

THE NATIONAL BIBLE INSTITUTE

340 WEST FIFTY-FIFTH STREET

NEW YORK 19, N.Y.

November
thirteen
1947

Professor Gordon H. Clark, Ph. D.
Department of Philosophy
Butler University
Indianapolis, Indiana

Dear Dr. Clark:

Thank you for your good letter just received, and thank you also for your fine spirit.

This is just a preliminary word. I want to look up several of the points to which you refer, but here is a word on John Dewey:

The whole impact of Dewey's educational philosophy as it borders on psychology is about as much opposed to Watsonian behaviourism as it is to the Christian doctrine of the soul. Even in the passages which you quote from Dewey's Human Nature and Conduct, his use of the words "observation, recollection, foresight, and judgment," in the total Dewey context, are directly anti-behaviouristic. In his Democracy and Education he constantly refers to acts of consciousness. The same is true in his Experience and Nature, The Quest for Certainty, and Logic.

Last Monday afternoon and evening I attended meetings in which professor-emeritus Bode, of Ohio State, was honored by Columbia as a true Deweyite. John Dewey himself gave a speech honoring Bode. Kilpatrick specifically referred to Bode's contributions in opposition to Watsonian behaviourism. In the course of the speeches and questions anti-behaviourism as the Dewey attitude was referred to a score of times.

Last December at Yale, Brand Blanchard gave a speech in which he said most emphatically, "Behaviourism is out."

These naturalists are truly "out on a limb." They do not believe in the soul as a substantive entity. They believe in consciousness but only as a function. A function of what? Of nothing? They deny a res cogitans.

I believe the question of the philosophical basis of Christian evidence is crucially important for us Bible-believing Christians today. Would it not be possible for you to write an article answering my review for me to publish in The Bible Today in the near future.

page two

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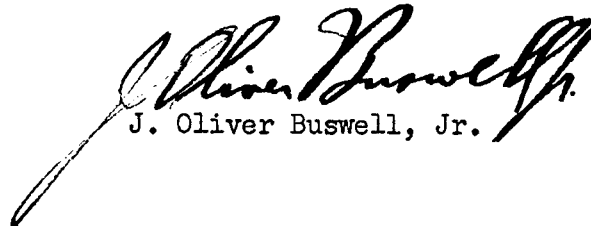
I should be delighted to carry on an argument with you in our pages through several issues. I believe it would be quite profitable for the cause in which we supremely believe. I should be glad to print the arguments in your letter just as they stand (answering them of course, and conceding certain points). Probably, however, you would prefer a fuller statement of your arguments for publishing.

Could you conveniently get such an article to me within the next two weeks?

How I wish we could sit down and talk these things over!

With cordial regards to your family, I am

Yours in Christian fellowship,



J. Oliver Buswell, Jr.

job/mb

November 19 1947

Dr. J. Oliver Buswell, Jr.
The National Bible Institute
New York, N.Y.

Dear Dr. Buswell,

I am very happy to avail myself of your kind invitation to reply in The Bible Today to your review; and I hope I have not transgressed the limits of propriety either in space or in any other way.

Perhaps you may wish to change the tentative title.

As for John Dewey I can hardly agree with you that the quotations in my last letter are inconsistent with behaviorism. In their total context they seem to be strictly behavioristic. While you do not quote from Dewey's other books, I shall try to look through them for anything that is clearly anti-behavioristic. The fact that Blanchard said emphatically that behaviorism is out proven nothing. Blanchard has always been anti-behavioristic. I mentioned him as a well known scholar who says that Dewey is a behaviorist, and who quotes Dewey as admitting behaviorism. The very fact you allude to reinforces my point: you say, "they believe in consciousness but only as a function. A function of what?" Exactly - it is a function of the muscles and organs. And one who says thinking and thought are muscular motions, or motions of the cortex, is a behaviorist. It is not necessary to reduce all conduct to the reflex arc. The essence of behaviorism is that thought or mind is behavior. It need not be restricted to the reflex.

You may be interested to know that I am starting on An Introduction to Christian Philosophy. Maybe I can get through the first draft in two years.

Cordially yours,

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four
1947

Professor Gordon H. Clark, Ph.D.
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Dear Dr. Clark:

Please pardon my delay in acknowledging your letter and valuable contribution. I am the worst editor in the world. I desperately try every month to get the copy to the printer by the twentieth for the following month, but I succeed very badly. I have been simply swamped by other imperative duties and have not been able to get the copy off to the printer until now.

Referring back to your letter of November 10th. I hope you will give us some material on the question of rationalism, irrationalism and non-rationalism. My remark in my review partly stemmed from your quotation from Bertrand Russell on page 37. By the way, could you give me the reference for that quotation? I am somewhat interested in the Russell-Dewey controversy, and should like to know just where to look for the context of the statement you quote. I can give you a list of nearly a hundred passages in Dewey's Logic in which he refers one way or another to rational standards and their relationship to the ongoing social process of inquiry. Ninety percent of the time he declares that there are no such standards except as developed in and from the process, but occasionally he contradicts himself and appeals to the "law of contradiction" as an ultimate standard. I should really like to know just what your theory of the rational and the irrational is, and I think it would make good reading for The Bible Today.

Another point I hope you will further develop is the question of the relevancy of geometrical demonstration. To me the rejection of the cosmological and teleological arguments on the ground they do not give geometrical demonstration is like rejecting a building brick because it is not a violin. How could you say that geometry "furnishes a conspicuous pattern of demonstration," when you know so well the difference between the deductive, analytical, teleological pattern which geometry follows, and the radically different pattern of inductive reasoning?

In the last few lines of page two you say "I agree with Calvin, Institutes Ii, that the idea of God must come first of all. God is the first known of all objects. Other objects are known afterwards." Interesting! Because as a matter of fact Calvin says that the knowledge of ourself comes first, and, though it is difficult to tell which comes first yet "nor can we really aspire toward Him, till we have begun to be displeased with ourself. ... The knowledge of ourself therefore is not only an incitement to seek after God, but likewise a considerable assistance toward finding Him." Thus he ends the first paragraph.



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The second paragraph begins "On the other hand, it is plain that no man can arrive at the true knowledge of himself, without having first contemplated the divine character, then descended to the consideration of his own." If a fair interpretation is given to the words "true knowledge" the second paragraph does not contradict the first. The ordo cognoscendi is (1) a little knowledge of ourselves and our depravity; (2) a contemplation of the character of God; (3) a "true knowledge" of ourselves; (4) the increase of both kinds of knowledge pari passu. Calvin in Institutes Ii simply did not say that "the idea of God must come first. God is the first known of all objects. Other objects are known afterwards."

On the question of Dewey's behaviourism, I am very sure of my material. However, as of course you recognize, Dewey is not a clear-cut mountain peak but a vast smoky cloud. There are general contours but there enormous obscurities and some outright contradictions. I am reminded of the method of photographing the Aurora Borealis illustrated in the National Geographic Magazine for November this year on page 682. The photographer is shown with a large convex mirror which gives the entire wide spread image of the Aurora. The camera is focused on the mirror and thus a fairly correct image is obtained. If the camera were focused directly on the Aurora only a partial image would result and the wide-spread nebulous outlines would not be fairly represented.

