Part One: Russell’s Promising Ideas on the Bearers of Truth and Falsity

Russell had long worried about propositions. By 1906 he was exploring alternatives to them. By 1910 he renounced them. By 1912 he penned a chapter in his book *The Problems of Philosophy* sketching his ideas for replacing them. His goal was to do so within the parameters set by three self-imposed constraints: (i) truth bearers must be the sorts of things that can also be false, (ii) they must fail to exist if there were no beliefs, and (iii) whether or not a belief is true must be an objective matter of fact, independent of us. As he puts it:

“(1) Our theory of truth must be such as to admit of its opposite, falsehood. A good many philosophers…have constructed theories according to which all our thinking ought to have been true, and have then had the greatest difficulty in finding a place for falsehood…

(2) [I]f there were no beliefs there could be no falsehood, and no truth either…If we imagine a world of mere matter [without minds], there would be no room for falsehood in such a world, and although it would contain what may be called ‘facts’, it would not contain any truths…In fact, truths and falsehoods are properties of beliefs and statements: hence a world of mere matter, since it contains no beliefs or, statements, would also contain no truth or falsehood.

(3) But…the truth or falsehood of a belief always lies outside the belief itself. If I believe Charles I died upon the scaffold, I believe truly, not because of any intrinsic quality of the belief, which could be discovered by merely examining the belief, but because of an historical event which happened two and a half centuries ago…Hence, although truth and falsehood are properties of beliefs, they are properties dependent upon the relations of the beliefs to other things, not upon any internal quality of the beliefs.” (120-21)

Russell takes the first constraint to eliminate propositions as truth bearers, since, he thinks, any reasonable conception of their “unity” will make it impossible for them to be false. He illustrates this with an example.

“The necessity of allowing for falsehood makes it impossible to regard belief as a relation of the mind to a single object, which could be said to be what is believed. If belief were so regarded, we should find that, like acquaintance, it would not admit of the opposition of truth and falsehood, but would have to be always true. This may be made clear by examples. Othello believes falsely that Desdemona loves Cassio. We cannot say that this belief consists in a relation to a single object, [denoted by] ‘Desdemona’s love for Cassio’, for if there were such an object, the belief would be true. There is in fact no such object, and therefore Othello can’t have any relation to such an object. Hence his belief cannot possibly consist in a relation to this object.”(124)

For Russell, propositions are complexes the constituents of which are objects, properties, and relations, united somehow into a coherent whole. So, in order for there to be a proposition the constituents of which are Desdemona, loving, and Cassio (in that order), some relation must unite them into a single complex entity. Russell assumes that the only reasonable candidate for doing so is the loving relation. *But for loving to unite Desdemona and Cassio is for Desdemona to stand in the loving relation to Cassio (and so to love Cassio)* – in which case the complex will, Russell thinks, be a fact. In short, the unity required by the existence of the proposition that Desdemona loves Cassio requires it to be true. But that can’t be right, for then there would be no false propositions.

His new alternative has two parts. First, he takes the bearers of truth and falsity to be entities he calls “beliefs,” meaning by this something other than what one believes. Second, he takes believing, asserting, and other attitudes to be relations, not to single, objectively-unified propositions, but to the very propositional constituents that he had come to realize can’t be unified in any mind-independent way.

“The relation involved in *judging* or *believing* must, if falsehood is to be duly allowed for, be taken to be a relation between several terms, not between two. When Othello believes that Desdemona loves Cassio, he must not have before his mind a single object, [denoted by] ‘Desdemona’s love for Cassio’, or ‘that Desdemona loves Cassio’, for that would require that there should be objective falsehoods, which subsist
independently of any minds, and this...is a theory to be avoided, if possible. Thus it is easier to account for falsehood if we take judgment to be a relation in which the mind and the various objects concerned all occur severally; that is to say, Desdemona and loving and Cassio must all be terms in the relation which subsists when Othello believes that Desdemona loves Cassio. This relation, therefore, is a relation of four terms, since Othello also is one of the terms of the relation...Thus the actual occurrence, at the moment when Othello is entertaining his belief, is that the relation called 'believing' is knitting together into one complex whole the four terms Othello, Desdemona, loving, and Cassio. What is called belief or judgment is nothing but this relation of believing or judging, which relates a mind to several things other than itself.” (125-26)

Under the old analysis of propositional attitudes, ‘Othello believes that Desdemona loves Cassio’ reports a relation that holds between the believer, Othello, and that which he believes, namely, that Desdemona loves Cassio. But since Desdemona doesn’t, in fact, love Cassio, this requires the existence of a false proposition, which Russell rejects. Under the new analysis, the sentence reports a 4-place relation that unites Othello, the believer, with the several objects of his belief – Desdemona, the loving relation, and Cassio (in that order). Since Othello really does believe that Desdemona loves Cassio, the belief relation really does relate these objects – knitting them together into a complex entity, Othello’s belief that Desdemona loves Cassio, which Russell takes to be a fact. If this belief were true, one of its objects – the loving relation – would really relate the other two – Desdemona and Cassio (in that order) – knitting them together into a different complex entity, Desdemona’s love for Cassio, which would itself be a fact. But since Desdemona doesn’t love Cassio, there is no such further fact, and the belief is false.

