

The Skeptic Zone

Show 229 - 9 March 2013



Dr Paul Willis

1
00:00:11,150 --> 00:00:01,939
this is james randi and you're listening

2
00:00:14,030 --> 00:00:11,160
to the skeptic zone welcome to the

3
00:00:30,050 --> 00:00:14,040
skeptic zone the podcast from Australia

4
00:00:33,260 --> 00:00:30,060
for science and reason hello and welcome

5
00:00:36,860 --> 00:00:33,270
to the skeptic zone episode number 229

6
00:00:38,209 --> 00:00:36,870
for the ninth of March 2013 Richard

7
00:00:41,420 --> 00:00:38,219
Saunders here with you from the

8
00:00:45,380 --> 00:00:41,430
beautiful the gorgeous countryside at

9
00:00:47,600 --> 00:00:45,390
MIT emitter victoria australia it's just

10
00:00:50,660 --> 00:00:47,610
after dawn the birds are singing there's

11
00:00:53,090 --> 00:00:50,670
a babbling brook right down in front of

12
00:00:55,700 --> 00:00:53,100
me I'm at the house of lorries and Eden

13
00:00:58,610 --> 00:00:55,710

Smith now are the local skeptics here

14

00:01:01,010 --> 00:00:58,620

some of the local skeptics yes the birds

15

00:01:06,080 --> 00:01:01,020

are singing it's really a magical place

16

00:01:07,570 --> 00:01:06,090

I wish you were all here on this week's

17

00:01:10,730 --> 00:01:07,580

show we're going to kick off with a

18

00:01:12,590 --> 00:01:10,740

Maynard's spooky action what an

19

00:01:14,450 --> 00:01:12,600

interesting Maynard spooky action we

20

00:01:16,760 --> 00:01:14,460

have for you this week Maynard is going

21

00:01:21,109 --> 00:01:16,770

to be speaking with Simon through from

22

00:01:23,660 --> 00:01:21,119

the pirate party Australia is your

23

00:01:26,899 --> 00:01:23,670

online freedom at risk what is the law

24

00:01:30,109 --> 00:01:26,909

in regards to your online activities and

25

00:01:31,609 --> 00:01:30,119

can the government snoop on you that's

26

00:01:34,429 --> 00:01:31,619

coming up at the top of the show with

27

00:01:37,609 --> 00:01:34,439

Maynard's spooky action and the pirate

28

00:01:39,319 --> 00:01:37,619

party australia following that it's

29

00:01:41,210 --> 00:01:39,329

another installment of the week in

30

00:01:43,870 --> 00:01:41,220

science without a dear friend dr. Paul

31

00:01:51,289 --> 00:01:43,880

Willis from the Royal Institution in

32

00:01:53,840 --> 00:01:51,299

Adelaide that's w WR I you soo ba you

33

00:01:57,499 --> 00:01:53,850

and what a fine institution that is a

34

00:01:59,929 --> 00:01:57,509

wrap up of the week in science and then

35

00:02:02,569 --> 00:01:59,939

we have dr. Reggie reports well sort of

36

00:02:04,190 --> 00:02:02,579

a doctor rachy reports dr. Reggie along

37

00:02:06,980 --> 00:02:04,200

with our very own Peter Budaj from

38

00:02:10,040 --> 00:02:06,990

Australian skeptics and Julie Leask with

39

00:02:13,530 --> 00:02:10,050

Kate Tracy and Hannah Bell Nick were all

40

00:02:17,250 --> 00:02:13,540

interviewed on radio 2's

41

00:02:20,789 --> 00:02:17,260

I about anti-vaccination and vaccination

42

00:02:23,399 --> 00:02:20,799

issues yes radio to a CR where this

43

00:02:27,300 --> 00:02:23,409

report was first heard and we thank

44

00:02:29,550 --> 00:02:27,310

radio to ser very much but kindly

45

00:02:32,670 --> 00:02:29,560

allowing the skeptic zone to use this

46

00:02:34,880 --> 00:02:32,680

story and following that it's off to

47

00:02:37,830 --> 00:02:34,890

skeptics in the pub in Sydney where I

48

00:02:39,030 --> 00:02:37,840

play the part of Maynard that's usually

49

00:02:41,129 --> 00:02:39,040

may not running around with these

50

00:02:42,660 --> 00:02:41,139

microphone at skeptics in the pub may

51
00:02:45,240 --> 00:02:42,670
not couldn't make it this week so I took

52
00:02:48,300 --> 00:02:45,250
over may not duties and I asked some

53
00:02:49,559 --> 00:02:48,310
questions which you might ponder while

54
00:02:51,179 --> 00:02:49,569
you're listening to the skeptic zone

55
00:02:53,520 --> 00:02:51,189
until we get to that segment the

56
00:02:56,490 --> 00:02:53,530
questions I asked which are sort of

57
00:02:59,640 --> 00:02:56,500
related one do you think that human

58
00:03:01,259 --> 00:02:59,650
society as a whole will ever turn to

59
00:03:04,920 --> 00:03:01,269
science and reason and away from

60
00:03:07,550 --> 00:03:04,930
superstition belief and two if that does

61
00:03:10,140 --> 00:03:07,560
happen how long do you think it'll take

62
00:03:13,409 --> 00:03:10,150
will it be a week will it be two weeks

63
00:03:17,759 --> 00:03:13,419

will it be 10 years 20 years a century

64

00:03:21,449 --> 00:03:17,769

two centuries or so on ponder those

65

00:03:25,559 --> 00:03:21,459

questions and to wrap up the show oh man

66

00:03:28,830 --> 00:03:25,569

oh boy jealous or what may nod has a

67

00:03:32,909 --> 00:03:28,840

story about the electric conversion or

68

00:03:36,390 --> 00:03:32,919

the conversion to electric power of a

69

00:03:39,899 --> 00:03:36,400

DeLorean a real DeLorean and Maynard

70

00:03:41,789 --> 00:03:39,909

gets to have a ride in it Wow and I was

71

00:03:44,550 --> 00:03:41,799

putting this story together when may not

72

00:03:47,819 --> 00:03:44,560

sent it to me i was just so jealous join

73

00:03:50,819 --> 00:03:47,829

my dad for a ride in an electric

74

00:03:55,469 --> 00:03:50,829

DeLorean what has that got to do with

75

00:03:58,379 --> 00:03:55,479

skepticism i hear you cry well not so

76
00:04:00,330 --> 00:03:58,389
much but it's a DeLorean that's just so

77
00:04:03,839 --> 00:04:00,340
beautiful here birds are singing all the

78
00:04:08,330 --> 00:04:03,849
sun's now coming through the trees yes I

79
00:04:13,740 --> 00:04:11,760
what a magical place now the for the

80
00:04:16,290 --> 00:04:13,750
folks in Sydney Australian skeptics are

81
00:04:20,010 --> 00:04:16,300
having a dinner meeting on the sixth of

82
00:04:23,190 --> 00:04:20,020
April with dr. Brook Magnon T forensic

83
00:04:25,380 --> 00:04:23,200
pathologist genetic epidemiologist and

84
00:04:29,880 --> 00:04:25,390
author of the secret diary of a call

85
00:04:31,860 --> 00:04:29,890
girl talks on sex myths and why we

86
00:04:34,470 --> 00:04:31,870
believe them now that's going to be the

87
00:04:37,890 --> 00:04:34,480
ride Eastwood's leaf club west ryde

88
00:04:39,750 --> 00:04:37,900

seven o'clock on the sixth of april and

89

00:04:41,280 --> 00:04:39,760

you can book your tickets you don't have

90

00:04:44,300 --> 00:04:41,290

to be a subscriber to the skeptic

91

00:04:47,250 --> 00:04:44,310

magazine anybody can come along go to ww

92

00:04:48,990 --> 00:04:47,260

skeptics com au and I'm just being

93

00:04:54,540 --> 00:04:49,000

joined by a little dog at my feet hunt

94

00:04:56,430 --> 00:04:54,550

oh yes hello you sit sit there you sit

95

00:04:57,840 --> 00:04:56,440

there and listen to me another dog

96

00:05:02,940 --> 00:04:57,850

what's going on headed arrow good

97

00:05:06,120 --> 00:05:02,950

morning yes sit sit good dog it's all

98

00:05:08,930 --> 00:05:06,130

happening here folks right yes sir Thank

99

00:05:11,670 --> 00:05:08,940

You dogs the six of april seven o'clock

100

00:05:14,160 --> 00:05:11,680

skeptics com delay you for more details

101
00:05:15,540 --> 00:05:14,170
and to get your tickets is that the

102
00:05:19,260 --> 00:05:15,550
breakfast bill I just heard in the

103
00:05:21,050 --> 00:05:19,270
background it could well be well I

104
00:05:23,550 --> 00:05:21,060
better run to have my breakfast more

105
00:05:25,620 --> 00:05:23,560
information from me coming up during the

106
00:05:27,060 --> 00:05:25,630
show about the wonderful film festival

107
00:05:30,000 --> 00:05:27,070
i'm going to be speaking out in the

108
00:05:33,360 --> 00:05:30,010
czech republic but i think these dogs

109
00:05:34,770 --> 00:05:33,370
are telling me it's time to go and go up

110
00:05:36,390 --> 00:05:34,780
i'm not going to run downstairs because

111
00:05:38,580 --> 00:05:36,400
i'm not near stairs i'm going to run up

112
00:05:40,860 --> 00:05:38,590
this short hill here run to the

113
00:05:45,000 --> 00:05:40,870

breakfast table and while I'm doing that

114

00:06:03,020 --> 00:05:45,010

I hope you enjoy the skeptic zone come

115

00:06:10,890 --> 00:06:08,220

here's my not spooky action at the

116

00:06:14,770 --> 00:06:13,300

well I don't often speak to politicians

117

00:06:17,439 --> 00:06:14,780

but I may well be speaking to a

118

00:06:19,510 --> 00:06:17,449

politician now from a party that doesn't

119

00:06:21,399 --> 00:06:19,520

have a lot of history but it does have a

120

00:06:24,580 --> 00:06:21,409

history internationally please welcome

121

00:06:26,379 --> 00:06:24,590

Simon through deputy of the Australian

122

00:06:28,360 --> 00:06:26,389

pirate party is that the correct name of

123

00:06:29,920 --> 00:06:28,370

the party Simon technically part party

124

00:06:32,559 --> 00:06:29,930

Australia yeah are you in any way

125

00:06:34,480 --> 00:06:32,569

affiliated or inspired by the people

126

00:06:36,969 --> 00:06:34,490

that I first heard this name from the

127

00:06:38,740 --> 00:06:36,979

guys from piratebay that got the Swedish

128

00:06:41,230 --> 00:06:38,750

Pirate Party going a few years back

129

00:06:43,209 --> 00:06:41,240

originally came from the same movement

130

00:06:45,939 --> 00:06:43,219

they originally set up to defend the

131

00:06:48,309 --> 00:06:45,949

Pirate Bay the downloading site to fight

132

00:06:50,320 --> 00:06:48,319

against attacks from the legal system in

133

00:06:51,850 --> 00:06:50,330

Sweden they form the political party

134

00:06:53,769 --> 00:06:51,860

that fight back and since then they got

135

00:06:56,320 --> 00:06:53,779

a few people elected to the European

136

00:06:58,659 --> 00:06:56,330

Parliament and it's better on the world

137

00:07:00,820 --> 00:06:58,669

and we've formed a local branch back

138

00:07:02,409 --> 00:07:00,830

around 2009 I think you can be fairly

139

00:07:06,369 --> 00:07:02,419

zigs inked and saying what is the pirate

140

00:07:09,519 --> 00:07:06,379

party's platform basically we came about

141

00:07:12,399 --> 00:07:09,529

due to the tax on civil liberties online

142

00:07:15,490 --> 00:07:12,409

so our main interest is trying to fight

143

00:07:19,420 --> 00:07:15,500

back against surveillance and bans on

144

00:07:22,300 --> 00:07:19,430

file sharing and governments generally

145

00:07:24,730 --> 00:07:22,310

using the changing technology to online

146

00:07:27,430 --> 00:07:24,740

as a way to strip back civil liberties a

147

00:07:29,740 --> 00:07:27,440

lot of people would think that their

148

00:07:32,379 --> 00:07:29,750

activities online are completely

149

00:07:35,019 --> 00:07:32,389

anonymous even now and I imagine almost

150

00:07:36,730 --> 00:07:35,029

every single thing you do online is

151
00:07:38,680 --> 00:07:36,740
recorded somewhere and can be found out

152
00:07:40,450 --> 00:07:38,690
by someone at any time unless you take

153
00:07:43,360 --> 00:07:40,460
extreme lengths so that's correct isn't

154
00:07:45,640 --> 00:07:43,370
it basically sites like Facebook Google

155
00:07:47,920 --> 00:07:45,650
to a lesser extent Twitter they over

156
00:07:50,920 --> 00:07:47,930
hand over information to government kind

157
00:07:53,379 --> 00:07:50,930
of relatively regular basis Facebook and

158
00:07:55,209 --> 00:07:53,389
Google both do it without usually

159
00:07:56,890 --> 00:07:55,219
putting up a fight Twitter's a bit more

160
00:07:59,559 --> 00:07:56,900
different with I'll actually try to

161
00:08:01,719 --> 00:07:59,569
defend the right to privacy in court I'd

162
00:08:03,550 --> 00:08:01,729
say actually we have the we have a

163
00:08:05,140 --> 00:08:03,560

petition going into the Australian

164

00:08:07,119 --> 00:08:05,150

Senate with our green Senator Scott

165

00:08:09,820 --> 00:08:07,129

Ludlam is presenting it's about the

166

00:08:11,950 --> 00:08:09,830

national security I inquiry that was

167

00:08:15,510 --> 00:08:11,960

held late last year where they want to

168

00:08:18,279 --> 00:08:15,520

collect all sort of phone carrier data

169

00:08:20,499 --> 00:08:18,289

mailing things like that without warrant

170

00:08:22,089 --> 00:08:20,509

use it as a way to track everyone they

171

00:08:24,399 --> 00:08:22,099

sort of claim that they're losing these

172

00:08:26,679 --> 00:08:24,409

abilities with people moving from

173

00:08:29,859 --> 00:08:26,689

on normal traditional land lines to

174

00:08:32,079 --> 00:08:29,869

evolve devices and internet I would

175

00:08:33,939 --> 00:08:32,089

think this makes it incredibly easier

176

00:08:35,290 --> 00:08:33,949

for them to find out things about people

177

00:08:36,550 --> 00:08:35,300

because if you want to track someone and

178

00:08:38,290 --> 00:08:36,560

they got a firm with them you got them

179

00:08:41,170 --> 00:08:38,300

exactly yeah and all you all you've got

180

00:08:43,540 --> 00:08:41,180

to do is present reasonable reason why

181

00:08:46,360 --> 00:08:43,550

you would like to do that and if you are

182

00:08:48,490 --> 00:08:46,370

a law enforcer you should have

183

00:08:49,780 --> 00:08:48,500

reasonable reason to find out where

184

00:08:52,179 --> 00:08:49,790

someone is you shouldn't just do it

185

00:08:54,249 --> 00:08:52,189

because it's a thursday there's limits

186

00:08:56,350 --> 00:08:54,259

to what they're actually can can't do

187

00:08:58,059 --> 00:08:56,360

but a lot of that stuff is actually they

188

00:09:00,460 --> 00:08:58,069

can do without a warrant even now

189

00:09:03,850 --> 00:09:00,470

there's they've got a lot of ability to

190

00:09:06,340 --> 00:09:03,860

see where phone towers in year and give

191

00:09:07,749 --> 00:09:06,350

up you're up against quite a task with

192

00:09:09,910 --> 00:09:07,759

the pirate party because as well as a

193

00:09:11,230 --> 00:09:09,920

warning about civil liberties you you

194

00:09:13,119 --> 00:09:11,240

have to try and let people know what

195

00:09:14,499 --> 00:09:13,129

civil liberties they've lost as well and

196

00:09:17,650 --> 00:09:14,509

a lot of people aren't aware of that

197

00:09:19,749 --> 00:09:17,660

they basically claiming access to rights

198

00:09:21,759 --> 00:09:19,759

I never actually had people would find

199

00:09:23,619 --> 00:09:21,769

like me how to access the emails and

200

00:09:25,869 --> 00:09:23,629

stuff like that they just have never

201
00:09:27,610 --> 00:09:25,879
really been able to do that actual

202
00:09:30,370 --> 00:09:27,620
biggest problems when the cows get

203
00:09:32,559 --> 00:09:30,380
abused countless records of place you

204
00:09:35,800 --> 00:09:32,569
know you looking up ex-lovers and stuff

205
00:09:37,660 --> 00:09:35,810
I'm criminal databases yes so does it

206
00:09:39,879 --> 00:09:37,670
tend to be law enforcement people

207
00:09:41,559 --> 00:09:39,889
overstepping their line or is it tend to

208
00:09:43,569 --> 00:09:41,569
be someone at the tax office looking up

209
00:09:45,699 --> 00:09:43,579
a celebrity what sort of cases have come

210
00:09:47,620 --> 00:09:45,709
to mind that you can think of cases of

211
00:09:50,790 --> 00:09:47,630
things like that going on quite a bit in

212
00:09:53,350 --> 00:09:50,800
the UK where they have a data retention

213
00:09:56,829 --> 00:09:53,360

regime already set up they've had

214

00:09:58,509 --> 00:09:56,839

tokamak employees selling data to data

215

00:10:00,610 --> 00:09:58,519

mining companies so selling all the

216

00:10:04,980 --> 00:10:00,620

private information of customers that

217

00:10:07,569 --> 00:10:04,990

which has been kept so say someone at a

218

00:10:09,699 --> 00:10:07,579

telecommunications company was offered

219

00:10:11,410 --> 00:10:09,709

money from a large newspaper

220

00:10:13,960 --> 00:10:11,420

conglomerate that would like to know

221

00:10:16,600 --> 00:10:13,970

phone numbers or a list of phone data

222

00:10:18,759 --> 00:10:16,610

they would offer a person quiet on the

223

00:10:21,009 --> 00:10:18,769

