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THE JOURNAL OF PHILOSOPHY

PROPOSITIONS, WARRANTED ASSERTIBILITY, AND TRUTH

I PROPOSE in what follows to restate some features of the theories I have previously advanced on the topics mentioned above. I shall shape this restatement on the basis of ascriptions and criticisms of my views found in Mr. Russell's *An Inquiry into Truth and Meaning*. I am in full agreement with his statement that "there is an important difference between his views and mine, which will not be elicited unless we can understand each other."¹ Indeed, I think the statement might read "We can not understand each other unless important differences between us are brought out and borne in mind." I shall then put my emphasis upon what I take to be such differences, especially in relation to the nature of propositions; operations; the respective force of antecedents and consequences; tests or "verifiers"; and experience, the latter being, perhaps, the most important of all differences because it probably underlies the others. I shall draw contrasts which, in the interest of mutual understanding, need to be drawn for the purpose of making my own views clearer than I have managed previously to do. In drawing them I shall be compelled to ascribe certain views to Mr. Russell, without, I hope, attributing to him views he does not in fact hold.

I

Mr. Russell refers to my theory as one which "substitutes 'warranted assertibility' for truth."² Under certain conditions, I should have no cause to object to this reference. But the conditions are absent; and it is possible that this view of "substitution" as distinct from and even opposed to *definition*, plays an important rôle in generating what I take to be misconceptions of my theory in some important specific matters. Hence, I begin by saying that my analysis of "warranted assertibility" is offered as a *definition* of the nature of knowledge in the honorific sense according to which only *true* beliefs are knowledge. The place at which there is pertinency in the idea of "substitution" has to do with *words*. As I

¹ *Op. cit.*, p. 401.

² *Op. cit.*, p. 362. This interpretation is repeated on p. 401, using the words "should take the place of" instead of "substitutes."

wrote in my *Logic: The Theory of Inquiry*, "What has been said helps explain why the term "warranted assertibility" is preferred to the terms *belief* and *knowledge*. It is free from the ambiguity of the latter terms."³ But there is involved the extended analysis, given later, of the nature of assertion and of warrant.

This point might be in itself of no especial importance. But it is important in its bearing upon interpretation of other things which I have said and which are commented upon by Mr. Russell. For example, Mr. Russell says "One important difference between us arises, I think, from the fact that Dr. Dewey is mainly concerned with theories and hypotheses, whereas I am mainly concerned with assertions about particular matters of fact."⁴ My position is that something of the order of a theory or hypothesis, a meaning entertained as a *possible significance* in some actual case, is demanded, if there is to be *warranted* assertibility in the case of a particular matter of fact. This position undoubtedly gives an importance to ideas (theories, hypotheses) they do not have upon Mr. Russell's view. But it is not a position that can be put in opposition to assertions about matters of particular fact, since, in terms of my view, it states the *conditions* under which we reach warranted assertibility about particular matters of fact.⁵

There is nothing peculiarly "pragmatic" about this part of my view, which holds that the presence of an *idea*—defined as a possible significance of an existent something—is required for any assertion entitled to rank as knowledge or as true; the insistence, however, that the "presence" be by way of an existential operation demarcates it from most other such theories. I may indicate some of my reasons for taking this position by mentioning some difficulties in the contrasting view of Mr. Russell that there are propositions known in virtue of their own immediate direct presence, as in the case of "There is red," or, as Mr. Russell prefers to say, "Redness-here."

(i) I do not understand how "here" has a self-contained and self-assured meaning. It seems to me that it is void of any trace

³ *Logic*, p. 9. Perhaps in the interest of clearness, the word "term" should have been italicized. The ambiguities in question are discussed in previous pages. In the case of *belief*, the main ambiguity is between it as a state of mind and as *what* is believed—subject-matter. In the case of *knowledge*, it concerns the difference between knowledge as an outcome of "competent and controlled inquiry" and knowledge supposed to "have a meaning of its own apart from connection with, and reference to, inquiry."

⁴ *Op. cit.*, p. 408.

⁵ As will appear later, the matter is inherently connected with the proper interpretation of *consequences* on my theory, and also with the very fundamental matter of *operations*, which Mr. Russell only barely alludes to.

of meaning save as discriminated from *there*, while *there* seems to me to be plural; a matter of manifold *theres*. These discriminations involve, I believe, determinations going beyond anything directly given or capable of being directly present. I would even say, with no attempt here to justify the saying, that a theory involving determination or definition of what is called "Space" is involved in the allegedly simple "redness here." Indeed, I would add that since any adequate statement of the matter of particular fact referred to is "redness-here-now," a scientific theory of *space-time* is involved in a fully warranted assertion about "redness-here-now."

