

**THE
SKEPTIC
ZONE
PODCAST**

www.skepticzone.tv

1
00:00:09,080 --> 00:00:05,990

[Music]

2
00:00:11,830 --> 00:00:09,090

welcome to the skeptic zone the podcast

3
00:00:13,910 --> 00:00:11,840

from Australia for science and reason

4
00:00:23,180 --> 00:00:13,920

[Music]

5
00:00:30,960 --> 00:00:26,310

hello and welcome to the skeptic Zone

6
00:00:34,770 --> 00:00:30,970

podcast episode number 446 for the 7th

7
00:00:38,610 --> 00:00:34,780

of May 2017 richardsaunders here with

8
00:00:40,890 --> 00:00:38,620

you from sunny sunny sunny Sydney

9
00:00:42,979 --> 00:00:40,900

Australia I don't know why sunny echoes

10
00:00:45,750 --> 00:00:42,989

but it does today it is sunny

11
00:00:48,360 --> 00:00:45,760

there acquired in the sky looking at the

12
00:00:51,390 --> 00:00:48,370

window I don't think so it's and it's

13
00:00:53,160 --> 00:00:51,400

not hot ah and it's not muggy now if

14

00:00:53,670 --> 00:00:53,170

only Sydney could be like this more

15

00:00:55,590 --> 00:00:53,680

often

16

00:00:57,930 --> 00:00:55,600

but you don't want to hear about the

17

00:00:59,939 --> 00:00:57,940

weather no maybe you do I don't know I

18

00:01:01,950 --> 00:00:59,949

get a lot of crazy listeners you want to

19

00:01:04,640 --> 00:01:01,960

hear what's coming up on this week's

20

00:01:06,810 --> 00:01:04,650

episode of the skeptic zone interviews

21

00:01:08,850 --> 00:01:06,820

interviews yes we have lots of in it

22

00:01:10,530 --> 00:01:08,860

we'll have two two interviews we have

23

00:01:12,870 --> 00:01:10,540

we're going to kick off with an

24

00:01:16,230 --> 00:01:12,880

interview with my old buddy Michael

25

00:01:18,330 --> 00:01:16,240

Marshall from the Merseyside from the

26

00:01:20,820 --> 00:01:18,340

Liverpool skeptics man maybe more

27

00:01:23,700 --> 00:01:20,830

importantly or equally as importantly

28

00:01:24,960 --> 00:01:23,710

from the good thinking society he's

29

00:01:27,420 --> 00:01:24,970

going to be filling us in about the

30

00:01:29,120 --> 00:01:27,430

latest news over there including good

31

00:01:34,760 --> 00:01:29,130

thinking's investigation into a

32

00:01:39,950 --> 00:01:34,770

despicable horrible dreadful repugnant

33

00:01:43,620 --> 00:01:39,960

where's my thesaurus sir the disgraceful

34

00:01:46,950 --> 00:01:43,630

substance called black selves this is a

35

00:01:49,170 --> 00:01:46,960

very caustic appointment you put where

36

00:01:51,060 --> 00:01:49,180

you don't you don't put it on anything

37

00:01:55,200 --> 00:01:51,070

don't use it but avoid it throw it away

38

00:01:59,820 --> 00:01:55,210

but people claim it can cure cancer and

39

00:02:03,210 --> 00:01:59,830

it has very nasty effects indeed it

40

00:02:04,800 --> 00:02:03,220

actually burns holes in people

41

00:02:07,500 --> 00:02:04,810

it's horrible you'll hear more about

42

00:02:09,960 --> 00:02:07,510

that soon with Michael Marshall and what

43

00:02:11,280 --> 00:02:09,970

they have been doing about it in the UK

44

00:02:14,100 --> 00:02:11,290

a lesson for us all

45

00:02:16,680 --> 00:02:14,110

after that it's brouhaha from Australia

46

00:02:19,050 --> 00:02:16,690

science TV Australia Science Channel

47

00:02:21,390 --> 00:02:19,060

it's an interesting website - lots of

48

00:02:23,040 --> 00:02:21,400

videos on there and this week Casey

49

00:02:28,140 --> 00:02:23,050

Harrigan is going to be telling us about

50

00:02:32,489 --> 00:02:28,150

the UK's experiment in switching off

51
00:02:33,930 --> 00:02:32,499
fossil fuels for a day and it's a start

52
00:02:36,870 --> 00:02:33,940
very interesting

53
00:02:38,700 --> 00:02:36,880
that's brouhaha coming up later on then

54
00:02:40,470 --> 00:02:38,710
to round off this week's episode of the

55
00:02:43,200 --> 00:02:40,480