I could easily give you a great many passages from the books I cited in my letter of November 13th and from others of Dewey's which I have read, especially Art. As Experienced, but I knew I had some passages which would be more in the nature of the comprehensive photograph. Not till today have I had an opportunity to get at them.

I do think the Bode meeting which I described in my letter of November 13th is a fair overall view of the Dewey attitude toward Watsonian behaviourism, but that apparently was not sufficient.

I did think from your letter of November 11th that you also took Brand Blanshard as a behaviourist. I see, however, from your letter of November 19th that you do not so interpret Blanshard. Blanshard's chapter to which you refer is I think a fair illustration of a comprehensive view of Dewey, with one defect which I shall point out as follows. Brand Blanshard in paragraph 27, page 383, of the reference which you cite, gives a mosaic of quotations from three different parts of Dewey's Essays in Experimental Logic. This work of Dewey's was published in 1916 but was partly a reprint of material from Studies in Logical Theory published in 1903. Blanshard quotes Dewey as saying "Instrumentalism means a behaviouristic theory of thinking and knowing... 'States of consciousness' are really intra-organic events...continuous with extra-organic events." But Blanshard goes on to say (page 384f) "And if I believed Professor Dewey to be really a member of this school [Behaviourism], I should not have paid him the sincere, if perhaps equivocal, complement of this extended criticism. But, as has already been more than hinted, his philosophy bulges through the rickety crate of its avowed behaviourism on every side. Its very essence is the reality and power of reflective purpose, and where among things do you find that... We must say, I think, that it is not really behaviouristic, that it is far more responsible and sophisticated than that. Yet formally it disavows belief in any thought that is not a mode of behaviour in physical things. And this marks a conflict within itself. As Santayana..."

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This is sufficient I think to show that Blanshard himself did not really regard Dewey as a behaviourist in the Watsonian sense. There is evidence, however, that Blanshard himself missed a part of the Dewey view. Blanshard, for one thing, misses the point of the Santayana-Dewey argument. Dewey accused Santayana's naturalism of being "broken backed" because Santayana is an avowed materialist. Santayana accused Dewey's naturalism of being "faint hearted and short winded", because Dewey is not a materialist. Santayana's penetrating phrase "preoccupation with the foreground" goes to the very nucleus of the Dewey metaphysics. Dewey as a T. H. Green idealist believed in the reality of mind. When he gave up idealism he did not become a materialist. In his Common Faith (page 54) he gives what seems to a very pertinent statement of motive for rejecting materialism.

But as long as the conceptions of science were strictly mechanical (mechanical in the sense of assuming separate things acting upon one another purely externally by push and pull), religious apologists had a standing ground in pointing out the differences between man and physical nature.

In all Dewey's writings he is just as vigorous against the ~~anth~~^{ont}ological reality of matter as he is against the reality of mind. This, I think, Blanshard does not quite grasp.

Turning back now to the quotation which Blanshard gives, I think Blanshard should have seen that "a behaviouristic theory of thinking and knowing" is not Watsonian behaviourism at all! Blanshard puts it very mildly when he says that the very essence of Dewey's system is "the reality and power of reflective purpose." Dewey's "behaviouristic theory of thinking and knowing" is like the phrase "a submarine theory of aviation." (I have heard analogy drawn between the submarine completely surrounded by its element and the airplane completely surrounded by an ocean of air. For each there are analagous or contrasting problems of pressure, surface resistance, altitude or bathotude (if there were such a word).)

Furthermore, Blanshard should have caught the regular Dewey refrain of anti-dualism in "intra organic events...continuous with extra-organic events." The organs themselves for John Dewey are events or functions of events for which both a materialistic and a spiritual ontological basis is vigorously denied. Dewey places far more emphasis on the "continuous with" than on either the "intra organic" or the "extra-organic". When in your letter of November 19th you answer the question "Function of what?" with the words "exactly - it is a function of the muscles and organs," you are giving indeed an answer which Dewey might have given, but for him it would have been equivalent to "function of functions", to which any materialistic nature is strenuously denied.

If you browse the material before and after the quotations which you give from Human Nature and Conduct, you will surely see that Dewey is in an airplane, not in a submarine. Nothing is more prominent in all of this volume than the conscious activity of purposive behaviour with reference to the future.

You have certainly slipped in your quotations from Part III, Chapter One. Dewey goes on to argue that the exact sentences which you quote from "a page later" (page 177 in my edition) do not describe knowledge "except by courtesy (page 178)." He closes the chapter with the words "with habit alone there is a machine-like repetition, a duplicatin

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recurrence of old acts. With conflict of habits and release of impulse there is conscious search." (page 180)

The Schilpp volume, The Philosophy of John Dewey (Northwestern University Press, 1939, Paul Arthur Schilpp, editor) should be the great comprehensive photograph of Dewey's philosophy. Behaviourism is referred to a number of times by the different writers and by Dewey himself. Even more information can be gained by an examination of Dewey's elaboration of "the situation taken as a whole in its problematic character." (p. 586 and many other references) and the reaction of the various writers toward that doctrine.

Santayana's chapter in this book is practically identical with his article on John Dewey in The Journal of Philosophy, 1926. The material given on pages 249f is ~~found~~ Santayana's modified charge that Dewey after all is a behaviorist. In Dewey's own reply, ~~of~~ (the last one hundred pages of the volume), (page 531), he treats Santayana's charge with scorn and ridicule.

On page 555, speaking of his own views, Dewey says,

For, although the psychological theory involved is a form of Behaviorism, it differs basically from some theories bearing the same name. In the first place, behavior is not viewed as something taking place in the nervous system or under the skin of an organism but always, directly or indirectly, in obvious overtness or at a distance through a number of intervening links, an interaction with environing conditions.

This in itself, being Dewey's comment on a large volume of analysis by others, of his own philosophy, should settle the question, and should confirm my illustration above, "submarine aviation."

Of course, I know you can't take a philosopher's word for what he means by what he says, at least not in every case. A chaplain found a man on the battlefield wounded in his foot. The chaplain picked him up, tossed him across his shoulders and started for the dressing station. Bursting shells were flying through the air and one shell cut off the wounded man's head without the knowledge of the chaplain. The chaplain arrived at the dressing station, ~~and~~ deposited the wounded man on the ground, and the doctor looked him over.

"Chaplain", said the doctor, "Why bring in a man whose head is shot off?"

"The crazy fellow," said the chaplain, ^{He} "told me it was his foot!"

One of the best evidences that Dewey is not a behaviorist in the Watsonian sense is the fact that all the Dewey disciples with whom I have made contact here in New York University and in Columbia (and there are legions of them!) seem to agree that Dewey

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is not a behaviorist in any literal sense of the word.

One professor who studied extensively under Dewey tells me that a Columbia professor recently visited Santayana in Rome. The Columbia man took him to task for not doing more of a job on his chapter in the Schilpp volume. Santayana replied that he was sorry he had not realized the importance of the volume and written something new for his chapter. They had a long walk and after much discussion Santayana summed up the situation by saying "The essential difference between Dewey and me is that Dewey is a good man!"


