WEBVTT

00:00:09.820 --> 00:00:11.948 Hello and welcome to Science et al.

00:00:11.948 --> 00:00:13.219 podcasts about everything science

00:00:13.219 --> 00:00:15.354 sponsored by the Yale School of Medicine.

00:00:15.360 --> 00:00:17.480 I'm your host Daniel Barron and in this

00:00:17.480 --> 00:00:19.679 episode I'm speaking with Michael Lemonick,

00:00:19.680 --> 00:00:21.620 or, as I called him, Mike.

00:00:21.620 --> 00:00:24.420 Mike is the chief opinion editor at

00:00:24.420 --> 00:00:26.277 Scientific American and previously he

00:00:26.277 --> 00:00:28.580 was a senior writer at Time magazine,

00:00:28.580 --> 00:00:30.230 during which period he wrote

00:00:30.230 --> 00:00:32.680 more than 50 cover stories on a

00:00:32.680 --> 00:00:35.030 wide range of science topics.

00:00:35.030 --> 00:00:37.454 50 cover stories. You heard that right?

00:00:37.454 --> 00:00:39.185 He's also written cover stories

NOTE Confidence: 0.8316761

00:00:39.185 --> 00:00:40.220 for National Geographic,

NOTE Confidence: 0.8316761

00:00:40.220 --> 00:00:41.580 Scientific American, Discover magazines,

NOTE Confidence: 0.8316761

00:00:41.580 --> 00:00:44.030 and is written for The New Yorker.

NOTE Confidence: 0.8316761

00:00:44.030 --> 00:00:46.100 Mike is also authored seven books,

NOTE Confidence: 0.8316761

00:00:46.100 --> 00:00:47.830 the most recent of which

NOTE Confidence: 0.8316761

00:00:47.830 --> 00:00:49.216 he called the Perpetual.

NOTE Confidence: 0.8316761

00:00:49.216 --> 00:00:50.945 Now the story of amnesia,

NOTE Confidence: 0.8316761

00:00:50.945 --> 00:00:51.980 memory and love,

NOTE Confidence: 0.8316761

00:00:51.980 --> 00:00:55.074 which was published in 2017 in which

NOTE Confidence: 0.8316761

00:00:55.074 --> 00:00:57.718 we discussed briefly in this podcast.

NOTE Confidence: 0.8316761

00:00:57.720 --> 00:00:59.634 I wanted to speak with Mike

NOTE Confidence: 0.8316761

00:00:59.634 --> 00:01:00.910 for somewhat personal reasons.

NOTE Confidence: 0.8316761

00:01:00.910 --> 00:01:02.681 He had been my editor for over

NOTE Confidence: 0.8316761

00:01:02.681 --> 00:01:04.739 4 years at Scientific American,

NOTE Confidence: 0.8316761

00:01:04.740 --> 00:01:07.044 an I really gotten to enjoy Mike in

NOTE Confidence: 0.8316761

00:01:07.044 --> 00:01:09.405 the way he thinks about the world

NOTE Confidence: 0.8316761

00:01:09.405 --> 00:01:11.760 and and in particular the way he

NOTE Confidence: 0.8316761

00:01:11.760 --> 00:01:13.620 thinks about kind of silly things

NOTE Confidence: 0.8316761

00:01:13.620 --> 00:01:15.900 that I write that don't make sense.

NOTE Confidence: 0.8316761

00:01:15.900 --> 00:01:18.501 And my kids are very no nonsense way of

NOTE Confidence: 0.8316761

00:01:18.501 --> 00:01:21.009 helping me improve whatever I'm working on.

NOTE Confidence: 0.8316761

00:01:21.010 --> 00:01:23.910 And so I really wanted to sit down with them

NOTE Confidence: 0.8316761

00:01:23.979 --> 00:01:26.747 for this podcast and he was very generous,

NOTE Confidence: 0.8316761

00:01:26.750 --> 00:01:28.150 allowing me to be.

NOTE Confidence: 0.8316761

00:01:28.150 --> 00:01:28.500 Actually,

NOTE Confidence: 0.8316761

00:01:28.500 --> 00:01:30.618 the first episode that we recorded,

NOTE Confidence: 0.8316761

00:01:30.620 --> 00:01:32.944 and so he kind of gave himself

NOTE Confidence: 0.8316761

00:01:32.944 --> 00:01:35.559 up to be a Guinea pig here.

NOTE Confidence: 0.8316761

00:01:35.560 --> 00:01:38.270 But even though I sounded very nervous and

NOTE Confidence: 0.8316761

00:01:38.270 --> 00:01:40.859 indeed was very nervous at the beginning,

NOTE Confidence: 0.8316761

00:01:40.860 --> 00:01:42.790 microsys typical cool and collected

3

00:01:42.790 --> 00:01:45.403 self and kind of centered man really

00:01:45.403 --> 00:01:47.566 got episodes off to a good start.

00:01:47.570 --> 00:01:48.974 So here we go.

00:01:48.974 --> 00:01:49.676 Mike lemonick.

00:01:59.960 --> 00:02:01.980 So what I've come to understand

00:02:01.980 --> 00:02:03.660 is I'm a science journalist,

00:02:03.660 --> 00:02:06.340 as you say. I've written for Time magazine.

00:02:06.340 --> 00:02:08.020 For most of my career,

00:02:08.020 --> 00:02:10.036 but now I'm in Scientific American,

00:02:10.040 --> 00:02:12.500 another generally popular magazine, and.

00:02:12.500 --> 00:02:14.966 I've come to really understand that

00:02:14.966 --> 00:02:18.093 the whole model of journalism is not

00:02:18.093 --> 00:02:20.889 well suited to talking about science.

00:02:20.890 --> 00:02:23.333 And the reason is that in science

00:02:23.333 --> 00:02:25.428 when it works as it should,

00:02:25.430 --> 00:02:27.518 we're not talking about fraud or,

NOTE Confidence: 0.8287823

00:02:27.520 --> 00:02:29.620 you know, hype. Things like that.

NOTE Confidence: 0.8287823

00:02:29.620 --> 00:02:31.708 But in science, the latest publication,

NOTE Confidence: 0.8287823

00:02:31.710 --> 00:02:32.754 the latest paper,

NOTE Confidence: 0.8287823

00:02:32.754 --> 00:02:34.842 The latest observation through a telescope,

NOTE Confidence: 0.8287823

00:02:34.850 --> 00:02:37.286 is the most tenuous, the most tentative.

NOTE Confidence: 0.8287823

00:02:37.290 --> 00:02:39.740 It's you know, it's a new idea.

NOTE Confidence: 0.8287823

00:02:39.740 --> 00:02:41.828 That's out there, a new discovery.

NOTE Confidence: 0.8287823

00:02:41.830 --> 00:02:44.026 And in order for it to become part of

NOTE Confidence: 0.8287823

00:02:44.026 --> 00:02:46.370 the accepted scientific understanding,

NOTE Confidence: 0.8287823

00:02:46.370 --> 00:02:49.154 it has to be reviewed by other scientists.

NOTE Confidence: 0.8287823

00:02:49.160 --> 00:02:50.552 Other scientists have to

NOTE Confidence: 0.8287823

00:02:50.552 --> 00:02:51.944 try and reproduce it.

NOTE Confidence: 0.8287823

00:02:51.950 --> 00:02:53.780 You know, 'cause, if you.

NOTE Confidence: 0.8287823

00:02:53.780 --> 00:02:55.908 You know you see something up in

NOTE Confidence: 0.8287823

00:02:55.908 --> 00:02:58.077 the Sky and nobody else can see

00:02:58.077 --> 00:03:00.894 it and you don't get to call it a

00:03:00.894 --> 00:03:02.826 discovery or you don't for long.

00:03:02.830 --> 00:03:05.190 And so so the way science works optimally

00:03:05.190 --> 00:03:07.583 is that you know somebody comes up with

00:03:07.583 --> 00:03:09.822 a paper saying I have discovered this

00:03:09.822 --> 00:03:12.188 new enzyme that does such and such.

00:03:12.190 --> 00:03:14.545 I'm making this up because

00:03:14.545 --> 00:03:16.900 biology is not my specialty.

00:03:16.900 --> 00:03:19.084 And if you know if it works

00:03:19.084 --> 00:03:20.639 as I think it does,

00:03:20.640 --> 00:03:23.760 we could have a new cure for so and so.

00:03:23.760 --> 00:03:25.008 Someday Alzheimer's, you know,

00:03:25.008 --> 00:03:26.640 this is very promising, but.

00:03:26.640 --> 00:03:28.920 If nobody else can reproduce it,

00:03:28.920 --> 00:03:31.310 or if it turns out that you made a mistake,

00:03:31.310 --> 00:03:32.566 which is.

NOTE Confidence: 0.8287823

00:03:32.566 --> 00:03:35.706 Possible cause scientists are human.

NOTE Confidence: 0.8287823

00:03:35.710 --> 00:03:37.798 Six months later, we may discover,

NOTE Confidence: 0.8287823

00:03:37.800 --> 00:03:40.229 or a year later, we may discover,

NOTE Confidence: 0.8287823

00:03:40.230 --> 00:03:42.318 no, actually not true after all.

NOTE Confidence: 0.8287823

00:03:42.320 --> 00:03:43.589 Reasonable reasonable claim

NOTE Confidence: 0.8287823

00:03:43.589 --> 00:03:46.127 turns out not to be true.

NOTE Confidence: 0.8287823

00:03:46.130 --> 00:03:49.413 And that even the newest thing which

NOTE Confidence: 0.8287823

00:03:49.413 --> 00:03:52.950 is not necessarily based on a deep

NOTE Confidence: 0.8287823

00:03:52.950 --> 00:03:54.994 background of previous research.

NOTE Confidence: 0.8287823

00:03:55.000 --> 00:03:56.850 Is most prone to that.

NOTE Confidence: 0.8287823

00:03:56.850 --> 00:03:58.590 So scientists scientific discoveries

NOTE Confidence: 0.8287823

00:03:58.590 --> 00:04:00.765 are claimed and legitimately put

NOTE Confidence: 0.8287823

00:04:00.765 --> 00:04:02.452 forward and eventually they turned

NOTE Confidence: 0.8287823

00:04:02.452 --> 00:04:04.990 out not to really be true, but one.

NOTE Confidence: 0.8287823

00:04:04.990 --> 00:04:06.840 I'm sorry I keep talking,

NOTE Confidence: 0.8287823

00:04:06.840 --> 00:04:09.060 which one could say is the

NOTE Confidence: 0.8213921

00:04:09.060 --> 00:04:10.910 vast majority of science right?

NOTE Confidence: 0.8213921

00:04:10.910 --> 00:04:12.020 The vast majority

NOTE Confidence: 0.8213921

00:04:12.020 --> 00:04:14.183 of science, but over over a long

NOTE Confidence: 0.8213921

00:04:14.183 --> 00:04:16.352 period you build up this body

NOTE Confidence: 0.8213921

00:04:16.352 --> 00:04:17.916 of consistent knowledge that

NOTE Confidence: 0.8213921

00:04:17.916 --> 00:04:19.790 helps you understand something.

NOTE Confidence: 0.8213921

00:04:19.790 --> 00:04:22.380 The thing I and in health reporting.

NOTE Confidence: 0.8213921

00:04:22.380 --> 00:04:24.342 It's kind of the most acute

NOTE Confidence: 0.8213921

00:04:24.342 --> 00:04:26.510 because it makes a difference.

NOTE Confidence: 0.8213921

00:04:26.510 --> 00:04:29.046 So if I say I've discovered the most

NOTE Confidence: 0.8213921

00:04:29.046 --> 00:04:30.738 distant quasar in the universe,

NOTE Confidence: 0.8213921

00:04:30.740 --> 00:04:33.008 and it turns out six months later,

NOTE Confidence: 0.8213921

00:04:33.010 --> 00:04:34.006 I don't know.

NOTE Confidence: 0.8213921

00:04:34.006 --> 00:04:35.998 That was actually a plane going

NOTE Confidence: 0.8213921

00:04:35.998 --> 00:04:37.890 overhead and I was confused. And

NOTE Confidence: 0.8309237

00:04:37.890 --> 00:04:39.840 So what the new ones really

NOTE Confidence: 0.8309237

00:04:39.840 --> 00:04:41.140 changed their diet routine

NOTE Confidence: 0.8309237

00:04:41.140 --> 00:04:43.615 as result. But I remember in the 90s there

NOTE Confidence: 0.8309237

00:04:43.615 --> 00:04:45.781 was an understanding that people who ate

NOTE Confidence: 0.8309237

00:04:45.781 --> 00:04:48.590 a lot of green leafy vegetables had lower

NOTE Confidence: 0.8309237

00:04:48.590 --> 00:04:50.882 incidence of certain kinds of cancer,

NOTE Confidence: 0.8309237

00:04:50.890 --> 00:04:52.804 and the best guess that scientists

NOTE Confidence: 0.8309237

00:04:52.804 --> 00:04:55.194 had was there was a compound in

NOTE Confidence: 0.8309237

00:04:55.194 --> 00:04:56.594 these in these vegetables.

NOTE Confidence: 0.8309237

00:04:56.600 --> 00:04:57.755 Called beta carotene,

NOTE Confidence: 0.8309237

00:04:57.755 --> 00:05:00.078 which was most likely the protective

NOTE Confidence: 0.8309237

00:05:00.078 --> 00:05:02.394 agent and so people and you

NOTE Confidence: 0.8309237

00:05:02.394 --> 00:05:04.706 know every story you read said.

NOTE Confidence: 0.8309237

00:05:04.710 --> 00:05:07.020 You know more research is needed,

NOTE Confidence: 0.8309237

00:05:07.020 --> 00:05:10.938 but nobody listens to that so.

NOTE Confidence: 0.8309237

00:05:10.940 --> 00:05:13.280 So people started taking beta carotene

NOTE Confidence: 0.8309237

00:05:13.280 --> 00:05:15.698 supplements because who wants to get cancer?

NOTE Confidence: 0.8309237

00:05:15.700 --> 00:05:17.530 I'm pretty sure my parents

NOTE Confidence: 0.8309237

00:05:17.530 --> 00:05:18.628 started taking Medicare.

NOTE Confidence: 0.8309237

00:05:18.630 --> 00:05:20.094 Yeah, everybody was doing

NOTE Confidence: 0.8309237

00:05:20.094 --> 00:05:21.920 it and there's Atkins diet.

NOTE Confidence: 0.8309237

00:05:21.920 --> 00:05:23.015 Then there's right,

NOTE Confidence: 0.8309237

00:05:23.020 --> 00:05:24.850 but with the beta carotene,

NOTE Confidence: 0.8309237

00:05:24.850 --> 00:05:27.310 somebody finally did a really exhaustive

NOTE Confidence: 0.8309237

00:05:27.310 --> 00:05:29.636 study over a significant period of

NOTE Confidence: 0.8309237

00:05:29.636 --> 00:05:31.792 time with a large group of people.

NOTE Confidence: 0.8309237

00:05:31.800 --> 00:05:33.220 It's done in Finland.

NOTE Confidence: 0.8309237

00:05:33.220 --> 00:05:35.350 I think an the ultimate conclusion

NOTE Confidence: 0.8309237

00:05:35.418 --> 00:05:36.558 was beta carotene.

NOTE Confidence: 0.8309237

00:05:36.560 --> 00:05:38.390 Not only doesn't prevent cancer,

NOTE Confidence: 0.8309237

00:05:38.390 --> 00:05:40.910 but it actually.

NOTE Confidence: 0.8309237

00:05:40.910 --> 00:05:42.590 Raises the likelihood that you

NOTE Confidence: 0.8309237

00:05:42.590 --> 00:05:44.750 will get certain kinds of cancer.

NOTE Confidence: 0.8309237

00:05:44.750 --> 00:05:47.426 It was not an illegitimate claim.

NOTE Confidence: 0.8309237

00:05:47.430 --> 00:05:49.380 Early on that it might be

NOTE Confidence: 0.8309237

00:05:49.380 --> 00:05:51.339 protective turned out to be wrong.

NOTE Confidence: 0.8309237

00:05:51.340 --> 00:05:53.458 But in the intervening 10 years,

NOTE Confidence: 0.8309237

00:05:53.460 --> 00:05:57.604 people took a lot of beta carotene.

NOTE Confidence: 0.8309237

00:05:57.610 --> 00:05:58.588 And so yes,

NOTE Confidence: 0.8038511

00:05:58.590 --> 00:06:01.214 so I have a question about this then.

NOTE Confidence: 0.8038511

00:06:01.220 --> 00:06:03.341 So if I had been a journalist

NOTE Confidence: 0.8038511

00:06:03.341 --> 00:06:04.830 in that time period,

NOTE Confidence: 0.8038511

00:06:04.830 --> 00:06:06.642 you know I'm seeing these reports

NOTE Confidence: 0.8038511

00:06:06.642 --> 00:06:08.430 come out about beta carotene.

NOTE Confidence: 0.8038511

00:06:08.430 --> 00:06:11.370 How could be this great like Health

NOTE Confidence: 0.8038511

00:06:11.370 --> 00:06:13.979 had this great health benefit?

NOTE Confidence: 0.8038511

00:06:13.980 --> 00:06:15.490 If I was a journalist,

NOTE Confidence: 0.8038511

00:06:15.490 --> 00:06:16.393 that sounds interesting.