counter in front of Friday not the pub a

224

00:10:22,480 --> 00:10:21,019

bit of money and a USB stick might

225

00:10:24,790 --> 00:10:22,490

exchange hands that could be a

226

00:10:27,040 --> 00:10:24,800

theoretical situation yeah that's

227

00:10:29,259 --> 00:10:27,050

definitely not entirely sure what sort

228

00:10:31,360 --> 00:10:29,269

of system they're going to propose with

229

00:10:34,389 --> 00:10:31,370

the law because that this help inquiry

230

00:10:35,530 --> 00:10:34,399

into all the issues around it there's

231

00:10:37,120 --> 00:10:35,540

been a bit quiet about what they

232

00:10:38,290 --> 00:10:37,130

actually want to do I think also being

233

00:10:39,700 --> 00:10:38,300

election year they might

234

00:10:41,740 --> 00:10:39,710

like leave it on the back burner until

235

00:10:43,930 --> 00:10:41,750

after the election your party actually

236

00:10:46,030 --> 00:10:43,940

has quite a wide platform beyond just

237

00:10:48,160 --> 00:10:46,040

wanting to download music there's civil

238

00:10:50,530 --> 00:10:48,170

liberties of course there it goes into

239

00:10:53,140 --> 00:10:50,540

patent legislations and laws that apply

240

00:10:54,370 --> 00:10:53,150

internationally free trade agreements

241

00:10:56,830 --> 00:10:54,380

that Australia's signs you've actually

242

00:10:59,040 --> 00:10:56,840

got a party that covers a very wide area

243

00:11:01,270 --> 00:10:59,050

we've also in the process of trying to

244

00:11:03,280 --> 00:11:01,280

expand our platform in the lead-up to

245

00:11:05,710 --> 00:11:03,290

the election we have a conference in

246

00:11:07,540 --> 00:11:05,720

April introduce new ideas and see what

247

00:11:09,850 --> 00:11:07,550

members say if people want to find out

248

00:11:12,190 --> 00:11:09,860

more about the pirate party Australia is

249

00:11:14,110 --> 00:11:12,200

at the official name party Australia yep

250

00:11:16,090 --> 00:11:14,120

you've got a regular podcast you can

251
00:11:17,530 --> 00:11:16,100
have a listen to about weekly updates of

252
00:11:19,180 --> 00:11:17,540
what you get up to but what's the

253
00:11:21,130 --> 00:11:19,190
website where people can either get on

254
00:11:24,070 --> 00:11:21,140
there and agree or disagree with you

255
00:11:25,780 --> 00:11:24,080
alright party Gorga you Simon through

256
00:11:43,439 --> 00:11:25,790
deputy president of the pirate party

257
00:11:50,109 --> 00:11:45,999
hi this is brian dunning from the

258
00:11:53,139 --> 00:11:50,119
sceptile podcast ATS kept I calm for 15

259
00:11:55,929 --> 00:11:53,149
years now dr. Bob's trivia quiz has been

260
00:11:58,389 --> 00:11:55,939
a part of Australian skeptics each month

261
00:12:01,269 --> 00:11:58,399
the mysterious dr. Bob comes up with

262
00:12:04,419 --> 00:12:01,279
questions that defy all logic and reason

263
00:12:06,669 --> 00:12:04,429

only the best of the best dare attempt

264

00:12:09,879 --> 00:12:06,679

to answer these brain twisters and no

265

00:12:15,449 --> 00:12:09,889

google won't help you visit dr. Bob's

266

00:12:18,850 --> 00:12:15,459

quiz wordpress.com that's dr be OBS quiz

267

00:12:21,789 --> 00:12:18,860

wordpress.com to take part and to see

268

00:12:29,039 --> 00:12:21,799

the complete archive of dr. bob's trivia

269

00:12:35,049 --> 00:12:32,109

welcome to a week in science this week

270

00:12:43,840 --> 00:12:35,059

fluoride in water paleoclimate shocks

271

00:12:45,369 --> 00:12:43,850

and how to build a planet fluoridation

272

00:12:48,369 --> 00:12:45,379

of water has been in the news recently

273

00:12:50,889 --> 00:12:48,379

as some towns have ended this effective

274

00:12:52,989 --> 00:12:50,899

public health practice but a long-term

275

00:12:55,299 --> 00:12:52,999

study of Australian teeth released this

276

00:12:57,609 --> 00:12:55,309

week reveals a significant reduction in

277

00:12:59,710 --> 00:12:57,619

dental problems in people with a longer

278

00:13:02,650 --> 00:12:59,720

history of drinking fluoridated water

279

00:13:04,929 --> 00:13:02,660

the study found around ten percent less

280

00:13:07,329 --> 00:13:04,939

decayed missing and filled teeth in

281

00:13:09,909 --> 00:13:07,339

people with a high lifetime fluoride

282

00:13:12,309 --> 00:13:09,919

exposure compared to those with a low

283

00:13:13,960 --> 00:13:12,319

exposure the study concluded that there

284

00:13:16,869 --> 00:13:13,970

was a dose-related effect of

285

00:13:21,519 --> 00:13:16,879

fluoridation the longer the exposure the

286

00:13:23,049 --> 00:13:21,529

less dental care problems occur a study

287

00:13:25,389 --> 00:13:23,059

released this week looked at the

288

00:13:27,609 --> 00:13:25,399

relationship between carbon dioxide and

289

00:13:30,639 --> 00:13:27,619

global warming at the end of the last

290

00:13:33,249 --> 00:13:30,649

ice age previous studies of gas trapped

291

00:13:35,079 --> 00:13:33,259

in antarctic ice showed that the climate

292

00:13:38,590 --> 00:13:35,089

was warmer during periods of high

293

00:13:41,470 --> 00:13:38,600

atmospheric co2 and colder when co2 was

294

00:13:43,590 --> 00:13:41,480

lower this study showed that these

295

00:13:45,759 --> 00:13:43,600

changes occurred simultaneously

296

00:13:48,249 --> 00:13:45,769

suggesting that they are related

297

00:13:50,769 --> 00:13:48,259

meanwhile a second study released this

298

00:13:51,380 --> 00:13:50,779

week reports that today's global climate

299

00:13:53,090 --> 00:13:51,390

is

300

00:13:55,370 --> 00:13:53,100

more than it has been for most of the

301
00:13:57,650 --> 00:13:55,380
last eleven thousand three hundred years

302
00:14:00,580 --> 00:13:57,660
a patent emerged with a rise in

303
00:14:03,140 --> 00:14:00,590
temperature as the last ice age ended

304
00:14:05,300 --> 00:14:03,150
warming conditions continued until a

305
00:14:08,060 --> 00:14:05,310
cooling trend over the five thousand

306
00:14:10,610 --> 00:14:08,070
years that ended around 200 years ago

307
00:14:13,430 --> 00:14:10,620
since then temperatures have risen

308
00:14:17,120 --> 00:14:13,440
steadily for science headlines in 30

309
00:14:18,800 --> 00:14:17,130
seconds BPA from plastic food containers

310
00:14:22,430 --> 00:14:18,810
may increase the risk of childhood

311
00:14:24,620 --> 00:14:22,440
asthma phantom pain the pain experienced

312
00:14:26,510 --> 00:14:24,630
from a missing limb is caused by

313
00:14:29,450 --> 00:14:26,520

disruptions to the sensorimotor cortex

314

00:14:31,730 --> 00:14:29,460

of the brain brain waves are shaped to

315

00:14:33,500 --> 00:14:31,740

allow people to focus on the sound of a

316

00:14:36,560 --> 00:14:33,510

speaker competing against background

317

00:14:38,210 --> 00:14:36,570

noise and the protein which allows the

318

00:14:42,850 --> 00:14:38,220

taste buds to tell the brain about

319

00:14:45,290 --> 00:14:42,860

different tastes has been identified and

320

00:14:47,810 --> 00:14:45,300

finally this week astronomers have

321

00:14:50,720 --> 00:14:47,820

observed a previously unseen phenomena

322

00:14:53,630 --> 00:14:50,730

the birth of a planet an international

323

00:14:58,060 --> 00:14:53,640

team studied a disk of gas and dust that

324

00:15:01,670 --> 00:14:58,070

surrounds the young star HD 100 546

325

00:15:04,280 --> 00:15:01,680

located in a burly 335 light-years from

326

00:15:06,530 --> 00:15:04,290

Earth the astronomers concluded that

327

00:15:09,380 --> 00:15:06,540

this celestial construction job could

328

00:15:10,790 --> 00:15:09,390

take tens of thousands of years allowing

329

00:15:13,010 --> 00:15:10,800

for changes to council planning

330

00:15:17,540 --> 00:15:13,020

regulations and overly incompetent

331

00:15:19,460 --> 00:15:17,550

architect and dodgy tradies it's the

332

00:15:21,800 --> 00:15:19,470

last week of Fringe so make sure to

333

00:15:25,100 --> 00:15:21,810

check out rock band ala jizzum this

334

00:15:27,620 --> 00:15:25,110

weekend and on march 16 we welcome back

335

00:15:29,870 --> 00:15:27,630

astronomer Fred Watson for a book club

336

00:15:33,400 --> 00:15:29,880

event featuring his new book stark

337

00:15:36,470 --> 00:15:33,410

raving mad information on our website

338

00:15:38,780 --> 00:15:36,480

that's been another big week in science

339

00:15:41,180 --> 00:15:38,790

you can watch this episode and other

340

00:15:42,890 --> 00:15:41,190

episodes of a week in science as well as

341

00:15:46,640 --> 00:15:42,900

a host of other great science videos

342

00:15:48,710 --> 00:15:46,650

through our website Arya's org dot a you

343

00:15:51,800 --> 00:15:48,720

where you can also sign up for

344

00:15:53,570 --> 00:15:51,810

notifications of future episodes you can

345

00:15:57,050 --> 00:15:53,580

follow a week in science on twitter

346

00:15:59,030 --> 00:15:57,060

using the hashtag weekend sigh i'm paul

347

00:16:04,690 --> 00:15:59,040

willis and on behalf of the our oils

348

00:16:12,380 --> 00:16:08,900

hey Kenny oh hi Tom I see this part yeah

349

00:16:14,810 --> 00:16:12,390

yes great weather oh look a unicorn

350

00:16:17,990 --> 00:16:14,820

unicorn there are no such things as

351

00:16:20,150 --> 00:16:18,000

unicorns silly yes there is no there

352

00:16:22,420 --> 00:16:20,160

isn't hey guys what are you arguing

353

00:16:25,550 --> 00:16:22,430

about tom thinks unicorns are real

354

00:16:28,550 --> 00:16:25,560

thanks so r let's look this up in the

355

00:16:30,290 --> 00:16:28,560

skeptics dictionary the what how can we

356

00:16:32,000 --> 00:16:30,300

do this in this park there is no

357

00:16:33,710 --> 00:16:32,010

computer here you guys probably don't

358

00:16:36,769 --> 00:16:33,720

know about the skeptics dictionary app

359

00:16:40,700 --> 00:16:36,779

available now for iPhone iPad and iPod

360

00:16:42,260 --> 00:16:40,710

touch in the app store Wow cool the app

361

00:16:44,450 --> 00:16:42,270

lets you access all of the great

362

00:16:47,030 --> 00:16:44,460

skeptics dictionary articles when you're

363

00:16:49,760 --> 00:16:47,040

on the go here let me look up unicorns

364

00:16:52,310 --> 00:16:49,770

not cool Kenny prepare to be proven

365

00:16:56,450 --> 00:16:52,320

wrong it says here the Unicorn is a

366

00:16:57,710 --> 00:16:56,460

creature from fables aha actually I see

367

00:17:00,290 --> 00:16:57,720

now that someone just dumped their ice

368

00:17:09,740 --> 00:17:00,300

cream cone on that horse's head thanks

369

00:17:11,929 --> 00:17:09,750

skeptics dictionary iphone app I'm still

370

00:17:13,819 --> 00:17:11,939

here this wonderful the countryside

371

00:17:15,559 --> 00:17:13,829

adhered millimeter having a chat too

372

00:17:18,919 --> 00:17:15,569

skeptical Steve Roberts steve roberts

373

00:17:21,590 --> 00:17:18,929

who drove Road a motorbike from London

374

00:17:23,870 --> 00:17:21,600

right across the maghuin dhonn in the in

375

00:17:26,329 --> 00:17:23,880

Russian Far East Russia yeah yeah we

376

00:17:28,910 --> 00:17:26,339

ride across Europe across Russia down to

377

00:17:30,890 --> 00:17:28,920

Kazakhstan and back out again and where

378

00:17:32,570 --> 00:17:30,900

Mongolia and then across the whole of

379

00:17:35,030 --> 00:17:32,580

Siberia and out the other side into them

380

00:17:36,650 --> 00:17:35,040

into the Russian Far East and we ended

381

00:17:38,930 --> 00:17:36,660

up in a town called Magadan which is

382

00:17:42,410 --> 00:17:38,940

where the road ends and it's so low near

383

00:17:44,930 --> 00:17:42,420

Vladivostok but some is down that in any

384

00:17:47,030 --> 00:17:44,940

way that's extraordinary and you wrote a

385

00:17:49,669 --> 00:17:47,040

blog about your adventures I did yeah if

386

00:17:52,130 --> 00:17:49,679

you google steve road of bones it'll

387

00:17:53,330 --> 00:17:52,140

come out number one probably i've seen

388

00:17:54,830 --> 00:17:53,340

some of the video and some of the

389

00:17:57,680 --> 00:17:54,840

pictures you took it looks like an

390

00:17:59,360 --> 00:17:57,690

extraordinary trip to take on the back

391

00:18:01,910 --> 00:17:59,370

of a motorbike all the fun of a lot of

392

00:18:03,620 --> 00:18:01,920

light better still yeah as a rather

393

00:18:05,990 --> 00:18:03,630

didn't think to do really I mean this is

394

00:18:08,900 --> 00:18:06,000

wet and cold unpleasant or is very high

395

00:18:10,400 --> 00:18:08,910

Oh Kazakhstan the Sun was plus 40

396

00:18:13,250 --> 00:18:10,410

degrees and he wearing black motorcycle

397

00:18:15,070 --> 00:18:13,260

clothing and then Siberia the Ottomans

398

00:18:17,680 --> 00:18:15,080

you know zero degrees and it

399

00:18:20,470 --> 00:18:17,690

and that was unpleasant now that we know

400

00:18:22,120 --> 00:18:20,480

why we did it because it was some people

401
00:18:23,799 --> 00:18:22,130
go to the beach and barley you know

402
00:18:26,259 --> 00:18:23,809
that's very nice but that's what I did

403
00:18:28,149 --> 00:18:26,269
but now in your great adventure did you

404
00:18:30,610 --> 00:18:28,159
go anywhere near the czech republic by

405
00:18:32,649 --> 00:18:30,620
any chance no i didn't sorry about that

406
00:18:34,960 --> 00:18:32,659
i know you he can be carved straight

407
00:18:36,610 --> 00:18:34,970
across to cut that one out now that's

408
00:18:38,649 --> 00:18:36,620
alright because i mentioned the czech

409
00:18:40,779 --> 00:18:38,659
republic because as i've been mentioning

410
00:18:44,919 --> 00:18:40,789
to my listeners i'm off there to a

411
00:18:47,860 --> 00:18:44,929
rather amazing looking convention

412
00:18:48,730 --> 00:18:47,870
conference academia film allah book and

413
00:18:50,710 --> 00:18:48,740

we've been wondering how to pronounce

414

00:18:54,310 --> 00:18:50,720

olomouc column which I can't help you

415

00:18:56,919 --> 00:18:54,320

that I don't speak Czech oh well olo mo

416

00:18:59,980 --> 00:18:56,929

you see ya is how it's spelt but that's

417

00:19:01,840 --> 00:18:59,990

in chick and i'm not i'm sure i'll be

418

00:19:04,629 --> 00:19:01,850

corrected by the good folks there i do i

419

00:19:06,940 --> 00:19:04,639

but it folks if you actually on here's

420

00:19:11,200 --> 00:19:06,950

something to do on YouTube have a search

421

00:19:13,480 --> 00:19:11,210

for this place Oh L om oh you see and

422

00:19:15,600 --> 00:19:13,490

what a wonderfully interesting town it

423

00:19:17,950 --> 00:19:15,610

is in the Czech Republic it looks like a

424

00:19:20,740 --> 00:19:17,960

university and lots of nightlife and

425

00:19:22,870 --> 00:19:20,750

culture and wonderful streets with

426
00:19:27,100 --> 00:19:22,880
modern trams I'm really looking forward

427
00:19:30,990 --> 00:19:27,110
to visiting it and those festival itself

428
00:19:33,490 --> 00:19:31,000
which is the 48th the 48th international

429
00:19:36,730 --> 00:19:33,500
event they have there look at what they

430
00:19:39,909 --> 00:19:36,740
have mathematics with Fermat's Last

431
00:19:43,180 --> 00:19:39,919
Theorem pseudoscience and academic film

432
00:19:46,629 --> 00:19:43,190
fest again teaching of science through

433
00:19:48,070 --> 00:19:46,639
film the UFOs will be discussed me I'll

434
00:19:49,509 --> 00:19:48,080
be there of course discussing water

435
00:19:52,889 --> 00:19:49,519
divining which is why we're in mid

436
00:19:55,389 --> 00:19:52,899
emitter this very weekend we've got

437
00:19:59,680 --> 00:19:55,399
vaccination issues coming up politics

438
00:20:06,009 --> 00:19:59,690

global warming games pc games folks have

439

00:20:12,190 --> 00:20:06,019

a look at the website it's wwa f0 c ZD

440

00:20:14,289 --> 00:20:12,200

or i could say c z CZ for Americans it

441

00:20:16,029 --> 00:20:14,299

looks like a fantastic trip more details

442

00:20:17,500 --> 00:20:16,039

coming up on the skeptic zone in the

443

00:20:18,390 --> 00:20:17,510

next couple of weeks and I'll try and

444

00:20:36,030 --> 00:20:18,400

convince

445

00:20:42,350 --> 00:20:36,040

to come anyway now it's time for dr.

