find myself in the same dilemma as Mr. Crabb, in that I am not always sure whether Mr. Evans is giving his own opinions or merely paraphrasing Jung. So if in the following remarks I have done an injustice to Mr. Evans, I hope he will accept my apology.

I find it difficult, not to say impossible, to recognize in the Christ presented to us in this paper the Christ who is the Son of the living God—either the Christ of history, or the Christ of experience. My whole feeling is, "They have taken away my Lord, and I know not where they have laid Him." A Christ who is a "partial symbol of the Self", however the Self is defined, is not Christ. Further, the Self is depicted in Scripture as in antagonism to God, and needing to be crucified with Christ. "The carnal mind" (which is at least a part of the Self) "is at enmity against God; for it is not subject to the law of God, neither indeed can be. So then they that are in the flesh cannot please God" (Rom. 8: 7, 8). I recognize that in Jungian psychology the Self has a special meaning, but I do not think this affects these remarks.

Then, as to what Mr. Evans calls the "dark side" of God, surely this is but the expression of His holiness and righteousness, and belongs to His essential glory. It only appears to us to be dark because of the blindness caused by sin. "In Him is no darkness at all."

Neither can I agree that God is incalculable in His actions (p. 10), if by that is meant that He is arbitrary. God always acts in accordance with principle, though His actions may sometimes appear incalculable to us.

I feel I must protest particularly against the statement on p. 13 that "the God of the Old Testament was really the devil," as well as the statement on p. 16 about the "legendary parts of the New Testament," the denial of the Virgin Birth, and the implication contained in the reference on p. 7 to "the growth of the figure of Jesus into the Christ figure", who according to the Scriptures was the Christ from all eternity.

There is much more of the same kind, which does not seem necessary to Mr. Evans's main argument, and can only cause pain to any evangelical believer.

WRITTEN COMMUNICATIONS

THE REV. J. STAFFORD WRIGHT wrote: Mr. Evans has drawn a contrast between the "light" aspect of God and its opposite, which is seen chiefly in acts of punishment. He has thus produced an antithesis that is false to the Biblical conception. When God punishes sin, the Bible never regards Him as acting "darkly". Such punishment arises because the Light of God is acting upon the darkness of sin that exists outside of Him. This comes out clearly in the Johannine writings.

It seems to me that Mr. Evans has not really faced the issue with Jung's idea of the shadow. Jung regards evil as a positive thing, and not simply a *privatio boni*. Mr. Evans avoids saying directly that there was positive evil in Jesus Christ. His final sentence on p. 13 is restrained, but if it stops short of attributing positive evil to Jesus Christ, it would have little relevance to the Jungian ideas. The perfect God-Man of orthodox Christian belief equally "was aware of the soul of goodness in some things which were regarded as evil. . . ."

The dilemma for Christianity at the foot of p. 7 and p. 9 perhaps exists only because the teaching of Christianity is not clearly seen. The Christian avoids speaking of Christ in every man, even though archetypal pictures of a Saviour may arise in any man's psyche. The indwelling of Christ begins with the Holy Spirit's work of regeneration. Jesus Christ comes in to be the wholly light centre of the new life. Unregenerate man is not as bad as he can possibly be (i.e. wholly shadow), but his capacities, which should have been surrendered to God, have been centred in self-determination, and now have to be re-centred in the light. The shadow must be admitted—not suppressed or repressed—but insofar as the shadow involves "the flesh" and "sin that dwelleth in me", it is not of God, who is wholly light.

I differ from Mr. Evans over several things that he says about myth. In my paper for December 12th¹ (written before I had seen this paper) I have disputed much that is here taken for granted. But I would here protest against the cavalier dismissal of the historicity of the Virgin Birth, and the citation of pagan parallels, such as the Buddha and Augustus. The Buddha was born about 560 B.C. After 300 B.C. there was a story current about his mother's dream of a white elephant that entered into her when her son was conceived, but the white elephant is the Buddha himself (or, more technically, the *gandhabba* necessary for any child's birth), and human paternity is assumed. The virgin birth of the Buddha does not appear until well into the Christian era. Augustus and other heroes belong to the traditions in which the gods become lovers of earthly women, and these traditions do not afford a parallel to the Biblical story.

DR. R. E. D. CLARK wrote: Mr. Evans has given us a brilliant and stimulating paper and we must not allow his evident acceptance of much of

¹ See pp. 18 ff.

“modernist” teaching to blind us to what he has to say. His closing section on the meaning of following Christ in our day would seem to be especially valuable.

Mr. Evans’s choice of words, however, is surely at times a little unfortunate and liable to create or at least to intensify difficulties. Is he right in speaking of the “incalculability of God” (pp. 10 f.)? The point is simply that man’s thoughts are not God’s thoughts: it is the sinner, not the saint, who finds God incalculable. To speak of the apocalyptic God as “an incendiary and a wrecker” is to overlook the object of apocalyptic—to prepare the kingdoms of this world to become the kingdom of God’s Son. A new building cannot begin till the old is done away. The words Mr. Evans chooses suggest destruction *for its own sake*, but this is very far from the Biblical sense. Again, on p. 12 he writes: “There are expressions which imply a God of cruelty”—but is not the right word here *judgment* rather than *cruelty*? Cruelty implies a distortion of the moral faculties which we do not ascribe to God.

The words Mr. Evans uses seem only to have meaning as between equals—or approximate equals. The man who uses a disinfectant to kill flies is not necessarily cruel or incalculable, nor do we call him an incendiary and a wrecker. And if man, by his failure to rise above the beasts in his affections and understandings, is ultimately destroyed by the God who desired to raise him to a new level, it is surely meaningless to speak of God’s cruelty or “lack of sympathetic imagination”.

These points do not, of course, affect Mr. Evans’s main argument for which we must all feel deeply grateful to him. For most of us Jung is a difficult and involved writer and a summary and criticism of his teaching on this important theme is a valuable addition to our *Transactions*.

PROFESSOR F. F. BRUCE wrote: From my point of view, the chief interest in a study of this kind is the question of its bearing on Biblical history and interpretation. Many of the correlations between Jung’s archetypes and the picture-language of the Bible are suggestive, but it does not seem to me that anything in Jung’s approach provides us with a valid criterion for passing judgment on the Biblical record or on Christian belief. For instance, Jung’s *Answer to Job* is a fascinating work, but I do not find much of real interpretative worth in it that Dr. Campbell Morgan did not give us many years ago in *The Answers of Jesus to Job*.

The term “mythology” calls for more careful definition. It is not clear that Jung and Bultmann mean the same thing by the word, and neither of them gives it the meaning which it receives from the “myth and ritual” school. Again, I should have liked some indication of the grounds on which mythology and legend are distinguished from history in the New Testament record. Is it, for example, the part played by angels that gives the first two chapters of Luke the character of “legend” (p. 16) as contrasted with, say, the first twenty verses of the third chapter? Luke, to be sure, casts much of

his nativity narrative into the literary form in which birth annunciations are recorded in the Old Testament, but the events which the narrative relates were ascertained, he claims, by careful inquiry. The literary setting of the account of our Lord's virginal conception differs so much from that of the other birth stories which Mr. Evans mentions as parallels that we cannot set them side by side without more ado. "Any sincere historical method which is trying to find out what fact there is behind the New Testament" would take into consideration the date, authorship, sources and general credibility of the documents which relate the birth stories.

Many of the "shadow" aspects of New Testament Christology, as Mr. Evans describes them, have been the subject of special study in recent years, and some of the problems to which he draws attention—very real problems to Christian readers of the Bible—have received satisfying solutions. This is so, for example, with regard to our Lord's parables (including the "hard saying" of Mark 4: 11 f.) when we read them under the wise guidance of Professor Jeremias, or with regard to Christian apocalyptic, when we realize how the old symbols and terminology have had their meaning transmuted by Christ, so that they now set forth the triumph, not of the military leader of popular expectation, but of the Suffering Servant. The Book of the Revelation, for example, retains the old imagery, but its picture of the Son of God going forth to war finds its true interpretation in the gospel as much as does the language used in a Salvation Army prayer meeting before an evangelistic effort, when one may hear a man with a military uniform and title praying fervently that "the slain of the Lord" may be many. My own understanding of the passages where Jesus speaks of His *parousia* differs from Dr. Glasson's, but I deprecate the implication that in his thesis he is "blinking" or "trying to dodge" the plain sense of these passages (p. 15, foot). Mr. Evans and I may surely differ in our respective ways from Dr. Glasson while agreeing that he is as much concerned to get at the unprejudiced truth of the matter as we are.

On the ability of conscripts to grasp the meaning of Christianity, an interesting comment is provided by the account I heard the other day from the Director of Religious Instruction in a large Training College. Of the students who train there as teachers, all (with the exception of two or three a year, who "opt out") take his subject, and his testimony is that of all these it is men who have done their National Service who show themselves best able to grasp and grapple with the issues involved in the whole business of teaching Christianity. My own experience, in a University Department of Biblical Studies, tallies with his; and this superior ability to understand the heart of Biblical religion was especially marked seven to ten years ago in men who had seen active service during the second world war. I do not at all mean to contradict what Mr. Evans says on this point, of course (p. 5); not only every padre but many another teacher is all too well aware of this serious problem of communication. But the fact that a man has done military service does not, in my experience, make the communication more difficult; for some men

at least it provides an experience of life and maturity of character which help to make the Christian message more intelligible, and keeps them from stumbling at that irreducible *skandalon* without which Christianity would cease to be Christianity.

It would not be very helpful if I were to go through Mr. Evans's paper, picking out this or that Biblical reference for critical comment. For one thing, it would not always be clear to me whether I was criticizing Professor Jung or Mr. Evans; for another, I should no doubt appear time after time to Mr. Evans to be missing the point he was endeavouring to make! He has emphasized rightly the historical character of the Christian religion (p. 7). But when he says that "for the modern man no claim of supernatural religion will invalidate the necessity for historical inquiry" (p. 3), he brings us hard up against the fact that modern man, by and large, has very little historical imagination and very little idea of what historical inquiry involves. Professor A. Victor Murray has recently made some acute observations on the "psychological problem" of understanding history, which "is intensified in our generation by the domination of science" (*Teaching the Bible*, pp. 46 f.). But the student of the Bible and of Christian origins must ever be aware that God has revealed Himself in history. It is not "in spite of himself" (p. 3) that the modern Protestant Christian recognizes the fact of growth within the New Testament and is prepared to inquire into the origin and validity of the faith he professes, but because he is a true Protestant, ever prepared to test all things and hold fast what is good. But does Jungian psychology help him in this inquiry? Mr. Evans's paper, for all its intense and sometimes provocative interest, has not convinced me that it does.

THE REV. GLYN PROSSER wrote: It seems dangerous to speak too freely of the "dark" side of God, and of Christ, in an attempt to find an equation to the Jungian Self. The logical outcome must be the redemption of God by differentiation.

We cannot emerge to a Jungian God, even from the collective unconscious. The archetypal images are facts, and may require interpretation, but they do not presuppose an objective reality.

The Old Testament examples of the "dark" side of God admit of more cautious treatment. The devil acts by permission of God (e.g. in Job), but although under divine sovereignty, is not represented as identifiable with God. He is Satan—the adversary.

Jesus, as Mr. Evans suggests, comes as the light, to expose and condemn the darkness. He can be conceived of as finally breaking the Old Testament link between God and Satan, by His clearer differentiation. It was the fulness of time.

Apocalyptic remains in the New Testament, as Jesus knew the outcome of this differentiation. The "darker" side of Judaism, as well as the darkness

of the Gentiles, had hitherto been "winked at" but men were now commanded to repent.

This forcing of the issue has made for "world psychosis". "He descended into hell", the hell of the collective unconscious, and arises "with healing in His wings".

DR. R. A. PORTER wrote: The interesting address by the Rev. Erastus Evans demonstrates once more to the Christian student two important facts: (a) that man, unaided, cannot by searching find out man, (b) nor can he, unaided, "by searching find out God".

(It is much regretted that time will not permit a full discussion of the paper, but it is hoped that the following notes may recall some points of evangelical opinion on the questions raised in it.)

Any discussion involving psychology and religion is liable to be unsatisfactory unless agreement can be reached first on such matters as authoritative standards of reference, the exact definitions of terms employed, for example; and the difficulty of doing so on these and kindred matters is bound to appear in the study of this subject.

In psychology the terms used to describe religious phenomena are sometimes employed in an artificial or even misleading manner, and this applies to the suggestion of Jung that the Christ figure is an inadequate symbol of the human totality. Insofar as the Christian faith is concerned, however, the actual Christ of history is the perfect figure of unfallen humanity, and of sinless and victorious human (Christian) totality, yet to be revealed in the purpose of God.

The idea that the historical figure has been surrounded by myth is constantly recurring, and often has arisen from an unscientific treatment of the facts (a) concerning the records themselves, and (b) concerning what they contain.

From the Christian point of view, the idea that there is a "light" aspect apparent in the mental mechanisms of man derives from the facts (a) that he was originally created in the image of God, (b) that the "common grace" of God operates providentially among men, and (c) that His special grace operating through the Christian faith is so widespread. But only where (c) has been experienced can there be any true resemblance to the Christ figure (and this with all due acknowledgement of the "nobility of the heathen")—although this resemblance is as the rush-light to the sun.

To describe the righteousness of God in His dealing with sin as a "dark" side to His "character"—a side which may even be considered reprehensible according to our puny ideas of what God should be like—appears to reveal some distortion of the facts.

The God of the Old Testament is exactly the same God as the loving Father revealed in and through the Lord Jesus Christ. The basis of His teaching was "the Scriptures"—none of which could be "broken". He

repeatedly treated them as being the authoritative Word of the living God. To say, however, that the God revealed in the Old Testament had another side—"which was really the devil"—represents a somewhat facile attempt to account for the origin of "dark" or evil, which ignores much of the teaching of our Lord and the real basic harmony of the two Testaments.

It is perfect "light" and "love" which excises the cancer from the race, whether in the Old Testament or in the New.

And the tragedy is that while some psychologists (and others) recognize the supreme value of the ethic of Christ, they find themselves on the horns of the dilemma: this greatest of all teachers made claims about Himself which demonstrate that He was an "impostor"; or, alternatively, the records are distorted by mythologizing. Each man therefore may take what he likes and leave the rest—and many find that the simplest course is to "scrap the lot" as valueless. Truth cannot ultimately be based on error, nor sound living on myths.

The question as to "whether . . . Jesus had a scientific attitude to evil", and the statement that "in His time there was no scientific attitude to anything", represent a somewhat naive point of view.

Truly in our wonderfully scientific age standards have changed greatly. The wielder of the "cosh" against some inoffensive citizen has only got to declare that "something came over him", or "he didn't realize that he was doing wrong at the time", to find a sympathetic judicial system declaring him "not responsible" for his actions. Logically, it takes the side of the aggressor—he is regarded as one who is "ill", not as one who has committed a "crime".

"Science" represents a "body" of knowledge on any subject, continually growing, changing, always incomplete. It represents the result of the work of experts in each particular field. But while findings vary, and opinions change as new "knowledge" is added to the "body", each generation regards its "body" as "Science", and discarded ideas yield the title to their successors. There are however basic facts which persist in every branch of learning, and in no science is this more demonstrable than in the science of theology, because its basic facts have come from experts—the Christian recognizes that they were divinely instructed—who have never been superseded, or indeed equalled. When the ancient prophet states that "wickedness burneth as the fire", he has uttered a basic fact that will outlast much modern theorizing. Fire probably "behaved" much in the same way in the eighth century B.C. as it does to-day, and wickedness certainly does. Writing as one whose work takes him into various psychiatric fields, I know that the subsequent confessions and behaviour of certain criminals not infrequently show how illogical, or should I say "unscientific", our modern "attitude to evil" is. But to venture to criticize "*The Expert*" certainly savours of presumption.

The practical application of Christianity to people in general has always been one of the great problems of the Church. The ministrations of chaplains

to service personnel may be affected by many factors. That of evangelical chaplains, the work of the Officers' Christian Union (an international organization) and of the Soldiers' and Airmen's Scripture Readers' Association (paralleled by similar work in many countries) demonstrate, however, that the service man or woman can appreciate and accept the facts of Christianity perfectly satisfactorily. (A more surprising fact is that this can also be done by the most illiterate and degraded peoples on earth.) It is not considered "unscientific" that Tommy Atkins may not have the least idea as to what happens in the physico-chemical realm when he pulls the trigger of his weapon, nor of the fascinating psycho-physiological processes that are going on as he scans his newspaper, or enjoys a good meal—but he has the intelligence to benefit by these mysterious occurrences. There is, however, a difference between "mystery" and "myth"; and, for example, his health will suffer (a) if what he eats is not nourishing, or (b) if his digestive system is not functioning properly.

