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00:00:00,000 --> 00:00:07,760

Our first paper is entitled 21 Years of UFO Reports.

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00:00:07,760 --> 00:00:13,960

It's by Professor Jay Allen Heineck, who is Chairman of the Department of Astronomy and

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00:00:13,960 --> 00:00:18,440

Director of the Lindenheimer Astronomical Research Center at Northwestern University.

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00:00:18,440 --> 00:00:19,440

Professor Heineck.

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00:00:19,440 --> 00:00:20,440

Thank you, Mr. Chairman.

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00:00:20,440 --> 00:00:21,440

My role here today is that of reporter.

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00:00:21,440 --> 00:00:31,440

To report to you on my score or so years of experience with UFO reports, note that I don't

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00:00:31,440 --> 00:00:32,440

say UFOs.

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00:00:32,440 --> 00:00:39,040

I was asked in 1948 as an astronomer to review the UFO reports received by the Air Force to

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00:00:39,040 --> 00:00:45,680

determine how many of them originated from misperceptions of astronomical objects.

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00:00:45,680 --> 00:00:50,160

This consultancy continued across the years and gave me the chance to monitor the flow

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00:00:50,160 --> 00:00:54,920

of UFO reports submitted to the Air Force and to observe the Air Force handling of the

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00:00:54,920 --> 00:01:00,360

problem as first one, then another officer took charge of Project Blue Book.

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00:01:00,360 --> 00:01:05,320

As a reporter of the UFO scene, I am reminded of the old victim of the reporter, who, what,

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00:01:05,320 --> 00:01:07,320

where, when, and why.

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00:01:07,320 --> 00:01:11,200

I will have no difficulty in dealing with the who, what, where, and when, for that simply

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00:01:11,200 --> 00:01:16,080

means dealing with facts, particularly with the incontrovertible fact that UFO reports

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00:01:16,080 --> 00:01:20,880

exist and that the time and location of the reported event is generally known, as well

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00:01:20,880 --> 00:01:24,080

as the identity of the witnesses.

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00:01:24,080 --> 00:01:25,920

When, how, will we get to the why?

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00:01:25,920 --> 00:01:31,040

Well I shall leave that to the rest of the speakers, but I shall challenge their explanations

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00:01:31,040 --> 00:01:37,840

if they, the speakers, are not conversant with the first four, the who, what, when, when.

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00:01:37,840 --> 00:01:43,360

Over the course of years I have grown very weary of the pontifications by those who have

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00:01:43,360 --> 00:01:46,720

not done fieldwork and are not really familiar with the facts.

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00:01:46,720 --> 00:01:52,080

Indeed I would like to say a word here about scientific methodology as it pertains to UFOs.

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00:01:52,080 --> 00:01:56,240

I have discussed this at length with the noted Canadian philosopher of science Thomas Dowage

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00:01:56,240 --> 00:02:00,960

and he has written, one of the most interesting facets of UFO question to me is its bearing

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00:02:00,960 --> 00:02:04,000

on the problem of how science advances.

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00:02:04,000 --> 00:02:07,440

Roughly I would say that a necessary condition of scientific advance is that allowance must

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00:02:07,520 --> 00:02:15,040

be made for a. Genuinely new empirical observations and b. New explanation schemes including new

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00:02:15,040 --> 00:02:18,000

basic concepts and new laws.

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00:02:18,000 --> 00:02:24,400

Gards then points out that any successful explanation scheme including 20th century physics acts

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00:02:24,400 --> 00:02:29,680

somewhat like an establishment and tends to resist admitting genuinely new empirical observations,

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00:02:29,680 --> 00:02:34,320

particularly when they have not been generated within the framework of that explanation scheme.

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00:02:34,320 --> 00:02:38,640

Aspirin seems to reluctance to admit meteorites, fossils, the circulation of blood,

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00:02:38,640 --> 00:02:42,800

and in our times all lightning. History is repeat with such examples.

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00:02:43,520 --> 00:02:47,600

Or if the establishment does quickly accept such new observations it tends to assimilate them into

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00:02:47,600 --> 00:02:52,400

the going framework. Aspirin seems to attempt to admit the existence of meteorites as stones

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00:02:52,400 --> 00:02:58,000

that had been struck by lightning, thus implying that there was nothing really new in the observations.

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00:02:58,320 --> 00:03:04,960

Hence, Gouge concludes, the present establishment view of that UFO phenomena are either not really

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00:03:04,960 --> 00:03:10,720

scientific data at all, or at any rate not data for physicists, or else are nothing but

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00:03:10,720 --> 00:03:17,440

misperceptions of familiar objects, events, etc. To take this approach is surely to reject

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00:03:17,440 --> 00:03:20,480

a necessary condition of scientific advance, Gouge concludes.

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00:03:22,480 --> 00:03:27,360

Now one can never know whether UFO reports represent genuinely new empirical observations,

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00:03:27,840 --> 00:03:32,000

or if one commits the type of logical fallacies strikingly demonstrated in the following

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00:03:32,000 --> 00:03:36,480

Air Force analysis of a radar visual UFO report from Curtin Air Force Base.

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00:03:37,600 --> 00:03:41,920

Two controlled tower personnel reported that 11 p.m. an object which looked to them through

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00:03:41,920 --> 00:03:46,400

binoculars, like a lighted upended automobile, came to within 200 feet of the ground when it

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00:03:46,400 --> 00:03:51,280

disappeared behind a fence in a highly restricted area. It then rose above the very high angular

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00:03:51,280 --> 00:03:56,000

rate and disappeared. It was observed visually for about six minutes, about half of that time

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00:03:56,000 --> 00:03:59,920

through binoculars, its trajectory tracked both visually and in part by radar.