The reason this isn’t taken to be problematic is that according to the new view, in saying that the belief is false we are not saying that what Othello believes is false. There is no thing that he believes. Rather, we are saying that the fact that consists of Othello’s believing that Desdemona loves Cassio is false. Since this complex entity, which Russell calls the “belief,” does exist, he takes his theory to have successfully identified bearers of truth that can, unproblematically, also be bearers of falsity. That, in a nutshell, is Russell’s multiple-relation theory of belief and other attitudes.

The new theory satisfies the first of Russell’s three requirements: the bearers of truth are the sorts of things that can be bearers of falsity. For example, my belief that Seattle is larger than Portland is identical with the fact that I believe that Seattle is larger than Portland. It is true because this fact corresponds to another fact – that Seattle is larger than Portland – which consists of two of the constituents of “my belief” really standing in the relation larger than. There are two reasons to suppose that this is the sort of thing that can be false. First, “my belief” is similar to other “beliefs” that are false – e.g., it is similar to Mary’s belief that Portland is larger than Seattle. Second, my own belief – i.e. the fact that I believe that Seattle is larger than Portland – could have been false (even though, if it were false, it would still be a fact).

The new theory also satisfies Russell’s second requirement: if there were no beliefs (or other cognitive attitudes), there would be no bearers of truth or falsity. Why is this a virtue? Russell’s responds with a question of his own. “What sorts or things are true, or false, anyway?” That natural answer is: statements, hypotheses, assumptions, beliefs, predictions, and conjectures, plus perhaps utterances and sentences. Surely if there were no agents, there wouldn’t be any of these things either. More pointedly, if there were no minds, there would be no mistaken statements, beliefs, predictions, and the like; and how, if there were no mistakes, could there be falsehoods either? As he puts it, “we feel that there could be no falsehood, if there were no minds to make mistakes.” This is not an unreasonable default view. Without the cognitive activity of agents what entities would there be to be true or false?

Still, there are worries to which the this view gives rise. Chief among them is our free and easy talk of truth even when describing agentless scenarios. Consider a statement one might make in defending an anti-anthropogenic-global-warming view. First one asserts (let us suppose truly) that the small rise in global temperature over the past century is nothing more than the continuation of the gradual rise since the Little Ice Age ended around three hundred years ago. Next, one makes a counterfactual statement
about that claim. One says, “That claim would have been true, even if no human beings, or other sentient creatures, had existed.” On the face of it this remark seems to maintain that a certain previously asserted claim would have been true, even if there had been no cognitive agents. How could that be? The defender of classical Moorean/Russellian propositions had an answer: since the asserted claim is an abstract bearer of intrinsic intentionality that doesn’t depend on the existence of cognitive agents, it would have been present in the counterfactual scenario, where it would have been true by virtue of representing the world as it, in fact, would have been. Since Russell rejects classical propositions, he owes us an alternative answer to our question, which he doesn’t give. We will return to this issue.

Paraphrasing Russell’s third and final requirement, we may say that the truth or falsity of a belief is not intrinsic to it, but always depends on whether the constituents of the belief (apart from the agent) are, in reality, the way the belief represents them to be. As I would put it on Russell’s behalf, Othello’s standing in the belief relation to Desdemona, loving, and Cassio involves Othello’s predicating the loving relation of Desdemona and Cassio, and thereby representing her as loving him. Whether or not his belief is true depends on whether or not Desdemona and Cassio are as they are represented. Since this is not a matter of any cognitive activity on the part of Othello, Russell’s third requirement is met.

Given Russell’s long-standing frustration with not being able to solve the problem of the unity of the proposition, one can well understand why this new theory appealed to him. However, it suffered from several problems that he was never able to solve, and which led him to abandon it a decade later.

One obvious difficulty stems from the observation that there are many truths, and also, one would hope, many falsehoods, that no one has ever believed. Russell’s theory can’t account for this, since in such cases, there will be no facts that an agent believes so-and-so with which to identify them. Another problem is that the theory offers an analysis of attitude ascriptions of the form, x knows/ believes/ asserts (the proposition) that S, while being silent about talk of propositions outside of attitude ascriptions. E.g., the theory provides no analysis of examples like (1).

1a. Logicism is a thesis about the relationship between logic and mathematics.
   b. For every true proposition in the report, there are two other propositions in the report that are false.
   c. Bill asserted/denied Church’s Thesis/Goldbach’s Conjecture.
   d. Susan proved the proposition/several propositions that John denied.
   e. There are many propositions that no one has entertained, let alone proved or disproved.

The theory also makes no room for the notion what is believed, assumed, doubted, predicted, denied, imagined, stated, and the like. If John said/believed/imagined/doubted/denied/assumed/predicted that the Earth is round, then what John said/believed/imagined/doubted/denied/assumed/predicted was true.

The fact that Russell has no account of this is obscured by a linguistic peculiarity he takes advantage of. Some verbs – ‘believe’, ‘assume’, ‘predict’, and ‘state’ – have corresponding nominal forms – ‘belief’, ‘assumption’, ‘prediction’, and ‘statement’ – that naturally occur as arguments of ’is true’ or ‘is false. E.g., we are comfortable with claims like those in (2).

