

## PSYCHOLOGY

# Many Old People Work Faster Than Average Adults

Study Showing Fourth of People Over 74 As Fast As Adults Indicates Unfairness of Automatic Retirement

**N**OT all old people are slow workers. Probably from one-fourth to one-third of persons over 74 years of age could release the accelerator of an automobile at the approach of danger as quickly as the average adult. And these aged persons differ in speed just as do those who are in their thirties or forties.

These facts were among those reported to the New York branch of the American Psychological Association meeting in New York by Dr. Walter R. Miles, professor of experimental psychology at Stanford University.

Dr. Miles has been making a study of "later maturity" at Stanford under a special grant from the Carnegie Corporation. So far he has examined psychologically a total of 800 persons from all walks of life, excepting only the illiterate. A special study of reaction and co-ordination speed was made for 100 of these selected at random. The ages ranged from 25 to 87 years.

Commenting on the custom of retiring or dismissing an employee who has reached a certain chronological age, Dr. Miles said:

"Age is usually one of the important factors which define physiological and psychological efficiency. No machine can last forever; action necessarily means the reaction of wear and tear. But as the data presented in this paper indicate, there are distinct and measurable efficiency differences between individuals with chronological ages about seventy years, just as there are differences among people who are in their thirties or forties. The average for all who are older than 74 years, for example, may show a decrement of one-fourth or one-third from the general adult mean. But, on the other hand, one-fourth to one-third of these old people may still be as capable, in the functions tested, as the average adult, and to check them off just because they happen to have been born seventy or more years ago may be as unfair to the individual as to drop him because he was born of foreign parents.

"Psychologists have convinced themselves and the educational world that

there is such a thing as mental age, which, although it may ordinarily run a parallel course with chronological age, does not do so in all cases. And for this reason individuals must be considered, rather than arbitrarily lumped in calendar year units. Investigation such as is reported by the present sample of data indicates that calendar worship should be further curtailed as related to the problems and adjustments required in human life at its stage of later maturity."

The measurements of speed were made by an ingenious electrical device which not only timed the movements made by the persons tested, but also gave the signal to which the person was to respond. It times as closely as a one-hundred-twentieth of a second.

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## BOTANY

## Fungus Beautifies Self With Fur-Trimmed Edge

See Front Cover

**T**HE PICTURE on the front cover of this week's SCIENCE NEWS LETTER looks like a fur-trimmed opera cloak for

## ASTRONOMY

# Four Separate Spheres Make up Single Star in Great Bear

**T**HE STAR XI Ursae Majoris, one of the fainter members of the constellation of the Great Bear, appears as a single body to the naked eye, but astronomical research has revealed that it actually consists of four stars. They are arranged in two pairs. Each member of each pair is revolving around its mate, while each pair in turn revolves around the other pair.

On the old star maps, xi Ursae Majoris was represented as forming part of the bear's right hind foot. It is almost directly overhead about 9:00 p. m. at this



### MEASURING HER SPEED

*In performing an operation like those necessary in industry. The electrical clock device is disconnected while her fingers remain on the key. When she is ready she will lift her hand, thus starting the clock, move the peg to the next hole, and return her finger to the key which stops the clock. The time is automatically recorded.*

Queen Titania of the fairies, but it is nothing more romantic than a rather common small fungus, *Schizophyllum commune*, that feeds on dead sticks in the woods.

The furry effect is due to the splitting and shredding of the edges of the cap. The photograph, which shows the plant at several times its natural size, is the work of Cornelia Clarke.

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time of the year. High in the west is the familiar "Sickle" of Leo, with the brilliant Regulus at the end of the handle, pointing downwards. If you imagine a line from Regulus to Benetnasch, the end of the handle of the Great Dipper, it will cross xi Ursae Majoris almost in the middle.

Working at the Lick Observatory, Mt. Hamilton, Calif., Louis Berman has made a detailed study of the star, and has determined more accurately than ever before the dimensions of the system. Through a medium-sized tele-