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00:04:01,440 --> 00:04:05,840

The Air Force described this site into aircraft, but here is what the officer who investigated

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00:04:05,840 --> 00:04:11,200

the case reported. Quote, The two sources are Airways Operations Specialists with a total of

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00:04:11,200 --> 00:04:15,120

23 years experience. Both were undue in the control tower at Curtin Air Force Base when the

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00:04:15,120 --> 00:04:20,560

site was made. Both appeared to be mature and well-poised individuals, apparently well above

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00:04:20,560 --> 00:04:24,720

average intelligence, and temperamentally well qualified for the demanding requirements of

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00:04:24,720 --> 00:04:29,360

control tower operators. Although completely cooperative and willing to answer any question,

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00:04:29,920 --> 00:04:34,720

both sources appear to be slightly embarrassed that they could not identify or offer an explanation

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00:04:34,720 --> 00:04:39,360

of the object which they are unshakably convinced they saw. In the opinion of the interviewer,

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00:04:39,360 --> 00:04:42,240

both sources are considered completely competent and reliable.

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00:04:43,200 --> 00:04:47,760

Haji Gurboud gave the following reasons for calling the object an ordinary aircraft.

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00:04:49,440 --> 00:04:52,480

One, the observers are considered competent and reliable sources,

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00:04:53,200 --> 00:04:57,440

and in the opinion of the interviewer actually saw an object they could not identify.

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00:04:58,400 --> 00:05:02,400

Two, the object was tracked on a radar scope by a competent operator.

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00:05:03,360 --> 00:05:10,560

Three, the object does not meet identification criteria for any other phenomenon. So the

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00:05:10,560 --> 00:05:14,560

witnesses were solid, the radar operator competent, and the object unidentified was

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00:05:14,560 --> 00:05:17,360

in the other phenomenon, and therefore the object had to be an aircraft.

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00:05:17,440 --> 00:05:25,840

Clearly, if such reasoning is applied to all UFO reports, we can hardly expect to find out whether

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00:05:25,840 --> 00:05:31,600

any genuinely new empirical observations exist to be explained. Shradinger, Father of Quantum

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00:05:31,600 --> 00:05:38,720

Mechanics, wrote, The first requirement of a scientist is that he be curious. He must be

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00:05:38,720 --> 00:05:45,280

capable of being astonished and eager to find out. Perhaps he should have added and be ready to

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00:05:45,280 --> 00:05:51,120

examine data even when presented in a bewildering and confusing form. There is much in the UFO

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00:05:51,120 --> 00:05:56,560

problem to be astonished about and much to be confused about too. It is quite understandable

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00:05:56,560 --> 00:06:02,240

how such confusion has arisen. Over the past 20 years, I have had such a sufficiency of experience

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00:06:02,240 --> 00:06:08,640

with crackpots, visionaries, religious fanatics, that I hardly need to be further reminded of

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00:06:08,640 --> 00:06:13,840

people who espouse the idea of UFOs as visitors from outer space for their own peculiar purposes.

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00:06:14,800 --> 00:06:20,240

You will note that I say, espouse the idea of not making UFO reports. Very rarely do members of

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00:06:20,240 --> 00:06:25,200

the lunatic frames make UFO reports. There are many reasons for this, but primarily, it is

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00:06:25,200 --> 00:06:30,080

simply that they are quite incapable of composing an articulate, factual, and objective report.

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00:06:31,200 --> 00:06:35,680

In addition to being fully aware of the cultists and the manner in which they muddy the waters,

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00:06:35,680 --> 00:06:42,000

even though they don't generate UFO sightings, I am also quite aware of the widespread ignorance

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00:06:42,000 --> 00:06:46,720

of many people about astronomical objects, high-outdoor balloons, special air missions,

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00:06:46,720 --> 00:06:51,360

mirages, special meteorological effects, and of their willingness to ascribe the viewing

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00:06:51,360 --> 00:06:58,240

of such to the presence of something mysterious. These people, as contrasted to the crackpots,

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00:06:58,240 --> 00:07:02,160

are far more of a factor in the UFO problem because they do generate reports,

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00:07:02,720 --> 00:07:08,080

which represent a high noise level, so high in fact that many who have not looked carefully into

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00:07:08,080 --> 00:07:12,480

the matter are quite satisfied that all UFO reports stem from such misperceptions.

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00:07:13,520 --> 00:07:17,520

The facts in the case, however, are that it is relatively simple for an experienced

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00:07:17,520 --> 00:07:22,400

investigator to sort out quickly and eliminate, and eliminate, and quickly eliminate,

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00:07:22,400 --> 00:07:27,360

nearly all of the misperception cases. It is a pity that people so often are not

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00:07:27,360 --> 00:07:33,040

informed, objective, and accurate reporters. I have been looking at UFO reports since 1948,

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00:07:34,000 --> 00:07:40,480

and I am nauseatingly familiar with UFO reports spawned by Venus, twinkling stars, aircraft,

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00:07:40,480 --> 00:07:47,440

etc. Some 18 years before the Condon family was formed, I was already aware that the great majority

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00:07:47,440 --> 00:07:53,280

of UFO reports were indeed nothing more than misperceptions by the uninformed.

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00:07:55,360 --> 00:07:59,440

Such reports, of course, must be deleted before any serious study of the UFO question can begin.

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00:08:00,160 --> 00:08:05,040

Let it be clearly underlined that from this moment on I am speaking only of UFO reports

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00:08:05,040 --> 00:08:10,960

which remain unexplained by trained investigators. Then and only then are we truly dealing with

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00:08:10,960 --> 00:08:17,120

something that is unidentified, and unidentified by people capable of making an identification.

