

ON TRUTH BY CONVENTION

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Abstract:

In his early essay, "Truth by Convention," W.V.O. Quine scraps a programme for a conventionalistic account of logic on finding that the very logic which he wishes to stipulate by conventional truth assignments is presupposed in the stipulation of his conventions. Recently, however, Carlo Giannoni has offered us a variant of the Quine programme which, he maintains, avoids Quine's initial pitfall by shifting the emphasis from truth assignment to the conventional stipulation of inference rules. In the following essay I argue that Quine and, hence, also Giannoni have misconceived the problem of conventionalism in their accounts and that the Giannoni reconstruction is consequently to no avail. The alternative account of Quine's initial difficulties which I offer is both incompatible with a classical conventionalism and Quine's own Duhemian conventionalism, while explaining these difficulties far more adequately than his account of them does.

On Truth by Convention

Although W.V.O. Quine does, at the end of his essay, "Truth by Convention," for all intents give up the conventionalist programme he has attempted to set down in it, the basic approach of the programme has recently been revived by Carlo Giannoni.¹ In the essay "A Defense of Logical Conventionalism," Giannoni presents a slightly modified version of the Quine programme which, he claims, avoids the pitfalls which Quine initially found in it.² In the following essay, I shall attempt to demonstrate that Quine's critique of the programme in its original form was misdirected and that consequently Giannoni's answer to Quine in his modified version of the programme, though it does meet Quine's objections to conventionalism, in no way establishes the conventionalist thesis. Let me turn first to the original Quine paper in order to show what I take to be a basic flaw in the approach of both.

Quine begins his paper with a discussion of definition. Definitions are, he says, wholly arbitrary and hence conventional in that they are, in a strict sense, mere abbreviations. We can, of course, make the distinction between stipulative and analytic definitions but a definition's being analytic merely adds the requirement that it "conform to the traditional usage in question" to the general requirement mentioned above that it be an unambiguously eliminable abbreviation. This second requirement is, he adds, met, provided that truth-values are preserved under traditional usage of both definiens and definiendum. Definitions thus, though they can "transform truth," cannot "found truth." If we are to found any truths by convention, some other means than definition must be employed.³

¹Quine, W.V., "Truth by Convention" reprinted in the collection, The Ways of Paradox (Random House: New York, 1966). The essay was originally published in 1936, Philosophical Essays for A.N. Whitehead, O.H. Lee, editor. All references are to the Ways of Paradox edition.

²Giannoni, C., "A Defense of Logical Conventionalism," Ratio Vol. XI, no. 2 (Basil Blackwell: Oxford, Dec. 1969).

³Quine, "Truth by Convention," sec. I. The discussion of definition is carried on here in order to provide a background for the problem of the reduction of mathematics to logic. This part of the paper can, however, be ignored for present purposes.

In the second section of the paper Quine begins his attempt to found the truths of logic by conventional or arbitrary stipulations of truth-value to sentence or proposition forms (it is not important for our purposes to specify which) that contain the basic idioms as, as yet undefined, signs. That is to say, after choosing the not-idiom, the if-then-idiom and the every-idiom as one's primitives and defining the rest of the notions of logic in terms of these, we can then give meaning to these idioms by specifying in what contexts they are to be true and false -- or, even more simply, by regarding falsehood as "a derivative property," 'the falsehood of p' being stipulated to mean 'the truth of not-p,' by specifying only in what contexts they are to be true. The selection of the three idioms Quine uses is, of course, not the only possible one. He notes, in fact, that were Sheffer's stroke-idiom chosen the number could have been reduced to two. I mention this at the outset as it will prove important to bear in mind later in the discussion.

The assignments of truth-value we make will, for the same reasons that analytic definitions are of more interest to us than stipulative ones, be made in conformity with ordinary usage. But there is no requirement that they be. Assignments of truth-value are arbitrary; we are engaged in the "process of arbitrarily segregating statements as true." As Quine rather nicely puts it at one point: "Preconceived usage may lead us to stack the cards, but does not enter the rules of the game."⁴ It is from this arbitrary nature of the assignments that the conventionality arises. This again is a crucial point and seems to rest on the Duhemianism that he, even at this early date, maintained. For the truths of logic, though they are the statements that "we choose to surrender last" and may even be such that "we will not surrender [them] at all," are in no way such they cannot -- in any sense of this term -- be surrendered.⁵

At this point Quine notes that, whereas he has been speaking as if the statements in question were finite in number so that one could simply set them down and begin making truth assignments, they are in reality of infinite

⁴Quine, "Truth by Convention," p. 84 and p. 90.

