

POOR DOCUMENT

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BIOLOGIST DENIES CHANCE EVOLUTION

Dr. Lucien Cuentot Says Insects' Mechanical Devices Evidently Result from Design—Cuttlefish an Example.

(New York Times)
The thousands of ingenious mechanical devices to be found in insects indicate that they were developed from design, not from chance variation and selection according to Dr. Lucien Cuentot, an eminent French biologist, who made the leading address yesterday before the Second International Congress of Eugenics.

Dr. Cuentot outlined objections to the theory of evolution by pure chance on which scientific atheism is based and indicated "harmonies" between recent studies of evolution and religion. "All human devices except the wheel," he said, "are found in nature—the fly, the anchor, the pick, the rail, the groove of guidance, the dovetailing, many musical instruments, etc."

He argued that the insect was endowed originally with the power of developing these clever contrivances in order that it could use these tools when it needed them. His position was apparently in conflict with the school of biologists who deny or doubt "intention" that is, that an insect or other living thing should develop in a given manner because of actual development. Dr. Cuentot did not commit himself definitely with the biologists of the spiritual school and the theologians, but he said:

"One may boldly declare that none of the theories of evolution enables us to understand the genius of these organs of definite intention; perhaps there are, in addition to the creative cause already known, other factors which have escaped the penetrating minds of our great biologists of the past century and of our own time, and which would enable us to understand the evident intended design of fibrous structures."

Organ of Insect Cited.
The sting of the bee was one of the French scientist's specimens of an organ of definite intention. Another was the ovipositor of the grasshopper, a kind of torpedo tube which it has developed for the purpose of planting its eggs deeply in bark of earth. The leading exhibit of the speaker was the cuttlefish, which has two organs of definite intention. One was its well-known faculty to blacken the water with ink while escaping, and another a system of straps like those of gloves, which buckle on its outer skin at the throat. This device, apparently used by nature for many thousands of years, was not patented by mortals until forty years ago.

Another specimen was an insect which killed its assailants with a deadly poisoned gas. The scientist threw on a screen a picture of destroyers making a smoke screen, and compared it with the cuttlefish's escape. "The inventions of the great war are all met with in animals and insects," he said. He proceeded to cite various examples of camouflage in animals built or colored to blend indistinguishably into their usual background or setting. "Nature's solution differs from that of the craftsman," he continued, "only by its greater perfection, its greater adaptation and its security, and its elegance and luxury of minute detail."

Theory of Modern Biologist.
"But biologists since Darwin have been pure mechanics. If organs have an end, they say, it is because they fulfill a useful purpose in the coordinated organisms; that they have reached their present state by the play of natural causes (evolutionary factors), merciless selection having allowed only the persistence of such organs that were useful or slightly superfluous, never organs harmful to the species. Biologists of the spiritualistic school and the theologians, although accepting evolution, believe in a final causality of a universe and a creative spirit, superior and pre-existing to nature, which leads the latter by the laws he has ordained without direct interference."

From a philosophical point of view there is without doubt a precipice between the two conceptions. Concerning the first one, the finality of the organs is the result of chance variation and selection. Concerning the second one, evolution is directed by the will of a spirit, after an ordained scheme of implied causes. Finally is therefore intentional, whether there is question of the minutely small detail of the leg of an insect or of a bird's eye.

"For the theologian, the general harmony of nature, the marvelous results of efficient causes, makes up the most evident proof of final causality. From a scientific or practical point of view the two conceptions agree absolutely. To explain the formation of coaptations, it does not matter whether one is spiritualistic, monistic or agnostic; whether one believes or not in a final causality."

On the theory that special organs designed for a particular use were developed before the time came for their use, it would be necessary for birds evolving from reptiles to acquire feathers gradually through many generations before they used the feathers for flight. Reptile-Bird of Antiquity.
Dr. Cuentot therefore predicted that relics of a reptile-bird older than archaeopteryx would some time be discovered. The archaeopteryx, the oldest known member of the feathered family, was a bird about the size of a crow with a



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long tall something like a lizard's, with feathers growing from both sides of it. The scattered remains of two or three were found in fossil deposits in a quarry from which lithograph stone was taken in Germany.

The still older species predicted by Dr. Cuentot will be a reptile-bird with feathers, but without the wings or tail spread necessary for flight. Such a link between reptiles and birds would show the long growth of feathers reptiles before they became sufficiently birdlike to make attempts at flying.

In another part of his paper Dr. Cuentot discussed experiments tending to show how far heredity can be modified by introducing new chemical factors in to the composition of the parents. Telling of the experiments of M. Guyer and E. A. Smith last year, he said:

"In injecting into fowl the crushed crystalline lens of rabbits, they obtained a crystalline serum injected into pregnant rabbits, the crystalline, passing through the placenta, affects in a certain number of cases the crystalline lenses of the embryos, which are born with ocular malformations; now this essentially acquired character has been proved hereditary almost in the manner of a Mendelian recessive character and has been found transmissible to the eighth generation."

Study of One-Cell Life.
Dr. H. S. Jennings of Johns Hopkins University discussed attempts to watch evolution in the making by studying one-celled animal life through successive generations, the generations succeeding one another in such low forms at the rate of about 100 a year. Very slight changes were detected. He referred to experiments in which one-celled animals had during many generations acquired a special power of resistance against certain chemicals placed in their environment and had transmitted that resistance through many generations after the chemical had been withdrawn from the environment.