2a. John’s belief (that so-and-so) is true (false).
   b. John’s assumption (that so-and-so) is true (false).
   c. John’s prediction (that so-and-so) came true (turned out to be false).
   d. John’s statement (that so-and-so) is true (false).

We are comfortable because these nouns can be used in two related ways. They can be used to stand for what one believes/assumes/predicts/states, or for one’s act or state of believing, assuming, predicting or stating. The former use is the sense in which “beliefs,” “assumptions,” “predictions,” and “statements” can naturally be described as true or false. But the point doesn’t generalize. Suppose John doubted/denied/imagined that so-and-so. Although we are comfortable with the claim that what John doubted/denied/imagined/ turned out to be true (or false), we would never express this as in (3).
3a. *John’s doubt (that so-and-so) is true (false).
b. *John’s denial (that so-and-so) is true (false).
c. *John’s imagining (that so-and-so) is true (false).

Nor would it do to provide the factive substitutes in (4) for these deviant examples, since they also can’t play the role of the unexceptionable claims in (5).

4a. *The fact that John doubted that so-and-so is true (false).
b. *The fact that John denied that so-and-so is true (false).
c. *The fact that John imagined that so-and-so is true (false).

5a. What John doubted is (in fact) true (false).
b. What John denied is (in fact) true (false).
c. What John imagined is (in reality) true (false).

In short, Russell has no systematic way of accommodating our ordinary conception of what a person believes/assumes/doubts/predicts/denies/imagines/states/ etc.

Even his identification of one’s belief or statement that so-and-so with the fact that one believes/statates that so-and-so is inaccurate. One’s belief can be either that which one believes, which is off limits for Russell, or one’s cognitive state of so believing. In this latter sense of ‘belief’ one’s belief can be either strong or weak, rational and supported by evidence versus irrational and impervious to evidence, or recently formed versus long enduring. None of these are properties of facts.

Next consider another devastating problem. Suppose, for the sake of argument, that Russell is right in thinking that when Othello believes that Desdemona loves Cassio, he does something that creates a unified whole the constituents of which include Othello, as believer, plus the terms of his belief. What does he do? The answer, surely, is that he predicates the relation loving of Desdemona and Cassio (in that order). The challenge is to extend this insight to analyses of all beliefs without mentioning or presupposing propositions. He can’t.

6a. Othello believes that some people are trustworthy.
b. Othello believes that not many people are trustworthy.
c. Othello believes that Iago is trustworthy and Desdemona is unfaithful.
d. Othello believes that either Iago isn’t trustworthy or Desdemona loves Cassio.
e. Othello believes that if Iago is trustworthy, then Desdemona is unfaithful.
f. Othello believes that it is a necessary truth that if Desdemona loves Cassio, then Desdemona loves Cassio.

First consider (6a). According to the normal analysis of quantification, the constituents of the belief reported by (6a) are the property being a function that assigns a true proposition to some object and the propositional function that assigns to any object o the proposition that o is trustworthy. But this presupposes that there are propositions that are the values of propositional functions. So, if the aim of the new theory is to dispense with propositions, it fails to do so.

Next consider negation in (6b) – where by ‘negation’ I don’t mean a symbol, but the content shared by the various symbols properly translated by the logician’s ‘~’. With this understanding, the constituents of the belief reported by (6b) are negation, something corresponding to the quantifier ‘many people’, and something corresponding to the predicate ‘trustworthy’. What does Othello do to “unify” them in forming his belief? Presumably he first does unifies the contribution of ‘many people’ with the contribution of the predicate ‘trustworthy’. Then, he negates what he has unified. What does he negate? Since for Russell negation is always seen as an operator on a proposition, he seems to be committed to saying that in forming the belief (6b), Othello negates the proposition that many people are trustworthy. But if this is the analysis, then the new theory presupposes propositions it is supposed to eliminate.
The remaining examples in (6) suggest that this argument can be repeated for all propositional operators, including conjunction, disjunction, and the content of the material conditional – all of which are used in forming complex propositions from simpler ones. With (6f) we add the necessity operator, which is there predicated of a complex proposition of the form if p, then p. Examples of this sort could be multiplied far and wide. Short of a complete and radical reanalysis of all of Russell’s previous philosophical logic, these examples show is that the new theory is up to its neck in propositions.

The final problem with the new theory brings together all the previous difficulties, while pointing to a way of transforming the theory into a new and improved theory of propositions. It is a truism that a belief, assertion, hypothesis, or conjecture represents the world as being a certain way, and so is capable of being true or false. Ordinarily, what we mean by this is that what is believed, asserted, hypothesized, or conjectured represents the world, and so is true or false. Using the familiar name ‘proposition’ for these things, we may ask “In virtue of what are propositions representational, and hence bearers of truth conditions?” This is the problem of the unity of the proposition that Frege, Moore, and Russell were unable to solve. One might think, as Russell apparently did, that in disposing of propositions he was disposing of the problem. He wasn’t. Surely, beliefs, assertions, hypotheses, and conjectures are representational. Since Russell doesn’t deny that these things exist (even if he does misidentify them), he needs to answer the question of what makes them representational, and so the bearer of truth conditions. This is the problem of the unity of truth bearers, no matter what one calls them.