NOTE Confidence: 0.8038511

00:06:16.393 --> 00:06:17.597 I wouldn't say sensational,

NOTE Confidence: 0.8038511

00:06:17.600 --> 00:06:19.110 but useful in something that

NOTE Confidence: 0.8038511

00:06:19.110 --> 00:06:20.016 would attract attention,

NOTE Confidence: 0.8038511

00:06:20.020 --> 00:06:22.127 something that people might want to read,

NOTE Confidence: 0.8038511

00:06:22.130 --> 00:06:23.640 and therefore I probably would

NOTE Confidence: 0.8038511

00:06:23.640 --> 00:06:25.237 have written about it. However,

NOTE Confidence: 0.8038511

00:06:25.237 --> 00:06:28.333 if I'd been a scientist at that time.

NOTE Confidence: 0.8038511

00:06:28.340 --> 00:06:29.985 I might have looked very

NOTE Confidence: 0.8038511

00:06:29.985 --> 00:06:32.010 carefully at the methods you know,

NOTE Confidence: 0.8038511

00:06:32.010 --> 00:06:33.680 looked at the surrounding literature.

NOTE Confidence: 0.8038511

00:06:33.680 --> 00:06:35.690 You know, maybe even looked at

NOTE Confidence: 0.8038511

00:06:35.690 --> 00:06:37.028 molecular biology, you know,

NOTE Confidence: 0.8038511

00:06:37.028 --> 00:06:39.700 see if there's a reason that you know.

NOTE Confidence: 0.8038511

00:06:39.700 --> 00:06:40.426 Maybe better,

NOTE Confidence: 0.8038511

00:06:40.426 --> 00:06:42.604 carotene has a particular structure or

NOTE Confidence: 0.8038511

00:06:42.604 --> 00:06:45.043 whatever that might be helpful in DNA, right?

NOTE Confidence: 0.8038511

00:06:45.043 --> 00:06:46.042 I don't know.

NOTE Confidence: 0.8038511

00:06:46.042 --> 00:06:47.707 I've never done this research,

NOTE Confidence: 0.8038511

00:06:47.710 --> 00:06:50.048 but so there would be a lot

NOTE Confidence: 0.8038511

00:06:50.048 --> 00:06:51.050 more landscape discovery.

NOTE Confidence: 0.8038511

00:06:51.050 --> 00:06:52.882 So how would this fit into what we

NOTE Confidence: 0.8038511

00:06:52.882 --> 00:06:55.302 know of health generally and about

NOTE Confidence: 0.8038511

00:06:55.302 --> 00:06:56.730 nutritional supplements generally?

NOTE Confidence: 0.8038511

00:06:56.730 --> 00:07:00.024 And then I would have made my decision about.

NOTE Confidence: 0.8038511

00:07:00.030 --> 00:07:02.424 Whether I wanted to study beta

NOTE Confidence: 0.8038511

00:07:02.424 --> 00:07:04.020 carotene or recommend beta

NOTE Confidence: 0.8038511

00:07:04.090 --> 00:07:06.330 carotene in clinic or something,

NOTE Confidence: 0.8038511

00:07:06.330 --> 00:07:10.100 so is there a similar?

NOTE Confidence: 0.8038511

00:07:10.100 --> 00:07:12.112 Longitudinal like horizontal analysis

NOTE Confidence: 0.8038511

00:07:12.112 --> 00:07:16.040 for a journalist who is trying to decide

NOTE Confidence: 0.8038511

00:07:16.040 --> 00:07:18.536 whether to report on beta carotene.

NOTE Confidence: 0.8209719

00:07:20.900 --> 00:07:23.390 Essentially no, with with this caveat.

NOTE Confidence: 0.8209719

00:07:23.390 --> 00:07:25.988 So I was saying initially that

NOTE Confidence: 0.8209719

00:07:25.988 --> 00:07:29.586 the the model of journalism in the

NOTE Confidence: 0.8209719

00:07:29.586 --> 00:07:32.526 model science are very different.

NOTE Confidence: 0.8209719

00:07:32.530 --> 00:07:34.678 The point is that in journalism,

NOTE Confidence: 0.8209719

00:07:34.680 --> 00:07:36.480 traditionally, when you're writing about

NOTE Confidence: 0.8209719

00:07:36.480 --> 00:07:41.260 politics or world events, or you know so so.

NOTE Confidence: 0.8209719

00:07:41.260 --> 00:07:42.556 In contrast to science,

NOTE Confidence: 0.8209719

00:07:42.556 --> 00:07:44.500 where the newest thing is often

NOTE Confidence: 0.8209719

00:07:44.566 --> 00:07:46.158 the least well established.

NOTE Confidence: 0.8209719

00:07:46.160 --> 00:07:47.088 In politics.

NOTE Confidence: 0.8209719

00:07:47.088 --> 00:07:50.336 The latest thing is sort of erases

NOTE Confidence: 0.8209719

00:07:50.336 --> 00:07:52.487 everything that goes before it.

NOTE Confidence: 0.8209719

00:07:52.490 --> 00:07:55.352 So so if tomorrow Trump says I withdraw the

NOTE Confidence: 0.8209719

00:07:55.352 --> 00:07:57.830 candidacy of Kavanaugh for the Supreme Court,

NOTE Confidence: 0.8209719

00:07:57.830 --> 00:07:59.840 that's it. We forget about him.

NOTE Confidence: 0.8209719

00:07:59.840 --> 00:08:00.842 Well, we don't.

NOTE Confidence: 0.8209719

00:08:00.842 --> 00:08:03.174 It's not that we forget about him,

NOTE Confidence: 0.8209719

00:08:03.174 --> 00:08:04.510 but everything that went

NOTE Confidence: 0.8209719

00:08:04.510 --> 00:08:06.180 before is subsidiary to that.

NOTE Confidence: 0.8209719

00:08:06.180 --> 00:08:07.512 That's the most important

NOTE Confidence: 0.8209719

00:08:07.512 --> 00:08:08.844 thing you should know.

NOTE Confidence: 0.8209719

00:08:08.850 --> 00:08:10.873 This guy is not going to be

NOTE Confidence: 0.8209719

00:08:10.873 --> 00:08:12.860 on the same Supreme Court.

NOTE Confidence: 0.8209719

00:08:12.860 --> 00:08:14.530 Last week, we didn't know,

NOTE Confidence: 0.8209719

00:08:14.530 --> 00:08:16.892 and so the most recent thing, or,

NOTE Confidence: 0.8209719

00:08:16.892 --> 00:08:19.004 you know, Trump was elected or.

NOTE Confidence: 0.8209719

00:08:19.010 --> 00:08:20.755 The German finance minister declared

NOTE Confidence: 0.8209719

00:08:20.755 --> 00:08:23.040 they would no longer support the euro.

NOTE Confidence: 0.8209719

00:08:23.040 --> 00:08:25.592 This is the new state of affairs that

NOTE Confidence: 0.8209719

00:08:25.592 --> 00:08:28.144 everybody now has to deal with and it

NOTE Confidence: 0.8209719

00:08:28.144 --> 00:08:30.191 supersedes who cares what the German

NOTE Confidence: 0.8209719

00:08:30.191 --> 00:08:32.447 foreign Minister said six months ago.

NOTE Confidence: 0.8209719

00:08:32.450 --> 00:08:33.794 Unless you're doing some,

NOTE Confidence: 0.8209719

00:08:33.794 --> 00:08:35.244 you know, retrospective analysis.

NOTE Confidence: 0.8209719

00:08:35.244 --> 00:08:37.566 The reality today is that this

NOTE Confidence: 0.8209719

00:08:37.566 --> 00:08:39.517 new thing is the thing that

NOTE Confidence: 0.8209719

00:08:39.517 --> 00:08:41.185 we have to pay attention to.

NOTE Confidence: 0.8209719

00:08:41.190 --> 00:08:43.570 So so fitting science into a journalism

NOTE Confidence: 0.8209719

00:08:43.570 --> 00:08:45.989 model where the newest thing is the

NOTE Confidence: 0.8209719

00:08:45.989 --> 00:08:48.240 thing you're most likely to report on.

NOTE Confidence: 0.8209719

00:08:48.240 --> 00:08:49.796 'cause it's the newest.

NOTE Confidence: 0.8209719

00:08:49.796 --> 00:08:53.239 Works sort of against the way science works,

NOTE Confidence: 0.8209719

00:08:53.240 --> 00:08:53.610 yeah.

NOTE Confidence: 0.8209719

00:08:53.610 --> 00:08:54.720 So it misleads

NOTE Confidence: 0.838944858333333

00:08:54.720 --> 00:08:56.145 people, right? So?

NOTE Confidence: 0.838944858333333

00:08:56.145 --> 00:08:58.520 The careful validation over many

NOTE Confidence: 0.838944858333333

00:08:58.520 --> 00:09:01.253 years is what we're aiming for

NOTE Confidence: 0.838944858333333

00:09:01.253 --> 00:09:03.485 science or in clinic, right?

NOTE Confidence: 0.838944858333333

00:09:03.485 --> 00:09:06.110 And so an interesting parallel

NOTE Confidence: 0.838944858333333

00:09:06.110 --> 00:09:08.860 that I was thinking about.

NOTE Confidence: 0.838944858333333

00:09:08.860 --> 00:09:10.835 Related to this topic is

NOTE Confidence: 0.838944858333333

00:09:10.835 --> 00:09:12.415 the Framingham Heart study,

NOTE Confidence: 0.838944858333333

00:09:12.420 --> 00:09:15.199 and so there's this city in Framingham,

NOTE Confidence: 0.838944858333333

00:09:15.200 --> 00:09:16.388 MA, Massachusetts, Framingham,

NOTE Confidence: 0.838944858333333

00:09:16.388 --> 00:09:18.365 MA, Framingham, MA over decades,

NOTE Confidence: 0.838944858333333

00:09:18.365 --> 00:09:21.148 and they studied an entire city following

NOTE Confidence: 0.838944858333333

00:09:21.148 --> 00:09:24.299 the death of FDR after World War Two.

NOTE Confidence: 0.838944858333333

00:09:24.300 --> 00:09:26.676 So he died of malignant hypertension.

NOTE Confidence: 0.838944858333333

00:09:26.680 --> 00:09:28.660 So an entire city steps

00:09:28.660 --> 00:09:30.640 up and they have fees.

00:09:30.640 --> 00:09:33.405 Physical exams, like a bunch of data,

00:09:33.410 --> 00:09:36.175 gathering them twice a year for well,

00:09:36.180 --> 00:09:39.048 it's still ongoing the entire city.

00:09:39.050 --> 00:09:42.940 And as a result of this kind of very slow,

00:09:42.940 --> 00:09:45.268 very methodical nothings exciting, you know,

00:09:45.270 --> 00:09:48.595 over decades we now know stuff like.

00:09:48.600 --> 00:09:51.790 Blood pressure.

00:09:51.790 --> 00:09:53.590 Cholesterol levels and smoking

00:09:53.590 --> 00:09:54.940 are risk factors,

00:09:54.940 --> 00:09:58.060 and so that seems very.

00:09:58.060 --> 00:10:00.110 Different than the beta care.

00:10:00.110 --> 00:10:02.120 10 assertion and so as a

00:10:02.120 --> 00:10:03.125 scientist or clinician,

00:10:03.130 --> 00:10:04.650 I think the Framingham Heart

00:10:04.650 --> 00:10:06.972 study is so essential to what we

NOTE Confidence: 0.838944858333333

00:10:06.972 --> 00:10:08.817 understand about heart disease today.

NOTE Confidence: 0.838944858333333

00:10:08.820 --> 00:10:10.962 But how to make that entertaining or

NOTE Confidence: 0.838944858333333

00:10:10.962 --> 00:10:12.510 interesting enough for journalism.

NOTE Confidence: 0.838944858333333

00:10:12.510 --> 00:10:15.185 I don't know how to do that, right?

NOTE Confidence: 0.838944858333333

00:10:15.185 --> 00:10:15.520 Well,

NOTE Confidence: 0.838944858333333

00:10:15.520 --> 00:10:16.860 there every time the

NOTE Confidence: 0.8424713

00:10:16.860 --> 00:10:18.535 Framingham study comes out with

NOTE Confidence: 0.8424713

00:10:18.535 --> 00:10:20.550 the result, people do cover it.

NOTE Confidence: 0.8424713

00:10:20.550 --> 00:10:23.215 You know, it's the latest news out

NOTE Confidence: 0.8424713

00:10:23.215 --> 00:10:25.580 of the Framingham Heart Study and.

NOTE Confidence: 0.8424713

00:10:25.580 --> 00:10:28.870 You are a. You're more you're safer

NOTE Confidence: 0.8424713

00:10:28.870 --> 00:10:31.528 reporting on that 'cause it is.

NOTE Confidence: 0.8424713

00:10:31.530 --> 00:10:34.410 It is such a long duration study and

NOTE Confidence: 0.8424713

00:10:34.410 --> 00:10:37.688 looks at so many different people is the

NOTE Confidence: 0.85449564

00:10:37.690 --> 00:10:40.385 public is interested in something like that.

00:10:40.390 --> 00:10:43.060 The public is interested in.

00:10:43.060 --> 00:10:44.908 A paper that was just published

00:10:44.908 --> 00:10:47.287 saying that we've we have definitely

00:10:47.287 --> 00:10:49.459 definitively learned that hypertension,

00:10:49.460 --> 00:10:51.460 or we know now better

00:10:51.460 --> 00:10:53.460 than we ever did before.

00:10:53.460 --> 00:10:55.460 That hypertension is a risk

00:10:55.460 --> 00:10:57.460 factor for for heart disease.

00:10:57.460 --> 00:10:59.860 Public is very interested in that.

00:10:59.860 --> 00:11:01.860 They're not really interested in.

00:11:04.680 --> 00:11:06.630 You know hearing every week

00:11:06.630 --> 00:11:07.800 about, well, Framingham

00:11:07.800 --> 00:11:10.140 study is one week older, #2045

00:11:10.140 --> 00:11:12.132 right? But major results.

00:11:12.132 --> 00:11:13.596 Yeah, they are absolutely

00:11:13.596 --> 00:11:15.206 interested in in contrast to

NOTE Confidence: 0.820141948

00:11:15.206 --> 00:11:17.378 what I was talking about before,

NOTE Confidence: 0.820141948

00:11:17.380 --> 00:11:19.768 those results are.

NOTE Confidence: 0.820141948

00:11:19.770 --> 00:11:21.885 I actually do mean something

NOTE Confidence: 0.820141948

00:11:21.885 --> 00:11:24.783 because they are based on on a

NOTE Confidence: 0.820141948

00:11:24.783 --> 00:11:27.290 very large and very long study. So

NOTE Confidence: 0.8636093

00:11:27.290 --> 00:11:29.666 is that valued? So I'm imagining

NOTE Confidence: 0.8636093

00:11:29.666 --> 00:11:31.250 a weighting algorithm right?

NOTE Confidence: 0.8636093

00:11:31.250 --> 00:11:34.130 So imagine I want to produce an essay

NOTE Confidence: 0.8636093

00:11:34.130 --> 00:11:36.770 or some piece of work that will

NOTE Confidence: 0.8636093

00:11:36.770 --> 00:11:39.570 engage the public as a journalist.

NOTE Confidence: 0.8636093

00:11:39.570 --> 00:11:42.498 Would the validity or the quality of this

NOTE Confidence: 0.8636093

00:11:42.498 --> 00:11:45.510 study be weighted highly by the public?

NOTE Confidence: 0.8636093

00:11:45.510 --> 00:11:49.065 Like if I was able to write like this,

NOTE Confidence: 0.8636093

00:11:49.070 --> 00:11:50.714 is the longest standing?

NOTE Confidence: 0.8636093

00:11:50.714 --> 00:11:53.180 Best funded blah blah blah study

NOTE Confidence: 0.8636093

00:11:53.253 --> 00:11:55.198 that we have in cardiology.

NOTE Confidence: 0.8636093

00:11:55.200 --> 00:11:57.550 Therefore X you should be

NOTE Confidence: 0.8636093

00:11:57.550 --> 00:12:00.720 interested in X like would that be?

NOTE Confidence: 0.8636093

00:12:00.720 --> 00:12:03.248 More engaging for an

NOTE Confidence: 0.75387303

00:12:03.250 --> 00:12:05.834 audience, it may mean.

NOTE Confidence: 0.75387303

00:12:05.834 --> 00:12:08.880 To a small degree, probably

NOTE Confidence: 0.84343916

00:12:08.880 --> 00:12:12.090 I see your eyebrows moving. Yeah, so

NOTE Confidence: 0.84343916

00:12:12.090 --> 00:12:15.400 so I think I think.

NOTE Confidence: 0.84343916

00:12:15.400 --> 00:12:17.338 I think an equally important factor,

NOTE Confidence: 0.84343916

00:12:17.340 --> 00:12:21.050 if not a more important factor, is how.

NOTE Confidence: 0.84343916

00:12:21.050 --> 00:12:26.330 Surprising or a result is or.

NOTE Confidence: 0.84343916

00:12:26.330 --> 00:12:29.620 How are you alluding to this earlier?

NOTE Confidence: 0.84343916

00:12:29.620 --> 00:12:31.642 How people really want to live

NOTE Confidence: 0.84343916

00:12:31.642 --> 00:12:34.286 a long time and be very healthy

NOTE Confidence: 0.84343916

00:12:34.286 --> 00:12:36.728 with as little effort as possible.

NOTE Confidence: 0.84343916

00:12:36.730 --> 00:12:39.313 So if you know if somebody's been

NOTE Confidence: 0.84343916

00:12:39.313 --> 00:12:42.346 telling me you gotta go out and do

NOTE Confidence: 0.84343916

00:12:42.346 --> 00:12:44.580 vigorous exercise 10 miles a day,

NOTE Confidence: 0.84343916

00:12:44.580 --> 00:12:49.338 10 miles a day, run 10 miles a day.