(ii) If I understand Mr. Russell aright, he holds that the ultimacy and purity of basic propositions is connected with (possibly is guaranteed by) the fact that subject-matters like "redness-here" are of the nature of perceptual experiences, in which perceptual material is reduced to a direct *sensible* presence, or a *sensum*. For example, he writes: "We can, however, in theory, distinguish two cases in relation to a judgment such as 'that is red'; one, when it is caused by what it asserts, and the other, when words or images enter into its causation. In the former case, it must be true; in the latter it may be false." However, Mr. Russell goes on to ask: "What can be meant when we say a 'percept' causes a word or sentence? On the face of it, we have to suppose a considerable process in the brain, connecting visual centres with motor centres; the causation, therefore, is by no means direct."⁶ It would, then, seem as if upon Mr. Russell's own view a quite elaborate physiological theory intervenes in any given case as condition of assurance that "redness-here" is a true assertion. And I hope it will not appear unduly finicky if I add that a theory regarding causation also seems to be intimately involved.

Putting the matter on somewhat simpler and perhaps less debatable ground, I would inquire whether what is designated by such words as "sensible presence" and "sensa" is inherently involved in Mr. Russell's view. It would seem as if some such reference were necessary in order to discriminate "*redness-here*" from such propositions as "*this ribbon is red*," and possibly from such propositions as "*hippogriff-here*." If reference to a *sensum* is required, then it would seem as if there must also be reference to the bodily sensory apparatus in virtue of whose mediation a given quality is determined to be a *sensum*. It hardly seems probable to me that such knowledge is any part of the datum as directly "here"; indeed, it seems highly probable that there was a long period in history when human beings did not institute connection between colors

⁶ *Op. cit.*, p. 200.

and visual apparatus, or between sounds and auditory apparatus; or at least that such connection as was made was inferred from what happened when men shut their eyes and stopped up their ears.

The probability that the belief in certain qualities as "sensible" is an inferential matter is increased by the fact that Mr. Russell himself makes no reference to the presence of the bodily *motor* element which is assuredly involved in "redness-here";—an omission of considerable importance for the difference between our views, as will appear later. In view of such considerations as these, any view which holds that all complex propositions depend for their status *as knowledge* upon prior atomic propositions, of the nature described by Mr. Russell, seems to me the most adequate foundation yet provided for complete scepticism.

The position which I take, namely, that all knowledge, or warranted assertion, depends upon inquiry and that inquiry is, truistically, connected with what is questionable (and questioned) involves a sceptical element, or what Peirce called "fallibilism." But it also provides for *probability*, and for determination of degrees of probability in rejecting all intrinsically dogmatic statements, where "dogmatic" applies to *any* statement asserted to possess inherent self-evident truth. That the only alternative to ascribing to some propositions self-sufficient, self-possessed, and self-evident truth is a theory which finds the test and mark of truth in *consequences* of some sort is, I hope, an acceptable view. At all events, it is a position to be kept in mind in assessing my views.

II

In an earlier passage Mr. Russell ascribes certain views to "instrumentalists" and points out certain errors which undoubtedly (and rather obviously) exist in those views—as *he* conceives and states them. My name and especial view are not mentioned in this earlier passage. But, aside from the fact that I have called my view of propositions "instrumental" (in the particular technical sense in which I define propositions), comment on the passage may assist in clarifying what my views genuinely are. The passage reads:

There are some schools of philosophy—notably the Hegelians and the instrumentalists—which deny the distinction between data and inference altogether. They maintain that in all our knowledge there is an inferential element, that knowledge is an organic whole, and that the test of truth is coherence rather than conformity with "fact." I do not deny an element of truth in this view, but I think that, if taken as a whole truth, it renders the part played by perception in knowledge inexplicable. It is surely obvious that every perceptive experience, if I choose to notice it, affords me either new knowledge which I could not previously have inferred, or, at least, as in the case of eclipses, greater certainty than I could have previously obtained by

means of inference. To this the instrumentalist replies that any statement of the new knowledge obtained from perception is always an interpretation based upon accepted theories, and may need subsequent correction if these theories turn out to be unsuitable.⁷

I begin with the ascription to instrumentalists of the idea that "in all our knowledge, there is an inferential element." This statement is, from the standpoint of my view, ambiguous; in one of its meanings, it is incorrect. It is necessary, then, to make a distinction. If it means (as it is apparently intended to mean) that an element due to inference appears in *propria persona*, so to speak, it is incorrect. For according to my view (if I may take it as a sample of the instrumentalists' view), while to infer something is necessary if a warranted assertion is to be arrived at, this inferred somewhat never appears *as such* in the latter; that is, in knowledge. The inferred material has to be checked and tested. The means of testing, required to give an inferential element any claim whatsoever to be *knowledge* instead of conjecture, are the data provided by observation—and *only* by observation. Moreover, as is stated frequently in my *Logic: The Theory of Inquiry*, it is necessary that data (provided by observation) be *new*, or different from those which first suggested the inferential element, if they are to have any value with respect to attaining knowledge. It is important that they be had under as many different conditions as possible so that data due to *differential* origins may supplement one another. The necessity of both the distinction and the coöperation of inferential and observational subject-matters is, on my theory, the product of an analysis of scientific inquiry; this necessity is, as will be shown in more detail later, the heart of my whole theory that knowledge is warranted assertion.