⁵"Truth by Convention," p. 95. This is, of course, not the Duhemian hypothesis per se but for Quine it is intimately connected with it. If, that is, "any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system" (From a Logical Point of View, p. 43), then we must allow for the possibility of making such adjustments -- even where the laws of logic are concerned.

number, thus requiring us to set down conventions of finite length which will determine the truth-value of infinite classes of them. He himself does not clearly state why we are forced to adopt such measures rather than attempt an infinite number of stipulations; the reason, however, is fairly obvious. Since we admit that the meanings of the idioms in question are fixed in ordinary usage, we are forced to assume that they can be in our conventionalistic reconstruction, a claim which precludes the possibility of a procedure that would extend endlessly through time. Having noted this restriction on his programme, Quine now finds that in order to get the truths of logic from his general conventions he must assume logic -- "logic is needed for inferring logic from the conventions." For, the conventions being general, a logical inference is needed if any particular statement of logic is to be derived from them. Alternatively, he says, we can see this difficulty in terms of the "self-presupposition of primitives." The general conventions adopted, that is, must rely on the "free use of those very idioms which we are attempting to circumscribe, and can succeed only if we are already conversant with the idioms." The use of 'if...then,' 'not' and 'every' is unavoidable in the statement of our rules.⁶

The essay thus ends with what amounts to a denial of the possibility of a conventionalistic treatment of logic. Quine toys with an interpretation of his results in terms of unformulated conventions adopted via our behaviour and only thereafter able to be formulated when a complete language is available to us. For, he says, it is not clear that the formulation of conventions is a prerequisite for there being ones -- any more than the formulation of a grammar is a prerequisite of speech.⁷ This analogy seems to miss the point, however; in the case of our conventions for logic, not only is there no formulation possible before their adoption, much less a prerequisite formulation, there also seems to be no formulation possible independent of them after their adoption whereas, in the case of a grammar for any given language, there is always the possibility of formulating the grammar in another tongue. The problem is, it seems, not one of our being tongue-tied prior to implicit

⁶"Truth by Convention," pp. 96-7. Quine notes that other concepts, notably truth, also seem to be unavoidably involved in the conventions. This, however, though perhaps ultimately damaging to the conventionalist thesis, is a problem of less immediate concern for Quine's programme.

⁷Quine, "Truth by Convention," p. 98.

adoption of rules but one of our not being able to break out of the circle of our rules when it comes time to speak of them. I am not at all sure that Quine is clear about this at the end of the essay, though it seems clearly to be his point up until then. He does say that it is difficult to see in what sense a "convention" which cannot be communicated until after its adoption is a convention at all. But what is bothering him now seems to be that such "conventions" cannot be deliberate or explicit -- characteristics which he, for some reason, takes to be necessary to conventions even though his own paradigm of the conventional, the grammar of a natural language, is non-deliberate and, apart from the disanalogy mentioned above, initially non-explicit in much the same way that the "conventions" under consideration are.⁸ At any rate, he concludes by rejecting the interpretation in terms of implicit adoption via behaviour, stating that it seems, if that is what we mean by conventionalism, that we have added nothing to either the characterization of the statements of logic as a priori or their characterization as firmly accepted in his Duhemian sense.

Having set down the basic structure of Quine's paper, let me now turn to a more detailed examination of it. As noted above, the assignment of truth-values to the statements of logic is supposed to be "arbitrary," though for convenience Quine chooses to make assignments according to preconceived ordinary usage. But in what way are we to understand these assignments as arbitrary? Quine certainly does not mean they are arbitrary merely in the sense that (a) the signs we choose for our basic idioms might have been different than they are. He is not, that is, remarking on the fact that, say, assuming vel to be one of our primitives, 'p vel not-p' could be construed as false were 'vel' assigned the meaning we ordinarily give to 'and.' For this is not the kind of arbitrariness which concerns him here. He is not choosing signs but fixing meanings for signs which are already assumed given; the assignments he makes are assignments of truth to contexts which contain undefined signs; they are not assignments of the signs themselves. Nor can he mean that the assignments are arbitrary in the sense that (b) alternative idioms can be used for the primitives. For, as I have observed in the exposition of his paper, he admits this as a somewhat trivial fact before he embarks on his task of

