

**Examined by University Professors**

**MARVELLOUS MEMORY AND UNUSUAL REASONING POWERS**

A year ago "The Mail" introduced Howard Zelling, a seven-year-old boy, with a card index brain, to the South Australian public. On Tuesday Professors McKellar Stewart and Darnley Naylor examined Howard Zelling at the University. At the conclusion of the examination Professor McKellar Stewart proclaimed him a potential genius of the future.

Professor McKellar Stewart was the first to be introduced to the son of Mr. and Mrs. Zelling, of Goodwood. He gently interrogated the boy as to his age, and school, and then mentioned Socrates, the great Greek philosopher.

"Socrates! He had a wart on his nose." Howard placed his finger on Socrates' identification mark, the professor smiled, and the conversation turned on ancient mythology.

Thales, Bias, Solon, Chilon, Cleobulus, Pittacus, Plato, Galileo, and other ancient names were bandied back and forth. Howard was not too sure whether the Sphinx was one of the marvels of the world. The professor assured him it was.

Professor McKellar Stewart is a professor of philosophy. He went in search of Professor Darnley Naylor, professor of classics.

While he was absent, Howard scouted around his library.

**No Interest in Politics**

"Are there any books you would like among them?" his mother asked.

"Only that one." Howard said, pointing a fat volume which bore the imposing title, 'Greek Political Theories,' "and I'm not over interested in politics."

Professor McKellar Stewart returned with Professor Darnley Naylor. Howard was introduced, and the two learned men faced the boy of eight.

Gently, as if indulging in some game, Professor Naylor interrogated the child. His mother mentioned that Howard had been shown through the Observatory the week previous, and the conversation veered from Greek mythology to the moon.

Howard expressed disbelief in the man in the moon.

"Why do you think a man could not live on the moon?" Professor Naylor asked.

"If he was exposed to the direct rays of the sun he would scorch," explained Howard, "and if he was not he would freeze."

"What if he lived inside the moon?"

"He couldn't, he would still freeze."

"Some philosophers say it is possible. Have you read H. G. Wells upon the subject?"

"No; but it is impossible. The moon is a dead world."

**Professor of History Wanted**

Roused by Professor Naylor's argument, Howard rose, and for a time the man in the moon was the subject of a hot debate.

The professor persisted that it was possible for a man to live inside the moon; Howard maintained it was not. The professor left it at that, and subtly turned the conversation to other channels.

Early Dutch navigators in Australian waters were mentioned, and Howard gave a detailed account of their wanderings around our coast, as far off, in some cases, as the seventeenth century, and dates and names rolled off his tongue as glibly as most children of similar age gabble the alphabet.

"Do you know anything about Matthew Flinders?"

Howard did, and told the professor in detail.

"I think we had better send for the Professor of History," Professor Darnley Naylor said, in a jovial aside to Professor McKellar Stewart, and the two paused for a consultation.

"A wonderfully retentive visual memory," said Professor Naylor. "Yes, and more than that," said Professor Stewart.

**Power to Reason**

A test of the boy's power to reason was arranged.

Professor Stewart reached for a copy of "The Greek Political Theories," and, selecting a passage, asked Howard to read to a certain point, and then explain what he had read. Howard read as directed and then summed up the passage. "It means," he said, "that the Greeks lived and died without even thinking of changing their laws."



HOWARD ZELLING

Professor Stewart looked meaningfully at Professor Naylor.

Another test was arranged. An encyclopedia opened at Socrates was given to Howard, and a paragraph indicated for his perusal. He read it, but asked to explain the gist of it gave almost verbatim what he had read.

This test concluded the examination.

**Potential Genius**

Professor McKellar Stewart stated after the examination, "Howard Zelling is a remarkable boy. I have seen children of the same age who showed amazing mathematical precision, but never one with such wonderful general knowledge. He has an astounding visual retentive memory, and also the power of reason. If he retains his powers he will probably become a genius in some sphere or other."

"The examination today was not exhaustive enough to allow me to draw accurate deductions as to the cause of his abnormal gifts. I would like to have an opportunity of studying his mathematical ability."

Professor Darnley Naylor, Professor McKellar Stewart, and Professor Kerr Grant will conduct a further examination of South Australia's wonder-child on a date to be arranged.

**Work in State Schools**

**TESTS BY DR. DAVEY**

If he lies, does he do so protectively, maliciously, imaginatively, or purposelessly? If he steals, what kinds of things does he steal? Has he any special fears and is he abnormally interested in sexual matters? These are questions that must be answered in regard to South Australian school children.

The Education Department has within the past six months included in its activities special treatment for children who are retarded educationally, problem children or delinquent children.

For this purpose Dr. Constance Davey, M.A., Ph.D., was appointed psychologist to the department. Dr. Davey was the second Catherine Helen Spence scholar. This scholarship is awarded every four years for social science, and after Dr. Davey had graduated master of arts, with honors in philosophy, at the Adelaide University, she went to the London University where she took the degree of doctor of philosophy with psychology as her special subject.

Dr. Davey's work includes the examination and suggested treatment by teachers of children retarded educationally, either because they are dull and backward or mentally defective; problem children—those who are nervous, unstable, stammerers, and so on; delinquent children—that is truants and the like. In the last-named section the Education Department co-operates with the Children's Courts and the State Children's Department.

**MENTAL TESTING**

Special classes are organized in the schools for supernormal, subnormal, dull, and backward children and morons, and occupational classes for lower grades. Dr. Davey also supervises additional training in schools of classified teachers for these special classes.

Short courses of lectures are given to teachers and students in training to enable them to recognise subnormal children, and to teach them the aim and methods of mental testing.

