

ASTRONOMY

Discuss Origin of Universe

Astronomers polled in a Science Service Grand Jury disagree on theories explaining the origin of the universe, as well as on the observations needed to answer the problem.

THE WORLD'S top astronomers do not agree on the origin of the universe.

Of 33 participating in a SCIENCE SERVICE Grand Jury on this subject, there was a virtually equal division on whether or not the universe started with a "big bang" several billion years ago. To this question, 11 (33.3%) voted "Yes," and 12 (36.4%) voted "No," while 10 (30.3%) were counted as "Not Voting."

Concerning the more recent theory that matter is being continually created and destroyed, opinion was more sharply divided among the 33. More than half of those responding, 18, or 54.5%, said they did not agree. Eight, or 24.2%, replied they did believe matter is being continually created, and seven, or 21.2%, did not vote.

Of the 33 experts, 23, or 69.7%, showed high hopes that one or the other of these opposing theories would be proved right within the next 41 years, while three, or 9.1%, thought they would never be solved. Seven, or 21.2%, did not vote.

Concerning a specific year in the future voted on by 23, fourteen, or 42.5%, were sufficiently optimistic to predict that either the big bang or the steady-state question would be solved by 1975, the other nine, or 27.2%, holding out for the year 2000 A.D. One wrote in a forecast for a solution within five years, as well as voting for 1975.

Concerning the kind of observation most likely to give the answer to the problem, many of the astronomers and cosmologists responding to the poll chose more than one method. Twenty, or 60.5%, said observa-

tions of radio waves from far-distant objects would yield the answer, while three, or 9.1%, predicted that radio astronomy would not provide a solution.

A telescope on a satellite would do the job in the opinion of 11, or 33.3%, although seven, or 21.2%, held that it would not. An earthbound telescope, either the 200-inch giant atop Mt. Palomar or others of more than a 100-inch aperture, would give an answer to the origin of the universe, 10 of the 33, or 30.3%, believe. The lone astronomer who thought a telescope mounted from a balloon held the key was voted down ten to one by his colleagues.

Five astronomers, or 15.2%, did not vote on the question of what kind of observation would be most likely to provide a solution to the problem.

Of the 61 scientists selected for the Grand Jury, 36 came from the United States, two from Canada and 23 from foreign countries. Of those answering, 26 are U. S. scientists, two Canadian and five from foreign countries.

Besides answering questions, the 33 astronomers polled were given an opportunity to make any comment they desired, with assurances of anonymity for their remarks. Not all astronomers agreed with the idea of a poll.

One said, "I do not believe that polls such as this one serve any useful scientific purpose and in fact are apt to be misleading. I prefer, therefore, not to participate."

Another astronomer said that much of the "fun of astronomical research" would

be removed if a sure answer to the question of the origin were ever found.

One German astronomer remarked: "Of course, these answers are quite tentative and new observations—as everywhere in science—may completely overthrow some day our present ideas about the origin of the world 'as a whole.' More important than any specific answer is the fact that these problems have become accessible to scientific methods and scientific judgment."

A Netherlands astronomer said he thought the chief merit of the theory of continuous creation is "to force the cosmologists to realize the brittleness of all their inferences from observation."

Science News Letter, July 11, 1959

PSYCHIATRY

Tranquilizers and Alcohol Do Not Mix

PERSONS WHO take the tranquilizing drug chlorpromazine should not take even a small drink of alcoholic liquor and then drive a car or operate complex machinery.

In combination with chlorpromazine, a single drink, two ounces of 100-proof liquor, significantly impairs coordination and judgment and makes the driver "most unsafe," Drs. George A. Zirkle, Ott B. McAtee and Peter D. King of Madison State Hospital, Madison, Ind., warned the American Psychiatric Association meeting in Philadelphia.

Chlorpromazine is one of the tranquilizers prescribed not only for emotional upsets or tensions but for a variety of conditions including headaches and nausea.

As compared with persons taking either the tranquilizer or the alcohol alone, twice as many of those taking both felt sleepy and "groggy." The impairment was significantly greater on tasks requiring higher intellectual ability.

Physicians who prescribe chlorpromazine should warn their patients of the possible danger of using alcohol.

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Missing from the *Science News Letter* index for the six months, January through June 1959, which appeared in the June 27 issue, are entries for the June 13 issue.

At the left you will find listed in alphabetical order the missing index entries. To complete the published index for the first half of 1959 you may wish to clip these entries and add them to the appropriate columns. In some cases it will only be necessary to add another page number to an already existing entry.