ON THE FOUNDATIONS OF RESCHER'S COHERENCE THEORY OF TRUTH

Timo AIRAKSINEN

Introduction

It is delightful that someone still has courage to offer a large scale constructive account of the old and notorious coherence theory of truth, but this is what Nicholas Rescher does in his book *The Coherence Theory of Truth* (Oxford: Clarendon Press, 1973; I shall abbreviate the name of the book as *Theory* and use CTT to refer to the theory). *Theory* consists of a mass of material collected around a semi-formal machinery for deriving logical conclusions from inconsistent premises. This feature is familiar to the readers of some of Rescher's earlier publications, i.e., *Hypothetical Reasoning* (Amsterdam: North-Holland, 1964) and 'On inference from inconsistent premises' (*Theory and Decision* 1 [1970], 179-217 [with Ruth Manor]). In a series of books Rescher continues his theory-construction: *Plausible Reasoning* (Assen/Amsterdam: Van Gorcum, 1976), *Methodological Pragmatism* (Oxford: Basil Blackwell, 1977), and *Dialectics* (Albany: State University of New York Press, 1977) (¹) are steps in that direction and serve to fill several gaps left in the theory in its earlier stages. However, it is clear, at least to me, that *Theory* is not made obsolete by these new treatises; on the contrary, its main ideas, and problems, must be kept in mind when one reads and criticises the new developments of the program: the theories of plausible reasoning and epistemic methods.

I hope that the present paper helps to elucidate one of the main issues underlying Rescher's philosophical thesis, viz., the crucial and problematic concept of a *datum*, as it appears in

Theory. 'Datum' is used as a theoretical keystone also in *Plausible Reasoning* (pp. 8 ff.), and, in the guise of a presumption, in *Methodological Pragmatism* (pp. 115 ff.) and *Dialectics*. It is a very important concept in Rescher's enterprise. But it is also a useful epistemological tool in its own right (see my 'Five types of knowledge', *American Philosophical Quarterly* 15 [1978] 263-74) and therefore it is desirable that its meaning be as clear as possible.

Before getting underway, I shall provide the shortest possible description of CTT: Take an inconsistent propositional set *S* (whose elements are called 'data'), form all its maximal consistent subsets and derive the logical conclusions from one or more suitably selected subsets. The selection of subsets depends on additional information which we must have concerning the 'data'. The derived propositions are then accepted as *truths*; they are mutually consistent and, in a certain way, connected (see *Theory*, pp. 36-7).

1. *The notion of a datum: the problem*

Rescher discusses the problems surrounding 'datum' in several places in *Theory* but it is evident that no clear and consistent picture emerges from his attempts. I shall suggest that there is an unintentional shift of emphasis in the definition of 'datum' in *Theory*. Initially, it is allegedly definable as a mere type or 'mode' of a *single* proposition. Later it emerges that the identification of a datum requires a *context* singled out by an intended CTT-application: i.e., the term 'datum' signifies an element in a set of propositions to which CTT applies.

In the beginning of his explanation of the meaning of 'datum', Rescher writes:

> A datum is a *truth-candidate,* or a proposition to be taken not as true, but potentially or *presumptively* true... (A) datum is a prima facie truth in that we should under the circumstances be prepared to class it as true provided that no countervailing considerations are operative. ... Such a datum is ... a 'given'. (*Theory*, p. 54)

and

> These data are *not* given as true, (...) but rather given
> merely as *truth-candidates*... (*Theory*, p. 39)

Rescher's main idea here is that some propositions are
known to be *true*, some to be *false*, but others are left *un-
determined* as to their truth-value; the propositions of the
third kind are data. Now we can state a *problem* in the fol-
lowing way: Exactly what kind of proposition is left (initially)
without a truth-value ? Our task should be to specify the con-
ditions under which propositions are taken as presumptive
truths or as mere truth-candidates, if we hope to understand
what the nature of a datum is.

2. *A solution: data in context*

I

The answer is simple: A proposition is classified as a datum
if and only if it occurs in the context of other actually given
propositions which is such that (i) there exist mutually con-
tradictory propositions and that (ii) how to isolate those
propositions whose truth depends on the contradictory ones
from those whose truth does not cannot be indicated at the
time of classification. Rescher's explicit remark that *any* kind
of difficulty is relevant (*Theory*, p. 54) is rather misleading. If
we maintain that all problematic assertions are data, we
should say that only a part of 'data' are capable of entering
into a CTT-application since CTT is designed to be a method
for clarifying *inconsistent* sets of propositions and drawing
logical conclusions from them: that is what forms its novel
and interesting aspect as a philosophical theory of truth
(-criterion).