NOTE Confidence: 0.84343916

00:12:49.340 --> 00:12:51.755 Well, yeah, it's a nice idea, but.

NOTE Confidence: 0.84343916

00:12:51.755 --> 00:12:54.380 Probably not going to happen

NOTE Confidence: 0.778503

00:12:54.380 --> 00:12:56.610 if somebody fit analysis right

NOTE Confidence: 0.778503

00:12:56.610 --> 00:12:59.810 and with failure to weigh things that will

NOTE Confidence: 0.778503

00:12:59.810 --> 00:13:02.849 happen in the far future sufficiently,

NOTE Confidence: 0.778503

00:13:02.850 --> 00:13:06.576 but I remember at one point.

NOTE Confidence: 0.778503

00:13:06.580 --> 00:13:08.120 1520 years ago somebody came

NOTE Confidence: 0.778503

00:13:08.120 --> 00:13:09.949 out with a study saying, well,

NOTE Confidence: 0.778503

00:13:09.949 --> 00:13:11.394 actually we are now showing

NOTE Confidence: 0.778503

00:13:11.394 --> 00:13:13.360 that if you just go gardening,

NOTE Confidence: 0.778503

00:13:13.360 --> 00:13:15.196 you know three days a week.

NOTE Confidence: 0.778503

00:13:15.200 --> 00:13:18.390 That's just as good that.

NOTE Confidence: 0.778503

00:13:18.390 --> 00:13:19.965 Gets a lot of attention

NOTE Confidence: 0.778503

00:13:19.965 --> 00:13:21.225 because it's sounds easy,

NOTE Confidence: 0.778503

00:13:21.230 --> 00:13:23.442 or if you take a pill that

NOTE Confidence: 0.778503

00:13:23.442 --> 00:13:24.390 will prevent cancer.

NOTE Confidence: 0.778503

00:13:24.390 --> 00:13:28.114 So easy so that has more salience.

NOTE Confidence: 0.778503

00:13:28.120 --> 00:13:28.860 Perhaps then,

NOTE Confidence: 0.778503

00:13:28.860 --> 00:13:31.820 the length of the study or the you

NOTE Confidence: 0.778503

00:13:31.901 --> 00:13:34.445 know the number of participants you

NOTE Confidence: 0.778503

00:13:34.445 --> 00:13:37.609 know people are not people are not as.

NOTE Confidence: 0.778503

00:13:37.610 --> 00:13:39.380 Interested in nobody's going to write

NOTE Confidence: 0.778503

00:13:39.380 --> 00:13:41.690 a story about the beta carotene pills?

NOTE Confidence: 0.778503

00:13:41.690 --> 00:13:44.532 Saying this was only study of seven

NOTE Confidence: 0.778503

00:13:44.532 --> 00:13:46.629 people don't pay any attention

NOTE Confidence: 0.778503

00:13:46.629 --> 00:13:49.029 to what I've just told you.

NOTE Confidence: 0.778503

00:13:49.030 --> 00:13:50.990 Why would you do that?

NOTE Confidence: 0.778503

00:13:50.990 --> 00:13:51.770 Or is

NOTE Confidence: 0.86058474

00:13:51.770 --> 00:13:54.375 there a type of journalism

NOTE Confidence: 0.86058474

00:13:54.375 --> 00:13:57.300 like could you call it a?

NOTE Confidence: 0.86058474

00:13:57.300 --> 00:14:00.485 Why maybe I'm answering my own question.

NOTE Confidence: 0.86058474

00:14:00.490 --> 00:14:02.760 Defamatory journalism, like, seems like.

NOTE Confidence: 0.86058474

00:14:02.760 --> 00:14:04.125 Obviously that happens

NOTE Confidence: 0.86058474

00:14:04.125 --> 00:14:05.490 with political figures,

NOTE Confidence: 0.86058474

00:14:05.490 --> 00:14:07.974 but in terms of correcting almost

NOTE Confidence: 0.86058474

00:14:07.974 --> 00:14:10.723 like inner correction to the way

NOTE Confidence: 0.86058474

00:14:10.723 --> 00:14:12.767 something was previously published,

NOTE Confidence: 0.86058474

00:14:12.770 --> 00:14:14.276 like, for example,

NOTE Confidence: 0.86058474

00:14:14.276 --> 00:14:16.786 I could imagine Breaking Article

NOTE Confidence: 0.86058474

00:14:16.786 --> 00:14:19.267 beta carotene is not associated

NOTE Confidence: 0.86058474

00:14:19.267 --> 00:14:21.123 with immortality or something

NOTE Confidence: 0.86058474

00:14:21.123 --> 00:14:24.139 like that as previously believed.

NOTE Confidence: 0.86058474

00:14:24.140 --> 00:14:25.820 That seems like a way of

NOTE Confidence: 0.86058474

00:14:25.820 --> 00:14:27.640 correcting the cycle if an error is

NOTE Confidence: 0.83434343

00:14:27.640 --> 00:14:29.248 made so sure people don't take

NOTE Confidence: 0.83434343

00:14:29.248 --> 00:14:30.328 beta carotene anymore, right?

NOTE Confidence: 0.83434343

00:14:30.328 --> 00:14:31.936 'cause that other study came out?

NOTE Confidence: 0.83434343

00:14:31.940 --> 00:14:34.478 Yeah, yeah yeah, something that overturns.

NOTE Confidence: 0.83434343

00:14:34.480 --> 00:14:36.988 The wisdom that you thought was

NOTE Confidence: 0.83434343

00:14:36.988 --> 00:14:39.236 the conventional wisdom, but that's

NOTE Confidence: 0.83434343

00:14:39.236 --> 00:14:42.194 another problem with the reporting of.

NOTE Confidence: 0.83434343

00:14:42.200 --> 00:14:45.153 Medical and health news. Look,

NOTE Confidence: 0.83434343

00:14:45.153 --> 00:14:47.880 I fact I can give you a perfect example.

NOTE Confidence: 0.83434343

00:14:47.880 --> 00:14:49.938 I'm sitting in the offices of Time

NOTE Confidence: 0.83434343

00:14:49.938 --> 00:14:51.819 magazine at the big conference table

NOTE Confidence: 0.83434343

00:14:51.819 --> 00:14:54.240 and the editor in Chief looks at me.

NOTE Confidence: 0.83434343

00:14:54.240 --> 00:14:56.354 'cause I'm the science guy and says,

NOTE Confidence: 0.83434343

00:14:56.360 --> 00:14:58.178 you know, here's something like this.

NOTE Confidence: 0.83434343

00:14:58.180 --> 00:14:59.956 Driving me crazy feels like every

NOTE Confidence: 0.83434343

00:14:59.956 --> 00:15:01.502 other week we're getting different

NOTE Confidence: 0.83434343

00:15:01.502 --> 00:15:03.338 health news then we, you know.

NOTE Confidence: 0.83434343

00:15:03.338 --> 00:15:05.466 So we used to say don't eat

NOTE Confidence: 0.83434343

00:15:05.466 --> 00:15:07.577 eggs now it's OK to eat eggs.

NOTE Confidence: 0.83434343

00:15:07.580 --> 00:15:09.694 We used to say don't eat butter,

NOTE Confidence: 0.83434343

00:15:09.700 --> 00:15:11.210 have margarine and said no.

NOTE Confidence: 0.83434343

00:15:11.210 --> 00:15:13.634 Now go back to butter that's even better.

NOTE Confidence: 0.83434343

00:15:13.640 --> 00:15:17.080 Get run 10 miles a week or 10 miles a day.

NOTE Confidence: 0.83434343

00:15:17.080 --> 00:15:19.150 No no gardening.

NOTE Confidence: 0.83434343

00:15:19.150 --> 00:15:20.830 I want a story,

NOTE Confidence: 0.83434343

00:15:20.830 --> 00:15:23.844 a big story that says definitively how

NOTE Confidence: 0.83434343

00:15:23.844 --> 00:15:27.124 you should live your life to be healthy.

NOTE Confidence: 0.83434343

00:15:27.130 --> 00:15:28.144 I said, well,

NOTE Confidence: 0.83434343

00:15:28.144 --> 00:15:30.790 you know that the problem with that is.

NOTE Confidence: 0.83434343

00:15:30.790 --> 00:15:32.617 It's only definitive as far as we

NOTE Confidence: 0.83434343

00:15:32.617 --> 00:15:34.376 know for now, and it could change,

NOTE Confidence: 0.83434343

00:15:34.376 --> 00:15:35.840 and that's why you keep getting

NOTE Confidence: 0.83434343

00:15:35.889 --> 00:15:37.575 different news 'cause we learn more,

NOTE Confidence: 0.83434343

00:15:37.580 --> 00:15:38.360 he said, well,

NOTE Confidence: 0.83434343

00:15:38.360 --> 00:15:41.214 I just want just I just want to know.

NOTE Confidence: 0.83434343

00:15:41.214 --> 00:15:42.498 What's the answer?

NOTE Confidence: 0.83434343

00:15:42.500 --> 00:15:44.126 You know he wanted the answer,

NOTE Confidence: 0.83434343

00:15:44.130 --> 00:15:47.154 and so I had to do a story that.

NOTE Confidence: 0.83434343

00:15:47.160 --> 00:15:48.765 Looked at our best understanding

NOTE Confidence: 0.83434343

00:15:48.765 --> 00:15:50.870 of all of these different factors.

NOTE Confidence: 0.83434343

00:15:50.870 --> 00:15:52.150 Risk factors for disease,

NOTE Confidence: 0.83434343

00:15:52.150 --> 00:15:54.570 but I had to put in there.

NOTE Confidence: 0.83434343

00:15:54.570 --> 00:15:56.929 This could change and it has changed.

NOTE Confidence: 0.83434343

00:15:56.930 --> 00:15:59.786 And then I did something that drove him

NOTE Confidence: 0.83434343

00:15:59.786 --> 00:16:02.655 crazy at the end of the story I said,

NOTE Confidence: 0.83434343

00:16:02.660 --> 00:16:06.503 you know, the truth is that all of these.

NOTE Confidence: 0.83434343

00:16:06.510 --> 00:16:08.550 Things are worth knowing about,

NOTE Confidence: 0.83434343

00:16:08.550 --> 00:16:12.396 but you could drive yourself crazy.

NOTE Confidence: 0.83434343

00:16:12.400 --> 00:16:15.760 And I said the truth is that

NOTE Confidence: 0.83434343

00:16:15.760 --> 00:16:17.200 if everybody just.

NOTE Confidence: 0.83434343

00:16:17.200 --> 00:16:19.258 Did what your mother told you.

NOTE Confidence: 0.83434343

00:16:19.260 --> 00:16:21.318 Don't smoke, get a little exercise.

NOTE Confidence: 0.83434343

00:16:21.320 --> 00:16:23.174 Eat your vegetables the the overall

NOTE Confidence: 0.83434343

00:16:23.174 --> 00:16:24.843 health of America would improve

NOTE Confidence: 0.83434343

00:16:24.843 --> 00:16:25.962 drastically without worrying

NOTE Confidence: 0.83434343

00:16:25.962 --> 00:16:27.827 about all this other stuff.

NOTE Confidence: 0.83434343

00:16:27.830 --> 00:16:30.574 This blood thing in that he hated it.

NOTE Confidence: 0.83434343

00:16:30.580 --> 00:16:34.024 It's like but I don't want to.

NOTE Confidence: 0.83434343

00:16:34.030 --> 00:16:37.306 Do what your mother said I want I want

NOTE Confidence: 0.83434343

00:16:37.306 --> 00:16:39.322 something definitive and authoritative,

NOTE Confidence: 0.83434343

00:16:39.322 --> 00:16:40.540 so did it

NOTE Confidence: 0.81118923

00:16:40.540 --> 00:16:42.986 run a brand Iran's undercover? Yeah,

NOTE Confidence: 0.81118923

00:16:42.986 --> 00:16:46.650 I'm also made enough of an impact. I guess

NOTE Confidence: 0.81118923

00:16:46.650 --> 00:16:49.086 I guess I well so this

NOTE Confidence: 0.81118923

00:16:49.090 --> 00:16:50.371 is interesting then.

NOTE Confidence: 0.81118923

00:16:50.371 --> 00:16:53.982 So and one thing by itself is unlikely

NOTE Confidence: 0.81118923

00:16:53.982 --> 00:16:57.720 to change the course of someone's health.

NOTE Confidence: 0.81118923

00:16:57.720 --> 00:16:59.286 You know you could argue that

NOTE Confidence: 0.81118923

00:16:59.286 --> 00:17:00.773 maybe smoking is so heavily

NOTE Confidence: 0.81118923

00:17:00.773 --> 00:17:02.784 associated with lung cancer, but.

NOTE Confidence: 0.81118923

00:17:02.784 --> 00:17:04.680 Maybe something like that,

NOTE Confidence: 0.81118923

00:17:04.680 --> 00:17:07.228 but the way I'm thinking is more

NOTE Confidence: 0.81118923

00:17:07.228 --> 00:17:09.408 in probabilistic terms and so a

NOTE Confidence: 0.81118923

00:17:09.408 --> 00:17:11.098 conversation that we've had before

NOTE Confidence: 0.81118923

00:17:11.098 --> 00:17:14.026 is like how do you get people to

NOTE Confidence: 0.81118923

00:17:14.026 --> 00:17:15.482 understand uncertainty and so?

NOTE Confidence: 0.81118923

00:17:15.490 --> 00:17:17.850 Is there a way to get people to

NOTE Confidence: 0.81118923

00:17:17.850 --> 00:17:19.638 appreciate the benefits of doing a

NOTE Confidence: 0.81118923

00:17:19.638 --> 00:17:22.300 lot of good things as if they're all

NOTE Confidence: 0.81118923

00:17:22.300 --> 00:17:24.096 adding some positive probability

NOTE Confidence: 0.81118923

00:17:24.096 --> 00:17:25.892 to a larger distribution?

NOTE Confidence: 0.81118923

00:17:25.900 --> 00:17:27.928 Kind of nudging them towards the

NOTE Confidence: 0.81118923

00:17:27.928 --> 00:17:29.720 healthier side of the curve.

NOTE Confidence: 0.81118923

00:17:29.720 --> 00:17:31.450 Is that essentially you're arguing

NOTE Confidence: 0.81118923

00:17:31.450 --> 00:17:32.488 that piece or?

NOTE Confidence: 0.87936187

00:17:33.520 --> 00:17:35.230 Yeah, yeah, I guess that's true.

NOTE Confidence: 0.87936187

00:17:35.230 --> 00:17:37.225 I didn't think about it that way,

NOTE Confidence: 0.87936187

00:17:37.230 --> 00:17:38.786 but the problem is.

NOTE Confidence: 0.87936187

00:17:38.786 --> 00:17:41.120 The other problem is that with

NOTE Confidence: 0.87936187

00:17:41.207 --> 00:17:43.775 the way that people read average,

NOTE Confidence: 0.87936187

00:17:43.780 --> 00:17:45.864 people read scientific articles

NOTE Confidence: 0.87936187

00:17:45.864 --> 00:17:48.990 or cite articles in the popular

31

NOTE Confidence: 0.87936187

00:17:49.075 --> 00:17:51.059 press about science and.

NOTE Confidence: 0.87936187

00:17:51.060 --> 00:17:53.314 You know we we put in caveats.

NOTE Confidence: 0.87936187

00:17:53.320 --> 00:17:54.935 We put in explanations where

NOTE Confidence: 0.87936187

00:17:54.935 --> 00:17:57.568 you say you talk to say this is

NOTE Confidence: 0.87936187

00:17:57.568 --> 00:17:59.452 how you should think about it.

NOTE Confidence: 0.87936187

00:17:59.460 --> 00:18:01.637 And my sense is that while people

NOTE Confidence: 0.87936187

00:18:01.637 --> 00:18:03.329 are actually reading the stories,

NOTE Confidence: 0.87936187

00:18:03.330 --> 00:18:05.268 they kind of, they get it.

NOTE Confidence: 0.87936187

00:18:05.270 --> 00:18:07.212 And it's like Oh yeah, yeah,

NOTE Confidence: 0.87936187

00:18:07.212 --> 00:18:09.466 I see I see what you mean,

NOTE Confidence: 0.87936187

00:18:09.470 --> 00:18:10.120 statistical, whatever.

NOTE Confidence: 0.8731361

00:18:12.550 --> 00:18:15.250 But then they finish the story and then go

NOTE Confidence: 0.8731361

00:18:15.250 --> 00:18:17.848 back to their regular lives a day later.

NOTE Confidence: 0.8731361

00:18:17.850 --> 00:18:20.034 Do they remember any of this stuff?

NOTE Confidence: 0.8731361

00:18:20.040 --> 00:18:22.224 Have you made a permanent change in

NOTE Confidence: 0.8731361

00:18:22.224 --> 00:18:24.574 their understanding? I kind of think.

NOTE Confidence: 0.8731361

00:18:24.574 --> 00:18:26.728 Maybe not, I think, maybe not,

NOTE Confidence: 0.8731361

00:18:26.728 --> 00:18:28.660 and and be 'cause this is,

NOTE Confidence: 0.8731361

00:18:28.660 --> 00:18:30.914 you know this is for a scientist.

NOTE Confidence: 0.8731361

00:18:30.920 --> 00:18:32.846 This is. This is really important.

NOTE Confidence: 0.8731361

00:18:32.850 --> 00:18:34.460 This is what we do.