skeptic zone I'm going to be chatting to

56
00:02:46,470 --> 00:02:43,210
dr. Paul Doherty who has co-authored a

57
00:02:49,710 --> 00:02:46,480
book entitled mmm-hmm and then you're

58
00:02:52,860 --> 00:02:49,720
dead a scientific exploration of the

59
00:02:54,990 --> 00:02:52,870
world's most interesting ways to die

60
00:02:57,900 --> 00:02:55,000
what a strange book what a good book I

61
00:03:00,330 --> 00:02:57,910
can't put it down it's floating by me

62
00:03:02,880 --> 00:03:00,340
right now it's really interesting happy

63
00:03:05,010 --> 00:03:02,890

to let you in on this book tell you all

64

00:03:07,110 --> 00:03:05,020

about it with an interview with one of

65

00:03:11,520 --> 00:03:07,120

the authors coming up to round off the

66

00:03:14,990 --> 00:03:11,530

show and dr. Paul Doty in fact I noticed

67

00:03:17,250 --> 00:03:15,000

is also involved with the San Francisco

68

00:03:18,810 --> 00:03:17,260

Exploratorium I'll put a link on the

69

00:03:22,140 --> 00:03:18,820

show notes if you're visiting San

70

00:03:26,130 --> 00:03:22,150

Francisco put that on the list of things

71

00:03:28,680 --> 00:03:26,140

to do by all means the Alcatraz walk

72

00:03:31,890 --> 00:03:28,690

across the Golden Gate Bridge eat the

73

00:03:34,020 --> 00:03:31,900

clam chowder and the sourdough Bowl I'm

74

00:03:36,330 --> 00:03:34,030

all of the above are fantastic and but

75

00:03:38,940 --> 00:03:36,340

make sure you visit the San Francisco

76

00:03:40,890 --> 00:03:38,950

Exploratorium not far from the Ferry

77

00:03:42,960 --> 00:03:40,900

Building and it was very I think was a

78

00:03:45,690 --> 00:03:42,970

good move to move it closer to the

79

00:03:48,690 --> 00:03:45,700

downtown tourist area what a fascinating

80

00:03:51,449 --> 00:03:48,700

place it is and speaking of fascinating

81

00:03:53,310 --> 00:03:51,459

things to do lots of conventions coming

82

00:03:57,000 --> 00:03:53,320

up there in the latter half of this year

83

00:03:58,680 --> 00:03:57,010

I noticed in fact Michael Marshall soon

84

00:04:00,840 --> 00:03:58,690

will be telling us about QED in

85

00:04:04,470 --> 00:04:00,850

Manchester and that's the 14th or 15th

86

00:04:06,270 --> 00:04:04,480

of October we have the Northeast

87

00:04:08,400 --> 00:04:06,280

Conference of science and skepticism in

88

00:04:10,500 --> 00:04:08,410

New York in June late June early July

89

00:04:11,759 --> 00:04:10,510

and I'll be there can't wait for that

90

00:04:14,820 --> 00:04:11,769

looking forward to seeing everybody

91

00:04:16,740 --> 00:04:14,830

there catching up with James Randi and

92

00:04:19,140 --> 00:04:16,750

my friends the committee for skeptical

93

00:04:21,210 --> 00:04:19,150

inquiry see as I have a convention

94

00:04:22,740 --> 00:04:21,220

coming up in Las Vegas and I'll be

95

00:04:26,790 --> 00:04:22,750

running a promotion for that a bit later

96

00:04:29,550 --> 00:04:26,800

on that's the 26 to the 29th of October

97

00:04:32,100 --> 00:04:29,560

and the European skeptic Congress is in

98

00:04:35,070 --> 00:04:32,110

Poland this year and that's in September

99

00:04:40,440 --> 00:04:35,080

late September in the the city or the

100

00:04:42,930 --> 00:04:40,450

town of votes laughs and I think I think

101
00:04:46,500 --> 00:04:42,940
we'll be having some interviews about

102
00:04:47,010 --> 00:04:46,510
that Congress coming up soon look I will

103
00:04:50,370 --> 00:04:47,020
link

104
00:04:52,830 --> 00:04:50,380
- all those armed conventions and

105
00:04:54,330 --> 00:04:52,840
whatnot in this week's show notes

106
00:04:54,990 --> 00:04:54,340
there's lots of things happening around

107
00:05:01,260 --> 00:04:55,000
the world

108
00:05:04,770 --> 00:05:01,270
I wonder if this oh excuse me hello

109
00:05:07,530 --> 00:05:04,780