It should now be clear that the instrumentalist would not dream of making the kind of "reply" attributed to him. Instead of holding that "*accepted theories*" are always the basis for interpretation of what is newly obtained in perceptual experience, he has not been behind others in pointing out that such a mode of interpretation is a common and serious source of wrong conclusions; of dogmatism and of consequent arrest of advance in knowledge. In my *Logic*, I have explicitly pointed out that one chief reason why the introduction of experimental methods meant such a great, such

⁷ *Op. cit.*, p. 154. To clear the ground for discussion of the views advanced in the passage quoted in the text, and as a means of shortening my comments, I append a few categorical statements, which can be substantiated by many references to "instrumentalist" writings. Instrumentalists do *not* believe that "knowledge is an organic whole"; in fact, the idea is meaningless upon their view. They do *not* believe the test of truth is coherence; in the operational sense, stated later in this paper, they hold a correspondence view.

a revolutionary, change in natural science, is that they provide data which are new not only in detail but in *kind*. Hence their introduction compelled new kinds of inference to new kinds of subject-matters, and the formation of new types of theories—in addition to providing more exact means of testing old theories. Upon the basis of the view ascribed to instrumentalists, I should suppose it would have been simpler and more effective to point out the contradiction involved in holding, on one side, that the instrumentalist has no way of discovering “need for further correction” in accepted theories, while holding, on the other side, that all accepted theories are, or may be, “unsuitable.” Is there not flat contradiction between the idea that “any statement of new knowledge obtained by perception is always an interpretation based upon accepted theories,” and the view that it may need subsequent correction if these theories prove “unsuitable”? How in the world, upon the ground of the first part of the supposed “reply” of the instrumentalist, could any theory once “accepted” ever be shown to be unsuitable?

I am obliged, unfortunately, to form a certain hypothesis as to how and why, in view of the numerous and oft-repeated statements in my *Logic* of the *necessity* for distinguishing between inferential elements and observational data (necessary since otherwise there is no approach to warranted assertibility), it could occur to anyone that I denied the distinction. The best guess I can make is that my statements about the necessity of hard data, due to experimental observation and freed from all inferential constituents, were not taken seriously because it was supposed that upon my theory these data themselves represent, or present, *cases of knowledge*, so that there must be on my theory an inferential element also in them. Whether or not this is the source of the alleged denial thought up by Mr. Russell, it may be used to indicate a highly significant difference between our two views. For Mr. Russell holds, if I understand him, that propositions about these data are in some cases instances of knowledge, and indeed that such cases provide, as basic propositions, the models upon which a theory of truth should be formed. In my view, they are not cases of *knowledge*, although propositional formulation of them is a *necessary* (but not sufficient) condition of knowledge.

I can understand that my actual view may seem even more objectionable to a critic than the one that has been wrongly ascribed to me. None the less, in the interest of understanding and as a ground of pertinent criticism, it is indispensable that this position, and what it involves, be recognized as fundamental in my theory. It brings me to what is meant, in my theory, by the instrumental

character of a proposition. I shall, then, postpone consideration of the ascription to me of the view that propositions are true if they are instruments or tools of successful action till I have stated just what, on my theory, a proposition is. The view imputed to me is that "Inquiry uses 'assertions' as its tools, and assertions are 'warranted' insofar as they produce the desired result."⁸ I put in contrast with this conception the following statement of my view:

Judgment may be identified as the settled outcome of inquiry. It is concerned with the concluding objects that emerge from inquiry in their status of being *conclusive*. Judgment in this sense is distinguished from *propositions*. The content of the latter is intermediate and representative and is carried by symbols; while judgment, as finally made, has *direct* existential import. The terms *affirmation* and *assertion* are employed in current speech interchangeably. But there is a difference, which should have linguistic recognition, between the logical status of intermediate subject-matters that are taken for use in connection with *what they lead to as means*, and subject-matter which has been prepared to be final. I shall use *assertion* to designate the latter logical status and *affirmation* to name the former. . . . However, the important matter is not the words, but the logical properties characteristic of different subject-matters.⁹

Propositions, then, on this view, are what are affirmed but not asserted. They are means, instrumentalities, since they are the operational agencies by which *beliefs* that have adequate grounds for acceptance, are reached as *end* of inquiry. As I have intimated, this view may seem even more objectionable than is the one attributed to me, i.e., the one which is not mine. But in any case the difference between the instrumentality of a *proposition* as means of attaining a grounded *belief* and the instrumentality of a *belief* as means of reaching certain "desired results," should be fairly obvious, independently of acceptance or rejection of my view.