NOTE Confidence: 0.8731361

00:18:34.460 --> 00:18:36.070 And for journalist we're telling

NOTE Confidence: 0.8731361

00:18:36.070 --> 00:18:37.680 you about this important stuff.

NOTE Confidence: 0.8731361

00:18:37.680 --> 00:18:40.329 But but science?

NOTE Confidence: 0.8731361

00:18:40.330 --> 00:18:42.415 Understanding of how science works

NOTE Confidence: 0.8731361

00:18:42.415 --> 00:18:45.219 and what claims mean is just not.

NOTE Confidence: 0.8731361

00:18:45.220 --> 00:18:46.624 Something people have internalized,

NOTE Confidence: 0.8731361

00:18:46.624 --> 00:18:48.730 and it's the kind of thing

NOTE Confidence: 0.8731361

00:18:48.795 --> 00:18:49.929 it's very difficult.

NOTE Confidence: 0.8731361

00:18:49.930 --> 00:18:50.652 I think,

NOTE Confidence: 0.8731361

00:18:50.652 --> 00:18:52.457 to force them to internalize.

NOTE Confidence: 0.87044084

00:18:53.790 --> 00:18:56.170 Also, in the way that you persuade

NOTE Confidence: 0.87044084

00:18:56.170 --> 00:18:58.453 an audience to read a piece like

NOTE Confidence: 0.87044084

00:18:58.453 --> 00:19:00.911 you kind of learn them in with the

NOTE Confidence: 0.87044084

00:19:00.911 --> 00:19:03.295 arc of the story with you know the

NOTE Confidence: 0.87044084

00:19:03.300 --> 00:19:06.360 writing itself, the style maybe.

NOTE Confidence: 0.87044084

00:19:06.360 --> 00:19:08.614 I wonder if that's a way of

NOTE Confidence: 0.87044084

00:19:08.614 --> 00:19:10.495 passively like teaching. I have to.

NOTE Confidence: 0.87044084

00:19:10.495 --> 00:19:12.630 I have to believe that people who

NOTE Confidence: 0.87044084

00:19:12.707 --> 00:19:15.371 are more likely to read a story about

NOTE Confidence: 0.87044084

00:19:15.371 --> 00:19:17.673 the health benefits of you know what

NOTE Confidence: 0.87044084

00:19:17.673 --> 00:19:20.671 you should do to be healthy are also

NOTE Confidence: 0.87044084

00:19:20.671 --> 00:19:23.533 more likely to do healthy things.

NOTE Confidence: 0.87044084

00:19:23.540 --> 00:19:25.166 Am I wrong? I don't know.

NOTE Confidence: 0.87044084

00:19:25.170 --> 00:19:28.130 I don't know either I. I

NOTE Confidence: 0.8558667

00:19:28.130 --> 00:19:30.866 think they are more likely to feel like

NOTE Confidence: 0.8558667

00:19:30.866 --> 00:19:33.357 they should be doing healthier things,

NOTE Confidence: 0.8558667

00:19:33.360 --> 00:19:35.514 but that doesn't mean they're more

NOTE Confidence: 0.8558667

00:19:35.514 --> 00:19:37.460 likely to do healthier things.

NOTE Confidence: 0.8558667

00:19:37.460 --> 00:19:40.478 You know, it's you think about

NOTE Confidence: 0.8558667

00:19:40.478 --> 00:19:42.490 something like climate change.

NOTE Confidence: 0.8558667

00:19:42.490 --> 00:19:44.906 I think there are a lot of people

NOTE Confidence: 0.8558667

00:19:44.906 --> 00:19:47.128 out there who know that this is

NOTE Confidence: 0.8558667

00:19:47.128 --> 00:19:49.379 sort of a problem down the line,

NOTE Confidence: 0.8558667

00:19:49.380 --> 00:19:51.258 although right now I look around

NOTE Confidence: 0.8558667

00:19:51.258 --> 00:19:52.510 things feel pretty normal,

NOTE Confidence: 0.8558667

00:19:52.510 --> 00:19:54.372 so it's hard to have a visceral

NOTE Confidence: 0.8558667

00:19:54.372 --> 00:19:56.260 sense of the climate changing.

NOTE Confidence: 0.8558667

00:19:56.260 --> 00:19:58.084 But yeah, I should probably drive

NOTE Confidence: 0.8558667

00:19:58.084 --> 00:20:00.219 a car with lower emissions and.

NOTE Confidence: 0.8558667

00:20:00.220 --> 00:20:01.726 I should, you know, recycle more.

NOTE Confidence: 0.8558667

00:20:01.730 --> 00:20:04.928 I should do all this stuff.

NOTE Confidence: 0.8558667

00:20:04.930 --> 00:20:09.050 But when it comes to.

NOTE Confidence: 0.8558667

00:20:09.050 --> 00:20:10.370 Actually living their lives,

NOTE Confidence: 0.8558667

00:20:10.370 --> 00:20:12.350 it takes a lot more commitment

NOTE Confidence: 0.8558667

00:20:12.409 --> 00:20:13.637 than most people have.

NOTE Confidence: 0.8558667

00:20:13.640 --> 00:20:16.598 The mental energy.

NOTE Confidence: 0.8558667

00:20:16.600 --> 00:20:19.296 To invest, and so I think you know,

NOTE Confidence: 0.8558667

00:20:19.300 --> 00:20:22.099 I think there's a lot of people who are

NOTE Confidence: 0.8558667

00:20:22.099 --> 00:20:24.350 interested in hearing about these things,

NOTE Confidence: 0.8558667

00:20:24.350 --> 00:20:27.423 but they don't really have a place

NOTE Confidence: 0.8558667

00:20:27.423 --> 00:20:30.568 to store them in their minds and.

NOTE Confidence: 0.8558667

00:20:30.570 --> 00:20:32.946 To change their behaviors in a

NOTE Confidence: 0.8426174

00:20:32.950 --> 00:20:34.141 significant way. Well,

NOTE Confidence: 0.8426174

00:20:34.141 --> 00:20:36.920 so in terms of changing someone's mind,

NOTE Confidence: 0.8426174

00:20:36.920 --> 00:20:38.188 I think that well,

NOTE Confidence: 0.8426174

00:20:38.188 --> 00:20:40.684 let me ask you about your pieces

NOTE Confidence: 0.8426174

36

00:20:40.684 --> 00:20:43.269 that you've written about addiction,

NOTE Confidence: 0.8426174

00:20:43.270 --> 00:20:45.811 and so there is this distinction between

NOTE Confidence: 0.8426174

00:20:45.811 --> 00:20:48.829 you know the medical model of addiction,

NOTE Confidence: 0.8426174

00:20:48.830 --> 00:20:51.518 wherein addiction is result of the brain

NOTE Confidence: 0.8426174

00:20:51.518 --> 00:20:53.545 of some imbalance in neurotransmitters

NOTE Confidence: 0.8426174

00:20:53.545 --> 00:20:56.373 of this lack of like true choices.

NOTE Confidence: 0.8426174

00:20:56.380 --> 00:20:58.630 Even though I've heard some people

NOTE Confidence: 0.8426174

00:20:58.630 --> 00:21:01.539 put it with from the medical model,

NOTE Confidence: 0.8426174

00:21:01.540 --> 00:21:03.560 like someone who is addicted

NOTE Confidence: 0.8426174

00:21:03.560 --> 00:21:05.580 to a substance doesn't choose.

NOTE Confidence: 0.8426174

00:21:05.580 --> 00:21:08.116 Either to use this substance in the same

NOTE Confidence: 0.8426174

00:21:08.116 --> 00:21:10.279 way someone who isn't addicted does,

NOTE Confidence: 0.8426174

00:21:10.280 --> 00:21:12.290 so that's that's the philosophy that's

NOTE Confidence: 0.8426174

00:21:12.290 --> 00:21:14.649 a way of thinking about a problem.

NOTE Confidence: 0.8426174

00:21:14.650 --> 00:21:16.995 And so when you've written about it,

NOTE Confidence: 0.8426174

00:21:17.000 --> 00:21:20.320 you write very elegantly about.

37

NOTE Confidence: 0.8426174

00:21:20.320 --> 00:21:23.011 What it is to feel that lack of choice

NOTE Confidence: 0.8426174

00:21:23.011 --> 00:21:25.739 and then you tie that into research

NOTE Confidence: 0.8426174

00:21:25.739 --> 00:21:28.350 that shows like there's brain imaging

NOTE Confidence: 0.8426174

00:21:28.350 --> 00:21:30.775 research showing differences and brain

NOTE Confidence: 0.8426174

00:21:30.775 --> 00:21:33.822 function and so it's almost as if,

NOTE Confidence: 0.8426174

00:21:33.822 --> 00:21:34.220 passively,

NOTE Confidence: 0.8426174

00:21:34.220 --> 00:21:36.115 what you're persuading of is

NOTE Confidence: 0.8426174

00:21:36.115 --> 00:21:38.451 the medical model as opposed to

NOTE Confidence: 0.8426174

00:21:38.451 --> 00:21:40.647 the opposite view that you know

NOTE Confidence: 0.8426174

00:21:40.647 --> 00:21:42.550 everyone chooses for themselves,

NOTE Confidence: 0.8426174

00:21:42.550 --> 00:21:45.726 and every choice is a genuine choice option.

NOTE Confidence: 0.8426174

00:21:45.730 --> 00:21:48.118 And so I'm curious if that

NOTE Confidence: 0.8426174

00:21:48.118 --> 00:21:50.330 is is a deliberate shift.

NOTE Confidence: 0.8426174

00:21:50.330 --> 00:21:52.994 Like in order to persuade of the medical

NOTE Confidence: 0.8426174

00:21:52.994 --> 00:21:55.638 model or if that is just something

NOTE Confidence: 0.8426174

00:21:55.638 --> 00:21:57.975 that you're very interested in and

NOTE Confidence: 0.8426174

00:21:57.975 --> 00:22:01.740 therefore kind of align with personally.

NOTE Confidence: 0.87614924

00:22:01.740 --> 00:22:04.800 So the way I go about.

NOTE Confidence: 0.87614924

00:22:04.800 --> 00:22:06.410 Reporting on anything in science,

NOTE Confidence: 0.87614924

00:22:06.410 --> 00:22:08.336 whether it's addiction or anything else,

NOTE Confidence: 0.87614924

00:22:08.340 --> 00:22:12.378 is I. I go out and.

NOTE Confidence: 0.87614924

00:22:12.380 --> 00:22:14.564 Talked to scientists and and I asked them,

NOTE Confidence: 0.87614924

00:22:14.570 --> 00:22:16.118 you know what is what is

NOTE Confidence: 0.87614924

00:22:16.118 --> 00:22:17.590 your take on this issue?

NOTE Confidence: 0.87614924

00:22:17.590 --> 00:22:21.577 What is your take on addiction but you know?

NOTE Confidence: 0.87614924

00:22:21.580 --> 00:22:23.148 Is it a disease?

NOTE Confidence: 0.87614924

00:22:23.148 --> 00:22:26.410 Is it a form of mental illness?

NOTE Confidence: 0.87614924

00:22:26.410 --> 00:22:27.451 What is it?

NOTE Confidence: 0.87614924

00:22:27.451 --> 00:22:29.533 What's going on in the brain?

NOTE Confidence: 0.87614924

00:22:29.540 --> 00:22:31.280 But but but is it?

NOTE Confidence: 0.87614924

00:22:31.280 --> 00:22:33.368 Is it you know what's caused?

NOTE Confidence: 0.87614924

00:22:33.370 --> 00:22:34.014 What's effect?

NOTE Confidence: 0.87614924

00:22:34.014 --> 00:22:37.076 Is it that you are born with a brain

NOTE Confidence: 0.87614924

00:22:37.076 --> 00:22:39.636 that's more suseptable set up for it?

NOTE Confidence: 0.87614924

00:22:39.636 --> 00:22:40.680 Or you know,

NOTE Confidence: 0.87614924

00:22:40.680 --> 00:22:42.020 just explain your understanding

NOTE Confidence: 0.87614924

00:22:42.020 --> 00:22:44.030 of it and what your evidence

NOTE Confidence: 0.87614924

00:22:44.095 --> 00:22:45.547 is for that understanding.

NOTE Confidence: 0.87614924

00:22:45.550 --> 00:22:47.966 And based on what they tell me and

NOTE Confidence: 0.87614924

00:22:47.966 --> 00:22:50.594 I talked to a lot of different

NOTE Confidence: 0.87614924

00:22:50.594 --> 00:22:52.154 people have different ideas.

NOTE Confidence: 0.87614924

00:22:52.160 --> 00:22:53.900 I come away, you know,

NOTE Confidence: 0.87614924

00:22:53.900 --> 00:22:56.896 I use my brain to kind of.

NOTE Confidence: 0.87614924

00:22:56.900 --> 00:22:57.326 Evaluate.

NOTE Confidence: 0.87614924

00:22:57.326 --> 00:22:58.604 What they're saying,

NOTE Confidence: 0.87614924

00:22:58.604 --> 00:23:02.781 and I sort of I come to a conclusion I

NOTE Confidence: 0.87614924

00:23:02.781 --> 00:23:06.509 end up feeling a certain way about something,

NOTE Confidence: 0.87614924

00:23:06.510 --> 00:23:08.320 so I'm not an expert,

NOTE Confidence: 0.87614924

00:23:08.320 --> 00:23:10.840 but I'm reasonably intelligent person and I,

NOTE Confidence: 0.87614924

00:23:10.840 --> 00:23:13.258 you know I can listen to

NOTE Confidence: 0.87614924

00:23:13.258 --> 00:23:15.420 evidence and I come away.

NOTE Confidence: 0.87614924

00:23:15.420 --> 00:23:19.820 Saying it looks increasingly like this

NOTE Confidence: 0.87614924

00:23:19.820 --> 00:23:22.880 is a medical condition of some kind,

NOTE Confidence: 0.87614924

00:23:22.880 --> 00:23:24.191 or you know,

NOTE Confidence: 0.87614924

00:23:24.191 --> 00:23:26.376 a mental mental disease factor.

NOTE Confidence: 0.87614924

00:23:26.380 --> 00:23:28.570 The National Institute of Drug

NOTE Confidence: 0.87614924

00:23:28.570 --> 00:23:31.640 and Alcohol Abuse is that it nada.

NOTE Confidence: 0.84770244

00:23:35.130 --> 00:23:38.028 The director says frequently, you know,

NOTE Confidence: 0.84770244

00:23:38.030 --> 00:23:41.481 addiction is a brain disease and she

NOTE Confidence: 0.84770244

00:23:41.481 --> 00:23:44.308 really is flogging that idea and.

NOTE Confidence: 0.8339905

00:23:47.120 --> 00:23:49.304 There seems to be pretty good

NOTE Confidence: 0.8339905

00:23:49.304 --> 00:23:51.380 evidence that that this is true,

NOTE Confidence: 0.8339905

00:23:51.380 --> 00:23:53.865 and so that's what I tell people.

NOTE Confidence: 0.8339905

00:23:53.870 --> 00:23:55.814 And you know, certainly the idea

NOTE Confidence: 0.8339905

00:23:55.814 --> 00:23:58.318 that it's a moral failing has fallen

NOTE Confidence: 0.8339905

00:23:58.318 --> 00:24:00.604 out of favor with most clinicians.

NOTE Confidence: 0.8339905

00:24:00.610 --> 00:24:02.740 As far as I know. Definitely

NOTE Confidence: 0.8339905

00:24:02.740 --> 00:24:06.290 in fact, I don't know any, at least not yell.

NOTE Confidence: 0.8339905

00:24:06.290 --> 00:24:08.420 Any clinicians who would argue that.

NOTE Confidence: 0.8405749

00:24:10.640 --> 00:24:13.376 Yeah, I think it's very much in the

NOTE Confidence: 0.8405749

00:24:13.376 --> 00:24:15.637 mainstream and however there are many

NOTE Confidence: 0.8405749

00:24:15.637 --> 00:24:18.215 people who don't think that way, right?

NOTE Confidence: 0.8405749

00:24:18.215 --> 00:24:21.050 So those are readers that I think you could

NOTE Confidence: 0.8405749

00:24:21.121 --> 00:24:23.707 educate very significant way or persuade,

NOTE Confidence: 0.8405749

00:24:23.710 --> 00:24:25.525 like maybe even passively by

NOTE Confidence: 0.8405749

00:24:25.525 --> 00:24:26.977 not stating it explicitly.

NOTE Confidence: 0.8405749

00:24:26.980 --> 00:24:29.500 This is the medical model for addiction

NOTE Confidence: 0.8405749

00:24:29.500 --> 00:24:32.417 and then they would come away from that.

NOTE Confidence: 0.8405749

00:24:32.420 --> 00:24:34.240 With this realization. That huh?

NOTE Confidence: 0.8432386

00:24:35.080 --> 00:24:37.684 So that's the that is the crucial

NOTE Confidence: 0.8432386

00:24:37.684 --> 00:24:40.197 step where I'm not sure I agree.

NOTE Confidence: 0.8432386

00:24:40.200 --> 00:24:42.286 Yes, I present what I understand to

NOTE Confidence: 0.8432386

00:24:42.286 --> 00:24:44.698 be the best evidence and the best

NOTE Confidence: 0.8432386

00:24:44.698 --> 00:24:46.870 evidence is that there is something

NOTE Confidence: 0.8432386

00:24:46.935 --> 00:24:49.350 physically wrong with people's brains,

NOTE Confidence: 0.8432386

00:24:49.350 --> 00:24:51.250 and whether it's they're born

NOTE Confidence: 0.8432386

00:24:51.250 --> 00:24:53.750 with it or whether it can be.