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00:08:17,920 --> 00:08:24,320

In short, a UFO report must pass through a severe filtering process before it qualifies as worthy

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00:08:24,320 --> 00:08:30,240

material of a scientific study. The objective of which is to determine whether any genuinely new

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00:08:30,240 --> 00:08:36,720

empirical observations exist, whether there truly is a UFO phenomenon. Only those reports

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00:08:36,720 --> 00:08:44,160

with survived running of this gauntlet can qualify. You may immediately object. Aren't you just

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00:08:44,160 --> 00:08:48,480

rejecting everything but the tail end of the distribution curve of human reactions to visual

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00:08:48,480 --> 00:08:54,000

stimuli? Well, we can hold that assumption that we are dealing with the Begarry's or human

perception

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00:08:54,640 --> 00:08:59,360

only if we believe that we deal with a homogeneous set of observations. That is, the tail of

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00:08:59,360 --> 00:09:05,280

distribution curve must belong to the same universe or sample of data. Otherwise, it is like examining

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00:09:05,280 --> 00:09:11,520

the distribution curve of the sizes of oranges and trying to fit watermelons onto the curve.

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00:09:12,320 --> 00:09:19,680

Let us define the UFO phenomenon, the existence of which we wish to determine or deny, as that

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00:09:19,680 --> 00:09:24,880

phenomenon, described by the contents of reports of observations of lights or objects in the air,

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00:09:24,880 --> 00:09:30,480

or near to or on the ground, whose presence, trajectories, and general character are not

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00:09:30,480 --> 00:09:36,640

explainable in verifiable physical terms, even after intensive study. The Condon Report

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00:09:37,520 --> 00:09:43,200

produces us with many examples. For years, I strongly resisted accepting the idea that a

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00:09:44,160 --> 00:09:52,320

genuine UFO phenomenon might exist. As my review of UFO reports continued, and as they grew in

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00:09:52,320 --> 00:09:58,800

number to be of statistical significance, I became increasingly aware that the phenomenon of UFO

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00:09:58,800 --> 00:10:04,800

reports not only persisted in this country, but in many areas over the world, and that it didn't

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00:10:04,880 --> 00:10:11,120

disappear as one might expect a craze or a fad to disappear. And it began to concern me that if

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00:10:11,120 --> 00:10:18,640

there were some worldwide compulsion to report strange things, why this particular subset of

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00:10:18,640 --> 00:10:23,600

strange reports out of an infinite universe of possible strange reports? The degree of

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00:10:23,600 --> 00:10:29,200

strangeness is certainly one dimension of a filtered UFO report. The higher the strangeness

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00:10:29,200 --> 00:10:34,000

index, the more information elements which defy explanation in ordinary physical terms,

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00:10:34,000 --> 00:10:39,760

the report contains. The other dimension, or coordinate, is the probability that the report

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00:10:39,760 --> 00:10:45,440

refers to a real event. In short, did the strange thing that defy explanation in normal physical

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00:10:45,440 --> 00:10:50,800

terms really happen? What is the probability that the witness is described in an actual event

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00:10:50,800 --> 00:10:55,840

of high strangeness? This represents a different evaluation, not of the report this time,

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00:10:55,840 --> 00:11:01,440

but of the witnesses, and involves different criteria. Criteria have used in determining

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00:11:01,440 --> 00:11:06,000

the coordinates of points to be included in what you might call the strangeness probability

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00:11:06,000 --> 00:11:11,920

diagram are these. For strangeness, how many individual items or information bits does the

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00:11:11,920 --> 00:11:17,600

report contain which demand explanation? And how difficult is it to explain them on the assumption

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00:11:17,600 --> 00:11:24,400

that the event occurred? For probability, the criteria, integrating over several witnesses,

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00:11:24,960 --> 00:11:29,760

what is their collective objectivity? How do they respond to tests of ability to gauge

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00:11:29,760 --> 00:11:33,600

angular sizes and angular speed? What is the condition of their eyesight? What are their

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00:11:33,600 --> 00:11:37,280

medical histories? What technical training have they had? What is their general reputation in

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00:11:37,280 --> 00:11:42,160

community? What is their reputation for publicity seeking, for veracity? What is their occupation

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00:11:42,160 --> 00:11:46,880

and how much responsibility does it involve? The one very important rule that I always impose is that

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00:11:47,920 --> 00:11:55,760

no reports from single witnesses ever get higher than half-scale credibility or probability.

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00:11:56,560 --> 00:12:00,640

Now, if one plots the strangeness of a report against the credibility of the witnesses or

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00:12:00,640 --> 00:12:06,000

against essentially the same thing, the probability that the event happened more or less as stated,

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00:12:06,640 --> 00:12:10,480

one obtains an interesting scatter diagram which might be called the strangeness probability

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00:12:10,480 --> 00:12:14,560

diagram or sigma pi diagram for short. If we have a slide, I can show that.

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00:12:14,880 --> 00:12:24,560

I guess I caught him a little unaware of that. Now, all points spotted represent

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00:12:26,000 --> 00:12:31,040

UFO reports that have passed through the misperception and hoax filter. Clearly, the most

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00:12:31,040 --> 00:12:35,840

provocative and potentially scientifically important are UFO reports or those that contain

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00:12:35,840 --> 00:12:41,680

many strange information elements and have a high probability rating. Reports for which the witnesses

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00:12:41,680 --> 00:12:45,840

were of such a caliber and the circumstances surrounding the reported event were of such as

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00:12:45,840 --> 00:12:52,000

to make them virtually impossible to discount the reported event. Examples of strange information

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00:12:52,000 --> 00:12:58,080

bits are craft descriptions, reported violations of inertial laws, ability to affect animals,

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00:12:58,080 --> 00:13:02,880

to interfere with automobile ignition systems, and to leave visible marks on land and uncultivated

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00:13:02,880 --> 00:13:13,920

fields. The content of the report includes several such cases. Of course, right off the bat,

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00:13:13,920 --> 00:13:19,200

this is my own subjective evaluation of somewhat more than 100 cases,

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00:13:20,960 --> 00:13:25,440

one I could have chosen many others, but this seems to be a representative group.