Addressing this problem from the perspective of Russell’s new theory of judgment, we start with its central thesis: beliefs, assertions, hypotheses, conjectures, and the like, are facts in which an agent is related by the relevant attitude (belief, assertion, etc.) to various objects, properties, and relations. If these facts are representational, what makes them so? The form of the answer dictated by the theory is obvious: what makes these facts representational is something that the agent’s cognitive attitude adds to the objects toward which the attitude is directed to bring it about that the world is represented as being one way rather than another. When Othello believes that Desdemona loves Cassio, his cognitive attitude adds something to the raw material of the belief – Desdemona, loving, and Cassio – that brings it about that the resulting belief represents Desdemona as loving Cassio. What does it add?

In asking this question, it is important to bear two points in mind. First, what one agent adds to these constituents to bring it about that one’s belief represents the world in this way is the same as what any other agent adds to bring it about that this other agent’s belief represents the world in the same way. Second, there is reason to suppose that the same can be said about what is added when different attitudes are born to the same content. When agents believe, assert, deny, doubt, hypothesize, imagine, or conjecture that Desdemona loves Cassio, they take different cognitive stances toward representing Desdemona as loving Cassio. What is common to the different attitudes is that way of representing the world. What differentiates them from one another is the cognitive stance taken toward that representation. When these two points are kept in mind, the answer to our question is clear. What the agent does to bring it about that his or her belief, assertion, hypothesis, or conjecture involves representing Desdemona as loving Cassio is to predicate one constituent of the judgment – the loving relation – of the other two – Desdemona and Cassio, in that order.

This is the kernel of truth in Russell’s new theory. What unites the elements of a belief, assertion, hypothesis, or conjecture, and gives it representational import, is a cognitive operation agents perform on the constituents of the belief, assertion, hypothesis, or conjecture. In the case at hand – in which the agent believes, asserts, hypothesizes, or conjectures that Desdemona loves Cassio – he or she predicates the loving relation of Desdemona and Cassio. Since this is so no matter whether the representational content is believed, asserted, hypothesized, doubted, conjectured, or denied, we can transform the multiple relation theory back into a propositional theory by collecting the multiple constituents of representationally equivalent instances of believing, asserting, and the like, into a single structure the
defining feature of which is that for an agent to entertain it is for the agent to predicate loving of Desdemona and Cassio. I won’t go into the details here of how that can be done, but you can read about it in section 4 of chapter 9 of The Analytic Tradition, Vol. 1.

The point I want to emphasize is that after struggling with the problem of the unity of the proposition for about a decade had the fundamental insight needed, at long last to solve it; the only thing that can unify the proposition is a cognitive act of predication. Once this is seen we can understand how propositions can represent the world, and so have truth conditions, while solving a host of more particular problems concerning propositions – including the difficulties on which Russell built his famous Gray’s Elegy argument. The tragedy was that Russell wrongly saw this insight as a way of eliminating propositions, and so couldn’t see how to use it to reconceptualize what they are. Unfortunately, it took 100 years for us to rediscover the insight. Fortunately, a great deal of progress involving it is now being made.

There is, I think, a lesson in this for the value of the history of philosophy, when it is pursued not solely to glorify historic figures, or simply recount how things looked to them, but to bring them into our present philosophical conversations. When we do this we not only criticize them, but learn from them as well. Sometimes the result is an enlargement of both our own perspective and of our appreciation of what they still have to offer us.

Part Two: Logical Analysis in the Service of Metaphysical and Epistemological System

Overview of Russell’s Philosophical Development to Date

Russell’s mature philosophical development began with an intense focus on issues in logic, language, and the philosophy of mathematics. As we have seen, the issues raised in those studies led to broader concerns with the nature of truth, falsity, facts, judgments, and propositions. Russell also waded into epistemology and the philosophy of mind with his increasingly radical doctrine of acquaintance, and correspondingly stark distinction between knowledge by acquaintance and knowledge by description. By the end of the first decade of the 20th century his logicism project had come to fruition. At this point, his views about “analysis” as an all-purpose philosophical method had taken shape, and were being applied to a variety of philosophical problems.

Two broad tendencies were now discernable. The first was an ambitious analytic reductionism, by which he sought to avoid ontological commitment to entities thought to be problematic. Just as he took his theory of descriptions, and his analysis of ordinary names as disguised descriptions, to provide the treatment of negative existentials needed to put to rest his earlier broadly Meinongian ontology, so he took his multiple-relation analysis of judgment to eliminate propositions, and his reduction of natural numbers to classes to dispense with an independent category of abstract objects. But that was only the beginning. His radical view of classes as “logical fictions” advanced a minimalist metaphysical agenda, present from Principia Mathematica onward. In Our Knowledge of the External World, which appeared in 1914, he took a giant step of a similar sort in the service of epistemological concerns. There, he renounced commitment to physical objects as independently existing substances – characterizing them instead as “logical constructions” out of the objects of immediate sense perception. By this time his view of reality had been stripped of all abstract objects except “universals” – i.e. properties and relations – and all particulars except for individual selves (themselves to be eliminated in The Philosophy of Logical Atomism) and the fleeting, private objects of immediate perception.