NOTE Confidence: 0.8432386

00:24:53.750 --> 00:24:55.958 You know whether the substances you

NOTE Confidence: 0.8432386

00:24:55.958 --> 00:24:57.975 you ingest and the circumstances

NOTE Confidence: 0.8432386

00:24:57.975 --> 00:25:00.360 under which you ingest them.

NOTE Confidence: 0.8432386

00:25:00.360 --> 00:25:02.412 Sensitizes your brain and makes you

NOTE Confidence: 0.8432386

00:25:02.412 --> 00:25:05.107 know changes it to be a diseased brain.

NOTE Confidence: 0.8432386

00:25:05.110 --> 00:25:07.816 Maybe it's a little of both.

NOTE Confidence: 0.8432386

00:25:07.820 --> 00:25:10.100 But yeah, I saw you.

NOTE Confidence: 0.8432386

00:25:10.100 --> 00:25:12.836 So I come to the conclusion.

NOTE Confidence: 0.8432386

00:25:12.840 --> 00:25:17.509 It is arguably a disease and treatments.

NOTE Confidence: 0.8432386

00:25:17.510 --> 00:25:20.156 Are most likely to come from neuroscience

NOTE Confidence: 0.8432386

00:25:20.156 --> 00:25:21.290 research and neuropharmacology,

NOTE Confidence: 0.8432386

00:25:21.290 --> 00:25:22.466 and you know,

NOTE Confidence: 0.8432386

00:25:22.466 --> 00:25:24.426 as we understand better what's

NOTE Confidence: 0.8432386

00:25:24.426 --> 00:25:26.200 going wrong in the brain.

NOTE Confidence: 0.8432386

00:25:26.200 --> 00:25:28.846 We can try and and correct it.

NOTE Confidence: 0.82918805

00:25:31.040 --> 00:25:32.536 So I may call that case and it

NOTE Confidence: 0.82918805

00:25:32.536 --> 00:25:34.177 may be that people are reading,

NOTE Confidence: 0.82918805

00:25:34.180 --> 00:25:35.518 so this is kind of interesting,

NOTE Confidence: 0.82918805

00:25:35.520 --> 00:25:38.530 But again, a day later.

NOTE Confidence: 0.82918805

00:25:38.530 --> 00:25:39.970 Do they fall back to their

NOTE Confidence: 0.82918805

00:25:39.970 --> 00:25:40.930 old thinking that now,

NOTE Confidence: 0.82918805

00:25:40.930 --> 00:25:42.370 but you know, but Uncle Charlie,

NOTE Confidence: 0.82918805

00:25:42.370 --> 00:25:44.050 he could stop if he wanted to.

NOTE Confidence: 0.82918805

00:25:44.050 --> 00:25:45.970 And you know what's the matter with him?

NOTE Confidence: 0.82918805

00:25:45.970 --> 00:25:46.690 It's very hard.

NOTE Confidence: 0.82918805

00:25:46.690 --> 00:25:47.890 I have an Uncle Charlie.

NOTE Confidence: 0.82918805

00:25:47.890 --> 00:25:49.090 Oh well, I hope he's

NOTE Confidence: 0.82918805

00:25:49.090 --> 00:25:50.290 getting he could he could.

NOTE Confidence: 0.8916373

00:25:52.340 --> 00:25:58.080 So so. One of the things that.

NOTE Confidence: 0.8916373

00:25:58.080 --> 00:26:02.784 If you ask science Reporter or any Reporter.

NOTE Confidence: 0.8916373

00:26:02.790 --> 00:26:04.460 Do you consider yourself your

NOTE Confidence: 0.8916373

00:26:04.460 --> 00:26:06.440 job to be an educational one?

NOTE Confidence: 0.8916373

00:26:06.440 --> 00:26:08.100 You are you educating people

NOTE Confidence: 0.8916373

00:26:08.100 --> 00:26:10.426 and we say no, no. I'm not.

NOTE Confidence: 0.8916373

00:26:10.426 --> 00:26:12.750 Educating people were very resistant to that.

NOTE Confidence: 0.8916373

00:26:12.750 --> 00:26:16.798 What I'm doing is informing people the idea.

NOTE Confidence: 0.8916373

00:26:16.800 --> 00:26:21.664 Being, I guess that we have no stake.

NOTE Confidence: 0.8916373

00:26:21.670 --> 00:26:23.402 We are agnostic about

NOTE Confidence: 0.8916373

00:26:23.402 --> 00:26:25.134 whether people absorb an.

NOTE Confidence: 0.8916373

00:26:25.140 --> 00:26:29.725 And adopt these ideas because that would.

NOTE Confidence: 0.8916373

00:26:29.730 --> 00:26:31.970 That would make us manipulators or something.

NOTE Confidence: 0.8916373

00:26:31.970 --> 00:26:33.900 I'm not sure what that

NOTE Confidence: 0.8916373

00:26:33.900 --> 00:26:36.410 is but but but in fact.

NOTE Confidence: 0.8916373

00:26:36.410 --> 00:26:40.073 The way that we are clearly not educators is

NOTE Confidence: 0.8916373

00:26:40.073 --> 00:26:43.646 that in education you present information.

NOTE Confidence: 0.8916373

00:26:43.650 --> 00:26:45.806 And then you test the students knowledge.

NOTE Confidence: 0.8916373

00:26:45.810 --> 00:26:47.916 The student has not absorbed and

NOTE Confidence: 0.8916373

00:26:47.916 --> 00:26:50.054 retained the knowledge at least long

NOTE Confidence: 0.8916373

00:26:50.054 --> 00:26:52.406 enough for the exam that student fails.

NOTE Confidence: 0.8916373

00:26:52.410 --> 00:26:56.090 And we have no such.

NOTE Confidence: 0.8916373

00:26:56.090 --> 00:26:58.150 No, no such follow-up.

NOTE Confidence: 0.8916373

00:26:58.150 --> 00:27:00.210 No such measurements we.

NOTE Confidence: 0.6664914

00:27:02.590 --> 00:27:06.988 Both practically and sort of professionally.

NOTE Confidence: 0.6664914

00:27:06.990 --> 00:27:09.762 Take no position on whether people remember

NOTE Confidence: 0.6664914

00:27:09.762 --> 00:27:12.160 anything we've written a week later. Well,

NOTE Confidence: 0.8412761

00:27:12.160 --> 00:27:14.000 I can imagine. I mean,

NOTE Confidence: 0.8412761

00:27:14.000 --> 00:27:16.352 this is segue from a conversation we

NOTE Confidence: 0.8412761

00:27:16.352 --> 00:27:18.430 had earlier about climate control.

NOTE Confidence: 0.8412761

00:27:18.430 --> 00:27:20.593 I can imagine that there could exist

NOTE Confidence: 0.8412761

00:27:20.593 --> 00:27:23.186 this League of Journalists who report on

NOTE Confidence: 0.8412761

00:27:23.186 --> 00:27:25.586 climate control that could measure their

NOTE Confidence: 0.8412761

00:27:25.653 --> 00:27:28.017 efficacy based on public opinion polls,

NOTE Confidence: 0.8412761

00:27:28.020 --> 00:27:29.870 like maybe question would be,

NOTE Confidence: 0.8412761

00:27:29.870 --> 00:27:31.418 what is climate control?

NOTE Confidence: 0.8412761

00:27:31.418 --> 00:27:33.353 And then question two or

NOTE Confidence: 0.8412761

00:27:33.353 --> 00:27:35.400 what are we doing about it?

NOTE Confidence: 0.8412761

00:27:35.400 --> 00:27:38.100 You know that sort of thing? Right,

NOTE Confidence: 0.82090336

00:27:38.100 --> 00:27:40.290 so so there are people there.

NOTE Confidence: 0.82090336

00:27:40.290 --> 00:27:43.018 In fact there are people at Yale who

NOTE Confidence: 0.82090336

00:27:43.018 --> 00:27:45.380 do studies on that very question.

NOTE Confidence: 0.82090336

00:27:45.380 --> 00:27:46.840 What do people actually

NOTE Confidence: 0.82090336

00:27:46.840 --> 00:27:48.300 think about climate change?

NOTE Confidence: 0.82090336

00:27:48.300 --> 00:27:50.478 What do they know about it?

NOTE Confidence: 0.82090336

00:27:50.480 --> 00:27:52.300 You know, as their knowledge,

NOTE Confidence: 0.82090336

00:27:52.300 --> 00:27:53.756 how concerned are they?

NOTE Confidence: 0.82090336

00:27:53.756 --> 00:27:55.940 How much action do they take

NOTE Confidence: 0.82090336

00:27:56.010 --> 00:27:57.760 to try and counteract it?

NOTE Confidence: 0.82090336

00:27:57.760 --> 00:28:00.308 So there are people who do that,

NOTE Confidence: 0.82090336

00:28:00.310 --> 00:28:02.130 but they're mostly not journalists,

NOTE Confidence: 0.82090336

00:28:02.130 --> 00:28:03.582 journalists, our professional stance

NOTE Confidence: 0.82090336

00:28:03.582 --> 00:28:05.397 is we present the information.

NOTE Confidence: 0.82090336

00:28:05.400 --> 00:28:08.520 It's like the Fox News slogan we report.

NOTE Confidence: 0.82090336

00:28:08.520 --> 00:28:12.183 You decide which is bogus in the boxes down.

NOTE Confidence: 0.82090336

00:28:12.190 --> 00:28:15.454 Interesting but but but that sort of Co.

NOTE Confidence: 0.82090336

00:28:15.454 --> 00:28:18.310 Opting of the basic attitude of journalists,

NOTE Confidence: 0.82090336

00:28:18.310 --> 00:28:20.790 we present you the information

NOTE Confidence: 0.82090336

00:28:20.790 --> 00:28:23.270 as best we understand it.

NOTE Confidence: 0.82090336

00:28:23.270 --> 00:28:25.376 What you do with it? We are not.

NOTE Confidence: 0.82090336

00:28:25.376 --> 00:28:26.686 We don't check on you,

NOTE Confidence: 0.82090336

00:28:26.690 --> 00:28:27.186 we don't.

NOTE Confidence: 0.82090336

00:28:27.186 --> 00:28:29.915 We wash our hands of it we do the best

NOTE Confidence: 0.82090336

00:28:29.915 --> 00:28:32.611 job we can to give you accurate information.

NOTE Confidence: 0.82090336

00:28:32.620 --> 00:28:33.775 The rest is.

NOTE Confidence: 0.82090336

00:28:33.775 --> 00:28:35.700 You know we're onto the

NOTE Confidence: 0.8579014

00:28:35.700 --> 00:28:37.794 next story. There are many assumptions

NOTE Confidence: 0.8579014

00:28:37.794 --> 00:28:40.270 about what it is to have a brain,

NOTE Confidence: 0.8579014

00:28:40.270 --> 00:28:43.213 what it is to put substances into your body.

NOTE Confidence: 0.8579014

00:28:43.220 --> 00:28:45.176 How does the brain and the

NOTE Confidence: 0.8579014

00:28:45.176 --> 00:28:46.154 physical world interact?

NOTE Confidence: 0.8579014

00:28:46.160 --> 00:28:48.316 Can I actually change my outcome or

NOTE Confidence: 0.8579014

00:28:48.316 --> 00:28:51.060 is it like due to chance or whatever?

NOTE Confidence: 0.8579014

00:28:51.060 --> 00:28:53.676 So those are a lot of very complex,

NOTE Confidence: 0.8579014

00:28:53.680 --> 00:28:54.410 more philosophical,

NOTE Confidence: 0.8579014

00:28:54.410 --> 00:28:56.235 maybe even intuitive assumptions that

NOTE Confidence: 0.8579014

00:28:56.235 --> 00:28:58.796 your reader in order to go on that

NOTE Confidence: 0.8579014

00:28:58.796 --> 00:29:00.211 journey of learning about addiction.

NOTE Confidence: 0.8579014

00:29:00.220 --> 00:29:01.524 We're learning about psychiatry,

NOTE Confidence: 0.8579014

00:29:01.524 --> 00:29:03.386 mental health, they would follow

NOTE Confidence: 0.8579014

00:29:03.386 --> 00:29:05.798 with you and agree with you.

NOTE Confidence: 0.8579014

00:29:05.800 --> 00:29:08.250 And so it's almost as if you

NOTE Confidence: 0.8579014

00:29:08.250 --> 00:29:10.370 develop this body of knowledge.

NOTE Confidence: 0.8579014

00:29:10.370 --> 00:29:12.275 This literacy for scientific reading

NOTE Confidence: 0.8579014

00:29:12.275 --> 00:29:15.328 as you go along, and so is there.

NOTE Confidence: 0.8579014

00:29:15.328 --> 00:29:17.610 Well, you not it right there.

NOTE Confidence: 0.8579014

00:29:17.610 --> 00:29:19.896 I'm curious what you were thinking.

NOTE Confidence: 0.836295

00:29:20.990 --> 00:29:23.414 Well, I don't. I don't know if you're

NOTE Confidence: 0.836295

00:29:23.414 --> 00:29:25.331 talking about cumulatively over several

NOTE Confidence: 0.836295

00:29:25.331 --> 00:29:27.827 articles or within an article itself,

NOTE Confidence: 0.836295

00:29:27.830 --> 00:29:30.022 even maybe within a domain, right?

NOTE Confidence: 0.836295

00:29:30.022 --> 00:29:32.374 So science writers write about science

NOTE Confidence: 0.836295

00:29:32.374 --> 00:29:35.232 and then so say I wanted to go back

NOTE Confidence: 0.836295

00:29:35.232 --> 00:29:37.549 and read all of Michael Lemonick,

NOTE Confidence: 0.836295

00:29:37.550 --> 00:29:39.350 Spieces and Scientific American, right?

NOTE Confidence: 0.836295

00:29:39.350 --> 00:29:41.870 So there's no question that after I'm

NOTE Confidence: 0.836295

00:29:41.870 --> 00:29:44.250 done with that, I would have seen,

NOTE Confidence: 0.836295

00:29:44.250 --> 00:29:46.996 like a string of ideas over a long

NOTE Confidence: 0.836295

00:29:46.996 --> 00:29:49.156 period of time that are connected

NOTE Confidence: 0.836295

00:29:49.156 --> 00:29:51.228 with ideas of like causality.

NOTE Confidence: 0.836295

00:29:51.230 --> 00:29:53.030 You would learn some statistics.

NOTE Confidence: 0.836295

00:29:53.030 --> 00:29:55.340 I would learn some about Physiology.

NOTE Confidence: 0.836295

00:29:55.340 --> 00:29:57.410 Astronomy, like how mathematics can

NOTE Confidence: 0.836295

00:29:57.410 --> 00:30:00.250 teach us about the world and those.

NOTE Confidence: 0.836295

00:30:00.250 --> 00:30:02.665 Our assumptions that I think people have

NOTE Confidence: 0.836295

00:30:02.665 --> 00:30:04.819 intuitively those are taught assumptions,

NOTE Confidence: 0.836295

00:30:04.820 --> 00:30:07.070 and so I'm wondering how journalists

NOTE Confidence: 0.836295

00:30:07.070 --> 00:30:09.390 try to persuade in that sense,

NOTE Confidence: 0.836295

00:30:09.390 --> 00:30:11.300 not specifically of an issue,

NOTE Confidence: 0.836295

00:30:11.300 --> 00:30:13.967 but more of a model or thinking.

NOTE Confidence: 0.81244993

00:30:15.040 --> 00:30:16.768 Well, again, we don't. We don't.

NOTE Confidence: 0.81244993

00:30:16.770 --> 00:30:18.504 Unless we're writing editorials we don't

NOTE Confidence: 0.81244993

00:30:18.504 --> 00:30:20.527 try to persuade now. First we tried,

NOTE Confidence: 0.81244993

00:30:20.527 --> 00:30:22.550 we tried to inform and so in.

NOTE Confidence: 0.8285483

00:30:24.750 --> 00:30:26.510 In most articles I write,

NOTE Confidence: 0.8285483

00:30:26.510 --> 00:30:27.566 especially longer ones,

NOTE Confidence: 0.8285483

00:30:27.566 --> 00:30:29.678 I do have to layout evidence.

NOTE Confidence: 0.8285483

00:30:29.680 --> 00:30:31.792 I do talk about how scientists

00:30:31.792 --> 00:30:32.848 think about evidence.

00:30:32.850 --> 00:30:34.610 I do talk about statistics.

00:30:34.610 --> 00:30:36.722 I do talk about we were

00:30:36.722 --> 00:30:38.130 talking earlier about my.

00:30:38.130 --> 00:30:40.454 My one of my favorite quotes from

00:30:40.454 --> 00:30:42.000 the physicist Richard Feynman,

00:30:42.000 --> 00:30:44.640 who said in a talk once the most

00:30:44.640 --> 00:30:47.026 important job a scientist has is not

00:30:47.026 --> 00:30:49.893 to fool himself and you as a scientist

00:30:49.893 --> 00:30:52.173 with the easiest person to fool

00:30:52.173 --> 00:30:54.320 'cause you care about your result,

00:30:54.320 --> 00:30:56.610 you think you're onto something.

00:30:56.610 --> 00:30:58.300 It's very easy to overlook

00:30:58.300 --> 00:30:59.990 some dumb mistake you made,

00:30:59.990 --> 00:31:02.700 and so I've brought that.

NOTE Confidence: 0.8285483

00:31:02.700 --> 00:31:04.824 Concept into many many different stories

NOTE Confidence: 0.8285483

00:31:04.824 --> 00:31:06.820 about many different topics and retry.

