

ANALYTIC REALISM. Analytic realism consists of two parts:

133:2

Realism There exist non-mental entities. Existence is independent of knowledge.

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Analytic/atomist For every complex entity X , X 's existence depends on the existence of simples.

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134:40 There are simple things, 'atoms', in the universe. They are of two kinds: concepts and sense-data. Neither of them is in the mind of the observer. Still, sense-data may exist only when perceived. Therefore, the physical world is distinct from the world of sense, and its existence is based on more or less probable inductive reasons.

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148 It bears notice how Russell thinks of knowledge. To know x is to stand in a 'direct' relation to x , and it is *not* to have an idea (=concept) of x . There is also no requirement that the knower's mind and x have the same (say, mental) nature.

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But this view is not Pythagorean. We insist that universals don't exist the same way as particulars. Actually, they don't 'exist' at all, but rather 'subsist'. Their subsistence, to repeat, is not mind-dependent.

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Why believe this view? Chiefly because it gives the most plausible account of the relation between knowledge, mathematics, and sciences. Mathematics is dealing with not with sensory particulars, but with universals. Therefore, its certainty is safeguarded. How, then, can we use it in sciences charged with explaining and predicting events in the sensory world? Russell gives a (somewhat abbreviated) example:

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- (i) All men are mortal.
- (ii) Socrates is a man.
- (iii) Therefore, Socrates is mortal.

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We don't have to know who the actual men ('all men') are to know the universal proposition. But the moment you know (ii) you also know (iii). This is because there is a 'variable' expressing logical entailment. Or in other words, the whole inference falls under the Barbara syllogism:

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- (i) Mortality belongs to all men.
- (ii) Manhood belongs to Socrates.
- (iii) Therefore, mortality belongs to Socrates.

Nowadays, we of course use the first-order inference:

- (i) $\forall x(Fx \rightarrow Gx)$
- (ii) Fa
- (iii) $\therefore Ga$

Mathematics, then, applies to particulars simply because it registers logical relations.

136:5 What is the status of material objects, then? Sense-data are not themselves material objects. They only exist when there is a relation between the observer and the material object.

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So the material object is not known directly, and its existence itself is inferred 'by induction'. We don't, that is, know it directly, but only by description. We can describe its relations with other objects, and that is what physics is doing. But, unlike with sense-data, we can't get to its intrinsic nature. Our descriptions are adequate, because there is a 'correspondence' relation between our sense-data and material objects.

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