

Russell on Knowledge of Universals by Acquaintance

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Abstract

Russell's book *The Problems of Philosophy* was first published a hundred years ago.¹ A remarkable feature of this enduring text is the glint of Platonism it presents on a dark empiricist sea: while our knowledge of physical objects is entirely mediated by direct awareness of sense data, we can also have direct awareness of certain universals, Russell claims.² This is questionable, even if one has no empiricist inclination. Universals are abstract, hence causally inert. How, then, can we have any knowledge of them, direct or indirect? This paper is about Russell's answer to that question. I will argue that given some modification and elaboration of Russell's views, his claim that some universals are knowable by acquaintance is plausible.

1. Can Sensory Qualities be Perceived?

Before we get to Russell's views, one easy response to this problem needs to be disposed of. This is the view that some properties, namely sensory qualities, can be known directly by sense perception of them. This is not Russell's view. But we do sometimes talk as if we perceive sensory qualities, for example, when we talk of 'seeing the colour' of something; and some philosophers have made the claim explicit. James Franklin writes

There is perception of universals – indeed, it is universals that have causal power. We see an individual stone, but only as a certain shape and colour, because it is those properties of it that have the power to affect our senses.³

¹ Bertrand Russell, *The Problems of Philosophy* (Home University Library, 1912).

² Russell uses the word 'universal' for properties and relations. The universal-particular distinction is Aristotle's, not Plato's; but the differences between them on this topic are not relevant in this context.

³ J. Franklin, 'Aristotelian Realism' in *The Philosophy of Mathematics* ed. A. Irvine (Amsterdam: Elsevier, 2009), 103. Despite my disagreement on this point, I am in general agreement with this fine paper.

It is true that certain properties of a stone, such as its colour, size and shape, can be causally relevant to our seeing it on a particular occasion. But there is a difference between being causally relevant to an event and causing it. Consider a case in which the effect is not perception. If a window pane breaks upon impact by a stone, the stone's weight is causally relevant to the window's breaking. This does not entail that the stone's weight, n pounds, caused the window to break, nor that n pounds has a causal power, the power to break windows. The claim that the stone's weight is causally relevant means only that the stone's weighing that much, i.e. the fact that the stone weighs n pounds, helps explain why the window broke. There is no call to think that the weight itself, n pounds, broke the window by activation of its window-breaking power.

In the case of sensory qualities, however, it seems right and natural to say, for example, that one can see the shape of the Taj Mahal, or feel the roughness of a canvas. Doesn't this establish that sensory qualities can be perceived, hence that properties of shape and texture have a power to affect our senses? No, it does not. There is an alternative way of understanding such talk. Feeling the roughness of a surface is not perceptual contact with a property; rather, it is feeling *how* rough the surface is by skin contact with it. Nothing we strictly and literally feel is the property of roughness.

Here is why this alternative construal of 'feeling the roughness' is better. You have had no contact with the main table in Abraham Lincoln's childhood home. But consider the possible circumstance that you have felt the roughness of some other surface S which is rough in the same way and to the same extent as the Lincoln table top. In that case the roughness of surface S is the very same property as the roughness of the Lincoln table top. Now suppose that feeling the roughness of a surface were feeling the property of roughness it instantiates. It would follow by Leibniz's Law that you *have* felt the roughness of the Lincoln table top, though you have never touched it. That surely is absurd.

The same goes for talk of perceiving other sensory qualities. Seeing the colour of a lemon skin is seeing *how* it is coloured or *which* colour it has. There is no perceptual contact between the colour itself and you; photons reach your retinas from the lemon skin, not from the colour the lemon skin instantiates.

No properties, not even sensory qualities, have causal powers; all properties are causally inert. For that reason they are not perceptible, they cannot leave perceptible traces and they cannot causally influence the behaviour of perceptible things. So the problem remains. How can we have knowledge of them?

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2. Acquaintance with Sensory Qualities: Russell's Views

Russell claims we are acquainted with sensory qualities:

It is obvious, to begin with, that we are acquainted with such universals as white, red, black, sweet, sour, loud, hard, etc., i.e. with qualities which are exemplified in sense-data.⁴

Whether it is 'obvious' depends on what it is to be acquainted with something, as Russell is using this expression. He is admirably explicit:

We shall say that we have *acquaintance* with anything of which we are directly aware, without the intermediary of any process of inference or knowledge of truths.⁵

Here direct awareness is stipulated to be sufficient for acquaintance. In fact Russell's usage in chapters 5 and 10 of *The Problems of Philosophy* suggests that he treats the following as equivalent:

Being acquainted with x
Being directly aware of x
Knowing x by acquaintance
Knowing x immediately/directly.

