

Scientists Study Selective Hearing, Use Math Formulas

By DELOS SMITH
United Press Science Editor

New York—Science has worked out plausible mathematics to explain a mechanical marvel which all of us carry around in our heads. The figuring will be proved, however, only when science is able to construct a mechanical brain which can listen either to its left "ear" or its right one or to both and make something out of whatever it hears.

The new mathematics represent an advance toward a solution of "the cocktail party problems" which has fascinated physical scientists for some years. The puzzle is this: How in the world can anyone listen intelligently to only one voice with one ear or both while both his ears are being assailed by many voices, loud, soft, near and far?

Independent Mechanisms
Mathematically it is demonstrated that each ear has an independent mechanism which permits it to relate all the various sounds which enter it—any one sound to all and any of the other sounds. With such a mechanism, either or both ears can select any sound or sounds it wishes to let in.

Those admitted sounds are then passed on to a central mechanism which has to relate what the left ear hears with what the right ear has picked up and make something of the mess of sounds, which is a very neat trick that all of us perform without ever drawing a long breath over it.

What comes out of this second mechanism is passed on to third, and one which still stubbornly defies mathematics and is one of the toughest problems which must be solved before there can be a true mechanical brain. This is the mechanism of judging—not only judging where the sounds come from and what they mean but also judging whether they are worth listening to.

The mathematics are those of Drs. Bruce Sayers and E. Colin Cherry of the University of London, contributed to the Acoustical Society of America. Cherry is a veteran worker at the problem of explaining scientifically how our brains can tell the direction a sound is coming from when we're hearing it with two ears and how our brains can "pull apart" two persons who are speaking at once.

Previously he had demonstrated that there is a "fusion" process going on in our heads. Only if our two ears are hearing the same sound, it is possible for us to tell where the sound is coming from and how far away it is.

He had proved that when both ears hear the same sound, the listener can't possibly separate the sensations of one ear from those of the other—the "fusion" is that complete. If he listens to one speaker with one ear and to another speaker with the other, he can't possibly understand both at the same time, but he can understand one of the other or one after the other.

Parking Lot Mishap Injures Medford Man

Ashland—Melvin M. Taylor, 1107 South Oak st., was slightly injured by a car driven by a 17-year-old boy in the Teen-Age club's parking lot early Sunday morning, according to state police.

State police said the 17-year-old driver and his companion, a 17-year-old girl, were arrested on charges of being minors in possession of liquor. Both were on probation at the time of their arrest, state police said.

State police said Taylor was taken to Ashland General hospital where he was treated for a sprained ankle and had x-rays taken before being released. Hospital officials said Taylor suffered minor injuries.

State Police said Taylor was pinned between the rear bumper of the 17-year-old's car and the left door of a pickup truck driven by Darlene Joy Lorenz, 267 Eighth st., when the youth suddenly backed his car without giving Taylor warning.

Griffin Creek Plans Rink Party For School

First skating party of the year for Griffin Creek school will be given Thursday in the Ashland skating rink, according to Myrna S. Frink, principal.

Busses will leave the school promptly at 6:30 p.m., she said. The rink has been rented for 7 p.m. to 9 p.m. All parents are asked to pick up their children when the party returns to the school at 9:40 p.m. or earlier.

The party is limited to fourth, fifth, sixth, seventh and eighth graders. Regular drivers will take the busses to Ashland and the group will have faculty supervision, the principal said.

Fall Citizen Classes To Start Thursday Here

Crater Lake chapter, Daughters of the American Revolution, announced today the annual fall citizenship classes will begin Thursday, Oct. 10.

Mrs. G. Q. D'Albini, chapter member, will conduct the classes at her home, 308 North Ivy street.

Two classes will be held, one afternoon and one evening. First session of the afternoon class will be at 2 p.m. Thursday, and the evening class will begin at 7:30 o'clock.

Necessary materials will be provided by the chapter.

Try and Stop Me

By BENNETT CERF

THE PSYCHIATRIST at an Army base was having a hard time classifying an oddball caught in the draft until he extracted the admission that the draftee never went out with girls. "Aha," nodded the psychiatrist. "You don't like women, is that it?"

"On the contrary," the draftee assured him. "I sure like women. That's why my wife won't let me take out girls!"

Another new GI, on his first evening in camp, was handed a knife and a big sack of potatoes, and was told by the sergeant, "Peel away."

"They told me," grumbled the recruit, "that the 1957-model Army had potato-peeling machines."