Santayana's analysis may be morally right but philosophically his outright materialistic atheism is far more consistent in its error than Dewey's instrumentalism. I think Santayana's basic criticism, "preoccupation with ^{the} foreground" refusal to recognize any ontological entity either material or spiritual, and ontology of events and functions only, is essentially correct.

I still hope to get out the ~~December~~ ^{January} Bible Today almost on time (?).

I am enclosing our microscopic honorarium for your contribution and a rough draft (very rough) of my editorial on your remarks.

Merry Christmas and Happy New Year.

Yours in Christian fellowship


J. Oliver Buswell, Jr.
President

job/ah

December 9 1947

Dr. J. Oliver Buswell, Jr.
The National Bible Institute
New York, N.Y.

Dear Dr. Buswell,

In reply to your letter of December 4, first I wish to return the check that you so kindly sent. And if I should have the good fortune to continue our discussion two or three times in *The Bible Today*, the same principle shall apply.

In the second place, you did not make sufficiently clear the status of the rough draft of your reply to me. I assume that you have a finished copy that you will print with my remarks on your review. And I take it from the draft itself that I am at liberty to write something about "system". If you wish the draft returned, or if I have mistaken your intent in any other way, please let me know. I would like to have the draft while writing anything further. This may be sufficient answer to page one of your recent letter, except to say that the reference to Russell which you ask for is found in *The Scientific Outlook*, pages 94-95. As a matter of fact I do not have this material under my eyes at the moment, but I think that this is the correct reference.

With these matters disposed of, the remainder of this letter can continue our subsidiary discussion of John Dewey. First of all let me say that I admire the thorough way you went into the subject. You have gathered together quite a number of passages, and perhaps the most pertinent ones. From all the opinions expressed, by Santayana, Blanshard, you and me, one point of agreement soon emerges: Dewey is not altogether consistent. But as to the exact import of the quotations you gather, I have some remarks to make.

In your original review of my book, page 15, you said that I erred in classing Dewey's psychology as behavioristic. I now note that you are modifying this statement by speaking of "Watsonian behaviorism". I should guess that this means that Dewey does not reduce knowledge or consciousness to the reflex arc. In this you are absolutely correct. Not only in the article of 1896 which you mention in your review, but in other passages your statement is justified. But, then, it is not necessary to be a Watsonian in order to be a behaviorist. There may be varieties. And I wish to show that Dewey is one of the varieties.

Blanshard, it is true, wants to think that there is more than, or something other than, behaviorism in Dewey. But Dewey himself "formally . . . disavows belief in any thought that is not a mode of behavior in physical things" (Blanshard, page 385). I think that Blanshard may very well say that Dewey is inconsistent; or that Dewey smuggles in by the back door what he refused admittance at the front door. But in view of Dewey's own words, I cannot see how one can properly deny that Dewey is a behaviorist.

It does not seem to me that Blanshard has made the mistake you attribute to him. Or, in other words, I do not think your reference to Santayana, Green, and mechanism, prove what you think they prove. After all, mechanism and materialism are not the same thing. And, further, a denial of matter is not the equivalent of an assertion of consciousness (in the sense of a conscious spirit). When it is remembered that "matter" for the British empiricists was something that could not be seen, touched, or sensed in any way, that is, when it is remembered that matter is not an object of experience, then Dewey's rejection of the ontological reality of matter no longer seems to favor any form of spiritualism. For John Locke as well as for Aristotle matter and body are very different things. What Dewey is saying is that bodies cannot be explained by matter or by mechanism. But though Dewey rejects matter, he still makes physical, corporeal, sensible, spatial reality the ultimate reality.

The sense in which I and doubtless Blanshard also use the term behaviorism is simply that thought is behavior, or thought is a function of an organism, or that thought is the motion of bodies. I do not know that Blanshard says that Dewey is a Watsonian; and neither did I. But that Dewey teaches that thought is physical motion, I shall shortly show.

You seem to question my answer to your question, "function of what?" I replied, organs. You say that Dewey "might have given" that answer (page 3 of your letter); I say that that is the answer that Dewey as a matter of fact gave.

Take if you will Schilpp's book. At its close there is a long contribution by Dewey himself. It cannot be accused of representing a view long discarded. It is one of Dewey's latest writings. On page 531 I take it that Dewey accepts the phrase, "experience (is) an interaction of organism and environment." At the top of the next page, the same notion is repeated twice. Toward the bottom of the same page (532) I assume that Dewey means that the interaction of organism

with environment is the cognitive experience. I should say that this justifies the statement that for Dewey knowing is the function of the organism. It differs from Watson in that the environment is emphasized, for Watson seems to think of a reflex arc within the organism.

At the bottom of page 533, the word "biological" indicates the same position.

About ten lines from the bottom of page 535, we have a reference to the "interactions of an acculturated organism".

And in particular, page 542: "By way of further clearing up my own position I would point out that I hold that the word subject, if it is used at all, has the organism for its proper designatum. Hence it refers to an agency of doing, not to a knower, mind, consciousness or whatever. If the words, subject and object, are to be set ~~up~~ over against each other, it should be in those situations in which a person, self, or organism as a doer sets up purposes" etc.

Note that what he means by a person is an organism.

And on page 544 he says, "According to the naturalistic ~~xx~~ view, every experience in its direct occurrence is an interaction of enviroing conditions and an organism."

Page 555, which you yourself quote, sustains my position. Here Dewey claims to be a behaviorist. True, he says, there are several forms of behaviorism; mine (Dewey's) is different from some of them, for I erase any absolute distinction between organism and environment. Behavior is not limited to something in the nervous system under the skin. But still (as I interpret Dewey) "the psychological theory involved is a form of Behaviorism."

How, then, in the face of this explicit statement, can you say that I erred in classing Dewey as a behaviorist? Maybe Dewey is a submarine aviator, as you suggest; or better, he is in a submarine, but sometimes talks as if he were in a plane.

I think that this fairly well covers your remarks on Dewey; if you have further comments or further references, I should be glad to examine them.

And now I finally have time and space to wish you all a Merry Christmas. Mrs. Clark wishes to be remembered to your good wife.

Cordially yours,

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NEW YORK 19, N. Y.

December
eleven
1947

Dr. Gordon H. Clark, Ph.D.
Department of Philosophy
Butler University
Indianapolis 7, Indiana

Dear Dr. Clark:

Hearty thanks for your good letter and for your kindness in returning the honorarium. The rough copy which I sent you is ultimately for your waste basket. It is my editorial comment in full and I think word for word as it will appear. I am sorry I did not have it in better physical shape.

Please do send another installment of our discussion as soon as possible. Every month I try to catch up with the calendar in getting out our little magazine. I hope that the January issue may not be too far behind the ideal schedule. Take up any phase of the general subject which appeals to you. As I see it, the meanings of "system" and "common ground" are crucially important.

Thank you for the Russell reference. I need the background context of that quotation in my "workshop".

As to the question of "behaviourism" and John Dewey, I think I was justified in assuming that behaviourism in your context in your book would mean what it means to a student in survey of theories of psychology, - that is substantially what it means in Heidebreder's chapter on Behaviourism (Seven Psychologies, Appleton-Century 1933).

