

# U3A

## Dunedin Charitable Trust

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in association with



Series 1 2009

## **REALISM AND ANTIREALISM ABOUT SCIENCE**

**Dates: Monday, 2 March – Monday 20 April 2009**

(please note: no class on 23 March or 13 April)

**Time: 2.15 – 4.15 pm**

**Venue: Salmond College, Knox Street, North East Valley**

**Enrolments for this course will be limited to 50**

**Course Fee: \$30.00**

**Tea and Coffee provided**

**Course Organiser: Sue Cathro (467 5474)**

**Course Assistant: Graham Batts (477 4880)**

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You may apply to enrol in more than one course in each series (subject to numbers). If you wish to do so, you must indicate your choice preference on the application form, and include payment of the appropriate fee(s).

All applications must be received by noon on Wednesday, 11 February 2009, and you may expect to receive a response to your application on or about 20 February.

Any questions about courses after 20 February should be made to the Secretary, U3A Dunedin, telephone 471 9913 or on email at <graysinn@clear.net.nz>

***Please keep this brochure as a reminder of venue, dates, and times for the courses for which you apply.***

## REALISM AND ANTIREALISM ABOUT SCIENCE

Realism about science says that scientists seek the truth and sometimes find it. Most scientists take that for granted. Yet many non-scientists have found scientific realism threatening and opted for antirealist views of science. And many philosophers have found scientific realism problematic and joined the antirealist camp. This course discusses these issues. The course will be presented by Professor Alan Musgrave of the University of Otago Department of Philosophy.

### The Lecture Programme

#### 2 March The Galileo Affair

Copernican astronomy clashes with Biblical passages which (literally interpreted) say that the earth does not move. Galileo's Copernican views got him into trouble with the RC Church – he was forced to recant his teachings and placed under house arrest. The Church conceded that astronomical phenomena were *as if* the Earth moved about the Sun, but demanded a proof that the Earth *really did* move about the Sun. could Galileo or anyone else provide such a proof?

#### 9 March The Gosse Affair

C19th geology and evolutionary biology clashed with Biblical creationism. Philip Gosse solved the problem by saying that God created the universe in 4004 BC (or thereabouts) *as if* geology and evolutionary biology were true. Everybody laughed at Gosse – but why?

#### 16 March Theological Surrealism

Surrealism is a surrogate realism. Theological surrealism is the view that God fixes things up so that it is *as if* science were true, but it is not. Bishop Berkeley went the whole hog, and said that science and commonsense are all false, but God fixes all our experience *as if* it were true. Everybody laughed at Berkeley too.

#### 30 March Secular surrealism

You can leave God out of it, and just say that experience or observable phenomena are *as if* science were true. This is the secular surrealism of Pierre Duhem and Ras van Fraassen. Science aims not at truth, but at 'saving the observable phenomena' or being 'empirically adequate'. A scientific theory can be empirically adequate without being true.

#### 6 April Realism versus surrealism

The trouble for realism is that observation cannot decide between a realist theory and a surrealist version of it, whether secular or theological. But if we focus, not just on 'saving' the phenomena, but on *explaining* them, matters turn out differently. Realist science explains, surrealist science does not. And the ultimate argument for realism about science is that it is the best explanation of the success of science.

#### 20 April Critical versus dogmatic realism

Critical realism about science says that it seeks truth but can never be certain that it has found it, and that it seeks explanation but not ultimate explanation. This only works if we do not conflate truth with certainty, or explanation with ultimate explanation. Realism's critics often do conflate these things.