

The Skeptic Zone
Show 368 - 8 Nov 2015



Dr Eugenie Scott

1
00:00:22,689 --> 00:00:09,090
welcome to the skeptic zone the podcast

2
00:00:29,060 --> 00:00:25,519
hello and welcome to the skeptic zone

3
00:00:32,119 --> 00:00:29,070
episode number 368 for the 8th of

4
00:00:35,020 --> 00:00:32,129
November 2015 Richard Saunders here with

5
00:00:39,740 --> 00:00:35,030
you from Melbourne Melbourne Australia

6
00:00:42,020 --> 00:00:39,750
beautiful sunny rainy cold hot wintery

7
00:00:44,390 --> 00:00:42,030
summary and all the rest of it Melbourne

8
00:00:46,490 --> 00:00:44,400
I'm down here for a few days at the

9
00:00:49,280 --> 00:00:46,500
invitation of my good friend dr. Steve

10
00:00:51,530 --> 00:00:49,290
Roberts who's a longtime member of the

11
00:00:55,810 --> 00:00:51,540
skeptics and the Australian skeptic sell

12
00:00:59,270 --> 00:00:55,820
one of them UFO expert I brought with me

13
00:01:02,209 --> 00:00:59,280

60 kilos worth of UFO books for Steve

14

00:01:03,410 --> 00:01:02,219

Roberts and at the end of the show right

15

00:01:04,759 --> 00:01:03,420

at the end of the show we're going to be

16

00:01:08,960 --> 00:01:04,769

looking at some of these books and

17

00:01:11,060 --> 00:01:08,970

discussing UFOs should be interesting

18

00:01:12,590 --> 00:01:11,070

but before we do that before we do that

19

00:01:15,410 --> 00:01:12,600

we're going to kick off this week show

20

00:01:16,669 --> 00:01:15,420

the raw skeptic report with Heidi

21

00:01:20,120 --> 00:01:16,679

Robertson from the Northern Rivers

22

00:01:22,040 --> 00:01:20,130

vaccination supporters Heidi and some

23

00:01:23,540 --> 00:01:22,050

other people we know were asked to

24

00:01:28,389 --> 00:01:23,550

appear in front of a Senate committee

25

00:01:31,370 --> 00:01:28,399

last week looking at no jab no pay

26

00:01:34,969 --> 00:01:31,380

legislation here in Australia heidi's

27

00:01:36,680 --> 00:01:34,979

going to report on her presentation and

28

00:01:39,380 --> 00:01:36,690

you'll hear a presentation to the senate

29

00:01:43,300 --> 00:01:39,390

committee also we're going to be hearing

30

00:01:46,699 --> 00:01:43,310

a little bit of the cacophony hoo-ha

31

00:01:49,279 --> 00:01:46,709

general miss be anything of the

32

00:01:52,969 --> 00:01:49,289

anti-vaccination crowd of the the

33

00:01:55,999 --> 00:01:52,979

hearing and it really drives home that a

34

00:01:59,229 --> 00:01:56,009

lot of these people are so wrapped up

35

00:02:02,930 --> 00:01:59,239

wound up in conspiracy theory and

36

00:02:06,260 --> 00:02:02,940

general distrust of the medical

37

00:02:08,210 --> 00:02:06,270

fraternity and the government it really

38

00:02:11,479 --> 00:02:08,220

comes across I'll play a little snippet

39

00:02:14,559 --> 00:02:11,489

of their their antics they're carrying

40

00:02:18,830 --> 00:02:14,569

on most undignified most unprofessional

41

00:02:22,550 --> 00:02:18,840

but it's their true colors and as

42

00:02:24,170 --> 00:02:22,560

opposed to their carry-on Heidi and

43

00:02:27,199 --> 00:02:24,180

people from friends and science and

44

00:02:30,020 --> 00:02:27,209

medicine and stop the avian also gave

45

00:02:32,970 --> 00:02:30,030

presentations would calm were collected

46

00:02:36,000 --> 00:02:32,980

they had facts they were

47

00:02:38,070 --> 00:02:36,010

professional what a difference anyway

48

00:02:40,080 --> 00:02:38,080

you'll get a taste of all that coming up

49

00:02:41,600 --> 00:02:40,090

with a raw skeptic report with Heidi

50

00:02:43,740 --> 00:02:41,610

Robertson at the top of the show

51
00:02:45,360 --> 00:02:43,750
following that is a week in science from

52
00:02:49,940 --> 00:02:45,370
our friends at the Royal Institution of

53
00:02:53,280 --> 00:02:49,950
Australia www RI aus dog data you a find

54
00:02:56,520 --> 00:02:53,290
find scientific institution and they do

55
00:02:59,430 --> 00:02:56,530
good outreach to then it's Maynard

56
00:03:01,589 --> 00:02:59,440
spooky action Maynard with some Vox pops

57
00:03:03,479 --> 00:03:01,599
at the recent Australian skeptics

58
00:03:05,460 --> 00:03:03,489
national convention in Brisbane thank

59
00:03:07,160 --> 00:03:05,470
you to those are wonderful people in

60
00:03:10,860 --> 00:03:07,170
Brisbane who put that all together

61
00:03:13,800 --> 00:03:10,870
summer interviews here and there and the

62
00:03:16,170 --> 00:03:13,810
feature interview this week is with dr.

63
00:03:19,710 --> 00:03:16,180

Eugenie Scott from California who flew

64

00:03:22,289 --> 00:03:19,720
out for the convention now GD Scott has

65

00:03:24,589 --> 00:03:22,299
retired but she certainly has a lot to

66

00:03:27,599 --> 00:03:24,599
say about the current state of the

67

00:03:29,180 --> 00:03:27,609
creationism and evolution situation in

68

00:03:33,180 --> 00:03:29,190
the United States which is an ongoing

69

00:03:36,180 --> 00:03:33,190
concern all that coming up on this

70

00:03:39,000 --> 00:03:36,190
week's episode of the skeptic zone but

71

00:03:42,449 --> 00:03:39,010
now it's time for me to open up the door

72

00:03:44,400 --> 00:03:42,459
walk down the hall look in the fridge

73

00:03:48,180 --> 00:03:44,410
and see if there isn't some leftover

74

00:03:50,819 --> 00:03:48,190
cheesecake from a party that dr. Steve

75

00:03:53,009 --> 00:03:50,829
had the other night together with his

76

00:03:54,930 --> 00:03:53,019

wife Barbara they were celebrating the

77

00:03:59,009 --> 00:03:54,940

fact that Steve has built a new shed in

78

00:04:00,539 --> 00:03:59,019

his backyard hmm any excuse eh well I'm

79

00:04:03,479 --> 00:04:00,549

sure there's a bit of cheese cake left

80

00:04:25,920 --> 00:04:03,489

over if I'm lucky well I'm doing that I

81

00:04:39,400 --> 00:04:29,890

it's the raw skeptic report with Heidi

82

00:04:40,960 --> 00:04:39,410

Robertson hi everyone it's Heidi

83

00:04:44,320 --> 00:04:40,970

Robertson coming to you from the

84

00:04:46,300 --> 00:04:44,330

northern rivers of New South Wales last

85

00:04:48,219 --> 00:04:46,310

Monday the second of November was a big

86

00:04:50,800 --> 00:04:48,229

day for the Northern Rivers vaccination

87

00:04:52,270 --> 00:04:50,810

supporters we were asked by a Senate

88

00:04:54,909 --> 00:04:52,280

committee to come and give a statement

89

00:04:57,670 --> 00:04:54,919

regarding our views on the proposed no

90

00:04:59,680 --> 00:04:57,680

job nope a legislation that they are

91

00:05:02,320 --> 00:04:59,690

currently looking at passing here in

92

00:05:04,090 --> 00:05:02,330

Australia if you are unaware of this

93

00:05:06,550 --> 00:05:04,100

bill it is looking at removing

94

00:05:09,640 --> 00:05:06,560

conscientious and religious exemptions

95

00:05:12,219 --> 00:05:09,650

to vaccination leaving only medical

96

00:05:14,080 --> 00:05:12,229

exemptions religious exemptions are

97

00:05:16,210 --> 00:05:14,090

being removed as there are no mainstream

98

00:05:19,180 --> 00:05:16,220

religions in Australia that oppose

99

00:05:21,250 --> 00:05:19,190

vaccination currently in order to

100

00:05:23,770 --> 00:05:21,260

receive certain government subsidies for

101
00:05:26,190 --> 00:05:23,780
sending children to childcare a parent

102
00:05:29,200 --> 00:05:26,200
has to have a form signed by adopter

103
00:05:32,529 --> 00:05:29,210
indicating philosophical religious or

104
00:05:34,870 --> 00:05:32,539
medical exemptions if those options are

105
00:05:37,600 --> 00:05:34,880
now removed apart from the medical one

106
00:05:40,480 --> 00:05:37,610
those families will miss out on certain

107
00:05:42,400 --> 00:05:40,490
payments the Northern Rivers vaccination

108
00:05:44,980 --> 00:05:42,410
supporters along with hundreds of others

109
00:05:47,560 --> 00:05:44,990
put in a submission to the Senate about

110
00:05:49,390 --> 00:05:47,570
this bill and we were very surprised

111
00:05:51,370 --> 00:05:49,400
when we received an invitation to

112
00:05:53,650 --> 00:05:51,380
Brisbane for the hearing and an

113
00:05:56,350 --> 00:05:53,660

opportunity to speak further about it in

114

00:06:00,100 --> 00:05:56,360

front of the Senate community affairs

115

00:06:02,920 --> 00:06:00,110

legislation committee also invited to

116

00:06:05,320 --> 00:06:02,930

speak was the stop the avn group and

117

00:06:07,900 --> 00:06:05,330

their representatives rang in via

118

00:06:10,260 --> 00:06:07,910

telephone they're excellent testimony

119

00:06:13,689 --> 00:06:10,270

was given by dr. John Cunningham

120

00:06:16,990 --> 00:06:13,699

epidemiologist dr. Dave Hawks virologist

121

00:06:19,930 --> 00:06:17,000

and dr. Patrick Stokes senior lecturer

122

00:06:22,209 --> 00:06:19,940

in philosophy other organizations

123

00:06:25,270 --> 00:06:22,219

represented on the day included the

124

00:06:27,490 --> 00:06:25,280

Australian Medical Association the Royal

125

00:06:30,100 --> 00:06:27,500

Australasian College of Physicians

126
00:06:32,500 --> 00:06:30,110
child care alliance Australia the

127
00:06:35,440 --> 00:06:32,510
Parenthood inspired family day care

128
00:06:37,960 --> 00:06:35,450
service the Public Health Association of

129
00:06:39,940 --> 00:06:37,970
Australia associate professor Julie

130
00:06:43,510 --> 00:06:39,950
leask the Department of Social Services

131
00:06:45,580 --> 00:06:43,520
and the Department of Health members of

132
00:06:47,650 --> 00:06:45,590
the public were also invited to speak in

133
00:06:51,730 --> 00:06:47,660
total for the day there were 20 of them

134
00:06:53,470 --> 00:06:51,740
at two minutes each for us it was

135
00:06:55,960 --> 00:06:53,480
slightly off-putting having the

136
00:06:59,140 --> 00:06:55,970
Australian vaccination skeptic networks

137
00:07:02,020 --> 00:06:59,150
former presidents Merrill dory and greg

138
00:07:05,140 --> 00:07:02,030

BTW in attendance who had also been

139

00:07:07,290 --> 00:07:05,150

invited to speak despite the H Triple C

140

00:07:10,870 --> 00:07:07,300

warning out against that particular

141

00:07:13,870 --> 00:07:10,880

organization Brett Smith naturopath and

142

00:07:16,630 --> 00:07:13,880

Debbie Kemp child care operator and both

143

00:07:20,710 --> 00:07:16,640

staunch anti-vaccination advocates also

144

00:07:22,930 --> 00:07:20,720

spoke just before US Senator Richard D

145

00:07:25,450 --> 00:07:22,940

Natale was on the committee and ran in

146

00:07:27,600 --> 00:07:25,460

to ask a few questions and the hearing

147

00:07:30,340 --> 00:07:27,610

descended into a cacophony of

148

00:07:33,310 --> 00:07:30,350

anti-vaccination sentiment from members

149

00:07:35,650 --> 00:07:33,320

of the gallery and those on the panel it

150

00:07:37,930 --> 00:07:35,660

was frankly embarrassing to witness and

151

00:07:41,130 --> 00:07:37,940

almost certainly did not do anything

152

00:07:43,540 --> 00:07:41,140

positive for the anti-vaccination cause

153

00:07:45,850 --> 00:07:43,550

particularly when brett Smith basically

154

00:07:49,180 --> 00:07:45,860

accused senators of being Rupert

155

00:07:53,290 --> 00:07:49,190

Murdoch's skills here's an example of

156

00:07:55,120 --> 00:07:53,300

how they carried on so I'm hoping that

157

00:07:56,650 --> 00:07:55,130

we can actually concentrate on the

158

00:07:58,630 --> 00:07:56,660

issues here and not worry about what

159

00:08:01,510 --> 00:07:58,640

Rupert Murdoch and news limited want you

160

00:08:07,500 --> 00:08:01,520

to so today at mrs. miss Sandra and

161

00:08:10,090 --> 00:08:07,510

Sally so unmannerly with no questions

162

00:08:11,350 --> 00:08:10,100

given that the hearing today hearing

163

00:08:15,010 --> 00:08:11,360

isn't actually about the effectiveness

164

00:08:18,219 --> 00:08:15,020

of back saying on more and more

165

00:08:22,930 --> 00:08:18,229

interested in the credibility of the

166

00:08:26,860 --> 00:08:22,940

witnesses here today now the in terms of

167

00:08:30,190 --> 00:08:26,870

the evidence provided by the Australian

168

00:08:32,110 --> 00:08:30,200

vaccination skeptics network there was a

169

00:08:34,000 --> 00:08:32,120

ruling made by the health complaints

170

00:08:35,000 --> 00:08:34,010

commission in New South Wales that the

171

00:08:37,130 --> 00:08:35,010

information

172

00:08:40,040 --> 00:08:37,140

they provide on vaccinations years and i

173

00:08:42,469 --> 00:08:40,050

quote misleading to the average reader

174

00:08:44,900 --> 00:08:42,479

because it's either incorrect in

175

00:08:46,520 --> 00:08:44,910

accurately represented or because it's

176

00:08:48,800 --> 00:08:46,530

been taken out of context that was a

177

00:08:52,490 --> 00:08:48,810

ruling or health complaints commission

178

00:08:55,910 --> 00:08:52,500

in New South Wales what has what is the

179

00:08:57,740 --> 00:08:55,920

organization done to correct the way in

180

00:09:00,890 --> 00:08:57,750

which they present that information how

181

00:09:02,600 --> 00:09:00,900

is that different today compared with

182

00:09:05,620 --> 00:09:02,610

the manner in which they've presented

183

00:09:08,390 --> 00:09:05,630

information on this issue in the past

184

00:09:10,850 --> 00:09:08,400

the ABN there's a lot of groups here

185

00:09:12,500 --> 00:09:10,860

that aren't represented by the avian and

186

00:09:14,420 --> 00:09:12,510

you're wasting a lot of our time I know

187

00:09:22,940 --> 00:09:14,430

mr. Murdock wants you to ask these

188

00:09:24,410 --> 00:09:22,950

questions a question it's going to be

189

00:09:27,650 --> 00:09:24,420

virtually impossible of people speak

190

00:09:29,600 --> 00:09:27,660

over one another now I can't I can't

191

00:09:31,880 --> 00:09:29,610

order send them tell you what questions

192

00:09:34,220 --> 00:09:31,890

to ask isn't time to ask these questions

193

00:09:35,930 --> 00:09:34,230

and you can choose to answer them in

194

00:09:38,570 --> 00:09:35,940

whatever way you like we are almost out

195

00:09:40,070 --> 00:09:38,580

of time and it is unhelpful so that so

196

00:09:48,440 --> 00:09:40,080

there was a question I missed most of it

197

00:09:49,610 --> 00:09:48,450

but if okay but they cannot know

198

00:09:50,990 --> 00:09:49,620

instruct i'm not going to instruct

199

00:09:52,550 --> 00:09:51,000

senators how to ask their questions

200

00:09:54,740 --> 00:09:52,560

they're also laughs they ask their

201
00:09:56,960 --> 00:09:54,750
questions we are virtually out of times

202
00:10:00,080 --> 00:09:56,970
on would like to address the question

203
00:10:03,080 --> 00:10:00,090
the Senators how is more questions we

204
00:10:04,580 --> 00:10:03,090
don't know it sounds like that so it

205
00:10:06,530 --> 00:10:04,590
sounds like they will sorry sorry mrs.