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00:13:26,320 --> 00:13:32,560

The strangeness in the abscissa, the probability or credibility, the ordinate,

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00:13:34,080 --> 00:13:42,080

the symbols will be explained very shortly. In my own long experience in personal contact with

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00:13:42,080 --> 00:13:47,680

witnesses, one paramount thing has impressed me above all, and that is that those witnesses who

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00:13:47,680 --> 00:13:54,240

generate high sigma pi reports, those would be more in the tendency in the upper right hand

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00:13:54,960 --> 00:14:01,120

general area, that those people who generate these reports are all trying to describe an event

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00:14:01,840 --> 00:14:05,440

for the description of which they have an entirely inadequate vocabulary, much as an

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00:14:05,440 --> 00:14:09,920

aborigine would lack a vocabulary to describe a supersonic jet or a nuclear submarine.

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00:14:10,720 --> 00:14:17,200

Whatever else can be said of the UFO phenomenon, it represents for the witness an undoubted event,

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00:14:17,200 --> 00:14:22,720

and an event for which it is totally unprepared. The majority of such witnesses, contrary to popular

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00:14:22,720 --> 00:14:28,000

belief, were originally highly skeptical about UFOs. Suddenly they had an experience

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00:14:28,000 --> 00:14:32,720

which profoundly affected them sometimes traumatically. Speaking again from years of

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00:14:32,720 --> 00:14:37,120

experience with witnesses, I can say that faced with the experience of the UFO event,

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00:14:37,120 --> 00:14:41,040

the witnesses are generally perplexed and uncertain as to what to do about it.

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00:14:41,600 --> 00:14:45,520

Invariably they attempt to explain it in ordinary terms first and fail.

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00:14:46,240 --> 00:14:50,800

Curiosity overwhelms them that they know only too well that they will be targeted for ridicule

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00:14:50,800 --> 00:14:54,480

if they report, whereas they confess they have often in the past ridiculed others.

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00:14:55,440 --> 00:14:59,920

Generally they confide only in their own family if at all, and they often prefer to remain silent.

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00:14:59,920 --> 00:15:02,880

Sometimes they will finally report observations years after they occur.

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00:15:03,760 --> 00:15:09,040

Any serious investigator is aware that the reservoir of latent reports must exist.

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00:15:10,400 --> 00:15:15,120

Not only has the gallop hold so indicated, but I frequently tried to experiment of asking for

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00:15:15,120 --> 00:15:21,440

a show of hands of those who either themselves or their close friends had a puzzling UFO experience.

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00:15:23,040 --> 00:15:26,560

I generally find that more than 10% of the audience will raise a hand,

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00:15:27,360 --> 00:15:32,560

but when I ask for hands of all those who reported the event in some official manner,

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00:15:33,120 --> 00:15:38,400

I find virtually no hands raised. Judging from this and other personal observations I would

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00:15:38,400 --> 00:15:44,240

estimate that for every officially reported UFO sighting, there exist many dozens that have gone

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00:15:44,240 --> 00:15:52,880

unrecorded. I believe that as scientists we should be astonished that high Sigma Pi reports even exist.

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00:15:53,920 --> 00:15:59,520

What does a serious person holding a valued reputation stand to gain by making such a report?

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00:15:59,520 --> 00:16:03,280

Why do people go to the trouble of filling out questionnaires, of subjecting themselves to

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00:16:03,280 --> 00:16:09,040

sometimes hostile inquiry, and of being the target of unpleasant attention? The reason appears to be

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00:16:09,040 --> 00:16:13,760

twofold. Witnesses have told me that they had not intended to say anything about their experience,

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00:16:13,760 --> 00:16:18,400

but they felt that it might be of importance to the government or to science, and felt that

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00:16:18,400 --> 00:16:24,240

their duty to report. The second reason is curiosity. They want to know whether anyone else

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00:16:24,240 --> 00:16:30,080

experienced the same event, and whether the event has a rational explanation. They are visibly reassured

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00:16:30,080 --> 00:16:35,200

when I tell them it could be the case, that their sighting fits a pattern and resembles other reported

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00:16:35,200 --> 00:16:42,880

sightings from various parts of the world. What about patterns of UFO reports? Clearly,

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00:16:42,880 --> 00:16:48,560

if each UFO report represents a unique happening, the UFO is not immediately amenable to scientific study.

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00:16:50,720 --> 00:16:55,520

Classification of UFO reports, however, must be free of any preconceived ideas as to their nature

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00:16:55,520 --> 00:17:00,960

and cause. Thus the classification must be observational. It should be akin to the state of

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00:17:00,960 --> 00:17:05,840

the classification of stellar spectra in the days before we had a theory of stellar spectra,

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00:17:05,840 --> 00:17:11,760

or somewhat like the classification of galaxies is today. I have adopted a simple classification

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00:17:11,760 --> 00:17:16,080

system based solely on the manner of observation. There seem to be four basic ways in which the

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00:17:16,080 --> 00:17:21,040

UFO presents itself, so to speak, for human observation. One is not internal lights, the

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00:17:21,040 --> 00:17:25,600

objects to which the lights are presumably attached, being generally barely at all discernible.

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00:17:26,400 --> 00:17:32,400

Two is daytime discs. When the UFO generally, but not necessarily, appears as a disc or oval.