446

00:20:47,850 --> 00:20:45,150

the anti-vaccination movement is in the

447

00:20:49,170 --> 00:20:47,860

spotlight again last week the Australian

448

00:20:51,450 --> 00:20:49,180

Competition and Consumer Commission

449

00:20:53,880 --> 00:20:51,460

began civil proceedings against

450

00:20:55,470 --> 00:20:53,890

homeopathy plus a website that claimed

451
00:20:58,020 --> 00:20:55,480
that the whooping cough vaccine was

452
00:21:00,060 --> 00:20:58,030
ineffective and unreliable at the same

453
00:21:01,740 --> 00:21:00,070
time the Australian vaccination network

454
00:21:03,840 --> 00:21:01,750
is fighting an order from the New South

455
00:21:05,660 --> 00:21:03,850
Wales Department of Fair Trading to

456
00:21:08,610 --> 00:21:05,670
change its name or risk being shut down

457
00:21:10,080 --> 00:21:08,620
the department claims that since the avn

458
00:21:12,360 --> 00:21:10,090
is a lobby group with a solely

459
00:21:14,880 --> 00:21:12,370
anti-vaccination stance its name is

460
00:21:17,190 --> 00:21:14,890
misleading dr. rachel Dunlop is a

461
00:21:18,990 --> 00:21:17,200
postdoctoral research fellow at UTS in

462
00:21:21,690 --> 00:21:19,000
the school of medical and molecular

463
00:21:23,280 --> 00:21:21,700

Biosciences she says that the case

464

00:21:25,560 --> 00:21:23,290

involving the a triple c and the

465

00:21:27,180 --> 00:21:25,570

homeopathic website is unusual because

466

00:21:29,670 --> 00:21:27,190

it would normally be a matter for the

467

00:21:31,650 --> 00:21:29,680

Therapeutic Goods Administration but the

468

00:21:34,200 --> 00:21:31,660

TGA doesn't have a lot of power to shut

469

00:21:36,090 --> 00:21:34,210

misleading websites down in fact the

470

00:21:38,400 --> 00:21:36,100

website in question has been pursued by

471

00:21:39,930 --> 00:21:38,410

the TGA before I don't think that this

472

00:21:41,850 --> 00:21:39,940

is going to become a precedence where

473

00:21:44,280 --> 00:21:41,860

the h CC does this stuff on a regular

474

00:21:46,650 --> 00:21:44,290

basis because they don't have the

475

00:21:48,120 --> 00:21:46,660

resources and it's not really what

476

00:21:49,890 --> 00:21:48,130

they're supposed to do it's not really

477

00:21:51,420 --> 00:21:49,900

their role their role is not necessarily

478

00:21:53,670 --> 00:21:51,430

in health claims that really is the role

479

00:21:56,970 --> 00:21:53,680

of the TGA so it really highlights the

480

00:21:58,980 --> 00:21:56,980

fact that the TGA needs to be over hold

481

00:22:00,720 --> 00:21:58,990

and we need to get new legislation in so

482

00:22:03,420 --> 00:22:00,730

that they can prosecute things like this

483

00:22:04,920 --> 00:22:03,430

with respect to the avian being told to

484

00:22:06,840 --> 00:22:04,930

change their name by the Department of

485

00:22:09,780 --> 00:22:06,850

Fair Trading this is a serious matter

486

00:22:11,550 --> 00:22:09,790

this is not a trivial matter and also I

487

00:22:13,860 --> 00:22:11,560

think this is a thin and end of the

488

00:22:15,750 --> 00:22:13,870

wedge for the avian this is something

489

00:22:17,250 --> 00:22:15,760

that the Department of Fair Trading have

490

00:22:19,770 --> 00:22:17,260

gone in with but I think they have a lot

491

00:22:21,000 --> 00:22:19,780

more of their sleeves I think they're

492

00:22:23,090 --> 00:22:21,010

pretty determined to see this

493

00:22:25,530 --> 00:22:23,100

organization being pulled into line

494

00:22:27,780 --> 00:22:25,540

getting your children vaccinated is not

495

00:22:30,630 --> 00:22:27,790

compulsory in Australia and some parents

496

00:22:32,190 --> 00:22:30,640

still opt out associate professor Julie

497

00:22:34,560 --> 00:22:32,200

Liske at the School of Public

498

00:22:36,419 --> 00:22:34,570

at the University of Sydney says that

499

00:22:38,009 --> 00:22:36,429

the majority of Australian parents do

500

00:22:39,960 --> 00:22:38,019

get their children vaccinated and

501
00:22:42,060 --> 00:22:39,970
despite the number being low in some

502
00:22:44,460 --> 00:22:42,070
areas it has not decreased over the last

503
00:22:47,310 --> 00:22:44,470
10 years the key to keeping these

504
00:22:51,870 --> 00:22:47,320
numbers healthy is good communication we

505
00:22:54,509 --> 00:22:51,880
have to be very vigilant about trends in

506
00:22:56,490 --> 00:22:54,519
declining confidence in vaccines at the

507
00:22:58,799 --> 00:22:56,500
moment having about 2% of parents who

508
00:23:01,470 --> 00:22:58,809
actively refuse vaccinations we can't

509
00:23:03,539 --> 00:23:01,480
afford for that group to grow in that

510
00:23:05,639 --> 00:23:03,549
group growth we will lose her immunity

511
00:23:09,620 --> 00:23:05,649
and we will get more outbreaks and

512
00:23:13,289 --> 00:23:09,630
epidemics so it is very important that

513
00:23:15,930 --> 00:23:13,299

government prioritize good communication

514

00:23:18,330 --> 00:23:15,940

and that is not just about delivering

515

00:23:21,360 --> 00:23:18,340

information to people in that one-way

516

00:23:23,310 --> 00:23:21,370

process associate professor Liske says

517

00:23:25,919 --> 00:23:23,320

that the anti-vaccination movement is as

518

00:23:28,740 --> 00:23:25,929

old as vaccines themselves and it's not

519

00:23:30,120 --> 00:23:28,750

going away parents can get confused when

520

00:23:33,919 --> 00:23:30,130

they find too much conflicting

521

00:23:37,560 --> 00:23:33,929

information I think it's difficult when

522

00:23:39,870 --> 00:23:37,570

parents are looking for information and

523

00:23:41,730 --> 00:23:39,880

they feel like you're either getting a

524

00:23:43,799 --> 00:23:41,740

really anti-vaccine stuff or the really

525

00:23:45,930 --> 00:23:43,809

probe actually in sort of propaganda

526

00:23:48,450 --> 00:23:45,940

which wants to sweep the risks under the

527

00:23:51,240 --> 00:23:48,460

carpet the really good quality

528

00:23:54,659 --> 00:23:51,250

information will well own up to the fact

529

00:23:56,759 --> 00:23:54,669

that there are some risks there the

530

00:24:00,600 --> 00:23:56,769

serious side effects of vaccinations are

531

00:24:03,750 --> 00:24:00,610

quite rare and overalls of benefits of

532

00:24:05,580 --> 00:24:03,760

vaccinations far outweigh their risk but

533

00:24:08,789 --> 00:24:05,590

it's still important to acknowledge

534

00:24:12,629 --> 00:24:08,799

those risks to give people a sense of

535

00:24:15,299 --> 00:24:12,639

how big they are what they are so that

536

00:24:17,610 --> 00:24:15,309

people who are concerned can sort of get

537

00:24:20,460 --> 00:24:17,620

a sensitive we have a boundaries of

538

00:24:22,560 --> 00:24:20,470

those risks liar Peter Budaj is a member

539

00:24:24,419 --> 00:24:22,570

of the organization Australian skeptics

540

00:24:25,860 --> 00:24:24,429

and has his own website where he

541

00:24:28,080 --> 00:24:25,870

challenges misinformation and

542

00:24:29,970 --> 00:24:28,090

pseudoscience on the internet he is

543

00:24:31,610 --> 00:24:29,980

passionate about combating false claims

544

00:24:35,519 --> 00:24:31,620

made by the anti-vaccination movement

545

00:24:38,310 --> 00:24:35,529

that there is an enormous movement which

546

00:24:40,980 --> 00:24:38,320

opposes the idea the doctors are good

547

00:24:42,440 --> 00:24:40,990

people that is you know doctors are

548

00:24:44,519 --> 00:24:42,450

apparently only and if the money

549

00:24:46,000 --> 00:24:44,529

vaccines are only developed to make

550

00:24:48,610 --> 00:24:46,010

billions of dollars for pharmacy

551
00:24:50,800 --> 00:24:48,620
companies well I've always taken the

552
00:24:52,720 --> 00:24:50,810
view that I'm not trying never going to

553
00:24:55,030 --> 00:24:52,730
convince a true believer my job is to

554
00:24:57,400 --> 00:24:55,040
expose them to the fence-sitters so

555
00:25:00,370 --> 00:24:57,410
people can actually make a choice and

556
00:25:01,540 --> 00:25:00,380
either I get that part in the collection

557
00:25:02,860 --> 00:25:01,550
of hate mail I get from people telling

558
00:25:06,370 --> 00:25:02,870
me on the dreadful person and I should

559
00:25:08,590 --> 00:25:06,380
die I I get quite humid number of emails

560
00:25:10,120 --> 00:25:08,600
and people who say thank you because a

561
00:25:12,340 --> 00:25:10,130
lot of bullet aware or I'll get a little

562
00:25:14,560 --> 00:25:12,350
bit of information from somebody and go

563
00:25:16,450 --> 00:25:14,570

looking on the internet and what they

564

00:25:18,310 --> 00:25:16,460

found is someone actually pointing out

565

00:25:19,780 --> 00:25:18,320

the flaws the things that the

566

00:25:22,810 --> 00:25:19,790

anti-vaccination people say that aren't

567

00:25:23,890 --> 00:25:22,820

true and that points from back to

568

00:25:26,800 --> 00:25:23,900

website all that's going to look at the

569

00:25:29,680 --> 00:25:26,810

science can I can really can't believe

570

00:25:31,420 --> 00:25:29,690

my doctor but for parents the issue can

571

00:25:33,450 --> 00:25:31,430

be about a conflict between social

572

00:25:36,640 --> 00:25:33,460

responsibility and individual rights

573

00:25:38,020 --> 00:25:36,650

Kate Tracy has a 10 month old child and

574

00:25:40,630 --> 00:25:38,030

is a holistic practitioner in

575

00:25:42,610 --> 00:25:40,640

alternative medicine she says she is

576

00:25:44,770 --> 00:25:42,620

resistant to get her baby vaccinated but

577

00:25:46,560 --> 00:25:44,780

not one hundred percent against it it's

578

00:25:49,960 --> 00:25:46,570

a very complicated argument on that

579

00:25:53,230 --> 00:25:49,970

position because argument for

580

00:25:56,490 --> 00:25:53,240

vaccination is sure one in a hundred

581

00:26:00,370 --> 00:25:56,500

thousand people may have a negative

582

00:26:02,980 --> 00:26:00,380

response to vaccination you know which

583

00:26:05,860 --> 00:26:02,990

could could stab into them for the rest

584

00:26:09,670 --> 00:26:05,870

of their lives but for the good of

585

00:26:12,010 --> 00:26:09,680

society we get vaccinated so it is a

586

00:26:14,710 --> 00:26:12,020

it's a social thing it's not an

587

00:26:16,690 --> 00:26:14,720

individual thing but we live in a place

588

00:26:19,390 --> 00:26:16,700

where we have individual rights you know

589

00:26:20,770 --> 00:26:19,400

we have autonomy medical economy we

590

00:26:24,970 --> 00:26:20,780

don't have to do what the Western

591

00:26:27,670 --> 00:26:24,980

medical convention dictates yeah I just

592

00:26:31,510 --> 00:26:27,680

feel of what I've read that it's

593

00:26:33,490 --> 00:26:31,520

possibly and maybe an outdated mode of

594

00:26:35,260 --> 00:26:33,500

protecting the immune system like we

595

00:26:37,840 --> 00:26:35,270

have many other ways to strengthen the

596

00:26:39,910 --> 00:26:37,850

immune system and for children who grow

597

00:26:42,460 --> 00:26:39,920

up unvaccinated the responses from other

598

00:26:44,110 --> 00:26:42,470

people can strike a real nerve Hannah

599

00:26:46,150 --> 00:26:44,120

Bell Nick's mother decided not to

600

00:26:48,580 --> 00:26:46,160

vaccinate her or her sister as children

601
00:26:51,130 --> 00:26:48,590
she says that the negative comments from

602
00:26:54,700 --> 00:26:51,140
strangers can be surprising it isn't an

603
00:26:57,660 --> 00:26:54,710
issue in my life at all until it comes

604
00:27:00,990 --> 00:26:57,670
up saying conversation I mention it and

605
00:27:03,270 --> 00:27:01,000
people have very strong views about it

606
00:27:09,990 --> 00:27:03,280
and often they see me as some as somehow

607
00:27:14,550 --> 00:27:10,000
harmful to society and that I am making

608
00:27:17,580 --> 00:27:14,560
in some ways a in moral decision to be

609
00:27:19,920 --> 00:27:17,590
part of society and not be vaccinated

610
00:27:21,720 --> 00:27:19,930
the way everyone else is Hannah says

611
00:27:23,670 --> 00:27:21,730
she's choosing not to get vaccinations

612
00:27:26,520 --> 00:27:23,680
herself as an adult but will vaccinate

613
00:27:29,490 --> 00:27:26,530

her future children so no I wouldn't be

614

00:27:31,890 --> 00:27:29,500

continuing it on but I don't want to be

615