The second broadly methodological tendency linked his evolving metaphysical minimalism to an ambitious search for secure epistemological foundations. Russell’s epistemological practice, explicit in Our Knowledge of the External World but present throughout, consisted of two sub tasks. The first was to isolate a domain of pretheoretic knowledge, which though revisable at the margins was, rightly, taken to be, on the whole, beyond serious doubt. In the case of logicism this domain was our knowledge of arithmetic and other branches of mathematics; in the case of the external world it was our knowledge of
physical science, and of the truth of most ordinary judgments about “physical objects.” The second subtask was to identify a minimal set of underlying notions to be used in formulating a set of primitive judgments or axioms, plus definitions from which most of the pre-theoretic claims taken as data could be analyzed/derived. For this strategy to be judged successful, Russell didn’t require the underlying axioms or definitions to be self-evidently obvious. It was enough that they be capable of explaining how the pre-theoretic claims under analysis could be true, and known by us to be so – while avoiding puzzles and paradoxes caused by the postulation of entities the nature and existence of which we could not know.

The knowledge to be justified Russell’s 1914 book and lectures, Our Knowledge of the External World, included not only abstract, non-observational, claims of physical theory, plus claims about objects existing at distant times or places, but also ordinary claims about the existence of tables, chairs, stones, and mountains at times when they are not perceived. Russell believed all these claims needed justification, while also believing that they can be justified. He was convinced that the evidence justifying them must come from the immediate data of sensation, which informs us only of the properties of sensible objects at the moments they are perceived. For Russell the justification we seek can only be had by conceiving of matter as a logical construction from sense data. This is taken to be the only alternative to (unreasonably) inferring unknown (unperceived) entities from those that are known (perceived).

Logical construction, it turns out, is a method of logico-linguistic analysis. The idea is to give an analysis of what a sentence must mean if the claim it is used to express is to be counted as something we are capable of knowing. Just as the logicist dreams of answering the question “How is mathematical knowledge possible?” by analyzing mathematical statements as being nothing more than logical statements, so, the epistemologist might answer the skeptic about the external world by analyzing empirical statements as statements about sense data. In this way, philosophy as logico-linguistic analysis jumped from what some took to be the periphery of the subject to what many regarded to be its core.

Material Objects are Logical Constructions out of Sense Data

On this view, statements that appear to be “about material objects” must, on analysis, be understood really to be about sense data and nothing more. So, if we were counting the entities in the world, we would have to count each individual sense datum and each perceiver – but after these had been counted there would be no material objects left over to count. Since knowing the truth of a material-object statement simply requires knowing about sense data, no unsupported inference to other entities with which we are not directly acquainted can undermine the justification needed for knowledge.

What, then, might an analysis look like of the knowledge (7) is used to express?

7. I see a table.

Something along the lines of (7a) would be part of the analysis.

7a. I see a certain kind of sense datum (with such-and-such shape and size).

Of course, this is too vague. But even apart from vagueness, (7a) couldn’t be the whole of the analysis. We must distinguish seeing a table from dreaming or hallucinating a table, as well as from merely seeing an image of a table. If (7a) gave the whole content of (7), it would be impossible to make these distinctions. So, the analysis of (7) must also include clauses of the sort indicated by (5b) and (5c).

7b. If I were to have the sensations called “walking toward the table” – i.e. if I were to have the “muscular” sensations called “walking” at the same time that I had a sequence of gradually changing, and steadily larger, visual “table-like” sense data – then, ultimately, I would experience tactile sense data of pressure and hardness.

7c. If I were to have the sensations called “walking around the table,” then my visual sense data would gradually change in a certain continuous way....
This isn’t all. There are many ways of perceptually verifying (7). A proponent of the view that material objects are logical constructions out of sense data is pressed to include a clause in the analysis of (7) for every sense experience that would contribute to verifying it. For this reason Russell never gives an actual analysis, but merely gestures at what it must be like. His view is that even though it is, for all practical purposes, impossible to give even approximate translations of material object statements into epistemically equivalent statements about sense data, talk “about material objects” must reduce to talk about sense data, if material-object statements are to express genuine knowledge.

The following passage indicates why Russell felt this way.

I think it may be laid down quite generally that, in so far as physics or common sense is verifiable, it must be capable of interpretation in terms of actual sense-data alone. The reason for this is simple. Verification consists always in the occurrence of an expected sense-datum...Now if an expected sense-datum constitutes a verification, what was asserted must have been about sense-data; or...if part of what was asserted was not about sense-data, then only the other part has been verified. (Our Knowledge of the External World 81-2)

If we ignore his final qualification for now, the content of the passage is summarized by (8) and (9).

8. Verification always consists in the occurrence of sense data.
9. If the occurrence of sense data is what verifies a statement S, then S must be about sense data.

From these principles, it follows that in so far as ordinary statements of common sense and physics are verifiable, they must be about sense data. Since we know many of these statements to be true, they must be verifiable; indeed, it is by verifying them that we come to know them. Thus, the statements of both physics and common sense must be about sense data. That is Russell’s reasoning.

But (8) and (9) aren’t obviously correct. E.g., consider (10), which is a little more general than (9).