II

Let us, however, now pay attention to an attempt to char-

acterise a datum from the point of view of epistemic *scepticism*. This line of thought is an implicit but prominent trend in those early chapters of *Theory* in which Rescher tries to clarify the notion of a datum intuitively, without introducing the technical intricacies of CTT.

First, he gives as a «paradigm example of data» (*Theory*, p. 59) *reports* originating from different sources, e.g., as in history from documents, from different oral reports of an incident, from our memory relating to various views of the subject matter, etc. Also hypotheses and suppositions can be accepted as potential data, i.e., as propositions which then might enter into incoherent sets. At this stage really anything goes as an example of a datum; even dreams and omens could be used, as well as «the evidence of our senses» (*Theory*, p. 60).

Let us then consider what we do *not* mean when we speak about data. Rescher mentions 'Bradleyan facts' or 'B-facts' as a model for his own (*Theory*, p. 67). But it seems misleading to say that since there is an evident aspect of uncertainty in every truth-claim, even if based on direct perception, then this point which defines B-facts also essentially characterises CTT-data. The reason is that in the case of CTT-data, we are not interested in their correspondence with reality or in their possible falsehood in any other sense than in that which materializes in an emerging formal contradiction in a collection of data. I mean that B-facts are possibly false or unwarranted propositions or distorted sense and memory data, but CTT-facts are either mutually inconsistent propositions or propositions logically dependent on them; there is a glaring difference between the two notions. B-facts *are* unreliable regardless of how we take them (actual or presumptive truth) but data are (B-facts which are) taken as merely possible truths. — The sceptical idea that all individual truth-claims *may* be false is not a suitable principle to use in classifying a proposition as a datum.

III

Apparently it is true that all propositions in relation to CTT are divided into two classes, viz., those which can be *asserted* as actual truths (or falsehoods) and those which cannot, i.e., data. We assert the members of the latter class if the contradictions involved are resolved, and, according to Rescher, we are then entitled to accept them as actual truths; but it is also the case that

> A datum is to be carried across the line from datahood to truth automatically whenever such transfer is *unproblematic* (i.e., in no way involves a contradiction). A member of a group of data that meets with no rivalry from its fellows can immediately be accepted as true. (*Theory*, p. 55)

The next task quite evidently is to try to make sense of the specific *lack of problems* which allegedly allows one to move directly from the datahood of p to the truth of p. There must be some hidden aspects of the notion of a datum if Rescher really can legitimately maintain that since there is nothing to prevent the acceptance of the truth of 'the cat is on the mat', one is immediately entitled to say that it really is true. If whenever nothing prevents us from asserting p and we assert p, and that alone is enough to assure us of the actual truth of p, the situation is really enigmatic. There must be a standard description of the special context where we can legitimately move from a datum to a truth. If I merely say, «There are 25610 lions in western Africa,» it may well happen that my saying it causes no confusion in my present epistemic situation, but I do not accept it as *true*; and I would not even if it were initially a «real prospect for truth» (*Theory*, p. 56). It simply remains a prospect until I can verify it conclusively.

But why call the initially unproblematic 'the cat is on the mat' a datum at all ? A datum, according to Rescher's original definition, is a potential truth which is not taken as a truth; but now one is asked to class the datum as a truth immediately.

Of course, Rescher adds that a datum is a truth if its classification as a truth «creates no anomalies» (*Theory*, p. 54). This does not help very much, however, since it involves a confusion of 'datum' and 'proposition': a datum is a proposition in an anomalous context. Hence problems must always emerge if a datum proper is classified as a truth.

I admit that the present question is a crucial and difficult one but, still, it seems to me that if *p* really is unproblematic (and fully supported by evidence, say), we do not call it *first* a datum and *then* a truth. On the contrary, we simply admit that *p* has the status of a truth. The lesson here is that we need a reason which forces us to classify *p* as a datum, and therefore I recommend the analysis of 'datum' by means of clauses (i) and (ii) above. Also, if *p* is (say) semantically vague or nonsenical we do not call it a datum. — A datum is necessarily tied to a context of other propositions. What is the context like, apart from the fact that it is inconsistent?

