

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.

Science News Letter, July 11, 1959

Accelerator	370
Airline safety	377
Airplane, Inflatable	374
Alaskan waters	376
Arthritis, Spinal	372
Astronaut	373
Atomic lamp	371
Bartholomew, George A.	377
Bevel square	384
Birds	370
Blackout, Radio	376
Bluegrass	374
Body, Artificial	372
Booolootian, Richard A.	377
Brain chemicals	376
Brues, Austin M.	379
Building panels	384
Cell growth	376
Cerebral palsy	370
Citrus pest control	377
Cohen, Alvin J.	371
Davis, Watson	374
Day, Length of	371
Dog hair-dryers	384
Dreisinger, Frank	372
Dynamitron	370
Earth's rotation	371
Electrical engineering	375
Engineering curriculum	375
Equator	370
Fallout, Effects of	378
Film, Super-sensitive	370
Fuel cell	372
Goggles, Plastic	384
Hallucination	376
Hanson, Angus A.	374
Helicopter, Home-built	384
Helicopter census	377
Jungle mamals	384
Juska, Felix V.	374
Keener, J. W.	373
Lamp, Gas-fired	384
outdoor	384
Lawson, John D.	377
Leveling device	384
Light, Atomic	371
MacDonald, Gordon	371
J. F.	371
Man, Flying	376
Marine snap fasteners	384
Mark IV	373
Marrazzi, Amedeo S.	376
Masland, Richard L.	370
Milk, Radioactive	378
Miller, Alden H.	370
Monkey Able	373
Movie film, Sensitive	370
Munk, Walter H.	371
Munro, G. H.	374
Navigation system	377
O'Bannon, J. H.	377

Police psychiatrist	373
Psychiatrist	373
Radiated bluegrass	374
Radiation detection	372, 378
Radiation shielding	375
Radio signal blackout	376
Reynolds, H. W.	377
Ritter, Darrel L.	374
Russell, W. L.	379
Russian satellite data	374
Schmidt, R. E.	376
Schooley, Robert	378
Science museums	374
Sea lions	376, 377
Shielding window	375
Silica-glass	371
Smythe, Hugh A.	372
Solar still	375
Space suit	373
Sputnik III data	374
Sterility	379
Suits, Guy	372
Summer hazards	375
Swimming hazards	377
Water still, Solar 369,	375
Waymouth, Charity	376
White, David C.	375
White, Philip R.	376
Wilkie, D. R.	376
Wilson, David H.	373
Wings	376
Woodson, Herbert H.	375
Zvaifler, Nathan J.	372

INDEX Addendum

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.