⁸That is to say, the grammar of a natural language is neither chosen nor agreed upon by those who employ it; nor is it such that it can be set down as the grammar of a given natural language until that language is given.

setting down the conventions. Moreover, were he trying merely to establish such a thesis, he would in no way need the apparatus of truth-value assignments which he employs; it can be established by means of the procedure of definition, which he discusses in the first part of his paper, alone. Assignments must be held to be arbitrary in some stronger sense -- a sense (c) in which assignments can prove meaningful even if ordinary usage is ignored, in which different schemas, alternative logics, systems not translatable into the logic ordinary usage (however roughly) sets down are allowed. For if translation was possible we would merely be left with an instance of (b) above and, as I have shown, that is not the sort of arbitrariness Quine has in mind.

Arbitrary assignments in this strong sense (c) are, of course, examples of exactly that kind of arbitrariness which the radical conventionalist wants to hold possible. Though Quine wants ultimately to reject conventionalism, he does not, however, want to do so on the grounds that such alternative schemas are simply not to be found. Instead we find him maintaining that, were the number of truth assignments to be made finite, we would confront no difficulties; it is only the fact that they are not which leads to the downfall of the conventionalist programme. Such a view of the matter is, of course, an outgrowth of what I have previously called his Duhemianism, the assumption that the reason that logic occupies a privileged position in our world view is a matter of degree, not kind; for Quine, as well as for the conventionalist, the truths of logic are arbitrary in the above strong sense, though for Quine, unlike the conventionalists, this does not entail that such alternative schemas are readily available to us.

Such an approach to the problem, however, in no way confronts the real issue. For Quine has nowhere shown that a deviant schema is possible; that it is merely follows from his Duhem-inspired assumption concerning the nature of logical truths. Moreover, the difficulty which he encounters as a result of the need to make an infinite number of truth assignments does not in any way demonstrate a failure of conventionalism. It is rather a presupposition of the problem which he encounters that the conventionalist programme cannot be carried out. To see that this is so, assume for the moment that conventionalism is true; assume, that is, that here and now an alternative logic in which the meaning of all three of our primitive idioms is different is feasible. Then, if that were possible, could we not simply avoid Quine's problem of circularity by formulating our general conventions in a language which employs, not our own, but this alternative logic? The symbols manipulated would, of course, have no meaning within the language which employs the deviant logic or, rather they would have none

when considered as symbols employed in a language using our ordinary logic; they would just be objects which are matched in various ways according to intra-linguistic rules -- like children's blocks marked variously with 'not,' 'true,' 'every,' sentences p,q,r,..., etc. being set out in a pre-arranged order. This, however, is of no consequence. For we, having access to languages of both logics (as we must if conventionalism is true), would be able to determine which rules of the language with a deviant logic generate the truth assignments that conform to any given language which employs our current logic by simply looking at the resulting arrangements produced by various deviant language rules. That is to say, though within the deviant system the arrangements generated by various rules signify nothing, they are arrangements which either conform to any given language employing our current logic or not; thus these rules could be used to assign meaning and truth just as successfully as rules formulated in a language employing our logic -- with the added advantage that they avoid the circularity which Quine laments, none of the idioms in the deviant logic sharing meaning with the idioms whose meaning we are trying to found. And Quine has in no way guaranteed that such a situation is not possible; he has at most shown that, if we have no such deviant system available, then we are not able to set out our general conventions in a non-circular manner -- which is akin to saying that, if conventionalism is false, conventionalist programs break down. But this is hardly an exciting result. It is, moreover, one which still, as I have said above, leaves us with the need to decide whether or not our assignments of truth-value are arbitrary -- in short, with the need to decide whether or not conventionalism is true.

When Quine was speaking of definitions there was no difficulty in setting out the sense in which they were arbitrary even though we might want to make them conform to pre-established usage. They were eliminable abbreviations. So long as we avoided circularity in setting them down, all was well. When we come to the procedure of establishing meaning via truth-value assignments, the relevant considerations are not the same, however; though Quine may think that by avoiding use of the idioms -- as he could were the number of truths in question finite -- and hence avoiding explicit circularity, he has avoided any problems, he, of course, has not. The two cases are not analogous. For, unlike the case of definition, the case of assignment of meaning via assignment of truth involves no prior terms whose meaning is already given; both meaning and truth are being "founded," to use Quine's own term. We are thus forced, quite independently of any considerations of circularity, to decide if

these assignments which found truths and meanings are in any way conventional or arbitrary.