But on this understanding, it is far from obvious that we have acquaintance with sensory qualities. Why must our awareness of sensory qualities be taken to be direct? The matter hinges on what counts as direct awareness. But on that question Russell is not explicit. I will return to it shortly.

A further question of interpretation concerns Russell's notion of knowing a thing. It is quite clear that one can be directly aware of something, the man yelling across the street, say, without knowing him. It is unlikely that Russell would be unaware of such clear challenges to the view that direct awareness of something entails knowing it. Should we, then, take Russell to be using the expression 'know x' and its conjugates in a weak sense, perhaps as equivalent to 'know of x'? I think not. Russell would not have accepted the apparent counter-examples, because he held that we do not have direct awareness of material objects and other people:

What [Bismarck's friend] was acquainted with were certain sense-data which he connected . . . with Bismarck's body. His body, as a

⁴ Russell, op. cit., Ch.10, 101.

⁵ Russell, op. cit., Ch.5, 46.

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physical object, and still more his mind, were only known as the body and mind connected with these sense-data.⁶

A similar claim is made about the table in front of one. One knows it by description as the 'physical object which causes such-and-such sense-data'.⁷ Knowledge by description is used contrastively with knowledge by acquaintance: when we know that exactly one thing fits the description but we do not know it by acquaintance, we know it by description.⁸

Having a view of sense perception according to which what we perceive are sense data and nothing else, Russell's treatment of direct awareness and of knowing by acquaintance are not discordant. In particular, given Russell's view of perception, it is not implausible that one knows those things one is directly aware of, because it takes so little to know a sense datum.⁹

Let us return to the question of what Russell had in mind by direct awareness. Although he gives no explicit account of direct awareness, we can get some purchase by looking at his views of the kinds of thing we are directly aware of and how we do so. Russell says we have direct awareness of the following:¹⁰

Sense-data
Remembered experiences
One's own feelings, thoughts, attitudes
One's self (perhaps)
Some universals.

Russell says that we have direct awareness of sense-data by sense perception, of remembered sense-experiences by memory and of one's own feelings by introspection. The revealing item here is the second: if memory gives us direct awareness of our experiential episodes, direct awareness may take time to achieve and it may involve complex (sub-personal) processing, as in storage and retrieval. What makes awareness of an entity direct, for Russell, seems to be merely that it is not descriptive knowledge (of the form 'there is exactly one such-and-such') got by inference from various bits of information not mentioning the entity; it must result from some process,

⁶ Russell, *op. cit.*, Ch.5, 55.

⁷ Russell, *op. cit.*, Ch. 5, 47.

⁸ Russell, *op. cit.*, Ch.5, 47–8.

⁹ Writing of the colour datum of a table's appearance Russell says: 'I know [it] perfectly and completely when I see it, and no further [non-propositional] knowledge of it is even theoretically possible.' *op. cit.*, Ch.5, 47.

¹⁰ Russell, *op. cit.*, Ch. 5, 48–52.

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however lengthy and complicated, that makes the entity present to the mind, that puts it right before the mind. Something like this, I tentatively suggest, is what Russell meant by 'direct awareness'.

But then how can we come to have direct awareness of a sensory quality? What process, according to Russell, can make a sensory quality present to the mind? Russell's answer, in a word, is abstraction:

When we see a white patch, we are acquainted in the first instance, with the particular patch; but by seeing many white patches, we easily learn to abstract the whiteness which they all have in common, and in learning to do this we are learning to be acquainted with whiteness.¹¹

Russell goes on to say that a similar process acquaints us with any other sensory quality, some spatial relations (such as 'to the left of'), temporal precedence and resemblance.

Russell does not say anything more about what abstracting consists in. But it is clear that what Russell had in mind differs from Aristotelian abstraction, which is mental elimination of irrelevant properties when thinking of a body. The result is not a grasp of a property (or universal) but a mental representation of a physical object which, for all but a few of the object's properties, fails to represent it as instantiating them. In the context of geometry, for example, a body is represented as instantiating shape and perhaps relative size, but that is all.¹² What abstraction delivers for Russell is direct awareness of a property, a shape for example, as opposed to mental representation of an object with only its shape represented. Moreover, the process of Aristotelian abstraction seems to be a mental action of removing certain features of an image, or something of that kind, whereas Russellian abstraction is an involuntary process resulting from exposure over time to many instances of the property that one comes to grasp.