"So they have," nodded the grinning sarge, "and you're the latest model."

A persistent personality staggered into the bar and demanded, "Give me the usual." So the bouncer threw him out.

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Quotes From the News

By UNITED PRESS

Cambridge, Mass.—Navy scientist N. Whitney Matthews, on the prospective launching of an American satellite: "We have tested several kinds of satellites extensively. Several of these, when subjected to tests of vibration, vacuum and other severe shocks far greater than anticipated in the actual launching, withstood the tests successfully."

Milwaukee—Brave pitcher Lew Burdette, on his second victory over the New York Yankees: "Monday's win over the Yankees wasn't as much of a novelty as that first one but don't go getting the idea I was bored."

Union, S.C.—State Rep. John Calhoun Hart, confirming that the Union county state legislative delegation has authorized the purchase of machine guns and ammunition for the sheriff's department to forcibly oppose school integration: "We will have a lot of integrated cemeteries in South Carolina a long time before we have integrated schools."

Moscow—Moscow radio, disclosing the Soviet explosion of a "new design" hydrogen warhead: "In the interests of the safety of the population and participants in the test, the explosion took place at a great height. The test was successful."

Seattle, Wash.—Charles S. Purdell, attorney for retiring teamsters president Dave Beck and his son, Dave Jr., in successfully requesting continuances of their grand larceny trials: "A trial at this time would necessarily be conducted in a feeling of extreme bitterness and hostility toward both defendants."

Russian Satellite Seen Great Service To U.S. Capitalism

By ELMER C. WALZER

United Press Financial Editor
New York—Russia, in the ecstasy of triumph in being the first to launch a man-made satellite, may have done capitalism its greatest service, some Wall Street experts believed today.

Not that the financial district regarded the man-made moon as having any great economic significance in itself, but many in the street felt it would unite the free world in a new scientific

drive to outdo the Soviet achievement. It would dramatize the missile project.

Getting such a moon into the stratosphere, it was believed, may have been accomplished with an intercontinental ballistic missile which in itself represents a menace to world safety.

Would Seek Supremacy
Hence, the financial experts concluded that this event would set off a new drive by the U.S. and other nations of the Free World to rush perfection of a missile of similar or even greater scope.

Such a program, it was felt, would involve spending vastly more money for defense. It could mean the end of the Washington economy move, a new debt ceiling, a resumption of spending in the aircraft plants lately hit by government cutbacks in payments.

An all-out drive to produce an intercontinental ballistic missile and the vast cost involved could restimulate the inflationary forces to the point where Federal Reserve pressure would be inadequate to stem the tide, it was felt.

But coming at a time when business generally was cutting back somewhat on new plant expansion and inventory accumulation, the move could reinvigorate the whole economy in a healthy resumption of the advance.

Means New Spurts
As a result, many felt that here was the one factor which hadn't been reckoned with for the 1958 economic life. What had been considered a drab outlook, a high economy without a zoom, could be turned into a new spurt which could make previous record years look small.

And if that were the case, the market men felt that stocks easily could zoom to new highs on big volume.

All this doesn't mean that Wall street is war-minded. War is considered a stock market deterrent.

But big boosts in government spending and the vast use of raw materials that might be involved in a giant missile program would be considered highly bullish, according to market experts.

Electronic Industry Predicted For Valley

One or more electronic plants will be operating within the Rogue Valley area by one year from now, according to William J. Williams at a chamber of commerce roundtable meeting yesterday noon.

Williams, who is head of the committee to look into bringing new industry into the Rogue Valley, said that he and his committee have been "wooing" several firms into looking at the valley area for construction of new plants. He told of the size of the new industry and said the government's decentralization of vital industries would be a helpful factor in bringing such a plant to Medford.

Other reports of chamber activities at the meeting were Russ Jamison who told members that public relations was both an exterior and interior job that required full time. Ron Gande told members that tourists were Oregon's third most important industry and what the Jackson county chamber is doing for promotion, Frank Van Dyke who reported on governmental operations and told members of the "unfair state tax system" and Dwight Houghton who gave members a brief history of the chamber and how it is financed.

Jackson county chamber of commerce president Miller Huggins led the reports with a short speech on coming activities and told members that new ideas were needed.

PROFESSOR DIES

New York—Dr. Jekuthiel Ginsburg, 68, professor of mathematics and director of the Institute of Mathematics at Yeshiva University, died Monday of a heart attack.