NOTE Confidence: 0.8285483

00:31:06.820 --> 00:31:10.618 You know not because I want my readers to.

NOTE Confidence: 0.8285483

00:31:10.620 --> 00:31:12.320 Written have it reinforced becausw.

NOTE Confidence: 0.8285483

00:31:12.320 --> 00:31:14.616 I think it's a really important point

NOTE Confidence: 0.8285483

00:31:14.616 --> 00:31:16.352 that people don't understand about

NOTE Confidence: 0.8285483

00:31:16.352 --> 00:31:19.120 scientists in about sort of the ethic of,

NOTE Confidence: 0.8285483

00:31:19.120 --> 00:31:21.346 or at least the aspirational ethic

NOTE Confidence: 0.8285483

00:31:21.346 --> 00:31:23.880 of science and the I don't do it.

NOTE Confidence: 0.8285483

00:31:23.880 --> 00:31:25.920 I don't say, oh, you know,

NOTE Confidence: 0.8285483

00:31:25.920 --> 00:31:27.620 I should mention this again.

NOTE Confidence: 0.8285483

00:31:27.620 --> 00:31:29.696 'cause maybe people will you know

NOTE Confidence: 0.8285483

00:31:29.696 --> 00:31:32.380 if I'm working on this theory for 10

NOTE Confidence: 0.8174645

00:31:32.380 --> 00:31:34.420 years, he can't stop now or

NOTE Confidence: 0.8174645

00:31:34.420 --> 00:31:36.120 something like that, right? No

NOTE Confidence: 0.8174645

00:31:36.120 --> 00:31:40.570 no, no. But I mean I mean, just just that.

NOTE Confidence: 0.8174645

00:31:40.570 --> 00:31:42.962 It comes up so often in science when

NOTE Confidence: 0.8174645

00:31:42.962 --> 00:31:45.710 people do make mistakes that when it does,

NOTE Confidence: 0.8174645

00:31:45.710 --> 00:31:48.594 and I write about it, you know, I reinforce.

NOTE Confidence: 0.8174645

00:31:48.594 --> 00:31:51.810 I talk about that idea, so I'm just a human.

NOTE Confidence: 0.8174645

00:31:51.810 --> 00:31:54.050 They make mistakes, they get too excited.

NOTE Confidence: 0.8174645

00:31:54.050 --> 00:31:56.996 You know, they they overlook evidence.

NOTE Confidence: 0.8174645

00:31:57.000 --> 00:31:58.956 Only because it's such an important

NOTE Confidence: 0.8174645

00:31:58.956 --> 00:32:00.770 part of the scientific process.

NOTE Confidence: 0.8174645

00:32:00.770 --> 00:32:01.866 Not because I want.

NOTE Confidence: 0.8174645

00:32:01.866 --> 00:32:04.079 I'm hoping that readers will over the years,

NOTE Confidence: 0.8174645

00:32:04.080 --> 00:32:05.736 have it ingrained in their brains.

NOTE Confidence: 0.8174645

00:32:05.740 --> 00:32:07.390 It's important to this particular story,

NOTE Confidence: 0.8174645

00:32:07.390 --> 00:32:10.379 but the things that are important too.

NOTE Confidence: 0.8174645

00:32:10.380 --> 00:32:11.658 Particular stories.

NOTE Confidence: 0.8174645

00:32:11.658 --> 00:32:17.220 Come up again and again in science and so.

NOTE Confidence: 0.8174645

00:32:17.220 --> 00:32:18.846 You know the idea that well,

NOTE Confidence: 0.8174645

00:32:18.850 --> 00:32:20.476 you saw this affect? How did?

NOTE Confidence: 0.8174645

00:32:20.480 --> 00:32:23.558 How do you know it wasn't something else and.

NOTE Confidence: 0.8174645

00:32:23.560 --> 00:32:24.290 Good scientist.

NOTE Confidence: 0.8174645

00:32:24.290 --> 00:32:26.845 I thought of that and they said,

NOTE Confidence: 0.8174645

00:32:26.850 --> 00:32:28.716 well, here's how I I convinced

NOTE Confidence: 0.8174645

00:32:28.716 --> 00:32:30.290 myself it wasn't something else.

NOTE Confidence: 0.8174645

00:32:30.290 --> 00:32:31.271 So you know.

NOTE Confidence: 0.8174645

00:32:31.271 --> 00:32:33.233 So it's not a cumulative thing

NOTE Confidence: 0.8174645

00:32:33.233 --> 00:32:35.679 over my great works over the years,

NOTE Confidence: 0.8174645

00:32:35.680 --> 00:32:37.636 it's just something it's a theme

NOTE Confidence: 0.8174645

00:32:37.636 --> 00:32:39.345 that is recurring because it

NOTE Confidence: 0.8174645

00:32:39.345 --> 00:32:40.737 recurring in science itself.

NOTE Confidence: 0.8174645

00:32:40.740 --> 00:32:43.099 That's just part of the writing process,

NOTE Confidence: 0.8174645

00:32:43.100 --> 00:32:43.770 just part

NOTE Confidence: 0.85591996

00:32:43.770 --> 00:32:45.786 of the writing process, because each

NOTE Confidence: 0.85591996

00:32:45.790 --> 00:32:48.172 story I cannot ever assume that

NOTE Confidence: 0.85591996

00:32:48.172 --> 00:32:50.617 people have read anything I've ever

NOTE Confidence: 0.85591996

00:32:50.617 --> 00:32:52.957 written before or will read anything

NOTE Confidence: 0.85591996

00:32:52.957 --> 00:32:55.138 I've ever I ever write again.

NOTE Confidence: 0.85591996

00:32:55.140 --> 00:32:58.578 I have to give them what they need to

NOTE Confidence: 0.85591996

00:32:58.578 --> 00:33:01.795 understand. This story in in whatever

NOTE Confidence: 0.85591996

00:33:01.795 --> 00:33:05.489 complexity I have the space for an.

NOTE Confidence: 0.85591996

00:33:05.490 --> 00:33:06.828 And that's it. That's what I'm.

NOTE Confidence: 0.85591996

00:33:06.830 --> 00:33:07.940 That's what I'm worried about,

NOTE Confidence: 0.85591996

00:33:07.940 --> 00:33:09.282 and if they need context, well,

NOTE Confidence: 0.85591996

00:33:09.282 --> 00:33:10.836 this is what we used to think.

NOTE Confidence: 0.85591996

00:33:10.840 --> 00:33:11.732 Now here's this experiment

NOTE Confidence: 0.85591996

00:33:11.732 --> 00:33:12.847 that shows us it's different.

NOTE Confidence: 0.85591996

00:33:12.850 --> 00:33:14.074 That's really important.

NOTE Confidence: 0.85591996

00:33:14.074 --> 00:33:16.114 And I put that in.

NOTE Confidence: 0.85591996

00:33:16.120 --> 00:33:18.667 If you know if the process by which the

NOTE Confidence: 0.85591996

00:33:18.667 --> 00:33:20.818 scientists made the discovery is important,

NOTE Confidence: 0.85591996

00:33:20.820 --> 00:33:22.068 I put that in,

NOTE Confidence: 0.85591996

00:33:22.068 --> 00:33:23.628 but it's all self contained,

NOTE Confidence: 0.85591996

00:33:23.630 --> 00:33:24.260 it doesn't.

NOTE Confidence: 0.8544844

00:33:26.330 --> 00:33:28.706 He doesn't refer back to or

NOTE Confidence: 0.8544844

00:33:28.706 --> 00:33:30.720 forward toward anything else I do.

NOTE Confidence: 0.8787997

00:33:32.180 --> 00:33:33.740 Well, so how does that change

NOTE Confidence: 0.8787997

00:33:33.740 --> 00:33:35.040 then? Say you are too.

NOTE Confidence: 0.87561965

00:33:37.620 --> 00:33:40.399 No worries, I'm at the Framingham heart.

NOTE Confidence: 0.87561965

00:33:40.400 --> 00:33:42.822 Study right. So to understand the results

NOTE Confidence: 0.87561965

00:33:42.822 --> 00:33:45.960 of the 1995 Framingham Heart Press release,

NOTE Confidence: 0.87561965

00:33:45.960 --> 00:33:48.522 you would have to understand the

NOTE Confidence: 0.87561965

00:33:48.522 --> 00:33:50.920 results of 1985's press release.

NOTE Confidence: 0.87561965

00:33:50.920 --> 00:33:54.080 And so that's kind of a longitudinal body

NOTE Confidence: 0.87561965

58

00:33:54.080 --> 00:33:56.700 of knowledge that you've built right.

NOTE Confidence: 0.87561965

00:33:56.700 --> 00:34:00.151 I'm curious how you keep an audience

NOTE Confidence: 0.87561965

00:34:00.151 --> 00:34:02.150 entertained like that like.

NOTE Confidence: 0.87561965

00:34:02.150 --> 00:34:06.046 Would they just come back for the next?

NOTE Confidence: 0.87561965

00:34:06.050 --> 00:34:08.586 Addition or it's always new and that is

NOTE Confidence: 0.87561965

00:34:08.586 --> 00:34:10.576 self contained way it's always new in

NOTE Confidence: 0.75658786

00:34:10.580 --> 00:34:12.590 that self contained way and they

NOTE Confidence: 0.75658786

00:34:12.590 --> 00:34:14.241 probably don't remember that they

NOTE Confidence: 0.75658786

00:34:14.241 --> 00:34:16.019 read a story about this in 1985.

NOTE Confidence: 0.75658786

00:34:16.020 --> 00:34:17.826 They just sort of vaguely remember.

NOTE Confidence: 0.75658786

00:34:17.830 --> 00:34:20.143 Oh yeah, at some point they told me to

NOTE Confidence: 0.75658786

00:34:20.143 --> 00:34:22.512 stop eating butter and starting the merger

NOTE Confidence: 0.75658786

00:34:22.512 --> 00:34:25.078 and they don't know where they read it.

NOTE Confidence: 0.75658786

00:34:25.080 --> 00:34:27.580 Or you know what study it was but in if

NOTE Confidence: 0.75658786

00:34:27.645 --> 00:34:30.207 I'm writing about the frame heart study,

NOTE Confidence: 0.75658786

00:34:30.210 --> 00:34:32.218 I say you know this has been going

NOTE Confidence: 0.75658786

00:34:32.218 --> 00:34:34.598 on for however many years with this

NOTE Confidence: 0.75658786

00:34:34.598 --> 00:34:36.408 many people and it's produced.

NOTE Confidence: 0.75658786

00:34:36.410 --> 00:34:37.673 Many important results,

NOTE Confidence: 0.75658786

00:34:37.673 --> 00:34:39.778 and here's the latest one.

NOTE Confidence: 0.75658786

00:34:39.780 --> 00:34:41.204 I give them it's.

NOTE Confidence: 0.75658786

00:34:41.204 --> 00:34:43.340 It's almost like it's almost like

NOTE Confidence: 0.75658786

00:34:43.416 --> 00:34:45.810 something I can't think of what but

NOTE Confidence: 0.75658786

00:34:45.810 --> 00:34:48.307 but it's it's sort of it's sort of

NOTE Confidence: 0.75658786

00:34:48.310 --> 00:34:49.981 like having Cliff notes version.

NOTE Confidence: 0.75658786

00:34:49.981 --> 00:34:52.158 Or yeah, yeah it's like it's it's

NOTE Confidence: 0.75658786

00:34:52.158 --> 00:34:54.681 like I presume that I was writing

NOTE Confidence: 0.75658786

00:34:54.681 --> 00:34:56.149 this story about amnesia.

NOTE Confidence: 0.75658786

00:34:56.150 --> 00:34:58.742 I talked to people in Toronto who we're

NOTE Confidence: 0.75658786

00:34:58.742 --> 00:35:01.258 finding that smartphones or can be really,

NOTE Confidence: 0.75658786

00:35:01.260 --> 00:35:02.950 really effective memory aids for

NOTE Confidence: 0.75658786

00:35:02.950 --> 00:35:05.010 people with dementia of various kinds.

NOTE Confidence: 0.75658786

00:35:05.010 --> 00:35:07.056 So, so if you're carrying the

NOTE Confidence: 0.75658786

00:35:07.056 --> 00:35:08.420 phone around with you,

NOTE Confidence: 0.75658786

00:35:08.420 --> 00:35:11.126 and it's pretty simple to operate

NOTE Confidence: 0.75658786

00:35:11.126 --> 00:35:13.450 so you can remember that.

NOTE Confidence: 0.75658786

00:35:13.450 --> 00:35:16.240 You know, if you don't know where you are,

NOTE Confidence: 0.75658786

00:35:16.240 --> 00:35:18.022 you can maybe take a picture

NOTE Confidence: 0.75658786

00:35:18.022 --> 00:35:20.270 and it's and it tells you, oh,

NOTE Confidence: 0.75658786

00:35:20.270 --> 00:35:22.750 you are in such and such a place.

NOTE Confidence: 0.75658786

00:35:22.750 --> 00:35:23.970 Or if you're lossed,

NOTE Confidence: 0.75658786

00:35:23.970 --> 00:35:26.160 Google Maps can tell you you're here,

NOTE Confidence: 0.75658786

00:35:26.160 --> 00:35:28.640 so it's like it's not your own memory.

NOTE Confidence: 0.75658786

00:35:28.640 --> 00:35:30.190 It's not your own information,

NOTE Confidence: 0.75658786

00:35:30.190 --> 00:35:32.074 it's an external thing that brings

NOTE Confidence: 0.75658786

00:35:32.074 --> 00:35:34.175 you up to speed for the moment

NOTE Confidence: 0.75658786

00:35:34.175 --> 00:35:36.780 while you need to be up to speed on

NOTE Confidence: 0.75658786

00:35:36.780 --> 00:35:38.560 some particular thing like tattoos

NOTE Confidence: 0.75658786

00:35:38.560 --> 00:35:40.420 in Momento is exact reason Momento

NOTE Confidence: 0.75658786

00:35:40.420 --> 00:35:42.280 exactly and that's what your arm.

NOTE Confidence: 0.75658786

00:35:42.280 --> 00:35:45.297 That's what. That's what my stories are.

NOTE Confidence: 0.75658786

00:35:45.300 --> 00:35:47.340 I don't expect you to remember

NOTE Confidence: 0.75658786

00:35:47.340 --> 00:35:49.440 anything you've ever read about this.

NOTE Confidence: 0.75658786

00:35:49.440 --> 00:35:54.464 Before so I give you a little external.

NOTE Confidence: 0.75658786

00:35:54.470 --> 00:35:58.012 A rundown of where we stand, what we know,

NOTE Confidence: 0.75658786

00:35:58.012 --> 00:36:00.770 and how this changes it so so.

NOTE Confidence: 0.8372492

00:36:00.770 --> 00:36:02.350 This is another distinction

NOTE Confidence: 0.8372492

00:36:02.350 --> 00:36:03.930 between science and journalism.

NOTE Confidence: 0.8372492

00:36:03.930 --> 00:36:06.906 I think, because I'm I'm in the process

NOTE Confidence: 0.8372492

00:36:06.906 --> 00:36:09.439 of writing a manuscript right now,

NOTE Confidence: 0.8372492

00:36:09.440 --> 00:36:12.079 and so a large part of my

NOTE Confidence: 0.8372492

00:36:12.079 --> 00:36:14.504 introduction is just a summary of

NOTE Confidence: 0.8372492

00:36:14.504 --> 00:36:17.318 all of the research and I'm serving.

NOTE Confidence: 0.8372492

00:36:17.320 --> 00:36:20.464 It won't even call it cherry picking cherry,

NOTE Confidence: 0.8372492

00:36:20.470 --> 00:36:22.440 picking it to essentially frame

NOTE Confidence: 0.8372492

00:36:22.440 --> 00:36:24.410 why my results are interesting.

NOTE Confidence: 0.8372492

00:36:24.410 --> 00:36:25.974 Why did the analysis?

NOTE Confidence: 0.8372492

00:36:25.974 --> 00:36:27.416 Like motivated, this study,

NOTE Confidence: 0.8372492

00:36:27.416 --> 00:36:29.712 and so I would say it's a

NOTE Confidence: 0.8372492

00:36:29.712 --> 00:36:31.976 pretty biased summary of a very,

NOTE Confidence: 0.8372492

00:36:31.980 --> 00:36:33.408 very, very large literature,

NOTE Confidence: 0.8372492

00:36:33.408 --> 00:36:35.193 and I think every papers

NOTE Confidence: 0.8372492

00:36:35.193 --> 00:36:36.849 like that where you know.

NOTE Confidence: 0.8372492

00:36:36.850 --> 00:36:38.590 Obviously you don't want to

NOTE Confidence: 0.8372492

00:36:38.590 --> 00:36:40.330 talk about some random fact.

NOTE Confidence: 0.8372492

00:36:40.330 --> 00:36:42.706 It's very directed.

NOTE Confidence: 0.8372492

00:36:42.706 --> 00:36:44.290 And then.

NOTE Confidence: 0.8372492

00:36:44.290 --> 00:36:47.055 It's not self contained like it assumes

00:36:47.055 --> 00:36:49.805 a large deal of knowledge that the

00:36:49.805 --> 00:36:52.800 reader has to have in order to do it.

00:36:52.800 --> 00:36:55.760 In order to make sense of the paper.

