

SOLEMNE INVESTIDURA COMO DOCTORES “HONORIS CAUSA” DE LOS PROFESORES
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NURSE

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☒ Resumen del discurso en inglés de Sir Paul Maxime Nurse

It is an honour and a pleasure to receive this honorary degree from the University of Salamanca. An honour because of the long and distinguished history of the University, and a pleasure because of the many friends and colleagues I have in Salamanca. On accepting this degree I have been asked to say a few words and would like to reflect on the question “Why Society should continue to support science,” given the considerable expense of the enterprise and the fact that many of the public have difficulties understanding what scientists are doing.

Science is the systematic study of the universe and all within it, based on observation, measurement and experiment, and the formulation of laws and theories describing these facts in general terms. Despite this lexicographic definition it is quite difficult to define exactly what science is or what scientists do. In my view it is best to think of science in terms of its qualities and characteristics. These include respect for observation and experiment, scepticism, consistency and systematic critical thought. However what is clear is that science has been enormously effective at increasing knowledge of the world and of ourselves. So much so in fact, that science should be considered as a truly revolutionary activity, which has frequently challenged long accepted views of the world and of ourselves. This was true at the dawn of science when the ancient Greeks established that the world was spherical rather than flat as it would appear to the casual observer and as was expounded in the myths of the time. It is still true two millennia later, now that the human genome project has revealed that the actions of 25,000 genes or so will be crucial to shaping what we are, and how our emotions, feelings and thoughts come about. Science has been and will continue to be highly enriching for our culture, and without it our society would be seriously impoverished.

Increased scientific understanding is also vital for improvements in human health, our quality of life and economic activity. The application of this knowledge has acted as an engine driving these developments. Even a cursory examination of how we live, our home environment, our work-place,

agriculture and so on reveal the impact of science. Of course problems also accompany these achievements, but the net effect is very much positive. Those who refer back to a hypothetical halcyon age in less developed times unfortunately deceive themselves. Statistics on life expectancy are very revealing about how hard life was for the average citizen only 100 years ago. The improvements we see today owe much to science and the applications of science.

A further reason for supporting science differs from the first two in that it focuses more on the process of how science is done. The scientific endeavour is international, readily crossing national and cultural boundaries. Few other activities, perhaps soccer is one of them, are so. Adherence to the qualities and characteristics of science generates a common culture that individual scientists hold dear across the world. A scientist from Spain understands one from the UK (that is why I am here) and the same scientist will also understand one from the Ukraine, India, China and the USA. In these times of increasing parochial and nationalistic behaviours, the liberal open mindedness of science will break down barriers, just as Pugwash scientists did during the cold war. This is an argument for science because of its humanising effects across nations and cultures. This degree ceremony today symbolises such links between nations.

These are some of the reasons why society should continue to support science. But to ensure such continuing support requires good dialogue between scientists and the rest of society. It cannot be taken for granted that the general public will be supportive of science. Good communication about the issues is needed, but it is also essential for scientists to listen to the public. They need to be aware of the public's concerns and fears, and be committed to an open and honest dialogue about the issues raised and to respond when necessary with changed policies and practices. Improved dialogue will help maintain public confidence in the scientific endeavour and will also improve it, allowing science to continue to enrich our culture, improve our lives, and help us live better together in the world.