In order to face this problem directly, let us turn now to Carlo Giannoni's attempt to improve on the Quine approach by shifting the emphasis in the programme from stipulation of truth to the statements of logic to consideration of the logical rules of inference.⁹ Like Quine, Giannoni considers it a mistake to think of logical terms -- 'not,' 'every,' 'or,' etc. -- as having anything but intra-linguistic meaning; in both their occurrence in the statements of logic and other statements they are best viewed as having no meaning independent of context. This intra-linguistic meaning is, however, not established via truth-value assignment supplemented perhaps by other conventions; it is, for Giannoni, determined by the logical rules of inference, rules which also and at the same time either partially or fully determine the truth itself of the statements in which the terms occur. These rules are, he claims, conventional. Truth then, insofar as it is determined by these rules, is conventional. In the case of the truths of logic per se the determination is complete. Hence, argues Giannoni, the truths of logic are indeed true by convention.

To see how Giannoni thinks he accomplishes this coup, we should begin with his distinction concerning the truth of atomic and non-atomic statements. 'Atomic' here has its usual, traditional meaning: the atomic statements include all and only those which contain no logical terms. Their truth is established by some kind of correspondence with reality. Non-atomic statements on the other hand, that is, all those statements -- including the truths of logic -- which do contain logical terms, are given their truth or falsity by another means. For any non-atomic statement,
A:10

A is true if and only if either A is logically deducible from true premises or only true conclusions are deducible from A together with other true statements as premises, or both.

Similarly:

A is false if and only if A is deducible only from premises at least one of which is false or false conclusions are deducible from A together with only true statements as premises, or both.

⁹Giannoni, C., "A Defense of Logical Conventionalism."

¹⁰Giannoni, "A Defense," p. 97.

The truth or falsity of non-atomic statements is, that is to say, a function of deducibility or the logical rules of inference which determine deducibility, supplemented in the case of those non-atomic statements which are not truths or falsehoods of logic by a prior notion of atomic truth. The truths of logic, in light of this above definition, are defined as that subset of non-atomic truths which are either deducible from the empty set of premises or such that, whenever a statement is deducible from one of them together with other premises, it is deducible from the other premises alone.¹¹ We thus see that the concept of truth is really a family of concepts; there is atomic truth, non-atomic truth and logical truth. The first and last having little if anything in common, the second bridges the gap between them, making it plausible for the same term to apply to all three.

Having thus established that the notion of logical truth -- indeed that the notion of non-atomic truth in general -- can be analyzed in terms of logical deducibility and hence is dependent on the logical rules of inference, Giannoni asserts that these rules are conventions or "social customs," acquiring their appearance of prescriptivity from societal pressures. Imbedded in "the very fabric of language" they seem immutable, though, like any other established custom, they in fact are not.¹² Consequently, the validity of the inferences accomplished by means of these rules has no criterion -- apart from the fact that these are the rules that custom has established. For we are, of course, precluded from appealing to the usual criterion that valid rules are those by which we are led from true premises to true conclusions alone. Truth, in this case, is itself understood only in terms of valid inference. And further, the lack of any criterion is necessary to the conventionalism being upheld.¹³

Now it should be noted here that Giannoni has nowhere proved that the rules of inference are conventional. To do that he would either have to construct at least one alternative set of rules that might have been but are not in fact the rules we use or he would have to offer an argument to show that the rules are mere social conventions -- even were the task of constructing alternatives found to be beyond us in some way. But he has done neither. He has merely made a claim that they are. And it is far from intuitively obvious

¹¹Giannoni, "A Defense," p. 99. The need for this second disjunct is limited to only certain artificial languages -- e.g., English without the rule of Conditional Proof.

¹²Giannoni, "A Defense," p. 98.

¹³Giannoni, "A Defense," pp. 96-97.

that this claim is correct. In fact, it seems more than doubtful. Consider, for example, the fact that there are some artificially constructed connectives the rules for employment of which could never be adopted. I am thinking, of course, of such things as Prior's 'tonk' with its rules, (1) from A infer A-tonk-B and (2) from A-tonk-B infer B. At the very least then the conventionality of the rules of inference is limited.¹⁴ Though we might have some leverage on our choice of inference rules, there are definite limits in our freedom of choice. From this alone it seems doubtful that we can call the rules conventional at all -- at least not in any usual sense of the term. Social customs, though they may be limited by certain facts concerning human behavior and potential as well as other facts concerning the people in question's environment, do not seem open to limitations of the kind described. It is not a mere fact that the tonk-introduction rules are not acceptable rules of inference; they are not rules of inference at all.