hey Richard susan gerbic hi Susan great

110
00:05:09,900 --> 00:05:07,540
to hear from you Wow what can I do for

111
00:05:14,070 --> 00:05:09,910
you well you know I'm beginning a talk

112
00:05:16,530 --> 00:05:14,080
in the Bay Area skeptics group and may

113
00:05:17,550 --> 00:05:16,540

11th and Berkeley California I was

114

00:05:19,770 --> 00:05:17,560

wondering if you might be able to

115

00:05:22,230 --> 00:05:19,780

mention that on the show a talk on the

116

00:05:24,360 --> 00:05:22,240

11th of May for the Bay Area skeptics in

117

00:05:26,700 --> 00:05:24,370

Berkeley I think I can mention that on

118

00:05:27,960 --> 00:05:26,710

the show what's it about well we're

119

00:05:30,210 --> 00:05:27,970

going to be talking about getting beyond

120

00:05:32,250 --> 00:05:30,220

the choir talking about the GSO Debby

121

00:05:34,260 --> 00:05:32,260

project Wikipedia works that we've done

122

00:05:36,180 --> 00:05:34,270

that all kinds of exciting things that

123

00:05:39,150 --> 00:05:36,190

we're pointing at you know your your

124

00:05:42,660 --> 00:05:39,160

listeners are a little above the norm

125

00:05:45,630 --> 00:05:42,670

there you know really active and I think

126

00:05:47,910 --> 00:05:45,640

they really dig it well of course I'd be

127

00:05:50,250 --> 00:05:47,920

happy to Susan well where can people go

128

00:05:53,520 --> 00:05:50,260

to find out more details well you can go

129

00:05:55,290 --> 00:05:53,530

to the Bay Area skeptics page the

130

00:05:56,900 --> 00:05:55,300

website you can also go to the Facebook

131

00:05:59,880 --> 00:05:56,910

page you can come to the susan gerbic

132

00:06:01,710 --> 00:05:59,890

facebook page oh heck is watch the baby

133

00:06:03,150 --> 00:06:01,720

doing a hold of it well look I'd be

134

00:06:04,830 --> 00:06:03,160

happy to do that I'll see if I can work

135

00:06:06,990 --> 00:06:04,840

in some sort of promotion on the show

136

00:06:08,970 --> 00:06:07,000

Susan great to hear from you I wish I

137

00:06:10,770 --> 00:06:08,980

could be there actually made the 11th in

138

00:06:12,990 --> 00:06:10,780

in Berkeley that would be really cool oh

139

00:06:15,360 --> 00:06:13,000

well look I hope I can see you soon

140

00:06:18,030 --> 00:06:15,370

anyway oh I am really looking forward to

141

00:06:21,680 --> 00:06:18,040

it I am I'm really looking forward to

142

00:06:26,040 --> 00:06:21,690

seeing you the next time I see you okay

143

00:06:29,160 --> 00:06:26,050

thanks Susan I record well there you go

144

00:06:31,860 --> 00:06:29,170

yeah yet another skeptical talk for you

145

00:06:34,650 --> 00:06:31,870

to enjoy and that one in in Berkeley in

146

00:06:36,420 --> 00:06:34,660

California now before we start the

147

00:06:38,910 --> 00:06:36,430

skeptics own proper with the interviews

148

00:06:42,240 --> 00:06:38,920

and whatnot here's a couple of little

149

00:06:44,130 --> 00:06:42,250

clips a little segment from the recent

150

00:06:47,100 --> 00:06:44,140

Sydney skeptics in the pub where we had

151
00:06:48,800 --> 00:06:47,110
a chiropractor giving us a talk and it

152
00:06:57,420 --> 00:06:48,810
was

153
00:06:58,980 --> 00:06:57,430
to hear what this chiropractor had to

154
00:07:01,470 --> 00:06:58,990
say there was lots of people scratching

155
00:07:03,900 --> 00:07:01,480
their heads I must admit but I took the

156
00:07:06,680 --> 00:07:03,910
opportunity I took the opportunity to

157
00:07:12,330 --> 00:07:06,690
ask some pub goers and myself included

158
00:07:14,310 --> 00:07:12,340
if they'd ever been to a chiropractor it

159
00:07:16,050 --> 00:07:14,320
Sydney skeptics in the pub tonight we

160
00:07:19,050 --> 00:07:16,060
have an interesting talk it's going to

161
00:07:21,780 --> 00:07:19,060
be about chiropractic given by a

162
