

EDUCATION

Red Scientists Competent

➤ RUSSIAN schools are not only turning out trained scientists faster than we are, they are producing competent scientists, Dr. George W. Boguslavsky, psychologist of Cornell University, Ithaca, N. Y., reports in *Science* (May 10).

His conclusion is based on a survey of reports and directives from the Russian Academy of Pedagogical Sciences. These reports serve to guide workers in the Russian schools.

Soviet psychologists, Dr. Boguslavsky found, are quite sensitive to work done abroad. They have also been doing important research in the field of education. This work has been carried on in an atmosphere of political control.

In a 1936 directive, for example, the Central Committee prohibited segregation

of children on the basis of mental tests.

Both what we would call geniuses and what we would term retarded or defective children are required to meet absolute academic standards set by the Soviet Commissar for Enlightenment. Any failures are attributed directly to the negligence or incompetence of the teacher.

Research has been directed toward developing ingenious ways for improving the slow learners who, in Russia, are called "intellectually passive" pupils.

It has been found, for example, that in teaching addition and subtraction to such children, there is very little transfer from the successful manipulation of blocks to mental operations. However, if the child doing mental arithmetic is urged to visualize the blocks and to describe his operations

aloud, his mental performance can be brought up to the general level of the class after six or seven such sessions.

Soviet psychologists are interested in finding ways to create interest in science in children. They are well aware, Dr. Boguslavsky discovered, that dull books are lethal to pupils' interests, but their research indicates caution is necessary in dressing up dull books with human interest material and attractive illustrations. The danger is that the pupil's interest will be distracted from the subject matter and directed to extraneous matter.

Science News Letter, May 18, 1957

PSYCHOLOGY

Study Puppy Society

➤ STUDIES of puppies and how they get along with their brothers and sisters are shedding new light on human development from birth on.

One of the findings has been that when puppies are born, their nervous systems are still too poorly developed to be easily damaged emotionally. Although babies are not puppies, the same probably holds true for them, Dr. J. P. Scott of the R. B. Jackson Memorial Laboratory, Bar Harbor, Maine, reported to the American Psychosomatic Society meeting in Atlantic City, N. J.

In his study of puppy society, Dr. Scott found puppies during the first three weeks are quite immature and it is extremely difficult to produce psychological damage in them.

Any future effects on their behavior produced at this time would have to be made by actual bodily injury, he said.

Human development is obviously different from that of puppies but there is every indication the nervous system of a newly born baby is decidedly undeveloped, he explained.

Puppies are closely attached to their mothers during their first three weeks. Then the mother begins to leave the puppies alone and they develop their strongest social relationships with their litter mates. This is their "socialization" period. During the next few weeks it is easy for humans to form "positive" social relationships with the puppy, Dr. Scott reported.

We know a great deal about babies from birth until the time they leave the hospital, Dr. Scott said. Then they disappear into the home and there is little opportunity to study them until they begin to emerge at about two years of age to go to nursery school. This is the period, if it exists in

humans, that probably corresponds to the socialization period in the puppy, he concluded.

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TECHNOLOGY

Trained Workers Needed For Safe Atomic Power

➤ A "YOUNG ARMY" of highly specialized technicians must be trained immediately if the growing nuclear industry in the United States is to be controlled safely, Gordon Dean, former chairman of the Atomic Energy Commission, reported to the Health Insurance Association of America meeting in Washington.

Present health control measures are good since the industry is still small and there are relatively few operating personnel working with atomic reactor power plants. Most of today's operators are engineers or physicists to whom safety principles are second nature, he said.

But by 1980, nuclear power will probably account for more than 30% of all the electricity generated in the United States. Then, today's talented and highly trained operators will not be the general rule.

Another possible source of danger is in the design of the power plants themselves. Little has been done to make them invulnerable to such unforeseeable dangers as earthquakes, floods or enemy attacks.

On the other hand, the public should not jump to hasty conclusions about the radiation dangers to health from the power plants. A comparison of the nuclear plants with conventional power plants shows that in normal operation they are equally safe, if safety rules are observed, he said.

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