10. If occurrences of x verify a statement S, then S must be about x’s.

Suppose we test this principle. One kind of case involves theoretical statements in physics – e.g., about tiny subatomic particles, or massive black holes. We don’t directly observe them, but we posit their existence to help explain what we do observe. Many observations are recorded by complex measuring instruments. So, we verify some statements about subatomic particles and black holes by reading instruments. If (10) were true, this would mean that statements about subatomic particles and black holes are really about instrument readings. They don’t seem to be. Doesn’t this tell against (10)? Or again, suppose we want to figure out whether in the past a certain person x murdered someone y. If x and y are now long gone, all we can do to verify the claim that x murdered y is to consult historical records. If (10) were correct, then the murder claim would be a claim about actual and counterfactual observations of those records. But that doesn’t seem right; the claim seems to be about x and y. These considerations provide some reason to be skeptical of (10), and to maintain that what a statement is about can’t always be identified with the observations one could make to verify it. But if (10) is questionable, one must ask what makes (9) any less so? This threatens Russell’s project.

Why did Russell accept (9)? I suspect his acceptance stems from a general conception of how knowledge arises that includes principles (i) and (ii).

(i) The foundation of all empirical knowledge consists of sense data statements, which are the statements of which we can be most certain.

(ii) All other empirical knowledge is justified by those statements in certain fixed ways, including deduction and enumerative induction – this A is B, that A is B...so (defeasibly) All A’s are B’s.

If one thinks of deduction as logical deduction, and induction as simply enumerative, one will expect the conclusions they license to be about sense data when one’s premises are. Any knowledge reached by induction or deduction from truths about sense data alone must itself be confined to sense data.
That said, Russell would probably also recognize another way of gaining empirical knowledge – *the method of hypothesis*. It consists of formulating a hypothesis and deducing observational consequences from it (together with further observational claims). If these consequences are true in enough cases, the hypothesis as confirmed and we come to *know* that the hypothesis is true. Although the method is powerful, Russell’s conception of it was limited. The basic idea was that if the observable consequences one deduces are sense-data statements, then the hypothesis itself must be a sense data statement. Actually, he foresaw two possibilities. *Either the hypothesis is solely about sense data, in which case it is verifiable and a possible object of knowledge, or the hypothesis is partially about sense data and partially about something else, in which case the part about something else must be unverifiable and unknowable.* So the only knowledge that the method can provide is knowledge of sense data. Since the only other ways of obtaining empirical knowledge he recognizes are induction and deduction from sense data statements, he concludes that the only empirical knowledge one can have is knowledge of sense data. Agreeing with Moore that we know various material object statements to be true, he thinks that material object statements *must* be analyzable into sense data statements.

Why does Russell think that if one can *deduce* observational consequences about observable objects from a hypothesis H, then H must be about those observable objects? Because, I think, he assumes that deduction must be *logical deduction*. If P is a substantive, non-contradictory premise containing certain non-logical vocabulary, and Q is a substantive, conclusion containing only non-logical vocabulary that does *not* appear in P – e.g. if Q is made up of observational predicates, whereas P contains no such predicates – then Q will not be a *logical consequence* of P, and so will not be *logically deducible* from P without appealing to definitions of at least some of the vocabulary of P in terms of the vocabulary of Q. Think of Russell’s logicist reduction. We can deduce claims about sets from claims about numbers because numbers are definable in terms of sets. By extension, one might think that a hypothesis H from which one could deduce an observational claim \((O_1 \supset O_2)\) must itself either contain the observational vocabulary of \(O_1\) and \(O_2\), or contain vocabulary that is definable in terms of that vocabulary. Either way, if this were so, H might then be said to be about observational objects.

But this conception of deduction is too narrow. As we saw when discussing Moore’s flawed use of the concepts *analyticity*, *entailment*, and *logical consequence* in attempting to show that claims about goodness can’t be derived from other claims – *there are conceptual relations between concepts, even when those concepts are not definable in terms of one another*. Because of this, there are cases in which Q is a necessary and a priori, but not a logical, consequence of P, as well as being knowable by virtue of knowing P – even though the non-logical vocabulary of Q differs from that of P, and the two are *not* related by any definitions. In other words, there are varieties of truth-guaranteeing deduction for which observational predictions might be deduced from a hypothesis that contains no observational vocabulary and is *not* directly about observable objects. Thus we can’t rule out coming to know a hypothesis by having observational evidence that confirms it, even though it is not about the evidence.

There is another problem that Russell didn’t see. H may consist of a set of statements -- which may include some statements relating specific observational claims with specific nonobservational claims without offering any definition. In such cases, the observational consequences deducible from H may be derivable only by using many or even all parts of H. When this is true, there may be no way to divide up those predictions and assign each to one part of the hypothesis as opposed to others. Since many or all parts of the hypothesis are needed to derive the predictions, if the predictions are discovered by observation to be true, they may be taken to confirm *the whole hypothesis*. So, Russell’s restriction, which assumes that the observational predictions of a hypothesis can always be traced solely to its observational parts, can’t be supported.
The Philosophy of Logical Atomism 1918

Russell continues his reductionist program in lectures on Philosophy of Logical Atomism given in 1918. In the final lecture he restates his aim of identifying the smallest set of primitive concepts, incorporated into the smallest number of basic propositions, from which most of what we take ourselves to know in science and everyday life can be explained. Applying this idea to physics, he says:

