Metaphysics Handouts
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Handout 3

Analytic realism (Barbara); Knowledge by acquaintance and by description: Russell

Applicability. Now the obvious objection. If essence and existence are divorced this sharply, and pure mathematics deals with essence, what of applied mathematics, which plainly deals with existence? A full answer, Russell says cryptically, would need a whole theory of the variable and of the syllogism in Barbara. Let's expand on this a bit. Consider: 138

(3-1) $\forall x\,(Hx \supset Mx)$ All men are mortal.

(3-2) Hs Socrates is a man.

(3-3) Ms Socrates is mortal.

The first, (3-1), consists only of concepts, man and mortal set in a logical form. Actual men aren't among its constituents. This is plausible, because you can understand it without knowing all men. Its x is a variable. Russell calls a proposition a 138
'formal implication' when its variable expresses a conditional holding for every value. Yet once you know (3-2), you can deduce (3-3). So a wholly conceptual proposition does bear on existents, after all: find one that verifies the antecedent and you know it verifies the consequent. Applied mathematics works the same way. 138

Why Barbara, exactly? In the *Principles of Mathematics* (1903, §34) Russell separates the relation of an individual to its class from the inclusion of one class in another, so that Barbara, 'all B are C, all A are B, so all A are C', has two forms that are usually run together:

(3-4) $\forall x\,(Gx \supset Hx),\ \forall x\,(Hx \supset Mx) \vDash \forall x\,(Gx \supset Mx)$.

(3-5) $\forall x\,(Hx \supset Mx),\ Hs \vDash Ms$.

In (3-4), with Gx for 'x is a Greek', two formal implications yield a third, so the inference never leaves the world of essence. It says that implication is transitive, and on our reading it's the shape of pure mathematics, a chain of formal implications from hypotheses to what they imply. (3-5) sounds the same in words, but its second premise names a particular. You put s for the variable, which gives $Hs \supset Ms$, and detach Ms. That move from variable to particular is where essence meets existence. It's the step Russell identifies with passing from pure to applied mathematics, finding in the actual world something that verifies a hypothesis of pure mathematics. Nor is (3-1) a catalogue, $(Ha \supset Ma)\,\&\,(Hb \supset Mb)\,\&\,\ldots$, one 133
conjunct per man, or you'd have to check Socrates before using the law on him, and Barbara would beg the question, as Mill charged. Russell replies that a general proposition can be established without cataloguing its class (1903, §496), which is why it matters that (3-1) is understood without knowing all men. Because it's a formal implication, (3-3) is news, and so is every application of arithmetic to a case not yet counted.

There is a kind of division of labour here. The certainty characterises the formal implication, which is about essence. What we know about the world enters only through the singular premise, which we learn by looking at the world. So applying mathematics adds no doubt to mathematics, and mathematics adds no doubt to what we observe. Try it on '$2 + 2 = 4$', read as a formal implication about any two kinds F and G: if there are exactly two Fs and exactly two Gs and nothing is both, there are exactly four things that are F or G. No apple occurs in it. Put two apples and two pears in a bowl, verify the antecedent by looking, and you know without counting that the bowl holds four pieces of fruit.

Question 1. Does this explain *why* mathematics applies, or only how we reason once it does? It's silent on why anything in the world verifies the hypotheses of pure mathematics. And Socrates is a value of the variable in a proposition of essence. So does the variable range over both worlds, and how complete is the divorce?

The costs. When the mathematician looks for existents that verify the hypotheses of pure mathematics, success can only be approximate. The circles and straight lines the senses give us aren't exact, so applied geometry isn't an exact science. In the terms of (3-5), the singular premise is never quite true. 138

So the empiricist's point about the flux hasn't been refuted. But it no longer threatens the truth of pure mathematics. Instead, pure mathematics keeps its exactness by giving it up in application, and that's the price of honouring the fixed point we began with.

Acquaintance. We'll skip the discussion of the theory of descriptions. What we need here is Russell's picture of the mind and its objects, the background to his 'Analytic realism' and 'On the nature of truth and falsehood'.

Definition 2. I'm acquainted with an object when I stand in a direct cognitive relation to it, that is, when I'm directly aware of the object itself. 148

The relation is the one at work in presentation, not in judgment. Acquaintance is presentation seen from the subject's end: S is acquainted with O just when O is presented to S. Why a new concept, then? Because talk of presentations puts 148
all the stress on the object, and the subject tends to drop out of sight. Lose the subject altogether and you end up with materialism. Make what's presented a part of the subject and you end up with idealism, and with solipsism too, unless you go in for 'the most desperate contortions'. Russell wants neither. He takes the duality of subject and object to be a basic 148
fact about knowing, and the word 'acquaintance' keeps it in view, since there has to be someone who is acquainted.

