

Trading places

Since 1971, executives from industry, academics and public servants have been involved in a program designed to develop co-operation between government and business that is mutually beneficial.

The Interchange Canada program, planned and administered by the Public Service Commission, has made more than 1 000 assignments to date placing personnel from one sector into another sector. It has enjoyed a good deal of success in improving the channels of communication and working relationships between the government and private sectors.

Assignments in the program usually last one or two years but they can be extended for an additional year. The regular employers continue their pay and benefits, and bill the host sector to recover the cost.

The program is not an exchange. A public servant does not necessarily join the company lending an executive to the government. The program began this way, but suitable matches proved almost impossible to make.

The corporate employee is checked carefully for conflict of interest and must follow the government's conflict of interest guidelines.

Public servants must be at the management level, have five years experience and excellent performance records.

The host must agree not to offer the guest employee a permanent job. The home agency must also guarantee that the participant will have job to return to.

Success of program

A Conference Board of Canada study assessing the program's first ten years found that almost 80 per cent of business-government interchange participants left the program with a more positive view of the competence and dedication of the other side.

The study, *Linking Canada's New Solitudes* found that about 65 per cent held the over-all effectiveness, philosophy and methods of the host employer in higher regard. Most of those whose perceptions didn't change had entered the program with positive views of the host.

The study was based on questionnaires returned by 90 participants and it concluded that the program makes "a positive contribution to business-government relations".

According to director Warren Maidens, interest in the program has increased as the scope has broadened and it has become better known. In 1982, the international and domestic placements were split into separate departments.

Spectroscopy scientist studies space

Gerhard Herzberg, Canada's only living Nobel laureate, was honoured on the occasion of his eightieth birthday on December 25, for his continuing contribution to science. Two sessions on the future of physics that included four Nobel winners as speakers were part of the ceremonies.

Despite the fact that "G.H.", as he is known to scientists around the world, passed the official retirement age 15 years ago, he continues his work at his National Research Council (NRC) laboratory where he adds to the more than 200 scientific papers he has published. His efforts throughout have been devoted to defending and conducting basis research — the study of certain areas of science that have no immediate or obvious application.

According to Dr. Herzberg, scientific discoveries that seem academic may prove useful in the future and lay the foundation for other advances. He said basic scientific research is a creative process about which "you can't predict the outcome".

"All we can say is that we will know more about molecules and the structure of the universe in ten years than we do now," he added.

Molecules in space

Dr. Herzberg began his research into spectroscopy, the study of the absorption and emission of light waves and other radiation by molecules, nearly 60 years ago. By a careful analysis of photographs taken of this phenomena, scientists can identify the characteristics of molecules and match them

with the light from stars, comets and other celestial objects to determine their temperature, density and chemical composition.

Through his dedicated analysis of what one NRC scientist calls "molecular fingerprints" G.H. was among the first to identify the existence of molecules in space.

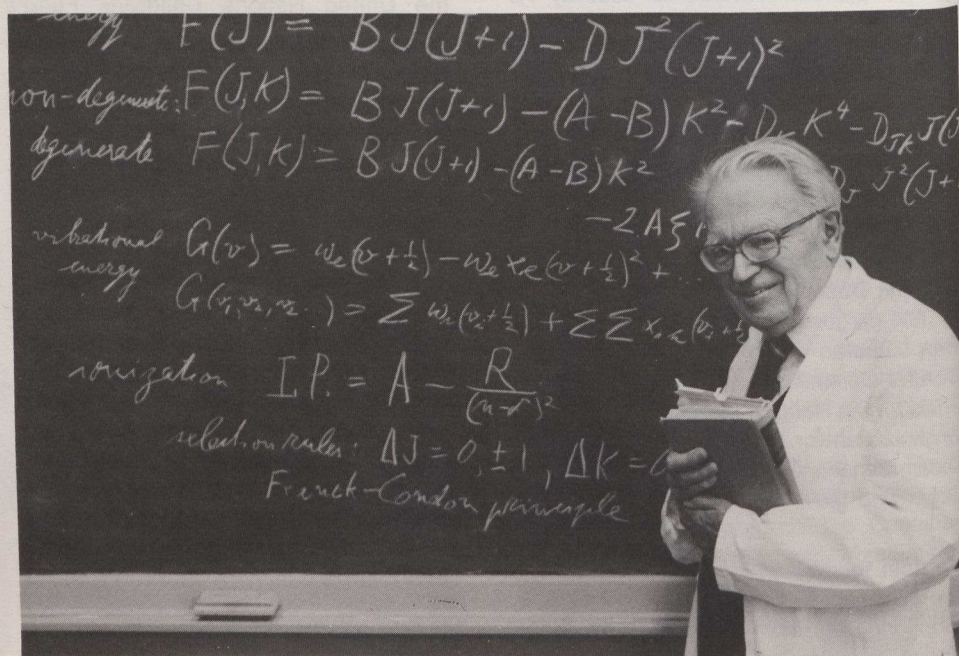
Although this claim was initially disputed by scientists, Dr. Herzberg's work established the basis of research which has been able to not only analyze the atmospheres of planets, but record the chemical processes taking place throughout the universe.

Dr. Herzberg's four-volume textbook on spectroscopy is still considered a major authority in the field.

Dr. Herzberg's 1971 Nobel Prize in chemistry was given to him for research on which he laboured for 14 years before getting results — the identification of the "free radical". The free radicals are molecular fragments which appear for millionths of a second in chemical reactions when molecules are breaking apart and recombining into new structure.

In 1980, Dr. Herzberg discovered a new hydrogen molecule and some of his recent research has been centred on a grouping of three hydrogen atoms known as H₃.

Over the years, Dr. Herzberg has received many honours for his work: he's a Companion of the Order of Canada; Carleton University in Ottawa named a science building after him; the Canadian Association of Physicists struck a medal in his honour; and in 1975 the NRC created the Herzberg Institute of Astrophysics.



Gerhard Herzberg with one of his favourite tools — a blackboard.