00:27:34,500 --> 00:27:31,900

vaccinated as an adult and and I feel

616

00:27:35,940 --> 00:27:34,510

like people should be allowed to choose

617

00:27:38,100 --> 00:27:35,950

whether to vaccinate their children or

618

00:27:40,970 --> 00:27:38,110

not when it is an informed decision and

619

00:27:43,230 --> 00:27:40,980

it's likely that if I were to get a

620

00:27:45,270 --> 00:27:43,240

disease that other people that said

621

00:27:47,400 --> 00:27:45,280

before I could I can treat that I can be

622

00:27:49,650 --> 00:27:47,410

treated so why is it that some people

623

00:27:52,380 --> 00:27:49,660

reject vaccines that were developed to

624

00:27:54,570 --> 00:27:52,390

save lives associate professor Liske

625

00:27:56,490 --> 00:27:54,580

says that there was a time when science

626

00:27:58,890 --> 00:27:56,500

and technology were imbued with a lot of

627

00:28:01,470 --> 00:27:58,900

hope and promise but not everybody is so

628

00:28:03,720 --> 00:28:01,480

trusting anymore so you know there are

629

00:28:05,970 --> 00:28:03,730

those occasional that spectacular

630

00:28:08,760 --> 00:28:05,980

failures of medicine like a Salida might

631

00:28:12,600 --> 00:28:08,770

like x-raying the feet of all children

632

00:28:14,730 --> 00:28:12,610

to check their shoe sizes and and then

633

00:28:16,860 --> 00:28:14,740

really realizing that that those

634

00:28:20,160 --> 00:28:16,870

practice was we're actually dangerous

635

00:28:23,630 --> 00:28:20,170

and needed to be changed and I think the

636

00:28:26,550 --> 00:28:23,640

anti-vaccine messaging and certainly the

637

00:28:30,510 --> 00:28:26,560

people who feel mistrust in vaccines or

638

00:28:34,890 --> 00:28:30,520

other medical technologies locate their

639

00:28:38,730 --> 00:28:34,900

concerns within those wider problems

640

00:28:41,750 --> 00:28:38,740

that are genuine issues around the

641

00:28:44,070 --> 00:28:41,760

occasional failures of medicine and

642

00:28:48,180 --> 00:28:44,080

pharmaceuticals there's also this

643

00:28:49,830 --> 00:28:48,190

tendency to compute into consumerism in

644

00:28:53,010 --> 00:28:49,840

health care and we call it health is

645

00:28:55,500 --> 00:28:53,020

impaired people are very consciously

646

00:28:57,510 --> 00:28:55,510

thinking about their health care choices

647

00:29:01,350 --> 00:28:57,520

and being much more involved in them

648

00:29:03,060 --> 00:29:01,360

which is a good team and vaccination you

649

00:29:06,150 --> 00:29:03,070

know gets brought into that kind of

650

00:29:08,400 --> 00:29:06,160

discussion or discourse and so when you

651
00:29:10,380 --> 00:29:08,410
hear about people moms in particular

652
00:29:11,460 --> 00:29:10,390
saying look I want to know I want to

653
00:29:14,070 --> 00:29:11,470
look into this

654
00:29:17,460 --> 00:29:14,080
sure that I'm making the right decision

655
00:29:20,789 --> 00:29:17,470
for my child that's a mom who is wanting

656
00:29:24,480 --> 00:29:20,799
to do the best by her child and is also

657
00:29:27,750 --> 00:29:24,490
concerned to not just take what's what's

658
00:29:30,510 --> 00:29:27,760
an even and a sort of backlash against

659
00:29:32,399 --> 00:29:30,520
paternalistic medicine dr. Dunlop says

660
00:29:34,830 --> 00:29:32,409
that the reasons lie in the perceptions

661
00:29:37,740 --> 00:29:34,840
of risk and the emotions surrounding it

662
00:29:40,710 --> 00:29:37,750
people are unable to really rationalize

663
00:29:42,930 --> 00:29:40,720

risk anymore so I think with vaccination

664

00:29:44,430 --> 00:29:42,940

in particular because we don't see the

665

00:29:45,870 --> 00:29:44,440

disease's anymore because we're not

666

00:29:48,990 --> 00:29:45,880

going to school and we're seeing kids

667

00:29:52,860 --> 00:29:49,000

with polio in calipers or kids dropping

668

00:29:54,539 --> 00:29:52,870

dead from tuberculosis the risk of the

669

00:29:56,940 --> 00:29:54,549

side effects of vaccination is now

670

00:29:59,700 --> 00:29:56,950

elevated in people's minds because we

671

00:30:02,549 --> 00:29:59,710

don't have much of a concept of the risk

672

00:30:05,730 --> 00:30:02,559

of the disease anymore the other issue I

673

00:30:08,039 --> 00:30:05,740

think is that if your child is our in a

674

00:30:11,399 --> 00:30:08,049

playground or at primary school and they

675

00:30:13,230 --> 00:30:11,409

catch a bacteria like pertussis and they

676
00:30:15,000 --> 00:30:13,240
get sick that's a horrible thing to

677
00:30:17,279 --> 00:30:15,010
happen but that's nothing that you were

678
00:30:19,289 --> 00:30:17,289
involved in it wasn't your fault the

679
00:30:21,659 --> 00:30:19,299
bacteria came along you keep gothic

680
00:30:23,700 --> 00:30:21,669
that's fine if you take your child to a

681
00:30:25,860 --> 00:30:23,710
doctor and you agree to a medical

682
00:30:28,140 --> 00:30:25,870
procedure which is a vaccination and

683
00:30:30,570 --> 00:30:28,150
they are one in a million who gets a

684
00:30:32,700 --> 00:30:30,580
side effect and or bad adverse event

685
00:30:34,649 --> 00:30:32,710
then you're directly responsible for

686
00:30:36,060 --> 00:30:34,659
causing your child to be sick so all

687
00:30:38,340 --> 00:30:36,070
that stuff is going on in people's heads

688
00:30:42,390 --> 00:30:38,350

and we're influenced by that really

689

00:30:45,149 --> 00:30:42,400

easily and Sciences is cold and it's you

690

00:30:48,090 --> 00:30:45,159

know full of maths and graphs it's not

691

00:30:50,640 --> 00:30:48,100

an emotional response people are driven

692

00:30:51,810 --> 00:30:50,650

emotionally so when you see stories that

693

00:30:53,940 --> 00:30:51,820

are on the internet whether they're true

694

00:30:56,100 --> 00:30:53,950

or not that a child had a vaccination

695

00:30:58,440 --> 00:30:56,110

and had an adverse event and now has

696

00:31:00,570 --> 00:30:58,450

autism which is not actually a side

697

00:31:02,700 --> 00:31:00,580

effect of vaccinations but that stuff is

698

00:31:05,520 --> 00:31:02,710

out there that sticks in people's heads

699

00:31:16,390 --> 00:31:05,530

and it's like ringing a bell you can't

700

00:31:22,640 --> 00:31:20,150

hi this is scary papi i am ross Fletcher

701

00:31:26,090 --> 00:31:22,650

okay Ross hey we're from a podcast

702

00:31:27,830 --> 00:31:26,100

called oh no Ross and Carrie we find out

703

00:31:29,210 --> 00:31:27,840

what happens when you show up and ask

704

00:31:31,460 --> 00:31:29,220

questions we've hung out with the

705

00:31:34,040 --> 00:31:31,470

Cabalists the Mormons we've gone and

706

00:31:36,440 --> 00:31:34,050

gotten ear candle gone to the Sikhs we

707

00:31:38,090 --> 00:31:36,450

show up so you don't have to so find out

708

00:31:40,190 --> 00:31:38,100

where we're going next we'll even have

709

00:31:42,620 --> 00:31:40,200

special episodes where we have famous

710

00:31:44,600 --> 00:31:42,630

guests like Brian Dalton from mr. deity

711

00:31:46,580 --> 00:31:44,610

you heard that awesome theme music he

712

00:31:50,810 --> 00:31:46,590

wrote that you should come visit us at

713

00:31:53,600 --> 00:31:50,820

Oh No podcast.com or facebook.com slash

714

00:31:57,860 --> 00:31:53,610

on rack what the hell's honor a cross Oh

715

00:32:08,940 --> 00:31:57,870

in RAC oh no Ross and Carrie that's our

716

00:32:13,210 --> 00:32:11,470

well we're here at Sydney's skeptics in

717

00:32:16,990 --> 00:32:13,220

the pub and again it's been another full

718

00:32:19,240 --> 00:32:17,000

house Richard Saunders here being mean I

719

00:32:21,040 --> 00:32:19,250

im mean arts and ankles may not can't be

720

00:32:23,830 --> 00:32:21,050

with us may not normally the guy running

721

00:32:25,420 --> 00:32:23,840

around here skeptics in the pub asking

722

00:32:28,060 --> 00:32:25,430

the big questions I'm with Richard hello

723

00:32:29,380 --> 00:32:28,070

Richard could Oprah two got into it to

724

00:32:32,320 --> 00:32:29,390

see you here again on skeptics in the

725

00:32:34,290 --> 00:32:32,330

pub the big question this week is do you

726

00:32:36,940 --> 00:32:34,300

think that human society will eventually

727

00:32:39,100 --> 00:32:36,950

turn to the side of science and reason

728

00:32:42,940 --> 00:32:39,110

and it's so how long do you think that

729

00:32:46,180 --> 00:32:42,950

will take oh dear we've got different

730

00:32:50,110 --> 00:32:46,190

human populations of all via different

731

00:32:53,500 --> 00:32:50,120

rights and that I think probably sooner

732

00:32:55,810 --> 00:32:53,510

with the western side of things but with

733

00:32:57,400 --> 00:32:55,820

the developing world that there's still

734

00:33:01,630 --> 00:32:57,410

a little bit too much religious

735

00:33:04,090 --> 00:33:01,640

influence and I don't know I mean I

736

00:33:07,930 --> 00:33:04,100

don't know seems to be a pretty popular

737

00:33:11,500 --> 00:33:07,940

answer over here so yeah I'm and it it

738

00:33:13,450 --> 00:33:11,510

depends on here there we go that's a

739

00:33:16,620 --> 00:33:13,460

Buddhist answer is I think I'm gonna get

740

00:33:19,630 --> 00:33:16,630

ya it's a tricky question Richard

741

00:33:21,610 --> 00:33:19,640

yes the mad with that with a very

742

00:33:23,740 --> 00:33:21,620

fluorescent orange microphone

743

00:33:24,820 --> 00:33:23,750

approaching rapidly become working fine

744

00:33:26,650 --> 00:33:24,830

is it though I didn't know there was a

745

00:33:28,330 --> 00:33:26,660

microphone I thought which it was just

746

00:33:30,700 --> 00:33:28,340

never won something out of Fraggle Rock

747

00:33:33,010 --> 00:33:30,710

actually it's the only microphone cover

748

00:33:35,110 --> 00:33:33,020

i had yes folks you know that voice so

749

00:33:37,570 --> 00:33:35,120

well it's Joanne better move from

750

00:33:39,730 --> 00:33:37,580

reality by tell a joke and Richard I

751

00:33:42,430 --> 00:33:39,740

really must do reality bites again it's

752

00:33:43,930 --> 00:33:42,440

been ages yes please do well I promise

753

00:33:44,890 --> 00:33:43,940

but if you know we're here it skeptics

754

00:33:46,810 --> 00:33:44,900

in the public course and the big

755

00:33:48,910 --> 00:33:46,820

question tonight the big question with

756

00:33:51,250 --> 00:33:48,920

two big questions is do you think that

757

00:33:52,840 --> 00:33:51,260

human society as a whole will eventually

758

00:33:55,310 --> 00:33:52,850

turn to the side of science and reason

759

00:34:01,210 --> 00:33:55,320

and if so alone

760

00:34:05,300 --> 00:34:01,220

that might take a short answer no i

761

00:34:06,740 --> 00:34:05,310

don't oh I don't I don't think so human

762

00:34:10,040 --> 00:34:06,750

society ever will because we're not

763

00:34:14,780 --> 00:34:10,050

built that way the only way we can do it

764

00:34:16,790 --> 00:34:14,790

is evolved it out of ourselves so I

765

00:34:18,530 --> 00:34:16,800

think I think all we can do is just sort

766

00:34:20,240 --> 00:34:18,540

of keep chipping away as best we can

767

00:34:23,450 --> 00:34:20,250

focus on the things that are really

768

00:34:26,600 --> 00:34:23,460

important but no I don't think it'll

769

00:34:28,970 --> 00:34:26,610

ever really happen interesting I'm sorry

770

00:34:30,950 --> 00:34:28,980

to be so pessimistic no interesting you

771

00:34:32,390 --> 00:34:30,960

can see Tim mendham the editor of the

772

00:34:33,860 --> 00:34:32,400

skeptic magazine and we're looking

773

00:34:36,500 --> 00:34:33,870

forward to the next issue coming out

774

00:34:38,570 --> 00:34:36,510

soon in about a week's time what are

775

00:34:40,040 --> 00:34:38,580

some of the topics so readers can look

776

00:34:41,960 --> 00:34:40,050

forward to well we got a lot of topical

777

00:34:43,850 --> 00:34:41,970

special feature this time on Lord law

778

00:34:47,410 --> 00:34:43,860

and skepticism including an anonymous

779

00:34:49,640 --> 00:34:47,420

article from a secret service person

780

00:34:51,980 --> 00:34:49,650

we're talking about how they apply

781

00:34:54,680 --> 00:34:51,990

skepticism in that profession radical

782

00:34:55,940 --> 00:34:54,690

the law in medicine how doctors and what

783