Question 3. Russell admits it's hard to find a state of mind in which he's aware of himself alone, rather than of some complex he's part of, like his seeing the sun. So he leaves it open whether we're acquainted with ourselves, and the 149
summary says only that we possibly are. If we may not be acquainted with the subject, how secure is the dualism the 161
concept of acquaintance was meant to protect?

Objects of acquaintance. We're acquainted with sense-data first of all, and also with universals. Awareness of a universal is what Russell calls 'conceiving', and a universal we're aware of is a 'concept'. Relations count as universals too: before and after, resemblance, even awareness itself. Here Russell considers an objection. Perhaps we're never aware of a relation as such, only of complexes it's part of, like this-being-before-that. 149-150 150

(3-6) This is before that.

(3-7) If one thing is before another, and the other before a third, then the first is before the third.

He has two replies. First, we know general truths like (3-7), which aren't about any given things but about 'anything'. It's hard to see how we could know them if we were acquainted only with cases of before, not with before itself. Second, when I judge (3-6) on the strength of a complex I'm aware of, I'm analysing that complex, and I couldn't understand the analysis without being acquainted with what its terms mean. 150

Remark 4. By a particular Russell means any existent, or any complex with an existent among its constituents, so this-before-that and the-yellowness-of-this are particulars. A universal is anything with no particular among its constituents, so every object is one or the other. The division takes the reality of universals for granted, and 'Analytic realism' is where Russell argues for it. 150

Question 5. Does knowing (3-7) really need acquaintance with before itself, or just the ability to recognise its instances?

Judgment as a many-term relation. Think of a judgment as an event, something that happens at a certain moment. Russell takes it to be a relation between a mind and several entities at once, the ones that make up what's judged. He doesn't argue for this here, and gives his reasons in 'On the nature of truth and falsehood'. 154 154 n2

(3-8) *A* loves *B*.

Example 6. When I judge (3-8), what happens is that a four-term relation, judging, holds between me, *A*, love and *B*. The constituents of the judgment are just the constituents of that complex. I myself and the relation of judging turn up in every judgment I make, so what marks out this one is *A*, love and *B*. 154

Understanding a proposition is another relation between me and the same terms, one Russell calls supposing. That's why we can often understand what we don't know enough to judge. The other terms of a supposing are the 'constituents of the proposition supposed', so a proposition isn't a further entity over and above the things the mind is related to. A footnote says so outright. In judging and supposing alike there's no single 'Objective', in Meinong's term, just several constituents standing in a many-term relation to the mind. In a note added in 1917 Russell grants that Wittgenstein has persuaded him the theory is 'somewhat unduly simple', but adds that the change it needs doesn't affect the argument here. 154-155 154 n3 154 n2

Question 7. The complex contains me, *A*, love and *B*. What makes it a judgment that *A* loves *B* rather than that *B* loves *A*? And if love comes in as one more term alongside *A* and *B*, instead of relating them, what does it add?

The principle of acquaintance. The paper's central principle is that every proposition we can understand must be made up entirely of constituents we're acquainted with. Russell's main reason is that we can hardly judge or suppose anything without knowing what it's about. With the theory of judgment in hand he can restate it: the terms a judging or supposing mind is related to must all be terms it's acquainted with. Once you understand the principle, he thinks, it's obvious. Notice that it's a claim about what a proposition is made of, not about what it concerns. 154 155



Example 8 (Bismarck). When I say something about Bismarck, I'd like to make the judgment only he could make, the one with Bismarck himself as a constituent. I can't, since I'm not acquainted with him (pun unintended!). What I can do is describe the proposition I'm after: that *B* was an astute diplomatist, where *B* is the object that was Bismarck. Russell's striking conclusion is that I know this proposition is true, yet I'm not acquainted with it and don't know it. 153

Question 9. Russell speaks here of 'the proposition itself', with the real Bismarck in it, as something we aren't acquainted with. Can he say that and still deny that there are Objectives?

Against ideas. On the rival view a judgment is made up of 'ideas'. Since judging is a mental event, the thought goes, its constituents must be in the mind of the person judging. Ideas then become a veil between us and the world, and we never get to the things themselves, only to our ideas of them. Russell suspects the view is driven by a 'dislike of relations', the feeling that a mind can't know an object unless there's something in the mind that is its state of knowing it. And it runs straight into a regress. The idea's relation to its object would have to be explained by the idea's having an idea of the object, and so on without end. So acquaintance is 'wholly a relation', with nothing in the mind standing in for the object. When we judge, the constituents of the judgment are the actual things we judge about, not mental go-betweens. The summary adds that these things are particulars or universals, and that at least one of them has to be a universal. 155 156 161



Question 10. Still, of what we perceive, only sense-data are objects of acquaintance. Physical objects we know only by description, and the descriptions usually bring in sense-data. Does Russell have good means for addressing scepticism about the external world? 161