I think the quotations which you cite from the Schilpp volume do not justify the statement that consciousness is a function of the organism. Dewey's statements are to the effect that consciousness is a function of organism-environment. As you read the tons of chaff in Dewey's volumes, you get the impression that he places far more emphasis on the hyphen than either the organism or the environment. His opposition to any form of dualism or to any reference organs as such as an ontological basis of anything is fanatical.

How about making a statement to the effect that what you meant by behaviourism was not Watsonian behaviourism? To this I can say that whereas in my own mind I identified your reference with Watsonian behaviourism, I recognize that the term "behaviourism" does have other usages, or words to that effect.

Thank you again for your kindness in returning the small honorarium. We shall enter it as a donation to keep our books straight, and shall send you a receipt in due course.

I am sure our readers will greatly appreciate your contributions. We had an order the other day for a number of copies of my review and of my article on Paul and Kant from someone at Westminster Seminary (!), and I expect they will be after extra copies of

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the December issue in which the discussion continues.

Heartiest good wishes from all of us to you and your family.

Yours in Christian fellowship,


J. Oliver Buswell, Jr.

job/mb

*Our bookkeeper asks
if you would mind
signing the check*

THE NATIONAL BIBLE INSTITUTE

340 WEST FIFTY-FIFTH STREET

NEW YORK 19, N. Y.

December
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1948

Dr. Gordon H. Clark
Butler University
Indianapolis 7, Indiana

Dear Dr. Clark

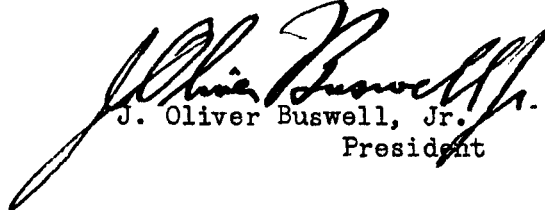
Thank you for your letter just received. I appreciate all that you say. Thank you especially for the references on permissive decrees. I shall study them carefully in the near future, which means at least after January 7th, deadline for the finished copy of my thesis at N.Y.U.!

The distinction for which you call is, I think, brought out by Paul in the word enegken in Romans 9:22.

I do wish you were nearer so that we could get together for conferences now and then. I am enclosing a copy of a letter just written to Kenneth Kantzer of Wheaton which may interest you. Of course it is just my own impression of a few high points.

Heartiest good wishes to all of your family for the Christmas Season.

Yours in Christian fellowship



J. Oliver Buswell, Jr.
President

job/h

THE CHRISTIAN VIEW OF MEN AND THINGS BY GORDON H. CLARK, EEROMANS 1952, 325 PAGES, \$4.00.

DR. CLARK IS A WELL TRAINED, BORN AGAIN, PHILOSOPHICAL SCHOLAR, WHOSE WRITINGS AND LECTURES ARE ALWAYS STIMULATING. AFTER AN INTRODUCTION, HE PRESENTS CHAPTERS ON THE PHILOSOPHIES OF HISTORY, POLITICS, ETHICS, SCIENCE, RELIGION AND EPISTEMOLOGY. IN EACH FIELD HE SHOWS FAMILIARITY WITH IMPORTANT LITERATURE. A WIDE RANGE OF READING IS EVIDENCED.

FLASHES OF ILLUMINATION - POLITICS

THE READER WILL FIND GENUINE FLASHES OF ILLUMINATION SUCH AS THE FOLLOWING FROM THE CHAPTER ON PHILOSOPHY OF POLITICS;

IN THE NINETEENTH CENTURY THE MEMORY OF AUTOCRACY WAS VIVID, AND AFTER SEVERAL NATIONS HAD RID THEMSELVES OF TYRANNY, THE ACKNOWLEDGED AIM OF GOVERNMENT WAS TO MAINTAIN ORDER SO THAT FREE INDIVIDUALS COULD ARRANGE THEIR PERSONAL, SOCIAL, BUSINESS, AND RELIGIOUS AFFAIRS AS THEY SAW FIT. TODAY, HOWEVER, THE DISADVANTAGES OF ABSOLUTE liberals, who are truly reactionaries, aim to establish a so-called GOVERNMENT HAVE BEEN FORGOTTEN, AND SO-CALLED DEMOCRACY ON THE PRINCIPLES OF LOUIS XIV. ...AS THE LOVE OF LIBERTY GROWS DIM UNDER SOCIALISTIC BUFFOCATION, AS COERCION INCREASES, THE MORE BRUTAL IT WILL BECOME. (P. 71)

WHAT THE FEDERAL COUNCIL OF CHURCHES CALLS CHRISTIANITY, AND WHAT THE AMERICAN COUNCIL OF CHURCHES CALLS CHRISTIANITY ARE TWO RADICALLY ANTAGONISTIC RELIGIONS. (P. 84)

BUT THE ILLUMINATION IS NOT CONSISTENT. DR. CLARK TAKES FLASH LIGHT VIEWS, BUT OFTEN MISSES THE PATH. HE REFLECTS THE DOCTRINE ENUNCIATED IN THE DECLARATION OF INDEPENDENCE THAT GOVERNMENTS "DERIVE THEIR JUST POWERS FROM THE CONSENT OF THE GOVERNED." (P. 127F) HE RATHER CYNICALLY REMARKS THAT "DEMOCRACY MADE THE NAIVE ASSUMPTION THAT THE MASS OF THE ELECTORATE COULD CHOOSE MEN CAPABLE OF MANAGING A NATION'S AFFAIRS". (P. 133) HE DECLARED THAT "THE AUTHORITY OF MAGISTRATES DOES NOT DERIVE FROM ANY VOLUNTARY SOCIAL COMPACT, BUT IT DERIVES FROM GOD". (P. 136) I DO NOT SUBSCRIBE TO THE "SOCIAL COMPACT" THEORY OF ROUSSEAU IN ANY SENSE OF THE WORD. I DO DEFEND THE DOCTRINE ENUNCIATED IN THE DECLARATION OF INDEPENDENCE, AS BEING BASED UPON THE SCRIPTURES. TRUE, THE APOSTLE PAUL DECLARES THAT GOVERNMENTAL POWERS ARE "ORDAINED OF GOD". (ROMANS 13:1-7) BUT IT IS JUST AS TRUE THAT PETER REFERS TO THE KING AND THE GOVERNOR AS CREATURES

*Dear Dr. Clark
You may not like
me after this.
I think a lot of
you, but not of
your philosophy
of science.
G.H.P.*

Franked King may be a human creation, but do these human creators give their creations just powers

of man. (I Peter 2:13,14) It is doubtless this last Scripture which the founding fathers had in mind. There is here no contradiction. Putting the ~~13th~~ ^{thirteenth} chapter of Romans together with the ~~2nd~~ ^{second} chapter of I Peter, we derive the consistently Christian doctrine that God has ordained that governments shall rule and that they shall be instituted through human instrumentality.

*↑
Not the point*

←Missing this point Dr. Clark arrives at the strange doctrine that the state is a "necessary evil".