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00:17:33,280 --> 00:17:39,440

Three is close encounters during day or night. These are reported sightings made at ranges

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00:17:39,440 --> 00:17:45,600

less than 1,000 feet, and often accompanied by reported physical effects on the land, on

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00:17:45,600 --> 00:17:52,160

plants and animals, and occasionally on humans. And four, radar UFOs, a special subset of which

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00:17:52,160 --> 00:17:57,680

is the radar visual observation, an example of which I gave earlier. There is no attempt in

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00:17:57,680 --> 00:18:02,400

this observation classification to be mutually exclusive. Clearly, not internal light might be

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00:18:02,400 --> 00:18:08,800

a day like this in the daytime and so on. The not internal light report has the least information

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00:18:08,800 --> 00:18:14,480

elements and thus allows strange index. The not internal light are the stars,

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00:18:16,880 --> 00:18:24,720

or asterisks, in the diagram. The not internal light can be defined as a light or combination

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00:18:24,720 --> 00:18:29,840

of lights whose kinematic behavior passes through the filter, that is, it cannot be logically

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00:18:29,840 --> 00:18:34,320

ascribed to balloons, aircraft, meteors, planets, satellites, satellite, re-entries, or missiles.

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00:18:35,200 --> 00:18:38,800

The experienced investigator generally has no difficulty with the screening process here.

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00:18:39,760 --> 00:18:44,480

Of course, should a UFO choose to masquerade as a hot air balloon or a photographic night

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00:18:44,480 --> 00:18:50,000

air exercise, there is no easy way of differentiation, at least as long as we are limited to observing

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00:18:50,000 --> 00:18:56,640

from the ground. If we had immediate reaction capabilities and could scramble an interceptor,

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00:18:56,640 --> 00:19:01,840

we could clear the matter up quickly. Or perhaps we would experience what has often been reported,

210

00:19:01,920 --> 00:19:06,400

you'll notice in all these cases I'm saying reported because I'm dealing with reports and

211

00:19:07,280 --> 00:19:12,560

what was reported to have happened and I do not want to fall in the trap of saying it happened,

212

00:19:12,560 --> 00:19:17,200

it was always what was reported to have happened. Or perhaps we would experience what has often

213

00:19:17,200 --> 00:19:22,240

been reported in the past 20 years as the intercepting plane approaches the light in question.

214

00:19:22,240 --> 00:19:27,200

The light either suddenly goes out or seems to take off and soon outdistance the investigator.

215

00:19:28,160 --> 00:19:32,400

As an example of a nocturnal light, we have a case I investigate personally involving five

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00:19:32,400 --> 00:19:38,160

witnesses, the senior witness being the longtime associate director of a common laboratory at MIT.

217

00:19:39,440 --> 00:19:43,200

The nocturnal light was first sighted by his son who had been out airing the dorms.

218

00:19:43,200 --> 00:19:47,680

He came bounding into the house flying as a flying saucer outside. The senior observer

219

00:19:47,680 --> 00:19:51,680

picked up a pair of binoculars on his way out. He told me that he didn't expect to see anything

220

00:19:51,680 --> 00:19:56,400

unusual, but was going out to see what the commotion was all about. He was engrossed by what he saw,

221

00:19:56,400 --> 00:20:00,560

the nature of the light, its motions, its hovering, and its departure. He described the

222

00:20:00,560 --> 00:20:04,080

light as having a high color temperature, although essentially a point source,

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00:20:04,720 --> 00:20:09,920

sceptending less than a minute of arc. The five observers were fortunately able to compare it

224

00:20:09,920 --> 00:20:16,880

to an airliner and a helicopter, both of which passed by during an observation interval,

225

00:20:16,880 --> 00:20:21,520

and neither the motions nor lights of these craft bore any resemblance to those of the UFO.

226

00:20:22,480 --> 00:20:26,000

Or I should say the reported UFO. The trajectory of the object was

227

00:20:26,000 --> 00:20:29,600

pilot against the framework of branches of the branches of a denuded tree.

228

00:20:30,480 --> 00:20:34,400

This observer was a good one, and in his report included the condition of his eyes and that of

229

00:20:34,400 --> 00:20:38,640

the members of his family. The adult observers were both far-sighted, and the senior observer

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00:20:38,640 --> 00:20:43,840

wore glasses only for reading. Incidentally, all my attempts at scientific consulting to the

231

00:20:43,840 --> 00:20:49,600

Air Force to mount a serious investigation of this case came to naught. The Blue Book evaluation

232

00:20:49,600 --> 00:20:55,280

is, however, unidentified. But somehow the word unidentified is not, for them, a challenge to

233

00:20:55,280 --> 00:21:01,280

inquiry. It has been classified as unidentified, and therefore the case is solved. It has been

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00:21:01,280 --> 00:21:10,240

identified as unidentified. So certain was the Air Force, at least publicly, that all UFO reports

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00:21:10,240 --> 00:21:15,680

must represent normal things, that they saw no point to serious investigation. In most of the

236

00:21:15,760 --> 00:21:20,400

time that I acted as consultant to the Air Force, I repeatedly urged immediate reaction capability

237

00:21:20,400 --> 00:21:25,680

and proper scientific investigation was no avail. The next classification

238

00:21:26,240 --> 00:21:30,160

category is the Daylight Disc. Daylight Disc are the circles, the open circles.

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00:21:31,760 --> 00:21:36,160

The prototype report runs something like this in its hundreds. I was driving along in their

240

00:21:36,160 --> 00:21:40,960

crossover in front of me, a shiny metallic disc. It seemed about 500 to 1,000 feet above the road.

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00:21:40,960 --> 00:21:44,560

It came down very close to the ground, stopped and hovered with a wobbling motion, then took off

242

00:21:44,560 --> 00:21:48,560

at incredible speeds, straight up, and was gone in a few seconds. There was no noise.