206
00:10:11,360 --> 00:10:06,540
camp with your choice hold the time

207
00:10:17,730 --> 00:10:15,570
order order order and now here is a

208
00:10:19,410 --> 00:10:17,740
recording of our statement the

209
00:10:27,840 --> 00:10:19,420
transcript can be found on our website

210
00:10:30,200 --> 00:10:27,850
at WWF is a info oh yes mrs. Robertson

211
00:10:32,280 --> 00:10:30,210
thank you for inviting us here today

212
00:10:34,080 --> 00:10:32,290
we're here representing the Northern

213
00:10:37,200 --> 00:10:34,090

Rivers vaccination supporters we're an

214

00:10:40,080 --> 00:10:37,210

unfunded community advocacy group formed

215

00:10:41,670 --> 00:10:40,090

in 2013 as a result of concerns that we

216

00:10:44,490 --> 00:10:41,680

live in the region with Australia's

217

00:10:46,710 --> 00:10:44,500

lowest vaccination rates just under half

218

00:10:49,860 --> 00:10:46,720

of children aged 5 are fully vaccinated

219

00:10:52,590 --> 00:10:49,870

in mulund Bimby so the national average

220

00:10:54,390 --> 00:10:52,600

of over ninety percent vaccination

221

00:10:58,140 --> 00:10:54,400

coverage is pretty much irrelevant in

222

00:10:59,820 --> 00:10:58,150

pockets like ours we are in support of

223

00:11:01,860 --> 00:10:59,830

the proposed legislation for a number of

224

00:11:03,210 --> 00:11:01,870

reasons but we also have a couple of

225

00:11:06,330 --> 00:11:03,220

concerns about it that would like to

226

00:11:08,040 --> 00:11:06,340

share vaccinations don't only protect

227

00:11:10,920 --> 00:11:08,050

individuals they also protect

228

00:11:13,380 --> 00:11:10,930

communities and Ricci vaccinating as a

229

00:11:14,970 --> 00:11:13,390

social responsibility it protects

230

00:11:17,040 --> 00:11:14,980

children and other members of society

231

00:11:18,510 --> 00:11:17,050

who are vulnerable to infectious disease

232

00:11:21,480 --> 00:11:18,520

such as babies too young to be

233

00:11:23,370 --> 00:11:21,490

vaccinated the elderly people with

234

00:11:25,740 --> 00:11:23,380

legitimate medical exemptions who cannot

235

00:11:28,860 --> 00:11:25,750

be vaccinated and immune suppressed

236

00:11:30,390 --> 00:11:28,870

people such as cancer patients child

237

00:11:32,610 --> 00:11:30,400

care facilities are where children are

238

00:11:35,460 --> 00:11:32,620

in close proximity with each other for

239

00:11:38,070 --> 00:11:35,470

extended periods of time putting them at

240

00:11:39,870 --> 00:11:38,080

greater risk of contagious disease this

241

00:11:42,420 --> 00:11:39,880

is even more concerning if a number of

242

00:11:44,190 --> 00:11:42,430

children there are not vaccinated as the

243

00:11:47,040 --> 00:11:44,200

disease's potentially being shared can

244

00:11:49,050 --> 00:11:47,050

be very dangerous we see it is

245

00:11:50,910 --> 00:11:49,060

particularly fitting then that the

246

00:11:52,740 --> 00:11:50,920

proposed legislation focuses on

247

00:11:54,870 --> 00:11:52,750

withholding a government subsidy that

248

00:11:56,970 --> 00:11:54,880

helps parents of unvaccinated children

249

00:11:59,910 --> 00:11:56,980

send their kids to attend childcare

250

00:12:01,980 --> 00:11:59,920

facilities we have heard one of the main

251
00:12:03,480 --> 00:12:01,990
concerns is that parents choices are

252
00:12:06,390 --> 00:12:03,490
being taken away from them if this

253
00:12:08,250 --> 00:12:06,400
legislation is passed our view is that

254
00:12:10,470 --> 00:12:08,260
parents do in fact still have a choice

255
00:12:12,840 --> 00:12:10,480
but that choice not to vaccinate will

256
00:12:14,550 --> 00:12:12,850
now come with a consequence it is the

257
00:12:17,040 --> 00:12:14,560
parents choosing not to vaccinate their

258
00:12:18,720 --> 00:12:17,050
children not the legislation that will

259
00:12:19,020 --> 00:12:18,730
be disadvantaging their children and in

260
00:12:21,870 --> 00:12:19,030
dane

261
00:12:25,770 --> 00:12:21,880
the community is the legislation

262
00:12:27,420 --> 00:12:25,780
coercive yes but not unjustly so in our

263
00:12:29,310 --> 00:12:27,430

region our group has had an impact on

264

00:12:31,590 --> 00:12:29,320

some members of the community but

265

00:12:33,810 --> 00:12:31,600

vaccination rates remain dangerously low

266

00:12:36,420 --> 00:12:33,820

and we need a stronger incentive for

267

00:12:38,850 --> 00:12:36,430

people to vaccinate we believe that both

268

00:12:40,470 --> 00:12:38,860

a carrot and a stick approach are needed

269

00:12:42,780 --> 00:12:40,480

we think that there needs to be more

270

00:12:45,270 --> 00:12:42,790

targeted educational campaigns and

271

00:12:47,850 --> 00:12:45,280

awareness raised and any access issues

272

00:12:49,260 --> 00:12:47,860

addressed but we also need consequences

273

00:12:52,200 --> 00:12:49,270

for those who make choices that put

274

00:12:54,120 --> 00:12:52,210

others at risk this is a public health

275

00:12:57,150 --> 00:12:54,130

issue there are consequences for

276

00:12:58,830 --> 00:12:57,160

speeding and for drink driving surely

277

00:13:00,480 --> 00:12:58,840

there should also be consequences if

278

00:13:03,230 --> 00:13:00,490

your actions leave the vulnerable at

279

00:13:06,540 --> 00:13:03,240

risk of preventable infectious disease

280

00:13:09,000 --> 00:13:06,550

the impact of pockets of low vaccination

281

00:13:11,280 --> 00:13:09,010

rates on the incidence of disease must

282

00:13:12,750 --> 00:13:11,290

be considered as babies and other

283

00:13:14,970 --> 00:13:12,760

vulnerable people are going to continue

284

00:13:18,540 --> 00:13:14,980

to get sick and die if something is not

285

00:13:22,820 --> 00:13:18,550

done as you may be aware Malachi

286

00:13:25,620 --> 00:13:22,830

Cockroft kayla smith Dana McCaffrey and

287

00:13:27,570 --> 00:13:25,630

Riley Hughes all passed away from

288

00:13:29,880 --> 00:13:27,580

whooping cough all too young to be

289

00:13:32,520 --> 00:13:29,890

vaccinated and all from areas with

290

00:13:34,830 --> 00:13:32,530

dangerously low vaccination rates there

291

00:13:38,490 --> 00:13:34,840

was no community immunity to shield them

292

00:13:39,960 --> 00:13:38,500

as in as another example one of the

293

00:13:41,520 --> 00:13:39,970

members of our group has a little girl

294

00:13:43,500 --> 00:13:41,530

who contracted whooping cough and a

295

00:13:46,500 --> 00:13:43,510

daycare center after an unvaccinated

296

00:13:47,910 --> 00:13:46,510

child attended with whooping cough this

297

00:13:50,190 --> 00:13:47,920

little girl now suffers from a condition

298

00:13:52,740 --> 00:13:50,200

called bronchiectasis with leaves which

299

00:13:54,150 --> 00:13:52,750

leaves her with lifelong lung damage she

300

00:13:56,850 --> 00:13:54,160

is another example of how this

301
00:13:59,060 --> 00:13:56,860
legislation can in the future prevent

302
00:14:01,170 --> 00:13:59,070
this from happening to other children

303
00:14:03,420 --> 00:14:01,180
we'd also like to point out that

304
00:14:05,580 --> 00:14:03,430
anecdotally this proposed legislation is

305
00:14:08,340 --> 00:14:05,590
already having a positive effect in our

306
00:14:09,900 --> 00:14:08,350
region we have had vaccine hesitant

307
00:14:11,850 --> 00:14:09,910
parents approached our group seeking

308
00:14:14,130 --> 00:14:11,860
more information about vaccination as a

309
00:14:16,470 --> 00:14:14,140
direct result of it and they have told

310
00:14:19,530 --> 00:14:16,480
us that they are now reconsidering their

311
00:14:22,610 --> 00:14:19,540
stance local immunization providers have

312
00:14:25,310 --> 00:14:22,620
also reported similar stories

313
00:14:27,380 --> 00:14:25,320

one concern we do have specific for our

314

00:14:29,030 --> 00:14:27,390

region is that many people have an

315

00:14:31,070 --> 00:14:29,040

alternative health care provider rather

316

00:14:34,070 --> 00:14:31,080

than a GP as their primary health care

317

00:14:36,110 --> 00:14:34,080

practitioner this is problematic for a

318

00:14:37,280 --> 00:14:36,120

number of reasons it means that our

319

00:14:39,260 --> 00:14:37,290

notification rates of

320

00:14:42,170 --> 00:14:39,270

vaccine-preventable diseases may in fact

321

00:14:43,970 --> 00:14:42,180

be significantly underreported people

322

00:14:45,830 --> 00:14:43,980

are not being diagnosed or referred on

323

00:14:48,140 --> 00:14:45,840

by alternative health care practitioners

324

00:14:50,900 --> 00:14:48,150

and so notifications to public health

325

00:14:52,610 --> 00:14:50,910

may not be happening in addition many

326

00:14:54,470 --> 00:14:52,620

receive unproven remedies and

327

00:14:57,080 --> 00:14:54,480

ineffective alternative vaccination

328

00:14:59,690 --> 00:14:57,090

options such as homeopathy forgoing

329

00:15:01,180 --> 00:14:59,700

proven preventive medicine effective

330

00:15:03,320 --> 00:15:01,190

evidence-based treatments and

331

00:15:06,710 --> 00:15:03,330

potentially remaining infectious for

332

00:15:09,290 --> 00:15:06,720

longer as a result of all of this we

333

00:15:10,850 --> 00:15:09,300

have parents in our group who are too

334

00:15:13,100 --> 00:15:10,860

frightened to take their babies out in

335

00:15:14,450 --> 00:15:13,110

public we have mothers not joining

336

00:15:16,490 --> 00:15:14,460

mothers groups missing out on those

337

00:15:19,250 --> 00:15:16,500

valuable social interactions and support

338

00:15:21,170 --> 00:15:19,260

groups just yesterday a local dad

339

00:15:22,970 --> 00:15:21,180

contacted us who is putting the family

340

00:15:24,470 --> 00:15:22,980

home on the market to move from the area

341

00:15:25,700 --> 00:15:24,480

because they can no longer cope with the

342

00:15:28,340 --> 00:15:25,710

prevailing sentiment regarding

343

00:15:30,620 --> 00:15:28,350

vaccination and the various conspiracy

344

00:15:32,420 --> 00:15:30,630

theories surrounding the issue we have

345

00:15:34,580 --> 00:15:32,430

parents contact us who have been told by

346

00:15:37,550 --> 00:15:34,590

other mums that vaccines cause autism or

347

00:15:39,470 --> 00:15:37,560

shaken baby syndrome doctors midwives

348

00:15:41,150 --> 00:15:39,480

and alternative healthcare practitioners

349

00:15:43,490 --> 00:15:41,160

in our region are giving conflicting

350

00:15:47,170 --> 00:15:43,500

advice leaving parents to wonder what

351

00:15:49,160 --> 00:15:47,180

the best thing is to do for their baby

352

00:15:52,880 --> 00:15:49,170

vaccination as you may have seen online

353

00:15:54,560 --> 00:15:52,890

has been equated to rape or said to be a

354

00:15:56,720 --> 00:15:54,570

government agenda to pander to

355

00:15:59,630 --> 00:15:56,730

pharmaceutical companies or as a form of

356

00:16:02,000 --> 00:15:59,640

population control the fear-mongering is

357

00:16:04,280 --> 00:16:02,010

relentless here we are fighting an

358

00:16:06,050 --> 00:16:04,290

uphill battle for our community and thus

359

00:16:08,360 --> 00:16:06,060

far there's been little research done in

360

00:16:10,100 --> 00:16:08,370

to our region as to what approaches may

361

00:16:12,650 --> 00:16:10,110

help people gain confidence in the

362

00:16:16,269 --> 00:16:12,660

vaccination schedule or in how to stop

363

00:16:18,369 --> 00:16:16,279

the relentless tired of misinformation

364

00:16:20,559 --> 00:16:18,379

to help counter these issues in addition

365

00:16:22,179 --> 00:16:20,569

to this legislation we would propose an

366

00:16:23,800 --> 00:16:22,189

annual reminder system linked to the

367

00:16:25,809 --> 00:16:23,810

Australian childhood immunization

368

00:16:27,819 --> 00:16:25,819

register in order to keep the lines of

369

00:16:30,009 --> 00:16:27,829

communication open with vaccine hesitant

370

00:16:32,079 --> 00:16:30,019

parents we'd also like to see the money

371

00:16:33,819 --> 00:16:32,089

saved from the legislation go towards

372

00:16:36,040 --> 00:16:33,829

targeted education campaigns and

373

00:16:39,340 --> 00:16:36,050

research particularly into unique

374

00:16:41,559 --> 00:16:39,350

demographics like ours one last concern

375

00:16:43,420 --> 00:16:41,569

is the probability of vaccine refuses

376

00:16:45,699 --> 00:16:43,430

forming unregistered casual childcare

377

00:16:47,230 --> 00:16:45,709

alliances exposing the children in the

378

00:16:49,629 --> 00:16:47,240

wider community to outbreaks of

379

00:16:51,879 --> 00:16:49,639

preventable disease we would welcome any

380

00:16:54,970 --> 00:16:51,889

measures to have regulatory processes in

381

00:16:57,220 --> 00:16:54,980

place for such instances in conclusion

382

00:16:58,689 --> 00:16:57,230

we do support this legislation as we

383

00:17:01,119 --> 00:16:58,699

believe that it will protect those who

384

00:17:03,129 --> 00:17:01,129

have no choice especially those kids in

385

00:17:04,870 --> 00:17:03,139

childcare who are vaccinated but

386

00:17:06,429 --> 00:17:04,880

continually exposed to disease that

387

00:17:09,429 --> 00:17:06,439

should be relegated to the history books

388

00:17:11,289 --> 00:17:09,439

by now the young the elderly and those

389

00:17:13,569 --> 00:17:11,299

to seek to be vaccinated themselves

390

00:17:16,360 --> 00:17:13,579

those are the people that deserve our

391

00:17:18,850 --> 00:17:16,370

