

PHENOMENALISM

Answer to a Critic

by

N. V. Pope

Abstract

If one were to criticise the performance of, say, a modern brand-new aeroplane or car, there would obviously be little sense in taking, as the subject of criticism, some very early model, or the plans for the same. By their nature, aircraft, cars, computers, washing machines, *etc.*, are essentially *developmental*. Consequently, to assess the performance of any one of these products, one should select the very latest, most up-to-date version in the range, not some much earlier version that may have been long abandoned.

The same goes for the different philosophical approaches to natural truth, such as Realism, Relativism, Idealism, Nominalism, Pragmatism, Linguisticism, Empiricism, Rationalism, Romanticism, subjectivism, *etc.*, *etc.*, *etc.* One of these competing approaches is *phenomenalism*, which is the subject of this present enquiry.

The latest, most systematic and up-to-date partaker of the phenomenalist legacy at this present time is *Normal Realism*. The following is a short description of the root conception of that thesis, presented here as a focus for objective criticism. For a full account of Normal Realism search for 'Normal Realism' on Google, Internet. Also see website www.poams.org (POAMS is the acronym for the Pope-Osborne Angular Momentum Synthesis). POAMS is an approach to problems of Modern Physics, based on the Normal Realist philosophy.

The following presents the 'bare bones' as it were, of Normal Realism in its interpretation of the dimensions of physical phenomena.

PHYSICAL DIMENSIONS in NORMAL REALISM

N. V. Pope

Normal Realism is the latest development in the phenomenalist, or anti-Democritan (anti-dualist) science-philosophy in the tradition of 'British Empiricism'. This tradition begins in the 17th Century with John Locke, is taken up in the 18th Century by George Berkeley and David Hume, whence it is passed on, *via* Immanuel Kant, to the 19th Century physics philosopher, Ernst Mach. It then proceeds *via* the Logical Positivism (sense-datum philosophy) of the 1920s Vienna Circle, with A. J. Ayer and Ludwig Wittgenstein, This becomes the 20th Century 'Linguistic' movement, initiated by G. E. Moore of Cambridge and handed on to J. L. Austin of Oxford, thence, in the 1960s to Rush Rhees (Wittgenstein's 'right-hand man') at Swansea, where it influenced N. V. Pope, also of Swansea. It was then developed by Pope in company with G. A. Evans at the University College of North Wales, Bangor, where he (Pope) and Evans were mature-age students. This has since culminated in what has become known as the Pope-Osborne Angular Momentum Synthesis (POAMS), in Pope's collaboration with A. D. Osborne at Keele University, Staffs. POAMS is now,

in this 21st Century, the definitive physics founded on the philosophy of Normal Realism. It is the latest and, arguably, the most systematic articulation of phenomenism to date.

It is to be noted, by the way, that the *phenomenalism* of the 'British' tradition followed by Normal Realism is not to be conflated with the continental *phénoménologie* of Hegel, Husserl, Heidegger, *et al*, which is psychologistic, as opposed to the physics-oriented realism of POAMS.

The following is a recap. on what 'dimensions' mean in Normal Realism (NR). In NR, as in phenomenism generally, all the dimensions of our existence are projected from a common origin which, in Relativity, is called the '*observer*'. In NR, this 'observer' is not necessarily a human observer, far less oneself. It may be anything transacting information in the form of light – light, that is, in any part of the spectrum, from deepest infrared to farthest ultraviolet and gamma.

The common origin of these dimensions is any point in an observational field which forms a point of *perspective*, such as another person, a mirror, camera or whatever. In NR, therefore, this 'observer' may be any object, animal, vegetable or mineral, conscious or otherwise – in fact, anything with which we, as human observers, may interact or intercommunicate, right down to molecules and atoms.

Now it is characteristic of dimensions that so as not to encroach on one another geometrically, they have to be projected orthogonally (*i.e.*, at right angles to one another). In observation, these dimensions are *polar* or point-centred. The three rectangular dimensions are *elevation* (visual angle up and down), *azimuth* (angle across) and *range* (or depth of field). *Time*, in NR, is not some imagined universal 'God's time', assumed to be the same throughout the universe; it is the measure of the observational *succession* of the three dimensional presentations converging on the point of origin (the 'observer') somewhat like a series of contracting onion-skins.

The angular *distance*, or *range* dimension therefore has *two* dimensional components, the one being measured in metres and the other in metres/*c*, or seconds, where *c* is the standard dimensional constant ($c = 300,000$ kilometres to the second). Every metre of visual distance, *in vacuo*, is therefore equivalent to 3.3 nanoseconds of time. By this manner of speaking the sun is either 93 million miles or eight minutes away, with both these statements being equally correct. In NR, this is not because light 'takes time' to travel that distance at the 'speed *c*', as in standard orthodox physics. It is simply because the distance is time in that constant ratio of conventional

units. (There is no conflict with standard Relativity here since, regardless of how it is interpreted, c remains c in all the relevant equations.)