Unless a critic is willing to entertain, in however hypothetical a fashion, the view (i) that *knowledge* (in its honorific sense) is in every case connected with inquiry; (ii) that the conclusion or end of inquiry has to be demarcated from the intermediate means by which inquiry goes forward to a warranted or justified conclusion; that (iii) the intermediate means are formulated in discourse, i.e., as propositions, and that as means they have the properties appropriate to means (viz., relevancy and efficacy—including economy), I know of no way to make my view intelligible. If the view

⁸ *Op. cit.*, pp. 401-402.

⁹ *Logic: The Theory of Inquiry*, p. 120 (not all italics in original). The word "logical," as it occurs in this passage, is, of course, to be understood in the sense given that term in previous chapters of the volume; a signification that is determined by connection with operations of inquiry which are undertaken because of the existence of a problem, and which are controlled by the conditions of that problem—since the "goal" is to resolve the problem which evokes inquiry.

is entertained, even in the most speculative conjectural fashion, it will, I think, be clear that according to it, truth and falsity are properties only of that subject-matter which is the *end*, the close, of the inquiry by means of which it is reached. The distinction between true and false conclusions is determined by the character of the operational procedures through which propositions about data and propositions about inferential elements (meanings, ideas, hypotheses) are instituted. At all events, I can not imagine that one who says that such things as hammers, looms, chemical processes like dyeing, reduction of ores, when used as means, are marked by properties of fitness and efficacy (and the opposite) rather than by the properties of truth-falsity, will be thought to be saying anything that is not commonplace.

IV

My view of the nature of propositions, as distinct from that held by Mr. Russell, may be further illustrated by commenting upon the passage in which, referring to my view concerning changes in the matter of hypotheses during the course of inquiry, he writes: "I should say that inquiry begins, as a rule, with an assertion that is vague and complex, but replaces it, when it can, by a number of separate assertions each of which is less vague and less complex than the original assertion."¹⁰ I remark in passing that previous observations of this kind by Mr. Russell were what led me so to misapprehend his views as to impute to him the assumption "that *propositions* are the subject-matter of inquiry"; an impression, which, if it were not for his present explicit disclaimer, would be strengthened by reading, "When we embark upon an inquiry we assume that *the propositions about which we are enquiring* are either true or false."¹¹ Without repeating the ascription repudiated by Mr. Russell, I would say that upon my view "propositions are *not* that about which we are inquiring," and that as far as we do find it necessary or advisable to inquire about them (as is almost bound to happen in the course of an inquiry), it is not their truth and falsity about which we inquire, but the relevancy and efficacy of their subject-matter with respect to the problem in hand. I also remark, in passing, that Mr. Russell's statement appears to surrender the strict two-value theory of propositions in admitting that they may have the properties of being vague-definite; complex-simple. I suppose, however, that Mr. Russell's reply would be that on his view these latter qualities are derivative; that the first proposition is vague and complex because it is a mixture of some (pos-

¹⁰ *Op. cit.*, p. 403.

¹¹ *Op. cit.*, p. 361. My italics.

sibly) true and some (possibly) false propositions. While dialectically this reply covers the case, it does not seem to agree with what happens in any actual case of analysis of a proposition into simpler and more definite ones. For this analysis always involves modification or transformation of the terms (meanings) found in the original proposition, and not its division into some true and some false propositions that from the start were its constituents although in a mixture.

Coming to the main point at issue, I hold that the first propositions we make as means of resolving a problem of any marked degree of difficulty are indeed likely to be too vague and coarse to be effective, just as in the story of invention of other instrumentalities, the first forms are relatively clumsy, uneconomical, and ineffective. They have then, as means, to be replaced by others which are more effective. Propositions are vague when, for example, they do not delimit the problem sufficiently to indicate what kind of a solution is relevant. It is hardly necessary to say that when we don't know the conditions constituting a problem we are trying to solve, our efforts at solution at best will be fumbling and are likely to be wild. Data serve as tests of any idea or hypothesis that suggests itself, and in this capacity also their definiteness is required. But, upon my view, the degree and the quality of definiteness and of simplicity, or elementariness, required, are determined by the problem that evokes and controls inquiry. However the case may stand in epistemology (as a problem based upon a prior assumption that knowledge is and must be a relation between a knowing subject and an object), upon the basis of a view that takes knowing (inquiry) as it finds it, the idea that simplicity and elementariness are *inherent* properties of propositions (apart from their place and function in inquiry), has no meaning. If I understand Mr. Russell's view, his test for the simple and definite nature of a proposition applies indifferently to all propositions and hence has no indicative or probative force with respect to any proposition in particular.

Accepting, then, Mr. Russell's statement that his "problem has been, throughout, the relation between events and propositions," and regretting that I ascribed to him the view that "propositions are the subject-matter of inquiry," I would point out what seems to be a certain indeterminateness in his view of the relation between events and propositions, and the consequent need of introducing a distinction: *viz.*, the distinction between the problem of the relation of events and propositions *in general*, and the problem of the relation of a *particular* proposition to the *particular* event to which it purports to refer. I can understand that Mr. Russell

holds that certain propositions, of a specified kind, are such direct effects of certain events, and of nothing else, that they "must be true." But this view does not, as I see the matter, answer the question of how we know that *in a given case* this direct relationship actually exists. It does not seem to me that his theory gets beyond specifying the kind of case *in general* in which the relation between an event, as causal antecedent, and a proposition, as effect, is such as to confer upon instances of the latter the property of being true. But I can not see that we get anywhere until we have means of telling *which* propositions in particular *are* instances of the kind in question.