00:36:55.760 --> 00:36:57.716 And so maybe that's one reason

00:36:57.716 --> 00:36:59.490 why scientists have trouble trans

00:36:59.490 --> 00:37:01.138 transitioning or writing for

00:37:01.138 --> 00:37:02.786 these self contained mementoes,

00:37:02.790 --> 00:37:04.640 right, but but you know,

00:37:04.640 --> 00:37:06.932 I make assumptions too about what

00:37:06.932 --> 00:37:08.710 the reader knowledge already is,

00:37:08.710 --> 00:37:10.930 not the specific knowledge of what's

00:37:10.930 --> 00:37:14.020 in this story, but you know if I

00:37:14.020 --> 00:37:16.000 say I'm writing about astronomy.

00:37:16.000 --> 00:37:18.160 And I say we've discovered a new planet.

00:37:18.160 --> 00:37:19.792 I don't have to explain to

00:37:19.792 --> 00:37:21.130 them what a planet is.

NOTE Confidence: 0.85334593

00:37:21.130 --> 00:37:23.048 I assume they know that I assume

NOTE Confidence: 0.85334593

00:37:23.048 --> 00:37:24.705 they they sort of know that

NOTE Confidence: 0.85334593

00:37:24.705 --> 00:37:26.259 DNA is the thing that that.

NOTE Confidence: 0.81941044

00:37:28.610 --> 00:37:30.295 That we pass along that

NOTE Confidence: 0.81941044

00:37:30.295 --> 00:37:31.306 with characteristics about.

NOTE Confidence: 0.81941044

00:37:31.310 --> 00:37:33.918 You know what we look like in and

NOTE Confidence: 0.81941044

00:37:33.918 --> 00:37:35.919 so there's some basic assumptions

NOTE Confidence: 0.81941044

00:37:35.919 --> 00:37:38.880 about people who are in the world.

NOTE Confidence: 0.81941044

00:37:38.880 --> 00:37:40.548 And the things that they know,

NOTE Confidence: 0.81941044

00:37:40.550 --> 00:37:41.658 and that's actually that's

NOTE Confidence: 0.81941044

00:37:41.658 --> 00:37:42.766 the problem for scientists,

NOTE Confidence: 0.81941044

00:37:42.770 --> 00:37:44.142 they've kind of glossed.

NOTE Confidence: 0.81941044

00:37:44.142 --> 00:37:47.490 Because they are in a very specialized world,

NOTE Confidence: 0.81941044

00:37:47.490 --> 00:37:49.779 most of the time they have in

NOTE Confidence: 0.81941044

00:37:49.779 --> 00:37:52.057 some sense lost touch in many

65

00:37:52.057 --> 00:37:54.499 cases with what the average person

NOTE Confidence: 0.81941044

00:37:54.499 --> 00:37:56.506 carries around as a kind of a

NOTE Confidence: 0.8169629

00:37:56.510 --> 00:37:58.586 general knowledge based maybe when they

NOTE Confidence: 0.8169629

00:37:58.590 --> 00:37:59.631 care about, certainly

NOTE Confidence: 0.8169629

00:37:59.631 --> 00:38:01.366 certainly what they care about.

NOTE Confidence: 0.8169629

00:38:01.370 --> 00:38:03.100 That's that can be difficult

NOTE Confidence: 0.8169629

00:38:03.100 --> 00:38:06.970 to try and anticipate, I think.

NOTE Confidence: 0.8169629

00:38:06.970 --> 00:38:08.916 Alright, so I so I assume my

NOTE Confidence: 0.8169629

00:38:08.916 --> 00:38:10.501 readers know that there's this

NOTE Confidence: 0.8169629

00:38:10.501 --> 00:38:12.221 thing called climate change and

NOTE Confidence: 0.8169629

00:38:12.221 --> 00:38:14.528 the world is going to get hotter,

NOTE Confidence: 0.8169629

00:38:14.530 --> 00:38:16.420 and because of you know pollution

NOTE Confidence: 0.8169629

00:38:16.420 --> 00:38:18.630 from coal stacks, I don't have to.

NOTE Confidence: 0.8169629

00:38:18.630 --> 00:38:20.518 I don't give them, you know,

NOTE Confidence: 0.8169629

00:38:20.518 --> 00:38:22.088 the basics of climate change.

NOTE Confidence: 0.8169629

00:38:22.090 --> 00:38:24.295 I assume they've heard enough about it,

NOTE Confidence: 0.8169629

00:38:24.300 --> 00:38:26.190 so they've retained that. At least.

NOTE Confidence: 0.8169629

00:38:26.190 --> 00:38:28.080 I assume they know that getting

NOTE Confidence: 0.8169629

00:38:28.080 --> 00:38:29.650 exercise is good for you.

NOTE Confidence: 0.8169629

00:38:29.650 --> 00:38:32.098 I assume you soon.

NOTE Confidence: 0.8169629

00:38:32.100 --> 00:38:34.585 Prior knowledge of a non specialized kind,

NOTE Confidence: 0.8169629

00:38:34.590 --> 00:38:37.678 just sort of a general what you might

NOTE Confidence: 0.8169629

00:38:37.678 --> 00:38:41.795 in the in the world of memory research call.

NOTE Confidence: 0.8169629

00:38:41.800 --> 00:38:43.284 Semantic memory, you know,

NOTE Confidence: 0.8169629

00:38:43.284 --> 00:38:46.280 I know what the capital of France is.

NOTE Confidence: 0.8169629

00:38:46.280 --> 00:38:48.660 I don't probably don't have to tell

NOTE Confidence: 0.8169629

00:38:48.660 --> 00:38:50.954 people I they probably don't know

NOTE Confidence: 0.8169629

00:38:50.954 --> 00:38:53.360 what the capital of Mongolia is.

NOTE Confidence: 0.80310667

00:38:53.360 --> 00:38:55.724 Well, so to get someone to

NOTE Confidence: 0.80310667

00:38:55.724 --> 00:38:58.560 engage in a piece assumes that.

NOTE Confidence: 0.80310667

00:38:58.560 --> 00:39:00.345 You know they're they're interested in it,

NOTE Confidence: 0.80310667

00:39:00.350 --> 00:39:01.880 or they have some baseline knowledge.

NOTE Confidence: 0.80310667

00:39:01.880 --> 00:39:04.928 Like if you're writing about him.

NOTE Confidence: 0.80310667

00:39:04.930 --> 00:39:06.458 You know new planets.

NOTE Confidence: 0.80310667

00:39:06.458 --> 00:39:09.178 You have to assume that someone's curious

NOTE Confidence: 0.80310667

00:39:09.178 --> 00:39:12.010 whether there's a new planet out there or

NOTE Confidence: 0.80310667

00:39:12.010 --> 00:39:15.218 a mirror to our planet Earth or something.

NOTE Confidence: 0.80310667

00:39:15.220 --> 00:39:18.484 And so I see a correlation with some

NOTE Confidence: 0.80310667

00:39:18.484 --> 00:39:21.478 forms of academic writing where.

NOTE Confidence: 0.80310667

00:39:21.480 --> 00:39:23.170 Or maybe this is Darren.

NOTE Confidence: 0.80310667

00:39:23.170 --> 00:39:25.642 I mean, let me let me explain my

NOTE Confidence: 0.80310667

00:39:25.642 --> 00:39:27.418 thought first so mental health

NOTE Confidence: 0.80310667

00:39:27.418 --> 00:39:29.596 is a very complex problem, right?

NOTE Confidence: 0.80310667

00:39:29.596 --> 00:39:31.792 And so it's resolution or the

NOTE Confidence: 0.80310667

00:39:31.792 --> 00:39:33.961 resolution of the problem like to

NOTE Confidence: 0.80310667

00:39:33.961 --> 00:39:36.285 be able to diagnose and treat has

NOTE Confidence: 0.80310667

00:39:36.361 --> 00:39:38.665 been in the works for a long time,

NOTE Confidence: 0.80310667

00:39:38.670 --> 00:39:41.006 and so every five or ten years you'll

NOTE Confidence: 0.80310667

00:39:41.006 --> 00:39:43.494 have this paper come out an academic

NOTE Confidence: 0.80310667

00:39:43.494 --> 00:39:46.079 Journal saying it's right around the corner,

NOTE Confidence: 0.80310667

00:39:46.080 --> 00:39:46.429 right?

NOTE Confidence: 0.80310667

00:39:46.429 --> 00:39:47.476 Like whatever discovery,

NOTE Confidence: 0.80310667

00:39:47.476 --> 00:39:48.872 whatever things really confused

NOTE Confidence: 0.80310667

00:39:48.872 --> 00:39:50.130 right around the corner,

NOTE Confidence: 0.80310667

00:39:50.130 --> 00:39:52.596 it's the Golden age of psychiatry.

NOTE Confidence: 0.80310667

00:39:52.600 --> 00:39:57.906 About to descend upon us and so.

NOTE Confidence: 0.80310667

00:39:57.910 --> 00:40:00.374 Perhaps this is genuine, probably is Jenny.

NOTE Confidence: 0.80310667

00:40:00.380 --> 00:40:02.090 Sentiment of whoever wrote it,

NOTE Confidence: 0.80310667

00:40:02.090 --> 00:40:04.470 but at the same time you know,

NOTE Confidence: 0.80310667

00:40:04.470 --> 00:40:07.592 I think it's a form of marketing, sort of.

NOTE Confidence: 0.80310667

00:40:07.592 --> 00:40:08.324 Stay tuned.

NOTE Confidence: 0.80310667

00:40:08.324 --> 00:40:10.520 We have more coming down the

69

NOTE Confidence: 0.80310667

00:40:10.596 --> 00:40:12.240 pipeline and so given.

NOTE Confidence: 0.80310667

00:40:12.240 --> 00:40:14.557 You know the many papers and the

NOTE Confidence: 0.80310667

00:40:14.557 --> 00:40:16.846 millions of dollars spent invested in

NOTE Confidence: 0.80310667

00:40:16.846 --> 00:40:19.306 mental health research or just research.

NOTE Confidence: 0.80310667

00:40:19.310 --> 00:40:21.025 Generally it makes sense that

NOTE Confidence: 0.80310667

00:40:21.025 --> 00:40:23.222 people would want to pitch that

NOTE Confidence: 0.80310667

00:40:23.222 --> 00:40:24.890 because that's their funding.

NOTE Confidence: 0.80310667

00:40:24.890 --> 00:40:27.068 That's their livelihood.

NOTE Confidence: 0.80310667

00:40:27.070 --> 00:40:29.458 And so that's the science side,

NOTE Confidence: 0.80310667

00:40:29.460 --> 00:40:31.460 and so science writing is

NOTE Confidence: 0.80310667

00:40:31.460 --> 00:40:33.060 covering all of this,

NOTE Confidence: 0.80310667

00:40:33.060 --> 00:40:35.790 and so I'm curious how a journalist

NOTE Confidence: 0.80310667

00:40:35.790 --> 00:40:37.840 approaches their topic of interest.

NOTE Confidence: 0.80310667

00:40:37.840 --> 00:40:39.040 Like for example,

NOTE Confidence: 0.80310667

00:40:39.040 --> 00:40:40.240 if I'm right,

NOTE Confidence: 0.80310667

00:40:40.240 --> 00:40:45.080 if I as a scientist I'm writing a grant for.

NOTE Confidence: 0.80310667

00:40:45.080 --> 00:40:47.018 Whatever new research topic I'm thinking,

NOTE Confidence: 0.80310667

00:40:47.020 --> 00:40:49.442 I'm going to be very excited about

NOTE Confidence: 0.80310667

00:40:49.442 --> 00:40:51.439 it because I'm about to devote

NOTE Confidence: 0.80310667

00:40:51.439 --> 00:40:53.800 a large part of my life to it.

NOTE Confidence: 0.80310667

00:40:53.800 --> 00:40:55.970 And so is the same thing present

NOTE Confidence: 0.80310667

00:40:55.970 --> 00:40:57.674 in journalism to where, like,

NOTE Confidence: 0.80310667

00:40:57.674 --> 00:40:59.618 for instance, as a science writer,

NOTE Confidence: 0.80310667

00:40:59.620 --> 00:41:01.874 you must like science and have hope

NOTE Confidence: 0.80310667

00:41:01.874 --> 00:41:03.808 for science. Otherwise, why would you?

NOTE Confidence: 0.80916005

00:41:06.600 --> 00:41:08.755 That is true of many

NOTE Confidence: 0.80916005

00:41:08.755 --> 00:41:10.484 science writers, not all.

NOTE Confidence: 0.80916005

00:41:10.484 --> 00:41:13.508 So there's a guy named Gary Taubes.

NOTE Confidence: 0.80916005

00:41:13.510 --> 00:41:16.534 If you have him, he is his.

NOTE Confidence: 0.80916005

00:41:16.540 --> 00:41:18.700 He's been very successful as

NOTE Confidence: 0.80916005

00:41:18.700 --> 00:41:20.860 a harsh critic of science.

00:41:20.860 --> 00:41:24.388 So he wrote a book about.

00:41:24.390 --> 00:41:26.850 The this Nobel Prize winner who

00:41:26.850 --> 00:41:29.359 ran the particle lab in Europe,

00:41:29.360 --> 00:41:32.587 the CERN particle physics lab and this

00:41:32.587 --> 00:41:35.978 was an exposee he this guy is a jerk.

00:41:35.980 --> 00:41:37.640 He's mean he's nasty.

00:41:37.640 --> 00:41:40.576 He he's, you know he's a bully he's

00:41:40.576 --> 00:41:43.040 he didn't really make the discoveries

00:41:43.040 --> 00:41:45.495 you know with his subordinates.

00:41:45.500 --> 00:41:48.405 So it was a takedown so he

00:41:48.405 --> 00:41:50.890 doesn't love science as it's done.

00:41:50.890 --> 00:41:54.530 His next thing that I can remember was.

00:41:54.530 --> 00:41:56.480 A book about the cold Fusion

00:41:56.480 --> 00:41:58.120 episode of the late 80s,

00:41:58.120 --> 00:41:59.974 where some scientists made a claim

00:41:59.974 --> 00:42:02.456 that they'd found a way to do nuclear

NOTE Confidence: 0.80916005

00:42:02.456 --> 00:42:04.238 Fusion and produce energy far more

NOTE Confidence: 0.80916005

00:42:04.301 --> 00:42:06.587 cheaply than anyone could have imagined,

NOTE Confidence: 0.80916005

00:42:06.590 --> 00:42:08.865 and was going to revolutionize the world.

NOTE Confidence: 0.80916005

00:42:08.870 --> 00:42:11.152 Well, he did a thief analysis of

NOTE Confidence: 0.80916005

00:42:11.152 --> 00:42:13.439 of the fraud and the you know,

NOTE Confidence: 0.80916005

00:42:13.440 --> 00:42:14.715 the the missteps.

NOTE Confidence: 0.80916005

00:42:14.715 --> 00:42:15.990 Along the way,

NOTE Confidence: 0.80916005

00:42:15.990 --> 00:42:19.245 then he turned his attention to nutrition.

NOTE Confidence: 0.80916005

00:42:19.250 --> 00:42:21.350 And he developed the idea.

NOTE Confidence: 0.80916005

00:42:21.350 --> 00:42:24.446 So in the again in the 90s there was

NOTE Confidence: 0.80916005

00:42:24.446 --> 00:42:27.238 a very strong narrative that fat

NOTE Confidence: 0.80916005

00:42:27.238 --> 00:42:30.590 was the evil thing in our diets,

NOTE Confidence: 0.80916005

00:42:30.590 --> 00:42:33.800 and that super low fat diets.

NOTE Confidence: 0.80916005

00:42:33.800 --> 00:42:35.216 Work miracles, you know.

NOTE Confidence: 0.80916005

00:42:35.216 --> 00:42:36.986 You could reverse heart disease.

NOTE Confidence: 0.80916005

00:42:36.990 --> 00:42:39.150 You could you know everything would

NOTE Confidence: 0.80916005

00:42:39.150 --> 00:42:42.366 get better if you ate low fat diet

NOTE Confidence: 0.80916005

00:42:42.366 --> 00:42:44.066 relatively high in carbohydrates.

NOTE Confidence: 0.80916005

00:42:44.070 --> 00:42:45.682 He, for whatever reason,

NOTE Confidence: 0.80916005

00:42:45.682 --> 00:42:49.368 and I'm not sure how he got onto this,

NOTE Confidence: 0.80916005

00:42:49.370 --> 00:42:51.925 he became a zealot for the idea

NOTE Confidence: 0.80916005

00:42:51.925 --> 00:42:54.269 that this is exactly wrong,

NOTE Confidence: 0.80916005

00:42:54.270 --> 00:42:57.162 that that carbohydrates and sugars are

NOTE Confidence: 0.80916005

00:42:57.162 --> 00:43:01.080 the cause of most of our illnesses that.

NOTE Confidence: 0.80916005

00:43:01.080 --> 00:43:03.318 The Atkins diet where you basically

NOTE Confidence: 0.80916005

00:43:03.318 --> 00:43:04.437 eat just carves.

NOTE Confidence: 0.80916005

00:43:04.440 --> 00:43:05.186 No, no,

NOTE Confidence: 0.80916005

00:43:05.186 --> 00:43:08.163 the opposite just go Cubs on just protein.

NOTE Confidence: 0.80916005

00:43:08.163 --> 00:43:09.282 Fat is great.

NOTE Confidence: 0.80916005

00:43:09.282 --> 00:43:11.900 You know the more bacon you eat,

NOTE Confidence: 0.80916005

00:43:11.900 --> 00:43:13.958 the healthier you will be and

NOTE Confidence: 0.80916005

00:43:13.958 --> 00:43:16.222 he you know thousand page book

NOTE Confidence: 0.80916005

00:43:16.222 --> 00:43:17.866 expounding on these ideas.