The Christian answer is that the state is not a positive or unconditional good, but rather a necessary evil. To do justice to the Christian view one must insist on both adjective and noun. The state is an evil not only because of the abuse of power by the magistrates, but also because it interferes with freedom and introduces an unnatural superiority among men. But the state is also necessary under actual conditions because without civil government each man's evil nature would turn his freedom to intolerable actions. The existence of the state is a partial punishment and cure for sin. (P. 138f)

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←Dr. Clark teaches, in fact, that all coercion among human beings is evil. "War is only one example of a more general condition. War is a species, as it were, of a wider genus, and that genus is brutality." (P. 69) "...brutality is a species of the wider genus of coercion." (P. 70)

Dr. Clark's notion that the state is a necessary evil,

and that all coercion among human beings is evil, certainly does not square with the general picture of things set forth in the Bible. The Greek text of Ephesians 3:14,15 tells us that "every fatherhood in heaven and upon earth is named that is, derives its character from The Father". Now certainly coercion is analytically a part of the idea of fatherhood as the word is used in the Scriptures. Moreover, among the angels who know no sin we have indications of authority, government, and relationships involving superiority, subordination, and presumably reasonable coercion. The words "angels and archangels" are not meaningless. All references to the exercise judgment with Him, and rule over numbers of "cities" with Him, future kingdom of Christ in which we shall reign with Him in the future state of blessedness, are rendered either false or meaningless by Dr. Clark's philosophy of political science.

Do the angels use coercion?

Clark on Inductive Theistic Arguments

My primary purpose in this review is to analyze Dr. Clark's philosophy of science, but such analysis will be clearer after his theistic philosophy is investigated. The defect in his understanding of inductive reasoning from effect to cause, which so seriously wrecks his philosophy of science, is clearly evidenced in his philosophy of Theism. Dr. Clark vigorously rejects all arguments from nature or the created universe as effect to the existence of God as cause. He says

...Protestant theologians...usually repudiate natural theology and assert that the traditional proofs of God's existence are not logically or "mathematically" demonstrative. (P.251)

This statement involves two propositions which I mention in reverse order: (1) that traditional arguments from nature to the existence of God are not logically or mathematically demonstrative. This proposition is practically undisputed. It is not only the position of Protestant theologians - it is the position of Thomas Aquinas and the Roman Catholics. Clark is quite wrong in saying in the context that the idea that these proofs are not logically or mathematically demonstrative is "contrary to the Catholic" position.

Kindly cite your evidence

But the other proposition involved in the quotations now under discussion, (2) "Protestant theologians...usually repudiate natural theology," that is theology arguing from nature to the existence of God, is perfectly preposterous and entirely contrary to facts of which Dr. Clark has full cognizance, if he had only stopped to think. Who are these "Protestant theologians...usually..."? The greatest Calvinistic tradition of Europe includes the names of Kuyper, Hepp and Bavinck as outstanding Protestant theologians. Nothing which these three consistently taught could possibly be regarded by a balanced judgment as usually repudiated by Protestant theologians. Among the greatest theologians in American Protestantism were Hodge and Warfield. Their influence is so vast, so profound, that to describe a position which they consistently defended as usually repudiated by Protestant theologians is quite absurd.

Shoff says precisely what I said.

John Calvin did not repudiate natural theology. In his commentary on the Epistle to the Romans, discussing Romans

Calvin has no demonstrative proofs

1:19-21, he says

...man was created to be a spectator of this formed world, and...eyes were given him, that he might, by looking on so beautiful a picture, be led up to the Author Himself ...God is in Himself invisible; but as His majesty shines forth in His works and in His creatures everywhere, men ought in these to acknowledge Him for they clearly set forth their Maker...God has presented to the minds of all the means of knowing Him, having so manifested Himself by His works, that they must necessarily see what of themselves they seek not to know...(Commentary on Romans 1:19-21)

← Calvin's entire comment on the 19th Psalm is in substance an elaboration of the cosmological and teleological arguments. He says

There is certainly nothing so obscure or contemptible even in the smallest corners of the earth, in which some marks of the power and wisdom of God may not be seen... the heavens proclaim to us the glory of God...by openly bearing testimony that they have not been put together by chance but were wonderfully created by the Supreme Architect. (Commentary, Psalm 19)

← Paul quotes the 19th Psalm in the 10th chapter of his Epistle to the Romans. In commenting on the latter passage Calvin says

But in order that He might show that the school, into

This is not the cosmological argument.

which God collects scholars to Himself from any part, is open and common to all, he brings forward a prophet's testimony from Psalm 19:4; ...the prophet...[speaks] of the material works of God; in which he says the glory of God shines forth so evidently, that they may be said to have a sort of tongue of their own to declare the perfections of God.

...God has already from the beginning manifested his Divinity to the Gentiles, though not by the preaching of men, but by the testimony of His creatures; for though the Gospel was silent among them, yet the whole workmanship of heaven and earth did speak and make known its Author by its preaching. (Commentary, Romans 10:18)

And yet Dr. Clark says that "Protestant theologians...usually repudiate natural theology!"

← In the same context Dr. Clark says "...sin has so vitiated human powers that man can reach neither the heavens nor his own heart aright." Quite to the contrary our Lord declared "Ye, hypocrites, ye can discern the face of the sky and the earth; but how is it that ye do not discern this time?" (Luke 12:56; ^S See also Matt. 16:3)

← Clark holds that God could not and would not present man with any evidence other than God's own witness to Himself.

He says

On the assumption that there is a God, and more particularly on the assumption that God exists as described in the Bible, what "evidence" could he give to man that he was

God?... How then could God show to a man that it was God speaking? Suppose God should say "...I will bless them that bless thee and curse him that curseth thee." Would God call the Devil and ask Abraham to believe the Devil's corroborative statement? ...What reason can this man have to conclude that God is making a revelation to to him? (P. 258)

Now, of course, the Devil should not be regarded as a reliable witness, but the fact remains that God appeals to circumstances open to our common observation as evidence that He is God. Christ said (John 10:37,38) "Believe me for the very works' sake." Moses required that Israel should test whether the words of a prophet were the words of God by inquiring first whether the prophet was true to the living God, and second whether the prophet's predictions came to pass. (Deuteronomy 13:1-5⁶, 18:15-22, especially vv. 21,22) Isaiah clearly required that circumstantial evidence, namely, conformity to the Law and ^{the} Testimony, should be used by the people to discriminate between the voice of God and the voice of a false prophet. (Isaiah 8:20) Throughout the whole history of Revelation God has graciously condescended to submit His credentials in the form of factual circumstantial evidences, open to critical public investigation.

Examining Presu^{pp}ositions

It will be appropriate at this point to call attention to a fallacy assumed in common by Dr. Clark and a considerable number of sincere Christian teachers of philosophy and theology in our generation. The fallacy is contained in the words in

How know the Law comes from God.

which Dr. Clark objects to anyone requiring a "proof of a first principle". (P. 259 and frequently throughout) Now it is true that when one begins a process of reasoning he must begin somewhere, he must make some assumptions, he must have some presuppositions. But the notion that presuppositions, or first principles, or initial assumptions are not subject to questioning or re-examination is totally without support. It is merely a blithe and nimble means by which the man whose house might prove to have been built upon sand excuses himself from examining his foundation.