In the case, previously cited, of *redness-here*, Mr. Russell asserts, as I understand him, that it is true when it is caused by a simple, atomic event. But how do we know in a given case whether it is so caused? Or if he holds that it *must* be true because it *is* caused by such an event, which is then its sufficient verifier, I am compelled to ask how such is known to be the case. These comments are intended to indicate both that I hold a "correspondence" theory of truth, and the sense in which I hold it;—a sense which seems to me free from a fundamental difficulty that Mr. Russell's view of truth can not get over or around. The event *to be* known is that which operates, on his view, as cause of the proposition while it is also its verifier; although the proposition is the sole means of knowing the event! Such a view, like any strictly epistemological view, seems to me to assume a mysterious and unverifiable doctrine of pre-established harmony. How an event can be (i) what-is-to-be-known, and hence by description is unknown, and (ii) what is capable of being *known* only through the medium of a proposition, which, in turn (iii) in order to be a case of knowledge or be true, must correspond to the to-be-known, is to me *the* epistemological miracle. For the doctrine states that a proposition is true when it conforms to that which is not known save through itself.

In contrast with this view, my own view takes correspondence in the operational sense it bears in all cases except the unique epistemological case of an alleged relation between a "subject" and an "object"; the meaning, namely, of *answering*, as a key answers to conditions imposed by a lock, or as two correspondents "answer" each other; or, in general, as a reply is an adequate answer to a question or a criticism—; as, in short, a *solution* answers the requirements of a *problem*. On this view, both partners in "correspondence" are open and above board, instead of one of them being forever out of experience and the other in it by way of a "percept" or whatever. Wondering at how something in experience could be asserted to correspond to something by definition outside

experience, which it is, upon the basis of epistemological doctrine, the sole means of "knowing," is what originally made me suspicious of the whole epistemological industry.¹²

In the sense of correspondence as operational and behavioral (the meaning which has definite parallels in ordinary experience), I hold that my *type* of theory is the only one entitled to be called a correspondence theory of truth.

V

I should be happy to believe that what has been said is sufficiently definite and clear as to the nature and function of "consequences," so that it is not necessary to say anything more on the subject. But there are criticisms of Mr. Russell's that I might seem to be evading were I to say nothing specifically about them. He asserts that he has several times asked me what the goal of inquiry is upon my theory, and has seen no answer to the question.¹³ There seems to be some reason for inferring that this matter is connected with the belief that I am engaged in *substituting* something else for "truth," so that truth, as he interprets my position, not being the goal, I am bound to provide some other goal. A person turning to the Index of my *Logic: The Theory of Inquiry* will find the following heading: "Assertibility, warranted, as end of inquiry." Some fourteen passages of the text are referred to. Unless there is difference which escapes me between "end" and "goal," the following passage would seem to give the answer which Mr. Russell has missed:

Moreover, inference, even in its connection with test, is not logically final and complete. The heart of the entire theory developed in this work is that

¹² In noting that my view of truth involves dependence upon consequences (as his depends upon antecedents, not, however, themselves in experience), and in noting that a causal law is involved, Mr. Russell concludes: "These causal laws, if they are to serve their purpose, must be 'true' in the very sense that Dr. Dewey would abolish" (*op. cit.*, p. 408). It hardly seems unreasonable on my part to expect that my general theory of truth be applied to particular cases, that of the truth of causal laws included. If it was unreasonable to *expect* that it would be so understood, I am glad to take this opportunity to say that such is the case. I do not hold in this case a view I have elsewhere "abolished." I *apply* the general view I advance elsewhere. There are few matters with respect to which there has been as much experience and as much testing as in the matter of the connection of means and consequences, since that connection is involved in all the details of every occupation, art, and undertaking. That warranted assertibility is a matter of probability in the case of causal connections is a trait it shares with other instances of warranted assertibility; while, apparently, Mr. Russell would deny the name of knowledge, in its fullest sense, to anything that is not certain to the point of infallibility, or which does not ultimately rest upon some absolute certainty.