00:07:22,500 --> 00:07:21,790
chiropractor we're not sure what to

163
00:07:24,840 --> 00:07:22,510

expect

164

00:07:26,760 --> 00:07:24,850

should be an interesting night but the

165

00:07:31,170 --> 00:07:26,770

question we're posing to sceptic in the

166

00:07:33,690 --> 00:07:31,180

pub others tonight is have you been to a

167

00:07:35,400 --> 00:07:33,700

chiropractor and why and I'll kick off

168

00:07:38,310 --> 00:07:35,410

and I'll interview myself hello Richard

169

00:07:42,480 --> 00:07:38,320

yes Richard Lee yes I have been when I

170

00:07:45,840 --> 00:07:42,490

was younger due to a I've been offered

171

00:07:48,720 --> 00:07:45,850

to be interviewed hi Richard

172

00:07:49,860 --> 00:07:48,730

hi hi Laura hi how are you I'm okay okay

173

00:07:52,410 --> 00:07:49,870

have you ever been to a chiropractor

174

00:07:54,450 --> 00:07:52,420

what funny you should ask yes I have yes

175

00:07:57,120 --> 00:07:54,460

and what was the reason well when I was

176

00:07:59,990 --> 00:07:57,130

in school I was beaten up in the school

177

00:08:03,090 --> 00:08:00,000

guard and I had suffered with whiplash a

178

00:08:05,220 --> 00:08:03,100

whiplash injury be you teaching him

179

00:08:06,060 --> 00:08:05,230

you're probably familiar with schoolyard

180

00:08:07,650 --> 00:08:06,070

fight singers

181

00:08:09,930 --> 00:08:07,660

no of course not of course not was very

182

00:08:14,580 --> 00:08:09,940

filmed so kid kid jumped on me from

183

00:08:16,740 --> 00:08:14,590

behind I was flat on my my front he was

184

00:08:18,330 --> 00:08:16,750

on my back and he grabbed my hair and

185

00:08:20,790 --> 00:08:18,340

pulled my head back and punched me in

186

00:08:22,740 --> 00:08:20,800

the face with Blache injury I've still

187

00:08:25,380 --> 00:08:22,750

got I can still feel it too this any

188

00:08:27,900 --> 00:08:25,390

long story yeah then I started to get

189

00:08:31,390 --> 00:08:27,910

migraines and eventually my dad took me

190

00:08:35,800 --> 00:08:31,400

to a chiropractor now this was in the

191

00:08:38,079 --> 00:08:35,810

late 70s and for a long time I thought

192

00:08:39,670 --> 00:08:38,089

that every time I had a migraine I had

193

00:08:41,589 --> 00:08:39,680

to go back to the chiropractor and

194

00:08:45,040 --> 00:08:41,599

that's what I did for a long time that

195

00:08:47,769 --> 00:08:45,050

was it actually helping I don't I don't

196

00:08:49,690 --> 00:08:47,779

know I I was led to believe so at the

197

00:08:52,630 --> 00:08:49,700

time but looking back I can't honestly

198

00:08:54,970 --> 00:08:52,640

say I was that that was my impression at

199

00:08:57,090 --> 00:08:54,980

the time yeah and where it could have

200

00:09:00,190 --> 00:08:57,100

from the point of view that he was

201
00:09:03,519 --> 00:09:00,200
manipulating my neck or massaging my

202
00:09:06,040 --> 00:09:03,529
neck or I don't know it's really hard

203
00:09:07,990 --> 00:09:06,050
for me to say and would you ever

204
00:09:09,880 --> 00:09:08,000
consider going to a chiropractor now oh

205
00:09:13,390 --> 00:09:09,890
no not with what I know now of course

206
00:09:16,120 --> 00:09:13,400
not but however they do give at the same

207
00:09:18,280 --> 00:09:16,130
time they probably loosen muscles during

208
00:09:19,960 --> 00:09:18,290
the examination or massage or something

209
00:09:22,900 --> 00:09:19,970
like that and of course that would be a

210
00:09:27,190 --> 00:09:22,910
benefit but I would just go to a massage

211
00:09:30,070 --> 00:09:27,200
place for that now yeah you know no

212
00:09:32,260 --> 00:09:30,080
that's a tzi answer yeah never been

213
00:09:35,560 --> 00:09:32,270

never would accept them for research

214

00:09:36,790 --> 00:09:35,570

purposes yeah thanks for interviewing me

215