3. Appraisal: Knowledge by Acquaintance

In this section and the next, I make an appraisal of Russell's views. This section concentrates on his view of knowledge by acquaintance; the next on his view of abstraction.

¹¹ Russell, op. cit., Ch. 10, 101.

¹² Aristotle, *Metaphysics* K 1061a29-b2. 'abstraction' is the translation of 'ἀφαιρέσις' (aphairesis), which is also translated as 'removal' or 'taking away'. That a body is not represented as, say, having weight does not entail that it is represented as weightless.

The main question is whether we should accept Russell's account of knowledge by acquaintance given that we reject his view of sense perception. Russell says that one knows something by acquaintance if one is directly aware of it independently of any inference or knowledge of truths. This faces the objection that one can be directly aware of a man yelling across the street without knowing him. As explained earlier, this was not a problem for Russell as he denied that one is *directly* aware of the man; rather, one is directly aware of certain sense data, and aware of the man only indirectly as the individual connected with those sense data.

But if one does not share Russell's view of perception, hence of what one can be directly aware of, the yelling-man objection is telling. The objection does not depend on what is special about knowing a person (as opposed to knowing things of other kinds). One can be directly aware of Manhattan when viewing it from Ellis Island; but knowing it surely implies knowing one's way around, at least to a certain extent. Hearing for the first time the Canzona di Barocco of Henryk Czuż, one is directly aware of it; but knowing it surely requires more, such as an ability to recognise it in other performances or an ability to rehearse some of it in aural imagination. So this is my first complaint about Russell's account of knowledge by acquaintance: direct awareness of a thing is not in general sufficient for knowing it by acquaintance.

My second complaint runs on from the first. To know Michelle Obama, as opposed to her appearance or her media persona, requires some awareness of her character. But how can one get awareness of character? Only by testimony or by generalisation from one's experiences, hence not by what Russell is prepared to count as direct awareness. But one surely could get to know Michelle Obama by acquaintance as a result of inferences, generalisations, from one's own experience of her. Presumably Barak Obama has done just that.

Again, this kind of worry is not restricted to the case of knowing persons. It arises whenever the object of knowledge does things or has behaviour. Such a thing has dispositions, and knowing it requires some awareness of some of those dispositions.¹³ That is what it takes to know your dog, for example. But knowledge of dispositions can only be the result of testimony or inference, hence not direct (as Russell uses that term). Yet if I have come to know your dog

¹³ The fact that knowing something with behaviour is not knowing a truth allows that knowing the thing is partly constituted by knowing truths about the thing. Russell may have overlooked this.

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through my own of experiences of it rather than from your telling me about it, it seems right to say that I know it by acquaintance. My second complaint, then, is that knowing a thing by acquaintance *can* result from inferences, provided that they are inferences from one's own experiences of the thing.

Accordingly, I suggest that what makes a case of knowing x a case of knowing by acquaintance is not the *process* by which the knowledge is acquired, but the *source*. With the possible exception of pure self-knowledge, the source must be one's own experience of x . It cannot be another's experience of x or experience of things other than x .

If this is right, knowing a sensory quality by acquaintance requires having experience of the quality. Do we, strictly and literally, have experience of a sensory quality? I have found that opinions differ, even when there is no difference of opinion about the non-linguistic facts. Some people understand 'experience of x ' broadly, so as to include both perceiving x (material objects/events) *and* perceiving instances of x (the letter type delta, the flavour of cinnamon), while others understand 'experience of x ' narrowly, so as to exclude perceiving instances of x . To avoid getting entangled in an epistemically irrelevant verbal dispute, let us stipulate narrow and broad uses of 'knowledge by acquaintance':

Narrow: the source experience of x consists only of perceptions of x .

Broad: the source experience of x consists of perceptions of x or perceptions of instances of x .

So the possibility of knowing a sensory quality by *broad acquaintance* is not ruled out by the requirement that the knowledge-source be one's experience of the quality. But then isn't broad acquaintance too broad to capture a useful or at least intuitive kind of awareness? I do not think so. The notion of broad acquaintance captures precisely what Frank Jackson's Mary lacks with regard to scarlet, for example.¹⁴ Mary is the fabled scientist who knows all the physical (including physiological) facts about colour and colour vision, but has always been prevented from seeing anything scarlet. She has not experienced scarlet even in the broad sense. So she does not know scarlet by acquaintance, although she does know *of* scarlet by description.¹⁵

¹⁴ F. Jackson, 'What Mary Didn't Know', *Journal of Philosophy* **83**, (1986), 291–295.