protection thank you the committee will

392

00:17:21,419 --> 00:17:18,860

be reporting on this on Monday the

393

00:17:25,600 --> 00:17:21,429

nights of November we have been advised

394

00:17:29,080 --> 00:17:25,610

so we'll keep you posted that's all from

395

00:17:31,240 --> 00:17:29,090

me for this week until next time this is

396

00:17:42,970 --> 00:17:31,250

heidi robertson signing off

397

00:17:45,100 --> 00:17:42,980

bye welcome to a week in science from

398

00:17:47,560 --> 00:17:45,110

our iOS bringing you the science you

399

00:17:49,900 --> 00:17:47,570

need to know with features like parking

400

00:17:52,120 --> 00:17:49,910

assist automated breaking and adaptive

401
00:17:54,760 --> 00:17:52,130
cruise control we're already well on our

402
00:17:56,290 --> 00:17:54,770
way to having driverless cars in fact

403
00:18:07,320 --> 00:17:56,300
manufacturers say that they'll be in

404
00:18:12,790 --> 00:18:10,300
prototypes from nissan Volvo Audi and

405
00:18:14,800 --> 00:18:12,800
Google use a variety of sensors mounted

406
00:18:17,140 --> 00:18:14,810
on the car to build a detailed picture

407
00:18:19,600 --> 00:18:17,150
of its surroundings one of the main

408
00:18:22,330 --> 00:18:19,610
sensors is a type of laser called lidar

409
00:18:24,850 --> 00:18:22,340
it sends out rapid pulses of non visible

410
00:18:26,830 --> 00:18:24,860
light and measures the time they take to

411
00:18:28,990 --> 00:18:26,840
bounce off objects and return because

412
00:18:31,150 --> 00:18:29,000
light moves at a constant speed we can

413
00:18:33,760 --> 00:18:31,160

then calculate the cars distance from

414

00:18:36,190 --> 00:18:33,770

that object and build a 3d image of its

415

00:18:38,290 --> 00:18:36,200

environment the data from later is

416

00:18:40,240 --> 00:18:38,300

combined with video and radar sensor

417

00:18:42,340 --> 00:18:40,250

information and is processed by an

418

00:18:44,860 --> 00:18:42,350

on-board computer that makes decisions

419

00:18:47,740 --> 00:18:44,870

about steering braking and acceleration

420

00:18:50,050 --> 00:18:47,750

this sophisticated programming requires

421

00:18:52,120 --> 00:18:50,060

the computer to self learn so that it

422

00:18:56,060 --> 00:18:52,130

can still choose the correct action when

423

00:18:58,730 --> 00:18:56,070

it encounters unexpected scenarios

424

00:19:00,320 --> 00:18:58,740

I can see the appeal of a driverless car

425

00:19:01,910 --> 00:19:00,330

allowing you to better use your

426

00:19:03,530 --> 00:19:01,920

commuting time and providing

427

00:19:06,080 --> 00:19:03,540

independence to people who couldn't

428

00:19:08,510 --> 00:19:06,090

otherwise drive plus they could save

429

00:19:10,340 --> 00:19:08,520

thousands of lives by removing human

430

00:19:12,680 --> 00:19:10,350

driver error which accounts for over

431

00:19:14,570 --> 00:19:12,690

ninety percent of crashes they could

432

00:19:17,030 --> 00:19:14,580

also benefit the environment by reducing

433

00:19:19,070 --> 00:19:17,040

the number of cars on the road one

434

00:19:20,840 --> 00:19:19,080

vehicle could serve the whole family by

435

00:19:23,690 --> 00:19:20,850

driving itself between pickups and

436

00:19:25,850 --> 00:19:23,700

drop-offs or in a reimagined taxi

437

00:19:28,310 --> 00:19:25,860

service rather than owning a car at all

438

00:19:30,400 --> 00:19:28,320

you could lodge a transport request and

439

00:19:32,900 --> 00:19:30,410

whatever car is closest will pick you up

440

00:19:35,240 --> 00:19:32,910

smart braking and acceleration could

441

00:19:37,460 --> 00:19:35,250

potentially increase fuel efficiency by

442

00:19:39,380 --> 00:19:37,470

twenty-five percent and communication

443

00:19:41,570 --> 00:19:39,390

between cars will mean that road space

444

00:19:43,820 --> 00:19:41,580

is used better and commuting times

445

00:19:46,100 --> 00:19:43,830

become shorter but there are some

446

00:19:50,720 --> 00:19:46,110

concerns so let's take a look at the top

447

00:19:53,090 --> 00:19:50,730

four first are concerns about licensing

448

00:19:56,360 --> 00:19:53,100

and legal issues if your driver Lascar

449

00:19:58,310 --> 00:19:56,370

is in a crash who is liable viruses and

450

00:20:00,770 --> 00:19:58,320

malfunctions in the software are another

451
00:20:02,840 --> 00:20:00,780
worry if we can't have bug free internet

452
00:20:05,690 --> 00:20:02,850
browsers is it even possible to make a

453
00:20:07,730 --> 00:20:05,700
bug free car a third potential impact is

454
00:20:09,800 --> 00:20:07,740
that the technology will encourage urban

455
00:20:11,000 --> 00:20:09,810
sprawl with people tolerating long

456
00:20:14,090 --> 00:20:11,010
commutes when they're not actually

457
00:20:16,250 --> 00:20:14,100
driving and finally the idea of someone

458
00:20:18,710 --> 00:20:16,260
being able to remotely hack your car

459
00:20:21,380 --> 00:20:18,720
raises some scary safety and even

460
00:20:23,450 --> 00:20:21,390
terrorism concerns that's it for this

461
00:20:25,610 --> 00:20:23,460
week in science for more information on

462
00:20:29,390 --> 00:20:25,620
driverless cars go to the are ales

463
00:20:31,670 --> 00:20:29,400

website RI aus org dot a you follow us

464

00:20:33,950 --> 00:20:31,680

on twitter at our AOS and like us on

465

00:20:45,950 --> 00:20:33,960

facebook I'm curing room and we'll catch

466

00:20:51,150 --> 00:20:48,810

on to help support the skeptic zone and

467

00:20:55,430 --> 00:20:51,160

look pretty damn stylish while you're

468

00:20:58,380 --> 00:20:55,440

about it visit mr. Katz origami jewelry

469

00:21:01,530 --> 00:20:58,390

wwc eggs on TV and click the link or

470

00:21:05,370 --> 00:21:01,540

simply Google mr. Katz origami jewelry

471

00:21:09,630 --> 00:21:05,380

also on Facebook pendants earrings and

472

00:21:22,560 --> 00:21:09,640

cufflinks support mr. cat support the

473

00:21:26,720 --> 00:21:22,570

skeptics own ears may not spooky action

474

00:21:30,740 --> 00:21:26,730

at the distance

475

00:21:31,880 --> 00:21:30,750

I look around a one here in our visiting

476

00:21:34,820 --> 00:21:31,890

American that you've already heard on

477

00:21:36,710 --> 00:21:34,830

the show we've got 0 ng rocky right now

478

00:21:38,539 --> 00:21:36,720

you've seen the Brisbane skeptics in

479

00:21:39,320 --> 00:21:38,549

action on stage how do you think if it

480

00:21:40,730 --> 00:21:39,330

has its compared to the other ones

481

00:21:43,130 --> 00:21:40,740

you're being too around the world as you

482

00:21:44,299 --> 00:21:43,140

you are just traveling everywhere if

483

00:21:47,210 --> 00:21:44,309

there's a skeptical thing on you'll be

484

00:21:48,590 --> 00:21:47,220

there I love it i just love it the

485

00:21:53,620 --> 00:21:48,600

people are so wonderful and i love

486

00:21:55,940 --> 00:21:53,630

talking to people who have questioning

487

00:21:57,590 --> 00:21:55,950

mindset said well and it's a great venue

488

00:21:58,970 --> 00:21:57,600

to all this beautiful glass and the Sun

489

00:22:00,530 --> 00:21:58,980

shines coming in but got enough for your

490

00:22:03,110 --> 00:22:00,540

condition to keep it cool oh yeah the

491

00:22:05,780 --> 00:22:03,120

gardens are beautiful Joe Nickell

492

00:22:08,000 --> 00:22:05,790

cruising he's cruising boozing positive

493

00:22:09,500 --> 00:22:08,010

I reckon he'd be a tough guy if he goes

494

00:22:10,610 --> 00:22:09,510

to buy like a washing machine and refrig

495

00:22:12,860 --> 00:22:10,620

she'd be the hardest guy to sell

496

00:22:14,390 --> 00:22:12,870

something to probably very likely he'd

497

00:22:16,220 --> 00:22:14,400

probably end up selling that person a

498

00:22:19,159 --> 00:22:16,230

wooden nickel yes something like that

499

00:22:20,180 --> 00:22:19,169

kind of guy and then kind of people have

500

00:22:21,650 --> 00:22:20,190

come to this long as you've been to a

501
00:22:23,140 --> 00:22:21,660
couple of different skeptics conventions

502
00:22:26,000 --> 00:22:23,150
in Australia is there a different

503
00:22:27,350 --> 00:22:26,010
Queenslander fields of this well I

504
00:22:29,030 --> 00:22:27,360
haven't been able to see as much of the

505
00:22:30,470 --> 00:22:29,040
city as i did when i was in Sydney but

506
00:22:32,510 --> 00:22:30,480
it looking because you've been going out

507
00:22:34,520 --> 00:22:32,520
at night you've been roaming the streets

508
00:22:38,690 --> 00:22:34,530
at night I wouldn't consider it roaming

509
00:22:40,880 --> 00:22:38,700
but whatever so anyway know that the

510
00:22:42,200 --> 00:22:40,890
people are just they're always wonderful

511
00:22:45,350 --> 00:22:42,210
and it's a little bit of a different

512
00:22:47,630 --> 00:22:45,360
feel to it it's a little less glitzy

513
00:22:50,970 --> 00:22:47,640

than it did down in Sydney but it but I

514

00:22:52,740 --> 00:22:50,980

just love that people are so genuine

515

00:22:54,960 --> 00:22:52,750

I'm here with one of the speakers I've

516

00:22:57,180 --> 00:22:54,970

just met what's your name sir Jim coin

517

00:22:59,549 --> 00:22:57,190

from Philadelphia ah Philadelphia that

518

00:23:01,169 --> 00:22:59,559

the city of that's brotherly love goes

519

00:23:03,090 --> 00:23:01,179

on there doesn't it that's right so they

520

00:23:08,370 --> 00:23:03,100

got same-sex marriage it or not oh yeah

521

00:23:10,110 --> 00:23:08,380

get a lively gay community also right is

522

00:23:12,330 --> 00:23:10,120

there a lively debate when it happened

523

00:23:14,400 --> 00:23:12,340

or not no I think it was settled cool

524

00:23:15,900 --> 00:23:14,410

yeah right yes so so why do you in the

525

00:23:19,200 --> 00:23:15,910

desert we have grown up here when I like

526

00:23:21,840 --> 00:23:19,210

this area I was attracted to university

527

00:23:23,789 --> 00:23:21,850

of pennsylvania wow you're here this

528

00:23:25,350 --> 00:23:23,799

weekend to talk about the pitfalls of

529

00:23:26,880 --> 00:23:25,360

positive thinking would that be a good

530

00:23:29,930 --> 00:23:26,890

way to say it's even better than that

531

00:23:32,669 --> 00:23:29,940

the pseudoscience of positive psychology

532

00:23:35,820 --> 00:23:32,679

there's no reason why we can't have a

533

00:23:39,620 --> 00:23:35,830

science of how to lead a better life but

534

00:23:42,870 --> 00:23:39,630

i think it's it's it's become such a

535

00:23:46,409 --> 00:23:42,880

industry promoting self-help books in

536

00:23:49,230 --> 00:23:46,419

coaching and it it's promoted by

537

00:23:52,260 --> 00:23:49,240

undermining people sense of their

538

00:23:54,150 --> 00:23:52,270

comfortable in themselves throwing at

539

00:23:55,500 --> 00:23:54,160

you drew barrymore here now drew

540

00:23:57,630 --> 00:23:55,510

barrymore says it every morning she

541

00:23:59,760 --> 00:23:57,640

imagines her day going perfectly and her

542

00:24:01,440 --> 00:23:59,770

being successful and she creates her own

543

00:24:02,909 --> 00:24:01,450

reality by doing that would that be an

544

00:24:04,740 --> 00:24:02,919

example of what you're talking about

545

00:24:06,210 --> 00:24:04,750

Shirley and then it sets are up to be

546

00:24:07,620 --> 00:24:06,220

unhappy because it doesn't happen that

547

00:24:09,180 --> 00:24:07,630

way every day you know the fact that

548

00:24:11,940 --> 00:24:09,190

she's steven spielberg's goddaughter

549

00:24:13,860 --> 00:24:11,950

would help a lot that probably helps so

550

00:24:15,210 --> 00:24:13,870

what do you think we see successful

551

00:24:16,350 --> 00:24:15,220

people doing this and we go oh well

552

00:24:18,720 --> 00:24:16,360

that's what I'm doing wrong that's why

553

00:24:21,450 --> 00:24:18,730

I'm not like Drew Barrymore absolutely I

554

00:24:23,159 --> 00:24:21,460

think it comes from being successful

555

00:24:25,350 --> 00:24:23,169

enough from doing those silly exercises

556

00:24:26,940 --> 00:24:25,360

hmm and so what should we be doing is

557

00:24:28,350 --> 00:24:26,950

there something where we think ok I'm

558

00:24:30,510 --> 00:24:28,360

going to do some positive thinking and

559

00:24:32,280 --> 00:24:30,520

how should we skeptically look at it ah

560

00:24:34,080 --> 00:24:32,290

we should be prepared for the

561

00:24:38,070 --> 00:24:34,090

possibility it won't be a good day and

562

00:24:39,720 --> 00:24:38,080

deal with it ok realism not optimism oh

563

00:24:40,890 --> 00:24:39,730

that's a neutral but realism is very

564

00:24:42,390 --> 00:24:40,900

good so you think people could set

565

00:24:43,890 --> 00:24:42,400

themselves up for perhaps being even

566

00:24:45,570 --> 00:24:43,900

more depressed when things don't go the

567

00:24:46,890 --> 00:24:45,580

way they want absolutely I think you can

568

00:24:49,620 --> 00:24:46,900

make yourself absolutely miserable

569

00:24:51,240 --> 00:24:49,630

trying too hard to be happy well so how

570

00:24:52,440 --> 00:24:51,250

do you find the happy medium how do you

571

00:24:54,240 --> 00:24:52,450

find that reality because for some

572

00:24:58,169 --> 00:24:54,250

people that can be difficult I think

573

00:24:59,909 --> 00:24:58,179

just suspend expectations runway the

574

00:25:01,550 --> 00:24:59,919

other and just deal with things as they

575

00:25:03,380 --> 00:25:01,560

come up positive or negative

576