00:34:58,520 --> 00:34:55,950

they can actually do with people who

784

00:35:00,650 --> 00:34:58,530

want strange things have a good number

785

00:35:02,180 --> 00:35:00,660

of other articles usual sort of weird

786

00:35:04,730 --> 00:35:02,190

and wonderful sort of wacky sort of

787

00:35:06,170 --> 00:35:04,740

selection we've got cargo cults and

788

00:35:09,890 --> 00:35:06,180

we've got what else we got we've got

789

00:35:10,910 --> 00:35:09,900

various real cults and far too many

790

00:35:13,280 --> 00:35:10,920

things to remember off the top my head

791

00:35:15,050 --> 00:35:13,290

is this late in the evening well I'm

792

00:35:16,820 --> 00:35:15,060

actually rather excited to get the next

793

00:35:19,610 --> 00:35:16,830

day I'm issue of the magazine because I

794

00:35:22,010 --> 00:35:19,620

finally got myself an ipad and I plan on

795

00:35:23,840 --> 00:35:22,020

reading it on my lovely new I

796

00:35:26,000 --> 00:35:23,850

did you split the question that we will

797

00:35:28,100 --> 00:35:26,010

human beings ever be totally rational

798

00:35:29,030 --> 00:35:28,110

yes and if so how long will it do you

799

00:35:31,670 --> 00:35:29,040

think it's going to take centuries

800

00:35:34,340 --> 00:35:31,680

decades millennium I think next Tuesday

801
00:35:35,960 --> 00:35:34,350
looks next Tuesday if you're talking all

802
00:35:37,430 --> 00:35:35,970
of them no actually I think it's getting

803
00:35:40,040 --> 00:35:37,440
better look at the number of people who

804
00:35:42,440 --> 00:35:40,050
were actually have no religion it's

805
00:35:44,300 --> 00:35:42,450
growing they might have no religion but

806
00:35:46,340 --> 00:35:44,310
they still there are some other areas

807
00:35:47,720 --> 00:35:46,350
where they can still be irrational I'm

808
00:35:49,670 --> 00:35:47,730
just running in the corners actually

809
00:35:51,290 --> 00:35:49,680
everywhere just corner them down paint

810
00:35:52,520 --> 00:35:51,300
them in the corners and eventually now

811
00:35:54,170 --> 00:35:52,530
there'll always be people who believe

812
00:35:55,670 --> 00:35:54,180
weird things and as soon as your block

813
00:35:58,010 --> 00:35:55,680

off one thing the people turn to

814

00:35:59,570 --> 00:35:58,020

something else it's a supreme art will

815

00:36:01,460 --> 00:35:59,580

be resilient is the belief that people

816

00:36:03,680 --> 00:36:01,470

have when something is a dead end

817

00:36:05,420 --> 00:36:03,690

they'll move on to something else don't

818

00:36:08,420 --> 00:36:05,430

you think the first things we need to do

819

00:36:09,530 --> 00:36:08,430

to actually really change things is to

820

00:36:14,030 --> 00:36:09,540

make it part of our political

821

00:36:17,030 --> 00:36:14,040

conversation and also to to recognize

822

00:36:20,240 --> 00:36:17,040

that we're all like that every single

823

00:36:23,370 --> 00:36:20,250

one of us to the most die-hard skeptic

824

00:36:25,230 --> 00:36:23,380

we have our irrational bits

825

00:36:26,220 --> 00:36:25,240

and until we actually recognize that I

826

00:36:28,829 --> 00:36:26,230

think it's going to be pretty hard to

827

00:36:32,279 --> 00:36:28,839

change one thing you irrational Jones oh

828

00:36:36,930 --> 00:36:32,289

absolutely i find that happily my

829

00:36:38,249 --> 00:36:36,940

husband is right there i could ask so

830

00:36:40,589 --> 00:36:38,259

that's great thank you thank you Jim and

831

00:36:42,509 --> 00:36:40,599

yes the skeptic magazine of course one

832

00:36:46,799 --> 00:36:42,519

of the finest skeptical journals in the

833

00:36:49,279 --> 00:36:46,809

world www.skype.com data you subscribe

834

00:36:52,829 --> 00:36:49,289

online thank you very much you should

835

00:36:55,079 --> 00:36:52,839

shame green up from roberta cod right

836

00:36:57,329 --> 00:36:55,089

calm that's it now what is robot out for

837

00:36:59,519 --> 00:36:57,339

those skeptics on listeners who seek of

838

00:37:01,650 --> 00:36:59,529

remember hearing about it around so it's

839

00:37:03,539 --> 00:37:01,660

a browser extension which basically

840

00:37:06,150 --> 00:37:03,549

alerts you whenever a page that you're

841

00:37:08,460 --> 00:37:06,160

reading has been rebutted elsewhere on

842

00:37:11,130 --> 00:37:08,470

the internet so yeah robotic connects

843

00:37:12,569 --> 00:37:11,140

claims to rebuttals gives you the alert

844

00:37:14,519 --> 00:37:12,579

and allows you to submit your own

845

00:37:16,410 --> 00:37:14,529

rebuttals if you find one its eyes and

846

00:37:18,480 --> 00:37:16,420

in system yet I have to build it in

847

00:37:21,120 --> 00:37:18,490

valuable valuable website now the

848

00:37:22,940 --> 00:37:21,130

question that's going around tonight two

849

00:37:25,620 --> 00:37:22,950

questions really do you think that human

850

00:37:29,880 --> 00:37:25,630

society as a whole will ever turn more

851
00:37:30,960 --> 00:37:29,890
or less to science in reason if so how

852
00:37:35,400 --> 00:37:30,970
long do you think that might take

853
00:37:37,710 --> 00:37:35,410
decades centuries I do think we will but

854
00:37:39,960 --> 00:37:37,720
I'm one of those crazy followers of the

855
00:37:42,089 --> 00:37:39,970
works of Ray Kurzweil and basically

856
00:37:44,640 --> 00:37:42,099
believe in one form or another that the

857
00:37:45,900 --> 00:37:44,650
singularity is coming so I think it's

858
00:37:49,700 --> 00:37:45,910
inevitable the technology will

859
00:37:52,410 --> 00:37:49,710
increasingly become a part of us we will

860
00:37:55,730 --> 00:37:52,420
augment our minds our brains will get

861
00:37:58,890 --> 00:37:55,740
closer and closer to this permanent

862
00:38:00,809 --> 00:37:58,900
interactive connection with the internet

863
00:38:02,970 --> 00:38:00,819

and we will augment not only our

864

00:38:04,620 --> 00:38:02,980

connection to it to the the breadth of

865

00:38:06,870 --> 00:38:04,630

human knowledge but also our ability to

866

00:38:10,109 --> 00:38:06,880

think so we will end up making ourselves

867

00:38:12,269 --> 00:38:10,119

so logical and rational that will feel

868

00:38:14,519 --> 00:38:12,279

stupid to do anything but apply that

869

00:38:15,569 --> 00:38:14,529

rationality and how long I think that'll

870

00:38:17,830 --> 00:38:15,579

take I think it would be less than a

871

00:38:19,600 --> 00:38:17,840

hundred years Wow

872

00:38:20,830 --> 00:38:19,610

I must admit when somebody put this

873

00:38:22,390 --> 00:38:20,840

question to me a very good friend of

874

00:38:25,390 --> 00:38:22,400

mine by the name of Philip us coffee

875

00:38:27,490 --> 00:38:25,400

hello Philip you listening i agreed that

876

00:38:29,560 --> 00:38:27,500

i thought yeah of n chua lee i think we

877

00:38:32,860 --> 00:38:29,570

will but I gave it about two centuries

878

00:38:36,310 --> 00:38:32,870

yeah I think um and of course I this all

879

00:38:38,290 --> 00:38:36,320

has to be tempered with based on

880

00:38:40,210 --> 00:38:38,300

believing reycarts all sort of arguments

881

00:38:42,850 --> 00:38:40,220

and there's lots of there's a lot to

882

00:38:45,640 --> 00:38:42,860

criticisms of them but this is my

883

00:38:50,620 --> 00:38:45,650

current belief happy to be challenged on

884

00:38:52,810 --> 00:38:50,630

it there was another thing it's also

885

00:38:55,330 --> 00:38:52,820

even in that that's actually chances

886

00:38:57,280 --> 00:38:55,340

either won't be everyone it may actually

887

00:38:59,260 --> 00:38:57,290

be the case you will always get the the

888

00:39:02,290 --> 00:38:59,270

people that refuse technology and and

889

00:39:04,870 --> 00:39:02,300

will live in a natural state there will

890

00:39:07,240 --> 00:39:04,880

be the naturals so who knows you know

891

00:39:10,060 --> 00:39:07,250

I'm sorry I'm really reminded of a brave

892

00:39:12,670 --> 00:39:10,070

new world now yeah it may be a look like

893

00:39:14,830 --> 00:39:12,680

that he's got a simple simons savage and

894

00:39:19,770 --> 00:39:14,840

i haven't read it for many years I've

895

00:39:24,420 --> 00:39:22,030

well things are quieting down a little

896

00:39:26,710 --> 00:39:24,430

bit now and I found Jessica singer a

897

00:39:28,720 --> 00:39:26,720

secretary of Australian skeptics hello

898

00:39:31,920 --> 00:39:28,730

Jessica hey Richard how are you going

899

00:39:35,500 --> 00:39:31,930

I'm sorry well I can hardly believe it

900

00:39:37,120 --> 00:39:35,510

I'm skeptical about our where I am now

901
00:39:40,030 --> 00:39:37,130
the questions now it's sort of like two

902
00:39:43,420 --> 00:39:40,040
questions in one do you think the human

903
00:39:45,940 --> 00:39:43,430
society will ever generally or on the

904
00:39:48,150 --> 00:39:45,950
whole turn to sign some reason and if so

905
00:39:50,980 --> 00:39:48,160
how long do you think that might take ah

906
00:39:52,930 --> 00:39:50,990
well I think my answer to the first

907
00:39:55,710 --> 00:39:52,940
question sort of renders the second

908
00:39:58,540 --> 00:39:55,720
question obsolete oh I don't think

909
00:40:00,550 --> 00:39:58,550
unfortunately I don't think human

910
00:40:03,070 --> 00:40:00,560
society is going to turn to science and

911
00:40:05,530 --> 00:40:03,080
reason I I actually don't think we're

912
00:40:07,170 --> 00:40:05,540
made that way and I think somebody like

913
00:40:09,059 --> 00:40:07,180

Christie Wilson

914

00:40:11,549 --> 00:40:09,069

who you've no doubt had on the zone

915

00:40:13,650 --> 00:40:11,559

before oh yes she's our roving reporter

916

00:40:16,020 --> 00:40:13,660

and there you go and she's doing a lot

917

00:40:17,819 --> 00:40:16,030

of work in this area and you know why

918

00:40:21,329 --> 00:40:17,829

people believe things and why people

919

00:40:24,270 --> 00:40:21,339

believe weird things and yeah I think I

920

00:40:26,339 --> 00:40:24,280

think what's interesting is you know why

921

00:40:30,000 --> 00:40:26,349

humans have this tendency and why we

922

00:40:33,000 --> 00:40:30,010

made that way and and yo so I'm very

923

00:40:35,880 --> 00:40:33,010

interested in her work but I don't think

924

00:40:39,210 --> 00:40:35,890

there's a fantastic prospect for

925

00:40:41,880 --> 00:40:39,220

Humanity generally I Deary Deary Deary

926
00:40:43,980 --> 00:40:41,890
me I know it doesn't sound depressing

927
00:40:46,230 --> 00:40:43,990
that hey you know life is fun and you

928
00:40:48,750 --> 00:40:46,240
can have a great a great time along the

929
00:40:51,210 --> 00:40:48,760
way and I do and skeptics know how to

930
00:40:52,710 --> 00:40:51,220
party we do it's interesting Jesse

931
00:40:54,660 --> 00:40:52,720
because I asked the same question to

932
00:40:57,630 --> 00:40:54,670
some people tonight including Joe

933
00:41:00,450 --> 00:40:57,640
minimal now the interesting thing is the

934
00:41:02,069 --> 00:41:00,460
females i asked give the pessimistic ad

935
00:41:06,000 --> 00:41:02,079
said the male's give the optimistic

936
00:41:07,710 --> 00:41:06,010
answer oh that's actually so far yeah

937
00:41:10,160 --> 00:41:07,720
that's really interesting maybe Chrissy

938
00:41:13,799 --> 00:41:10,170

Wilson should have a look at that mmm

939

00:41:15,750 --> 00:41:13,809

there's a thought yeah well that that's

940

00:41:18,150 --> 00:41:15,760

really interesting and I could not I

941

00:41:20,730 --> 00:41:18,160

could not even begin to speculate why

942

00:41:23,720 --> 00:41:20,740

that would be it's a very small sample

943

00:41:26,750 --> 00:41:23,730

size this is true the small sample size

944

00:41:30,599 --> 00:41:26,760

hardly representative and not

945

00:41:33,089 --> 00:41:30,609

statistically significant I am forced to

946

00:41:36,630 --> 00:41:33,099

agree I'd better ask somebody else good

947

00:41:39,650 --> 00:41:36,640

one see you later and the question

948

00:41:43,170 --> 00:41:39,660

tonight of course is do you think that

949

00:41:44,789 --> 00:41:43,180

someday human society as a whole will

950

00:41:47,549 --> 00:41:44,799

turn to the side of science and reason

951
00:41:48,770 --> 00:41:47,559
and if so how long do you think that

952
00:41:50,480 --> 00:41:48,780
would take

953