But we needn't argue this point further here. Giannoni himself accepts the assumption that a limited conventionality is no conventionality at all. Furthermore, the conventional model he constructs does not allow for any limitations whatsoever. There is, as I pointed out above, no criterion for validity according to Giannoni. For, if there were, that is, were the rules limited to some acceptable subset of all possible candidates, "we could not very well say that they [the rules] were conventions."¹⁵

In light of this, it appears that Giannoni cannot preclude the introduction of 'tonk' without scrapping his thesis of conventionalism. And were he to allow tonk-introduction rules he would, of course, as noted, arrive at the unpalatable conclusion that, given any one true atomic statement, all atomic statements are true and hence, ultimately, all non-atomic statements as well. But Giannoni seems to be deluded into thinking that he can have things both ways. In attempt-

¹⁴Prior, A.N., "The Runabout Inference-Ticket," Analysis, Vol. 21, 1960, pp. 38-9. 'Tonk' as its rules of inference define it is unacceptable on the grounds that it doesn't allow truth preservation; from a true A, were 'tonk' allowed as a logical connective, we could derive any statement whatsoever, including atomic falsehoods. So it seems that, as a minimal criterion, truth preservation must be established as a limitation on the scope of Giannoni's possible alternative conventions; this, as shown below, provides him with several grave difficulties in setting out his programme.

¹⁵Giannoni, "A Defense," p. 98.

ing to round out his account of the relation between truth and validity, he confronts the problems of arguments or sequences of arguments which have nothing but atomic statements as both premises and conclusions. In such cases he says we either have an instance of the trivial rule Repeat -- in all and only those cases where the atomic conclusion is also one of the premises -- or we have an inference which "is not only logically invalid" but such that "the rules which were used [in making it] cannot even be classified as logical rules of inference, for they violate a very basic characteristic of logical inference."¹⁶ Tonk-introduction rules thus seem apparently to be both acceptable -- there being no criterion for validity -- and unacceptable -- if we are to take seriously what Giannoni says above.

We might also wonder about the conventionality of Repeat. The very fact of its triviality seems to belie any claims of conventionality concerning it; the more truistic the statement, the less plausible its denial. But by far the greatest difficulty confronting us is that of giving an account of this "basic characteristic of logical inference" which explains away the apparent contradiction above.¹⁷ One way of attempting this is to read Giannoni as making the claim that it is merely a fact about conventional usage that logical inference has the basic characteristic in question. This hardly seems plausible, however; for it is difficult to see how rules which didn't have the characteristic could function as inference rules. Giannoni, moreover, nowhere gives the slightest indication of how such a difficulty might be overcome. He might, I suppose, question the sense of 'could' above, pointing out that it seems to be that of logical possibility and noting that, on his view, this notion is to be understood in terms of the inference rules themselves. Thus, "Could inference rules function without possessing the said characteristic?" would be viewed as an illegitimate question. But to take such a tack would be to beg the question at hand. The notions of logical possi-

¹⁶Giannoni, "A Defense," p. 97.

¹⁷This task is even further complicated by the fact that the most likely candidate for the role of the basic characteristic of inference which is violated is the usual criterion for validity (truth preservation), a characteristic which Giannoni does and must reject in view of his account of logical and non-atomic truth. In the following, however, I shall conduct my discussion without reference to what exactly the characteristic in question is. For, even assuming that Giannoni can somehow express what the characteristic is without reference to truth, his difficulties seem insurmountable.

bility and necessity seem clearly enough intuitively understood that it certainly needs to be demonstrated that Giannoni's account, whereby they are seen as dependent on the logically prior notion of inference, is correct before we grant the above. We might, perhaps, deny that there is a relatively clear, antecedent notion of these modalities as Quine, for example, seems to do. But such a move is not open to Giannoni. His account of atomic truth would appear to involve an understanding of the notion of contingency;¹⁸ and it is implausible to maintain that contingency is understood while logical possibility is not. Moreover, this account of atomic truth is essential to the whole Giannoni programme so that any backing off from it to a more Quinean perspective would require a radically different approach to the problem than that which Giannoni provides.