00:09:40,570 --> 00:09:36,800

oh thank you very much Richard

216

00:09:43,110 --> 00:09:40,580

thank you for your time microphone yes

217

00:09:46,540 --> 00:09:43,120

we're here with a Lethe indeed hi ELISA

218

00:09:48,340 --> 00:09:46,550

hi Richard is the big question tonight

219

00:09:50,050 --> 00:09:48,350

is have you ever been to a chiropractor

220

00:09:54,400 --> 00:09:50,060

yes I did

221

00:09:57,130 --> 00:09:54,410

one when I was a child I had a weird

222

00:09:59,830 --> 00:09:57,140

sort of spasm in my shoulder and my dad

223

00:10:02,740 --> 00:09:59,840

at the time was very into

224

00:10:05,080 --> 00:10:02,750

naturopathic modalities and sent me to

225

00:10:07,720 --> 00:10:05,090

his chiropractor who I went to for a

226

00:10:10,750 --> 00:10:07,730

year or two I think trying to sort my

227

00:10:15,450 --> 00:10:10,760

back out and did it I don't know if it I

228

00:10:19,480 --> 00:10:18,010

that's what fixed it part two the

229

00:10:21,780 --> 00:10:19,490

question is would you go again to a

230

00:10:25,030 --> 00:10:21,790

chiropractor knowing what you know now I

231

00:10:27,790 --> 00:10:25,040

would go out of curiosity and if I

232

00:10:29,110 --> 00:10:27,800

didn't have to pay a button but I

233

00:10:30,340 --> 00:10:29,120

wouldn't allow them to do the neck

234

00:10:32,410 --> 00:10:30,350

manipulations because I know how

235

00:10:35,350 --> 00:10:32,420

dangerous that would be but out of

236

00:10:37,269 --> 00:10:35,360

curiosity I might go again just to see

237

00:10:41,800 --> 00:10:37,279

what it's about and what it's like in an

238

00:10:42,930 --> 00:10:41,810

investigatory I think that's a good

239

00:10:45,370 --> 00:10:42,940

answer

240

00:10:46,630 --> 00:10:45,380

so there you are a little mini segment

241

00:10:49,510 --> 00:10:46,640

there from skeptics in the pub and

242

00:10:52,060 --> 00:10:49,520

people their opinions on chiropractors

243

00:10:53,860 --> 00:10:52,070

or if they've ever and gone to

244

00:10:55,780 --> 00:10:53,870

chiropractors and we have a lot of fun

245

00:10:58,690 --> 00:10:55,790

at Sidney's skeptics in the pub it's

246

00:11:02,110 --> 00:10:58,700

very relaxed is lots of nice food and

247

00:11:03,370 --> 00:11:02,120

wine and beer flowing and generally

248

00:11:05,590 --> 00:11:03,380

people have a pretty good time and

249

00:11:08,050 --> 00:11:05,600

thanks to Lara Benham for interviewing

250

00:11:10,450 --> 00:11:08,060

me stay tuned at the end of the episode

251
00:11:11,140 --> 00:11:10,460
for another announcement from me but for

252
00:11:16,300 --> 00:11:11,150
now

253
00:11:17,950 --> 00:11:16,310
interview Michael Marshall I'm going to

254
00:11:20,590 --> 00:11:17,960
run down the stairs it's not for me to

255
00:11:23,680 --> 00:11:20,600
run down the stairs I think the cats are

256
00:11:25,180 --> 00:11:23,690
in the other room probably doing some

257
00:11:26,740 --> 00:11:25,190
vacuuming cleaning at the moment or

258
00:11:28,780 --> 00:11:26,750
something like that they're very helpful

259
00:11:31,240 --> 00:11:28,790
those two cats and stone for me to run

260
00:11:35,320 --> 00:11:31,250
downstairs open up the freezer get out

261
00:11:38,500 --> 00:11:35,330
those veggie burgers yeah veggie burgers

262
00:11:41,730 --> 00:11:38,510
and cook them up in the oven and I had a

263
00:11:44,199 --> 00:11:41,740

little bit of Tabasco sauce some toast

264

00:11:46,120 --> 00:11:44,209

yes and toast a little bit of cream

265

00:11:49,990 --> 00:11:46,130

cheese on the toast the veggie burgers

266

00:11:53,440 --> 00:11:50,000

on top and I think that'll do me

267

00:11:55,440 --> 00:11:53,450

well I quickly do all that I hope you

268

00:12:09,470 --> 00:11:55,450

enjoy the skeptic zone

269

00:12:16,800 --> 00:12:09,480

[Music]