00:25:05,420 --> 00:25:03,390

and I've been asking a few skeptics at

577

00:25:07,250 --> 00:25:05,430

this this weekend if there was one whew

578

00:25:09,440 --> 00:25:07,260

that was actually real if there was one

579

00:25:12,530 --> 00:25:09,450

sort of a pseudoscience it was real what

580

00:25:15,800 --> 00:25:12,540

would you like that one to be I think

581

00:25:17,420 --> 00:25:15,810

you can sir away oh right cuz I'd

582

00:25:20,240 --> 00:25:17,430

forgotten of course positive thinking

583

00:25:21,560 --> 00:25:20,250

goes into that so that can relay it oh

584

00:25:22,850 --> 00:25:21,570

that must be terrible for people because

585

00:25:24,860 --> 00:25:22,860

i think i've been doing the positive

586

00:25:26,420 --> 00:25:24,870

thinking the cans is not going away it's

587

00:25:30,410 --> 00:25:26,430

my fault you can get that early yeah

588

00:25:32,380 --> 00:25:30,420

yeah and and i think there's no evidence

589

00:25:35,630 --> 00:25:32,390

that attitude has anything to do with

590

00:25:37,430 --> 00:25:35,640

our physical outcomes of cancer and I

591

00:25:39,470 --> 00:25:37,440

think if people want to be angry and

592

00:25:41,300 --> 00:25:39,480

find no benefit it will find cancer

593

00:25:44,180 --> 00:25:41,310

inconvenient they should be free to do

594

00:25:45,950 --> 00:25:44,190

that it won't affect their outcomes okay

595

00:25:47,840 --> 00:25:45,960

I'm what do you make of our skeptical

596

00:25:49,520 --> 00:25:47,850

movement here in Australia so far it's

597

00:25:51,830 --> 00:25:49,530

wonderful I think it's a bunch of

598

00:25:53,840 --> 00:25:51,840

citizen scientist going out in

599

00:25:55,520 --> 00:25:53,850

challenging people with evidence I I'd

600

00:25:57,610 --> 00:25:55,530

love to see more of that and where can

601
00:26:00,530 --> 00:25:57,620
we find your website read more about you

602
00:26:03,620 --> 00:26:00,540
just look at google coins of the realm

603
00:26:05,270 --> 00:26:03,630
one word wow ok great you have a great

604
00:26:06,680 --> 00:26:05,280
time here thank you very much i'm going

605
00:26:14,030 --> 00:26:06,690
to try and think positively but not too

606
00:26:18,010 --> 00:26:16,740
new be here if I chechi from a skeptic

607
00:26:19,900 --> 00:26:18,020
zone yes

608
00:26:21,070 --> 00:26:19,910
well everyone's rushing and hushing and

609
00:26:22,660 --> 00:26:21,080
pushing bit of coffee over in the corner

610
00:26:24,700 --> 00:26:22,670
and trying to get to the bananas before

611
00:26:27,100 --> 00:26:24,710
they run out but who we got here llana

612
00:26:28,720 --> 00:26:27,110
your first time in a skeptics event yes

613
00:26:30,040 --> 00:26:28,730

yes it is how did you get here these

614

00:26:31,930 --> 00:26:30,050

suspicious friends with you dragged you

615

00:26:34,060 --> 00:26:31,940

along well how did you get it yes cast

616

00:26:35,860 --> 00:26:34,070

is my chewed-up oh yeah and she was

617

00:26:37,690 --> 00:26:35,870

telling me about the society and she

618

00:26:39,430 --> 00:26:37,700

invited me along for the weekend what

619

00:26:42,100 --> 00:26:39,440

particular area of skepticism interest

620

00:26:44,770 --> 00:26:42,110

you um well we were talking about the

621

00:26:47,110 --> 00:26:44,780

anti-vaccine Lee and that's sort of what

622

00:26:49,420 --> 00:26:47,120

led us into there because my mother is

623

00:26:51,280 --> 00:26:49,430

very against vaccinations also you must

624

00:26:52,600 --> 00:26:51,290

have great Christmas dinners yeah so

625

00:26:54,910 --> 00:26:52,610

it's very amusing to talk to her about

626

00:26:57,100 --> 00:26:54,920

and Kass is giving me all the details on

627

00:26:58,990 --> 00:26:57,110

the background for it to hog you and

628

00:27:00,910 --> 00:26:59,000

create many fights with my mother yes I

629

00:27:02,110 --> 00:27:00,920

was gonna say yes because your parents

630

00:27:03,550 --> 00:27:02,120

know the buttons to push when they're

631

00:27:05,290 --> 00:27:03,560

arguing with the done thing and all that

632

00:27:07,690 --> 00:27:05,300

emotive stuff they break in your

633

00:27:09,820 --> 00:27:07,700

childhood and yeah so she's just been

634

00:27:11,800 --> 00:27:09,830

giving me the facts so I can have a very

635

00:27:13,570 --> 00:27:11,810

solid argument against her in her crazy

636

00:27:14,680 --> 00:27:13,580

ways so now what do you make of the

637

00:27:16,150 --> 00:27:14,690

people that come here they're there

638

00:27:17,770 --> 00:27:16,160

aren't many neckbeards normally you'd

639

00:27:20,170 --> 00:27:17,780

expect more neck neck beards than this

640

00:27:22,480 --> 00:27:20,180

but that yes yes as a good collection of

641

00:27:24,130 --> 00:27:22,490

jokers and jeans it's a fantastic I was

642

00:27:25,510 --> 00:27:24,140

also going to do joggers but I was told

643

00:27:27,520 --> 00:27:25,520

I wasn't allowed don't you dressed up

644

00:27:29,860 --> 00:27:27,530

yes I dressed up I thought I'd put my

645

00:27:31,540 --> 00:27:29,870

best foot forward for the first class

646

00:27:33,460 --> 00:27:31,550

convention I've only had the morning

647

00:27:34,870 --> 00:27:33,470

talk so we've had stuff about Wikipedia

648

00:27:36,430 --> 00:27:34,880

had stuff about diets is there anything

649

00:27:38,860 --> 00:27:36,440

you weren't oh yeah that's right in

650

00:27:41,170 --> 00:27:38,870

other diet stuff was hilarious very well

651
00:27:42,880 --> 00:27:41,180
presented I was trying to hysterically

652
00:27:44,890 --> 00:27:42,890
laugh in the audience and break through

653
00:27:47,230 --> 00:27:44,900
and abuse have you been sucked into a

654
00:27:50,800 --> 00:27:47,240
fad diet at any stage hang on your

655
00:27:52,660 --> 00:27:50,810
friends laughing has she well we were

656
00:27:55,900 --> 00:27:52,670
both privately schooled and it comes

657
00:27:57,970 --> 00:27:55,910
with a lot of Pisces they get an engine

658
00:28:00,010 --> 00:27:57,980
from an early age crazy girls at lunches

659
00:28:01,630 --> 00:28:00,020
and what I'm definitely very familiar

660
00:28:03,160 --> 00:28:01,640
with lemon detox very mint formals

661
00:28:04,120 --> 00:28:03,170
coming you have to eat in a certain way

662
00:28:05,980 --> 00:28:04,130
and

663
00:28:07,570 --> 00:28:05,990

yes everybody scribbles away their

664

00:28:09,010 --> 00:28:07,580

ritalin to take extra snout so they can

665

00:28:12,040 --> 00:28:09,020

thin down that sort of stuff oh yeah I

666

00:28:13,960 --> 00:28:12,050

know what goes on in the bra come on

667

00:28:15,100 --> 00:28:13,970

with it yes I which diet do you think

668

00:28:17,170 --> 00:28:15,110

was the funniest one there was some

669

00:28:19,480 --> 00:28:17,180

grapefruit ones the full moon diet

670

00:28:21,250 --> 00:28:19,490

definitely the werewolf start for those

671

00:28:22,750 --> 00:28:21,260

people werewolf that's right yeah it

672

00:28:24,460 --> 00:28:22,760

didn't actually say just said don't eat

673

00:28:26,050 --> 00:28:24,470

well as a full moon and then you'd eat

674

00:28:28,660 --> 00:28:26,060

other stuff at other cycles of the moon

675

00:28:30,040 --> 00:28:28,670

it's very specific bizarre what did you

676

00:28:31,450 --> 00:28:30,050

find out the weird diets which one did

677

00:28:34,870 --> 00:28:31,460

you think the strange I mean definitely

678

00:28:36,940 --> 00:28:34,880

yes the werewolf diet um I think the 55

679

00:28:39,370 --> 00:28:36,950

bites diet in general just hilarious

680

00:28:41,290 --> 00:28:39,380

since yeah exactly so much with your

681

00:28:43,300 --> 00:28:41,300

mouth sighs exactly as he argued i am

682

00:28:46,570 --> 00:28:43,310

also of Italian descent and I can eat a

683

00:28:47,920 --> 00:28:46,580

lot in five man tell me other southern

684

00:28:49,360 --> 00:28:47,930

Italians been looking in the northern

685

00:28:50,590 --> 00:28:49,370

Italians I thought it was that they're

686

00:28:52,480 --> 00:28:50,600

always arguing over there I think it's

687

00:28:56,380 --> 00:28:52,490

just more Sun more Sun you get tanner

688

00:28:57,370 --> 00:28:56,390

all right 10 ok let's go now what are

689

00:28:59,620 --> 00:28:57,380

you looking forward to for the rest of

690

00:29:02,410 --> 00:28:59,630

the weekend here with the skeptics um

691

00:29:03,490 --> 00:29:02,420

well I cheater Cassandra's talk we're

692

00:29:05,430 --> 00:29:03,500

looking forward to let I think it's on

693

00:29:07,960 --> 00:29:05,440

marijuana is it on yeah exactly

694

00:29:09,430 --> 00:29:07,970

wonderful well I heard this is the first

695

00:29:10,840 --> 00:29:09,440

of many skeptic events or have you been

696

00:29:12,490 --> 00:29:10,850

to many before have you know it's his

697

00:29:14,890 --> 00:29:12,500

first time but for both bathroom what do

698

00:29:16,240 --> 00:29:14,900

you make in the crowd um I think it's

699

00:29:18,010 --> 00:29:16,250

really interesting it's a great mix of

700

00:29:19,180 --> 00:29:18,020

people okay and it is really great to

701
00:29:21,220 --> 00:29:19,190
see more women getting involved in the

702
00:29:22,360 --> 00:29:21,230
movement too yes definitely well thank

703
00:29:26,110 --> 00:29:22,370
you very much to have some future

704
00:29:28,180 --> 00:29:26,120
activists here yes yes thank you and

705
00:29:31,960 --> 00:29:28,190
your names again hi Brina and a lot oh

706
00:29:34,450 --> 00:29:31,970
right I know so we're here in the cooler

707
00:29:36,610 --> 00:29:34,460
section of the garden theater just down

708
00:29:38,530 --> 00:29:36,620
and I'm here that Eugenie Scott welcome

709
00:29:39,910 --> 00:29:38,540
to Australia yet again thank you of

710
00:29:41,650 --> 00:29:39,920
course when every year with the

711
00:29:43,810 --> 00:29:41,660
Australian skeptics you are with the

712
00:29:46,450 --> 00:29:43,820
cool people yeah well I'm glad we've got

713
00:29:47,890 --> 00:29:46,460

that worldwide reputation tell me when

714

00:29:50,380 --> 00:29:47,900

did you become a skeptic was there a

715

00:29:53,500 --> 00:29:50,390

moment where you said that's it I'm down

716

00:29:55,540 --> 00:29:53,510

with this stuff oh man that's a really

717

00:29:58,690 --> 00:29:55,550

hard question to it was a gradual

718

00:30:01,770 --> 00:29:58,700

process you know I maybe I'm getting old

719

00:30:06,340 --> 00:30:01,780

I don't remember I think certainly the

720

00:30:09,250 --> 00:30:06,350

the first glimpse that I got that there

721

00:30:10,960 --> 00:30:09,260

actually was a can you call the skeptics

722

00:30:12,910 --> 00:30:10,970

organized that may not be the right but

723

00:30:13,960 --> 00:30:12,920

there was at there were actually a group

724

00:30:17,800 --> 00:30:13,970

of people who are

725

00:30:20,500 --> 00:30:17,810

cerned about crazy ideas that many

726

00:30:22,420 --> 00:30:20,510

people hold was back when I got

727

00:30:24,280 --> 00:30:22,430

interested in creationism which was as a

728

00:30:25,690 --> 00:30:24,290

graduate student and then one of my

729

00:30:30,010 --> 00:30:25,700

professor says well here's this

730

00:30:32,920 --> 00:30:30,020

organization called the you know a sigh

731

00:30:34,630 --> 00:30:32,930

cop and they're they're in there looking

732

00:30:36,220 --> 00:30:34,640

at all kinds of things including in

733

00:30:38,470 --> 00:30:36,230

creationism was one of the things on

734

00:30:41,800 --> 00:30:38,480

their list as well so I became aware

735

00:30:43,930 --> 00:30:41,810

that there was this whole universe out

736

00:30:48,220 --> 00:30:43,940

there of people who believed in things

737

00:30:52,150 --> 00:30:48,230

like astrology and so forth and and as

738

00:30:54,910 --> 00:30:52,160

it happens I have quite a few members of

739

00:30:58,690 --> 00:30:54,920

my own family who are quite enthusiastic

740

00:31:00,130 --> 00:30:58,700

about various woo topics so this has

741

00:31:02,140 --> 00:31:00,140

come up a bit this weekend but I've been

742

00:31:04,330 --> 00:31:02,150

talking to new skeptics old people

743

00:31:06,310 --> 00:31:04,340

people from University scientists

744

00:31:07,870 --> 00:31:06,320

there's someone in the family and what's

745

00:31:09,190 --> 00:31:07,880

the best way to handle that someone has

746

00:31:11,020 --> 00:31:09,200

had a bit of experience in this field

747

00:31:11,920 --> 00:31:11,030

obvious if you push too hard you're

748

00:31:14,260 --> 00:31:11,930

going to have a very unfriendly

749

00:31:16,750 --> 00:31:14,270

Christmas dinner well I don't think you

750

00:31:18,790 --> 00:31:16,760

can I mean I can talk to your crazy

751
00:31:20,590 --> 00:31:18,800
relative and maybe you can talk to my

752
00:31:23,440 --> 00:31:20,600
crazy relative but I can't talk to my

753
00:31:25,690 --> 00:31:23,450
crazy relative because they're just too

754
00:31:28,390 --> 00:31:25,700
many other things you've had a whole

755
00:31:31,770 --> 00:31:28,400
lifetime of relationships good better

756
00:31:34,450 --> 00:31:31,780
and different and to bring up a

757
00:31:36,640 --> 00:31:34,460
something like empirical evidence in

758
00:31:38,500 --> 00:31:36,650
logical ways of looking at things that's

759
00:31:40,150 --> 00:31:38,510
a completely different world than the

760
00:31:42,820 --> 00:31:40,160
kind of personal relationships you have

761
00:31:44,830 --> 00:31:42,830