Mrs. Margaret Sanger and other advocates of birth control attended the sessions yesterday, but the speakers were men of scientific eminence and the discussions in the main were technical.

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Once upon a time the "Ladies-Who-Love-Dainty-Underwear" called upon the "Fairies-Who-Make-Lovely-Cloth," and asked them to weave a perfect fabric which should contain all the perfections of the materials then in existence, and leave out all the defects.

So the "Fairies-Who-Make-Lovely-Cloth" took the lustre out of silk, and combined it with the softness of Minkonk, and then mixed in the firm, even texture of fine linen, and wrapped about it all the clinging freshness of soft lace, and named it "DIAPHALENE" because they thought the name expressed the diaphanous, silky dream-cloth better than any other name. And then they put HORROCKSES' name on the selvage because that name had come to mean a super-quality in cotton fabrics.

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THE EARL OF CAVAN.
It is expected he will head the British Military Mission to Washington, and confer the British Cross on the Unknown American Soldier.

LOCAL NEWS
A Crime Committed in the Centre of the City.
It is a crime to see first-class garments being sacrificed at one-third their value, was the comment of the manager of an uptown store, after paying a visit to the Ralston Sales Co's showroom at 44 Princess street, yesterday.

Dry wood, hard and soft. "Phone West 17 or 80. Colwell Fuel Co. Ltd. 11-8

GOOD THINGS COMING TO THE THEATRES OF ST. JOHN
EDITH ROBERTS AND CHAPLIN AT THE UNIQUE
Edith Roberts will be at the Unique tonight, featured in a terrific tale of the astounding adventures of a little white hares in the South Seas and Charlie Chaplin in another re-issue, "His New Job."

METHODIST MISSIONS.
Rev. Thomas Marshall, who lately returned from a meeting of the board of missions of the Methodist church held in Toronto, said that a number of important matters were discussed. Financial matters were brought up and it was decided to try to raise twenty-five per cent. more money than last year. A resolution was passed approving of the union of the Protestant churches in China. It was decided to form a Chinese conference as soon as possible. Eight new missionaries were sent to China and two to Japan during the year. Forty workers were asked for China and eleven for Japan. The general secretary, Dr. Hamilton, and the general treasurer, W. G. Watson, were appointed to attend a missionary conference in Shanghai and a conference in Japan in 1922. A committee was appointed to work with the Presbyterians in connection with the Chinese work in Canada and money provided for the building of a centre in Toronto. A resolution of appreciation of the work of Rev. Dr. W. H. Hearts was adopted unanimously. Reports were read from the Women's Missionary Society, National Campaign Movement,

these destructionists have shown what they are. At least their sentimental sympathies in this country, who have been so horrified by laws to prevent, so far as possible, the teaching of these missionaries of murder, might be awakened into common sense by this exhibition of the far-reaching danger of that teaching; or do they really wish that a person clothed with the sublime character of a Communist, an Anarchist, or even a Socialist, shall be exempt from the jurisdiction of the criminal courts?

CHANGE IN SERVICE TO PRINCE EDWARD ISLAND
Commencing Monday, Oct. 31, the steamer Prince Edward Island will make one round trip daily (except Sunday) between Prince Edward Island and the mainland.
Connections from St. John will be by N.E. train leaving at 7:10 a. m., connecting at Sackville with train for Tormentine at 1:15 p. m. There will be time for luncheon at the Sackville station restaurant. 11-1

Home cooking and candy booth in charge of Pythian Sisters at the Fair. 10-28

Snowflake
THE FULL STRENGTH Ammonia
It softens the water in the washing machine and makes the clothes so white and clean.

Superannuation Board and Educational Society. Rev. Dr. Hearts and Rev. T. Marshall were elected to the executive from the Maritime Provinces.
Rev. Dr. Steel, with the other superintendents of missions, was re-appointed for another year.

Mob Arrested.
The wonderful values in waterproof garments being offered by the Ralston Sales Co., 45 Princess street, yesterday arrested the attention of a large mob of persons who benefited by the enormous slaughter in prices.



Ingersoll Cream Cheese
For dainty afternoon tea or for party lunches, there is nothing tastier than Ingersoll Cream Cheese sandwiches or cheese straws.
SPREADS LIKE BUTTER
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More Bread and Better Bread
Modern milling of the world's best wheat naturally produces the best flour.

Had Your Iron Today?
5¢.
SUN MAID SEEDLESS RAISINS

Listen, men and women—
How they brace you against "3 o'clock fatigue"
When your speed slackens—
When your brain fags—
When you begin to yawn—
And look at the clock—
And there's only 3 o'clock—
And there's a pile of work—
Still on your desk—
That you must do—
Before you've done—
A good day's work—
It's then you need—
These little nuggets—
OF NEW ENERGY—
Called Little Sun-Maids—

"The Between-Meal Raisin"—
In a handy little 5¢ package—
Containing 146 calories—
Of energizing nutriment—
Practically pre-digested—
So it gets to work at once—
And "picks you up"—
And starts you off again—
And first thing you know—
It's five-thirty—
And you've finished—
Feeling like—
You could lick—
Another deskful.

You need but a small bit of iron daily yet that need is vital. Raisins are rich in iron. Safe, healthful sweetmeats for the children, too.

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