“You find, if you read the words of physicists, that they reduce matter down to…very tiny bits of matter that are still just like matter in the fact that they persist through time, and that they travel through space…Things of that sort, I say, are not the ultimate constituents of matter in any metaphysical sense…Those things are all of them…logical fictions…It is possible that there may be all these things that the physicist talks about in actual reality, but it is impossible that we should have any reason whatsoever for supposing that there are.” (143-44)

This sounds startling. We can’t have any reason for thinking that things really persist and move through time and space? But it is simply a recapitulation of Russell’s view in Our Knowledge of the External World. It holds that our only empirical knowledge is knowledge of our own private sense data plus the private sense data of others known to us through testimony. Although he grants that it is possible to engage in meaningful speculation about epistemically inaccessible entities beyond such sense data, he thinks it is impossible to provide any empirical justification for such claims. Applying this idea to everyday life, he claims that what we know when we observe changes in something like a desk is not anything about an object that really persists through time; rather, what we know is simply that certain momentary appearances have occurred which have been related to each other in certain ways.

“[I]n all cases where you seem to have a continuous entity persisting through changes, what you have to do is to ask yourself what makes you consider the successive appearances as belonging to one thing…What I can know is that there are a certain series of appearances linked together, and the series of those appearances I shall define as being a desk. In that way the desk is reduced to being a logical fiction, because a series is [due to the no-class “result”] a logical fiction. In that way all the ordinary objects of daily life are extruded from the world of what there is, and in their place as what there is you find a number of passing particulars of the kind that one is immediately conscious of in sense.” (145-46)

The immediate objects of sensation though fleeting, are fully real. They are the particulars of which the universe truly consists.

“Thinking of fleeting sense data, I think it is very important to remove out of one’s instincts any disposition to believe that the real is the permanent…That to my mind is an entire mistake. The things that are really real last a very short time…I am not denying that there may be things that last forever, or for thousands of years; I only say that…the real things that we know by experience last for a very short time, one tenth or half a second…Phantoms and hallucinations [being images presented perceptually] are among those, the ultimate constituents of the world. The things that we call real, like tables and chairs are systems, series of classes of particulars, and the particulars are the real things, the particulars being sense data when they happen to be given to you. A table or chair will be a series of classes of particulars, and therefore a logical fiction.” (147)

All of this is as it was in Our Knowledge of the External World.

The new element in Russell’s metaphysics is his treatment of human agents. Although the logical construction of material objects out of sense data requires claims about the sense data of others, our knowledge of others and their sense data is more problematic than, and in fact dependent upon, prior knowledge both of their bodies and of their linguistic and nonlinguistic interaction with material objects and with us. Russell’s problem is to find a way to square this circle. In The Philosophy of Logical Atomism, he argues, quite incredibly, that other minds are theoretical fictions.

Russell’s first point is that there are no metaphysical selves or egos.

“Take a person. What is it that makes you say when you meet your friend Jones, ‘Why, this is Jones’? It is clearly not the persistence of a metaphysical entity inside Jones somewhere, because…it certainly is not what you see…[T]here is something in the empirical appearances which he presents to you, something in their
relations one to another, which enables you to collect all these together and say, ‘These are what I call the appearances of one person’, and that something...is not the persistence of a metaphysical subject...Therefore Jones is not constituted as he is known by a sort of pin point ego that is underlying his appearances.” (148-49)

Russell’s reasoning here is remarkable. How do I recognize Jones? Russell says I recognize him “by the appearances he presents,” which must mean that I come to have private sense data similar to those I have had on other occasions, and which I may call “Jones-data.” Their similarity makes them what we call “appearances of one and the same person.” Since this similarity in past and present sense data of mine – and not the presence of a metaphysical ego called ‘Jones’ – leads me to say I am in the presence of Jones, Russell concludes that Jones is not constituted by a metaphysical self, or seat of consciousness.

So what then does constitute Jones? Surely Jones isn’t constituted by my private data – i.e. by all the sense data in my experience that bear the are-appearances-of-the-same-person relation to one another. That would exclude the private sense data of others from contributing to the constitution of Jones; it would even exclude Jones’s own sense data from contributing to the constitution of Jones. Clearly, that won’t do. Russell tries to solve the problem in the following passage.

“[Y]ou have got to find some correlations among the appearances which are of the sort that make you put all those appearances together and say, they are the appearances of one person. Those are different when it is other people and when it is yourself. When it is yourself you...have not only what you look like, you have also your thoughts and memories and all your organic sensations...So you can collect a whole set of experiences into one string as all belonging to you, and similarly other people’s experiences can be collected together as all belonging to them by relations that are actually observable and without assuming the existence of the persistent ego—the mere fact that you can know that two experiences belong to the same person proves that there is such an empirical relation...Let us call the relation R...[W]hen two experiences have to each other the relation R, then they are said to be experiences of the same person...The person who has a given experience x will be the class of all those experiences which are ‘experiences of the same person’ as the one who experiences x...[T]wo events are co-personal when there is between them a certain relation R, namely that which makes us say that they are experiences of the same person. You can define the person who has a certain experience as being those experiences that are co-personal with the experience...Therefore we shall say that a person is a certain series of experiences.” (149-50)

Having earlier dismissed a metaphysical ego as constituting Jones, Russell now suggests that Jones is constituted very much as I am. Each of us is a series of experiences that bear a similarity relation dubbed “being experiences of the same person.” Of course series are logical fictions, so no persons really exist. The only particulars that really exist are the experiences. Some – call them “M-experiences” – are “mine;,” and others – call them “J-experiences” and “Jones’s.” All M experiences bear the relation being experiences-of-one-person to one another, and to nothing else, while all J-experiences bear the relation being experiences-of-one-person to one another, and to nothing else. So, when I say that I exist all I am really saying is that these M-experiences exist. The same goes for Jones, when he says that he exists.