with people so I'm quite serious it's

762
00:31:46,240 --> 00:31:44,840
like it's like debating politics and

763
00:31:49,090 --> 00:31:46,250

some if you're really serious about

764

00:31:51,430 --> 00:31:49,100

politics you might want to persuade

765

00:31:53,860 --> 00:31:51,440

somebody else's goofy brother-in-law

766

00:31:56,989 --> 00:31:53,870

rather than your own and what's been the

767

00:32:01,699 --> 00:31:56,999

biggest battle you been fighting lately

768

00:32:03,499 --> 00:32:01,709

ah well I am retired now so technically

769

00:32:05,299 --> 00:32:03,509

speaking I don't have to fight the

770

00:32:06,589 --> 00:32:05,309

battles that my colleagues at the

771

00:32:11,029 --> 00:32:06,599

National Center for Science Education

772

00:32:14,119 --> 00:32:11,039

are doing quite well trying to keep lids

773

00:32:19,159 --> 00:32:14,129

on the creationism and anti climate

774

00:32:21,349 --> 00:32:19,169

change topics I I help where I can I'm

775

00:32:23,989 --> 00:32:21,359

still volunteering at NCSE I'm working

776

00:32:25,999 --> 00:32:23,999

in the archives but I'm not as on the

777

00:32:28,459 --> 00:32:26,009

front lines anymore have you started any

778

00:32:31,189 --> 00:32:28,469

arguments on the internet lately no

779

00:32:33,709 --> 00:32:31,199

because I learned a long time ago that

780

00:32:36,289 --> 00:32:33,719

there are many more fruitful ways of

781

00:32:39,499 --> 00:32:36,299

spending my time mmm and it's

782

00:32:41,269 --> 00:32:39,509

creationism on the rise more or less and

783

00:32:43,009 --> 00:32:41,279

as the battle normally to be fought in

784

00:32:44,949 --> 00:32:43,019

Texas because of its power over the

785

00:32:49,309 --> 00:32:44,959

skills school book system in the US

786

00:32:51,859 --> 00:32:49,319

Texas is part of a conservative part of

787

00:32:54,979 --> 00:32:51,869

the country it's also a very large state

788

00:32:56,599 --> 00:32:54,989

it has a lot of students it has spends a

789

00:32:59,499 --> 00:32:56,609

lot of money on education there are many

790

00:33:02,599 --> 00:32:59,509

reasons why eyes tend to be on

791

00:33:06,769 --> 00:33:02,609

creationism and other education issues

792

00:33:09,409 --> 00:33:06,779

in Texas but it it shouldn't be tight

793

00:33:11,719 --> 00:33:09,419

the importance of Texas should not be

794

00:33:13,999 --> 00:33:11,729

overstated its actually waned over the

795

00:33:18,439 --> 00:33:14,009

years because there have been changes in

796

00:33:20,989 --> 00:33:18,449

the Texas regulations governing public

797

00:33:25,089 --> 00:33:20,999

public education they've also been

798

00:33:27,769 --> 00:33:25,099

changes in the textbook industry as well

799

00:33:30,249 --> 00:33:27,779

it used to be the case we would be

800

00:33:32,659 --> 00:33:30,259

extremely concerned about Texas because

801

00:33:34,849 --> 00:33:32,669

publishers would write for the very

802

00:33:37,249 --> 00:33:34,859

large Texas market and then everybody

803

00:33:40,759 --> 00:33:37,259

else would get their books now with

804

00:33:43,399 --> 00:33:40,769

modular publishing being so simple in

805

00:33:45,649 --> 00:33:43,409

the digital revolution etc etc you can

806

00:33:48,079 --> 00:33:45,659

write a book that's got goofball science

807

00:33:49,609 --> 00:33:48,089

for Texas and sorry about that for Texas

808

00:33:51,799 --> 00:33:49,619

students that's not so great but

809

00:33:54,019 --> 00:33:51,809

students in California don't have the

810

00:33:57,139 --> 00:33:54,029

grab don't have to have the crummy Texas

811

00:33:59,629 --> 00:33:57,149

book and so the power of Texas to

812

00:34:03,049 --> 00:33:59,639

influence textbooks across the board has

813

00:34:07,399 --> 00:34:03,059

waned considerably and with the power of

814

00:34:09,200 --> 00:34:07,409

religiosity with people driven and Phil

815

00:34:12,859 --> 00:34:09,210

they have to do some people's for hire

816

00:34:14,659 --> 00:34:12,869

does that make them a bit more bit more

817

00:34:15,740 --> 00:34:14,669

zealots than scientists would be because

818

00:34:17,359 --> 00:34:15,750

you're basically following the evidence

819

00:34:20,240 --> 00:34:17,369

where the people against you are

820

00:34:24,740 --> 00:34:20,250

following a higher power well I was used

821

00:34:27,379 --> 00:34:24,750

to joke that we had a much tougher row

822

00:34:30,139 --> 00:34:27,389

to hoe those of us who support evolution

823

00:34:34,070 --> 00:34:30,149

than those who support creationism in

824

00:34:36,500 --> 00:34:34,080

public schools because you know Darwin

825

00:34:40,070 --> 00:34:36,510

did not die for anybody since we do not

826
00:34:43,310 --> 00:34:40,080
have that kind of existential if you

827
00:34:45,230 --> 00:34:43,320
will a power that goes along with

828
00:34:49,339 --> 00:34:45,240
salvation and many of these other

829
00:34:52,369 --> 00:34:49,349
religious beliefs that said it's I

830
00:34:55,070 --> 00:34:52,379
always also remind people that our best

831
00:34:57,620 --> 00:34:55,080
allies in keeping evolution in the

832
00:34:59,930 --> 00:34:57,630
schools in the American public schools

833
00:35:02,210 --> 00:34:59,940
is members of the mainstream clergy

834
00:35:04,970 --> 00:35:02,220
because they don't want somebody else's

835
00:35:09,490 --> 00:35:04,980
religion taught in a science class so

836
00:35:14,780 --> 00:35:11,900
look at the creation and evolution

837
00:35:16,640 --> 00:35:14,790
problem in the United States is strictly

838
00:35:19,400 --> 00:35:16,650

uni-dimensional it isn't it's much more

839

00:35:20,900 --> 00:35:19,410

complicated than that well and what is

840

00:35:25,640 --> 00:35:20,910

something you see could arise a problem

841

00:35:28,430 --> 00:35:25,650

in the future well I'm waiting as it

842

00:35:31,730 --> 00:35:28,440

were I'm going to be giving a talk at

843

00:35:34,010 --> 00:35:31,740

the skeptics conference about the

844

00:35:36,890 --> 00:35:34,020

kitzmiller versus tovar intelligent

845

00:35:39,890 --> 00:35:36,900

design trial which was held now we're

846

00:35:42,589 --> 00:35:39,900

dating our broadcast here ten years ago

847

00:35:47,870 --> 00:35:42,599

this fall it's amazing that so much time

848

00:35:50,800 --> 00:35:47,880

has has passed and of course traditional

849

00:35:54,020 --> 00:35:50,810

young earth creationism is still around

850

00:35:56,930 --> 00:35:54,030

intelligent design is still around the

851

00:35:59,630 --> 00:35:56,940

fact that we defeat these people in

852

00:36:01,640 --> 00:35:59,640

court means that they have that doesn't

853

00:36:03,380 --> 00:36:01,650

mean that they just go away and change

854

00:36:07,339 --> 00:36:03,390

their ideas that means that they change

855

00:36:12,380 --> 00:36:07,349

their tactics the good news so far is

856

00:36:15,410 --> 00:36:12,390

that we've been able to keep ahead by

857

00:36:18,530 --> 00:36:15,420

and large because the anti evolutionist

858

00:36:21,110 --> 00:36:18,540

movement keeps making a lot of mistakes

859

00:36:23,750 --> 00:36:21,120

the major mistake that they have made

860

00:36:26,720 --> 00:36:23,760

through the many many decades is coming

861

00:36:30,740 --> 00:36:26,730

up with quote alternatives to evolution

862

00:36:33,430 --> 00:36:30,750

that all are too religious but the

863

00:36:36,080 --> 00:36:33,440

strategy that's being used right now is

864

00:36:37,850 --> 00:36:36,090

much more clever than those earlier

865

00:36:40,250 --> 00:36:37,860

strategies which were able to be

866

00:36:42,530 --> 00:36:40,260

defeated given our legal system because

867

00:36:44,540 --> 00:36:42,540

you cannot advocate school you cannot

868

00:36:46,670 --> 00:36:44,550

advocate religion in the public schools

869

00:36:48,950 --> 00:36:46,680

and we've been able to show that all of

870

00:36:52,010 --> 00:36:48,960

the various creationist or intelligent

871

00:36:53,810 --> 00:36:52,020

design efforts were attempts to get

872

00:36:56,480 --> 00:36:53,820

religion in the public school so we've

873

00:36:58,760 --> 00:36:56,490

succeeded there but now the effort is

874

00:37:01,430 --> 00:36:58,770

much more subtle it's sort of

875

00:37:04,340 --> 00:37:01,440

creationism by the back door rather than

876

00:37:06,350 --> 00:37:04,350

saying well let's teach evolution but

877

00:37:08,300 --> 00:37:06,360

then balance it by teaching some kind of

878

00:37:10,910 --> 00:37:08,310

creationism or intelligent design

879

00:37:13,220 --> 00:37:10,920

they're saying we'll teach evolution but

880

00:37:15,740 --> 00:37:13,230

balance it by teaching the evidence

881

00:37:18,500 --> 00:37:15,750

against evolution and of course there

882

00:37:20,300 --> 00:37:18,510

isn't any mmm the only place you find

883

00:37:24,380 --> 00:37:20,310

the so-called evidence against evolution

884

00:37:26,770 --> 00:37:24,390

is in the creationist literature so it's

885

00:37:29,870 --> 00:37:26,780

a way of kind of slipping these ideas

886

00:37:35,180 --> 00:37:29,880

although not you know Frank creationism

887

00:37:37,220 --> 00:37:35,190

it's though a way of trying to teach

888

00:37:38,660 --> 00:37:37,230

students that evolution is really weak

889

00:37:41,360 --> 00:37:38,670

science they don't have to take it

890

00:37:43,370 --> 00:37:41,370

seriously with the assumption which is

891

00:37:45,410 --> 00:37:43,380

probably fairly correct in a country

892

00:37:49,910 --> 00:37:45,420

like the United States that students

893

00:37:52,850 --> 00:37:49,920

will just automatically default if you

894

00:37:55,070 --> 00:37:52,860

will to the idea of creationism because

895

00:37:56,960 --> 00:37:55,080

they look at this dichotomy so it's

896

00:37:59,120 --> 00:37:56,970

either evolution or creationism with a

897

00:38:01,310 --> 00:37:59,130

few if evolution isn't any good then

898

00:38:03,620 --> 00:38:01,320

creation is a must've happened so it's a

899

00:38:05,900 --> 00:38:03,630

much more clever strategy in terms of

900

00:38:09,430 --> 00:38:05,910

the legal landscape in the United States

901
00:38:11,690 --> 00:38:09,440
and do who's who's been the toughest

902
00:38:14,710 --> 00:38:11,700
opponent you've come up against sin your

903
00:38:18,020 --> 00:38:14,720
career of fighting creationism hmm

904
00:38:21,080 --> 00:38:18,030
interestingly enough I would say it was

905
00:38:24,790 --> 00:38:21,090
Henry Morris the founder of the creation

906
00:38:28,040 --> 00:38:24,800
science movement simply because he has

907
00:38:29,740 --> 00:38:28,050
he wrote so much he built this movement

908
00:38:34,500 --> 00:38:29,750
up out of nothing really

909
00:38:37,020 --> 00:38:34,510
he worked decades producing this idea of

910
00:38:38,770 --> 00:38:37,030
fled geology and young Earth Creationism

911
00:38:40,450 --> 00:38:38,780
imagine he has an answer for everything

912
00:38:43,990 --> 00:38:40,460
because he's experienced every question

913
00:38:46,720 --> 00:38:44,000

Henry Morris died and i think 2002 but

914

00:38:49,240 --> 00:38:46,730

he is still very very highly respected

915

00:38:51,040 --> 00:38:49,250

his books are still in print he has a

916

00:38:52,720 --> 00:38:51,050

huge amount of influence among

917

00:38:55,570 --> 00:38:52,730

conservative christians in the united

918

00:38:58,570 --> 00:38:55,580

states so as the founder of the movement

919

00:39:01,180 --> 00:38:58,580

he still is a force to be reckoned with

920

00:39:04,180 --> 00:39:01,190

even though he personally is not on the

921

00:39:06,730 --> 00:39:04,190

scene anymore but um with so many

922

00:39:08,410 --> 00:39:06,740

different sects like the Presbyterians

923

00:39:09,850 --> 00:39:08,420

and Methodists and the Anglicans and the

924

00:39:13,120 --> 00:39:09,860

Catholics they all believe in the same

925

00:39:14,860 --> 00:39:13,130

creationism myth not a bit pretty much

926
00:39:17,860 --> 00:39:14,870
every single one of the groups that you

927
00:39:19,870 --> 00:39:17,870
mentioned accepts evolution because

928
00:39:22,450 --> 00:39:19,880
their theology is something called

929
00:39:24,850 --> 00:39:22,460
theistic evolution which means we'll of

930
00:39:26,800 --> 00:39:24,860
course evolution took place living

931
00:39:28,810 --> 00:39:26,810
things descended with modification from

932
00:39:31,330 --> 00:39:28,820
earlier forms humans share common

933
00:39:35,050 --> 00:39:31,340
ancestors with other animals etc but

934
00:39:39,010 --> 00:39:35,060
this was part of God's plan I what I

935
00:39:42,970 --> 00:39:39,020
found is that most religious people if

936
00:39:46,960 --> 00:39:42,980
you allow them to accommodate their

937
00:39:50,940 --> 00:39:46,970
religious views to science they can do

938
00:39:54,340 --> 00:39:50,950

it if you force people to make a

939

00:39:56,590 --> 00:39:54,350

dichotomous choice if you act like a

940

00:39:58,720 --> 00:39:56,600

creationist in other words force people

941

00:40:01,330 --> 00:39:58,730

to choose either between evolution or

942

00:40:03,880 --> 00:40:01,340

creation in the United States at least

943

00:40:07,000 --> 00:40:03,890

we're a very large percentage of the

944

00:40:10,320 --> 00:40:07,010

public is our people who believe in God

945

00:40:12,460 --> 00:40:10,330

