

THOUGHTS ON RATIONALITY

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A rational action, or plan for action, is one supported by a line of argument that leads to a sound conclusion optimized to the target objective. It does not include an assessment of the value of that objective – only on the best way to get there. It may turn out that some premises of the argument are not valid, but at least they seemed valid at the time and in the context in which they were made. The course of action pursued is available to be judged, retrospectively, by the suitability of the outcome to the practical situation – and hence experience gained.

Rationality is not about truth per se, but about practical approaches to try to achieve truth.

‘Truth’ is not absolute, but is that which is sufficient for answering the problem of the practical situation at the time and in the context in which it is perceived. Thus, Newton’s Laws of Motion were entirely sufficient for the time and context for the time when they were formulated - and for many years afterwards. Einstein created a better, more rational, description for the behavior of particles and matter and this has proved sufficient for our present understanding of how the universe works. Rutherford’s model of the atom, as a minor solar system, provided a useful basis for appreciating many features of physics and chemistry – but this has been superseded by quantum mechanical models that better describe features of the structure and behavior of atoms. But these should not be thought of as any final truths – they are just sufficient for our present purposes within the context of our present appreciation of the universe. In science people make propositions that seem rational. Experiments then aim to provide support for these propositions. However, experimental evidence is best used to disprove propositions (Popper) – it cannot prove them absolutely, as there may always be alternative propositions!

It may be thought that rationality should only relate to hard facts (A C Grayling). In the real world there are few facts that are not susceptible to differing appreciation by different people. Our assessment of the world depends partly on our present sensory information and partly on our own ‘world model’ that is based on prior experience and on wisdom received from others that we have reason to respect. How we interpret these inputs depends on how our mind works – and this may well include quite an influence from our personal experience and emotions.

Rationality may be applied at a theoretical level – for example with pure mathematics. This, however, is very much a matter of a priori logic, rather than the handling of practical problems.