But what do I mean when I say “Jones exists” and how do I know what I say is true? So far Russell hasn’t told us.

Notice, if, as Russell says, momentary experiences are the only particulars, then either no particulars – i.e. no experiences – themselves perceive or experience anything, or some experiences do perceive or experience things. The latter seems to make no sense – the event which is one’s seeing yellow doesn’t itself see anything. So, it’s not surprising that Russell never suggests it. Perhaps we are to suppose that no particular ever perceives or experiences anything. In other words, perceiving and experiencing are logical fictions. Some unanalyzed sentences that appear to attribute such cognitive activities to agents are true, but what they really say is not about anything perceiving or experiencing anything. Rather, these sentences are solely about the properties of, and relations holding among, real particulars – which are “agentless experiences” and “agentless perceptions.”
That is how to put it, if one follows Russell in describing particulars as “experiences.” Perhaps one shouldn’t. Verbs like ‘perceive’ and ‘experience’ take two arguments, and so express 2-place relations between a perceiver or experiencer and that which is perceived or experienced. Thus, one with Russell’s concern for proper philosophical grammar shouldn’t use nominal forms of these verbs to describe his metaphysical particulars. How they should be described is hard to say, and may well be impossible. In addition to being momentary, his particulars are private – which must mean that the crucial relation R described as “being experiences-of-one-person” is an equivalence relation, which divides all past, present, and future momentary particulars in the universe into separate, non-intersecting, equivalence classes (corresponding to different so-called “agents”). Of course, even that isn’t right, since, Russell insists that classes are fictions. Still, it provides an idea of what he seems to be getting at.

This, I believe, is roughly the picture that lies behind Russell’s inconclusive discussion of neutral monism in the last few pages of The Philosophy of Logical Atomism. All particulars are momentary sense data, unperceived by any real thing. These fleeting particulars are arranged into two different systems of classes – those that constitute “agents” and those that constitute things – like tables, chairs, human bodies, etc. – which we pretheoretically (but misleadingly) describe agents as “perceiving.” The system is said to be monistic because the ultimate constituents of reality are of a single type; they are said to be “sense data” – as if, with the loss of real perceivers, we understood what that meant. It is called “neutral” because the logical fictions known as “agents” and the logical fictions known as “physical objects” are in the end constructions of the same “sense data.” Though much attracted to this system, Russell expresses doubts about it that he does not attempt to resolve. Nevertheless, it is as a reasonable picture of where he ends up in this work.

How should we evaluate the system? The first point to notice is how thoroughly revisionary it is of our conception of ourselves and the world of natural science and ordinary life. More revisionary, I think, than Berkeley’s, Russell’s revisionism may surpass McTaggart’s dreamlike conception of Reality as an eternal, unchanging community of human souls. If one had been under the misconception that the new tradition in analytic philosophy had left such extravagant metaphysical speculation behind, studying The Philosophy of Logical Atomism should convince one otherwise.

Like many revisionary systems, Russell’s radical conclusions threaten to destroy the arguments that motivated them. Russell aimed to explain and justify our knowledge of mathematics and the external world. But he ends up suggesting that the ultimate constituents of reality include no words or sentences, no material objects, no cognitive agents, no thoughts, no events in which one perceives or experiences things, and nothing that moves through space or lasts for more than a moment of time. Instead, the ultimate constituents of reality appear to be discrete, isolated clusters of momentary instantiations of yellowness, hardness, loudness, and the like, where the elements of each cluster bear an unexplainable primitive relation to other items in the cluster, but never bear this relation to those of other clusters. Does this mean that the pretheoretic knowledge that the system was supposed to explain really wasn’t knowledge at all? If so, then the justification of the system that was to be provided hasn’t been provided. It is hard to be sure what Russell expects us to think about this, since he never provides clear instructions for how we are to translate the ordinary thought and talk used to motivate his system into the purified language he imagines being used to express it.

This leaves us in a quandary. In order to state the problems his system was designed to solve, we must take it for granted that we speak truly when we say, as he did, (i) that we perceive this or that item, with these or those properties, (ii) that such data is, as he earlier indicated, private to ourselves, (iii) that our evidence for the truth of material object statements, as well as for statements about other people and the contents of their perceptions, consists entirely of that which is given to us in our own perception, and so on. But once we have arrived at his ultimate view, it hard to see how we are supposed to understand the claims that were his starting point. We don’t know what to make of these claims because haven’t been
told how to express them in fully analyzed statements about Russell’s newly identified ultimate particulars. We don’t even know that the reasoning that led him to this final view can be stated, let alone accepted, by one who adopts it.