00:41:52,250 --> 00:41:50,490
I learnt expected to happen in a hurry

954
00:41:54,440 --> 00:41:52,260
because I think people have an instinct

955
00:41:56,990 --> 00:41:54,450
to find patterns where there aren't any

956
00:42:00,350 --> 00:41:57,000
patterns and do whatever will make it

957
00:42:02,300 --> 00:42:00,360
you know require less effort to think so

958
00:42:04,700 --> 00:42:02,310
I think people always want easy answers

959
00:42:06,400 --> 00:42:04,710
prefer something's lean mystical rather

960
00:42:09,530 --> 00:42:06,410
than things to be determined through

961
00:42:11,600 --> 00:42:09,540
deduction and very careful analysis

962
00:42:13,370 --> 00:42:11,610
because that requires effort so I think

963
00:42:15,340 --> 00:42:13,380

it takes an active effort to educate

964

00:42:17,780 --> 00:42:15,350

people to think scientifically

965

00:42:19,720 --> 00:42:17,790

analytically to look for evidence for

966

00:42:23,360 --> 00:42:19,730

things such to think critically and

967

00:42:25,010 --> 00:42:23,370

based on that I think there are reasons

968

00:42:26,930 --> 00:42:25,020

why humans evolved to draw conclusions

969

00:42:29,750 --> 00:42:26,940

quickly back when we were you know

970

00:42:31,970 --> 00:42:29,760

living you know like cavemen in the wild

971

00:42:35,690 --> 00:42:31,980

you know yet to adapt to threats of wild

972

00:42:37,610 --> 00:42:35,700

animals you know and those instincts and

973

00:42:39,380 --> 00:42:37,620

take a while to go away I don't know

974

00:42:40,610 --> 00:42:39,390

whether they'll go away from evolutionary

975

00:42:42,980 --> 00:42:40,620

because we'll have an education system

976

00:42:47,000 --> 00:42:42,990

that instills them is so thoroughly from

977

00:42:48,740 --> 00:42:47,010

a young age but yeah I think I I reckon

978

00:42:51,910 --> 00:42:48,750

lino centuries I'm not going to be an

979

00:42:58,070 --> 00:42:51,920

optimist it's um it'll be a struggle

980

00:43:00,470 --> 00:42:58,080

good answer thank you a gauge boson yes

981

00:43:01,820 --> 00:43:00,480

but sometimes you get three gluons

982

00:43:03,890 --> 00:43:01,830

holding three quarks together then

983

00:43:05,900 --> 00:43:03,900

you've got a present or a neutron folks

984

00:43:07,790 --> 00:43:05,910

that the conversations that skeptics in

985

00:43:09,590 --> 00:43:07,800

the pub just boggled my mind it's ian

986

00:43:11,390 --> 00:43:09,600

Bryce the chief investigator from

987

00:43:14,270 --> 00:43:11,400

destroying skeptics Ian what are you

988

00:43:18,920 --> 00:43:14,280

raving it I'm talking about our entry in

989

00:43:20,390 --> 00:43:18,930

the Mardi Gras 2013 well and you got

990

00:43:22,400 --> 00:43:20,400

some photographs there can you just

991

00:43:24,470 --> 00:43:22,410

throw it is can you briefly explain what

992

00:43:26,060 --> 00:43:24,480

was the float who was the float and what

993

00:43:28,280 --> 00:43:26,070

all about okay the float was called the

994

00:43:30,230 --> 00:43:28,290

Higgs boson the godless particle because

995

00:43:32,420 --> 00:43:30,240

the haha of course the media dubbed it

996

00:43:34,550 --> 00:43:32,430

the god particle but atheists know it's

997

00:43:36,320 --> 00:43:34,560

the godless particle and the aim was to

998

00:43:38,349 --> 00:43:36,330

celebrate the discovery of the decade

999

00:43:41,990 --> 00:43:38,359

the scientific discovery of the decade

1000

00:43:43,580 --> 00:43:42,000

and also we color and motion involved

1001
00:43:45,320 --> 00:43:43,590
each person participating was an

1002
00:43:47,720 --> 00:43:45,330
elementary particle of quark or

1003
00:43:50,590 --> 00:43:47,730
electronic we're on or photon on so

1004
00:43:53,990 --> 00:43:50,600
forth and also they form relationships

1005
00:43:55,550 --> 00:43:54,000
as in human relationships so during the

1006
00:43:57,380 --> 00:43:55,560
choreography the particles joined

1007
00:44:00,230 --> 00:43:57,390
together in ones and twos and threes

1008
00:44:02,390 --> 00:44:00,240
much like humans do mixed couples and

1009
00:44:03,980 --> 00:44:02,400
opposite couples and same couples and

1010
00:44:06,320 --> 00:44:03,990
triples and so forth so we drew

1011
00:44:08,240 --> 00:44:06,330
parallels between the theme of the Mardi

1012
00:44:10,130 --> 00:44:08,250
Gras which is all the different sexual

1013
00:44:11,840 --> 00:44:10,140

orientations and the way elementary

1014

00:44:14,030 --> 00:44:11,850

particles relate I think the audience

1015

00:44:15,950 --> 00:44:14,040

loved that and it looks it looks

1016

00:44:18,470 --> 00:44:15,960

spectacular you've got lots of lanterns

1017

00:44:20,420 --> 00:44:18,480

and people with giant sort of plastic

1018

00:44:22,250 --> 00:44:20,430

slinkies and marching along and there

1019

00:44:24,170 --> 00:44:22,260

there are you sitting up on the back of

1020

00:44:26,120 --> 00:44:24,180

a truck directing the action yes I was

1021

00:44:30,020 --> 00:44:26,130

the Higgs boson I was giving directions

1022

00:44:31,609 --> 00:44:30,030

to the both the audience from the sides

1023

00:44:33,380 --> 00:44:31,619

who wanted to know what was going on and

1024

00:44:34,670 --> 00:44:33,390

also to the dancers who wanted to know

1025

00:44:36,859 --> 00:44:34,680

which part of the choreography was

1026

00:44:38,990 --> 00:44:36,869

coming next so I was holding up cue

1027

00:44:41,720 --> 00:44:39,000

cards and making announcements now he in

1028

00:44:43,880 --> 00:44:41,730

something completely different to what

1029

00:44:45,950 --> 00:44:43,890

we've been discussing tonight I happen

1030

00:44:48,800 --> 00:44:45,960

to notice you told me and I've known

1031

00:44:50,530 --> 00:44:48,810

your dog for many years safi sapphire

1032

00:44:54,500 --> 00:44:50,540

sapphire

1033

00:44:56,930 --> 00:44:54,510

she is an elderly dog who has been going

1034

00:44:58,730 --> 00:44:56,940

blind and was blind for a few years but

1035

00:45:01,940 --> 00:44:58,740

Thank You science Thank You science

1036

00:45:04,040 --> 00:45:01,950

she's can now see you again yes indeed

1037

00:45:07,760 --> 00:45:04,050

she got cataracts in both eyes and was

1038

00:45:09,380 --> 00:45:07,770

totally blind for about a year and lost

1039

00:45:11,480 --> 00:45:09,390

a lot of interest in life but just

1040

00:45:13,580 --> 00:45:11,490

recently science to the rescue she's had

1041

00:45:16,340 --> 00:45:13,590

one eye out and one knew I were at least

1042

00:45:18,050 --> 00:45:16,350

one new lens in there I and she's

1043

00:45:21,050 --> 00:45:18,060

responded quite strange you came

1044

00:45:22,490 --> 00:45:21,060

hyperactive running around looking left

1045

00:45:24,470 --> 00:45:22,500

and right and examining everything

1046

00:45:26,330 --> 00:45:24,480

obviously enjoying life a lot more can

1047

00:45:28,580 --> 00:45:26,340

run now because a blind dog can't run

1048

00:45:30,230 --> 00:45:28,590

because going to bump into things and

1049

00:45:32,120 --> 00:45:30,240

strangely enough her appetite has

1050

00:45:34,580 --> 00:45:32,130

doubled which we can only put down to

1051

00:45:37,190 --> 00:45:34,590

the extra exercise she's getting an

1052

00:45:38,630 --> 00:45:37,200

extra interest in life such as it's

1053

00:45:40,430 --> 00:45:38,640

really been quite wonderful and just

1054

00:45:42,560 --> 00:45:40,440

shows you the wonders of science that's

1055

00:45:44,360 --> 00:45:42,570

great because i know that dog is a

1056

00:45:46,880 --> 00:45:44,370

lovely dog you've had for many years and

1057

00:45:48,560 --> 00:45:46,890

to think that now it can see again after

1058

00:45:51,080 --> 00:45:48,570

a couple of years of blindness is just

1059

00:45:52,580 --> 00:45:51,090

just fantastic yes it certainly is she

1060

00:45:58,000 --> 00:45:52,590

probably thinks well that was a bloody

1061

00:46:03,170 --> 00:46:00,650

Kathy marks journalists know what do you

1062

00:46:04,880 --> 00:46:03,180

think my brain is working very slowly

1063

00:46:05,860 --> 00:46:04,890

tonight because I've just been I hope

1064

00:46:08,330 --> 00:46:05,870

another day off for about three weeks

1065

00:46:09,530 --> 00:46:08,340

but off the top of my head I would say

1066

00:46:10,520 --> 00:46:09,540

no I don't think that they will

1067

00:46:12,620 --> 00:46:10,530

eventually turn slanting rays

1068

00:46:14,000 --> 00:46:12,630

unfortunately I just I just don't I feel

1069

00:46:16,580 --> 00:46:14,010

more am I think that more and more

1070

00:46:18,770 --> 00:46:16,590

people are attracted to mumbo-jumbo you

1071

00:46:21,020 --> 00:46:18,780

know pseudoscience myths all that

1072

00:46:22,690 --> 00:46:21,030

rubbish why because probably turning

1073

00:46:25,400 --> 00:46:22,700

away from religion and you know

1074

00:46:27,740 --> 00:46:25,410

world-changing globalization blah blah

1075

00:46:28,940 --> 00:46:27,750

bar and they see this sort of stuff for

1076
00:46:32,180 --> 00:46:28,950
something to cling onto now that's just

1077
00:46:33,680 --> 00:46:32,190
a very kind of you know you feel

1078
00:46:36,089 --> 00:46:33,690
response from me but

1079
00:46:37,259 --> 00:46:36,099
it's interesting I've got some very

1080
00:46:40,470 --> 00:46:37,269
interesting answers to that question

1081
00:46:42,150 --> 00:46:40,480
when it was asked of me I answered more

1082
00:46:43,650 --> 00:46:42,160
or less in the positive that's what I

1083
00:46:45,569 --> 00:46:43,660
thought it might take a couple centuries

1084
00:46:48,690 --> 00:46:45,579
you thought it might take a couple of

1085
00:46:51,839 --> 00:46:48,700
centuries oh I just call it that far

1086
00:46:55,920 --> 00:46:51,849
ahead it is difficult in this difficult

1087
00:46:57,990 --> 00:46:55,930
oh it's almost it's almost closing time

1088
00:47:00,960 --> 00:46:58,000

at the pub there's a few scrag leurs and

1089

00:47:04,799 --> 00:47:00,970

hangers-on hello hi and who do we have

1090

00:47:07,230 --> 00:47:04,809

here I'm Emma Marcum from the UK just

1091

00:47:09,750 --> 00:47:07,240

visiting um I'm actually over here

1092

00:47:12,150 --> 00:47:09,760

working for a year excellent having a

1093

00:47:15,089 --> 00:47:12,160

good time at home yes it's it's really

1094

00:47:17,910 --> 00:47:15,099

amazing i'm loving sydney oh that's so

1095

00:47:20,029 --> 00:47:17,920

nice to hear and what brings you out

1096

00:47:22,349 --> 00:47:20,039

here what are you working at so

1097

00:47:24,420 --> 00:47:22,359

originally my motivation for coming here

1098

00:47:27,079 --> 00:47:24,430

is I was working in clinical trials in

1099

00:47:29,579 --> 00:47:27,089

the UK and I was starting getting a bit

1100

00:47:31,710 --> 00:47:29,589

disillusioned by it all and wanted to

1101
00:47:34,349 --> 00:47:31,720
try something new and I i understood

1102
00:47:38,130 --> 00:47:34,359
that Australia is an exciting place for

1103
00:47:40,349 --> 00:47:38,140
scientists and you're not experienced

1104
00:47:42,089 --> 00:47:40,359
the same same same kind of a recession

1105
00:47:43,920 --> 00:47:42,099
that Europe is in at the moment so I

1106
00:47:46,620 --> 00:47:43,930
thought I should come out here for new

1107
00:47:48,180 --> 00:47:46,630
opportunities really what a great idea

1108
00:47:50,339 --> 00:47:48,190
what there you are folks there's the

1109
00:47:51,960 --> 00:47:50,349
word come out to Australia for new

1110
00:47:53,670 --> 00:47:51,970
opportunities now why you're here and

1111
00:47:54,630 --> 00:47:53,680
I'm so pleased to see you at skeptics in

1112
00:47:56,880 --> 00:47:54,640
the pub and I hope you've had a good

1113
00:47:58,920 --> 00:47:56,890

time yes it's been amazing it's kind of

1114

00:48:01,890 --> 00:47:58,930

an interesting contrast between the

1115

00:48:05,759 --> 00:48:01,900

skeptics movement in the UK where it's a

1116

00:48:07,589 --> 00:48:05,769

very casual in the pub and they do a

1117

00:48:08,999 --> 00:48:07,599

little presentation it's sort of very

1118

00:48:12,059 --> 00:48:09,009

interesting that you also include a

1119

00:48:16,319 --> 00:48:12,069

dinner and I think the talks are sort of

1120

00:48:17,819 --> 00:48:16,329

more sort of based on Australian ideas

1121