New York—Stephen O'Sullivan, 65, who, under the name of Roy Stever, toured the Keith Circuit as a dancer, died Monday.

New York—Horace J. Parmalee, 68, a concert manager and vice-president of Columbia Artists Management, Inc., died Monday.



Parents!

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Your school age youngster will soon be coming home with a Home Inspection Report to make out. It's part of a Fire Prevention Week campaign to make our homes safer. And you'll have an opportunity to take part with your child in a worthwhile community project, the Junior Fire Marshal Program.

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Influenza Tops Listing Of Cases For County

Influenza topped the list of communicable diseases reported in the county for the week ending Oct. 4, according to the Jackson county department of health. Thirty-eight cases were reported, 10 in Medford, 20 from Phoenix, and eight in Shady Cove.

Measles were runner-up during the week with Prospect reporting 12 cases plus two of German measles, Shady Cove, one case, and Medford, one.

Other communicable diseases reported included trench mouth, 1 in Gold Hill; infectious hepatitis, 1 in Medford; impetigo, 7 in Shady Cove, 1 in Ashland, and 1, Central Point; and strep throat, 1 in Medford.

Tri-Hi-Y Girls Meet For First Gathering

First Tri-Hi-Y meeting of the year was held by the junior class Wednesday, it was reported Monday. Twenty-one girls attended.

Ceremony and publicity committees were formed with Ruth Schroeder chairman of the first and Shirley Lilly of the second.

As part of the evening's program Carolyn Spike on "What Tri-Hi-Y Means to Me," and Herb Partridge, YMCA official, spoke on "Tri-Hi-Y, An International and National Movement."

The organization's next meeting will be held Wednesday at 7:30 p.m. in the YMCA. Officers will be elected.

Claude A. Lewis, D.M.D.

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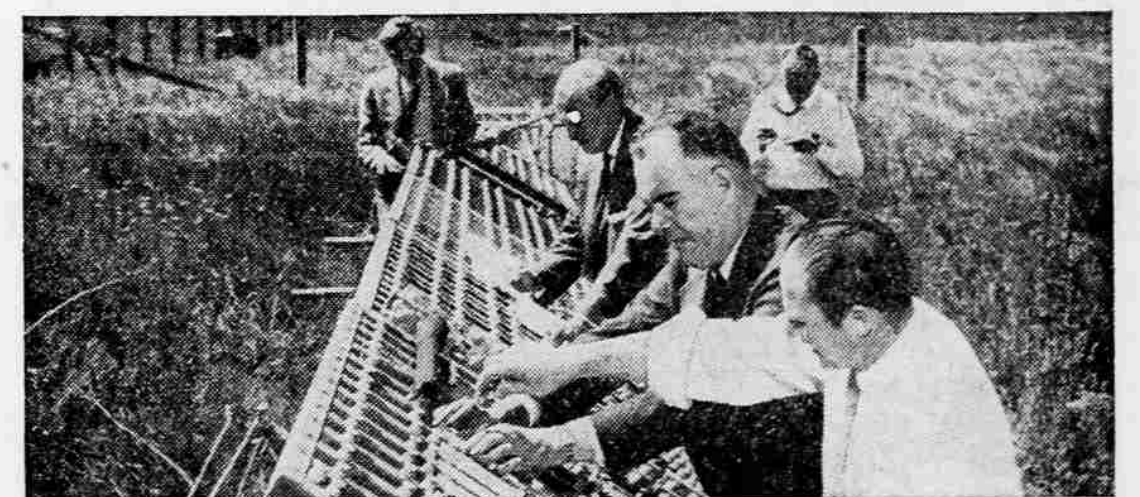
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How telephone men fight metal-eating winds

Tony Gurnari and Vic Sculatti (left and right above) are part of a telephone metal-testing team. They're prying open what we call a terminal box. It's like the one to which telephone wires from your house are connected. But this one is frozen shut by a hungry metal-eater called corrosion. Corrosion can be caused by salt-laden

wind, fog or ocean spray. It can rust, pit or crack tough metals. So we test to find metals that are economical to use yet resist corrosion. Telephone men also study other destroyers like wood rot, insects and even gnawing animals. By controlling such destroyers, we save thousands of dollars worth of equipment each year.



At the test site, Tony and Vic are at work learning new facts about corrosion by exposing metals to ocean winds and other elements. Their tests are part of our

effort to lengthen the life of every kind of equipment serving your phone. At the same time these tests help us keep your service dependable.

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