¹³ *Op. cit.*, p. 404.

the resolution of an indeterminate situation is the end, in the sense in which "end" means *end-in-view* and in the sense in which it means *close*.¹⁴

The implication of the passage, if not in its isolation then in its context, is that inquiry begins in an *indeterminate* situation, and not only begins in it but is controlled by its specific qualitative nature.¹⁵ Inquiry, as the set of operations by which the situation is resolved (settled, or rendered determinate) has to discover and formulate the conditions that describe the problem in hand. For *they* are the conditions to be "satisfied" and the determinants of "success." Since these conditions are existential, they can be determined only by observational operations; the operational character of observation being clearly exhibited in the experimental character of all scientific determination of data. (Upon a non-scientific level of inquiry, it is exhibited in the fact that we *look* and see; *listen* and hear; or, in general terms, that a motor-muscular, as well as sensory, factor is involved in any perceptual experience.) The conditions discovered, accordingly, in and by operational observation, constitute the *conditions of the problem* with which further inquiry is engaged; for data, on this view, are always data of some specific problem and hence are not given ready-made to an inquiry but are determined in and by it. (The point previously stated, that propositions about data are not cases of knowledge but means of attaining it, is so obviously an integral part of this view that I say nothing further about it in this connection.) As the problem progressively assumes definite shape by means of repeated acts of observation, possible solutions suggest themselves. These possible solutions are, truistically (in terms of the theory), *possible* meanings of the data determined in observation. The process of reasoning is an elaboration of them. When they are checked by reference to observed materials, they constitute the subject-matter of *inferential* propositions. The latter are means of attaining the goal of knowledge as warranted assertion, not instances or examples of knowledge. They are also operational in nature since they institute new experimental observations whose subject-matter provides both tests for old hypotheses and starting-points for new ones or at least for modifying solutions previously entertained. And so on until a determinate situation is instituted.

¹⁴ *Logic: The Theory of Inquiry*, pp. 157-158.

¹⁵ *Logic*, p. 105. "It is a unique doubtfulness" that not only evokes the particular inquiry, but as explicitly stated "exercises control" over it. To avoid needless misunderstanding, I quote also the following passage: "No situation which is *completely* indeterminate can possibly be converted into a problem having definite constituents" (*Ibid.*, p. 108).

If this condensed statement is taken in its own terms and not by first interpreting its meaning in terms of some theory it doesn't logically permit, I think it will render unnecessary further comment on the notion Mr. Russell has ascribed to me: the notion, namely, that "a belief is warranted, if as a tool, it is useful in some activity, i.e., if it is a cause of satisfaction of desire," and that "the only essential result of successful inquiry is successful action."¹⁶

In the interest of mutual understanding, I shall now make some comments on a passage which, if I interpret it aright, sets forth the nature of Mr. Russell's wrong idea of my view, and which also, by implication, suggests the nature of the genuine difference between our views:

If there are such occurrences as "believings," which seems undeniable, the question is: Can they be divided into two classes, the "true" and the "false"? Or, if not, can they be so analyzed that their constituents can be divided into these two classes? If either of these questions is answered in the affirmative, is the distinction between "true" and "false" to be found in the success or failure of the effects of believings, or is it to be found in some other relation which they may have to relevant occurrences?¹⁷

On the basis of other passages, such as have been quoted, I am warranted in supposing that there is ascribed to me the view that "the distinction between 'true' and 'false' is to be found in the success or failure of the effects of believings." After what I have already said, I hope it suffices to point out that the question of truth-falsity is *not*, on my view, a matter of the effects of *believing*, for my whole theory is determined by the attempt to state what conditions and operations of inquiry *warrant* a "believing," or justify its assertion as true; that propositions, as such, are so far from being cases of believings that they are means of attaining a warranted believing, their worth as means being determined by their pertinency and efficacy in "satisfying" conditions that are rigorously set by the problem they are employed to resolve.

At this stage of the present discussion, I am, however, more interested in the passage quoted as an indication of the difference between us than as a manifestation of the nature of Mr. Russell's wrong understanding of my view.¹⁸ I believe most decidedly that

¹⁶ *Op. cit.*, pp. 404, 405.

¹⁷ *Op. cit.*, p. 405.

¹⁸ I venture to remark that the words "wrong" and "right" as they appear in the text are used intentionally instead of the words "false" and "true"; for, according to my view, understanding and misunderstanding, conception and misconception, taking and mis-taking, are matters of propositions, which are not final or complete in themselves but are used as means to an end—the resolution of a problem; while it is to this resolution, as *conclusion* of inquiry, that the adjectives "true" and "false" apply.

the distinction between "true" and "false" is to be found in the relation which *propositions*, as means of inquiry, "have to relevant occurrences." The difference between us concerns, as I see the matter in the light of Mr. Russell's explanation, the question of *what* occurrences are the relevant ones. And I hope it is unnecessary to repeat by this time that the relevant occurrences on my theory are those existential consequences which, in virtue of operations existentially performed, satisfy (meet, fulfill) conditions set by occurrences that constitute a problem. These considerations bring me to my final point.

VI

In an earlier writing, a passage of which is cited by Mr. Russell, I stated my conclusion that Mr. Russell's interpretation of my view in terms of satisfaction of personal desire, of success in activities performed in order to satisfy desires, etc., was due to failure to note the importance in my theory of the existence of indeterminate or problematic situations as not only the source of, but as the control of, inquiry. A part of what I there wrote reads as follows:

Mr. Russell proceeds first by converting a doubtful *situation* into a personal doubt. . . . Then by changing doubt into private discomfort, truth is identified [upon my view] with removal of this discomfort . . . [but] "Satisfaction" is satisfaction of the conditions prescribed by the problem.