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00:21:49,760 --> 00:21:53,920

This Daylight category, quite understandably, has more photographs to support it than all

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00:21:53,920 --> 00:21:58,240

the others put together. An example is the McMillanville-Oregon case, which the

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00:21:58,240 --> 00:22:04,800

Continental Portalists has unsolved. But I understand, by private conversation with Dr. Hartman,

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00:22:05,680 --> 00:22:13,920

that the analysis was not entirely complete, and the McMillanville-Oregon case may

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00:22:14,560 --> 00:22:19,840

yet turn out to be a hoax. A photographic Daylight Disc case was reported by three

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00:22:19,840 --> 00:22:25,040

prospectors in the Bush country near Calgary, Alberta. I personally investigated this terrain

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00:22:25,040 --> 00:22:29,520

by flying over it in a small plane. I investigated the witnesses, the negatives, and the camera.

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00:22:30,400 --> 00:22:34,720

All this fussed the sworn affidavit of the principal witness leads me to put this

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00:22:34,720 --> 00:22:39,680

into the class of a good Daylight Disc. But as with so many other cases,

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00:22:40,480 --> 00:22:46,080

one is finally impaled by uncertainty. Many photographs have been published,

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00:22:46,080 --> 00:22:50,240

some are patent hopes, but most have never been investigated sufficiently to rule out

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00:22:50,240 --> 00:22:56,880

the very sophisticated hopes. Proper interrogation, tracing of the processing history of the negative,

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00:22:56,880 --> 00:23:00,880

microscopic and microphotometric examination of the negative, plus proper psychological

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00:23:00,880 --> 00:23:05,840

testing of the witnesses to the taking of the photograph should serve to rule out all but

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00:23:05,920 --> 00:23:10,160

the most highly sophisticated, expensive, and elaborately contrived hopes.

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00:23:10,960 --> 00:23:14,800

Now, in any one case, it is clearly impossible to state unequivocally that a photo of a Daylight

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00:23:14,800 --> 00:23:20,480

Disc is genuine. But I would submit that 25 set separate photographic cases, each subjected

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00:23:20,480 --> 00:23:26,080

to exhaustive tests, would allow us to approach certainty asymptotically, so that we could say

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00:23:26,080 --> 00:23:31,760

that the probability of a hoax in all 25 cases was vanishingly small. Even so, this would not

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00:23:31,760 --> 00:23:36,960

prove the existence of truly strange flying objects, but it should prove, provide sufficient

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00:23:36,960 --> 00:23:42,000

justification for the proper attention to the phenomenon by the scientific world. And let me

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00:23:42,000 --> 00:23:48,240

remind you that that is all I have ever advocated, that the subject of UFO reports is worthy of serious

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00:23:48,240 --> 00:23:54,720

scientific attention. Inherent in the sheaves of UFO reports, there may well-being many doctoral

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00:23:54,720 --> 00:24:00,720

dissertations for physicist, sociologist, and psychologist alike. The problem is interdisciplinary,

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00:24:01,360 --> 00:24:05,200

which because of the magic of that word ought to get some of you some good grants.

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00:24:07,120 --> 00:24:14,000

The third category of UFO reports, The Close Encounter, offers by far the greatest potential

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00:24:14,000 --> 00:24:20,720

for scientific study. It is here that the hypothesis of simple misperception fails

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00:24:20,720 --> 00:24:26,960

early in explaining reports of craft landing 100 feet away, a visible march left on the ground,

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00:24:27,040 --> 00:24:31,120

animals and people visually affected, and the automobile temporarily stopped on the road.

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00:24:32,080 --> 00:24:37,680

Here we must say here that the witnesses were severely mentally unbalanced, or that something

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00:24:37,680 --> 00:24:42,880

most interesting actually happened. I divide the close encounter case into three subdivisions.

274

00:24:43,840 --> 00:24:51,440

The close encounter appearing simple, which is up here in the seas, close encounter, and you see

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00:24:51,440 --> 00:24:56,080

the close encounter gives you more information bits, and hence the strangeness index goes up.

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00:24:57,920 --> 00:25:04,160

The close encounter with physical effects, those are the peas, but physical effects, and finally

277

00:25:04,160 --> 00:25:08,880

the close encounter in which humanoids are occupants enter the picture. It is this latter

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00:25:08,880 --> 00:25:13,440

subgroup, which of course is the highest strangeness index, and flakens away all but the most hardy

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00:25:13,440 --> 00:25:18,640

investigators. Since my role here is that of reporter, I would be neither a good reporter

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00:25:18,640 --> 00:25:24,400

nor scientist, where I could deliberately reject data. There are now on record some 1,200 reports

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00:25:24,720 --> 00:25:30,000

of close encounters, nearly half of which involve reported craft occupants. Reports of

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00:25:30,000 --> 00:25:34,080

occupants have been with us for years, but there are only a few in the Air Force files,

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00:25:34,080 --> 00:25:38,800

for generally blue books summarily and without investigation, consign such reports to the

284

00:25:38,800 --> 00:25:44,400

psychological, which is their term for crackpot. A prototype of the close encounter per se is

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00:25:44,400 --> 00:25:48,560

that of the witnesses driving along a lonely road when the driver spies a strange glare in his rear

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00:25:48,560 --> 00:25:52,960

view mirror. He becomes frightened, increases his speed to sometimes go at 100 miles an hour,

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00:25:52,960 --> 00:25:57,920

trying to out distance the UFO, but cannot. He stops the car and the witnesses try to take cover.

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00:25:57,920 --> 00:26:00,800

Shortly the light goes away, rising and vanishing quickly in the distance.

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00:26:01,520 --> 00:26:07,200

One can charge that such witnesses were mentally unbalanced. I have found it most difficult

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00:26:08,320 --> 00:26:13,040

to try saying that to their faces, especially when I discovered that the witnesses were

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00:26:13,040 --> 00:26:16,160

respected members of their communities and held responsible positions,

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00:26:17,120 --> 00:26:22,800

which is going to say they're crazy and prepared to run. The close encounter with physical effects

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00:26:22,800 --> 00:26:27,600

interest me the most, since the reported effects on animal, vegetable and mineral

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00:26:27,600 --> 00:26:32,160

are potentially measurable. For instance, there are more than 100 reports on record

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00:26:32,160 --> 00:26:38,160

of UFOs that reportedly cause car ignition failures. The all too typical case runs something like this.