and who have some religious affiliation

946

00:40:14,470 --> 00:40:12,470

people are going to say well if I have

947

00:40:16,990 --> 00:40:14,480

to choose obviously what I'm going to

948

00:40:19,420 --> 00:40:17,000

choose is what gives my life meaning is

949

00:40:24,130 --> 00:40:19,430

what ties me to a community of people

950

00:40:26,920 --> 00:40:24,140

ties me to family ties me to my beliefs

951
00:40:29,680 --> 00:40:26,930
that I feel are very important why would

952
00:40:32,590 --> 00:40:29,690
I accept this idea that I don't really

953
00:40:34,090 --> 00:40:32,600
understand very well anyway by evolution

954
00:40:37,060 --> 00:40:34,100
I'm going to be I'm going to remain a

955
00:40:38,950 --> 00:40:37,070
creationist and what is Islam sit with

956
00:40:40,790 --> 00:40:38,960
creationism because there's would be

957
00:40:43,520 --> 00:40:40,800
very different again

958
00:40:46,940 --> 00:40:43,530
the basic story is very similar because

959
00:40:50,390 --> 00:40:46,950
in the three Middle Eastern monotheism's

960
00:40:52,460 --> 00:40:50,400
of Christianity Judaism and Islam you

961
00:40:56,680 --> 00:40:52,470
are still dealing with the basic genesis

962
00:41:00,920 --> 00:40:56,690
story Islam is fascinating because

963
00:41:05,720 --> 00:41:00,930

unlike Catholicism unlike Mormonism and

964

00:41:08,600 --> 00:41:05,730

like many Christian groups Islam is very

965

00:41:10,820 --> 00:41:08,610

decentralized there's no pope equivalent

966

00:41:12,800 --> 00:41:10,830

or president equivalent like with the

967

00:41:17,390 --> 00:41:12,810

Mormons there's no somebody there's no

968

00:41:19,700 --> 00:41:17,400

body that sets theology the Islam is

969

00:41:22,340 --> 00:41:19,710

sort of the original BYO theology I mean

970

00:41:26,210 --> 00:41:22,350

every little Imam can kind of interpret

971

00:41:29,810 --> 00:41:26,220

the Koran as he wants and as long as he

972

00:41:32,540 --> 00:41:29,820

can get a following he's going to have a

973

00:41:35,900 --> 00:41:32,550

group of people who will you know do

974

00:41:39,500 --> 00:41:35,910

what he says so what you find is a great

975

00:41:43,520 --> 00:41:39,510

deal of variation within Islam you find

976
00:41:45,650 --> 00:41:43,530
some better educated really Muslims who

977
00:41:47,990 --> 00:41:45,660
accept science and don't really have a

978
00:41:52,070 --> 00:41:48,000
problem but there really a minority the

979
00:41:53,980 --> 00:41:52,080
majority of of Imams out there are

980
00:41:56,380 --> 00:41:53,990
holding to a fairly literal

981
00:41:58,580 --> 00:41:56,390
interpretation of the Koran which

982
00:42:00,560 --> 00:41:58,590
whenever you have a literal

983
00:42:02,060 --> 00:42:00,570
interpretation of your holy sex you're

984
00:42:05,630 --> 00:42:02,070
going to have problems with science yeah

985
00:42:07,790 --> 00:42:05,640
and you in saying that that literal

986
00:42:11,690 --> 00:42:07,800
interpretation is wrong that the you got

987
00:42:14,210 --> 00:42:11,700
problems there yes exactly because you

988
00:42:18,140 --> 00:42:14,220

may be setting yourself up for a fatwa

989

00:42:19,490 --> 00:42:18,150

or some other kind of assault and so has

990

00:42:22,010 --> 00:42:19,500

have been any sort of issue with the

991

00:42:24,230 --> 00:42:22,020

battle so far it has not so much in the

992

00:42:27,559 --> 00:42:24,240

United States more so in Great Britain

993

00:42:29,839 --> 00:42:27,569

where you do have a fairly

994

00:42:33,849 --> 00:42:29,849

large and increasingly vocal a

995

00:42:37,549 --> 00:42:33,859

muslim-majority populum minority and

996

00:42:41,120 --> 00:42:37,559

what I'm hearing and this is totally

997

00:42:45,079 --> 00:42:41,130

anecdotal what I'm hearing from friends

998

00:42:48,380 --> 00:42:45,089

of mine in who follow the education

999

00:42:50,660 --> 00:42:48,390

situation in Great Britain is that there

1000

00:42:53,599 --> 00:42:50,670

are Muslim students who are causing

1001
00:42:55,309 --> 00:42:53,609
problems in class who don't want to be

1002
00:42:57,709 --> 00:42:55,319
taught evolution they're pushing back

1003
00:43:00,739 --> 00:42:57,719
against the teachers interestingly

1004
00:43:04,219 --> 00:43:00,749
enough although obviously Darwin was

1005
00:43:08,319 --> 00:43:04,229
their guy right there's not a problem in

1006
00:43:10,729 --> 00:43:08,329
the United Kingdom with teachers or

1007
00:43:13,759 --> 00:43:10,739
citizenry in general who rejects

1008
00:43:15,620 --> 00:43:13,769
evolution that doesn't mean the teachers

1009
00:43:18,559 --> 00:43:15,630
really know enough about it to teach it

1010
00:43:21,410 --> 00:43:18,569
well and to feel confident that they can

1011
00:43:24,049 --> 00:43:21,420
answer some of the challenges that

1012
00:43:26,539 --> 00:43:24,059
Muslim students may be directing against

1013
00:43:28,749 --> 00:43:26,549

them so what I'm hearing and this is

1014

00:43:33,680 --> 00:43:28,759

just anecdotal and I would not want to

1015

00:43:36,049 --> 00:43:33,690

you know place a much faith in it

1016

00:43:40,009 --> 00:43:36,059

without more actual data but what I'm

1017

00:43:44,239 --> 00:43:40,019

hearing is that unfortunately the

1018

00:43:45,559 --> 00:43:44,249

situation in Great Britain is that many

1019

00:43:48,199 --> 00:43:45,569

of the teachers are just sort of

1020

00:43:50,959 --> 00:43:48,209

skipping evolution if they have a large

1021

00:43:52,729 --> 00:43:50,969

group of or at least an active group of

1022

00:43:54,439 --> 00:43:52,739

Muslim students because they just don't

1023

00:43:56,719 --> 00:43:54,449

want to put up with a hassle which is

1024

00:43:58,039 --> 00:43:56,729

exactly we understand that year this is

1025

00:44:00,410 --> 00:43:58,049

the problem we have in the United States

1026
00:44:02,660 --> 00:44:00,420
as well it's totally understandable and

1027
00:44:05,180 --> 00:44:02,670
the solution is fairly simple the full

1028
00:44:07,130 --> 00:44:05,190
solution is to make sure those teachers

1029
00:44:09,049 --> 00:44:07,140
know how to handle those kinds of

1030
00:44:12,170 --> 00:44:09,059
questions and make sure that those

1031
00:44:15,819 --> 00:44:12,180
teachers continue to teach good science

1032
00:44:18,289 --> 00:44:15,829
continue to teach evolution as a as a

1033
00:44:21,650 --> 00:44:18,299
non-controversial scientific explanation

1034
00:44:24,229 --> 00:44:21,660
look I'll look as good of a yet a naive

1035
00:44:26,150 --> 00:44:24,239
question here in that the theory of

1036
00:44:28,339 --> 00:44:26,160
evolution certainly proven but is this

1037
00:44:30,049 --> 00:44:28,349
bits of it that could be even added to

1038
00:44:31,759 --> 00:44:30,059

it to make it even more solid than is

1039

00:44:34,099 --> 00:44:31,769

already it was it such a done deal that

1040

00:44:37,400 --> 00:44:34,109

you can't deny it at all I always like

1041

00:44:39,739 --> 00:44:37,410

to help people understand that the way

1042

00:44:41,480 --> 00:44:39,749

to think about evolution is a sort of a

1043

00:44:44,490 --> 00:44:41,490

three-part

1044

00:44:47,520 --> 00:44:44,500

explanation the core idea of evolution

1045

00:44:49,740 --> 00:44:47,530

of biological evolution of common

1046

00:44:52,520 --> 00:44:49,750

ancestry living things of this this

1047

00:44:55,049 --> 00:44:52,530

branching and splitting Tree of Life a

1048

00:45:00,089 --> 00:44:55,059

genealogical relationship among all

1049

00:45:02,520 --> 00:45:00,099

living things that is undeniable I mean

1050

00:45:04,289 --> 00:45:02,530

that is so well supported we're not

1051

00:45:06,900 --> 00:45:04,299

testing it anymore it would be

1052

00:45:09,660 --> 00:45:06,910

extraordinarily unusual if that were

1053

00:45:12,720 --> 00:45:09,670

overthrown because it just explains so

1054

00:45:15,569 --> 00:45:12,730

much so the core idea of common ancestry

1055

00:45:17,460 --> 00:45:15,579

is here to stay but we also have the

1056

00:45:20,430 --> 00:45:17,470

pattern of evolution how did that

1057

00:45:23,160 --> 00:45:20,440

genealogical relationship take place who

1058

00:45:25,140 --> 00:45:23,170

is related to home how closely what is

1059

00:45:27,420 --> 00:45:25,150

the Tree of Life really look at like

1060

00:45:29,430 --> 00:45:27,430

there's lots of unanswered questions in

1061

00:45:31,319 --> 00:45:29,440

that and that is where the real growth

1062

00:45:33,650 --> 00:45:31,329

and evolution is taking place there

1063

00:45:36,210 --> 00:45:33,660

really is no missing link is there no

1064

00:45:38,910 --> 00:45:36,220

but then the third component is the

1065

00:45:41,579 --> 00:45:38,920

processor mechanisms of evolution how

1066

00:45:44,160 --> 00:45:41,589

does evolution take place not how does

1067

00:45:46,170 --> 00:45:44,170

this tree of life look but what are the

1068

00:45:48,089 --> 00:45:46,180

forces that bring about this branching

1069

00:45:50,190 --> 00:45:48,099

and splitting through time and there are

1070

00:45:54,299 --> 00:45:50,200

a lot of unanswered questions and that

1071

00:45:57,059 --> 00:45:54,309

as well so that is where gaps and

1072

00:45:59,190 --> 00:45:57,069

understanding if you will occur they

1073

00:46:01,349 --> 00:45:59,200

occur both in the pattern of evolution

1074

00:46:04,260 --> 00:46:01,359

as well as the process of evolution but

1075

00:46:06,720 --> 00:46:04,270

the big idea of common ancestry nobody's

1076
00:46:09,510 --> 00:46:06,730
arguing about that within the world of

1077
00:46:12,420 --> 00:46:09,520
science so we can't call in aliens to

1078
00:46:13,799 --> 00:46:12,430
explain the Cambrian explosion well you

1079
00:46:16,230 --> 00:46:13,809
can but you're going to be waiting a

1080
00:46:17,579 --> 00:46:16,240
long time for them to show up and the

1081
00:46:19,410 --> 00:46:17,589
evidence is a bit fit on the ground is

1082
00:46:20,819 --> 00:46:19,420
it yes indeed actually why did

1083
00:46:22,530 --> 00:46:20,829
everything happen bang at once and was

1084
00:46:24,510 --> 00:46:22,540
just all building up a bit pop why did

1085
00:46:27,630 --> 00:46:24,520
that happen then you know the Cambrian

1086
00:46:31,109 --> 00:46:27,640
explosion is pretty misunderstood for

1087
00:46:33,000 --> 00:46:31,119
one thing explosion is kind of a bad

1088
00:46:35,809 --> 00:46:33,010

term to use it's a term that's been

1089

00:46:38,370 --> 00:46:35,819

around really for decades but

1090

00:46:41,460 --> 00:46:38,380

paleontologists nowadays don't actually

1091

00:46:44,250 --> 00:46:41,470

think about it as something that takes

1092

00:46:46,530 --> 00:46:44,260

place in a very rapid period of time if

1093

00:46:47,890 --> 00:46:46,540

it's an explosion it's at a really slong

1094

00:46:51,549 --> 00:46:47,900

fuse okay

1095

00:46:53,650 --> 00:46:51,559

it's at least 30 million years relic a

1096

00:46:58,319 --> 00:46:53,660

lot can happen in 30 million years

1097

00:47:00,940 --> 00:46:58,329

exactly something 30 million years is

1098

00:47:04,839 --> 00:47:00,950

roughly the time that it took to get

1099

00:47:06,789 --> 00:47:04,849

from a land mammal to a whale okay so a

1100

00:47:11,109 --> 00:47:06,799

lot of stuff can take place in 30

1101

00:47:14,160 --> 00:47:11,119

million years on a geological scale it

1102

00:47:17,049 --> 00:47:14,170

was relatively quick but certainly not a

1103

00:47:19,480 --> 00:47:17,059

not a not an explosion and the way most

1104

00:47:21,400 --> 00:47:19,490

people think of it and really what the

1105

00:47:24,549 --> 00:47:21,410

Cambrian why the Cambrian is so

1106

00:47:27,670 --> 00:47:24,559

fascinating to paleontologists is really

1107

00:47:30,460 --> 00:47:27,680

because some of the very basic body

1108

00:47:32,799 --> 00:47:30,470

plans of living things were laid down

1109

00:47:38,760 --> 00:47:32,809

the difference between a mollusk

1110

00:47:41,410 --> 00:47:38,770

something like a clam and a and insect

1111

00:47:43,240 --> 00:47:41,420

something that's got six legs or an

1112

00:47:46,120 --> 00:47:43,250

arachnid something with eight legs those

1113

00:47:49,029 --> 00:47:46,130

that that these basic body plans were

1114

00:47:52,769 --> 00:47:49,039

laid down in the Cambrian but then

1115

00:47:55,390 --> 00:47:52,779

there's been a huge amount of

1116

00:47:59,170 --> 00:47:55,400

development within those plans I mean

1117

00:48:01,599 --> 00:47:59,180

you know the basic coordinate body plan

1118

00:48:05,559 --> 00:48:01,609

of two legs in front two legs and back

1119

00:48:07,960 --> 00:48:05,569

and a a spinal column kind of between

1120

00:48:12,420 --> 00:48:07,970

them and I had at one end and an anus at

1121

00:48:15,460 --> 00:48:12,430

the other that basic body plan has

1122

00:48:18,039 --> 00:48:15,470

developed into the huge range of

1123

00:48:20,190 --> 00:48:18,049

reptiles birds mammals and amphibians

1124

00:48:22,269 --> 00:48:20,200

that we see in the among the land

1125

00:48:26,170 --> 00:48:22,279

vertebrates and of course the huge

1126

00:48:28,870 --> 00:48:26,180

radiant radiation of fish as well so all

1127

00:48:30,490 --> 00:48:28,880

of that happened after the Cambrian it's

1128

00:48:31,960 --> 00:48:30,500

not like the Cambrian happened and all

1129

00:48:34,150 --> 00:48:31,970

of a sudden you got lions tigers and

1130