¹⁵ This is claimed by E. Conee, 'Phenomenal Knowledge', *Australasian Journal of Philosophy* **72**, (1994), 136–150.

4. Appraisal: Abstraction

On Russell's view, we can come to know a sensory quality by abstraction. Let us recall Russell's words on the matter:

When we see a white patch, we are acquainted in the first instance, with the particular patch; but by seeing many white patches, we easily learn to abstract the whiteness which they all have in common, and in learning to do this we are learning to be acquainted with whiteness.¹⁶

Russell does not say what abstracting consists in. Berkeley denied that there was any abstracting, unless what one has in mind is merely selective attention to one feature of an object.¹⁷ So the main criticism of Russell concerning abstraction must be that he gives no account of it and does not respond to well known empiricist doubts about its reality.

Can this be done on Russell's behalf? I think it can. Studies of children's cognitive development provide a wealth of evidence, unavailable to Russell, that children acquire categories, in the sense of a capacity to discriminate between objects that belong and those that do not.¹⁸ Is not category acquisition a kind of abstraction? There is ample evidence that category acquisition is based on innate mechanisms under the impact of perceptual experience. Even infants acquire categories. For example, one study showed that newborns who were familiarized with drawn figures such as triangles were able to form a category of area-enclosing figures (triangles, squares, circles) as distinct from others (crosses), though they seemed unable to acquire distinct shape categories (triangles *v.* squares).¹⁹ Moreover, categories extend to spatial relations in a way that accords with Russell's account.²⁰ By 7 months infants have

¹⁶ Russell, *op. cit.*, Ch. 10, 101.

¹⁷ G. Berkeley, *A Treatise concerning the Principles of Human Knowledge*. [1710] J. Dancy (ed.) (Oxford: Oxford University Press, 1998). [Hereafter: *Principles*] See Berkeley's Introduction for rejection of mental operations that accomplish what abstracting is supposed to accomplish. See the Introduction § 16 for Berkeley's acceptance of selective attention.

¹⁸ For a short critical overview of empirical work on infant categorisation see D. Rakison and Y. Yermolayeva, 'Infant categorisation', *WIREs Cognitive Science* (2010), 1, 894–905.

¹⁹ P. Quinn *et al.* 'Developmental change in form categorization in early infancy', *British Journal of Developmental Psychology* 19 (2001), 207–218.

²⁰ Russell, *op. cit.*, Ch.10, 101–2.

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been found to acquire categories for *above* and *below* and for *left of* and *right of*.²¹

The categories acquired are not always categories that adults have. For example, some 3-month old children were found to have acquired a category containing just cats and dogs, with cats but not dogs as a distinguished subcategory.²² It is clear that infants are not getting their categories from adults. In particular, they are not picking up their categories from regularities of adult word use. How could they without having already acquired aural categories needed to recognise sounds as instances of the same word?

Initial category acquisition results from the automatic and unconscious operation of cognitive mechanisms activated by repeated experience of instances. That fits Russell's formulation of learning to abstract whiteness from seeing many white patches, provided that we ignore the suggestion of intention and effort that the word 'learn' carries. It also provides a response to one of Berkeley's criticisms, namely, that we have no abstract ideas, as introspection reveals none.²³ Neither the process of acquiring a category, nor the resulting categorizing capacity, nor the neural basis of the capacity, nor any corresponding item in the functional architecture of the mind is accessible to conscious awareness. In particular, none of these things is a sensory image.²⁴

²¹ P. Quinn *et al.* 'Development of categorical representations for *above* and *below* spatial relations in 3- to 7-month-old infants' *Developmental Psychology* **32** (1996), 942–950. P. Quinn C. 'Spatial representation by young infants: Categorization of spatial relations or sensitivity to a crossing primitive?' *Memory & Cognition* **32** (2004), 852–861.

²² P. Quinn *et al.* 'Evidence for representations of perceptually similar natural categories by 3-month-old and 4-month-old infants' *Perception* **22** (1993) 463–475. The asymmetry may be explained by the much greater variability in perceived features among dogs; relatively speaking cats look similar to one another.

²³ Berkeley, *Principles*. Introduction §22. Berkeley talks of 'an attentive perception of what passes in my mind' and says 'so long as I confine my thoughts to my own ideas divested of words, . . . I cannot be deceived in thinking I have an idea which I have not.'

