

## THE UNCERTAINTY OF KNOWLEDGE

According to this article, written in 1987 by Edward Harrison, a professor of physics and astronomy at the University of Massachusetts, contemporary scientists stand no closer to the ultimate 'truths' than their forebears did.

Perhaps you have noticed that few people are speechless when it comes to answering the burning questions. The person without answers is a nobody. In our writings, lectures, conversations and pronouncements over the dining table we tell one another that life would be much better if only people were more educated, had more faith in religion, devoted greater effort to the cure of diseases, supported more vigorously social reform, dieted, exercised more, flossed their teeth and voted for this or that political party. On every side can be heard the clamour of voices claiming to know what must be believed and what must be done.

With a sigh of relief we escape from this confusion of beliefs into the quietness and certainty of the natural sciences. Here, in this lofty museum of secure knowledge... may be found the right answers on display for all to see and examine. Exhibits and working models reveal the truth with the utmost clarity. Some of the latest exhibits, naturally, are not quite ready for public view and require finishing touches. Some display cases – but not many – still remain empty: but judging by the activity around them, they will not stay empty for long. Soon the screens will be pulled aside, unveiling to the public view answers that will explain what the Universe is all about.

Visitors come away feeling convinced that the end of the search for knowledge in the natural sciences is now in sight. The final pieces in

the cosmic jigsaw puzzle are about to take their place. Even the staff seem convinced. One or two subatomic particles remain to be tracked down, a few items – such as quantising gravity to make us universally wise and controlling DNA to make us physiologically perfect – remain to be developed, and then everything fundamental, genuinely worth knowing, will be revealed for us to see, as it was, is and will be, forever and ever, amen.

Confronted with this inspiring challenge, the humanities, arts, social sciences and professions, not relishing the idea of being left far behind, are hastening to make their own contributions to the wisdom of the 20th century. At last, after groping our way in the darkness for millennia, we see light at the end of the tunnel.

It all sounds terribly familiar. The pages of history are covered with equivalent certainties and crystalline clarities. Yet all have vanished into thin air like the celestial-angelic spheres of medieval astronomy and the luminiferous ether of Victorian physics. Human beings of all societies in all periods of history believe that their ideas on the nature of the real world are the most secure, and that their ideas on religion, ethics and justice are the most enlightened. Like us, they think that final knowledge is at last within reach. Like us, they pity the people in earlier ages for not knowing the true facts. Unfailingly, human beings pity their ancestors for being so ignorant and forget that their

descendants will pity them for the same reason.

Light always gleams ahead. The end to the search for true knowledge always looms in sight. The one invariant characteristic of rational inquiry is the imminence of final knowledge.

Dare I say – contrary to the popular belief – that secure knowledge can never be found? That our boundless ignorance explains why we feel so confident of success in bounded knowledge? That each discovery creates in the long run more mystery than it solves? That we stand no closer to the ultimate ‘truths’ than did our forebears? And that we are no better intellectually and morally than the people who lived a thousand and even ten thousand years ago?

We have this overwhelming belief that we are rapidly filling in the detail of the cosmic picture. Unfortunately, the picture keeps changing. One landscape with figures melts away and a new landscape with figures emerges

requiring fresh paintwork. The picture keeps growing bigger and we cannot help occasionally noticing how gaps on the canvas are spreading faster than dabs of paint.

Let me say how I view the uncertainty of knowledge. Knowledge must forever change otherwise it withers. The quest for knowledge is endless and its greatest joy is constant surprise. We forever reshape the scheme of things nearer to the heart’s desire. Permanent enlightenment cannot be secured by bringing down from the mountaintop infallible laws engraved in stone. We project our desires and figure our designs on the face of the inscrutable, and the inscrutable, which includes us, seems patient of endless interpretation. We represent reality seeking to understand itself.

I feel liberated by this philosophy. I find comfort in the thought that the creative mind fashions the world in which we live. For it means that the mind and reality are more profound than we normally suppose.