For the message of Christianity to benefit mankind it is not essential that every detail of it, or of its mode of action, should be perfectly understood. Understanding will grow, but will not reach perfection in this life. The message must be humbly and honestly received; and what is of extreme importance is that the recipient should be able to "digest" sufficient of it, to receive the new life in Christ. Here is the crux of the matter—"I thank Thee, O Father, that Thou has hidden these things from the wise and prudent, and hast revealed them unto babes"—"babes"? Yes, "babes"; and the "babe" who is sufficiently humble to find in himself—not some imaginary Christ figure, but the "self" as it really is, sinful, corrupt, something to be "denied", will find an omnipotent arm of grace stretched out to save him, because of the perfect, atoning work accomplished by the Redeemer on the cross.

Moreover, this "babe" will find himself in a school where he can receive the best possible training in scientific psychology as this subject deals with true mental health and the problems of "ethical" behaviour. He has available for him the "Maker's Handbook", and the wonderful privilege of being able to obtain the gracious assistance of the Maker Himself in its study.

But he must follow this Book carefully and prayerfully, if he would know how to keep the "machine" in good running order. He must resist the temptation to say when he finds something contrary to his preconceived ideas, some unacceptable challenge, something he cannot understand for the moment (or perhaps never will): "This must be myth—because I cannot understand, or accept it"—an attitude which no scientist would adopt towards the teaching of a recognized expert.

The saying of the late Prof. Robert Dick Wilson who spent a long life-time investigating the Old Testament (quoting from memory) that "No one knows enough to be able to say that there is anything untrue in the Old Testament" still stands—he was referring of course to its historical reliability, and it applies

equally to the New Testament in spite of attempts to prove the contrary. This is also the only attitude consistent with the teaching of the Christ of the Bible, and, in spite of the vast amount of work that has been done on this question, ultimately (the Christian is confident of this, if the teaching of Christ means anything) it will be demonstrated beyond any doubt that the Bible owes nothing whatever to myth. The living God revealed in it is the Rock on which Christianity rests, and from the hearts of millions of Christians of all grades of intelligence there arise the ancient confessions: "I esteem all Thy precepts concerning all things to be right—Thy Word is very pure: therefore Thy servant loveth it."

MR. H. V. GOULD wrote: At the bottom of p. 15, Mr. Evans says of Christ: "He lived, for example, in an unscientific world. In particular His expectation that the world was coming to an end has not been justified . . ." In plain speech—from the author's viewpoint—Christ was an intellectual fool, and God was also a fool to send His Son into the world unequipped for the task before Him!

Nowhere in the Gospels does Christ say that the *world* was coming to an end; what He does say is "*sky*" and "*ground*" shall pass away. But, like all the other modern scholars, Mr. Evans has forgotten that He also said: "*My words are spiritual, and living, and shall never pass away,*" which means that their primary application is to spiritual things—not to material things. Does Mr. Evans know what the "*sky*" and the "*ground*" really are? I fear not; and I will not here try to enlighten him. He seems to suppose, like the vast majority of scholars to-day, that Christ taught that His return to earth would be soon. He did not. When some of his disciples asked Him, after the Resurrection, when His final triumph would be (Acts 1: 6), He refused to tell them; for they could not then have borne to know it would be after millennia of time. Nevertheless, what He could not tell them openly He did tell in parabolical form (Matt. 24: 45–25: 30). The bad servant says: "My master is a *long time* coming." "The bridegroom was *late in coming.*" "After a *long time* the master of those servants returned." If this is not plain speaking, I do not know what is. People who do not believe in the Second Coming do not believe that Christ spoke the truth, and thus do not really believe in Him at all. They had far better face the fact. Perhaps they suppose that the writers of the Gospels were fools or liars; if so, let them burn their Bibles, and have done with it.

Pages 11–13 of Mr. Evans's paper are all full of the notion that while Christ taught love and sympathy as the duty of men, He also taught vindictive cruelty as the character of God. All this is sheer sentimentality. Can real love and real truth have any slightest trace of sympathy with wickedness, hatred and lies? Is not the whole business of love to sweep away, destroy, burn all evil, of every sort? Mr. Evans reminds me of nothing so much as our modern heathen magistrates who, when a boy is brought before them who from

utter waywardness has killed a fellow, tell him to go home and forget all about it, as soon as ever he can!—in line, indeed, with modern intellectual teaching! Wickedness, and carelessness of other peoples' rights, are to be condoned, on every hand; the feelings of the offender must on no account be hurt, nor his freedom to repeat the offence be in any way curbed! Love must not raise a hand in rebuke of wickedness—lest wickedness take offence! When people hold to such ideas I have long ago found it is impossible to get them to see the real truth—that true love is at war with evil to the knife, and never will rest from *destroying* evil so long as any spark of it remains. How wonderfully true are Christ's words in this application: "Truly you show that you allow the deeds of your ancestors, for while they murdered the prophets, you decorate their tombs!" What was wrong in decorating the tombs of the prophets? I suggest that Mr. Evans would do well to discover what it was; it might help him better to understand all the other wise sayings of the Son of God.

MISS MARY COSTON wrote: Man needs only to look at Christ to find Him the reality and image of the person he secretly tries to be. He need not look farther for an explanation of himself. If he cannot see himself as he really is and be at peace with the Lord, then he cannot ever know himself intelligently.

AUTHOR'S REPLY

Alas, this paper of mine as it was first written was too long for the accepted format and had to be reduced while it was in galley proof, and the difficulty of readers who were uncertain as to when I was speaking myself, and when I was expounding Jung's ideas, is one with which I have much sympathy. That I was moving in a strange and bizarre world was only too clear. Dr. White and Professor Bruce show some sympathy with this, but seeing that I was dealing with what Jung claims to have found in the Unconscious, it could not be otherwise. My chief offence, as far as some critics are concerned, is that I have taken Jung seriously, but seeing that this is a philosophical society this is the only way in which he could be taken. Jung's work calls for an examination and an assessment, and not merely for a Christian rebuke. It is permeating more and more into religious and philosophical thinking. For some Christians this is only to be deprecated, but the fact remains, and it calls for an assessment and an answer. Jung criticizes the Christian idea of Revelation. For him it is tied to what he calls the "Light" side of the human psyche. For him to describe God merely as love, Christ merely as goodness, creates an impossible situation in which all the rebellious elements in men's psyche, and in the world, are left unexplained and suppressed and therefore uncontrolled and dangerous, so that man topples into the pit he is so anxious to avoid, because he refuses to acknowledge its presence. That may be a disastrous oversimplification from the standpoint of Christian theology, but it still

remains that this is his criticism of Christian Revelation. It boils down, as it were, to a philosophical and psychological elaboration of the thesis that "Gentle Jesus, meek and mild" is not an adequate description of the Saviour that is needed. Put in this way, a vast number of Christians and theologians would agree, although the psychology on which this criticism is founded looks bizarre to them, since they are not familiar with the unconscious world it describes. My answer to them is simply that an examination of the historical Christian records does not reveal a God or a Christ that are "pure light" in this sense, and this is no more than Christian theology says. If God is love, He is also wrath, and wrath because He is love; the same God who is described as love in the New Testament, is also described as "consuming fire". The same Jesus who is the incarnation of love to the believer was anything but love to the Pharisees who had Him crucified. Therefore the Christian Revelation is much more ambivalent than Jung makes out, at least in his printed work, although privately he might come much nearer to this, as far as the historical Jesus is concerned. The conventional picture of Christ is altogether too sweet. There are plenty of Christians who would agree, and there is no need to panic that the whole Christian edifice is toppling because somebody naively says that this is so.

Dr. White has the core of the matter when he says: "The problem is to decide how far Jesus of the Gospels was an expression of the Archetypal Christ Image, and thus fulfilled the unconscious Archetype. Conversely, how far was the Person of Christ as portrayed in the Gospels coloured by the unconscious Christ Image of those who wrote the Gospels?"

I would say that the Historical Jesus is certainly *not* to be equated with the unconscious Archetypal Image of the Saviour. The whole point about Jesus, as I see Him, is that while He was a fulfilment of man's Unconscious Image, He was also a radical criticism of it. In the temptations in the wilderness, for example, we see the unconscious Saviour, image of the time, the Turner of Stones into Bread, the Military Hero, the One who could not be hurt whatever he did, but Jesus rejected such fantasies and chose the way of the Cross. The Archetypal Image wanders through history, as Tillich says somewhere, like a question looking for an answer. Jesus is the Answer, but He is a surprising answer.

With regard to the second part of Dr. White's problem—How far was the person of Christ as portrayed in the Gospels coloured by the Unconscious Christ Image?—I would answer, "Very much," and legitimately so. Men could only comprehend Christ in terms of their own needs and hopes, and the unique significance of Jesus for men can only be stated in mythological terms, as it passes beyond anything rational knowledge could reach. I think that mythology is inherent in man, and if Bultmann means by "demythologizing" the eradication of mythology from the New Testament, I am sure that this cannot be done without mutilating what we have learned of Christ's significance through mythology. I doubt however that Bultmann quite means this.

As to the problem of the good and evil elements in man and the world, and the "dark side", they are, as he says, "profound and difficult". Nobody should know better than he, a practising psychotherapist, just how profound and difficult they are! But they should not be suppressed. Jung wants to force them to the surface, and in this desire I think he is right.

I think Prof. Bruce and myself would find much in common could we but meet face to face. I would agree with him that Bultmann and Jung do not mean the same thing by mythology. Bultmann is concerned with mythology as an outworn interpretation of the world that has been superseded by the scientific view of the Universe; Jung is concerned with mythology as an essential expression of the depths of human nature and desire. Strange as Jung's significance of mythology may seem to the psychologically uninitiated, it is much more serious and potentially fruitful than Bultmann's.

As to the matter of the Virgin Birth, I think the situation more complicated than Prof. Bruce wishes to assume. I do not think Luke's careful inquiry means more than that he collected the traditions about Jesus, which no doubt he honestly did. But what is the point of tracing Jesus's ancestry through Joseph to Adam, if Joseph were not Jesus's father? The story of the young Jesus in the temple is unintelligible, if Jesus knew that He was divinely conceived and Mary knew it too. Why did she not understand when Jesus said He must be in His Father's house? The story does not assume a virgin birth. The witness of the traditions that Luke collected varies in the various stories with regard to the Virgin Birth and I am sure that the matter is much more complicated than Prof. Bruce assumes.

I was grateful for Dr. Clark's kind words. Nevertheless the pain and trouble in this world are not covered by the metaphor that God uses, as it were, a disinfectant to kill flies, when the flies happen to be human beings. This is a poor defence of God, against which a seemingly atheistical protest is justified. The question of the "dark side" cannot be so lightly dismissed.

I am grateful for Mr. Crabb's frankness. He will forgive my saying that I do not feel that he has understood what I am about. I am sorry that I hurt Mr. Titterton, and that he thinks what I said will cause pain to an evangelical believer. To tell the truth I thought I was addressing Christians who were also philosophers and who would not panic whatever strange realm they were asked to enter. I can merely say that I am a Christian believer, however unworthy, but I do not think that philosophical, theological, and psychological difficulties can be quelled by my merely asserting this. I must make an attempt to understand and meet them.

THE PLACE OF MYTH IN THE INTERPRETATION OF THE BIBLE

By REV. J. STAFFORD WRIGHT, M.A.

DISCUSSION

THE CHAIRMAN (REV. PHILIP E. HUGHES, M.A., B.D.) said: On your behalf I would thank Mr. Stafford Wright for the characteristically lucid, stimulating, and fascinating lead that he has given us this evening. He has covered a good deal of ground, and he has given us a lot to think about, and has stressed important points for us to discuss together to-night.

There are one or two things I would like to say as Chairman before the discussion is opened.

First of all, I think it is obvious, from what we have heard to-night, and from our own knowledge of the subject, that this word "myth" is used in a great variety of ways: therefore it is important that we should define our terms when we use the word; or, when dealing with anyone else, we must insist that they, too, must define it: otherwise, we shall find that we are talking at cross purposes. Bultmann himself is not always consistent in his use of the word "myth". Mr. Stafford Wright, for example, has referred to the concept of myth as having dynamic power, something which is vital. And yet at the other extreme, so to speak, we have the idea of myth, as being anything but vital. It is said to have a clogging effect, and must be got rid of; we must remove that which is not essential. And when we have demythologized the text, we can get on with that which really has vitalizing power: the message, or the proclamation. A simple illustration like that helps to reveal to us the very real difficulties, the lack of clarity, in so much of what has been said and written on this subject. I think it helps to show us, indeed, that many people who are writing and speaking about this subject are really groping about, not knowing exactly what they are dealing with. Because of that I feel that Mr. Stafford Wright's conclusion is a very valuable one: namely, that myth is a subjective term, and also that it is wise for us to use it as little as possible in interpreting the Bible.

Other important factors have been brought before us this evening. There is the question of our attitude to the text of Holy Scripture. We find in general that theologians to-day who have a lot to say in favour of demythologization also find themselves able to play fast and loose with the text of Scripture. We need to look into this matter very carefully, because when those of us who have maintained the conservative view of Scripture find ourselves up against this sort of thing we must investigate the matter and endeavour to see precisely what is involved and what is at stake. If you study, for instance, Bultmann's *Theology of the New Testament* (which is now available in an English translation), you will find that his position in regard to textual

criticism is an extremely radical one. He not only dismisses verses in different books of the New Testament just because they do not fit in with his particular point of view, but he is also prepared to go much further and dismiss whole books of the New Testament, which our best New Testament scholars have vindicated as being genuine apostolic writings. Books like Colossians and Ephesians and the Pastoral Epistles he just dismisses with a wave of his hand as being "deutero-Pauline", and not genuine, assuring us that they represent a later watered-down type of Christianity.

There is not only the question of the text of Scripture; but there is also the question of historical criticism. It is also true to say that men like Bultmann confess themselves to be in the tradition of what is called the "History of Religions school", which maintains that Christianity may be said to have received and been shaped by contributions from other religions—the mystery religions, Gnosticism, Judaism, and so on. If that is so, it is, indeed, a very odd sort of compost, and it is very necessary that a good deal of the rubbish should be cleared away, particularly in connection with history.

There are other points to which the speaker has drawn our attention, particularly in the closing part of his address. What, for instance, we have always regarded as the great historic foundations of our faith—the pre-existence of Christ as the eternal Son of God, the miraculous birth of Christ, His atoning death, His miraculous resurrection from the dead, His ascension into Heaven: these are certainly treated in Scripture as historical facts, which are the basis of our Christian faith and living. And yet there are those who are quite prepared to dispense with these things, these historical facts, because, they say, they are really irrelevant: it does not matter whether they really happened or not. Others even say that they are a definite hindrance to us; that the important thing is to get to the kernel, the idea behind them. It is, we are told, existential relevance of these things which is the important thing in our present twentieth-century life. Now I feel we must assert very definitely and emphatically that Evangelicals throughout the ages have been pre-eminently existential in their proclamation of the Gospel, with all the implications of the New Testament presentation of it; and the effect of that proclamation in the lives of men and women has been found to meet the needs and circumstances of men and women in every age. The New Testament presentation does not need to be demythologized in order to be meaningful and significant for the people of any age and any circumstance. And that is still true to-day. It is found, therefore, that in the evangelical presentation of the Gospel, the true preaching of the Gospel as the message for man in his plight as a sinner, the impact on man is definitely and palpably existential. It meets man in his contemporary, human situation, and it enables him to find his true existence, which is his existence in God. I am quite convinced myself that we cannot have a set of ideas and ideals, no matter how true and valuable they may be, if they are divorced from their historical foundations; they of themselves will never save men; they can have no real transforming

impact on their lives; they can never meet their deepest spiritual needs.

And so once again I would thank Mr. Stafford Wright very heartily indeed for the very excellent address which he has given us.

MAJOR C. W. HUME said: Mr. Wright has rendered a great service by putting the word "myth" on the spot. It is defined in the *Oxford English Dictionary* as meaning "a purely fictitious narrative . . ." and that is what it does mean in modern English usage and in the minds of all ordinary people. If Captain A. says that Captain B., who was junior to him, has "passed over his head" he is using a metaphor. If you say "Oh, that is a myth", you mean that it is untrue, that Captain B. has not in fact been promoted. When we say in the creed that Jesus Christ "came down from heaven" we are using a metaphor; to call it a myth would be to say that in fact He was a man and nothing more. Such a myth could have no religious or spiritual value unless, perhaps, through association with the abandoned belief as a result of habitual reaction to the words used.