Later it is intended that Dr. Davey shall give vocational guidance to children leaving the primary for High and

**A THOUGHT FOR TODAY**

Information is not education. A man may know encyclopaedias through from beginning to end and not be educated.—Tucker.

Central schools, and to children in special classes regarding future occupations. She will also organise and supervise the after-care committees, and conduct experimental work.

Before a child is placed in one of the special classes a psychological clinic record has to be filled in. This is exhaustive in its details. A medical examination first takes place to ascertain if there are any physical defects.

Particulars are then recorded regarding his family history, whereby it can be seen if heredity plays any part in his condition. His environmental conditions in home and neighborhood are enquired into with reference to those whom he chooses for associates noting whether they are older, younger, or of the same age as himself, and particulars regarding his chief amusements, interests, or recreations.

Definite traits in his character are specified, and it must be stated if he is egotistical, passionate, selfish, vain, obedient, stubborn, seclusive, impulsive, emotionally unstable, ill-tempered, resentful of authority or over-affectionate.

There are special opportunity classes, or, as one child calls them, "Catch-up" classes, in four of the city schools—Gilles, Currie, Sturt, and Flinders streets, also at Wellington road, Norwood.

**HABITS OF INDUSTRY**

In each school from 15 to 20 children are picked out for one teacher to supervise. This teacher is one who has volunteered for this special work, as it is all-important that he or she shall be temperamentally suited. Extra training of the teacher is given under the supervision of Dr. Davey, and the teacher devotes his or her time wholly to that class.

The chief aim of these classes is to instil into the children definite habits of industry, obedience, and regularity. The types of tests used for gauging

mental intelligence are those of Dr. Burt, of the London City Council, who made a revision of the tests of Binet, the French psychologist, who was the originator of the scheme of testing which was subsequently adopted by Britain and America, and the tests of Dr. Phillips, of Sydney, who revised them for application to Australian children.

Since the institution of these classes more than 200 children have been tested. The examination of each takes from 40 minutes to an hour. The results have shown that sub-normal children, together with those known as border-line cases, total 1.43 per cent, dull and backward, 1.35 per cent, educationally retarded—that is for other reasons than mental ability—1.75 per cent, making a total of 4.5 per cent, of the school population requiring special individual teaching.

**CLASS AT WORK**

The writer, with Dr. Davey, visited the opportunity class at one of the city schools, and watched about 15 children at work at their various tasks. They are under the guidance of an understanding, sympathetic teacher, who stated that, in the brief space of time the class had been at work there was a noticeable improvement.

Small girls were busy with sewing machine—a baby one—making handkerchiefs and face-towels, with knitting needles at work on woollen scarfs; boys were revelling in the smell of fresh paint as they converted uninteresting-looking boxes into gay receptacles for beads which other small boys were threading. The weaving of raffia baskets occupied the attention of others, and the fascinating plasticine was being fashioned into all sorts of objects. Almost every child displayed a copy-book with pardonable pride, for the writing therein was neat and shapely.

As Dr. Davey entered the classroom all the children rose with a hearty "Good morning, doctor," and they took much joy in showing her how they were progressing with their work.

REG. 11-6-25.

**"CLIMATES OF THE PAST."**

**LECTURE BY PROFESSOR HOWCHIN.**

Lecturing before the members of the Royal Astronomical Society of South Australia, at the Institute's lecture room, North terrace, Adelaide, on Wednesday evening, Professor Howchin, of Adelaide University, gave an interesting discourse on "The climates of the past." He was introduced by Professor Kerr-Grant.

The professor said that astronomy was a revelation of infinite space, while geology was a revelation of infinite duration. The climates of the present day were in a general sense determined by latitudes, so that it was comparatively easy to mark the earth into climatic zones. Climatic conditions varied in respect of humidity, aridity, heat, and cold. Intermediate conditions did not impress themselves on geological records to the same extent. Under the influence of humidity they found an extraordinary type of vegetation during the carboniferous period. As these growths were dependent on a humid atmosphere, the temperature must have been exceedingly warm in order to hold so much moisture in suspension. Central Australia formed a link in the chain of aridity in the southern hemisphere. Such dry belts were caused by a well-known law of atmospheric circulation, which was a down draught in a return current from the equatorial regions. This down draught was very dry and absorbent, and produced anticyclonic conditions with the attendant permanent trade and anti-trade winds. Post belts of aridity were in higher latitudes than those of the present day.

There had been three ice ages, preceded the lecturer. At present we were probably living in the latest stages of one. The oldest known glaciation traces were discovered by the lecturer at the River Sturt in the Petersburg Ranges in 1901. They were of the newer pre-Cambrian age. Three years later similar traces had been discovered in China, and still more had been discovered in India and Norway. There were records of permo-carboniferous glaciation in Brazil and Argentina, the Falkland Islands, South Africa, India, and Australia. In New South Wales the ice beds were inter-bedded with coal seams and marine deposits. Those beds existed as far north as the Tropic of Capricorn. In India, land ice had occurred within 18 degrees of the equator. In South Australia there was evidence that the very spot on which the audience was assembled had been under a layer of ice 1,000 feet in depth. The ice had come in from the south and the valley of the Victor Harbour district had been filled to a depth of 1,500 feet. Hundreds of square miles of territory in the Macdonnell Ranges were covered with glacial moraines. In the great pleistocene glacial moraine, ice covered about four million square miles.

There were no perennial ice fields in South Australia at that time, but there was unmistakable evidence in the marine fauna that once there was abundant life on the sea coast and this had died out as a result of the glaciation. The increase of carbon-dioxide in great quantities in the atmosphere would tend to produce warmer conditions, while a decrease would reduce temperature. Carbon-dioxide