Dr. Clark, for example, assumes the law of contradiction as a basic presupposition and first principle. In all ordinary cases we start with that principle in the background and go on to examine other things. To prove that a proposition violates the law of contradictories is to prove to most people that it is false and not worthy of acceptance. However, certain influential persons whose views violently diverge on other matters are now challenging the law of contradictories. Karl Bartⁿ in one horizon and Dr. Van Til in another horizon are challenging this foundation. Shall we simply say "no fair"! By no means. In dealing with those who do not presuppose our presuppositions, we say, Well then, for the sake of the argument, though we do not for a moment give up our foundation, let us suppose that these foundations are not reliable. What then? We then proceed to show that all discourse based on the assumption that the law of contradictories is not reliable is either (1) mere words without meaning, or (2) inconsistently

based on a secret unacknowledged assumption that the law of contradictories does hold after all when found convenient.

Irrelevant
I stand unequivocally with those who believe that there must be certain first principles and basic presuppositions in all reasonable discourse, but I totally repudiate the assumption that these foundations may not be questioned or re-examined or substantiated and reinforced.

Clark's Constructive Reasoning

?
Let us examine an instance of his own constructive reasoning. Dr. Clark is generally characterized by strong and rather cynical negativism. I have elsewhere criticized his lack of constructive support of any great system of Christian doctrine. In the present work he does occasionally desist from tearing down, and reason constructively. In my opinion the best example of an effort of his to establish something positive is found toward the end of the last chapter under heading of Epistemology. Dr. Clark begins this passage (P. 318)

Obviously if skepticism is to be repudiated and if knowledge is a reality, truth must exist. An ancient Greek Parmenides was the first to state it, and Plato repeated it: if a man knows, he must know something: to know nothing is not to know. Knowledge therefore requires an existing object, and that object is truth - truth that always has and always will exist."

Categories of Existence

← The fallacy in the above argument is covered up (1) by

the lack of definition of the word exist and (2) the failure to distinguish truth embodied in propositions from truth not yet so embodied.

when a philosophy teacher states that anything exists, he is morally bound to define the category in which it exists.

Does it exist as a substantive entity, matter or spirit? ^{As an attribute?} As a relationship, above or below? Or as in some other category of being?

obviously propositional truth exists in propositions ^{and not before} only after the propositions have been formulated.

Non-propositional truth, when it exists, exists in a number of different categories.

It was true that the western continents existed before that truth was ascertained or stated in a proposition.

Does Truth Change Always or Never?

← Dr. Clark proceeds next to refute the argument of the Instrumentalists who say that truth is continuously changing.

He says

If truth changes, then the popular instrumentalism that is accepted as true today will be false tomorrow. As Thomism was true in the thirteenth century; so instrumentalism is true in the twentieth century; and within fifty years instrumentalism, in virtue of its own epistemology, will be false. ...these relativistic theories tacitly assume their own absolutism... (P. 319)

Dr. Clark does not consider seriously the possibility that some kinds of truth are changeable. He proceeds

It follows then truth must be unchangeable. what is true today always has been and always will be true. Any apparent exception, such as, It is raining today,

What hook is this?

*Note
this is not
non prop.*

Insert attached

On the assumption of instrumentalism, Dr. Clark argues, the truth of instrumentalism will become false, the notion that truth continually changes will change and therefore there will come a time that it is true that truth does not change. *No-P*

is an elementary matter of ambiguity. Two and two are four; every event has a cause; and even, Columbus discovered America, are eternal and immutable truths. To speak of truth as changing is a misuse of language and a violation of logic. (P. 319)

←Now this is quite amazing! I thought there was a time in history when it was not yet true that Columbus discovered America; and I have considered it rather fortunate that "It is raining today" is not eternally true. Why not speak with some discrimination? Thank the Lord, there are eternal verities - truth about the character of God - truth about character of truth (such as the law of contradictories) - truth about eternal relationships - these things are eternally true. Moreover, truth about the past is eternally true in the future, though it was not true until it came to pass. However, truth about changing conditions, if stated in the present tense, changes with the conditions, and to deny that it changes is more absurd than the ^{re}posterous position of the instrumentalists. To me it is quite reprehensible for a philosophy teacher to dismiss these important distinctions as merely "an elementary matter of ambiguity". Why not clear up the ambiguity instead of making it worse?

Is All Truth Mental?

←Dr. Clark next proceeds

The idealistic philosophers have argued plausibly that truth is also mental or spiritual. Without a mind truth could not exist. The object of knowledge is a proposition,

a meaning, a significance; it is a thought. (P. 319)

← Let the reader apply one of Dr. Clark's familiar, clever devices to Dr. Clark's proposition. "Without a mind truth could not exist". This proposition is alleged to be a truth. If this proposition is true, then without a mind it would not be true. Therefore, under the hypothetical assumption that there were no mind, the proposition that there was no truth would not be true.

*quite so. +
God is eternal
mind.*

Dr. Clark has here in a very superficial way confused truth with knowledge. By commonly accepted usage, knowledge (expressed in propositions) is an activity or an achievement of mind. On the contrary, truth, in ordinary usage, may not be formulated in proposition. It may be what a mind lacks, what a mind is seeking by diligent research to acquire. The fact that we believe that God has always known all truth does not in the least imply that being known to a mind is of the essential character of the truth as such.

why not?

Dr. Clark argues elsewhere that if God is known through nature this would make God dependent upon nature. Pursuing the same process of reasoning (with which I do not concur) Dr. Clark should argue that if God is known through the existence of truth, this would make God dependent upon truth.

*i.e. as a
premise*

quite so

Do Identical Thoughts Recur?

The next step in Dr. Clark's constructive argument is to declare that identical physical motions can never recur but identical thoughts do recur. No two persons may have the same motion but two persons may have the same thought. He concludes

It is a peculiarity of mind and not of body that the past can be made present. Accordingly, if one may think the same thought twice, truth must be mental or spiritual. Not only does it defy time; it defies space as well, for if communication is to be possible, the identical truth must be in two minds at once. (P. 320)

*2 thoughts
may be the
same.*

↳ The argument is certainly inconclusive. It is no more evident that my thought of Mt. Shasta today is the same identical thought of Mt. Shasta which I had yesterday than that motion of waving my hand today is the same identical motion it was yesterday. To declare from such an argument that "truth must be mental or spiritual" is, it seems to me, a screaming example of non sequitur. The truth that America was here was not in any human mind before America was discovered. It was in the mind of God, but not because there is anything about a truth which would wipe it out if it were not known, but because God is omniscient.

Is All Truth Nothing but God's Thought?

↳ The final step in Dr. Clark's argument from the existence of truth to the existence of God is stated as follows:

The truths or propositions that may be known are the thoughts of God, the eternal thought of God. And insofar as man knows anything he is in contact with God's mind. Since, further, God's mind is God, we may legitimately borrow the figurative language, if not the precise meaning, of the mystics and say, we have a vision of God. This

involves a view of the world radically different from that of popular science. (P. 321)

Isn't God a Spirit?
K-I must immediately take exception to the statement "God's mind is God" simpliciter. God's mind is God minding; God's will is God willing; God's mercy is God exercising mercy; God's compassion is God feeling compassion. But to say simply "God's mind is God" is grossly misleading. It is like the Eddyite saying that since God is love, therefore Love is God.