IV

Now when we know that a datum is a proposition which we cannot assert as a truth, because that would drive us to contradictions, we must inquire into the details of that context. After all, CTT should lead us from data to the truth, and not just eliminate contradictions from given propositional sets.

The first thing which we are bound to notice is that the sets must be in some way limited and specified before we can apply any alethic methods to them. Let us focus on that idea next.

Rescher asks, «Just where is coherence to be operative» when he discusses the classic view that the system in which the coherence theory of truth is operative must be an all-inclusive and unique one which is not related to any other system of propositions outside itself, i.e., all somehow limited systems are its subsystems (*Theory*, p. 66). It is of course true, as Rescher maintains, that such an unlimited system is perfectly indeterminate, or in other words, it is so large that it includes all possible propositions. There is no clear line of demarcation between what really is there in this or that specific case, and

what might be there, if the circumstances are different. Quite evidently, we must be able to operate at the level of specified subsystems, if we are going to use CTT.

How can we fix the limited subsystems? Rescher sees the general problem clearly and maintains that he can specify the *kind* of the propositions which enter as data in a CTT-analysis by giving the *sources* of data, viz., the relevant experiences (*Theory*, p. 66). The data must be collected in relation to some principle which sets those limits «where CTT is operative», and that is provided by 'experience', e.g., mythological claims are excluded.

So there is natural way out in Rescher's CTT; we can discover exactly where his theory of truth is operative or how to determine 'datahood' on a theoretical level, although in practice it is perhaps a different matter. As I have remarked already there is a line of development of the notions in *Theory*: it now appears that datahood cannot be determined by mere reference to contradictions but the context must also be specified in some additional way with respect to the nature of its constituent members. Nevertheless, I do not think that Rescher's above-mentioned reference to *experience* is helpful here: assumptions and hypotheses can equally qualify as data.

When we continue our search for a way out of unspecified truth-contexts, we find the following rather loose and enigmatic assertions:

(i) CTT leads one to see knowledge as a *system* with prefabricated elements, i.e., data, resulting from the preformative cognitive activity of the mind (*Theory*, p. 323), and
(ii) CTT is a socially oriented theory which does not accept any cognitive solipsism in the case of reaching the truths from data (*Theory*, pp. 329, 332). The build-up of our knowledge is seen as an «essentially *interpersonal* enterprise» (*Theory*, p. 333; cf. *Dialectics*, Intr.).

Now it seems to me that we should see a partial solution to the several problems already indicated in the present paper in that systematic, interpersonal aspect of CTT by which we

hope to be able to explicate the nature of the context in which CTT is operative. The picture which emerges is as follows:

(1) There are several *sources of data,* i.e., several persons asserting propositions (or one person with memory traces from different times).

(2) There is a *Subject,* i.e., a person who collects the proto-data and is interested in their truth.

(3) There is a *problem,* i.e., a reason why the Subject is interested in the matter at hand. I am prone to think that this takes care of the enigma of the nature of the data since now we can say that data are propositions relevant to an empirically meaningful problem (and these data can be hypotheses, theoretical statements, guesses etc.). The emergence of the problem relates to some larger, practical issues which do not interest us here.

(4) The Subject finds that after he has collected all the propositions relevant to his problem, some of them are mutually *contradictory.* In other respects the data are unproblematic (this is also to say that there is no simple way of resolving the contradictions).

(5) The Subject applies CTT to his data and thereby reaches the presumptive truth.

V

As I see it, the introduction of several sources of data is just a natural extension of the idea that however apparent and self-evident a proposition might be, it still *can* be false: even in simple cases we shall get conflicting reports. Basically there is no absolute certainty in relation to things which we think are facts, and rather than try to prove the contrary, namely that there is such an absolute, ego-centric certainty, it is easier to drop the idea altogether and replace it by a systematic procedure by which we can reduce and even eliminate the uncertainty, originally accepted as an unavoidable situation.

The above picture is essentially a sceptic's image of the arrangement of epistemic building blocks (see *Theory,* p. 331).