NOTE Confidence: 0.80916005

00:43:17.870 --> 00:43:20.420 So there are people who.

NOTE Confidence: 0.80916005

00:43:20.420 --> 00:43:23.676 Who are get the most joy about taking

NOTE Confidence: 0.80916005

00:43:23.676 --> 00:43:25.772 mainstream ideas in science and

NOTE Confidence: 0.80916005

00:43:25.772 --> 00:43:28.190 tearing them apart and tearing apart?

NOTE Confidence: 0.80916005

00:43:28.190 --> 00:43:28.600 Well,

NOTE Confidence: 0.80916005

00:43:28.600 --> 00:43:29.420 I think

NOTE Confidence: 0.83686954

00:43:29.420 --> 00:43:31.052 that's actually fairly cyantific,

NOTE Confidence: 0.83686954

00:43:31.052 --> 00:43:33.100 right? So yeah, yeah yeah.

NOTE Confidence: 0.83686954

00:43:33.100 --> 00:43:36.524 To be able to take some work and

NOTE Confidence: 0.83686954

00:43:36.524 --> 00:43:38.829 ask very critical questions of it.

NOTE Confidence: 0.83686954

00:43:38.830 --> 00:43:43.100 So the fellow is acting as a.

NOTE Confidence: 0.83686954

00:43:43.100 --> 00:43:44.416 Somewhat of a scientist.

NOTE Confidence: 0.83686954

00:43:44.416 --> 00:43:46.826 I mean it doesn't have like distributions

NOTE Confidence: 0.83686954

00:43:46.826 --> 00:43:49.374 and T test Z scores or whatever,

NOTE Confidence: 0.8290452

00:43:49.380 --> 00:43:50.268 but right?

NOTE Confidence: 0.8290452

00:43:50.268 --> 00:43:53.376 But the difference is that a journalist.

NOTE Confidence: 0.8290452

00:43:53.380 --> 00:43:55.070 Is taking information and synthesizing

NOTE Confidence: 0.8290452

00:43:55.070 --> 00:43:57.410 it into a story and narrative.

NOTE Confidence: 0.8290452

00:43:57.410 --> 00:44:01.490 I'm going to tell you a story about.

NOTE Confidence: 0.8290452

00:44:01.490 --> 00:44:04.300 You know how to eat healthy and

NOTE Confidence: 0.8290452

00:44:04.300 --> 00:44:06.938 by necessity you you look at

NOTE Confidence: 0.8290452

00:44:06.938 --> 00:44:09.656 the information and you kind of

NOTE Confidence: 0.8290452

00:44:09.656 --> 00:44:12.019 synthesize it and you and you.

NOTE Confidence: 0.8290452

00:44:12.020 --> 00:44:13.802 Come to a conclusion about what

NOTE Confidence: 0.8290452

00:44:13.802 --> 00:44:15.939 seems to be the correct story,

NOTE Confidence: 0.8290452

00:44:15.940 --> 00:44:17.908 and you write that story and.

NOTE Confidence: 0.853980322857143

00:44:20.300 --> 00:44:24.430 And. The same is true with takedowns,

NOTE Confidence: 0.853980322857143

00:44:24.430 --> 00:44:27.040 so you you come to a

NOTE Confidence: 0.853980322857143

00:44:27.040 --> 00:44:29.410 conclusion and if you have.

00:44:29.410 --> 00:44:32.608 A predilection of.

00:44:32.608 --> 00:44:35.806 Adelite in takedowns.

00:44:35.810 --> 00:44:38.127 It's possible that you will ignore evidence,

00:44:38.130 --> 00:44:39.498 doesn't support your narrative,

00:44:39.498 --> 00:44:41.550 and favor the evidence that does

00:44:41.603 --> 00:44:43.415 and is that what's called activist

00:44:43.420 --> 00:44:46.068 journalism. I heard that term on a podcast,

00:44:46.070 --> 00:44:48.390 no, no, not, not particularly. I mean,

00:44:48.390 --> 00:44:50.040 you, you come to it.

00:44:50.040 --> 00:44:51.695 So you were saying that

00:44:51.695 --> 00:44:53.019 as a science journalist,

00:44:53.020 --> 00:44:54.904 I predict presumably likes I like

00:44:54.904 --> 00:44:56.604 science or have someone that's

00:44:56.604 --> 00:44:57.989 already that's already prejudice.

00:44:57.990 --> 00:44:59.970 That leads me to be less.

NOTE Confidence: 0.80972433

00:44:59.970 --> 00:45:00.969 I'm sorry I

NOTE Confidence: 0.80972433

00:45:00.970 --> 00:45:02.620 didn't mean to be prejudice.

NOTE Confidence: 0.8529953

00:45:04.850 --> 00:45:06.710 But it's true. It's true.

NOTE Confidence: 0.8529953

00:45:06.710 --> 00:45:08.565 You know. I'm inclined to

NOTE Confidence: 0.8529953

00:45:08.565 --> 00:45:10.420 like science and and 'cause.

NOTE Confidence: 0.8529953

00:45:10.420 --> 00:45:11.796 I'm really interested in.

NOTE Confidence: 0.8529953

00:45:11.796 --> 00:45:13.516 All the extraordinary things we've

NOTE Confidence: 0.8529953

00:45:13.516 --> 00:45:15.079 discovered about the natural world,

NOTE Confidence: 0.8529953

00:45:15.080 --> 00:45:15.866 which are legitimate.

NOTE Confidence: 0.8529953

00:45:15.866 --> 00:45:17.438 You know, we actually have discovered

NOTE Confidence: 0.8529953

00:45:17.438 --> 00:45:18.486 planets around other stars.

NOTE Confidence: 0.8529953

00:45:18.490 --> 00:45:19.530 That's a good thing.

NOTE Confidence: 0.8766921

00:45:21.610 --> 00:45:24.830 Well, so do you find it's difficult?

NOTE Confidence: 0.8766921

00:45:24.830 --> 00:45:27.230 So say as a science enthusiast,

NOTE Confidence: 0.8766921

00:45:27.230 --> 00:45:31.000 I right when I said that I had Neil deGrasse

NOTE Confidence: 0.8766921

00:45:31.087 --> 00:45:34.430 Tyson like picture pop up in my mind,

NOTE Confidence: 0.8766921

00:45:34.430 --> 00:45:36.554 science enthusiast, ivest whatever.

NOTE Confidence: 0.8766921

00:45:36.554 --> 00:45:40.060 I wonder if it's more difficult to.

NOTE Confidence: 0.8766921

00:45:40.060 --> 00:45:41.785 Report on the falsification of

NOTE Confidence: 0.8766921

00:45:41.785 --> 00:45:43.510 studies and so that's something

NOTE Confidence: 0.8766921

00:45:43.568 --> 00:45:45.356 scientists struggle with, right?

NOTE Confidence: 0.8766921

00:45:45.356 --> 00:45:46.544 So for example,

NOTE Confidence: 0.8766921

00:45:46.544 --> 00:45:49.697 when things turned out not to be the

NOTE Confidence: 0.8766921

00:45:49.697 --> 00:45:52.497 way we expected or hoped they would be,

NOTE Confidence: 0.8766921

00:45:52.500 --> 00:45:55.516 they tend to be swept under the carpet,

NOTE Confidence: 0.8766921

00:45:55.520 --> 00:45:57.320 not published, and not truly

NOTE Confidence: 0.8766921

00:45:57.320 --> 00:45:59.660 falsified in a public way anyway.

NOTE Confidence: 0.8766921

00:45:59.660 --> 00:46:01.991 And so I'm curious how that works

NOTE Confidence: 0.8766921

00:46:01.991 --> 00:46:03.810 like emotionally or cognitively,

NOTE Confidence: 0.8766921

00:46:03.810 --> 00:46:04.570 for journalists.

NOTE Confidence: 0.875484

00:46:05.550 --> 00:46:08.238 Well, for me that's a part of

NOTE Confidence: 0.875484

00:46:08.238 --> 00:46:11.230 science that I really like as well.

NOTE Confidence: 0.875484

00:46:11.230 --> 00:46:13.666 The fact that things that we,

NOTE Confidence: 0.875484

00:46:13.670 --> 00:46:18.960 I mean this, is actually a classic. Um?

NOTE Confidence: 0.875484

00:46:18.960 --> 00:46:23.710 Theme for science journalist so so.

NOTE Confidence: 0.875484

00:46:23.710 --> 00:46:26.110 Will not infrequently see a headline

NOTE Confidence: 0.875484

00:46:26.110 --> 00:46:28.165 or something that says everything

NOTE Confidence: 0.875484

00:46:28.165 --> 00:46:30.487 you thought about X is wrong,

NOTE Confidence: 0.875484

00:46:30.490 --> 00:46:34.002 is crap is crap and here is, you know,

NOTE Confidence: 0.875484

00:46:34.002 --> 00:46:37.280 we've now we now know it's it's bogus,

NOTE Confidence: 0.875484

00:46:37.280 --> 00:46:40.464 so that's why we love stories like that.

NOTE Confidence: 0.875484

00:46:40.470 --> 00:46:42.135 Becausw overturning the

NOTE Confidence: 0.875484

00:46:42.135 --> 00:46:43.800 conventional wisdom is.

NOTE Confidence: 0.875484

00:46:43.800 --> 00:46:46.008 In some ways, even more fun.

NOTE Confidence: 0.875484

00:46:46.010 --> 00:46:50.610 Then just reporting on it, but.

NOTE Confidence: 0.875484

00:46:50.610 --> 00:46:52.104 But the the mindset that it's

NOTE Confidence: 0.875484

00:46:52.104 --> 00:46:53.972 mostly a scam and they're really

NOTE Confidence: 0.875484

00:46:53.972 --> 00:46:55.600 you shouldn't believe anything.

NOTE Confidence: 0.875484

00:46:55.600 --> 00:46:58.096 They say that I don't go that far,

NOTE Confidence: 0.875484

00:46:58.100 --> 00:46:59.660 and I think some journalists.

NOTE Confidence: 0.875484

00:46:59.660 --> 00:47:00.596 That's their mindset.

NOTE Confidence: 0.875484

00:47:00.596 --> 00:47:01.220 You know,

NOTE Confidence: 0.875484

00:47:01.220 --> 00:47:03.446 I'm going to get the goods

NOTE Confidence: 0.875484

00:47:03.446 --> 00:47:04.930 on these people 'cause.

NOTE Confidence: 0.875484

00:47:04.930 --> 00:47:05.938 They're playing fast and

NOTE Confidence: 0.875484

00:47:05.938 --> 00:47:06.946 loose with the truth.

NOTE Confidence: 0.87000173

00:47:08.300 --> 00:47:09.668 At the same time, I mean,

NOTE Confidence: 0.87000173

00:47:09.670 --> 00:47:10.810 perhaps are people like that,

NOTE Confidence: 0.87000173

00:47:10.810 --> 00:47:12.626 but I find that there would be this.

NOTE Confidence: 0.8615967

00:47:15.830 --> 00:47:17.170 You have an understanding

NOTE Confidence: 0.8615967

00:47:17.170 --> 00:47:18.845 of the process I guess.

NOTE Confidence: 0.8615967

00:47:18.850 --> 00:47:20.782 Like most of the analysis that

00:47:20.782 --> 00:47:23.178 we do aren't going to pan out

00:47:23.178 --> 00:47:24.905 because they have samples, right?

00:47:24.905 --> 00:47:26.915 Not of the population at large,

00:47:26.920 --> 00:47:28.999 and so even though in analysis may

00:47:28.999 --> 00:47:31.835 be true and one subset of a larger

00:47:31.835 --> 00:47:33.970 population that might not replicate an.

00:47:33.970 --> 00:47:35.650 That's why reproducibility is important.

00:47:35.650 --> 00:47:38.258 One of the reasons why there's a big

00:47:38.258 --> 00:47:40.676 problem now is that maybe our tools

00:47:40.676 --> 00:47:43.460 just aren't good enough, right?

00:47:43.460 --> 00:47:45.973 Interesting, but again so so so I'm

00:47:45.973 --> 00:47:48.308 really interested in the outcome of

00:47:48.308 --> 00:47:50.690 scientific research of the things we've

00:47:50.690 --> 00:47:52.888 learned that we didn't know before,

00:47:52.890 --> 00:47:54.775 and that are really interesting

00:47:54.775 --> 00:47:56.660 or important or or whatever.

NOTE Confidence: 0.8462848

00:47:56.660 --> 00:47:58.540 So that's part of it.

NOTE Confidence: 0.8462848

00:47:58.540 --> 00:48:00.425 But I'm also really interested

NOTE Confidence: 0.8462848

00:48:00.425 --> 00:48:02.310 in the process of science,

NOTE Confidence: 0.8462848

00:48:02.310 --> 00:48:04.240 as it's actually practiced and

NOTE Confidence: 0.8462848

00:48:04.240 --> 00:48:06.589 and interested in time in ways

NOTE Confidence: 0.8462848

00:48:06.589 --> 00:48:09.098 where it goes wrong, but I don't.

NOTE Confidence: 0.9176978

00:48:11.910 --> 00:48:15.445 I don't think I have the mindset.

NOTE Confidence: 0.9176978

00:48:15.450 --> 00:48:17.586 That says be 'cause I kind of clasts

NOTE Confidence: 0.9176978

00:48:17.586 --> 00:48:19.339 have been correct in the past.

NOTE Confidence: 0.9176978

00:48:19.340 --> 00:48:20.978 I will assume that an iconoclast

NOTE Confidence: 0.9176978

00:48:20.978 --> 00:48:22.399 is probably right and that

NOTE Confidence: 0.9176978

00:48:22.399 --> 00:48:23.789 they're trying to cover you.

NOTE Confidence: 0.9176978

00:48:23.790 --> 00:48:25.180 Know the mainstream is trying

NOTE Confidence: 0.9176978

00:48:25.180 --> 00:48:26.850 to cover it up well, so

NOTE Confidence: 0.80836666

00:48:26.850 --> 00:48:29.166 you still think critically of every.

NOTE Confidence: 0.80836666

00:48:29.170 --> 00:48:30.700 I tried to. Yes, that's right.

NOTE Confidence: 0.9441491

00:48:32.190 --> 00:48:34.830 But there are people who who.

NOTE Confidence: 0.9441491

00:48:34.830 --> 00:48:36.510 Flock to the, you know,

NOTE Confidence: 0.9441491

00:48:36.510 --> 00:48:38.526 to the Outsiders and say, well,

NOTE Confidence: 0.9441491

00:48:38.526 --> 00:48:40.602 you know they laughed at Einstein

NOTE Confidence: 0.9441491

00:48:40.602 --> 00:48:42.657 and now they're laughing at this

NOTE Confidence: 0.9441491

00:48:42.657 --> 00:48:44.547 guy who says he's from Mars?

NOTE Confidence: 0.9441491

00:48:44.550 --> 00:48:46.215 Well, you do the math.

NOTE Confidence: 0.9441491

00:48:46.215 --> 00:48:47.840 Yeah, sure, and that's an

NOTE Confidence: 0.9441491

00:48:47.840 --> 00:48:49.570 extreme that I doesn't appeal

NOTE Confidence: 0.8204254

00:48:49.570 --> 00:48:51.656 to me. Thank you for coming to

NOTE Confidence: 0.8204254

00:48:51.656 --> 00:48:53.589 accept the Pointer fellowship word.

NOTE Confidence: 0.79104185

00:49:05.810 --> 00:49:07.830 We hope you enjoyed that episode.

NOTE Confidence: 0.79104185

00:49:07.830 --> 00:49:10.414 Thanks again to Mike for making the trip

NOTE Confidence: 0.79104185

00:49:10.414 --> 00:49:13.540 to New Haven and for being on the podcast,

NOTE Confidence: 0.79104185

00:49:13.540 --> 00:49:16.563 you can find Mike on Twitter at M Lemonick.

NOTE Confidence: 0.79104185

00:49:16.563 --> 00:49:18.238 Again, that's at M lemonick.

NOTE Confidence: 0.79104185

00:49:18.238 --> 00:49:20.256 You can also purchase Mike's most

NOTE Confidence: 0.79104185

00:49:20.256 --> 00:49:21.936 recent book, The Perpetual, Now.

NOTE Confidence: 0.79104185

00:49:21.936 --> 00:49:23.725 A story of amnesia, memory,

NOTE Confidence: 0.79104185

00:49:23.725 --> 00:49:25.950 love, wherever books are sold.

NOTE Confidence: 0.79104185

00:49:25.950 --> 00:49:28.057 Thanks to the Yale School of Medicine

NOTE Confidence: 0.79104185

00:49:28.057 --> 00:49:29.990 for sponsoring the podcast to Adrian

NOTE Confidence: 0.79104185

00:49:29.990 --> 00:49:31.896 Bonding Burger for producing the podcast

NOTE Confidence: 0.79104185

00:49:31.896 --> 00:49:34.090 and to Ryan McEvoy for sound editing.

NOTE Confidence: 0.79104185

00:49:34.090 --> 00:49:35.655 Special thanks to you as

NOTE Confidence: 0.79104185

00:49:35.655 --> 00:49:36.907 well for listening junian.

NOTE Confidence: 0.79104185

00:49:36.910 --> 00:49:39.122 Again, my name is Daniel Baron and

NOTE Confidence: 0.79104185

00:49:39.122 --> 00:49:41.652 I've been your host and I'll see you

NOTE Confidence: 0.79104185

00:49:41.652 --> 00:49:43.790 next time here on science at all.