



eastern end, where the total phase was still shorter.

However, two astronomers, Dr. John Q. Stewart of Princeton, N. J., and the writer, were close to the middle of the path, on board the S.S. Steelmaker, en route from Hawaii to Panama, and there we saw it last for seven minutes six seconds, setting a record for the duration of totality observed. The extra two seconds was picked up due to the ship's motion.

After an interval of a little over 18 years, called a Saros, an eclipse repeats itself, either north or south of its previous track, and about a third of the earth's circumference to the west. Thus this June's eclipse is the repetition of the one that Stewart and I saw from Mid-Pacific in 1937, and this time there is land where totality lasts for seven minutes near Manila in the Philippines.

The actual point of longest duration is farther west, in the South China Sea. Viet Nam and Thailand will also see it, but for a little less than seven minutes.

The path of totality, over which the total eclipse may be seen, starts, as the sun rises, in the western Indian Ocean, off the coast of Somaliland. It is more than a hundred miles wide and goes northeast, crossing Ceylon and the Bay of Bengal before it reaches the Indo-China peninsula. Then it goes eastward, across the South China Sea and the Philippine island of Luzon, before it curves to the southeast. It leaves earth a little north of the Fiji Islands, as the sun is setting there.

Along this path, wherever it is clear, all the magnificent phenomena of a total eclipse of the sun will be seen.

As the moon completely covers the disc of the sun, the solar corona will flash into view. Only at the time of a total eclipse can this be seen at all with the naked eye, or observed in its entirety even with instruments. Over a larger area, covering most of southern Asia, northern Australia and the islands to the north, there will be a partial eclipse.

Celestial Time Table for June

June	EST	
3	3:40 a.m.	Moon passes Saturn.
4	10:00 p.m.	Moon farthest, distance 252,400 miles.

5	9:08 a.m.	Full moon.
13	7:37 a.m.	Moon in last quarter.
16	1:00 a.m.	Mercury between sun and earth.
18	1:51 p.m.	Moon passes Venus.
19	9:00 a.m.	Moon nearest, distance 222,400 miles.
	11:12 p.m.	New moon, total eclipse of sun visible in Asia.
21	6:23 a.m.	Moon passes Mars.
	11:32 p.m.	Sun farthest north, beginning of summer in Northern Hemisphere.
22	7:07 a.m.	Moon passes Jupiter.
30	7:16 a.m.	Moon passes Saturn.

Subtract one hour for CST, two hours for MST, and three for PST.

Science News Letter, May 28, 1955

PSYCHOLOGY

Negro Babies Aware of Race Differences at Two

➤ **EVEN AT** the early age of two years, Negro children have become aware of their difference from whites and their behavior on tests is affected by this awareness.

This early consciousness of race was revealed in the course of repeated testing of Negro babies to compare their development with that of white infants.

The testing of Negro babies was done by a white examiner in New Haven. The babies belonged to a low socioeconomic group. Results were reported by Drs. Benjamin Pasamanick and Hilda Knobloch of the Johns Hopkins University, Baltimore, Md., in the *Journal of Abnormal and Social Psychology* (May).

No significant differences in either physical growth or behavior development were revealed by the tests of Negro and white babies during the first 18 months.

In the tests given at two years, a difference did show up. Although in general the growth of the Negro babies continued at the same rate as for whites, their language development dropped down.

They were not retarded as compared to the performance of white babies, but development in this field was slower than in other fields of behavior or motor achievement.

Analysis pinned the slowing down to the field of verbal responsiveness. The mother of one Negro child provided a clue to the

discrepancy, explaining it was the examiner's white skin that kept the child silent. The mother's explanation was supported by the fact that the children scored high enough on the understanding of speech.

"The awareness of racial differences apparently occurs much earlier than has been previously demonstrated," the scientists conclude. This awareness plays an important part in affecting mental test scores and should be considered in making any interpretations of racial differences.

Science News Letter, May 28, 1955

ENTOMOLOGY

Cockroach Survives by Adapting to Temperature

➤ **AS ANY** householder knows, the cockroach is one of the peskiest little critters to eliminate.

Cockroaches, particularly the young ones, adapt readily to temperature changes, Dr. Paul Dehnel and Dr. Earl Segal, zoologists of the University of California at Los Angeles, have found.

That may be why they are hard to eliminate.

The researchers experimented with cockroaches that had led a sheltered life. The insects had been kept at a constant temperature of 80 degrees Fahrenheit for three generations.

Then by subjecting the roaches to various temperatures somewhat lower than 80 degrees for a week and measuring their oxygen consumption, the investigators were able to tell how the insects step up their life processes to compensate for environmental changes.

They found that the nymphs or young cockroaches adapt readily to such changes. Adults were somewhat slower. Roaches are in the nymph stage for three or four years and may survive two additional years as adults.

This compensatory mechanism in the young may be a factor that enables roaches to survive in such large numbers under all sorts of conditions the world over. It has generally been thought that insects are relatively lacking in ability to compensate for such temperature changes.

Science News Letter, May 28, 1955

Understanding Yourself

By Dr. Ernest R. Groves

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