00:48:19,319 --> 00:48:17,829

and current issues and I think that

1122

00:48:20,730 --> 00:48:19,329

that's really interesting to sort of get

1123

00:48:23,880 --> 00:48:20,740

a better understanding of the country

1124

00:48:26,380 --> 00:48:23,890

and how skepticism works in Australia

1125

00:48:28,089 --> 00:48:26,390

delighted to hear now the question

1126

00:48:30,909 --> 00:48:28,099

tonight will sort of like two questions

1127

00:48:33,609 --> 00:48:30,919

in one do you think that human society

1128

00:48:36,549 --> 00:48:33,619

in general will ever eventually turn the

1129

00:48:40,479 --> 00:48:36,559

science and reason and if so how long do

1130

00:48:42,729 --> 00:48:40,489

you think that might take I think that

1131

00:48:45,179 --> 00:48:42,739

there is certainly propensity to to move

1132

00:48:47,709 --> 00:48:45,189

towards reason especially when you

1133

00:48:50,529 --> 00:48:47,719

provide the facts and information and

1134

00:48:55,469 --> 00:48:50,539

education but also I think people are

1135

00:48:57,519 --> 00:48:55,479

easily deceived and led astray by

1136

00:48:59,739 --> 00:48:57,529

pseudoscience and things that seem to

1137

00:49:02,099 --> 00:48:59,749

add up but then really don't so I think

1138

00:49:05,559 --> 00:49:02,109

it will take a long time the sin Leah a

1139

00:49:08,709 --> 00:49:05,569

movement towards more chicken reasoning

1140

00:49:10,959 --> 00:49:08,719

I definitely agree that there is we can

1141

00:49:13,689 --> 00:49:10,969

see that in the UK where now the latest

1142

00:49:15,639 --> 00:49:13,699

census has indicated that twenty five

1143

00:49:17,919 --> 00:49:15,649

percent of the population don't believe

1144

00:49:19,509 --> 00:49:17,929

in any God or any religious figure so

1145

00:49:22,149 --> 00:49:19,519

that would indicate that sort of

1146

00:49:24,339 --> 00:49:22,159

everything is moving more to a logical

1147

00:49:26,049 --> 00:49:24,349

and reasoning basis and as science is

1148

00:49:29,019 --> 00:49:26,059

moving forward people are getting more

1149

00:49:31,239 --> 00:49:29,029

educated in what is real and and what is

1150

00:49:34,269 --> 00:49:31,249

not and being able to explain what what

1151

00:49:36,009 --> 00:49:34,279

is it real recently you know things like

1152

00:49:38,139 --> 00:49:36,019

you know hallucinations can now be

1153

00:49:41,859 --> 00:49:38,149

explained like as a mental thing rather

1154

00:49:44,620 --> 00:49:41,869

than you know rather than a mystical God

1155

00:49:45,939 --> 00:49:44,630

yeah so absolutely i think it's going to

1156

00:49:47,529 --> 00:49:45,949

take a long time but i think that

1157

00:49:50,259 --> 00:49:47,539

there's definitely signals that it's

1158

00:49:53,559 --> 00:49:50,269

it's moving that way that's very

1159

00:49:57,189 --> 00:49:53,569

positive banter and what time frame are

1160

00:49:59,409 --> 00:49:57,199

we looking at decades centuries I'd say

1161

00:50:02,649 --> 00:49:59,419

definitely decades I'd like to be more

1162

00:50:05,319 --> 00:50:02,659

positive than four centuries I mean but

1163

00:50:07,719 --> 00:50:05,329

if we compare you know how things were

1164

00:50:11,139 --> 00:50:07,729

in you know a hundred years ago we've

1165

00:50:13,509 --> 00:50:11,149

moved you know huge leaps and bounds

1166

00:50:15,819 --> 00:50:13,519

forward and especially you know as we

1167

00:50:18,279 --> 00:50:15,829

improve in technology and everyone

1168

00:50:20,570 --> 00:50:18,289

starts to get a better level education

1169

00:50:23,030 --> 00:50:20,580

and understanding about technology

1170

00:50:24,740 --> 00:50:23,040

we start to sort of debunk all the

1171

00:50:26,150 --> 00:50:24,750

things that we used to believe in so I

1172

00:50:28,910 --> 00:50:26,160

think it's going to get faster and

1173

00:50:31,910 --> 00:50:28,920

faster hopefully exponential but don't

1174

00:50:33,410 --> 00:50:31,920

quote me but you know I'd like to I'd

1175

00:50:36,110 --> 00:50:33,420

like to think that it's in the next two

1176

00:50:38,630 --> 00:50:36,120

decades that we would be able to get rid

1177

00:50:40,250 --> 00:50:38,640

of ideas such as homeopathy and

1178

00:50:42,800 --> 00:50:40,260

chiropractors and things like that and

1179

00:50:45,530 --> 00:50:42,810

get to more of a you know a factual

1180

00:50:48,020 --> 00:50:45,540

basis and you know science basis for all

1181

00:50:50,180 --> 00:50:48,030

the decisions we make I certainly hope

1182

00:50:52,040 --> 00:50:50,190

so now what part of the UK you from I'm

1183

00:50:55,100 --> 00:50:52,050

originally from Cambridge but I mostly

1184

00:50:56,960 --> 00:50:55,110

live and work in London how long have

1185

00:50:59,900 --> 00:50:56,970

you been in Australia now I've just

1186

00:51:01,460 --> 00:50:59,910

moved to australia in december so only

1187

00:51:02,690 --> 00:51:01,470

been here a couple of month old you know

1188

00:51:05,420 --> 00:51:02,700

you've already picked up a little

1189

00:51:07,310 --> 00:51:05,430

Australian action yes I'm sorry I

1190

00:51:10,580 --> 00:51:07,320

haven't have to apologize for it the

1191

00:51:12,410 --> 00:51:10,590

local influence what can I say lovely to

1192

00:51:16,430 --> 00:51:12,420

see you with your double helix earrings

1193

00:51:19,340 --> 00:51:16,440

yes thank you I i I'm very passionate

1194

00:51:21,710 --> 00:51:19,350

about science and I just really love and

1195

00:51:25,130 --> 00:51:21,720

enjoy it so much that i find it inspires

1196

00:51:42,450 --> 00:51:25,140

me and and yeah i really love being here

1197

00:51:47,020 --> 00:51:45,430

this is ben Radford I'm deputy editor of

1198

00:51:49,060 --> 00:51:47,030

skeptical inquirer science magazine

1199

00:51:50,980 --> 00:51:49,070

author of six books including tracking

1200

00:52:12,450 --> 00:51:50,990

chupacabra and you can find out more

1201
00:52:16,660 --> 00:52:15,010
well I'm here would want us Bay people

1202
00:52:18,250 --> 00:52:16,670
and I could not be more excited in my

1203
00:52:21,070 --> 00:52:18,260
little small pants because I'm actually

1204
00:52:22,750 --> 00:52:21,080
touching at this very moment a DeLorean

1205
00:52:25,330 --> 00:52:22,760
that's right there's only a couple of

1206
00:52:26,350 --> 00:52:25,340
them around and this is an electric one

1207
00:52:27,850 --> 00:52:26,360
I mean a lot of people talk about

1208
00:52:29,410 --> 00:52:27,860
science a lot of people talk a big game

1209
00:52:30,940 --> 00:52:29,420
about science but here's a guy is

1210
00:52:33,670 --> 00:52:30,950
actually done something for science and

1211
00:52:36,130 --> 00:52:33,680
turned a DeLorean car into an electric

1212
00:52:38,050 --> 00:52:36,140
DeLorean car who are you and why would

1213
00:52:39,400 --> 00:52:38,060

you do a crazy thing like this ok my

1214

00:52:41,620 --> 00:52:39,410

name is Brett Sutherland from solar

1215

00:52:43,420 --> 00:52:41,630

power shreya other reason is I've always

1216

00:52:45,310 --> 00:52:43,430

had a passion for the DeLorean probably

1217

00:52:48,340 --> 00:52:45,320

since the movies back to the future

1218

00:52:51,160 --> 00:52:48,350

movies and also order to to build

1219

00:52:52,720 --> 00:52:51,170

electric car so it's hard to do both but

1220

00:52:54,010 --> 00:52:52,730

this is like for some people this could

1221

00:52:55,960 --> 00:52:54,020

be sacrilege it could be could be like a

1222

00:52:57,490 --> 00:52:55,970

Ferrari Enzo like ripping out the engine

1223

00:52:58,930 --> 00:52:57,500

and putting something in did you have to

1224

00:53:00,610 --> 00:52:58,940

think deep and long about this because

1225

00:53:02,260 --> 00:53:00,620

if you has the value of the kind of been

1226
00:53:03,970 --> 00:53:02,270
affected by turning into an electric one

1227
00:53:05,890 --> 00:53:03,980
well there's a couple of points here

1228
00:53:07,720 --> 00:53:05,900
like one of my mates is exactly like

1229
00:53:10,180 --> 00:53:07,730
that he was pretty well against be

1230
00:53:12,280 --> 00:53:10,190
pulling the motor out with the blah does

1231
00:53:13,540 --> 00:53:12,290
he drive butter HQ Kingswood no he's in

1232
00:53:15,400 --> 00:53:13,550
the Mustangs and things like that but

1233
00:53:16,450 --> 00:53:15,410
like I said HQ kids would yeah just what

1234
00:53:18,160 --> 00:53:16,460
a bigger motor on a different shape

1235
00:53:20,620 --> 00:53:18,170
that's right but in one day is an

1236
00:53:23,200 --> 00:53:20,630
American Mustangs a girl's car exactly

1237
00:53:24,940 --> 00:53:23,210
but here's against it as long with a lot

1238
00:53:27,070 --> 00:53:24,950

of other people but he's now seen the

1239

00:53:28,990 --> 00:53:27,080

vehicle and realizes it was done well

1240

00:53:31,270 --> 00:53:29,000

and it's actually improved the vehicle

1241

00:53:33,730 --> 00:53:31,280

and the motor it was in indy car wasn't

1242

00:53:35,830 --> 00:53:33,740

that powerful I cuz a 2.8 liter v6 which

1243

00:53:38,290 --> 00:53:35,840

was about 130 horsepower and there was a

1244

00:53:40,480 --> 00:53:38,300

lotus engine it was a puja renault

1245

00:53:43,510 --> 00:53:40,490

evolve our engine so prv they called it

1246

00:53:45,460 --> 00:53:43,520

well okay so where did you find one as

1247

00:53:47,200 --> 00:53:45,470

far as i know very few were sold in this

1248

00:53:49,510 --> 00:53:47,210

country and there was an expensive

1249

00:53:52,450 --> 00:53:49,520

process well there's a guy who imports

1250

00:53:54,220 --> 00:53:52,460

us cars to sell and and make a little

1251
00:53:56,380 --> 00:53:54,230
bit of money for charities he actually

1252
00:53:58,510 --> 00:53:56,390
brought it in and pre much too soon as a

1253
00:54:00,370 --> 00:53:58,520
gaudy I bought it off him so I found it

1254
00:54:02,230 --> 00:54:00,380
they sort of valued around forty to

1255
00:54:04,750 --> 00:54:02,240
fifty thousand dollars for for a car in

1256
00:54:06,370 --> 00:54:04,760
a standard form and it was spent

1257
00:54:07,990 --> 00:54:06,380
probably about fifty or sixty thousand

1258
00:54:09,370 --> 00:54:08,000
dollars converting it now did you get

1259
00:54:10,870 --> 00:54:09,380
the thing where you put the banana on

1260
00:54:12,160 --> 00:54:10,880
top and it turns it into fusion and you

1261
00:54:14,710 --> 00:54:12,170
can just drive away like in the movie

1262
00:54:16,540 --> 00:54:14,720
know yet what didn't have a mr. fusion

1263
00:54:19,080 --> 00:54:16,550

with it not yet but maybe it's something

1264

00:54:21,820 --> 00:54:19,090

could add but now i'm looking here and

1265

00:54:23,980 --> 00:54:21,830

because i know i believe the technical

1266

00:54:26,650 --> 00:54:23,990

term is if I about convert

1267

00:54:28,450 --> 00:54:26,660

a car to electric what was the main

1268

00:54:29,890 --> 00:54:28,460

challenge I mean to me you've got a huge

1269

00:54:30,700 --> 00:54:29,900

area in the front here where you could

1270

00:54:32,620 --> 00:54:30,710

put something is that where the

1271

00:54:34,930 --> 00:54:32,630

batteries ago there are some batteries

1272

00:54:36,700 --> 00:54:34,940

in the front Richard did this room in

1273

00:54:38,290 --> 00:54:36,710

the boot unlike a lot of electric cars

1274

00:54:40,210 --> 00:54:38,300

particularly the mini that was converted

1275

00:54:41,560 --> 00:54:40,220

to electric reason later there's room in

1276

00:54:43,180 --> 00:54:41,570

the boot here that's right well we

1277

00:54:44,980 --> 00:54:43,190

actually the only thing we took it out

1278

00:54:46,210 --> 00:54:44,990

was a spare wheel well so we cut that

1279

00:54:47,950 --> 00:54:46,220

section out so the batteries are

1280

00:54:50,260 --> 00:54:47,960

actually in there there's more batteries

1281

00:54:52,510 --> 00:54:50,270

in the back and essentially it's got so

1282

00:54:54,670 --> 00:54:52,520

there are spaces I had before but

1283

00:54:56,740 --> 00:54:54,680

obviously you would never go drag racing

1284

00:54:59,590 --> 00:54:56,750

in this or exceed the speed limit but if

1285

00:55:02,440 --> 00:54:59,600

someone was in a fictitious situation to

1286

00:55:04,990 --> 00:55:02,450

do that what are you not 100 and