As regards the three-storeyed universe, may we not suppose that the early Christians really believed in it, more or less, and at the same time believed in the omnipresence of God as set forth in Psalm 139? These two beliefs are incompatible, but in religion, no less than in science, we often have to accept a paradox as a provisional solution of a problem whose final solution has not yet been found. Only rationalists, who are injurious to science as well as religion, demand premature logical consistency. Whatever the phenomena observed at the Ascension were, the observers had to fit them into the cosmology already existing in their own minds, and construe them in terms of it.

All of us are obliged to prop our thoughts on sensory images, even when we are thinking about abstract subjects. Most of us prefer visual images; a smaller number (among whom, I suspect, Bultmann would be found) prefer verbal images. A mathematician dealing with a function of several variables likes to speak of "*n*-dimensional space" even when the variables have nothing to do with space; the analogy of visual space helps to prop up his thinking. Physicists picture an electron as a particle, and a particle has to be visualized as something that has colour, size, shape, position and velocity. An electron cannot possibly have colour, its position and velocity are mutually indeterminate, its size and shape mean nothing. Yet physicists think and speak of electrons almost as if they were observable. I suppose Bultmann would wish to demythologize atomic physics, and if he had done so we should never have had any nuclear explosions, for the greatest discoveries are usually made by the most impenitent visualizers.

The fact is that these visual representations, whether of sub-atomic events or of heaven and earth, are something more than analogies or metaphors. They are notations.

Mr. Wright touches on the difficult question of belief in the devil, which is certainly out of fashion. No doubt this hypothesis was an attempt to take

account of the fact that the will of the Creator is flouted in the world which He has created, and that suffering existed on this planet before man appeared on it, and still exists in parts of the Arctic and the jungle where the blighting hand of man has never struck. What the true solution of this paradox may be is anybody's guess.

I feel dubious, however, about Mr. Wright's gallant attempt to rescue Adam and Eve, for the drawings at Lascaux seem to betoken a modern mentality. Would it not be better to think of that story in the way in which we think of early astronomies such as those of Aristotle and Ptolemy? That is, as an early stage in the process of building up, step by step, a mental picture which gradually comes to conform more closely to external reality by a series of successive approximations?

DR. E. WHITE said: Mr. Stafford Wright has been connected with the Victoria Institute for many years, and those who have known him and heard him expected that happy combination of scholarship and lucid exposition which he has shown in his address delivered this evening.

Myths may be classified under two headings: firstly those which express unconscious wishes, and secondly those which represent the psychic interpretations of natural phenomena in imagery.

As an example of the first we might take the familiar pictures of the fairy godmother. In the lavish gifts she bestows upon the child, she represents the fulfilment of all the rich and fantastic wishes of the child which are beyond the capacity of the real mother to satisfy.

The nature myths, so frequent in Greek mythology, embody the unconscious representation of the natural phenomena such as the seasons, seed-time and harvest, wind and tempest, observed in our outer environment.

The Christian revelation supplies satisfaction for these unconscious formations with their emotional content. The appeal of Christian truth and of the Christian Sacraments lies, not merely in their outward form, but in the response they elicit in the depths of the mind. Christian Baptism, for example, uses the profound symbolism of immersion and emergence from water. In dreams and in myths, water has connection with washing away guilt, with death, and with rebirth.

DR. C. T. COOK said: The difficulty is that the word "myth" means different things to different people. Sometimes the word "parable" would be more appropriate. Can "parable" be equated with some uses of the word "myth"? We cannot use the word "myth" in the pulpit; it is an unfortunate word.

MR. G. W. ROBSON said: What precisely is the relation between the parallel incidents in ancient mythology and the Gospel history? (Toynbee gives a string of parallels between the myths and the incidents of the last week before

the Crucifixion.) It used to be the view that heathendom was demonic-inspired. Are we now to take the view that its anticipations were of divine origin?

WRITTEN COMMUNICATIONS

REV. H. L. ELLISON wrote: While I am grateful to Mr. Stafford Wright for his very interesting paper, I cannot help regretting that he has not given us a sharper definition of "myth". This is a term whose meaning has been progressively narrowed in scholarly use, with the result that there is a very wide cleavage between its scientific and popular use. But even within the scientific field we can confine ourselves to the use of the word by the archaeologist and theologian. This is a purely religious one, and as H. Frankfort so ably points out, true myth is the effort to express the inexpressible. It is fictional in form, or perhaps non-factual and metaphorical, but it is sincerely believed to be a true expression of the underlying fact. In its primitive form its dynamic was aimed less at the hearer than at promoting the proper functioning of the phenomena of nature described in it. All this means that I question Mr. Wright's definition of myth in mainly subjective terms.

A further consequence is that I am far from recognizing as much myth in the Bible as does Mr. Wright. There is much that reminds us of pagan mythology in the poetic sections of the Old Testament (this includes much of the Prophets), but it is clear that we are dealing with dead mythology used presumably as a poetic device. The golden age of mythology long antedates the time of Moses; the bulk of the Old Testament was written in a period when mythology was breaking down and dying. I consider that the greatest scholarly (as opposed to spiritual) weakness in Bultmann's view is that mythology in any clearly definable sense had ceased to have any power or function in those Palestinian circles in which the Primitive Church arose. Davies in his *Paul and Rabbinic Judaism* has shown clearly enough that many Pauline teachings which are confidently ascribed to early Gnostic and Gentile speculation are in fact part of the general corpus of Pharisaic thought and theology.

MR. B. B. KNOPP wrote: The view that the Bible teaches a three-storey universe is to-day almost everywhere prevalent, and Mr. Stafford Wright's brief answer is refreshing. The Biblical writers, where they touch on the nature and shape of the earth and the universe, always give the aspect as it appears to man, and this simple explanation provides the key to all that the Bible has to say on the subject. A defence of the Bible in this context is usually met by an accusation of believing in a flat earth, but my repeated

challenge to be shown where this is taught in Scripture has never been taken up. Few critics seem to have heard of Job 26: 7. The pillars of heaven of verse 11 are no more material than (say) the modern pillars of a state.

Is not much of this three-storey idea due to the unfortunate use in Genesis of the word "firmament" from the *firmamentum* of the Vulgate? This word conveys the impression of something solid and may reflect the ideas of the age of Jerome. But the original Hebrew word simply means "expanse" or "stretched out space". We could scarcely better this in 1955.

With regard to the concept of myth, it is true that in the simple sense of Section V on page 29 the Bible can be said to be full of myth, but since the term is associated in most minds with fiction I agree that it is wise to use it as little as possible in interpreting the Bible. Would it not be wiser to avoid it altogether? And would not Peter be prepared to say that he had not followed cunningly devised myths (see 2 Peter 1: 16)?

Myth in the fictional sense must also be eschewed in dealing with the facts of the New Testament, on which Christianity is founded. Mention of the Ascension prompts the thought that here again the witnesses simply wrote what they saw. If Jesus, in His risen body, left the earth at this time it would not be easy to think of a better way of telling His disciples, and impossible to conceive of His going in any direction but upward in relation to those at the spot. What occurred after the cloud received Him out of their sight, who shall say?

Perhaps the most fundamental of all the New Testament facts is the Resurrection. Paul is quite prepared to stake everything upon it (1 Cor. 15: 14). There is no doubt whatever that the Apostles and early Christians did genuinely believe in the literal Resurrection of our Lord. Paul is constantly asserting it. "Declared to be the Son of God with power by the resurrection from the dead" (Rom. 1: 4). David is dead and saw corruption, but "He whom God raised again saw no corruption" (Acts 13: 37). Nothing could be plainer than that. No one would have thought of any other explanation if it had not been considered necessary to deny the miraculous. Myth is one of the few explanations put forward with this object in view, but it has many times been shown that any of these few possible alternative explanations creates more difficulties than it solves. The Resurrection as recorded in the Gospels is a foundation solid enough to carry the weight of the Christian Church built upon it, but this would not be true of myth nor of any of the other alternatives—hallucination, fraud or that Christ did not truly die. Unbelief itself must somehow account for the fact of the rise of Christianity. It cannot be permitted to rest in negative. Rejection of the Resurrection involves belief or faith in one of the few other possibilities mentioned. But is it not clear that any of these is totally inadequate to account for the turning of the world upside-down (Acts 17: 6)? Such a result from such a cause would be more miraculous than the Resurrection itself. Destroy the Resurrection and we have not even a rational explanation of the march of Christianity.

It is usually considered that a certain amount of time is necessary for the development of myth, but two facts seem to render it certain that the necessary time is not available to the supporters of that theory:

1. The early dates now generally conceded to the main Pauline Epistles and even to the Gospels themselves.
2. The proof from the internal evidence of the Epistles themselves that those to whom the Apostles wrote were already very familiar with the character and record of Jesus as given in the Gospels.

AUTHOR'S REPLY

I am most grateful to the Chairman and to the other contributors for their helpful comments on a difficult theme. On page 19 I put forward the idea of myth in the terms to which Mr. Ellison wishes to confine it, but, while this is acceptable to the archaeologist, it hardly covers its use by theologians such as Kean (pp. 20, 21) and Bultmann, and by Depth Psychology. Dr. White's comments cover this point in a concise manner.

I do not know the reference in Toynbee to which Mr. Robson refers, but the parallels have been noted by Frazer and others, and are summarized by Victor White in *God and the Unconscious* (pp. 215 f.). Mr. Robson poses the question: Are these pagan parallels of God or of the devil? The answer would seem to be: Neither directly, but both indirectly. They represent responses of the human mind, at a deep level, in its feelings after God as the One who alone can meet its needs. The religions that the mind frames for itself are not revelatory in the proper sense, but indicate needs. For salvation man needs union with a dying and rising God. But, since the human mind at every level is warped by sin, it also expresses itself in religious rituals for which there is no fulfilment in the historical Incarnation, Death, and Resurrection of the Lord Jesus Christ, as, for example, in the Baalism denounced by the prophets.

Major Hume's use of the term *notation*, and his comparisons drawn from physics, are most helpful. His remarks about Bultmann as a visualizer provide a suggestion which is worth following up. Has anyone done any investigations into unusual visual abilities since Galton's *Inquiries into Human Faculty* in 1883? Galton's conclusion was that "scientific men, as a class, have feeble powers of visual representation." He is referring here, of course, to the recall of visual images: but he also discusses the way in which some people "see" words, figures, and prayers, either as a structural image or in colours. I have always had this faculty, and did not realize that there was anything unusual about it until I read Galton and questioned other people about it. Has it any relation to the appreciation of myth and symbol?

Major Hume also speaks of the Lascaux paintings as betokening a modern mentality. I did not have the space to pursue this subject, but I wonder whether we may not have to make a distinction between mentality and

spiritual capacity. The whole series of cave paintings, drawings, and sculpture, at Lascaux and elsewhere, indicate probably a sense of kinship with the animal world, in the same sort of sense as a child has kinship with its pets and toys. Probably also there is a kind of sympathetic magic present. But is there religion, in the sense of communion with God? Is that the new thing which Genesis 2 indicates? Perhaps on some future occasion I may be permitted to offer a paper to the Victoria Institute on the evidence for religion in prehistoric times.

I agree with Dr. Cook that sometimes the word *parable* would be more suitable for general use than the word *myth*, but it would not be the equivalent in every case.

SOME MAJOR MODERN TRENDS IN OLD TESTAMENT STUDY

By REV. H. L. ELLISON, B.A., B.D.

The Rev. S. Runsie Craig Memorial, 1956

In accordance with the terms of the Trust the Council have selected for the 1956 Memorial the Paper on "Some Major Modern Trends in Old Testament Study" read before the Institute on 16th January, 1956, by the Rev. H. L. Ellison, B.A., B.D., as being stongly confirmatory of the Christian Faith.

DISCUSSION

THE CHAIRMAN (PROFESSOR W. D. McHARDY) said: I can best describe this lecture as a "meaty" lecture, a lecture as full of meat as a nut, but without the disadvantage of a nut—I mean the hard shell which must be penetrated before one gets at the good things within. There is no hard shell between us and the substance of Mr. Ellison's lecture. The language in which it is presented is in no sense a barrier: it is clear, untechnical and persuasive. I congratulate him on his excellent survey and the Society on its excellent choice.

So much is in the melting-pot these days and there is so much new material that I think Mr. Ellison is very prudent in refusing to act as a prophet about future developments. I was interested to hear him say: "There can be little doubt that increasingly the centre of gravity of Old Testament studies is moving towards its theological side, and here I see the surest promise of its future health". At another point in his lecture Mr. Ellison said: "Theology, whether biblical or dogmatic, presupposes that behind the phenomena which it describes and brings into a system, there is some unifying spirit and goal". One result of the activities of the Higher Critics was the tendency to disregard the unity of the Old Testament. Father Hebert has quoted an observation to the effect that the Bible is now esteemed a fallen oracle. In the present context I should prefer to say that in the eyes of many it appears to be a shattered idol.

The Old Testament on a superficial view is not a unity. It is a collection of the most diverse writings, and it is almost an accident, due mainly to the discovery of the codex form and of printing, that this library can be compressed within the compass of one volume. It contains prose books and books of poetry. There are in it myths, sagas, legends, fables, parables, proverbs, riddles, with history, law, and psalms, songs, oracles, prayers. The variety and diversity indicated by this rough analysis has been brought into new prominence by interest since Gunkel in the study of literary forms in the Bible. Modern scholarship, we say, has emphasized the disunity.

Mr. Ellison has shown that this conclusion emerges even more clearly when one considers the history of the documentary theory of the origin of the Pentateuch. Later scholarship did not rest content with the simple analysis of the Pentateuch into four sources. It is obvious from what Mr. Ellison said that no finality has been reached. Happily we are not called upon here to decide between rival hypotheses, nor even to pass judgment on the underlying assumption that these problems are soluble by documentary analysis. Sufficient for us it is to recognize this one, general, broad result of modern criticism: analysis into documents or sources or strands and a lengthy literary process of compilation, editing and revision has emphasized the disunity, almost the fragmentary nature of the Old Testament.

It might be misleading to omit here a caution that our description of the effects of modern criticism is one-sided. A balanced statement would include some account of the clear gains which have accrued from this study of the Old Testament as well as of certain other results which appear in the debit column.

To-day there is re-emphasis on the unity. The appearance of titles such as *The Unity of the Bible* and *The Unity of the New Testament* is significant. *The Unity of the Old Testament* is the style of a lecture published by Professor Rowley. But it is in certain works on the theological study of the Bible that this emphasis is most apparent. One welcomes the tendency, perhaps, rather than the results, but whatever verdict one passes on the principles of interpretation adopted, for example by Canon Phythian-Adams in *The Fulness of Israel* or in *The Way of At-one-ment* or by Fr. Hebert in his Book, *The Authority of the Old Testament*, their concern with Scripture as a whole is surely acceptable. Fr. Hebert says: "The Bible is the Book of the Faith, the Book of the divine kingdom". The avowed object of *The Fulness of Israel* is (I quote) "to emphasize the essential unity of all Sacred History from the call of Abraham to our own day". Modern concern with the Bible as a whole finds clear and definite expression in Dr. Cunliffe-Jones' book *The Authority of the Biblical Revelation*. He writes: "Theologically, the Bible is a completed unity. It is not a rigid unity or one which destroys the process of development: but it is a unity in which God has finally declared the truth of His purposes for mankind".

Within this larger unity, then, the Old Testament has its own unity. It is, and is again seen to be, a book, one book, Holy Scripture for Christian and for Jew. We have come back in this respect to the point of view of the Old Testament itself, for those who gave us the Old Testament in its present form "so arranged their material" (I quote my distinguished predecessor, Professor Hooke) "as to give it the appearance of a continuous history, beginning with the creation, in which the guiding and unifying principle was the purpose of God for, and the ways of God with, his chosen people Israel".

If I have wandered from Mr. Ellison's paper, he himself must bear in some measure the blame, for his writing it was that stimulated these few disjointed

thoughts. One might go on to points where issue might be taken with his statements—it would be a poor sort of paper which struck no spark of controversy. I shall carefully avoid such controversy by taking exception not to a statement of Mr. Ellison's but to one to which he refers. His very first sentence was: ". . . some thirty years ago, I was given to understand that Old Testament studies had virtually dried up". I have heard the same sentiment even more dramatically expressed, as when Old Testament scholars were described as "a band of cannibals who refreshed themselves by devouring one another". But look at a few of the titles which were appearing about thirty years ago: The early volumes of the *Cambridge Ancient History*; Gadd's *The Fall of Nineveh* (1923); Peet's *Egypt and the Old Testament* (1922); Wardle's *Israel and Babylon* (1925); Cowley's *Aramaic Papyri of the Fifth Century B.C.* (1923); Skinner's *Prophecy and Religion* (1922); T. H. Robinson's *Prophecy and the Prophets in Ancient Israel* (1923); Welch's *Code of Deuteronomy* (1924); Gray's *Sacrifice in the Old Testament* (1925); Travers Herford's *The Pharisees* (1924); Peake (ed.), *The People and the Book* (1925). Surely these few titles on a variety of topics chosen at random refute the charge that stagnation had come on Old Testament studies. On the Continent the position was similar: I need mention only that Mowinckel's *Psalmstudien* is dated 1921–24.