270

00:12:21,640 --> 00:12:19,240

joining me now all the way from

271

00:12:24,550 --> 00:12:21,650

Liverpool so this is come in a very long

272

00:12:26,890 --> 00:12:24,560

way this internet bouncing around the

273

00:12:29,970 --> 00:12:26,900

planet it's my old friend from the good

274

00:12:32,500 --> 00:12:29,980

thinking society Michael Marshall homage

275

00:12:34,450 --> 00:12:32,510

hiya Richard lovely to be on the show

276

00:12:36,100 --> 00:12:34,460

again yes it's you know what I think

277

00:12:37,840 --> 00:12:36,110

it's been a huge gap since you've been

278

00:12:39,340 --> 00:12:37,850

on the show because you're on the show

279

00:12:41,440 --> 00:12:39,350

quite often but I think there's been a

280

00:12:43,240 --> 00:12:41,450

little bit of a day delay and I'm glad

281

00:12:46,210 --> 00:12:43,250

we can make up for that today

282

00:12:48,280 --> 00:12:46,220

there's a few things that I'd like you

283

00:12:49,990 --> 00:12:48,290

to talk about in fact though you've had

284

00:12:51,790 --> 00:12:50,000

some interesting times over there

285

00:12:53,830 --> 00:12:51,800

especially with this horrible substance

286

00:12:56,350 --> 00:12:53,840

called black selves which we'll get to

287

00:12:58,900 --> 00:12:56,360

soon but before we talk about that I'd

288

00:13:00,880 --> 00:12:58,910

like to hear about this Charity

289

00:13:03,970 --> 00:13:00,890

Commission and especially if this is

290

00:13:06,100 --> 00:13:03,980

news for people in the UK yeah

291

00:13:07,240 --> 00:13:06,110

absolutely so we're a very interesting

292

00:13:09,940 --> 00:13:07,250

time here in the UK at the moment

293

00:13:12,070 --> 00:13:09,950

because we have the Charity Commission

294

00:13:13,270 --> 00:13:12,080

which is the the government regulator of

295

00:13:16,060 --> 00:13:13,280

charities I'm sure you have an

296

00:13:18,040 --> 00:13:16,070

Australian equivalent yeah and one of

297

00:13:20,680 --> 00:13:18,050

things that we sort what one things we

298

00:13:22,900 --> 00:13:20,690

spotted with good thinking was there's

299

00:13:25,300 --> 00:13:22,910

an awful lot of charities who exist

300

00:13:27,390 --> 00:13:25,310

solely or specifically for the promotion

301
00:13:30,910 --> 00:13:27,400
of alternative medicine and other

302
00:13:32,830 --> 00:13:30,920
disproven things and so I imagine it's a

303
00:13:34,570 --> 00:13:32,840
very similar position in Australia but

304
00:13:36,600 --> 00:13:34,580
we've got charities that do things like

305
00:13:40,210 --> 00:13:36,610
they specifically exist to give

306
00:13:42,070 --> 00:13:40,220
homeopathy to HIV patients in Botswana

307
00:13:43,720 --> 00:13:42,080
and that's a charitable purpose

308
00:13:47,050 --> 00:13:43,730
apparently Wow and we've got another

309
00:13:49,750 --> 00:13:47,060
charity that exists to facilitate cancer

310
00:13:51,430 --> 00:13:49,760
patients getting alternative cures for

311
00:13:53,710 --> 00:13:51,440
cancer getting real access to

312
00:13:55,420 --> 00:13:53,720
alternative cures like like salad like

313
00:13:59,200 --> 00:13:55,430

Gerson Therapy like many different types

314

00:14:01,150 --> 00:13:59,210

of things and so there was a blogger and

315

00:14:02,710 --> 00:14:01,160

retired chemist by the name of Les

316

00:14:05,440 --> 00:14:02,720

Halles who'd spent a number of years

317

00:14:07,420 --> 00:14:05,450

making complaints to the regulator to

318

00:14:10,449 --> 00:14:07,430

say these people shouldn't be charities

319

00:14:12,820 --> 00:14:10,459

here is a charity who are whose promote

320

00:14:15,250 --> 00:14:12,830

a very dangerous substance like myself

321

00:14:18,550 --> 00:14:15,260

to somebody who is very vulnerable with

322

00:14:19,960 --> 00:14:18,560

with cancer this is not a charitable

323

00:14:21,730 --> 00:14:19,970

purpose this is not in the public

324

00:14:23,050 --> 00:14:21,740

benefit because it could be a charity

325

00:14:24,850 --> 00:14:23,060

you have to demonstrate that what you're

326

00:14:25,960 --> 00:14:24,860

doing is in the public benefit and he

327

00:14:27,069 --> 00:14:25,970

was arguing that these people should not

328

00:14:28,449 --> 00:14:27,079

be allowed to be you should at least be

329

00:14:30,329 --> 00:14:28,459

sanctioned by the charity's commissioner

330

00:14:33,220 --> 00:14:30,339

maybe even struck off the register and

331

00:14:34,840 --> 00:14:33,230

after following those complaints up for

332

00:14:36,100 --> 00:14:34,850

a good couple of years I think it's

333

00:14:38,740 --> 00:14:36,110

three years something like that

334

00:14:40,930 --> 00:14:38,750

less value is getting nowhere so that's

335

00:14:44,079 --> 00:14:40,940

a we as good thinking said they seem to

336

00:14:45,639 --> 00:14:44,089

be a pretty serious issue I think we