Rescher just adds an edifice which lets us see how from ulti-
mate uncertainty a reasonable certainty could be reached, if
CTT works:

> For no amount of claims in the language ot appearance...
> can ever issue in any theoretically guaranteeable result
> regarding what *is actually the case* in the world. ('Foun-
> dationalism, coherentism, and the idea of cognitive sys-
> tematization', *Journal of Philosophy* 71 [1974], 695-710,
> p. 705)

Now, in CTT-applications there is a Subject trying to find a
truth in a context determined by a problem [see (2) and (3)
above]. This is to say that the data are given relative to the
context, or, in other words, of all available propositions, those
which are relevant to the problem are identified as *data*. We
can also use Rescher's term here and say that there is an 'epis-
temic horizon'. That there really must be a 'prior problem',
which is made enigmatic by some occurrences of contradictory
propositions, can again be easily seen: in *Theory* it is empha-
tically said in many places that the data «exhaust the range
of the *real* alternatives» to truth and that there is a «certain
special sort of 'completeness' claim on their (meaning data)
behalf» (*Theory*, p. 96; see also *Theory*, pp. 218-9). The im-
portance of the *completeness* of the data-collection is self-
evident when we notice that CTT gives a «relative truth with
respect to the data» (*Theory*, p. 183). Intuitively it is clear that
even if a set of propositions were self-consistent, there is no
warrant for taking its members as truths: if the set does not
include *all* the relevant propositions, the excluded ones may
bring a contradiction with them.

In discussing this completeness assumption behind the deter-
mination of datahood, Rescher tends to be rather vague. He
mentions that datahood is a property of a *family* of data and
that there is an *implicit* claim that there are enough data to
constitute such a family (*Theory*, p. 56), and that the specified
details of the techniques of CTT-methodology provide an ans-
wer to the question of the existence of the family (*Theory*,

p. 57). In an early stage of *Theory* Rescher repeatedly discusses data as a *chaotic mass* including as much information as possible inside an «epistemic context» (*Theory,* pp. 40-1). All of this seems to indicate that the claim of the completeness of the data is a side issue only; on the contrary, we saw a different, but correct, attitude towards the question in the above quotations.

Anyhow, a picture gradually emerges of the role of the data in CTT which is very different from the initial one according to which the data are 'pure' truth-candidates which are taken as true if nothing intervenes. These two lines of understanding the meaning of 'datum' run parallel for a while, as is apparent for instance when Rescher, after announcing that for a CTT-application we need all the relevant data, immediately continues:

> The data map out the domain of what we are prepared to recognize — in the given cognitive circumstances — as genuine possibilities... They serve to delimit our epistemic horizons, so to speak. (*Theory,* p. 96)

Something seems to go very wrong indeed when we are told that we should have a complete set of data and, then, that the very same data can be used to define the context of the problem which we are trying to solve. What other meaning can «they... delimit our epistemic horizons» have (he does not seem to refer to the resulting truths but to the initial data)? It seems to me that Rescher's account in this case is completely circular. The circularity disappears only if we first have a collection of data which we know to be actually complete (and suitable for our purposes), but we do not know what the individual truths are which it includes; then by studying the data we gradually learn what the facts pertaining to our problem are.

To sum up: We have complicated the original picture of a datum so that it now becomes something like this: A *datum* is a proposition included in an inconsistent set of propositions which is a collection of all duly eligible propositions relevant to a given empirically meaningful problem.

Conclusion

At this stage there is only one thing to say: we must defend the above analysis of 'datum' against the following type of counter-claim. If you look out and say, «The sun shines but it is still cold outside», we quite evidently have a kind of *datum* here since we cannot decide the truth/falsity of the proposition immediately, without further investigation into the local weather situation. But CTT seems to be inapplicable too. Does this mean that our analysis of 'datum' is too narrow ? The answer may take two lines:

(1) Yes, it is too narrow, but that is how 'datum' is actually conceived of in *Theory*; yet, a really fruitful concept of a datum should incorporate *any* type of motive to postpone decisions concerning truthfulness.

(2) No, all situations where a datum appears are a matter of inconsistent contexts; e.g., if one considers p as a truth-candidate which he cannot assert because of a lack of further information, he should consider $-p$ as well. Therefore one is bound to meet mutually contradictory propositions every time when one cannot assert p as an outright truth; this latter line of thought saves CTT.

University of Turku,   Timo AIRAKSINEN