Old Testament studies may show more signs of life at some times than at others, but I find it hard to apply such terms as "stagnating" and "dried up" to them. The Old Testament is too vital a document for such a fate to befall the study of it. But if it did, we could point to tasks sufficient to keep scholars busy for generations. To take one corner of the field, we still lack complete, modern, critical editions of the texts of the Peshitta, of the Targums, and even of the Septuagint, while, as Mr. Ellison says, a new edition of the Hebrew Bible is needed. There are so many tasks, but so few men able and willing to undertake them.

DR. C. T. COOK said: I would like to thank Mr. Ellison for his instructive paper. His reference to the prevalent view thirty years ago that Old Testament studies "had virtually dried up" is in line with a similar observation by Dr. H. H. Rowley in his recent lectures on *The Unity of the Bible*. He tells us that when he became a missionary he heard it seriously lamented that the Old Testament had ever been translated into Chinese. In his student days he had been sternly rebuked by a well-known minister because he proposed to "waste his life by devoting it to so dead a subject as the Old Testament". Dr. Rowley argues for a wholeness in the teaching of the Bible which should guard us against such a one-sided emphasis, and shows that the Old Testament provides the necessary background of the New Testament.

WRITTEN COMMUNICATIONS

PROFESSOR H. H. ROWLEY wrote: Mr. Ellison has given an excellent brief survey of a very complex situation, and while it could be expanded at almost

every point, it could not well be bettered within its limits of time. Amongst the literature should be added H. F. Hahn, *Old Testament in Modern Research* 1954. This is an important survey, prepared before the publication of *The Old Testament and Modern Study*, though not issued until long after it.

Mr. Ellison rightly says that a new edition of Kittel's *Biblia Hebraica* is needed. He does not say, as he might have done, that such an edition is in preparation. Similarly, he might have said that the American translation of the Old Testament, edited in 1927 by J. M. P. Smith, is in course of revision for reissue.

With most of Mr. Ellison's own views, as they appear through his survey, I am in full agreement. I do not think, however, that the literary criticism of the Pentateuch can be dismissed quite so easily as it seems to be here. There is greater caution in defining the precise limits of the sources, and more recognition that ancient material is embodied in them. But their relative order and the approximate date of Deuteronomy have not been shaken, and these have consequences for the whole understanding of the Old Testament. A new total view, which takes as full account of all the facts to-day known as Wellhausen's did, is assured of sympathetic study. But it does not suffice to say: "Wellhausen's view is unsatisfactory; we need one to take its place". Some view of the date and origin of the Pentateuch is essential to Old Testament study. Yet Mr. Ellison does not even hint at the view which seems to him to be preferable to it. That Wellhausen's view of the religious development of Israel can no longer stand I wholly agree. But this does not mean that his literary-critical view of the Pentateuch, which grew up before his work and of which he was not the real architect, is equally overthrown. If it can be overthrown, and a better view takes its place, I shall shed no tears. But that task remains to be achieved.

MR. B. B. KNOPP wrote: Mr. Ellison's paper is a valuable and timely one. In every aspect of Biblical criticism which he touches he shows how scholarship has been forced back and is still retreating from the extreme liberal position of the nineteenth and early twentieth centuries. I know of no other place where all this up-to-date information is available in summary form and the author deserves the thanks of the Institute for putting it so succinctly.

On two occasions in the last eighteen months this general subject has been raised in the columns of *The Times* newspaper. The first followed the publication in June, 1954, of *The Times Bible Supplement*, and the second was quite recently when Canon Luce objected to the visit to Cambridge of Dr. Billy Graham. The Supplement reflected something of the retreat from the extreme Wellhausen school, but made little or no reference to the new lines of research now indicated to us by Mr. Ellison, while on both occasions the correspondence showed that not a few clerical gentlemen failed to appreciate the new knowledge which was challenging many of the much-trumpeted "assured results".

The chief impression I get on reading this paper is that in many fields any results at present can only be interim results. Deuteronomy may serve as a case in point. In *The Times Supplement* (since republished in book form by Messrs. Eyre & Spottiswoode) both Professor Rowley and Dr. North referred to this book in terms implying no shadow of doubt as to its origin about the time of Josiah. Conservative Evangelicals have never accepted this conclusion and it is satisfactory to note that even here retreat has begun.

Regarding the Pentateuch as a whole may it not be said that the multiplication of "sources" and differing views among scholars have together brought the whole Graf-Wellhausen theory to the border of the fantastic? The opinion of a layman in this matter may not carry much weight, but it has always seemed to me that the scissors-and-paste criticism which culminated in the Polychrome Bible ought long ago to have been laughed out of court. Such a thing could not be reliably done with a work in one's mother tongue, but on the other hand did not the late Rev. A. H. Finn, using similar methods, identify a dozen authors in Driver's book on Genesis?

On p. 37 Mr. Ellison mentions that the idolatry condemned by the Old Testament prophets was in its main essence some form of assimilation of the worship of Jehovah to the general pattern of the Fertile Crescent. It would appear that the Canaanite nations, to whose worship Israel so often fell away, were probably prepared to allow Jehovah a place in their pantheon, just as the pagan Romans would have given to our Lord, the New Testament Jehovah, a place in theirs, but they were not willing to give Him the *only* place, and not even the supreme place. This may throw light on the emphasis in the Old Testament on the "jealous" attribute of God. It is also probably referred to in such passages as Zeph. 1: 5, "them that worship and that swear by the LORD, and that swear by Malcham."

In his final sentence the author suggests that the possibilities of publicity for conservative views is small. There is without doubt a large element of censorship in this matter both in press and radio. It is no credit to a nation priding itself on its "free speech", and I feel our Institute deserves every encouragement in its endeavours to overcome this censorship and to combat the unbelief now prevalent as mentioned in its third "Object".

PROFESSOR F. F. BRUCE wrote: Mr. Ellison has put us greatly in his debt by a paper which ranges in such a masterly and lucid manner over the whole field of contemporary Old Testament studies. It is, in my view, deplorable that people in this country who call themselves "conservative Evangelicals" so signally fail to realize what a tower of strength they have in Mr. Ellison or to appreciate properly his outstanding qualities of Christian scholarship. Conservative Evangelicals in some other countries would long since have provided a man of his calibre with a secure position in which he could have full opportunity to develop his gifts and make significant contributions to

Biblical study. Is our professed devotion to unfettered Biblical study much more than lip-service?

There are many questions that I should like to ask Mr. Ellison, but I will confine myself to one. I should be grateful if he would amplify his statement on p. 43: "personally I consider it virtually certain that Israel did celebrate the sovereignty of Yahweh during the feast of Tabernacles, even though it may not have been in the way suggested by Mowinckel." I assume that Mr. Ellison has the pre-exilic period in mind. How does he envisage this celebration of Yahweh's sovereignty?¹

MR. D. J. WISEMAN wrote: Mr. Ellison has given us the type of paper which, I am sure, will prove very useful in keeping many of the Fellows and Members of the Institute up to date in an ever-changing field of studies. Bearing in mind that his very comprehensiveness has necessitated brevity of argument may I make but two observations.

Is it quite correct to make so sweeping a generalization as "the direct bearing of archaeology on the Old Testament has been relatively small"? Of course, if the relation intended is that between the general wealth of literature, mainly from outside Palestine, covering three millennia, with much of merely local interest, and the comparatively small body of Hebrew history, this could be argued. But a fairer comparison is to be made between the Hebrews and their occasional direct foreign contacts; and if a period such as that from the eighth to the sixth century B.C. is examined, we find just that amount of correspondence in historical detail which might be expected between a major power and a distant and small city-state. The details we have of the reigns of Shalmaneser III, Tiglath-pileser III, Sargon II and Sennacherib give significant points of contact, even if there are a number of unsolved problems in these texts.

Again a third, and perhaps more searching, criticism may be added to those given against the current Scandinavian school of oral tradition (p. 36). A majority of those scholars who specialize in the wider fields of the literature of the Ancient Near East outside the Old Testament side with Widengren in estimating the importance of the early evidence of literacy in Mesopotamia as greater than the part played by oral tradition in that civilization of which so much is made by Nielsen. There is considerable evidence for the existence of scribal schools from at least the middle of the third millennium B.C. and already legends and other literature were reduced to writing. The progress

¹ Since I sent in the above communication, I have concluded a review of Professor A. R. Johnson's *Sacral Kingship in Ancient Israel* (in *The Evangelical Quarterly*, April-June, 1956) with the following words: "In a paper communicated to the Victoria Institute on January 16, Mr. H. L. Ellison says that he considers it 'virtually certain that Israel did celebrate the sovereignty of Yahweh during the feast of Tabernacles, even though it may not have been in the way suggested by Mowinckel.' We agree, and think that it may very well have been in some such way as has been suggested by Professor Johnson."

of literacy broke down the limits of what may have had to be committed to memory. Before 2000 B.C. there are direct references to written traditions, and scribes made open statement of their sources in colophons at the end of their texts, frankly declaring if they had accepted oral traditions (e.g. "written after the oral communication [lit=' month '] of a learned man; I did not consult the ancient duplicate text "). Oral tradition would seem to have been relied upon only reluctantly. There is also much indirect evidence to support this (see e.g. J. Laessoe, *Literary and Oral Tradition in Ancient Mesopotamia*, 1954). If, as I am sure Mr. Ellison rightly says, the views of Nielsen are winning a way then it will be against the interpretation of many of the "known facts of the Ancient Near East" rather than because of it. This will lead to another instance of the unfortunate dichotomy between Old Testament and related studies which has resulted in the too ready acceptance of literary hypotheses in the study of the Old Testament.

AUTHOR'S REPLY

I apologize for three undetected printer's errors. On p. 37, line 4, read "is his theory"; p. 38, line 4, read "Lev. 17-26" and on p. 42, line 31, read "Mowinkel". Further p. 39, line 29, is not quite fair to Engnell, whose words are, "There is merely one psalm in the whole Psalter of which I am quite convinced that it is post-exilic: No. 137".

I wish to offer my sincere thanks to those who have aided my presentation and filled in gaps in my paper, especially to the Chairman and to Prof. H. H. Rowley. Most of what they say calls for no comment from me. I am not sure, however, that Prof. Rowley is entirely just to the paper or to the present position of the literary criticism of the Pentateuch. It was Wellhausen's theory of the religious development of Israel—I am glad that Prof. Rowley agrees that it can no longer stand—that really popularized the earlier literary-critical view of the Pentateuch, for it gave it meaning and relevance. Left to itself the critical view is so obviously artificial that it can rouse little enthusiasm in the average student on its own merits. But no theory has yet been expounded in the place of Wellhausen's that seems really to embrace the phenomena of the Old Testament as a whole. I am convinced that when any such view gains the heart and mind of any considerable number of Old Testament scholars, the literary criticism of the Pentateuch will be examined once more with startling consequences. Few scholars are iconoclasts and nihilists; there is to them little point in demolishing the present generally accepted view unless something is to be put in its place—a pile of ruins has little attraction.

For this reason Mr. Knopp's satisfaction is perhaps premature. There was a time when the Conservative did not obtain a fair hearing, because he seldom gave the other side a fair hearing; all too often he shut his eyes to the facts they had unearthed and accused them of infidelity. Though the old attitude

is still found, less among scholars than among those that have their "criticism" at third and fourth hand, the real reason why the Conservative finds it hard to obtain a hearing to-day is that he is still normally concerned with disproving rather than with offering a theory that will really meet the facts. Mr. Knopp mentions Finn's work *The Unity of the Pentateuch*, which has been seldom appreciated at its true value, for while it demolishes ruthlessly and effectively, it does little to build up. Purely for the record I would mention that it is here that he applies "critical methods" to "prove" that S. R. Driver's *Introduction to the Literature of the Old Testament* must be the work of two writers and an editor. This is clever but does not get us very far.

I deeply regret that Mr. Knopp has misunderstood my last sentence. It is always difficult for a scholar of unorthodox but sane views to obtain a responsible position and reasonable publicity unless he is a man of exceptional qualities. The real obstacle in the way of the Conservative scholar is that the average Conservative is only interested in the defence of the old, and then he is seldom willing to pay for it, witness the financial difficulties *inter alia* of *The Evangelical Quarterly* and the Tyndale series of monographs. Any honest attempt to face the facts, if it is in the least novel, is apt to be called liberalism, "selling the pass", etc.

Lack of space prevents my enlarging on Mr. Knopp's comments on Old Testament idolatry. Our new understanding has come partly from a truer appraisal of the Old Testament evidence, partly from our realization that the gods of Israel's neighbours were cosmic in concept, not merely animistic spirits or national deities. I am afraid I must decline Prof. Bruce's invitation for the same reason. It should be clear that a week-long pilgrim feast must have been filled out with something more than sacrifices and eating. I tend to the type of view put forward by Hans-Joachim Kraus in his *Die Königsherrschaft Gottes im Alten Testament* (1951) and *Gottesdienst in Israel* (1954), as with the rest of Israel's cultus something resembling the worship of their neighbours but with a twist that made it unique.

Mr. Wiseman's valuable remarks seem to miss two points. Though the extra-Palestinian evidence given by archaeology is far greater in volume than we might *a priori* have expected, the direct evidence from Palestine itself remains disappointingly small, though the encouragement of archaeology by the State of Israel may conceivably change the picture. Unless he can demonstrate, as I wish he could, that the situation of the Israelites from the Exodus to the reign of Solomon is comparable to that in Mesopotamia a millennium earlier, he hardly undermines the importance of oral tradition for the older and most challenged portions of the Old Testament. Indeed the very inability of archaeology to answer this most important question in the early history of Israel, records or traditions, the scribe or the teaching priest handing down an oral tradition, merely underlines my contention.

DIVINE HEALING AND THE ATONEMENT: A RESTATEMENT

By L. F. W. WOODFORD

DISCUSSION

THE CHAIRMAN (MR. E. J. G. TITTERINGTON) said: I should like to thank Mr. Woodford for his stimulating and thought-provoking paper. I do not think there is need for me to stress again the arguments he has so ably brought forward; but I was impressed by the distinction he has drawn between sin and forgiveness on the one hand and sickness and healing on the other, when he says that "sickness and disease have no power at all to interpose between the soul and God" (p. 52), and points out (p. 55) that our Lord has delegated authority to His ministers to mediate healing. This distinction seems to me of primary importance in relation to the subject.

I suppose that all of us believe in greater or less measure in divine healing, in that God does heal in answer to prayer, and that He does so on occasion by supernatural intervention as well as by the healing processes of nature; and probably most of us have known of cases of healing where no natural explanation seems possible.

Many have sought to find a basis for divine healing in the Atonement; but, as Mr. Woodford has pointed out, this gives rise to grave difficulties, both theological and practical, and most of the exponents of this view have found themselves compelled to admit of qualifications and limitations. If however we question this view, it is incumbent on us to find an alternative, for otherwise we are taking away the ground on which faith for healing can be exercised. God never acts arbitrarily, but always in accord with principle, and where an exercise of faith is involved we have a right to expect that the principles of His action should be discernible through His Word, which is the only ground on which faith can be exercised at all. Mr. Woodford has sought to find this principle in the power of the risen Christ, who has conquered sickness and disease.

There are three things I should like to say about this subject. The first is, that throughout the New Testament the preaching of the Gospel and the healing of diseases are linked together. Not only was our Lord's ministry accompanied by the healing of the sick, but when He sent forth His disciples he commanded them to "preach the Kingdom of God, and heal the sick" (Luke 9: 2, cf. ch. 10: 9). This association was continued afterwards, not only in the record in Acts, but in references scattered through the Epistles, where

the working of miracles accompanying the preaching is mentioned, as in Rom. 15: 19; 2 Cor. 12: 12; Gal. 3: 5 and Heb. 2: 4. We have also the ordinances of Mark 16 (if we accept this passage as authentic, as I do), and James 5, thus extending the validity of the principle to the present day.