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00:26:38,720 --> 00:26:43,040

Suddenly as it from nowhere, bright light appears. As it stops to hover over the car,

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00:26:43,040 --> 00:26:48,160

the car lights dim or fail, and the engine dies, the radio either stops and has a lot of static

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00:26:48,720 --> 00:26:53,280

on it, and the windshield wipers stop. Often occupants of the car report feeling hot and

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00:26:53,280 --> 00:26:57,840

bitter. After a few minutes, the apparition leaves and the car returns to normal operation,

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00:26:57,840 --> 00:27:05,120

but the witnesses often do not. Attempts to explain such cases as the misperception of the moon

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00:27:05,680 --> 00:27:11,200

and the inadvertent killing of the engine by an excited witness doesn't wash. The moon doesn't

302

00:27:11,200 --> 00:27:17,520

stop windshield wipers on a rainy night, nor does the killing of the engine dim the lights,

303

00:27:18,960 --> 00:27:25,680

or produce static on the radio. Witnesses of such encounters do not ready to lend themselves to

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00:27:25,680 --> 00:27:31,280

interrogation. Often they tell no one for days. Eventually, a serious UFO investigator comes to

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00:27:31,280 --> 00:27:36,480

hear about it and then the story unfolds. When they do unwisely tell their story openly, their lives

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00:27:36,480 --> 00:27:43,200

are invariably made miserable by ridicule. Let us consider the probabilities in car failure cases,

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00:27:43,200 --> 00:27:48,000

in reported car failure cases. On a cross-country trip, we occasionally come across a car disabled

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00:27:48,000 --> 00:27:53,200

by the roadside as hood up, waiting for the repairman or the tow truck. We should regard it as odd,

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00:27:53,200 --> 00:27:57,600

and of low probability, where the car de-healed itself, so to speak, and after a few minutes

310

00:27:57,600 --> 00:28:02,800

proceed as if nothing had happened. Now, however, if we impose the further condition that the event

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00:28:02,800 --> 00:28:07,760

must be accompanied by a very bright unexplained light which covers over the car, then I submit that

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00:28:07,760 --> 00:28:12,800

such probabilities are extremely small, and when we deal not with two or three such cases, but many

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00:28:12,880 --> 00:28:18,960

dozens, we are driven, I at least, in driven to the conclusion that something most extraordinary

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00:28:18,960 --> 00:28:24,720

happened either physical or psychological. If we have in these cases what the Dowage calls

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00:28:24,720 --> 00:28:30,720

genuinely new empirical observations requiring new explanation schemes, then we can anticipate not

316

00:28:30,720 --> 00:28:35,040

merely a scientific breakthrough but one enormous quantum jump which will make the transition from

317

00:28:35,040 --> 00:28:39,840

classical physics to modern physics seem like child's play. But it may not be around the corner.

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00:28:39,840 --> 00:28:43,440

We, in the 20th century, may be as far away from the solution of the UFO problem

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00:28:44,480 --> 00:28:48,880

as 19th century physicists were from an interpretation of the Aurora Borealis.

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00:28:50,080 --> 00:28:54,640

It is under those circumstances still incumbent upon us as scientists to document and study the

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00:28:54,640 --> 00:28:59,200

phenomenon to the best of our ability. But at present, however, the absence of continued

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00:28:59,200 --> 00:29:05,520

scientific study of the phenomenon still leaves it unclear as to whether genuinely new empirical

323

00:29:05,520 --> 00:29:11,440

observations exist. Yet even the Conner report left me to explain nearly a quarter of the cases

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00:29:11,440 --> 00:29:17,120

examined. The fourth observational category contains those UFO reports involving radar.

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00:29:17,760 --> 00:29:25,120

Those are the R's in the... There are many reports in this category from responsible persons, pilots

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00:29:25,120 --> 00:29:29,280

and control tower operators and so forth. I have paid little attention personally to radar cases

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00:29:29,280 --> 00:29:34,320

since I am no radar expert, and the radar expert at Bluebook invariably described all radar cases

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00:29:34,320 --> 00:29:40,560

to malfunction or anomalous propagation. Sometimes I felt on the ground that since UFOs didn't exist,

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00:29:40,560 --> 00:29:44,800

there could be no possible other solution. The Conner report, however, contains the following

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00:29:44,800 --> 00:29:49,600

remark about one sense case, quote, this must remain as one of the most puzzling radar cases on

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00:29:49,600 --> 00:29:53,840

record and no one conclusion is possible at this time. It seems inconceivable that an anomalous

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00:29:53,840 --> 00:29:57,600

propagation echo would behave in the manner described, even if anomalous propagation had been

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00:29:57,600 --> 00:30:03,920

likely at a time. Close quote. Radar visual cases offer more scope for study. The Lake and Heath

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00:30:03,920 --> 00:30:10,240

case, studied by the Conner family, contains unknown, un-known, remains unknown. With the remark,

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00:30:10,240 --> 00:30:14,800

quote, in summary, this is the most puzzling and unusual case in the radar visual file.

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00:30:15,600 --> 00:30:20,640

The apparently rational, intelligent behavior of the UFO suggests a mechanical device of unknown

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00:30:20,640 --> 00:30:26,320

origin as the most probable explanation to say it. However, in view of the inevitable fallibility

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00:30:26,320 --> 00:30:31,440

of witnesses, more conventional explanations of the report cannot be entirely ruled out. Close quote.