00:48:36,039 --> 00:48:34,160

bears that's not how it happen the

1131

00:48:37,930 --> 00:48:36,049

g-shot been great talking to you what's

1132

00:48:39,099 --> 00:48:37,940

your favorite result of evolution I got

1133

00:48:40,809 --> 00:48:39,109

to you know the platypus it have to be

1134

00:48:42,250 --> 00:48:40,819

pretty good that's pretty good why have

1135

00:48:47,589 --> 00:48:42,260

you got one that's a really a favorite

1136

00:48:51,490 --> 00:48:47,599

man that's done well oh boy hmm it keeps

1137

00:48:54,339 --> 00:48:51,500

changing I'm a physical anthropologist

1138

00:48:56,080 --> 00:48:54,349

by training so of course I am fascinated

1139

00:49:00,100 --> 00:48:56,090

with human evolution

1140

00:49:07,570 --> 00:49:00,110

and I really think that that the

1141

00:49:12,400 --> 00:49:07,580

transition from Homo erectus to modern

1142

00:49:17,320 --> 00:49:12,410

humans is a fascinating period of human

1143

00:49:21,520 --> 00:49:17,330

history and I'm watching that transition

1144

00:49:23,200 --> 00:49:21,530

and really enjoying learning about the

1145

00:49:25,810 --> 00:49:23,210

new fossil that are being discovered

1146

00:49:28,630 --> 00:49:25,820

that will kind of help bridge that gap

1147

00:49:31,060 --> 00:49:28,640

so how do you feel about any

1148

00:49:33,370 --> 00:49:31,070

extrapolation into exobiology do you

1149

00:49:35,140 --> 00:49:33,380

think that on another planet you would

1150

00:49:36,820 --> 00:49:35,150

necessarily have to have a dominant

1151

00:49:40,060 --> 00:49:36,830

species be whatever they are like a

1152

00:49:41,680 --> 00:49:40,070

human do things have to go that way they

1153

00:49:46,150 --> 00:49:41,690

didn't have to go that way on planet

1154

00:49:49,000 --> 00:49:46,160

earth but I think that Richard Dawkins

1155

00:49:52,840 --> 00:49:49,010

is absolutely correct when he says that

1156

00:49:56,800 --> 00:49:52,850

if we find life on another planet we

1157

00:49:58,750 --> 00:49:56,810

will find that the if you will governing

1158

00:50:01,510 --> 00:49:58,760

mechanism is going to be natural

1159

00:50:03,700 --> 00:50:01,520

selection we may not find things with

1160

00:50:05,800 --> 00:50:03,710

six appendages and eight appendages and

1161

00:50:07,540 --> 00:50:05,810

four appendages like we have here we may

1162

00:50:10,810 --> 00:50:07,550

not find things with appendages at all

1163

00:50:13,330 --> 00:50:10,820

we may find that it's not carbon-based

1164

00:50:16,690 --> 00:50:13,340

even we may find that there are other

1165

00:50:21,600 --> 00:50:16,700

molecules that allow for the

1166

00:50:24,460 --> 00:50:21,610

multiplication of structure and and

1167

00:50:27,280 --> 00:50:24,470

individuals but we will find natural

1168

00:50:29,590 --> 00:50:27,290

selection and because we understand

1169

00:50:32,140 --> 00:50:29,600

natural selection as a mechanism that

1170

00:50:35,860 --> 00:50:32,150

brings about this branching and

1171

00:50:38,770 --> 00:50:35,870

splitting process of evolutionary change

1172

00:50:40,990 --> 00:50:38,780

we will be able to understand life on

1173

00:50:42,280 --> 00:50:41,000

other planets if we discover them okay

1174

00:50:43,600 --> 00:50:42,290

thank you for coming to Australia and

1175

00:51:06,049 --> 00:50:43,610

hanging out with the cool kids that

1176

00:51:10,289 --> 00:51:08,400

astronomy cast it takes a fact space

1177

00:51:12,179 --> 00:51:10,299

journey through the cosmos as it offers

1178

00:51:14,880 --> 00:51:12,189

listeners weekly discussions on

1179

00:51:17,789 --> 00:51:14,890

astronomical topics ranging from planets

1180

00:51:20,099 --> 00:51:17,799

to cosmology hosted by Fraser Cain of

1181

00:51:21,089 --> 00:51:20,109

Universe Today and myself dr. Pamela

1182

00:51:23,759 --> 00:51:21,099

gave southern illinois university

1183

00:51:25,650 --> 00:51:23,769

edwardsville this show brings the

1184

00:51:28,079 --> 00:51:25,660

questions of an avid astronomy lover

1185

00:51:30,179 --> 00:51:28,089

directly to an astronomer together

1186

00:51:31,709 --> 00:51:30,189

Fraser and I explore what is known and

1187

00:51:34,469 --> 00:51:31,719

being discovered about the universe

1188

00:51:36,539 --> 00:51:34,479

around us join us each week as we take a

1189

00:51:49,859 --> 00:51:36,549

fact space journey through the cosmos at

1190

00:51:51,809 --> 00:51:49,869

astronomy cast calm well as I mentioned

1191

00:51:54,029 --> 00:51:51,819

at the top of the show I'm visiting a

1192

00:51:56,099 --> 00:51:54,039

Melbourne Victoria at the moment at the

1193

00:51:58,709 --> 00:51:56,109

house of dr. Steve Roberts hello Steve

1194

00:52:00,239 --> 00:51:58,719

hello Richard it's good to be here now

1195

00:52:03,599 --> 00:52:00,249

we've known each other for many years

1196

00:52:07,559 --> 00:52:03,609

and you're you are of course Australian

1197

00:52:09,479 --> 00:52:07,569

skeptics UFO expert and the question is

1198

00:52:13,380 --> 00:52:09,489

how can you be an expert in something

1199

00:52:15,509 --> 00:52:13,390

which is unknown or probably not there I

1200

00:52:17,699 --> 00:52:15,519

mean when we think of UFOs most people

1201
00:52:20,429 --> 00:52:17,709
will think of alien spacecraft write

1202
00:52:22,199 --> 00:52:20,439
something identified yeah I know that's

1203
00:52:24,029 --> 00:52:22,209
what it means unidentified flying object

1204
00:52:26,729 --> 00:52:24,039
but in the popular imagination UFO

1205
00:52:28,559 --> 00:52:26,739
equals aliens coming to visit us and

1206
00:52:30,239 --> 00:52:28,569
have a look yeah yeah it's moved on from

1207
00:52:32,909 --> 00:52:30,249
just something that's unidentified like

1208
00:52:35,069 --> 00:52:32,919
a blip on a radar screen to have a sort

1209
00:52:37,469 --> 00:52:35,079
of more definite form like a flying

1210
00:52:40,349 --> 00:52:37,479
saucer with people that well people with

1211
00:52:43,140 --> 00:52:40,359
things in it beings inside it have come

1212
00:52:47,489 --> 00:52:43,150
to visit earth or crash lands they drive

1213
00:52:49,019 --> 00:52:47,499

badly you think that they wouldn't know

1214

00:52:51,509 --> 00:52:49,029

how to control their spaceships better

1215

00:52:53,759 --> 00:52:51,519

than that now with me I have brought

1216

00:52:56,130 --> 00:52:53,769

folks I am looking at stacks and stacks

1217

00:52:58,349 --> 00:52:56,140

of UFO books which one given to another

1218

00:52:59,880 --> 00:52:58,359

friend of ours Martin Hadley from

1219

00:53:03,299 --> 00:52:59,890

another friend of his who was getting

1220

00:53:05,999 --> 00:53:03,309

rid of them I guess 60 kilos worth of

1221

00:53:08,640 --> 00:53:06,009

UFO books spanning years and years and

1222

00:53:09,630 --> 00:53:08,650

years first when we pick up there's a

1223

00:53:12,120 --> 00:53:09,640

book called let's how

1224

00:53:15,019 --> 00:53:12,130

they're friendly here's one the day

1225

00:53:18,359 --> 00:53:15,029

after roswell and we just go through

1226
00:53:22,259 --> 00:53:18,369
UFOs that's a great the alien encounters

1227
00:53:24,299 --> 00:53:22,269
there we go in customs forbidden Islands

1228
00:53:26,910 --> 00:53:24,309
forbidden science with a picture of a

1229
00:53:30,829 --> 00:53:26,920
pyramid on it making technologies to

1230
00:53:34,640 --> 00:53:30,839
free energy the face on Mars that's a

1231
00:53:36,710 --> 00:53:34,650
book so that's something isn't it the

1232
00:53:40,730 --> 00:53:36,720
unexplained what else have we got here

1233
00:53:43,380 --> 00:53:40,740
for nobody's eyes only above top-secret

1234
00:53:45,539 --> 00:53:43,390
UFOs above the law well I imagine they

1235
00:53:47,099 --> 00:53:45,549
would be above the law and fold I know

1236
00:53:48,839 --> 00:53:47,109
many of these books and some are good

1237
00:53:50,519 --> 00:53:48,849
the above top secret one is actually one

1238
00:53:52,620 --> 00:53:50,529

of the better ones oh yeah for a more

1239

00:53:54,900 --> 00:53:52,630

coherent researcher who's actually got

1240

00:53:57,359 --> 00:53:54,910

his act together and is only slightly

1241

00:54:00,539 --> 00:53:57,369

tainted with the obsession that there

1242

00:54:02,190 --> 00:54:00,549

must be a conspiracy or foot now well it

1243

00:54:03,960 --> 00:54:02,200

strikes me Steve as we look at all these

1244

00:54:05,670 --> 00:54:03,970

books and I don't have any go out of 50

1245

00:54:09,120 --> 00:54:05,680

60 books here something like that over

1246

00:54:11,039 --> 00:54:09,130

probably so many books on the topic and

1247

00:54:12,750 --> 00:54:11,049

they go at these photographs and there's

1248

00:54:14,460 --> 00:54:12,760

accounts and there's this is one look

1249

00:54:15,930 --> 00:54:14,470

here we are pictures of aliens they look

1250

00:54:19,259 --> 00:54:15,940

like you know it looks like a praying

1251
00:54:23,430 --> 00:54:19,269
mantis star map that look menacing but

1252
00:54:25,079 --> 00:54:23,440
that they too first of all I guess one

1253
00:54:27,089 --> 00:54:25,089
of the points we can make is no matter

1254
00:54:30,690 --> 00:54:27,099
how many books there are on a subject

1255
00:54:33,120 --> 00:54:30,700
like UFOs and here we have a huge huge

1256
00:54:35,220 --> 00:54:33,130
amount of books it doesn't therefore

1257
00:54:37,609 --> 00:54:35,230
equate to they must be here does it

1258
00:54:40,109 --> 00:54:37,619
while you have lots and lots of books

1259
00:54:41,970 --> 00:54:40,119
does actually mean is easy there we know

1260
00:54:44,700 --> 00:54:41,980
how many books are there about religion

1261
00:54:46,769 --> 00:54:44,710
and the Bible and all other religions

1262
00:54:49,440 --> 00:54:46,779
years ago howdy books on that and

1263
00:54:51,299 --> 00:54:49,450

there's actually maybe nothing there but

1264

00:54:53,370 --> 00:54:51,309

yo peeps you see something they think of

1265

00:54:55,609 --> 00:54:53,380

something going on but when you track

1266

00:54:58,980 --> 00:54:55,619

the evidence down there isn't any oh

1267

00:55:00,690 --> 00:54:58,990

it's too vague but it was like sometimes

1268

00:55:03,269 --> 00:55:00,700

it's been interfered with or you can

1269

00:55:05,809 --> 00:55:03,279

make it look like that so after rd who

1270

00:55:08,490 --> 00:55:05,819

say up the absence of evidence is

1271

00:55:10,799 --> 00:55:08,500

actually evidence for conspiracy going

1272

00:55:11,940 --> 00:55:10,809

on there must be evidence because people

1273

00:55:14,249 --> 00:55:11,950

have seen there must be something

1274

00:55:17,130 --> 00:55:14,259

happening this is no ever somebody's

1275

00:55:19,230 --> 00:55:17,140

hiding it all alien encounters true life

1276

00:55:21,349 --> 00:55:19,240

stories of aliens UFOs another

1277

00:55:25,210 --> 00:55:21,359

extraterrestrial phenomena

1278

00:55:30,130 --> 00:55:25,220

whoo laws morning my own business yeah

1279

00:55:33,650 --> 00:55:30,140

and UFOs in the national security state

1280

00:55:35,420 --> 00:55:33,660

it's it's just staggering to me that so

1281

00:55:38,509 --> 00:55:35,430

many books can be written on something

1282

00:55:40,069 --> 00:55:38,519

and this is now 22 2015 this still

1283

00:55:41,960 --> 00:55:40,079

hadn't arrived I mean there's still no

1284

00:55:44,450 --> 00:55:41,970

good evidence for them well when I say

1285

00:55:46,789 --> 00:55:44,460

there- extraterrestrials visiting birth

1286

00:55:48,589 --> 00:55:46,799

yeah there are no there was it's not so

1287

00:55:50,299 --> 00:55:48,599

there's a SETI program of course which

1288

00:55:52,849 --> 00:55:50,309

is yours it all that it might be radio

1289

00:55:54,259 --> 00:55:52,859

signals and because send hours and 80s

1290

00:55:56,769 --> 00:55:54,269

to send there's we could hope do you

1291

00:55:59,930 --> 00:55:56,779

pick them up that that's a plausible

1292

00:56:01,759 --> 00:55:59,940

proposition likely or does another

1293

00:56:04,279 --> 00:56:01,769

discussion but so with a peeler of

1294

00:56:06,440 --> 00:56:04,289

actually landed father that's angel

1295

00:56:08,420 --> 00:56:06,450

flying saucer occupants might all the

1296

00:56:12,710 --> 00:56:08,430

wings on keepers this is from the night

1297

00:56:15,170 --> 00:56:12,720

you since the book lady see ya flying

1298

00:56:17,390 --> 00:56:15,180

sources here and now yeah Frankie

1299

00:56:19,160 --> 00:56:17,400

demotto that these are ancient books yes

1300

00:56:21,650 --> 00:56:19,170

several things like literally these are

1301

00:56:24,019 --> 00:56:21,660

actually very old books UFO report on

1302

00:56:25,999 --> 00:56:24,029

they come from the days before the

1303

00:56:29,089 --> 00:56:26,009

crests canoe that one got in there

1304

00:56:31,089 --> 00:56:29,099

amazing I make first remember that these

1305

00:56:35,359 --> 00:56:31,099

come from the days before the conspiracy

1306

00:56:37,190 --> 00:56:35,369

notion of o's right UFOs what's what

1307

00:56:40,569 --> 00:56:37,200

what on earth is happening the coming

1308

00:56:44,329 --> 00:56:40,579

invasion coming in please look out what

1309

00:56:47,299 --> 00:56:44,339

we came they never came so yeah again

1310

00:56:49,279 --> 00:56:47,309

it's it's just don't you just get

1311

00:56:52,880 --> 00:56:49,289

through all these boxes five piles near

1312

00:56:55,160 --> 00:56:52,890