In the same connection reference is made to a sentence in the Preface in which I stated, in view of previous misunderstandings of my position, that consequences are only to be accepted as tests of validity "*provided* these consequences are operationally instituted."¹⁹

Mr. Russell has made two comments with reference to these two explicitly stated conditions which govern the meaning and function of consequences. One of them concerns the reference to the consequences being "operationally instituted." Unfortunately for the cause of mutual understanding, it consists of but one sentence to the effect that its "meaning remains to me somewhat obscure." Comment upon the other qualification, namely, upon the necessity of "doubtful" problematic, etc., being taken to be characteristic of the "objective" situation and not of a person or "subject," is, fortunately, more extended:

Dr. Dewey *seems* to write as if a doubtful situation could exist without a personal doubter. I cannot think that he means this; he cannot intend to say,

¹⁹ The original passage of mine is found in Vol. I of the *Library of Living Philosophers*, p. 571. It is also stated as one of the conditions, that it is necessary that consequences be "such as to resolve the specific problem evoking the operations." Quoted on p. 571 of the *Library* from p. iv, of the Preface of my *Logic*.

for example, that there were doubtful situations in astronomical and geological epochs before there was life. The only way in which I can interpret what he says is to suppose that, for him, a "doubtful situation" is one which arouses doubt, not only in some one individual, but in any normal man, or in any man anxious to achieve a certain result, or in any scientifically trained observer engaged in investigating the situation. *Some* purpose, i.e., *some* desire, is involved in the idea of a doubtful situation.²⁰

When the term "doubtful situation" is taken in the meaning it possesses in the context of my general theory of experience, I *do* mean to say that it can exist without a personal doubter; and, moreover, that "personal states of doubt that are not evoked by, and are not relative to, some existential situation are pathological; when they are extreme they constitute the mania of doubting. . . . The habit of disposing of the doubtful as if it belonged only to *us* rather than to the existential situation in which we are caught and implicated is an inheritance from subjectivistic psychology."²¹ This position is so intimately and fundamentally bound up with my whole theory of "experience" as behavioral (though not "behavioristic" in the technical sense that the word has assumed), as interactivity of organism and environment, that I should have to go into a restatement of what I have said at great length elsewhere if I tried to justify what is affirmed in the passage quoted. I confine myself here to one point. The *problematic* nature of situations is definitely stated to have its source and prototype in the condition of imbalance or disequibration that recurs rhythmically in the interactivity of organism and environment;—a condition exemplified in hunger, not as a "feeling" but as a form of organic behavior such as is manifested, for example, in bodily restlessness and bodily acts of search for food. Since I can not take the space to restate the view of experience of which the position regarding the existential nature of the indeterminate or problematic situation is one aspect (one, however, which is logically involved in and demanded by it), I confine myself to brief comments intended to make clearer, if possible, differences between my position and that of Mr. Russell. (i) All experiences are interactivities of an organism and an environment; a doubtful or problematic situation is, of course, no exception. But the energies of an organism involved in the particular interactivity that constitutes, or *is*, the problematic situation, are those involved in an ordinary course of living. They are *not* those of doubting. Doubt can, as I have said, be legitimately imputed to the organism only in a *secondary* or derived manner. (ii) "Every such interaction is a temporal process, not

²⁰ *Op. cit.*, p. 407.

²¹ *Logic*, p. 106.

a momentary, cross-sectional occurrence. The situation in which it occurs is indeterminate, therefore, with respect to its *issue*. . . . Even were existential conditions unqualifiedly determinate in and of themselves, they are indeterminate [are such in certain instances] in *significance*: that is, in what they import and portend in their interaction with the organism."²² The passage should throw light upon the sense in which an existential organism is existentially implicated or involved in a situation as interacting with environing conditions. According to my view, the sole way in which a "normal person" figures is that such a person investigates only in the actual presence of a problem. (iii) All that is necessary upon my view is that an astronomical or geological epoch be an actual constituent of some experienced problematic situation. I am not, logically speaking, obliged to indulge in any cosmological speculation about those epochs, because, on my theory, any proposition about them is of the nature of what A. F. Bentley, in well-chosen terms, calls "*extrapolation*," under certain conditions, be it understood, perfectly legitimate, but nevertheless an extrapolation.²³

As far as cosmological speculation on the indeterminate situations in astronomical and geological epochs is relevant to my theory (or my theory to it), *any* view which holds that man is a part of nature, not outside it, will hold that this fact of being part of nature qualifies his "experience" throughout. Hence that view will certainly hold that indeterminacy in human experience, once experience is taken in the objective sense of interacting behavior and not as a private conceit added on to something totally alien to it, is evidence of some corresponding indeterminateness in the processes of nature within which man exists (acts) and out of which he arose. Of course, one who holds, as Mr. Russell seems to do, to the doctrine of the existence of an independent subject as the cause of the "doubtfulness" or "problematic quality" of situations will take the view he has expressed, thus confirming my opinion that the difference between us has its basic source in different views of the nature of experience, which in turn is correlated with our different conceptions of the connection existing between man and the rest of the world. Mr. Russell has not envisaged the possibility of there being another generic theory of experience, as an alternative

²² *Logic*, pp. 106-107.