Secondly, we need to recognize the unity of the human personality. We think of man as consisting of spirit, soul and body, or perhaps of conscious, sub-conscious and unconscious elements, but God sees the whole man, and deals with man as a whole. He does not touch one part of our personality to the exclusion of the rest. All that affects the mind and spirit has its effect on the body, and conversely, whether it is due to the action of God or to natural agencies. Mr. John Crowlesmith, in his paper dealing with miracles of healing, said: "Theological faith is not faith in healing but faith in the living God as revealed by Christ . . . and lifts the personality out of its depression to a new height of real fellowship with the Divine" (*Trans. V.I.* 84 [1952], pp. 74, 75); whilst Dr. White said on the same occasion: "Where faith in God is present, the resultant healing brings enrichment. The sufferer is made whole, healed in spirit as well as in body, and brought into closer fellowship with God."

Not only does divine healing bring with it a spiritual quickening, but cases have been recorded where persons who have received such a quickening, either at conversion or some other spiritual crisis, have found that they had been delivered from some ailment from which they were suffering, though they were not seeking healing at the time.

Finally, when praying for the sick, it is not necessary that we should know what the person is suffering from. But whilst we may lack a medical diagnosis, a spiritual diagnosis may be important. The causes of bodily and mental suffering may be many and various, as we know both from medical science and the Scriptures. Perhaps the bulk of the ailments we suffer from are due to the infirmity of the flesh. But much disease and suffering are caused by neglect or disregard of the laws of health, wittingly or unwittingly. Sickness may have a disciplinary purpose in view. It may even be punitive (Asa, Gehazi, Uzziah, Herod). In some cases it is due to the direct action of Satanic powers (Luke 13: 16). Clearly we cannot and must not treat all cases alike. In the last case mentioned deliverance must come from God alone, but where the laws of health are being violated we have no right to expect God to deliver whilst the neglect continues. Where God has a controversy with a soul, or is dealing with it in some way, the lesson must be learned and a surrender made of the point at issue, before we have a right to expect God to give His healing touch. Jas. 5 is important here: "The prayer of faith shall save the sick, and the Lord shall raise him up; and if he have committed sins, they shall be forgiven him. Confess your faults one to another, and pray one for another, that ye may be healed." If more attention were paid to this ordinance, perhaps we might see more results from our praying, and fewer disappointments. We need a clinical approach to the sufferer (in a spiritual sense), that is too often lacking.

DR. ERNEST WHITE said: We are very grateful to Mr. Woodford for having cleared away some of the confused thinking shown by many writers on the subject of Divine Healing and the Atonement. One would have thought that St. Matthew's interpretation of the words quoted from Isaiah make it quite clear that Christ took our infirmities and bore our sicknesses in His ministry of healing, and not in His atoning death on the cross. In spite of this application of the text, many writers on divine healing have persisted in asserting that Christ bore our sicknesses on the cross.

I should like to underline Mr. Woodford's statement that sickness is not necessarily the result of individual sin or lack of faith on the part of the sufferer. Many patients suffering from various forms of neurotic disorders already feel a sense of guilt and failure because of their illness, and it greatly adds to their burden to be told, as they so often are told, that their illness is due to lack of faith. None of us can legitimately claim that our faith is all it should be, and we are not in a position to judge or condemn others in this respect.

I am doubtful about our author's interpretation of Romans 8: 11. Does not this refer to the "quickenings of our mortal bodies" at the resurrection rather than to healing in this present life?

It is very satisfactory to find that Mr. Woodford does not take the extreme view of some writers that resort to healing by modern scientific methods is unnecessary.

The whole paper is well balanced, and forms a valuable contribution to the subject of divine healing.

MR. D. A. BURGESS said: I should like to express my indebtedness to Mr. Woodford for an extremely helpful paper. I could not help being reminded of the preacher who said: "I believe in divine healing," whereupon a "Pentecostal" present exclaimed "Amen!" The preacher then triumphantly asserted, "But I believe all healing is divine!" much to the other fellow's chagrin. Of course, as Mr. Woodford points out on p. 56, all healing is divine in a general sense, but not all healing is supernatural.

While in no way wishing to disparage the commendable methods of medicine and surgery, we need to remember that "divine healing" as generally understood means a recovery that, in the normal course of events, even if this includes the use of means, would not have occurred, i.e. an arbitrary act of God.

It may be worth recalling that such arbitrary acts of God are set forth in the Old Testament—e.g. healing of Naaman (2 Kings 5), raising of the dead (1 Kings 17 and 2 Kings 4), in the delegated ministries of prophets. However, these prophets never forgave sins, even mediatorially. Forgiveness of sins was never arbitrary with the same sense of unexpectedness, but was consistently associated with blood sacrifice, in foreview of the coming divine sacrifice on Calvary.

Again, the condition for health imposed upon the Israelites as they journeyed through the wilderness was not sacrifice but obedience (Exodus 15: 26). Compare 1 Corinthians 11: 30, "For this cause (disobedience) many are weak and sickly among you, and many sleep".

WRITTEN COMMUNICATIONS

REV. H. L. ELLISON wrote: While I entirely agree with Mr. L. F. W. Woodford's thesis that we cannot link the Church's ministry of healing with the Cross, but that it is rather a result of our Lord's triumph, I regret that he has based himself on some very doubtful arguments and hence made his case seem far weaker than it really is.

No honest exegete can possibly find the cross in Matt. 8: 16 f. It is as clearly as possible stated that Isa. 53: 4 was fulfilled then, not later. But no argument may be based on the form of the quotation. It has been generally recognized by modern scholarship that the LXX was not that fixed and standard version that used to be assumed. Where New Testament quotations differ from the standard text of the LXX, it is now normally assumed that we simply have some other translation or variant that happened to be before the writer.

It is probably false exegesis to interpret "we" and "our" in Isa. 53 as referring exclusively or even predominantly to Israel (cf. C. R. North, *The Suffering Servant in Deutero-Isaiah*, ad loc., and my study *The Servant of Jehovah*). While leprosy is doubtless one trait in Isa. 53—rabbinic interpretation is good enough evidence for that—it entirely falsifies our understanding when we try to interpret the whole picture in these terms.

Isa. 52: 13 to 53: 12 is a series of symbolic pictures, not one literal picture. Isa. 53: 2-9 gives us a series of events, each of which would be interpreted by the normal man as a sign of God's disfavour and anger. But if we try to unify them round one principle, be it leprosy or be it another, we have to strain the meaning of the text or to empty it of much of its deeper meaning.

It is entirely inadmissible to equate "sickness" (53: 3, text "grief") and "sicknesses" (53: 4; text, "griefs") with leprosy. It is as inadmissible to say with Dr. Simpson (see quotation on p. 49) that "bear and carry denote . . . actual substitution and the removal utterly of the things borne". This is the assumption of what has to be proved.

What both sides seem to overlook is that neither in Old Testament nor New Testament, does sickness as such seem of necessity to be linked with sin (except in so far perhaps that it is a sign that we live in a fallen world). Certain diseases and physical weaknesses were, however, so linked both by the popular mind and on a much more restricted scale by Scripture (cf. Deut.

28: 27; Amos 4: 10). It would be an interesting study from Scripture and Rabbinic sources to find which these were, but that goes beyond the scope of this comment. Isa. 53 is using this concept symbolically, but it is not concerned with the diseases but what they symbolized to the people.

It is worth adding that there are very many cases on record—surprisingly many, if one once starts inquiring—of the healing or alleviation of diseases after conversion, where the sufferer was convinced that it was a direct consequence of his sins, while still unsaved.

PROFESSOR F. F. BRUCE wrote: Mr. Woodford has soundly established his thesis. No one who has studied the evidence can doubt that God can and does heal His people's diseases—whether by means which we are pleased to call natural, or in ways which impress us as altogether miraculous. (On the other hand, the narrative of St. Paul's physical ailment in 2 Cor. 12: 7 ff., reminds us that God sometimes answers His people's prayers in a matter of this kind, not by taking away the affliction, but by giving additional grace to bear it; so that they can positively exult in their infirmities and God Himself can be glorified thereby.) Again, a study of the evidence makes it plain that some of God's children do possess in unusual degree the gift of healing (sometimes within the medical and nursing professions, and sometimes outside them), and such a gift is manifestly bestowed by the Divine Spirit "who apports to each one individually as he will" (1 Cor. 12: 11).

But to make the healing of bodily ailments part and parcel of our Lord's atoning work is to maintain something for which no plain Scriptural warrant is forthcoming. Here Mr. Woodford has done well to invoke the canons of strict exegesis; he has done particularly well to concentrate his attention on the portrayal of the Suffering Servant in Isa. 52: 13-53: 12, and on New Testament passages which echo that portrayal. The sufferings of the Servant in the Hebrew Bible are described under three main figures—that of someone disfigured by a loathsome skin-disease which makes men avert their eyes as from one who must surely be under the special chastisement of God; that of someone battered and wounded until his human semblance is almost lost; and that of someone who has meted out to him unjust judgment, imprisonment and execution, to be followed by a criminal's burial. But the sufferings depicted under these varied forms are sufferings which, by the will of God, he endures vicariously for the transgression of others; the context makes it plain that the healing which others receive by reason of his bruising is the forgiveness of their sins. And this is the main emphasis in the New Testament places which reflect the language of this fourth Servant Song. Thus where Mark (14: 24) echoes the repeated "many" of Isa. 53: 11, 12 in reporting Jesus' words about His "covenant-blood, shed for *many*", Matthew makes the

intention more explicit by adding "for remission of sins" (26: 28). And that Matthew should do this is the more noteworthy because it is his application of Isa. 53: 4 in a different context (8: 17) that has seemed to give special support to the view that physical healing was included in the scope of the atoning sacrifice. The special character of Matthew's exegesis in those quotations which he has not taken over from his sources, however, must be borne in mind; he frequently gives them an application in the gospel history quite different from their original intention. In the present instance, as Mr. Woodford has pointed out (p. 59), Matthew takes care to use Greek words which are free from vicarious or sacrificial association. He sees in Isa. 53: 4 a prophecy which found its fulfilment in Jesus' ministry of healing; he does not suggest that Jesus in any sense endured in His own person the infirmities and diseases of those who came to Him for relief, but rather that He took them away.

There are two minor points that I might perhaps be permitted to comment on, although they are not germane to the main discussion. One is that Mr. Woodford seems to regard "expiation" and "propitiation" as synonymous (e.g., on p. 50, lines 10-11). Does he make any difference between the two terms? The matter is one of interest, because the R.S.V. regularly puts "expiation" where R.V. has "propitiation" (cf. Rom. 3: 25; Heb. 2: 17; 1 John 2: 2; 4: 10), and there is a theological reason for the change. The other point arises from the reference to Heb. 9: 7-28 near the top of p. 51. While the shedding of the sacrificial blood on the Day of Atonement and its presentation in the holy of holies were two separate actions, need we envisage a time-lag between them in the antitypical fulfilment? The only passage in the Epistle to the Hebrews which apparently mentions our Lord's resurrection is the benediction at the end (13: 20); in the main argument of the Epistle (as in much of the Fourth Gospel) the suffering and heavenly exaltation of Christ seem to be viewed together as one continuous movement. (His resurrection might then be, from this point of view, the demonstration on earth that His self-sacrifice had already been accepted in heaven.) But I do not wish to be captious; I quite agree with what Mr. Woodford says there about the necessity of the resurrection. And I should like to record my grateful appreciation of his lucid and convincing exposition.

DR. G. FROHWEIN wrote: I agree with the main thesis of the paper that a clear distinction between sin (being essentially a moral evil) and illness (being essentially a natural, amoral evil) has to be made, when our Lord's atoning work is considered. It seems obvious that only moral evil requires Atonement, while natural evil requires control and overruling. I believe that the paper gives a good deal of valuable help to remove a dangerous error from the spiritual life of the church. There are, however, some lines of thought which need a little more critical elucidation than the paper in its necessary

limitations could give. In the following, some points of this kind will be brought forward.

1. It seems to me that the author does not always clearly visualize that we live still by faith and not by sight; and a clearer emphasis on this might help to answer why disease plays still a role, even in the life of the saints of God. Faith receives its reward in visible signs, help and healing from time to time—i.e. in God's time. As a whole we are, however, still in a world in which evil is a power; the devil has still power, yet he has no authority. Consequently the Christian living in the world is exposed to the attacks of the evil powers, like a soldier in a battle, even if the battle is won already. He has weapons, yet he is not automatically invulnerable. He can withstand sin, if he stands in faith, yet he is by that not necessarily safeguarded against illness and physical death as long as he lives in a corruptible body. In Mr. Woodford's quotation of 1 Cor. 15: 54 on p. 51 (e), this point is probably unintentionally missed. 1 Cor. 15: 54 expressly states that the exchange of the corruptible body for incorruption is still in the future and it is "then" that the word is fulfilled: "Death has been swallowed up in victory." That is an event still in the future for the individual believer, although he lives in the faith of the victory of Christ, which has been won in the past.

This time element (compare 1 Cor. 15: 24–28), which is also an element of right order in the events of God's salvation-history, explains from another angle than that of the atonement, as set out in the paper, how there is still a place for the "sufferings of Christ" in His servants (cf. Col. 1: 24, not an atoning but a ministerial suffering, as Lightfoot comments on this passage), which includes as it seems to me not only martyrdom, but to be exposed to all kind of *physical afflictions* in the service of the body of Christ (see Phil. 2: 25–30, the illness of Epaphroditus, who "was sick near to death . . . because of the work of Christ . . . near to death").

2. The attempt to find the right relationship between natural and supernatural, valuable as it is in itself, is defective, as it seems to me, in a similar way with regard to the time element as operative in God's salvation-history, though in the opposite direction.

Though it is absolutely true that medical knowledge is not in contradiction to the supernatural happenings in Christ's ministry, and it is true that medical science does to-day part of those things which at the time of Christ were possible only through a supernatural act, the concept of divine healing is older than the victory of Christ on Calvary. It is rooted in the Old Testament history of salvation, and the distinction between natural and supernatural acts as belonging to two entirely distinct realms is in the Old Testament (and I believe also in the New) unknown. God is the Healer, whether it is in preventive healing, by giving of the Law or by showing Moses a tree to purify the water, Exod. 15: 25–26), whether Miriam is healed by prayer alone or Hezekiah is healed through the Lord and by putting on a lump of figs (2 Kings 20: 5–7).

It would be too far-reaching to prove more fully that the Old Testament does *not draw any artificial distinction between natural and supernatural, but between actions under divine control, or divine command and under divine inspiration, and such as are not.* Miraculous deeds are not necessarily regarded as divine, divine actions must not necessarily be miraculous or effected by supernatural means. The New Testament is no exception. Here seems to me to be the clue to a right relation between what is called natural and supernatural. It is only for man that this distinction exists, and a supernatural event might well become a natural even in our sight. The divine character of an event is not established by its natural or supernatural appearance, but by the quality of its relation to God as its Author and End. Medical healing might therefore well be a vehicle of divine healing, yet not necessarily. Neither is miraculous healing necessarily divine, as is very obvious.

3. The third point where I do not completely agree with the author is the stating of mediatorship as unnecessary in the forgiveness of sins, and mediatorship as active only in the communication of life, e.g. in the healing of the sick.

It seems to me that in both cases the victory of Christ and the Atonement in its fruits are—though not mediated in the strict sense—dispensed through human channels. What is the commission of the apostles and finally of all true believers, to forgive sins, thought to mean, if there is only a transmission of divine life in its relation to physical illness (see John 20: 23; Matt. 16: 19; 18: 18)? Yet it seems that though both may and often are dispensed through human channels, God is not dependent on man and gives both healing and forgiveness also in direct answer to prayer.

MR. DONALD GEE wrote: Mr. Woodford's paper seems to offer a scriptural release from a theological position which seems untenable in the light of practical experience. I think there is much danger in superficial logic—and popular doctrines of Divine Healing in the Atonement are largely based on such. Mr. Woodford's penetrating paper reveals the weaknesses which many of us have felt must be existent. I think the main distinction he draws between the significance of the resurrection and the death of Jesus Christ our Lord in this matter is the fundamental point. I consider that he has given us all a contribution of very high value.

I hope that at some other time consideration may be given to his point (b) at the foot of page 56—"The place of the sovereign will of God in miraculous healing". Many of us feel that this contains the crux of the matter when it comes to practical application. To admit that it may not always be the will of God to heal does seem to open the door for all manner of excuses for unbelief; and yet to insist that it *is* always the will of God has forced us into almost intolerable positions mentally and emotionally.

MAJOR R. B. WITHERS wrote: How does Mr. Woodford know that the *charismata* of 1 Cor. 12: 4-11 (p. 55) are still set in the Church? The next chapter tells us that these things belong to immaturity, and that when maturity should come they would vanish away (13: 8-13). This time had already come when the Apostle Paul wrote the Prison Epistles (see Eph. 4: 13; Phil. 3: 15; Col. 1: 28; 3: 14).