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00:30:32,400 --> 00:30:36,640

In truth, as a matter of fact, if one reads the body of the Conner report carefully, not just

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00:30:36,640 --> 00:30:42,320

the press summary, one finds, at least I find, that constitutes a body's good case for the scientific

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00:30:42,320 --> 00:30:48,640

study of UFOs, as I feel would have been possible by any group, not initially conversion to the

342

00:30:48,640 --> 00:30:53,920

subject and having limited time and funds. Some of you may be surprised to learn that a

343

00:30:54,000 --> 00:31:00,880

considerable body of excellent UFO reports exists. I think we can toss the slide now.

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00:31:02,800 --> 00:31:08,720

We have lights, please. We have really here the crux of the problem. Neither you, as informed,

345

00:31:08,720 --> 00:31:15,360

active scientists nor the public, have access to this information. Unfortunately, you, who may wish

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00:31:15,360 --> 00:31:21,360

to be informed about UFOs, must get your information in the intellectual alleys, where it is written,

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00:31:21,360 --> 00:31:25,840

like forbidden words, on the back fences of literature, the pulp magazines, the sensation

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00:31:25,840 --> 00:31:32,640

adventure mystery, and sex magazines. There is in this country not one scientific journal in which

349

00:31:32,640 --> 00:31:38,800

I could publish a well-documented UFO case. Yet a recent bibliography of UFO literature of all

350

00:31:38,800 --> 00:31:44,480

and some besides Randolph-Onderpages, it would appear that the UFO has become a problem for the

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00:31:44,480 --> 00:31:50,640

librarian, sooner than it has for the scientist. Consider to the plight of a serious UFO witness.

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00:31:50,720 --> 00:31:54,720

I know they exist because I've interviewed several hundred. Where can they go to report?

353

00:31:55,520 --> 00:32:00,000

Only the most 90 would have reported to the Air Force during the last years of global.

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00:32:00,960 --> 00:32:06,080

To report to the local police is scarcely better. Many witnesses are told by the ridicule they met

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00:32:06,080 --> 00:32:12,640

when they took that path. Besides, I've seen many police blotters. UFO reports are entered as complaints.

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00:32:12,960 --> 00:32:19,920

The witness, if he wishes to report, must seek out the relatively few persons

357

00:32:21,200 --> 00:32:26,960

or organizations which will lend a sympathetic ear. My own mail brings me many high-speed and high-key

358

00:32:26,960 --> 00:32:31,280

reports, generally a request for anonymity, but I have neither time nor the funds to make proper

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00:32:31,280 --> 00:32:36,160

investigation. As I look back over the past 21 years' association with the UFO problem,

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00:32:36,160 --> 00:32:40,160

I know that things like your climate today is much better for taking a good look at it

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00:32:40,160 --> 00:32:44,640

than it was even a few years ago. This symposium is itself an example. It would have been impossible

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00:32:44,640 --> 00:32:50,160

than how it even a year or two ago. In fact, it was impossible to hold it last year. And had I,

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00:32:50,160 --> 00:32:54,000

years ago, when I realized the nature of some of the reports in the Air Force files,

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00:32:54,000 --> 00:32:57,760

attempted to call for a major investigation, I would simply have been labeled a nut,

365

00:32:57,760 --> 00:33:04,160

and would therefore have lost all possible future effectiveness. In summary, the results of my 21

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00:33:04,160 --> 00:33:12,320

years of monitoring of UFO reports is, 1. Reports of UFO observations exist after the deletion of

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00:33:12,320 --> 00:33:18,720

the pronouncements of crackpots, visionaries, and religious fanatics. 2. A large number of UFO

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00:33:18,720 --> 00:33:24,160

reports are readily identifiable by trained investigators as misperceptions of known objects

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00:33:24,160 --> 00:33:33,600

and events, and I should add their hoaxes also. And obvious mental disturbance. 3. A small residue

370

00:33:33,600 --> 00:33:40,880

of UFO reports are not so identifiable. These, a, are widely scattered over the earth and come from

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00:33:40,880 --> 00:33:47,520

such widely separated places as Northern Canada, Australia, South America, and Antarctica. B,

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00:33:47,520 --> 00:33:52,000

are made by competent, responsible, psychologically normal people, that is, credible witnesses.

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00:33:53,280 --> 00:33:59,760

C, contain descriptive terms which collectively do not specify any known physical event, object,

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00:33:59,840 --> 00:34:04,400

or process, and which do not specify any known psychological event or process.

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00:34:05,520 --> 00:34:14,800

At least not to me, since I cannot speak for the psychologist then. D, resist translation into

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00:34:14,800 --> 00:34:19,840

terms that do apply to known physical and or psychological events, objects, processes, and

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00:34:19,840 --> 00:34:26,000

center. That is, as Gaud's points out, translation would offer the meaning of the original report,

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00:34:26,800 --> 00:34:31,600

and hence effectively violate the methodological criteria governing the advance of science,

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00:34:31,600 --> 00:34:37,120

which as he states are, 1. It must be possible for new observational data to occur,

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00:34:37,120 --> 00:34:41,920

that is, the existing conceptual framework of science, or the attitudes of scientists,

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00:34:41,920 --> 00:34:48,480

must not rule out such new data a priori. 2. That the existing conceptual framework

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00:34:48,480 --> 00:34:52,880

must allow new concepts, principles, laws, etc., to be formulated to interpret and

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00:34:52,880 --> 00:34:57,920

explain the new observational data. 3. Finally, may I say that although I know

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00:34:57,920 --> 00:35:03,280

of no hypothesis that adequately covers the mountain's evidence, this should not,

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00:35:03,280 --> 00:35:07,680

nor must not deter us from following the advice of Schrodinger to be curious,

386

00:35:08,400 --> 00:35:18,800

capable of being astonished, and eager to find out. Thank you.