²³ *Behavior, Knowledge and Fact* (1935), Section XIX, "Experience and Fact," especially, pp. 172-179. The passage should be read in connection with section XXVII, "Behavioral Space-Time." I am glad to refer anyone interested in that part of my view that has to do with prehuman and pre-organic events to Mr. Bentley's statement, without, however, intending to make him responsible for what I have said on any other point.

to the pre-Darwinian conceptions of Hegel, on the one hand, and of Mill, on the other.

The qualification in my theory relating to the necessity of consequences being "operationally instituted" is, of course, an intimate constituent of my whole theory of inquiry. I do not wonder that Mr. Russell finds the particular passage he cites "somewhat obscure," if he takes it in isolation from its central position in my whole theory of experience, inquiry, and knowledge. I cite one passage that indicates the intrinsic connection existing between this part of my theory and the point just mentioned—that concerning the place of indeterminate situations in inquiry. "Situations that are disturbed and troubled, confused or obscure, cannot be straightened out, cleared up and put in order, by manipulations of our personal states of mind."²⁴ This is the negative aspect of the position that operations of an existential sort, operations which are actions, doing something and accomplishing something (a changed state of interactivity in short), are the only means of producing consequences that have any bearing upon warranted assertibility.

In concluding this part of my discussion, I indulge in the statement of some things that puzzle me, things connected, moreover, not just with Mr. Russell's view, but with views that are widely held. (i) I am puzzled by the fact that persons who are systematically engaged with inquiry into questions, into problems (as philosophers certainly are), are so incurious about the existence and nature of problems. (ii) If a "subject" is one end-term in a relation of which objects (events) are the other end-term, and if doubt is simply a state of a subject, why isn't knowledge also simply and only a state of mind of a subject? And (iii) the puzzling thing already mentioned: How can anybody look at *both* an object (event) and a proposition about it so as to determine whether the two "correspond"? And if one can look directly at the event *in propria persona*, why have a duplicate proposition (idea or percept, according to some theories) about it unless, perhaps, as a convenience in communication with others?

I do not wish to conclude without saying that I have tried to conduct my discussion in the spirit indicated by Mr. Russell, avoiding all misunderstanding as far as I can, and viewing the issues involved as uncontroversially as is consistent with trying to make my own views clear. In this process I am aware of the acute bearing of his remark that "it is because the difference goes deep that it is difficult to find words which both sides can accept as a fair statement of the issue." In view of the depth of the difference, I can hardly hope to have succeeded completely in overcoming this

²⁴ *Logic*, p. 106.

difficulty. But at least I have been more concerned to make my own position intelligible than to refute Mr. Russell's view, so that the controversial remarks I have made have their source in the belief that definite contrasts are an important, perhaps indispensable, means of making any view sharp in outline and definite in content.

I add that I am grateful to Mr. Russell for devoting so much space to my views and for thus giving me an opportunity to restate them. If the space I have taken in this reply seems out of proportion to the space given to questioning my view in Mr. Russell's book, it is because of my belief of the importance of that book. For I believe that he has reduced, with his great skill in analysis, a position that is widely held to its ultimate constituents, and that this accomplishment eliminates much that has been vague and confused in the current view. In particular, I believe that the position he has taken regarding the causal relation between an event and a proposition is the first successful effort to set forth a clear interpretation of what "correspondence" *must* mean in current realistic epistemologies. Statement in terms of a causal relation between an event and a proposition gets rid, in my opinion, of much useless material that encumbers the ordinary statement made about the "epistemological" relation. That I also believe his accomplishment of this work discloses the fundamental defect in the epistemological—as contrasted with the experiential-behavioral—account of correspondence will be clear to the reader. But at least the issue is that much clarified, and it is taken into a wider field than that of a difference between Mr. Russell's views and mine.

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BOOK REVIEW

Greek Popular Religion. MARTIN P. NILSSON. (Lectures on the History of Religions sponsored by the American Council of Learned Societies, New Series, No. 1.) With a foreword by Arthur Darby Nock. New York: Columbia University Press. 1940. xviii + 166 pp. \$2.50.

This first number of a new series of Lectures on the History of Religion, given under the direction of the American Council of Learned Societies, could hardly have made a more auspicious start, and it is fortunate to have Mr. Nilsson presenting a topic, familiar enough in his other writings, but without the explicit emphasis and analysis that he has given it here. By popular religion, he means