Moreover, the readers of the Hebrews Epistle were told to leave behind the rudiments and carry on to maturity (Heb. 6: 1).

Why not believe these things and act on them; instead of indulging in so-called "spiritual" interpretations (p. 59, lines 3 and 4) which can never be other than subjective and secondary at best, and which must therefore tend to shatter true faith in God's Word? Evangelical leaders who have no better gospel than this "healing" mirage are doing untold harm. No wonder mature Christians are so rare.

AUTHOR'S REPLY

I have read the contributions to this discussion with interest and profit, and I appreciate the welcome given by almost all the contributors to the main line of approach to the subject which has been adopted in the paper.

The Chairman has emphasized some special points which I consider are quite important, particularly his second and third, and which invite further study in detail. The unity of the human personality is indeed stressed in the New Testament (e.g. 1 Thess. 5: 23) and I think that Paul opens out for us a wide field of thought when in Romans 12: 1-2 he declares that it is the renewed mind in Christ Jesus that provides the key to the transformation of personality and this, coupled with the presenting to God of all our faculties, enables us to learn by experience His perfect will for the whole man: spirit, soul and body. A spiritual diagnosis of particular cases under attention is certainly implicit in the Scriptures (e.g. 1 Cor. 11: 30, James 5: 15-16).

Dr. White has raised the question of the interpretation of Romans 8: 11 and one or two others have also referred to this verse. I view this as referring to the present quickening of the mortal body for several reasons: (a) The immediate context presents a contrast between living in the flesh, which issues in death, and living in the spirit, which issues in life, and Paul uses the present tense when saying, "to be spiritually minded *is* life and peace". (b) He emphasizes the place of the indwelling Spirit of Christ in the believer (v. 10). "The justified spirit of the regenerate *is* Life, because it bears within itself both Christ, Who is the Life Itself, and His Spirit" (Liddon). Cp. also Romans 6: 3-13. (c) Paul proceeds to speak of the body: the quickening of the *mortal body* is by (*dia* with gen.) His Spirit that dwells within. The text

followed by the Revised Version indicates that it is the indwelling Spirit who is the instrument of the quickening, i.e. it is a present operation. (d) Such a present operation is surely referred to in 2 Cor. 4: 10-11: "that the life also of Jesus might be made manifest *in our mortal flesh*." Paul refers to future resurrection in v. 14 following. (e) The use of the term "mortal" points in the same direction. The *mortal body* is not quickened by resurrection, for "that which thou thyself sowest is not quickened *except it die*" (1 Cor. 15: 36); the mortal "puts on" immortality and is "swallowed up of life" (2 Cor. 5: 4), for "we shall all be changed" (1 Cor. 15: 51). (f) Paul's argument in Romans 8 advances to vv. 23-25 where he then refers to the present possession of the "first-fruits of the Spirit" in our earthly bodies whilst waiting for their *future redemption* (and so 2 Cor. 5: 1-5). (g) The truth of such a present quickening is in evidence in believers constantly, and for the above reasons I consider that J. B. Phillips expresses Paul's thought by his rendering of the verse: "Nevertheless once the Spirit of Him Who raised Jesus from the dead lives within you He will, by that same Spirit, bring to your whole being new strength and vitality." A. S. Way is equally emphatic—"He will thrill with a new life your very bodies—those mortal bodies of yours—by the agency of His own Spirit, which now has its home in you."

On Isa. 53 Mr. Ellison, whose remarks I value, has made some special comments that call for attention. On Matthew's quotation of the LXX, referred to on p. 59, I observe that it is only an assumption that Matthew *may* have had a variant to the present text, but as I am unaware that we have any knowledge of such variant here, I hardly see how this consideration holds sufficient weight to invalidate the argument put forward. In any case, the main point advanced—that Matthew did not use any verb holding a vicarious or substitutionary significance, remains undisturbed. On the figure of the leper (p. 57), I note that Mr. Ellison agrees that "leprosy is doubtless one trait in Isa. 53" but that there are other pictures there also. Professor Bruce mentions three and refers to the first as of "someone disfigured by a loathsome skin disease". If the trait of leprosy *is* therefore found in Isa. 53, it would be instructive to trace it more precisely in the prophet's declarations—the authorities I have quoted themselves suggest vv. 3-4 to be relevant in this connection, apart from other allusions. Yet here again, the main point remains undisturbed: Isaiah's language is figurative and symbolic, having primary reference to sin and not to physical sickness.

As to the connection between sin and sickness, I have sought to point out that whereas there is an overall connection between the two (I note Mr. Ellison writes of our living in a fallen world) yet inasmuch as disease has invaded the animal and vegetable kingdoms there is no necessary relation between the possession of disease and personal sin on the part of suffering man. Indeed, as I have asserted (p. 52), "the ripest saints of God" may have sickness and yet retain unclouded fellowship with God.

Professor Bruce raises two points which are, I think, very interesting, although (as he remarks) they do not directly bear upon the main subject. (a) With reference to expiation and propitiation, I do not regard these terms as actually synonymous, although on p. 50 I have placed them together because I consider that propitiation largely includes the concept of expiation. I am aware that some modern scholars do equate them, as e.g. Dr. C. H. Dodd and, supporting him, Dr. Vincent Taylor¹ who renders Rom. 3: 25—"a means of atonement". But in the light of the use of the cognate verb for propitiation, in Luke 18: 13, "God be propitious to me, a sinner" (R.V.), I consider that the work of propitiation included not only the removal of sin but also the removal of God's judicial displeasure with sin. I note that Dr. Vincent Taylor, in his more recent book, *The Names of Jesus*,² does include and allow this latter concept to the word propitiation. (b) On Heb. 9: 7-28, I agree with Professor Bruce that although a certain "time-lag" appears to be implied by the writer between the accomplished sacrifice of our Lord on the Cross and its acceptance in heaven, this was not so in actual fact. The impression conveyed of this apparent time-lag was, I think, unavoidable in expounding the type, since the writer was detailing the entry of our Lord upon His high-priestly ministry, which commenced with His ascension (4: 14; 6: 19-20; 9: 11-12, 24). Of course, he is careful to explain that, whereas the Aaronic priest entered the holy place *with* blood, our Lord entered *through* (by means of) His own blood (9: 7, 12). As to the acceptance by the Father of our Lord's atoning sacrifice on the Cross, I consider Rom. 4. 25 to be explicit: "Jesus our Lord . . . was delivered up for (*dia*—because of) our trespasses, and was raised for (*dia*—because of) our justification." Although Alford argues otherwise, I prefer Bishop Moule (and in like manner, Ellicott) on this verse: "The Lord's resurrection appears as, so to speak, the mighty sequel, and also the demonstration, warrant, proclamation, of His acceptance as the Propitiation, and therefore of our acceptance in Him." This is in line with my statement (p. 51) that the efficacy of His atoning death was assured by His resurrection.

Dr. Frohwein brings forward several equally interesting and important aspects of this subject. I would observe the following: (a) On the place of disease in the experience of the Christian, I agree that there is a place for pain and suffering in God's redemptive purpose (p. 56); that is clear beyond doubt, and the thought of the trial of faith even in sickness is indeed true to experience, and I welcome the observation made. Yet our Lord's sufferings did not include any experience of disease (as distinct from physical weariness and affliction), so that a sharing of our Lord's sufferings does not suggest that in this connection physical *disease* should be included in the experience of His servants, but rather "afflictions" (Col. 1: 24, R.V.), which could nevertheless

¹ *The Atonement in New Testament Teaching*, pp. 124 (note), 131-3, 219-21.

² *The Names of Jesus*, pp. 121-23.

be severe even unto death (2 Cor. 1: 3-11). (b) On the relation between the natural and the supernatural, this particular point has also been raised by Mr. Burgess. I appreciate Dr. Frohwein's comments, especially on the Old Testament Scriptures. But I think there is need to define our terms. Dr. Frohwein suggests that "it is only for man that this distinction exists and a supernatural event might well become a natural one even in our sight". But in the latter case I should say that the event never was supernatural in the first place, but only apparently so, for there is an essential "otherness" about the supernatural which must mark it out from the natural, and by supernatural I mean the miraculous. This has, of course, been argued on philosophical lines by C. S. Lewis in his book, *Miracles*. But the distinction I have had in mind when suggesting point (a) on p. 56 is one that has been well put by Dr. Weatherhead¹ (and it has reference particularly to the New Testament). I quote: "I would define miracle as follows: 'A miracle is a law-abiding event by which God accomplishes His redemptive purposes through the release of energies which belong to a plane of being higher than any with which we are normally familiar.' . . . Let us . . . keep the word 'miracle' to describe events which show a break-through from the spiritual plane of being in which Jesus was so perfectly at home and to which most of us are such strangers. By the 'spiritual plane of being' I mean what the New Testament means by Christ's reign (*basileia*): The coming of God's *basileia* in the person and work of Jesus Christ is the theme of the Gospel teaching: it is, for those who witness it, 'a tasting of the powers (*dunamis*) of the Age to come' (Heb. 6: 5) . . . Jesus appears to teach that there is a spiritual kingdom which men may enter through the Christian fellowship and in which healing energies are at work more powerfully than men have ever dreamed." (c) On the question of the mediatorship of believers in the matter of the forgiveness of sins as distinct from that of the healing of the body, I certainly agree that both may be "dispensed through human channels", but not in identical ways. It is worthy of note that, as Dr. W. Griffith Thomas has observed:² "Priestly mediation is no part of the purpose of the Christian ministry"—the Old Testament priests never absolved: that was the characteristic work of the prophet through the ministration of God's word. The Christian minister mediates the Word of God, offering in Christ's Name the forgiveness of sins, but he has no direct authority to bestow that forgiveness: "Repentance and remission of sins should be *preached* in His Name"; and this ministry is exercised by all Christ's servants (Luke 24: 47; Acts 2: 38; 3: 19, 26; 13: 38, etc.). On the other hand, the minister, as a Spirit-filled servant of Christ, mediates the life-giving Spirit, conveying directly the healing virtue of Christ, even as first received from Christ, the Lord of the Church. This ministry is bestowed by sovereign grace through some (not all)

¹ *Religion, Psychology and Healing*, pp. 47, 50.

² *Principles of Theology* (cf. pp. 316-31).

of His servants. "Have all the gifts of healings?" (1 Cor. 12: 30) and cp. Matt. 10: 8: "What you have received as a free gift, bestow as a free gift"; the ministry of healing being in view.

Mr. Gee very rightly stresses that, from the practical standpoint, the place of the sovereign will of God in divine healing is of crucial importance, and as the operation of His will is never capricious but always in keeping with divine law, further investigation of the subject along this line, with a view to understanding more clearly the basic reasons for such diverse results in the ministry of divine healing, and the underlying principles governing this ministry, would surely be a very profitable undertaking.

I do not consider that Major Withers' point of view can possibly be sustained from the Scriptures he has quoted (1 Cor. 13: 8-13). I assume he does agree with the spiritual interpretation of Isaiah 53: 4, although he suggests otherwise and must have missed the point on p. 59, lines 3 and 4. As to the continuance of the *charismata* in the Church of Christ—modern inquiry has been directed towards a recovery of the nature of the original *kerygma*, or proclamation of the Kingdom of God. In the New Testament, the heralding of the Kingdom of God was accompanied by the powers of the Kingdom of God—defined as the "powers of the age to come" (Heb. 6: 5). I do not find any warrant in the Scriptures for arbitrarily divorcing the two in the ministry of the Church. This seems to me to open up a further important line of inquiry as to the place of divine healing in the witness and ministry of the Church, and one that invites careful consideration.

PHILOSOPHICAL PRINCIPLES IN THE TEACHING OF SCIENCE AND RELIGION

By GORDON E. BARNES, M.A.

DISCUSSION

THE CHAIRMAN (MR. E. W. CRABB) said: The subject of Mr. Barnes's paper is one which is pressing increasingly on the attention of all whose concern is in either field. It is a matter which causes tensions in the educational curriculum, and this tension often prevents the achievement of an integrated outlook on life as a whole. The tension in the educational field is seen writ large in the whole of our intellectual life in days when school has long ceased to be more than a memory.

The whole question is often approached from the point of view expressed in the phrase: "If Christianity is to meet the need in this scientific age it must come to terms with science." It is basically true that science must also come to terms with religion, for the heart of the Christian gospel is that an eternal spiritual truth is revealed in its completeness in the revelation of God in Jesus Christ. It is seldom that religion is taught to-day in a manner antagonistic to science, although it would be fair to say that science is not infrequently taught in a deistic or atheistic framework. In fact, the Rouse Ball Professor of Mathematics in the University of Oxford, Professor C. A. Coulson, can start a recent essay with the sentence, "Every schoolboy knows—or thinks he knows—that modern science has put paid to any serious claims by Christianity to provide an understanding of the world in which we live, and of the people who live in it." Every teacher with experience in these matters will endorse the general truth of the statement and will confirm that great and patient labours are necessary to establish the points which Professor Coulson makes later in his lecture: (1) that science has its presuppositions, though they are often unrecognized; (2) that science is not based on facts alone, . . . and (3) that scientific laws develop because there is a considerable personal element mixed in their formulation.¹

Mr. Barnes makes observations which should be pondered carefully by every one connected with the teaching of science, and he is just in his statements which recognize the essential part which faith must play in all religion, and indeed in all life. "Science must bow to the authority of events and not events to the authority of science," is an apt phrase which expresses an ideal which may be recognized by those whose business lies in these disciplines, but it is not an attitude which has percolated to the proverbial "man in the street". There is a natural tendency in man's nature which seizes any excuse for neglecting the claims of the Christian faith on his life, and popular science has in the past been quick to provide fodder for such excuses.

¹ *An Approach to Christian Education* (Epworth, 1956), pp. 41, 53.

The problem caused by this state of tension leads to a lack of intellectual integration. Schools and universities had a nominal integrating factor in past years in their religious foundation. Communist and dictator states have a similar integrating factor in their single-minded devotion to the glorification of the state and the theory which supports that organization. In Britain there has been an attempted compromise in these matters and the success of such an attempt depends largely on the fairmindedness of those who seek to operate the system. Where even this integrating factor has been removed by law, democratic states are hard put to find a common link between the various branches of the curriculum. It is one of the problems of present-day education that the gap between science and religion is a widening one as the scholar proceeds through the various stages of primary, secondary and university education. Mr. Barnes's paper is a worthy attempt to narrow the gap between the two disciplines which seem most widely separated. We must be grateful for every such attempt and trust that the views expressed therein will be pondered by very many who are concerned with the increasing secularization and departmentalizing of life.

MR. W. E. FILMER said: Teachers of both science and religion would do well to take note of this paper; both are prone to encroach on the territory of the other. It should be made clear, however, that all miracles cannot be explained in the manner Mr. Barnes suggests, for many do, in fact, come under the Thomist definition given on page 91 in that they were divine interventions in a "natural" causal chain; e.g. the virgin birth, the resurrection and Christ walking on the water. These were unique events, and for that reason science is not competent to discuss them, for science is concerned only with abstracting generalities.

Science teachers should also note the remark on p. 95 that "hypotheses formulated to explain empirical facts are of two types: those which in principle can be tested empirically, and those which in principle cannot. The former are scientific, the latter philosophical. . . . The science teacher is not normally concerned with philosophical theories in his formal teaching." Hypotheses concerning the origin of the universe cannot in principle be tested empirically.

Furthermore no experiment has demonstrated the creation of matter or energy *ex nihilo*, the creation of a living creature from non-living matter, or the evolution of man from an animal; the theory of evolution itself supposes that these things take too long to make experiments possible. It is, therefore, questionable whether the subject of origins should be taught as science or as philosophy.

Since New Testament theology explains the nature of sin by reference to the story of man's origin, religion has as much right to be heard as science when it comes to a philosophy of man's origin. Many school text books state it as a "fact" that man evolved from animals, although D. Dewar pointed out in a recent Victoria Institute paper that "more than thirty theories (all but

one of which at best must be wrong) have been put forward relating to the origin of man " (Vol. 86, p. 16).

REV. H. K. BENTLEY said that he felt the speaker and the commentators had been beating about the bush. We read in 1 Cor. 1: 21 that " the world by wisdom knew not God ". So we see that science cannot give a revelation of God. Then too, " the natural man receiveth not the things of the Spirit of God, for they are foolishness unto him: neither can he know them, for they are spiritually discerned " (1 Cor. 2: 14). He felt that we should do what he seeks to do in his lectures to children in schools, in connection with the School Lecturers' Association, namely, prove to them by the way archaeological discoveries confirm the Bible, and Biblical prophecies are fulfilled, that in its history and its prophecies the Bible is true, and they *must* do what it tells them with a view to the salvation of their souls. As in the raising of Lazarus, the onlookers had to " roll away the stone ", then Christ did what He alone could do—uttered the life-giving Word—then they had to " loose him and let him go ". Our business is to roll away the blocking stone of prejudice against the Bible, so that our hearers may turn to it and read it, when, we hope, they will hear the Word of life, bringing conviction of sin. In the prophetic *promises* God's Word can be relied on, and in its prophetic *warnings* it must be heeded. All prophecies still outstanding will be fulfilled in their intended sense.