337

00:14:47,680 --> 00:14:45,649

thought if you're promoting

338

00:14:49,540 --> 00:14:47,690

pseudoscience you shouldn't get the the

339

00:14:51,100 --> 00:14:49,550

rubber stamp of credibility from the

340

00:14:53,769 --> 00:14:51,110

government of being an official charity

341

00:14:54,940 --> 00:14:53,779

the people when you see the word charity

342

00:14:56,440 --> 00:14:54,950

people think well you must be doing

343

00:14:59,350 --> 00:14:56,450

something good must be for the public

344

00:15:01,840 --> 00:14:59,360

benefit yeah you must be kind of a legit

345

00:15:04,389 --> 00:15:01,850

organization who's promoting legitimate

346

00:15:06,040 --> 00:15:04,399

treatments so I think the the fact that

347

00:15:07,690 --> 00:15:06,050

these things are a charity confers them

348

00:15:09,730 --> 00:15:07,700

a credibility that they they ought to

349

00:15:11,860 --> 00:15:09,740

earn and also of course you get

350

00:15:14,920 --> 00:15:11,870

significant tax breaks if your charity

351
00:15:16,900 --> 00:15:14,930
which means the charity that's out there

352
00:15:19,300 --> 00:15:16,910
currently promoting anti vaccination

353
00:15:21,210 --> 00:15:19,310
information so it's called the a forget

354
00:15:24,040 --> 00:15:21,220
the exact name of the the charity here

355
00:15:25,870 --> 00:15:24,050
but that charity is not just promoting

356
00:15:27,760 --> 00:15:25,880
dangerous misinformation but it's doing

357
00:15:29,290 --> 00:15:27,770
so with effectively a government subsidy

358
00:15:31,120 --> 00:15:29,300
because they're not having to pay tax on

359
00:15:33,370 --> 00:15:31,130
anything and then get gifted which is an

360
00:15:35,110 --> 00:15:33,380
extras of chunk on top of your donations

361
00:15:38,380 --> 00:15:35,120
that that goes to them from tax building

362
00:15:40,090 --> 00:15:38,390
so in order to try and redress this

363
00:15:41,440 --> 00:15:40,100

balance we were arguing that the Charity

364

00:15:45,639 --> 00:15:41,450

Commission needs to have a firm policy

365

00:15:48,250 --> 00:15:45,649

on pseudoscience and on complementary

366

00:15:50,620 --> 00:15:48,260

alternative medicine and after a bit of

367

00:15:51,730 --> 00:15:50,630

a legal back-and-forth last year the

368

00:15:53,260 --> 00:15:51,740

Charity Commission announced they're

369

00:15:55,900 --> 00:15:53,270

going to have a big consultation in

370

00:15:58,420 --> 00:15:55,910

review as to how they handle charities

371

00:15:59,769 --> 00:15:58,430

that promote cam therapies and that

372

00:16:02,319 --> 00:15:59,779

reviews now currently open and they're

373

00:16:05,170 --> 00:16:02,329

looking for people to submit their ideas

374

00:16:06,970 --> 00:16:05,180

their opinions and to try and steer the

375

00:16:08,860 --> 00:16:06,980

the consultation steer the Commission as

376

00:16:11,710 --> 00:16:08,870

to how they deal with these charities in

377

00:16:13,930 --> 00:16:11,720

future and we're really asking skeptics

378

00:16:16,780 --> 00:16:13,940

in the UK and possibly from anywhere

379

00:16:18,250 --> 00:16:16,790

else who might want to to lend their

380

00:16:20,410 --> 00:16:18,260

opinions to that to get in touch with

381

00:16:21,610 --> 00:16:20,420

the Charity Commission because we think

382

00:16:23,710 --> 00:16:21,620

this is a great opportunity for

383

00:16:26,590 --> 00:16:23,720

skeptical activism for a

384

00:16:29,079 --> 00:16:26,600

badi who's got a opinion anyway who's

385

00:16:30,790 --> 00:16:29,089

got a level of expertise or let's say

386

00:16:33,879 --> 00:16:30,800

you're if you're in health care you

387

00:16:36,309 --> 00:16:33,889

doctor if you're in the legal profession

388

00:16:38,319 --> 00:16:36,319

and you specialize in charity law or if

389

00:16:40,329 --> 00:16:38,329

you just somebody who is an everyday

390

00:16:43,119 --> 00:16:40,339

skeptic who thinks actually I don't

391

00:16:44,949 --> 00:16:43,129

think tax breaks and and credibility to

392

00:16:46,360 --> 00:16:44,959

be going to organizations that promote

393

00:16:48,100 --> 00:16:46,370

things that haven't been proven to be

394

00:16:49,929 --> 00:16:48,110

true and so we're here to kind of say to

395

00:16:52,329 --> 00:16:49,939

people joining the Commission and

396

00:16:55,119 --> 00:16:52,339

sending a submission to this this review

397

00:16:57,400 --> 00:16:55,129

and hopefully we can try and help steer

398

00:16:58,860 --> 00:16:57,410

this policy towards a sensible outcome I

399

00:17:02,110 --> 00:16:58,870

think there's a very good idea because

400

00:17:04,449 --> 00:17:02,120

you're right when you hear the an

401
00:17:06,549 --> 00:17:04,459
organization is a charity you the sort

402
00:17:08,890 --> 00:17:06,559
of you picture little bunny rabbits and

403
00:17:10,779 --> 00:17:08,900