²⁴ Berkeley's other major objection to abstract ideas rests on two mistaken assumptions: (1) any abstract idea would have to be the idea of an impossible thing, and (2) we cannot have an idea of an impossible thing. For a clear expression of this objection, see Volume 2, page 125 of *The Works of George Berkeley, Bishop of Cloyne*, A. Luce and T. Jessop, (eds). **9** volumes. (London: Thomas Nelson and Sons, 1948–1957).

5. Knowing a Sensory Quality by Acquaintance

Russell says that in learning to abstract whiteness ‘we are learning to be acquainted with whiteness’.²⁵ As Russell here uses the term ‘acquainted’, being acquainted with something is not different from knowing it by acquaintance. So his claim is that the abstraction process results in knowledge by acquaintance. But if category acquisition is what abstraction comes to in this context, abstracting is not enough for coming to know a property. French infants abstract the phoneme ‘u’ in ‘tu’ as distinct from ‘ou’ in ‘vous’; English infants do not. Is it right to say that French infants *know* the phoneme ‘u’? Acquisition of a category gives us a capacity to discriminate between instances and non-instances. But for coming to know the category, more surely is required.

For knowing a category or quality it is enough if, as well as being able to discriminate instances from non-instances, we are able to perceive an instance *as* an instance and to search for an instance, or to produce in sensory imagination a representation of an instance at will (if one has lost the peripheral mechanism of a sense as Beethoven lost hearing). These capacities – to recognize something as an instance of a sensory quality, to search for an instance, to imagine an instance – go beyond the capacity to discriminate instances from non-instances, but there is no doubt that we can and sometimes do acquire these further capacities. For example with regard to the timbre of an oboe: you can listen out for a sound with that timbre and recognise a sound as having that timbre when hearing an orchestral performance. Moreover, when we reflect on what might convince us that someone knows a sensory quality, it is very plausible that having these abilities is sufficient.

This kind of knowing an entity is a minimal or basic kind of knowing. With regard to other more complicated properties, such as the shape of a regular dodecahedron, one can have that minimal knowledge buttressed by several ways of perceiving an object as a regular dodecahedron, for example in terms of parts composed of pentagonal faces fitted together, or in terms of symmetries. Perhaps we would count that as deeper knowledge. But there is no problem here: we often allow that an entity can be known more or less well.

²⁵ Russell, *op. cit.*, Ch. 10, 101.

6. Conclusion

Let me summarise. Given that we can strictly and literally perceive external material objects, Russell's account of knowledge by acquaintance must be rejected in favour of some alternative. My suggestion is that it is enough if the source of one's knowledge of an entity is one's own experience of it. On a broad interpretation, experience of x covers both perception of x and perception of instances of x . This leaves open the possibility that a property, specifically a sensory quality, can be known by acquaintance broadly understood.

To explain how such knowledge is possible, Russell's bare appeal to abstraction needs to be filled out. Perceptual category acquisition, revealed by empirical studies as a genuine kind of cognitive achievement, seems to fit what Russell had in mind. But for knowing a sensory quality by acquaintance in the broad sense, more than category acquisition is needed. I suggest that a sufficient supplement would be a capacity to recognise an instance of the quality as an instance of it, a capacity to search for an instance and a capacity to imagine an instance at will.

I conclude that Russell's view that some properties are knowable by acquaintance is plausible. What makes us hesitate is that properties themselves, as opposed to their instances, cannot causally affect us, not even indirectly, as they are causally inert; and that seems to preclude knowing any. But it does not. That view of knowing an entity is an over-generalisation from the case of knowing a bounded material object with spatio-temporal location. What it takes to know such an object does indeed require some (perhaps indirect) causal action of object on knower. But knowing things of other kinds, such as a melody, a type of movement, or a shape does not require causal action of the thing known on the knower. The relevant relation is more subtle: to know directly a musical composition, a motion type or sensory quality, what must causally affect us are performances of the composition, tokens of the type or instances of the quality, as they do in sense perception. Then further processes enter the story, such as those involved in abstraction and whatever processes produce in us capacities for recognition, search and imagining. There is no appeal to any supernatural capacity.

Are the universals that can be known by acquaintance limited to sensory qualities? We have no reason to think so. Russell thought that certain spatial and temporal relations could be known by acquaintance. Why not propositions, poems and proofs as well? It is unlikely that what constitutes directly knowing things of such diverse kinds is uniform: different kinds of universals may be known in

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different ways. If so, there is a field of epistemological inquiry still largely untrodden since Russell took the first steps one hundred years ago.

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