MR. B. C. MARTIN said: I would like to say that I have found this paper very illuminating. Particularly do I think that the idea of the conclusions of science and religion being complementary rather than contradictory is helpful.

But I am wondering if this dictum holds good in every sphere. For example, would not an agnostic scientist and a Christian scientist be bound to come to contradictory conclusions after investigating " man " himself? The very fact that science implies only an empirical investigation leads the agnostic to emphasize that the physical make-up of man with his nervous reflexes and so forth is sufficient to account for the whole of man's behaviour; and thus with the august authority of Science a thoroughly materialistic theory of man is propagated.

The Christian—who believes in God, the invisible world of mind and spirit, the immortality of the soul—in giving an account of man would be bound to acknowledge that an empirical investigation is insufficient when it comes to saying who or what a man really is. In other words, the Christian would *contradict* the agnostic precisely because he is viewing man from the religious standpoint, and therefore insisting that man, made in the image of God, has an imponderable factor, apart from which it is impossible to give other than a grossly misleading account, seeing that this factor (comprising mind, spirit, intelligence, volition and so forth) is the very thing that makes him a man and alone can account for his complex behaviour.

WRITTEN COMMUNICATIONS

DR. R. E. D. CLARK wrote: The thanks of us all are due to Mr. Barnes for his lucid and thought-provoking essay and for the trouble he has taken in writing it. It gives in a nutshell the attitude of a number of Christians to-day and it is a point of view which we must all face.

There is a great deal in the paper that calls for comment but I must confine myself to one main point.

Mr. Barnes speaks very critically (p. 87) of traditional Christian apologetic and in particular of the so-called proofs that a Designer or First Cause lies at the back of the universe. Such a hypothesis, he thinks, could never bring us near the God whom Jesus revealed. He thinks, if I mistake not, that we should do better to ignore this side of Christian apologetic and focus attention only or mainly on the direct knowledge of God through Christ.

To illustrate his point he considers the different descriptions which an artist and a scientist might give of a painting (p. 89). "Both descriptions would be accurate," he says, "but it would be impossible to argue from one to the other because they deal with totally different aspects of the painting". Science and religion, then, like science and art, are complementary views of nature.

Is not this line of argument a little superficial? Let us start with the above analogy. A good scientist would not merely ask about "chemical formulae, wave-lengths of light, etc."; he would also ask about the statistical distribution of the pigments on the canvas. Suppose he were to find that the distribution was non-random, that if due to chance it would have happened but once in 10,000 times and that it was meaningful in that the paint distributions on the canvas bore resemblance to trees, houses, etc. What then? It seems to me that by such means the scientist, using scientific method only, would have proved (or near proved) that science did not tell the whole story but that some extra-scientific factor with a power of producing non-random arrangements had been at work. If so, then does it not follow that one picture of reality does in fact lead to the other?

This example provides a good parallel to the situation which we find in the universe, for the same type of argument leads to belief in God. To disparage the knowledge of God obtained in this way because such arguments lead to God as a hypothesis only, seems to me to be quite wrong. For if, by reasoning along these lines, we come to believe in God as Creator, then He is the Creator of *us* since *we* are a part of His universe. And that being so, He is Creator of the power in us that distinguishes right from wrong, that makes us believe (however we may act) that right is better than wrong, that unselfishness and goodness are better than selfishness and wickedness. In fact, He is the Creator of all in me that enables me to recognize Jesus as the revelation of God. (If someone presses that this can only happen through direct revelation—God is still the Creator of the mind that can receive this revelation from Him.)

Mr. Barnes talks as if natural theology convinces no one. Quite apart from the fact that well-known men have been convinced by it, he fails to tell us what the difficulty is. It is, of course, the problem of evil. The evidence for belief in God as Creator is immensely strong, and were it not for this difficulty would probably be universally accepted (Sir Charles Sherrington's book, *Man on his Nature*, is well worth reading in this connection). The problem of evil has been discussed by the Institute before (e.g. in Vol. 71), but all I wish to point out here is that the same objection applies to *any* approach towards religion, including that proposed in the paper.

In fact it is surely much harder to reconcile the views of Mr. Barnes as stated on pp. 90-91 with the problem of evil than it is to reconcile an original creation with the universe left to itself (save for occasional miracles) ever since. Mr. Barnes's view seems to require, not that God "for a little while" tolerates the dreadful things which are to be found on earth, but that He is actually responsible, moment by moment, for creating, preserving and aiding not only man and animals but the "million murdering" parasites and viruses. For he tells us "that God is in continuous control of all natural events" and he criticizes Aquinas for saying that nature works "automatically".

Mr. Barnes states that this doctrine of "continuous control" is Biblical. But he gives us very little evidence for this statement. I should have thought it was obviously unbiblical. Natural events are repeatedly spoken of in Scripture and I cannot discuss all the references here. But let us take Psalm 104 as an example of a typical passage which tells how God has ordained nature to His glory. In this Psalm many natural events are spoken of as if they are directly performed by God. *Yet many are not.* The earth is set "on its foundations so that it should never be shaken" (vv. 5, 6). Surely such a precaution would be unnecessary if God is continuous control on those occasions when it might otherwise be shaken. In v. 9, continents are made as a bound for the waters—implying surely that the waters would otherwise automatically cover the land. In v. 10, God positioned the springs so that the streams (automatically?) "flow between the hills", the most useful place for them to be. In v. 19, God made the sun and moon to mark the days and seasons—again, the implication is inescapable that, once made, they do this automatically like a clock. To emphasize the point the Psalmist adds: "The sun knoweth its time for setting"—which means, surely, that once made it needs no further attention from God. Otherwise what would be the point of this statement? The purport of the Psalm is to show that God has created and arranged nature so that the automatic processes which He has instituted will be for the good of His creatures. No wonder that the Psalmist rejoices in the loving-kindness of God!

Many other passages might be cited. Our Lord saw God's hand in nature as no other man has ever seen it, yet He could say: "The earth bringeth forth fruit of herself" (Mark 4: 28). The Psalmist (102: 25, 27) and the author

of the Hebrews (1: 10-12) contrast God who remains unchanged for ever with heaven and earth which perish and "grow old like a garment". Can we even imagine such a process of decay (which agrees exactly with the entropy law of science) in a universe in which everything is under the "continuous control" of God and in which "it is nonsense to speak of God as intervening, when He is active all the time" (p. 91)?

In opposition to this and much more Mr. Barnes cites but few passages, only one of which even superficially seems to support his theory. In view of v. 11, surely the meaning of Hebrews 1: 3 must be that God is so much exalted above the universe that the very existence of the latter depends only on His permission. Col. 1: 17 might seem to support Mr. Barnes's thesis—"In Him all things hold together". The immediate context both before and after, however, suggests that it may mean that the universe is kept from destruction by warring factions between spiritual powers as a result of Christ who is head over all. Just as God holds the universe together, Paul says, so as head of the Church He unites the Church, He reconciles "all things", making peace. If "all things" include physical things, then there is a sense in which He also holds the physical universe together—but it does not follow that individual natural events are under His continuous control or that His intervention in them is "nonsense". The other passages cited scarcely bear on the point. Surely God is well able to accomplish His purposes even if, with Aquinas, we agree that a large part of the universe normally functions automatically.

Of course it is true that Scripture sometimes uses the language of direct intervention when no direct intervention is intended—e.g., God sends sunshine and rain (Matt. 5: 45). But we speak in the same way ourselves. We say truthfully, "I heard X speak on the wireless", even when in fact a tape recording was used. A recording machine works automatically, yet X may rightly be said to be speaking. In the same way God has made automatic provisions of many kinds in the universe and we may rightly speak of the results as His working. But it is quite wrong, surely, to use such language as evidence for Mr. Barnes's view; to do so is to press for a literality in the use of words in the Bible which we should never dream of expecting in everyday life.

MR. TITTERINGTON wrote: Besides much else that is of value in this paper, I am glad that Mr. Barnes has stressed the importance in the teaching of science of distinguishing between observation and deduction, between fact and inference of fact. At the time when I was studying some science (I learned no science at school; it was at University level), little or nothing was taught on this line; though I remember my attention being brought to a book by Poincaré on the nature of scientific hypothesis. More recently I have questioned young scientists as to whether there had been any change in this respect at the present day, and have been told that there has not. Doubtless there

are teachers of science who pay attention to this, but certainly there are many who do not. The result is that not only the general public, but many even of those who have studied science, fail to appreciate where science ends and hypothesis or philosophy begins.

AUTHOR'S REPLY

I should like to thank the Chairman, and all who have contributed to the discussion, for the thoughts that they have expressed. I will attempt to comment on them in turn.

I think Mr. Filmer has misunderstood my remarks on p. 91 concerning miracles. I am not denying that many miracles are interruptions in the normal course of natural events (in fact, I state that they are—p. 91, lines 28–9), but am pointing out that, to the biblical writers, the normal course of nature is just as much divine activity as are the interruptions that we call miracles; and that this is one reason amongst others why the Thomist conception is inadequate as a *definition* of “miracle”.

I cannot agree with Mr. Filmer about the impossibility of empirical confirmation of evolutionary hypotheses. It is possible to devise experiments to test whether various factors operate upon natural populations in the way that any particular hypothesis requires; it is possible to make anatomical predictions from the theory of evolution, and then examine fossils to verify the prediction—see D. M. S. Watson, *Palaeontology and Modern Biology* (Yale, 1951)—and many other types of experiments could be, and, in fact, have been, carried out. Although some may feel that the theories of cosmic and organic evolution have insufficient empirical support for us to consider them as anything more than theories, I think it cannot be denied that they are *scientific* theories. I agree with Mr. Filmer that the theories are often taught with a dogmatism that they do not merit.

I am sure the Rev. H. K. Bentley is right in saying that it is sometimes possible to remove anti-biblical prejudice by pointing to the evidence of archaeology, and the fulfilment of prophecy, but I think he overstates his case in saying that such things “prove . . . that the Bible is true”. As I explain in the paper (p. 87), archaeology may confirm biblical history but it cannot confirm the biblical interpretation of history, which is much more important. Archaeology could also confirm the historical writings of Josephus, but we do not on that account take Josephus as our spiritual guide. The recognition of fulfilled prophecy depends upon the correct interpretation of the prophecy, and this is often a matter of debate. For example, most Christians recognize Christ in the Suffering Servant passages of Isaiah, but the Jews more often see the prophecies fulfilled in their own nation; some Christians regard the Book of the Revelation as being largely fulfilled, while others take most of it as applying to the future. With such divided opinion

on the correct interpretation of prophecy, the argument from fulfilled prophecy can never be a very convincing one.

If, as Mr. Martin postulates, an agnostic scientist were to deny the validity of a Christian view of man solely on the grounds that he could give a complete description of man in scientific language, he would be committing the same logical error as a chemist who, having performed an analysis of an oil painting and shown that it was made up entirely of well-known chemical compounds, thereupon concluded that there could never have been any beauty in the picture.

To reply adequately to all Dr. Clark's points would require another full-length paper, but I will try to deal with the main ones. I cannot agree that a scientific investigation of an oil painting along the lines that Dr. Clark envisages would eventually lead to the other type of description. The ordered distribution of pigment is explicable in terms of the peculiar movements of the palette knife, determined by peculiar muscular contractions in a human hand, controlled by peculiar motor impulses, set up in turn by peculiar sensory impulses in the optic nerve or by coded information stored in the cerebral cortex. There is no need for the concept of mind; the order on the canvas is predetermined by the spatial configuration of colours and shades in the environment of the physiological machinery that made the oil painting.

I am sorry if Dr. Clark understood me to say that "Natural Theology convinces no one". I did not intend to imply that. In fact, I said "the combined weight of all these arguments may make an indelible impression upon the minds of some people" (p. 96). But I do believe that the arguments are not compelling ones. If they were, every thinking person would be at least a nominal Christian.

I realize, of course, that the greatest hindrance to belief in God is the moral problem of sin, and I agree that this operates irrespectively of the particular presentation of religious truth which is adopted. In other words, if a person does not want to believe he will always be able to find some excuse for rejecting Christianity; but what I have attempted to say in the paper is that even people who genuinely want to know the truth may be put off by the "apologetic" presentation of Christianity because of its unconvincing logic. In fact, I have met several students who, while actively seeking for a solution to life's spiritual problems, were hindered from becoming Christians by reading works of Natural Theology, and yet who responded convincingly when Christ was presented as the Object of faith. I mention this, not as an argument for, but as an illustration of, the point which I tried to make.

As for the intellectual problem of the existence of evil in a world created by God, I cannot see that Dr. Clark's "deism plus miracles" helps in any way. If God created a machine that automatically produces evil, He is surely just as much responsible for the machine's products as if He made them directly Himself. Or, if it be argued that the machine was never intended to produce evil, but went wrong at the Fall, then God is still morally responsible for

allowing the machine to go on in its evil way, if He has the power to interfere miraculously and change it.

I suggest that the solution to the problem is to be found, not in denying God's responsibility for evil events, but rather in enquiring what we mean by "evil". It seems to me that an act may be wrong for one or both of two reasons: (a) because it offends against some code of behaviour imposed by a higher authority to whom the doer owes allegiance, and/or (b) because it is done for a wrong motive. Now when we consider the unpleasant things in this world, we regard many of them as evil because we see that they are the result of human acts which either contravene God's law (e.g., the decalogue) or are performed for selfish motives, or both. But if we accept God's responsibility for the same things, that does not make God responsible for evil, since, firstly, He is sovereign and autonomous and therefore cannot offend against a higher code, and, secondly, He acts always for pure motives. So that the same event may be both evil, when viewed as a human act, and good, when seen as a divine act. The supreme example of this is the death of Christ which was an act of murder by evil men and also the basis of God's greatest blessing for mankind. The two-fold responsibility for this is clearly stated in Acts 2: 23.

In order to support his near-deism, Dr. Clark appears to rely upon Old Testament poetic writings, which allow of wide interpretation, in preference to clear prose statements in the New Testament. The only prose statement which he quotes (Mark 4: 28) he wrests from its context, which makes it perfectly plain that the phrase "of herself" is used in contradistinction, not to God's activity, but to man's activity. In fact, the growth of the corn is just as much under divine control as is the "kingdom of God" (v. 26).

Erratum—P. 89, line 28. For "approach" read "approaches".

THE PRINCIPLE OF UNIFORMITY IN GEOLOGY, BIOLOGY AND THEOLOGY

By PROFESSOR R. HOOYKAAS

DISCUSSION

THE CHAIRMAN (DR. R. J. C. HARRIS) said: It is a very good thing for scientists to stop sometimes on the way to or from their ivory towers and to consider the presuppositions of their science. In these days, when the credulity of the layman towards scientific work and discovery is almost unlimited, it behoves those scientists who have any conscience at all to read, mark, learn and inwardly digest such papers as this Institute has recently heard from Dr. Robert Clark and Dr. James Hawthorne on "The Presuppositions of Science", and now this paper on "The Principle of Uniformity" which Professor Hooykaas has discussed to-night with such clarity and vigour. So frequently to-day the so-called laws of nature are completely misinterpreted. They are held to be almost legislative rather than descriptive, and within such an apparently miracle-tight system of laws it has been difficult to comprehend the immanence of the Creator and to understand how He can act.

Had I been asked before I heard this paper what I thought about the uniformity principle, I should probably have returned the glib answer about "like causes producing like effects", hoping perhaps that the underlying idea was all right and that I should not have to go farther in saying exactly what I meant by "like".

I shall be less happy now about stock explanations, especially as I find that, geologically speaking, I was all unwittingly a "catastrophist" rather than a uniformitarian.

The clearing up of such confusions of thought has been for me one of the outstanding features of this paper and there is, I feel, a peculiar debt which we owe to historians of science who can take us right back to the work and ideas of the originators of those theories and working hypotheses which tend to-day to be misunderstood.

Before I leave Section I, and while I agree with Professor Hooykaas that "a historical geology is a reconstruction of past events within the limits of the analogy of recent occurrences", I am less happy with the examples given at the top of p. 104. It seems to me that any geologist who argued that the same sort of weathering, etc., went on in a wet primeval desert as may now be observed in a dry one, would be found obviously and primarily guilty of ignoring the facts rather than of misunderstanding the principle of uniformity.