But there are other possible ways for Giannoni to escape his general dilemma. We might, for example, try to read him as saying that, given certain fixed concepts, within a framework set by them, the rules of inference are conventional -- i.e., it is possible that alternative sets of rules might have been employed. The only difficulty with doing this arises from the fact, already noted, that Giannoni clearly doesn't intend to be so read: Limited conventions are not for him conventions at all; for the rules of inference being no more than linguistic customs, it is hard to see how limits of this sort could exist. A variation on the above theme might have Giannoni claiming that, whereas inference rules involving non-atomic statements are conventional, those which allow or disallow passage from solely atomic premises to solely atomic conclusions are not. In this case, we could even allow that the basic characteristic in question is indeed truth preservation. For the concept of atomic truth is independent of the concept of inference. The difficulty here is, of course, still the above. Moreover, Giannoni talks explicitly of a basic characteristic of inference, not of one kind of inference alone. Finally, even if we were to disregard Giannoni's own remarks and alter his programme so that we could introduce some such limitations as those indicated above, we would (1) be left with a thesis which is far weaker than the radical thesis

¹⁸For true atomic statements glean their truth from correspondence with the facts of the world while facts are the kinds of things which are contingent; that is, to understand what it is to be a fact involves understanding the concept of contingency. Note also here that the very claim that the basic characteristic is a mere fact concerning usage itself commits us to an understanding of contingency and all that that entails.

which we have been discussing and (2) we would not yet have established in any way that even this limited conventionalism is true.

A third way out for Giannoni might be attempted by recourse to some form of pragmatism. This pragmatism cannot, of course, be of a strictly Quinean variety: for, as I have already pointed out, the metaphysics underlying the Giannoni programme prevents this; whatever else finds its way into Giannoni's ontology, he is committed to the existence of a definite body of atomic facts and hence is precluded from treating all truths as relative to and dependent on the conceptual scheme or theory employed as a whole. Yet, can he not perhaps adopt such a view concerning non-atomic truths alone? For, granting the limitation imposed by the initial input of atomic truths and falsehoods into the definition he has provided for the concept of non-atomic truth, it might be thought plausible to maintain that pragmatic considerations come into play with regard to the choice of inference rules. Thus, the difficulty with allowing such things as the tonk-introduction rules as legitimate is seen to result from their allowing all statements to attain the value of truths. The fundamental characteristic in question would then be seen to be fundamental in that it precludes the possibility of a useless schema which dissolves the powerful and useful distinction between truth and falsehood.

The difficulties, however, in such a view are extensive. At the outset, it should be noted that the choice of inference rules is not, as we have seen and Giannoni has explicitly recognized in his discussion of the basic characteristic we are examining here, limited to consideration of what we want to allow as non-atomic truths. The given includes a body of atomic statements some of which are true and others of which are false. We are not thus merely playing havoc with the defined concept of non-atomic truth when we attempt to allow tonk-introduction; we are also undermining the given concept of atomic truth. Hence, it is hard to see what we are being pragmatic about. If the world is such that there are atomic truths and falsehoods in it, there hardly seems to be a choice involved, pragmatic or otherwise, in our taking this into consideration when we come to formulate inference rules.

It is thus seen that a conventionalistic programme of the kind devised by Giannoni seems finally to fail, not because it is deficient in its attempt to avoid the circularity which for Quine was the crux of the problem, but because it

fails to establish in any plausible manner the arbitrariness of our logic in the strong sense which I have called sense (c) in the above. Quine's ultimate justification for ignoring this crucial question with regard to conventionalism cannot, of course, be evaluated fully in an essay of this length; for it turns on the plausibility of his Duhemian empiricism taken as a whole. Leaving such questions aside, however, it can be seen that an account of logic as necessary in a sense not encompassed by conventionalism will yield the results discovered by Quine as surely as his own method does. Given that truth values cannot be assigned arbitrarily to the statements of logic and that the statements in question are infinite in number, the circularity of the conventionalist programme immediately becomes explicit. For, considering Quine's first formulation of the difficulty, it is obvious that logical inference will be needed to move from the general conventions to particular statements: we have nothing available to us but our one, unique logic with which to make the move. Again, with respect to his second formulation, we shall, of course, need the idioms we are trying to circumscribe in order to set down the general conventions; for, unless we make do with alternatives of the kind considered in the discussion of (b) above -- and this, as I said, is not a move open to Quine, these idioms are all we have. Prima facie, such an account of Quine's difficulties seems quite as plausible as his own.

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