These polar, or angular, dimensions are the fundamental dimensions, and the communal, or Cartesian, grid-space of objective physics and commonsense is a secondary or *a posteriori* extrapolation out of interactions between these polar centres. (The transformation of polar into Cartesian dimensions is well known to mathematicians). This means that distance *in vacuo* can be measured straight from any point to any other point, in the usual commonsense way. The only difference is that, due to the constant c , these point-to-point distances in metres are equivalent to measures in nanoseconds in the same way as the angular range-dimension.

Without these polar centres, there can be no objective Cartesian space (grid-space) and without the objective grid-space there can be no objective polar space. Indeed, without the objectivity provided by the grid-space, any polar perspective would be completely subjective. Without any objective reality to speak of, the consequence would be subjective idealism, or *solipsism*.

However, with the way things are, there is no fear of that, since in normal circumstances, the phenomenal or polar space (space-time) and the objective grid-space are inseparably bound together in their affirmation of the objective reality of physical phenomena. It is to be noted, then, that the demise of any one of these 'observers', even of oneself, does not entail the demise of the whole intercommunicational network. This is why the charge of 'solipsism' cannot be levelled at phenomenalism in its latest form of Normal Realism.

In short, then, the *world* of Normal Realism is an objectively real, information-transacting manifold. The ultimate 'communicators' are atoms and the ultimate units (or 'bits') of their transacted information are the discrete and irreducible *quanta* of *action*, h , where h is the quantity (quantum) of energy known to physicists as Planck's constant. The atoms themselves, between which these quanta are transacted, are units of angular momentum $h/2\pi$, which are analogous to the moon orbiting the earth or the earth orbiting the sun. NR has discovered that angular momentum is sufficient in itself to explain orbital motion without involving the usual 'fields' and 'field-forces' of 'gravitation'. Also, by including electron spin in the angular momentum equation, NR dispenses with the customary 'fields' and 'field-forces' of 'electrostatics', 'magnetostatics' and suchlike. Cashing-out the *coulombs* of 'electron charge' in mechanical units of spin-energy in *joules* makes all talk of 'electric charges' logically redundant. The spin angular momentum ascribed to the

'electron' by Uhlenbeck and Goudsmit suffices in itself for that particle's behaviour, without any need of the postulated 'electrostatic charge'.

Apart from the matter of philosophical interpretation, then, the difference between the Normal Realist version of *phenomenalism* and the so-called '*realism*' of classical physics is almost trivial. Philosophically and Sociologically (Educationally), however, the difference is altogether significant, as may be seen from a study of the main publications of the POAMS thesis. These are as follows:

In *Instantaneous Action-at-a-Distance: Pro- and Contra*, Eds. Chubykalo, Pope and Smirnov-Rueda, Nova, New York:

The Eye of the Beholder: The Role of the Observer in Modern Physics, by N. V. Pope; phi Philosophical Enterprises, Swansea, South Wales;.

In *Immediate Distant Action and Correlation in Modern Physics*, Eds. N. V. Pope, A. D. Osborne, & A. F. T. Winfield. Edwin Mellen Press, N. Y.

Other sources, journals, *etc.*, may be found on Internet, at www.vivpoppe.org : See list of publications on this and other websites.

An Endorsement

by Dr. Michael Duffy,

Organiser of the PIRT (Physical Interpretations of Relativity) Imperial College, London

Basically ALL PHYSICAL THEORIES are phenomenological. They cannot be anything else. ... We are all information processing devices, sorting, correlating and interpreting the signals received by our senses. Our interpretation of ourselves is a construct itself, of course. Once we have got over the initial 'hurdle' of escaping solipsism and accepting that there are others like us with whom communication is possible, we can accept also that we cannot just make up any old interpretation of our sense data: not if we are to survive, make sense of things, and communicate with others. Idiots may do so – but then idiots, in the original sense of the word, are entirely private persons. Therefore we assume an objective source of our data, which can be described and investigated by our constructs. It is like making a map, revising it, and improving it through new surveys made with better instruments. We use models and theories to relate the data together, but these are provisional. They cannot be anything else! The concepts from which the models are built cannot be absolute, or permanent glimpses of reality, whether the concept is 'photon', 'ether', 'geometry', 'atom', 'string', or 'dimension'. The usefulness of these notions is tested in practice (which always involves turning our experience into provisional symbols and words). A common error is to assume that the words and concepts which have been around a long time refer to Reality whilst the new ones don't!

Dr. M. C. Duffy,
Department of Engineering,
Sunderland University, U.K. 2005