Having taught me in Section I that I was a catastrophist in geology, Professor Hooykaas goes on in Section II to put me in the same category in

biology. But in Section III I am reassured that there is no sharp border-line between actualism and catastrophism. May I ask Professor Hooykaas for further elucidation of two points in the last paragraph of p. 106: "However much small variations in the animal world may be going on at present, there is no warrant in experiment or immediate observation for concluding that these changes, in the majority, are going in a certain direction." Firstly, why should such "progressive" changes need to be "in the majority"? And secondly, improvement, progressive improvement, is surely relevant to the existing situation. There is brought to my mind the very recent work on the rise of melanotone strains of moths in some of the industrial areas of the Midlands. The darker coloured moths survive more freely, and thus breed more readily, than the lighter, because their predators have more difficulty in finding them. Is this not a "progressive" change?—at least for the moths which survive!

In his last section, Professor Hooykaas dissects the structures built up in the interpretation of uniformitarian doctrine by atheists, deists, and even by orthodox Christians when they graft a theistic branch on to a deistic tree.

From the dangers of a conception of a God-of-the-gaps, what is so graphically described here as "the elastic retreat", our speaker leads us to the biblical view of "God's activity in everything all the time". This last section of the paper constitutes the most succinct exposition of the relationship of nature to supernature that I have ever read. There is an awareness here of the basic problems of the modern scientist and the knowledge that those same problems were faced by our scientific and Christian forefathers of years gone by.

In times when so many scientists do not even read scientific literature more than a decade or two old, it is especially salutary to be invited to go back one or two hundred years for information!

May I thank our speaker on your behalf for his most interesting paper.

DR. DOUGLAS C. SPANNER said: If I have understood him aright, Professor Hooykaas in making the principle of uniformity into a methodological principle would seem to deny that it tells us anything about nature; it tells us rather something about the scientific investigator. If this is a true interpretation of his position it runs counter to what is very obviously a strongly-rooted notion of common sense—always a dangerous procedure. Suppose we state the principle in the form: "the same cause always produces the same effect," meaning by "cause", of course, the total causal situation. Surely this asserts something *about nature*, and not merely about the scientist's way of approaching his work? To this it might be replied that this statement is inadmissible because we have no means of knowing that a "cause" *is* the same unless it produces the same effect; if it does not, we do not conclude that the principle is wrong; we postulate a new and unsuspected element in the causal situation. Thus the principle as stated becomes essentially incapable of either proof or disproof; it is rather a methodological convention

adopted quite arbitrarily and for mere convenience and in connection with which the idea of truth is quite irrelevant.

But is it the case that we *are* unable to assert of two causal situations that they are the same without making reference to their effects? It seems to me that we are able, if we make the additional assumption that nature is finite, that is, that the number of elements A, B, C, D . . . , whose simultaneous occurrence constitutes the total cause, is limited. If this is so, then it obviously becomes possible in principle to re-arrange the simultaneous occurrence of A, B, C, D, etc.—in other words to set the same “cause” again in operation—and to determine whether in fact the previously noticed effect follows.

It seems to me therefore that the uniformity principle, if meaningfully stated, resolves itself into two presuppositions *about nature*:

(1) The uniformity of nature: the same cause always produces the same effect.

(2) The simplicity or finiteness of nature: the elements of a causal situation are limited in number.

Both of these presuppositions are very real intuitive elements in scientific thinking, and the second redeems the first from being a mere tautology, already implied in scientific procedure. Surely, the methodological principle involved here is *the decision to use* the uniformity principle as a working hypothesis, not the uniformity principle itself. A true methodological principle, such as the principle of defining scientific concepts in operational terms, purports to tell us nothing about nature; but that would certainly not seem to be true in the case under discussion.

DR. D. M. MacKAY said: Professor Hooykaas’s summary of the biblical (as distinct from the recently “orthodox”) view is so refreshing that one wishes it could reach a wider circle. A whole generation of hapless Sunday scholars could be saved needless headaches if the semi-deistic “little faith” of recent tradition were replaced by the more robust theocentricity which the Bible itself inculcates.

I agree strongly that the principle of uniformity is essentially methodological when suitably formulated. I wonder if Professor Hooykaas would agree that we can rid it even of any flavour of analogy by expressing it as follows: “Scientific theory officially concerns itself only with apparent *departures from precedent*.” Thus, instead of beginning by talking of all imaginable non-uniformities, and proceeding to deny their existence (a logically absurd procedure), the principle simply says that it (or the scientist) can talk of non-uniformity officially only when there is observable evidence to give the notion proper status as a scientific concept. The official scientist is methodologically a conservative. He waits to be driven by evidence before considering an alleged non-uniformity to be even defined; and his whole discipline is designed for the sifting and reduction of claims to non-uniformity.

All this is not from arbitrary choice. It is simply because there is *nothing scientifically to talk about*—science is silent—until there is some discontinuity to point to and name and discuss. Apparent non-uniformities (discontinuities) are the stuff of scientific discourse. Uniformity is the nameless base, as it were, from which official scientific discourse departs.

But while the principle itself is clearly methodological and says nothing about the world, it is often confused with a cognate generalization which is purely empirical. I mean the observed fact that apparent non-uniformities are relatively rare, and that few if any of these have managed to establish claims to have “broken precedent”.

A generalized idea of this is I think what many people have in mind when they miscall the principle a “law of nature”. It is true that such an empirical generalization, if valid, would justify the adoption of the principle. But in fact any such generalization is tentative, and refers at most to our own sample of the past. It serves only to encourage, not to justify, the scientist in his application of the purely methodological principle whose scope Professor Hooykaas has so admirably outlined.

REV. PHILIP E. HUGHES said: I should like to offer Professor Hooykaas a very sincere word of appreciation and gratitude for his stimulating paper, and I am pleased to have this opportunity of contributing in some small way to the discussion. In the first place, I wish to emphasize that, while the *method* of science is properly *a posteriori*, the concept of uniformity is a pre-supposition—an *a priori* premiss—which is absolutely essential to science. The scientist always assumes beforehand that there is system and order in the universe and that one fact leads on logically to another. Indeed, unless facts are interrelated and there is coherence in the realm of nature, all science and meaningful investigation of natural phenomena becomes an impossibility.

The ground of the uniformity of nature is the all-inclusive will and plan of Almighty God as the Creator and Sustainer of all things. Every man has a knowledge of this truth, for it is a knowledge which is both innate and revealed.

(1) This knowledge is *innate* in man because, by virtue of his creaturehood, he sustains an inescapable relationship to the Creator and to the rest of creation which makes him instinctively aware of the order and coherence of God’s world, of which he is a part.

(2) This knowledge is *revealed* in nature. Wherever man turns it meets him. All things are eloquent of this truth (Ps. 19). St. Paul asserts the same thing when he says that the invisible things of God, and in particular His eternal power and Godhead, are clearly seen from the creation of the world, being understood from the things that have been made—with the result that men are without excuse when they deny the eternal power and Godhead of the Creator and withhold their worship and homage from Him (Rom. 1: 20 ff.).

Yet this vital knowledge is wilfully *suppressed* by fallen would-be autonomous man. Unregenerate man is man in revolt against his Creator. He holds down the truth in unrighteousness (Rom. 1: 18). Hence the basic contradiction in his approach: for the plan of God as realized in the created order is the ground not only of the coherence of things but also of all rationality; yet fallen man sets himself up as the arbiter of all that is possible and makes himself, instead of God, the centre of reference. The mind of God is supplanted by the mind of man as the seat of authority. Nature is declared to be a closed system which cannot be invaded "from above", with the result that "supernatural" or "miraculous" occurrences are eliminated as impossibilities.

In this connection, however, scientists (and some theologians) should be reminded that another *a priori* principle, which is essential to all scientific activity, is that of the intervention of the higher in the lower. The researches and the inventions of scientists are, in fact, made possible by man's faculty of intervention in the natural realm. This faculty also falls within the scheme of God's will, for man, created in the image of God and the crown of His handywork, has been commanded to subdue and have dominion over the rest of the created order (Gen. 1: 26-28). Yet unregenerate man in his rational investigations irrationally suppresses this principle where God is concerned: the Creator, who is the Highest (Luke 1: 32), cannot intervene in His creation! No doubt this gross irrationalism is, at its roots, dictated by the fear of judgment to come. If God cannot intervene in the affairs of this world, then He cannot intervene in judgment. This is, of course, the direct opposite of the biblical view, for the whole of Holy Scripture is a record of the interventions of Almighty God in judgment and in redemption, and it also proclaims the certainty of God's final intervention in judgment.

Naturally I welcome and am in full agreement with Professor Hooykaas's reminder that the Bible "does not regard wonder and law as mutually exclusive", and indeed that everything, whether described as "natural" or "supernatural", as "ordinary" or "extraordinary", is wonderful because God's activity is behind everything (p. 114). It is important that we should not lose sight of this concept, part and parcel as it is of the biblical doctrine of creation and providence, especially when it becomes necessary, in the interests of clarity and definition, to make the distinction between the "natural" and the "supernatural" or, as Professor Hooykaas would probably prefer, between the "regular" and the "irregular".

WRITTEN COMMUNICATION

MR. TITTERINGTON wrote: Professor Hooykaas's remarks about the attempts to establish a *law* of uniformity, led me to think back to the publication in 1861 of the volume of essays published under the title *Essays and Reviews*—a book which produced a strong reaction in its day, one of the

fruits of this reaction being the founding of the Victoria Institute. Many of the essays contained in this volume would make little stir to-day, but that is not the case with all. In particular, there was an essay by Professor Baden-Powell "On the Study of the Evidences of Christianity", in which the author put philosophical principles above any sort of observation and evidence. Here are a few quotations: "The nature of the laws of all human belief, and the broader ground of probability and credibility of events, have been too little investigated, and the great extent to which all testimony must be modified by antecedent credibility as determined by such general laws, too little understood to be readily applied or allowed". . . . "A strong apparent tendency and desire to uphold the mere assertion of *witnesses* as the supreme evidence of *fact*, to the utter disparagement of all general ground of reasoning, analogy and antecedent credibility, by which the testimony may be modified or discredited" . . . "Testimony can avail nothing against reason."

Such a doctrine could hardly be put forward to-day in cold print, but are we quite sure that the same kind of idea may not unconsciously underlie a good deal of present-day thinking?

For the rest, I confine myself to a geology with which I have a little acquaintance. Professor Hooykaas says on p. 102 that the principle of uniformity has been interpreted as including two things, of which one is that "the causes of geological changes now in operation have been always in operation and *their energy has always been the same*". The words underlined seem to me an entirely gratuitous and unnecessary addition, which could only have been made by a person who was either completely blind or singularly unobservant. Geological unconformities, the folding of great mountain masses such as the Alps, the contortions to be seen in the rocks of our own country, the vast fields of volcanic and metamorphic rocks in Scandinavia, or on a lesser scale the intrusion of a huge laccolithic mass such as caused the elevation of our English Lake District—where are any comparable forces such as brought about these things in operation to-day?

Professor Hooykaas has also emphasized another important point: that in assessing the magnitude of the operating forces we have to take into account not only the forces themselves, but the conditions in which they operate. He well says (top of p. 104): "Before the continents were covered with plants, weathering, erosion, and sedimentation were different from the same processes going on at present." No observant person who has done a moderate amount of fell walking but must have been struck with the different effects of erosion in places where the rocks are covered with vegetation and where they are not, as often on the sides of mountains towards the direction of the prevailing winds and the lee sides. And be it remembered that grass, the best protective covering of all, arrived comparatively late on the scene.

One can only warmly endorse the Professor's conclusion, that the principle of uniformity, or actuality, must be interpreted in accordance with the facts of observation, and not the other way about.

AUTHOR'S REPLY

In reply to Dr. Harris, I should say that against the geologists whose ideas Walther and others combated, it was made evident that the geological situation of the past was different and that the character of the *principle* of uniformity had been misunderstood, as it had been mistaken for a verdict on a special kind of factual uniformity. The *principle* to push analogy as far as possible should not lead into the error of assuming that "analogy" means a quasi-identity between the phenomena of the past and the present. The "ignoring of the facts" was indissolubly connected with "the misunderstanding of the principle of uniformity"; the first followed from the latter.

The sentence at the bottom of p. 106 indeed may cause misunderstanding. It would be better to say that mutations do not show a progressive tendency. Assuming that "in the beginning" there were only very simple beings and that finally there is a scale of beings from low to high, there must have been made more jumps upwards than downwards, if we take into account not the number of individual variations, but that of the *kinds* of variation (supposing that these are of about the same magnitude). According to Darwin: "the improvement inevitably leads to the gradual development of the greater number of living beings throughout the world" (*Origin of Species*, 6th ed., p. 97), and on this sentence I wanted to express my doubt, if it be applied to recent phenomena. I used "majority" (or "greater number") in the sense Darwin meant it.

The case of the moth, which Dr. Harris gives as an example of "progressive improvement", illustrates precisely the point I wanted to stress, viz. that natural selection is wrongly identified with progressive evolution. "Adaptation" by "survival of the fittest" may be retrograde from the evolutionary standpoint. Darwin (following von Baer) regarded as a standard of high organization, the amount of differentiation of the parts of the same organic being in the adult state, and their specialization for different functions or the completeness of the division of physiological labour (*Origin of Species*, pp. 97, 98). But he pointed out that natural selection very often leads to beings that are *lower* according to this definition. On the same page on which he says that "natural selection leads towards this standard (of high organization)", he says also that "natural selection, or survival of the fittest, does not necessarily include progressive development" (*Origin of Species*, p. 98), and he does not satisfactorily explain how *both* verdicts can be true. As to the example of the moth, this change is (to put it in Darwinian terms), "beneficial" and not "progressive".

In reply to Dr. Spanner: when discussing *science*, that is, the *human* conception of *nature*, it seems impossible to make an absolute distinction between nature and the investigator. The principle of uniformity tells us first of all something about the investigator, to wit, that he has, as Lyell styled it, a *bias*

for supposing ancient phenomena as being of the same kind and happening with the same energy as the recent ones.

Inevitably this does presuppose something about nature too, for the decision to admit only uniformitarian explanations is connected with an avowed or latent *belief* that there *is* uniformity in nature. (Perhaps philosophers, rather than scientists, would make the qualification that we decide to behave *as if* there were uniformity in nature.) This latter supposition (of uniformity) is, however, of a very ambiguous kind, for it does not specify the character of that uniformity.

The principle stated by Dr. Spanner in the form: "the same causes always produce the same effects," is not identical with the principle of uniformity; it is borrowed from physics, not from geology. The principle of uniformity expresses the geologist's intention to explain ancient phenomena exclusively by means of recent causes (causal situations). The word "uniformity" may cover Dr. Spanner's formulation, but the continental term "actuality" shows that it has still quite another aspect.

Now the whole paper purports to evince that, though the principle seems to say something about nature (*viz.* that there is uniformity in nature), it essentially ought to say only something about the method of explanation we want to use (that is: we start from the *principle* of choosing from alternative explanations that which bears most analogy with the present). And one of the points at issue is, whether or not of the elements A, B, C, etc., some have disappeared and others arisen in the course of time. It depends on the *choice* of the elements, whether one recognizes uniformity or not; only as to the "physical" elements do the different schools agree, not as to the "geological" elements. The supposition of "finiteness" does not alter anything in the situation of the geologist, for he cannot, like the physicist, set the same "cause" again in operation, as he would have to repeat in his laboratory the experiment of *nature*, which he did not witness.

With the intention of Dr. MacKay's formulation I do agree; he advances more clearly than I did in the paper the difference between the "principle of uniformity" and the "uniformity of nature".

However, the principle of uniformity traditionally belongs to the aetiological sciences, especially to historical geology. "Precedent" could easily be interpreted as "going before in time" and not as "a previous case". In practice, however, the principle is applied in the other direction: the "precedent" is the recent phenomenon, as the term "actuality" expresses. The term "uniformity" makes us forget that *time* ought to be introduced in the formulation. Therefore as a specifically geological (instead of physical) name could better be used "principle of actuality".

To stress the tie with aetiological sciences I suggest an addition to Dr. MacKay's formulation, *viz.*: "When reconstituting past events, scientific theory concerns itself only with apparent departures from recent events." "Recent" has the vagueness which admits the different manners of applying

the principle. In the formulation of the principle we may get rid of *analogy*, but in its application, as Dr. MacKay rightly says, our methodological conservatism wants to reduce the "claims to non-uniformity", and then it inevitably uses *analogical reasoning*.

The other remarks of the speakers whom I have answered above, as well as those of the Rev. Philip Hughes and Mr. Titterington, do not need commentary. I gratefully acknowledge the contributions made to the discussion, which has helped much to clarify the problem.