your meter high yeah and so you so much

1313

00:56:57,229 --> 00:56:55,170

books way I thought just a few books and

1314

00:56:58,849 --> 00:56:57,239

it's sticky when you probably came down

1315

00:57:01,400 --> 00:56:58,859

here but you had to get extra baggage on

1316

00:57:03,349 --> 00:57:01,410

the aircraft so baggages that all the

1317

00:57:05,329 --> 00:57:03,359

aircraft fluid a sort of semi circle it

1318

00:57:08,299 --> 00:57:05,339

took off it was like UFO when it took

1319

00:57:10,910 --> 00:57:08,309

off to the Bermuda Triangle yeah oh

1320

00:57:13,190 --> 00:57:10,920

that's been investigated by Papa

1321

00:57:14,450 --> 00:57:13,200

scientists and on to death I guess that

1322

00:57:17,989 --> 00:57:14,460

we could think there are lots of books

1323

00:57:19,609 --> 00:57:17,999

on things like Bigfoot and loch ness

1324

00:57:21,529 --> 00:57:19,619

monster there must be thousands of books

1325

00:57:23,150 --> 00:57:21,539

written on these things again gets to

1326
00:57:24,529 --> 00:57:23,160
the point no matter how many books there

1327
00:57:26,109 --> 00:57:24,539
are with people saying they're here now

1328
00:57:29,089 --> 00:57:26,119
and it's all a'kin spirit is

1329
00:57:31,970 --> 00:57:29,099
confirmation of make at least fri become

1330
00:57:33,130 --> 00:57:31,980
what's the first of those community in

1331
00:57:35,440 --> 00:57:33,140
union yeah

1332
00:57:37,450 --> 00:57:35,450
the hard evidence hommell evidence here

1333
00:57:39,819 --> 00:57:37,460
it's hard we open up this book and there

1334
00:57:41,559 --> 00:57:39,829
are photographs of fuzzy things and

1335
00:57:43,569 --> 00:57:41,569
clouds nuclear hollow east forums

1336
00:57:45,430 --> 00:57:43,579
admitted he made it all up fuzzy and

1337
00:57:46,660 --> 00:57:45,440
reminds me of the goodies that episode

1338
00:57:48,279 --> 00:57:46,670

were they weren't looking for the Loch

1339

00:57:50,319 --> 00:57:48,289

Ness monster and they were sold a

1340

00:57:52,630 --> 00:57:50,329

special photograph for taking fuzzy out

1341

00:57:54,430 --> 00:57:52,640

of photo group ones mobile phone is

1342

00:57:56,230 --> 00:57:54,440

latent phenomenon it's got the advantage

1343

00:57:57,789 --> 00:57:56,240

that a lot miss monster must be in Loch

1344

00:57:59,109 --> 00:57:57,799

Ness we wouldn't be the Loch Ness

1345

00:58:01,599 --> 00:57:59,119

monster with a lot somewhere else

1346

00:58:03,309 --> 00:58:01,609

monster so ever do is go and troll

1347

00:58:07,480 --> 00:58:03,319

rottnest which unfortunately is about

1348

00:58:09,670 --> 00:58:07,490

two kilometers deep but some as long as

1349

00:58:11,880 --> 00:58:09,680

I said you know is huge in a way it's

1350

00:58:14,680 --> 00:58:11,890

limited compared to outer space it's a

1351

00:58:17,349 --> 00:58:14,690

much more limited phenomenon to look for

1352

00:58:21,370 --> 00:58:17,359

the light years Gary kinder all this one

1353

00:58:23,319 --> 00:58:21,380

is ha this is a you know this is the

1354

00:58:26,109 --> 00:58:23,329

ezine with billy meier and see this is

1355

00:58:28,980 --> 00:58:26,119

them make sure the button hang it is so

1356

00:58:32,019 --> 00:58:28,990

bad ya know it's about billy meier

1357

00:58:33,640 --> 00:58:32,029

indo-chinese so hang in bottles from

1358

00:58:35,349 --> 00:58:33,650

trees and photographing them well this

1359

00:58:38,079 --> 00:58:35,359

one's interesting in search of strange

1360

00:58:40,150 --> 00:58:38,089

phenomena forward by linen nguoi yeah

1361

00:58:43,319 --> 00:58:40,160

linda my go to sell feet tangled up with

1362

00:58:45,940 --> 00:58:43,329

is gideon he's hosting it yes yeah yeah

1363

00:58:48,039 --> 00:58:45,950

the boys weird stuff because obviously

1364

00:58:49,569 --> 00:58:48,049

mr. Spock is a weird carrot I used to

1365

00:58:51,370 --> 00:58:49,579

like in search of I've learned the more

1366

00:58:53,890 --> 00:58:51,380

it was great I've got a lot of them in

1367

00:58:56,980 --> 00:58:53,900

my file access it on now with William

1368

00:59:00,940 --> 00:58:56,990

Shatner do you believe it we or wheel

1369

00:59:02,769 --> 00:59:00,950

you know what yes yes finest that is a

1370

00:59:04,509 --> 00:59:02,779

really ancient book for my sources

1371

00:59:07,569 --> 00:59:04,519

serious because serious spin the phrase

1372

00:59:11,289 --> 00:59:07,579

Illinois 52 that one good heavens eighty

1373

00:59:13,420 --> 00:59:11,299

cents there you go it just looked like

1374

00:59:15,190 --> 00:59:13,430

we're not even scratching the surface of

1375

00:59:17,440 --> 00:59:15,200

how many books here the mysteries of

1376

00:59:20,019 --> 00:59:17,450

Atlantis that's a mystery open skies

1377

00:59:22,569 --> 00:59:20,029

closed minds of this is not a bad one

1378

00:59:26,140 --> 00:59:22,579

actually come again by a pretty decent

1379

00:59:29,259 --> 00:59:26,150

researcher Nick Pope who's got a better

1380

00:59:31,870 --> 00:59:29,269

one for good the damn charles fort yeah

1381

00:59:34,120 --> 00:59:31,880

charles fort like the 14 times last full

1382

00:59:36,190 --> 00:59:34,130

of memorable but there's one book

1383

00:59:39,490 --> 00:59:36,200

amongst them stay which you found quite

1384

00:59:42,549 --> 00:59:39,500

early one will not release of the only

1385

00:59:44,810 --> 00:59:42,559

money 84 pages and it's about eight

1386

00:59:50,090 --> 00:59:44,820

millimeters thick

1387

00:59:52,490 --> 00:59:50,100

holy upside down 1957 \$10 it's worth ten

1388

00:59:55,250 --> 00:59:52,500

dollars there's more facts in this 84

1389

00:59:58,730 --> 00:59:55,260

page book that in the whole five we type

1390

01:00:01,010 --> 00:59:58,740

I'll together and it's the nature of the

1391

01:00:03,500 --> 01:00:01,020

universe by Fred Hoyle how about that

1392

01:00:07,400 --> 01:00:03,510

and Bidy it's not autograph in 84 pages

1393

01:00:09,830 --> 01:00:07,410

you manage to describe the universe and

1394

01:00:12,710 --> 01:00:09,840

there's probably no no mention of UFOs

1395

01:00:15,770 --> 01:00:12,720

yes good old Fred Hoyle oh I've just

1396

01:00:18,260 --> 01:00:15,780

dropped him oh no oh no miss sorry fair

1397

01:00:21,920 --> 01:00:18,270

cousin good old that book used to be

1398

01:00:23,750 --> 01:00:21,930

worth a fortune was not a slightly fox

1399

01:00:25,910 --> 01:00:23,760

it's worth even more yeah good old Fred

1400

01:00:28,040 --> 01:00:25,920

Hoyle he was the Maverick of astronomers

1401

01:00:31,040 --> 01:00:28,050

but he was quite right in his thinking

1402

01:00:32,990 --> 01:00:31,050

but he am more or less he made it he

1403

01:00:35,660 --> 01:00:33,000

espouse a steady-state theory yes yes

1404

01:00:37,100 --> 01:00:35,670

closable at the time EMS went the other

1405

01:00:39,230 --> 01:00:37,110

way because a good theory until the

1406

01:00:40,910 --> 01:00:39,240

evidence came in and he had a good

1407

01:00:43,160 --> 01:00:40,920

worldview and is summarized it all this

1408

01:00:45,380 --> 01:00:43,170

very neat little book which will put on

1409

01:00:47,420 --> 01:00:45,390

the top of the piles worth more than the

1410

01:00:49,760 --> 01:00:47,430

you know the five meters of the five

1411

01:00:52,850 --> 01:00:49,770

minutes it gets bigger with every

1412

01:00:54,920 --> 01:00:52,860

retelling here and for those of you who

1413

01:00:57,650 --> 01:00:54,930

follow the skeptic zone on Facebook the

1414

01:00:59,090 --> 01:00:57,660

skeptics own Facebook page you would

1415

01:01:01,070 --> 01:00:59,100

have seen some of these books in the

1416

01:01:03,590 --> 01:01:01,080

little video teaser we put up for this

1417

01:01:06,530 --> 01:01:03,600

week's episode anyway Steve happy

1418

01:01:08,450 --> 01:01:06,540

reading you're going to be need to be on

1419

01:01:09,890 --> 01:01:08,460

EU echo to read all these books I think

1420

01:01:11,830 --> 01:01:09,900

so yeah that's I get a duct and I'll

1421

01:01:15,200 --> 01:01:11,840

have time time to leave some books and

1422

01:01:27,700 --> 01:01:15,210

for everybody else well keep watching

1423

01:01:34,400 --> 01:01:32,240

on Maynard com Donna you last saturday

1424

01:01:35,900 --> 01:01:34,410

night Maynard went on a binge he got

1425

01:01:38,030 --> 01:01:35,910

home at four o'clock in the morning off

1426

01:01:44,100 --> 01:01:38,040

they intoxicated well it's not unusual

1427

01:01:44,110 --> 01:01:49,609

Tim Ferguson and my god

1428

01:01:54,210 --> 01:01:51,620

Oh

1429

01:01:56,880 --> 01:01:54,220

and upon the 20

1430

01:01:58,650 --> 01:01:56,890

you won't see that one coming he listens

1431

01:02:00,120 --> 01:01:58,660

at Planet Maynard podcast of course you

1432

01:02:01,530 --> 01:02:00,130

can subscribe to planet main out and get

1433

01:02:04,230 --> 01:02:01,540

all the shows automatically to you

1434

01:02:14,670 --> 01:02:04,240

through itunes stitcher tune in all of

1435

01:02:16,260 --> 01:02:14,680

those people cling to your radio what do

1436

01:02:18,390 --> 01:02:16,270

you think of kinesiology that's where

1437

01:02:19,470 --> 01:02:18,400

they they press your arm up and down to

1438

01:02:23,490 --> 01:02:19,480

figure out what's wrong with your

1439

01:02:26,310 --> 01:02:23,500

pancreas and now kinesiology unlike any

1440

01:02:28,890 --> 01:02:26,320

of the other modern natural therapies

1441

01:02:32,849 --> 01:02:28,900

deserves to be given just that extra

1442

01:02:35,160 --> 01:02:32,859

little bit of scorn that the others

1443

01:02:38,880 --> 01:02:35,170

don't get I know homeopathy really cops

1444

01:02:43,020 --> 01:02:38,890

it because it is and that Reiki is

1445

01:02:46,650 --> 01:02:43,030

totaled but the kinesiology is wicked

1446

01:02:49,859 --> 01:02:46,660

because it's not just it that the

1447

01:02:52,980 --> 01:02:49,869

there's no is it just pays really well

1448

01:02:57,380 --> 01:02:52,990

so for kinesiology you might as well ask

1449

01:03:00,480 --> 01:02:57,390

your cat how to fix your back so go to a

1450

01:03:03,690 --> 01:03:00,490

doctor you people and how is kittler is

1451

01:03:06,390 --> 01:03:03,700

kit look at MD yet oh yeah it's an MD

1452

01:03:08,370 --> 01:03:06,400

and a world leader he's writing a new

1453

01:03:13,450 --> 01:03:08,380

book I believe he's been doing Reiki by

1454

01:03:21,320 --> 01:03:17,420

well since kittler and it's just as

1455

01:03:30,969 --> 01:03:21,330

effective o bondhu on may not condone

1456

01:03:35,089 --> 01:03:33,439

thank you for listening to the skeptic

1457

01:03:37,539 --> 01:03:35,099

zone and my goodness me that cheesecake

1458

01:03:39,979 --> 01:03:37,549

was pretty nice and i think there's

1459

01:03:42,949 --> 01:03:39,989

there's still some more leftover in the

1460

01:03:44,719 --> 01:03:42,959

fridge mmm classic Chiefs cake can get

1461

01:03:47,870 --> 01:03:44,729

but or chocolate cheesecakes quite good

1462

01:03:49,549 --> 01:03:47,880

too but normal cheesecake so sorry I'm

1463

01:03:53,329 --> 01:03:49,559

seems to be going off in some sort of

1464

01:03:56,569 --> 01:03:53,339

tangent here thank you dr. Steve Roberts

1465

01:03:58,459 --> 01:03:56,579

and his wife Barbara for throwing such a

1466

01:03:59,630 --> 01:03:58,469

wonderful party lots of skeptics were

1467

01:04:02,059 --> 01:03:59,640

here the other night we all had a really

1468

01:04:05,059 --> 01:04:02,069

great time and lots of other friends as

1469

01:04:08,269 --> 01:04:05,069

well and wasn't that interesting to hear

1470

01:04:11,959 --> 01:04:08,279

earlier on in the show the the snippets

1471

01:04:14,660 --> 01:04:11,969

from the Senate hearing and maybe you'll

1472

01:04:17,949 --> 01:04:14,670

get a better understanding of the the

1473

01:04:20,390 --> 01:04:17,959

antics of those wacky people at the

1474

01:04:22,339 --> 01:04:20,400

anti-vaccination the broad

1475

01:04:24,529 --> 01:04:22,349

anti-vaccination groups and of course

1476

01:04:26,029 --> 01:04:24,539

thank you to main artists again a

1477

01:04:27,859 --> 01:04:26,039

wonderful interview wonderful series

1478

01:04:29,719 --> 01:04:27,869

going to use particularly with dr.

1479

01:04:31,819 --> 01:04:29,729

Eugenie Scott thank you to the people

1480

01:04:33,529 --> 01:04:31,829

who have been buying pendants and

1481

01:04:35,509 --> 01:04:33,539

earrings and things from mr. Katz

1482

01:04:38,329 --> 01:04:35,519

origami jewelry because that money does

1483

01:04:40,400 --> 01:04:38,339

go to help the skeptic zone and I I hope

1484

01:04:42,439 --> 01:04:40,410

you enjoy wearing that around or giving

1485

01:04:45,769 --> 01:04:42,449

it this Christmas presents or whatever

1486

01:04:48,169 --> 01:04:45,779

the case may be anyway for this week

1487

01:04:51,019 --> 01:04:48,179

this is Richard Saunders full of

1488

01:04:57,620 --> 01:04:51,029

cheesecake signing off from Melbourne

1489

01:05:00,140 --> 01:04:57,630

Australia you've been listening to the

1490

01:05:03,979 --> 01:05:00,150

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1491

01:05:07,309 --> 01:05:03,989

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1492

01:05:10,429 --> 01:05:07,319

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1493

01:05:12,469 --> 01:05:10,439

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