I also take strong exception to the statement that all the truth which we may know is "the eternal thought of God." It is true that God has purposed all things in His eternal decree, but to say that the truth which I may know is nothing but God's thought would imply a denial of the actuality of creation. I know, for example, just now that I am using a dictaphone; I know that this is within the decrees of God, but for me to know that I am using a dictaphone is not the same thing as for me to know the decree of God that I shall use or shall be permitted to use a dictaphone. Neither is it the same as knowing God's thoughts to the effect that I shall do thus and so, or be permitted to do thus and so.

Quite so.
What does Dr. Clark mean by "contact with God's mind" and "a vision of God". Does a wicked man or Satan himself know any truth? Certainly the Bible teaches that his may be the case. Does he then have "a vision of God" or have "contact with God's mind"?

Do We Think God's Thoughts?

Dr. Clark does well in saying that his view of our knowledge of truth is "radically different from that of popular science". His view is also radically different from that of the writers' of the sacred Scriptures. It seems very pious to repeat the old mystical saying "We think God's thoughts after him." But the implications are not only unscriptural but radically irreverent. When a boy thinks "I am going to college" and his father thinks "John is going to college", they both refer to the same ontological truth but the boy's thought is not to be identified with the father's thought. When I think "I am endeavoring to straighten out a tangled mess in the thinking of my Christian friends," I hope my thought is true and worthy and in harmony with God's thought, but I should be quite irreverent if I presumed to say that my thought is identical with God's thought. According to the Scriptures God says: "My thoughts are not your thoughts... For as the heavens are higher than the earth, so are... My thoughts than your thoughts." (Isaiah 55:8,9)

Looking back over Dr. Clark's constructive efforts to prove the existence of God from the existence of truth, we must say that it follows the pattern of the cosmological argument. Taking truth as an existing datum, Dr. Clark draws the inference that because truth exists therefore God exists. I certainly believe that it is reasonable to draw inferences from effects to cause in the processes of inductive reasoning, but I must say that Dr. Clark's example is far weaker and less

not so
no

cogent than the cosmological and teleological arguments as usually presented in the writings of the great Protestant theologians.

Clark's Shifting Definitions

Preliminary to Dr. Clark's chapter on the Philosophy of Science, I would suggest that the reader must first of all be made aware of the fact that Dr. Clark frequently shifts his definitions, especially his definitions of truth, logic, proof, and similar related terms. . . In his Christian Philosophy of Education, after vigorously reflecting the traditional inductive arguments for the existence of God because they do not constitute a mathematical "demonstration", (P. 39) he changes his definition of logic and argues that if a dice player rolls double sevens three times in succession, then "upon philosophic reflection the other players come to the logical conclusion that such a uniformity of results demands a uniformity of causality." (P. 70)

←Now Dr. Clark knows perfectly well that three double sevens in a row are not mathematical demonstration that the dice are loaded, nevertheless he uses the heavy phrases "philosophic reflection", "logical conclusion", "the uniformity of results demands a uniformity of causality". All of this after he has said

These arguments [the arguments from the facts of nature to the existence of God] cannot be merely half correct; there is no such thing as semi-validity. An alleged demonstration is either valid or invalid. If it be valid, *the conclusion is established, and that is the end of it; if it is invalid,*

that is the end of it too. Those who think that each argument has some value should learn from plane geometry what is meant by demonstration." (P. 39)

← Those who argue from the fact of three double sevens in succession "that it seems more reasonable to attribute the constancy of the phenomenon to a cause inherent in the dice" are approved for "philosophic reflection" and "logical conclusion". But those who find value in natural theology, those who hold that the facts of nature make it more reasonable to believe that the God of the Bible exists than to believe otherwise, are told by Dr. Clark in the same book (P. 39) that unless their arguments can produce a demonstration analogous to a demonstration in plane geometry, their arguments are "perjurer's".

Returning to the book now under review we find the shifting of terms even more extreme. The "conclusion" of his chapter on "Science" consists of two paragraphs. In the former he says "no-scientific or observational proof can be given for the uniformity of nature...science... is incapable of arriving at any truth whatever." (p.227) But in the very next paragraph, in the concluding sentence of this chapter he says

A philosopher...stated the exact truth when he said,
"The moral (or immoral) purpose in every philosophy has constituted the true vital germ out of which the entire plant has always grown...(P. 228)

Where is the observational proof?

← "The exact truth!" Careful observation of the many philosophies which Dr. Clark has studied would doubtless indicate

that this quotation from Friedrich Nietzsche would have been true if Nietzsche had said "many philosophies" instead of saying "every philosophy". But if Dr. Clark had had the same definition of "truth" on page 228 which he had in mind on page 227 he would have declared that Nietzsche's statement does not contain "any truth whatever".

Shifting definitions in intellectual and spiritual matters without giving notice is a worse sin than making a left turn in heavy traffic without signalling.

Clark's Criticism of Scientific Method

Let us now turn directly to Dr. Clark's destructive criticism of scientific method. The first step in his reasoning is the setting up of a false claim which some scientists have sometimes made, the claim of absolute certainty for scientific conclusion.

Straw Man - Absolute Judgments

Karl Pearson in his Grammar of Science (Macmillan 1911) made the statement (p. 6) that..."the formation of absolute judgments...is the aim and method of modern science." (Clark P. 200) Professor A. J. Carlson past President of the American Association for the Advancement of Science in an article entitled "Science and the Supernatural" originally printed in Science in 1931, reprinted in the The Scientific Monthly in 1944, said

The scientist tried to rid himself of all faiths and beliefs. He either knows or he does not know. If he knows, there is no room for faith or belief. If he does not know, he has no right to faith or belief." (Clark, P. 200)

No
I will briefly pass by the fact that this latter statement from Carlson is exactly the same in sentiment as Dr. Clark's statement quoted above from his Christian Philosophy of Education (P. 39) "an alleged demonstration is either valid or invalid ...". The difference is that the statements of Pearson and Carlson might be taken as emotional hyperbole whereas Dr. Clark's statement is adhered to consistently whenever he deals with the question of scientific method or the question of the inductive theistic arguments.

Dr. Clark knows perfectly well that the opinions quoted from Pearson and Carlson are eccentric. In a footnote he explains that "James E. Conant, On Understanding Science" expresses "a contrary view." (P. 212) Later in a flash of illumination Dr. Clark recognizes "there is no Science to which final appeal can be made; there are only scientists and their various theories". (P. 227) Nevertheless he devotes a considerable amount of space to discussions which seem to refer to "Science" as a kind of entity. He proceeds

Perhaps the easiest way to commence the discussion of this extraordinarily complicated subject is to dispose, first of all, of a popular notion that probably no longer commands wide acceptance. It is essentially Pearson's notion that science gives absolute judgments. The conclusions of science have often been regarded with an awe that takes them for final and infallible truth - science simply cannot be wrong. (P. 202)

ff ← Just what would a popular notion without wide acceptance

be like? It has been a popular notion that, speaking hyperbolically, "science cannot be wrong". "Science," meaning the achievements of contemporary scientific men, has often been regarded with too great awe. But this is not the same thing as the belief in literally absolute judgments.

Clark takes Pearson's notion that science gives absolute judgment, in a literal sense, and proceeds to demolish it very successfully. But the notion of "absolute judgments" in the literal, philosophical sense, has never been "popular."