1287

00:55:06,700 --> 00:55:05,000

possibly a top speed that possibly a car

1288

00:55:09,250 --> 00:55:06,710

like this could obtain in a fictional

1289

00:55:10,660 --> 00:55:09,260

condition well I would guess like

1290

00:55:12,760 --> 00:55:10,670

standard it would have done a bit not

1291

00:55:13,810 --> 00:55:12,770

110 seconds which is not very impressive

1292

00:55:16,900 --> 00:55:13,820

but I think it'll be more like seven

1293

00:55:18,340 --> 00:55:16,910

alright maybe they're so haven't tried

1294

00:55:19,810 --> 00:55:18,350

it yet but it does pull a lot harder

1295

00:55:21,100 --> 00:55:19,820

than it used to and of course the

1296

00:55:23,980 --> 00:55:21,110

deloreans known as the Back to the

1297

00:55:25,150 --> 00:55:23,990

Future car but it's also very unusual

1298

00:55:26,530 --> 00:55:25,160

because as far as I know there aren't

1299

00:55:29,260 --> 00:55:26,540

many cars that have a stainless steel

1300

00:55:30,609 --> 00:55:29,270

body now that's right this has got the

1301

00:55:32,470 --> 00:55:30,619

stainless steel outer shell which

1302

00:55:35,290 --> 00:55:32,480

actually is could be doesn't require any

1303

00:55:37,990 --> 00:55:35,300

paintwork and yeah this cars 30 years

1304

00:55:39,670 --> 00:55:38,000

older still looks quite good I was a

1305

00:55:42,070 --> 00:55:39,680

good design and the idea was to replace

1306

00:55:44,620 --> 00:55:42,080

panels in lieu of repair them now of

1307

00:55:46,090 --> 00:55:44,630

course stainless steel is heavier than

1308

00:55:48,010 --> 00:55:46,100

what you would normally have on the body

1309

00:55:49,930 --> 00:55:48,020

so as that made the car heavier overall

1310

00:55:51,849 --> 00:55:49,940

because of the stainless steel body no

1311

00:55:54,310 --> 00:55:51,859

because the style still so strong it's

1312

00:55:56,740 --> 00:55:54,320

really thin and the body itself actually

1313

00:55:58,599 --> 00:55:56,750

made of fiberglass so the stainless

1314

00:56:00,760 --> 00:55:58,609

steel is just an outer outer shell for

1315

00:56:02,770 --> 00:56:00,770

appearance yeah we probably driving down

1316

00:56:04,720 --> 00:56:02,780

the shops is that you get bow that point

1317

00:56:06,250 --> 00:56:04,730

absolutely it takes a lot longer to go

1318

00:56:08,380 --> 00:56:06,260

anywhere and say the reason any guy

1319

00:56:10,690 --> 00:56:08,390

modifies any car is to get the chicks so

1320

00:56:13,510 --> 00:56:10,700

how does it go well it seems to work it

1321

00:56:15,040 --> 00:56:13,520

types of blokes too unfortunately it

1322

00:56:16,450 --> 00:56:15,050

just gets everybody and you just kind of

1323

00:56:18,099 --> 00:56:16,460

got to work your way through the crowd

1324

00:56:20,980 --> 00:56:18,109

take a number people that's the way it's

1325

00:56:22,510 --> 00:56:20,990

got to go and of course you get the yes

1326

00:56:24,190 --> 00:56:22,520

that would be into lowering is used in

1327

00:56:26,170 --> 00:56:24,200

the yet you get a lot of gigs coming up

1328

00:56:28,030 --> 00:56:26,180

to a lot of a shooter scientists yeah

1329

00:56:29,859 --> 00:56:28,040

it's quite funny what you see see geek

1330

00:56:32,170 --> 00:56:29,869

still sort of red laughing and other

1331

00:56:33,400 --> 00:56:32,180

people just point and yeah this it's the

1332

00:56:34,690 --> 00:56:33,410

same reason why I like the car it's

1333

00:56:36,730 --> 00:56:34,700

basically it's got some sort of traction

1334

00:56:37,270 --> 00:56:36,740

about it that ever just says yeah I

1335

00:56:39,610 --> 00:56:37,280

where's your

1336

00:56:42,330 --> 00:56:39,620

capacitor but the benefit is it's got a

1337

00:56:44,380 --> 00:56:42,340

axial flux motor so he's the same deal

1338

00:56:45,970 --> 00:56:44,390

yeah and what do you think we have to

1339

00:56:48,070 --> 00:56:45,980

have as far as infrastructure goes

1340

00:56:50,080 --> 00:56:48,080

before we have a successful electric car

1341

00:56:52,090 --> 00:56:50,090

market in Australia we need obviously

1342

00:56:53,410 --> 00:56:52,100

more charging stations so that's the way

1343

00:56:56,350 --> 00:56:53,420

the future there should be more of those

1344

00:56:58,060 --> 00:56:56,360

around in quicker charging so if that

1345

00:56:59,560 --> 00:56:58,070

the charging stations can actually

1346

00:57:01,690 --> 00:56:59,570

produce a lot of power than they could

1347

00:57:03,550 --> 00:57:01,700

actually charge a vehicle within half an

1348

00:57:05,350 --> 00:57:03,560

hour so what about inductive charging

1349

00:57:06,910 --> 00:57:05,360

where if you drive up to your parking

1350

00:57:08,560 --> 00:57:06,920

spot at work or in a car station it

1351
00:57:10,510 --> 00:57:08,570
actually charges while you're on the mat

1352
00:57:12,400 --> 00:57:10,520
there is that anywhere near happening in

1353
00:57:14,290 --> 00:57:12,410
Australia I've never seen it happening

1354
00:57:16,030 --> 00:57:14,300
but yeah it sounds a wee bit idea okay

1355
00:57:17,650 --> 00:57:16,040
well I think what a good idea is to get

1356
00:57:18,970 --> 00:57:17,660
into the passenger seat of this car and

1357
00:57:23,080 --> 00:57:18,980
you take me for a bit of a drive and

1358
00:57:27,040 --> 00:57:23,090
let's just see how we go no I'm hopping

1359
00:57:29,470 --> 00:57:27,050
into the DeLorean now now unfortunately

1360
00:57:31,060 --> 00:57:29,480
no sort of carbon dioxide type gas came

1361
00:57:33,520 --> 00:57:31,070
out the bottom open the door open so

1362
00:57:36,070 --> 00:57:33,530
frankly I'm a bit disappointed there we

1363
00:57:37,120 --> 00:57:36,080

go now of course it's the first time

1364

00:57:39,190 --> 00:57:37,130

this is the first time I've ever

1365

00:57:41,140 --> 00:57:39,200

encountered a gold or is it with the

1366

00:57:44,500 --> 00:57:41,150

only the Gullwing door okay so you shut

1367

00:57:46,600 --> 00:57:44,510

it like this there we go right and I

1368

00:57:48,210 --> 00:57:46,610

tell you it's it's a nice solid pump I

1369

00:57:52,180 --> 00:57:48,220

better put the sleepin alone because

1370

00:57:55,300 --> 00:57:52,190

having seen electric cars go and

1371

00:57:56,680 --> 00:57:55,310

actually hear that everybody that's

1372

00:57:59,130 --> 00:57:56,690

right you can't hear anything because

1373

00:58:02,670 --> 00:57:59,140

it's an electric car

1374

00:58:04,590 --> 00:58:02,680

I think this might be my first time in

1375

00:58:09,270 --> 00:58:04,600

electric car little now mind you one

1376

00:58:12,090 --> 00:58:09,280

thing I must say the roof is about two

1377

00:58:14,220 --> 00:58:12,100

inches above my head I got to say

1378

00:58:16,560 --> 00:58:14,230

despite the roof being so low it's

1379

00:58:19,560 --> 00:58:16,570

contoured so it fits in there that's

1380

00:58:21,210 --> 00:58:19,570

right it's basically Joel Holy Mother of

1381

00:58:23,610 --> 00:58:21,220

pants it's got a bit of an acceleration

1382

00:58:24,990 --> 00:58:23,620

there Brett yes yeah John DeLorean was

1383

00:58:27,240 --> 00:58:25,000

quite tall himself so he had these

1384

00:58:30,120 --> 00:58:27,250

cutouts put in a roof to support tall

1385

00:58:32,820 --> 00:58:30,130

people are now you have a little bit of

1386

00:58:35,670 --> 00:58:32,830

a you've got a you've got a tablet

1387

00:58:38,310 --> 00:58:35,680

computer there reading out all the items

1388

00:58:40,430 --> 00:58:38,320

for you there and what carrots being

1389

00:58:43,410 --> 00:58:40,440

drawn from the motifs is 200 300 Debs

1390

00:58:45,570 --> 00:58:43,420

Wow yes you can idea what's happening so

1391

00:58:47,910 --> 00:58:45,580

I tells you here with capacities left in

1392

00:58:50,130 --> 00:58:47,920

the batteries so you know how much range

1393

00:58:53,460 --> 00:58:50,140

you've got went so it felt like to get

1394

00:58:55,500 --> 00:58:53,470

from pretty much zero to 260 k there

1395

00:58:59,970 --> 00:58:55,510

took about two seconds yeah its pulse

1396

00:59:01,830 --> 00:58:59,980

quite hard what I really have it now so

1397

00:59:05,040 --> 00:59:01,840

if we go fast enough will we go back to

1398

00:59:09,520 --> 00:59:05,050

the 50s with a bit of luck I'd like to

1399

00:59:14,420 --> 00:59:12,500

yeah we are cruising along now I assure

1400

00:59:15,590 --> 00:59:14,430

you everyone at exactly the speed limit

1401

00:59:19,790 --> 00:59:15,600

we are not exceeding the speed limit

1402

00:59:23,000 --> 00:59:19,800

whatsoever and it's great remember the

1403

00:59:24,860 --> 00:59:23,010

time of my life yeah I took the looks on

1404

00:59:26,900 --> 00:59:24,870

people's faces as you go past them and a

1405

00:59:29,350 --> 00:59:26,910

bit like Idaho it a helmet all right

1406

00:59:31,550 --> 00:59:29,360

look at no that's not Michael J Fox

1407

00:59:33,230 --> 00:59:31,560

that's even funny if I have my daughter

1408

00:59:35,630 --> 00:59:33,240

in the car because it's left hand drive

1409

00:59:40,250 --> 00:59:35,640

everyone thinks that she's driving but

1410

00:59:42,800 --> 00:59:40,260

she wouldn't mind that at all no oh yes

1411

00:59:44,660 --> 00:59:42,810

so look we're back at the workshop now

1412

00:59:47,450 --> 00:59:44,670

driving bus my car which makes me feel

1413

00:59:48,740 --> 00:59:47,460

pretty sad just ok well now ok now the

1414

00:59:50,240 --> 00:59:48,750

challenge of opening the Gullwing door

1415

00:59:52,880 --> 00:59:50,250

what I do a this here is this at yep

1416

00:59:55,190 --> 00:59:52,890

pull that pull that an up it goes again

1417

00:59:57,320 --> 00:59:55,200

no carbon dioxide gas coming down at the

1418

00:59:59,150 --> 00:59:57,330

bottom of it unfortunately and you got

1419

01:00:19,650 --> 00:59:59,160

to mind your head as you can get out but

1420

01:00:25,840 --> 01:00:23,020

I'm courses hello an ally Dawson to her

1421

01:00:27,430 --> 01:00:25,850

at the skeptics on podcasts were stood

1422

01:00:29,530 --> 01:00:27,440

here this is alvin Dutch Manannan

1423

01:00:32,020 --> 01:00:29,540

skeptic of abundant gift for vital

1424

01:00:36,910 --> 01:00:32,030

information newborns on the skeptic a

1425

01:00:40,030 --> 01:00:36,920

magazine bisous v.v.v point in kv OOP a

1426

01:00:44,380 --> 01:00:40,040

punk talk each vida holla vay vay vay

1427

01:01:02,020 --> 01:00:44,390

pumped TV rupee Potok on tons of it say

1428

01:01:06,140 --> 01:01:04,160

well thank you for listening to the

1429

01:01:08,510 --> 01:01:06,150

skeptic zone this week and I'm here at

1430

01:01:10,610 --> 01:01:08,520

the breakfast table still enjoying the

1431

01:01:12,320 --> 01:01:10,620

odd pancake Oh to Eden Smith thank you

1432

01:01:14,510 --> 01:01:12,330

for making those lovely pancakes you're

1433

01:01:17,120 --> 01:01:14,520

very welcome rich at any time they were

1434

01:01:18,680 --> 01:01:17,130

delicious with honey our local honey and

1435

01:01:21,380 --> 01:01:18,690

I can even hear the bees buzz note to

1436

01:01:23,210 --> 01:01:21,390

fly i'm here at the breakfast table with

1437

01:01:24,830 --> 01:01:23,220

all my skeptical friends we're here for

1438

01:01:27,500 --> 01:01:24,840

the mighty mid a muster the water

1439

01:01:30,550 --> 01:01:27,510

divining test a full report about the

1440

01:01:32,750 --> 01:01:30,560

water divining test on next week's show

1441

01:01:34,580 --> 01:01:32,760

lori do you think we'll be giving away

1442

01:01:36,860 --> 01:01:34,590

the hundred and ten thousand dollar

1443

01:01:38,990 --> 01:01:36,870

prize to a water diviner well Richard is

1444

01:01:40,820 --> 01:01:39,000

any good skeptic would say well wait

1445

01:01:43,130 --> 01:01:40,830

until we gathered the evidence I have no

1446

01:01:47,180 --> 01:01:43,140

opinion until we get the data in what a

1447

01:01:48,800 --> 01:01:47,190

good skeptic and so from the wonderful

1448

01:01:50,600 --> 01:01:48,810

countryside at midwinter andale next

1449

01:02:00,530 --> 01:01:50,610

week this is Richard Saunders signing

1450

01:02:05,510 --> 01:02:00,540

off you've been listening to the skeptic

1451

01:02:09,290 --> 01:02:05,520

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