The Process of Physical Measurement

The first step in Dr. Clark's process of demolishing his straw man is an examination of the process of physical measurements. It is a fact pointed out by many competent scientists that all measurements of material things are approximations. Temperature, moisture, and other factors so multifariously affect the measuring instruments and the things measured that in many cases the measuring index accepted for scientific purposes is an arithmetical mean, or an average of many different measurements. By selecting the arithmetical mean the scientists says, in effect, "Although no abstract number will precisely correspond with the dimensions of this physical object under all circumstances, yet the arithmetical average of many careful measurements will correspond sufficiently closely so that further calculations may be made upon this basis with results very closely approximating real physical conditions." The selection of an average measurement is based upon much experience with the measurement and manipulation of physical things. It is by

no means an arbitrary choice.

Is Mathematical Formulation Merely Aesthetic?

Dr. Clark does not know why the average measurement is selected as the one with which science may proceed. He says "...can the scientist do anything but trust his aesthetic taste?" (P. 207) At the meeting of the American Scientific Affiliation in New York, in 1951, Dr. Clark made the same statement that more aesthetic taste is the basis of the selection of an average measurement as an index number.

Is Science Totally False?

Dr. Clark continues to argue that in plotting a curve in a system of coordinates the dots on the scale really represent areas of measurements rather than geometrical points. This, of course, is true in part. The dots represent averages of measurements. Now, says Clark

...through a series of areas, an infinite number of curves may be passed. ...The scientist wants mathematical accuracy; and when he cannot discover it, he makes it. Since he chooses his law from among an infinite number of equally possible laws, the probability that he has chosen the "true" law is one over infinity, i.e. zero; or, in plain English, the scientist has no chance of hitting upon the "real" laws of nature. ...The point of all this argument is merely this: however useful scientific laws are, they cannot be true. Or, at the very least, the point of all this argument is that scientific laws are not discovered but are chosen. ...scientific laws...must indeed be false. (P. 208f)

This is exactly like saying that since on any given highway the wheels of an automobile may make an infinite number of slightly divergent tracks, therefore the statement that Route US 30 leads from Philadelphia to Chicago cannot possibly be true. Careful scientific men do not state the mathematical formula for law of the pendulum as absolutely true of all physical pendulums regardless of friction, air resistance and other factors. In fact, when I was taught the law of the pendulum in physics class it was carefully explained that this law is true, "other things being equal." The law represents a central tendency in the behaviour of pendulums and is approximately true of carefully made physically pendulums which are protected as far as possible from disturbing forces. The law of the pendulum when stated as a central tendency ceteris paribus is as true as the statement that Route US 30 leads from Philadelphia to Chicago. The "chances" of its being true are not one over infinity but one over one, that is, it is perfectly true and there is nothing false about it.

Do Facts Exist?

It were bad enough if Dr. Clark merely drew the conclusion that "science is all false...by its own requirements it must be false" (p. 210) but he proceeds next to argue "that absolute facts do not exist". (P. 227) The Heisenberg principle in modern physics reveals the fact that it is impossible to determine both the mass and the velocity of an electron, because of the difficulty of measurement. The measuring process destroys the data in the one case or the other. It is true that some philosophers including John Dewey, and some physicists who

speculate outside the realm of physics, have raised the question whether, or dogmatically asserted that, the mass and/or the velocity of an electron are figments of the imagination. It is equally true that outstanding physicists and philosophers have pointed out that the Heisenberg principle gives no valid grounds for doubting the existence of mass and/or velocity. The difficulty is in the measuring process. Unfortunately Dr. Clark has followed the path which John Dewey before him pursued (I have discussed this matter at length in my book on the Philosophies of Tenant and Dewey) and Clark, like Dewey, calls in question the fact of mass and the fact of velocity.

Bridgman of Harvard in his very stimulating book The Logic of Modern Physics has pointed out that the concept of length is the concept of comparative measurement. Whenever we give the length of anything we give it in terms of comparison with something else. John Dewey erred in interpreting Bridgman as teaching that length itself, not just the concept of length, is a mere matter of the operation of comparative measurement. Unfortunately, again Dr. Clark has followed the path which John Dewey erroneously followed.

It is true that the operation of measuring the electron is quite different from the operation of measuring the length of a table, but it is also true that scientists are in the habit of expressing the results of both kinds of measurements in fractions, or multiples of meters. Dr. Clark's conclusion is quite false when he says

...therefore the microscopic and telescopic lengths

are conceptually different matters. With the result that it is only by confusion that we apply the name length to both. ...But since the operation used in measuring these two sets of "lengths" are different, it follows that there is no "distance" between the earth and the sun. ...If a new instrument should be invented for the measuring of stellar distances, the result would not be the "length" of previous experimentation. A new method of measuring means that something different is being measured, for "the concept is synonymous with the corresponding operation". (P. 214f)

↳ This is as absurd to one who works with scientific measurements as to say that when I change from measuring by a meter to measuring by a yard I am no longer measuring the same "length". The concept changes, but the thing measured does not change with the concept. But Dr. Clark continues

and if Bridgman's method should be applied to other items, no doubt some of them would vanish too. The question comes whether anything would remain in existance^e. According to the thrust of operationalism it would seem that only operations themselves could survive the annihilating analysis. (P. 216)

↳ Dr. Clark's conclusion is not to reject the operational view of the concept of length. He has misunderstood Bridgman in saying "length turns out to be just the operations themselves." (P. 216) His conclusion is that "scientific procedure

cannot obtain truth," and that the existence of the facts which science endeavors to measure should be questioned,—"absolute facts do not exist." (P. 227)

Does the Physical World Exist?

This leads back to the theological and epistemological considerations with which this review began. For Dr. Clark "the truths or ^{prop}compositions that maybe known are the thoughts of God, the eternal thought of God." (P. 321) Dr. Clark frankly confesses, "there is some affinity between this view of the world and contemporary personalism in that the basic categories are mental and that personality and history are emphasized above the corporeal and mechanical." (P. 322f) In personalistic philosophy the world investigated by science is nothing but spirit and thought. Clark's proposition "the basic categories are mental" is a denial of the basic category of created matter.

I must close by giving Dr. Clark credit for the following sentence:

The Christian view differs from the various forms of personalism in refusing to equate the physical world with the eternal consciousness of God. (P. 323)

←But I regret that I must make it clear that this disconnected assertion of Dr. Clark's is totally unsupported by, and wholly contrary to, the system of philosophy of science which he has sought to develop. If the truths which we may know are the thoughts of God," (P. 321) And yet, according

to "the Christian view" the physical world is not to be identified with the eternal consciousness of God," (p. 323) then we are left with the conclusion that the physical world is totally outside of what Dr. Clark says we may know. If the created physical world exists as other than God's thought, and hence as unknowable, then the Biblical doctrine of creation is false. If it exists as nothing but God's thought, we have personalistic pantheism and not Biblical Christianity.

Dr. Clark has missed a great opportunity in failing to see that the Christian doctrine of creation of the material world, the doctrine that man was created to live in the material world and glorify God therein, is wholly in harmony with the scientific view that the material world may be known with a reasonable degree of accuracy and precision. The Biblical view of men and things is not contrary to scientific method as many great scientists understand and employ that method.