good-hearted people and and Florence

404
00:17:12,760 --> 00:17:10,789
Nightingale sort of visions don't you

405
00:17:16,350 --> 00:17:12,770
that the word charity and if they are

406
00:17:19,299 --> 00:17:16,360
flogging or peddling nonsense to people

407
00:17:22,360 --> 00:17:19,309
then this is something which should be

408
00:17:24,730 --> 00:17:22,370
absolutely addressed what then what then

409
00:17:28,210 --> 00:17:24,740
can people do where can they go to find

410
00:17:30,490 --> 00:17:28,220
out more and get something done well so

411
00:17:33,130 --> 00:17:30,500
on the good thinking Society website at

412
00:17:34,600 --> 00:17:33,140
good thinking Society org we've got an

413
00:17:36,669 --> 00:17:34,610

explanation of the Charity Commission

414

00:17:38,110 --> 00:17:36,679

the review generally and the reviews

415

00:17:39,760 --> 00:17:38,120

looking for answers to some fairly

416

00:17:42,010 --> 00:17:39,770

specific questions they're asking about

417

00:17:43,659 --> 00:17:42,020

things like what nature of evidence what

418

00:17:46,180 --> 00:17:43,669

level of evidence should be allowed to

419

00:17:49,270 --> 00:17:46,190

establish whether cam therapies are

420

00:17:50,980 --> 00:17:49,280

beneficial and they're asking should

421

00:17:52,840 --> 00:17:50,990

they accept a lower standard of evidence

422

00:17:55,090 --> 00:17:52,850

if the therapies are there to help

423

00:17:57,100 --> 00:17:55,100

people relieve symptoms rather than cure

424

00:17:58,870 --> 00:17:57,110

disease and asking sort questions in

425

00:18:00,760 --> 00:17:58,880

those kinds of areas so if you go to our

426

00:18:02,140 --> 00:18:00,770

website good thinking cited at all we've

427

00:18:04,120 --> 00:18:02,150

got a guide to those questions and it

428

00:18:05,409 --> 00:18:04,130

explains how to get in touch with the

429

00:18:06,789 --> 00:18:05,419

Charity Commission and send your

430

00:18:09,039 --> 00:18:06,799

thoughts and it also kind of go through

431

00:18:11,980 --> 00:18:09,049

a few of the the points that we've made

432

00:18:13,270 --> 00:18:11,990

in our consultation submission and we'll

433

00:18:15,250 --> 00:18:13,280

also be publishing our submission

434

00:18:16,480 --> 00:18:15,260

shortly to I think next week we'll we'll

435

00:18:18,370 --> 00:18:16,490

publish what we actually sent to the

436

00:18:20,380 --> 00:18:18,380

Charities Commission so that'll be all

437

00:18:23,409 --> 00:18:20,390

up on our website at good thinkin

438

00:18:26,980 --> 00:18:23,419

cytosol yes good thinking society dot

439

00:18:28,539 --> 00:18:26,990

org is the website and I know about the

440

00:18:31,620 --> 00:18:28,549

story I want to talk about next March

441

00:18:34,090 --> 00:18:31,630

because I subscribe to the good thinking

442

00:18:36,700 --> 00:18:34,100

newsletter which comes into my inbox

443

00:18:37,480 --> 00:18:36,710

regularly so I can keep up to date keep

444

00:18:38,770 --> 00:18:37,490

a tab

445

00:18:41,290 --> 00:18:38,780

on what's happening in the good things

446

00:18:44,919 --> 00:18:41,300

in society and this is a story to do

447

00:18:46,750 --> 00:18:44,929

with a horrible substance that we've

448

00:18:50,200 --> 00:18:46,760

come across occasionally here in

449

00:18:52,930 --> 00:18:50,210

Australia called black selves for those

450

00:18:56,169 --> 00:18:52,940

people who don't know what it is how

451
00:18:59,799 --> 00:18:56,179
would you describe that black self yeah

452
00:19:01,570 --> 00:18:59,809
it's a herbal pointment that the

453
00:19:03,549 --> 00:19:01,580
promoters of which they'll say well this

454
00:19:05,680 --> 00:19:03,559
will be a cure your cancer this will

455
00:19:07,450 --> 00:19:05,690
draw the cancer out they talked about it

456
00:19:09,880 --> 00:19:07,460
being a drawing sound that it draws the

457
00:19:12,360 --> 00:19:09,890
cancer out it draws toxins out to the

458
00:19:15,850 --> 00:19:12,370
surface and then they believe that those

459
00:19:17,860 --> 00:19:15,860
those cancerous tumors just come out of

460
00:19:21,100 --> 00:19:17,870
your skin in a big chunk what's actually

461
00:19:23,950 --> 00:19:21,110
happening is that the the Southland is

462
00:19:26,950 --> 00:19:23,960
highly caustic and actually burns your

463
00:19:29,380 --> 00:19:26,960

skin into this kind of big nasty scab

464

00:19:31,419 --> 00:19:29,390

and what comes off in a chunk is your

465

00:19:33,730 --> 00:19:31,429

flesh essentially so these people with a

466

00:19:36,610 --> 00:19:33,740

horrible gaping holes in their flesh

467

00:19:38,950 --> 00:19:36,620

which are then very exposed so not only

468

00:19:41,410 --> 00:19:38,960

is it hugely dangerous in the sense that

469

00:19:42,520 --> 00:19:41,420

it will burn holes in your flesh and

470

00:19:44,680 --> 00:19:42,530

leave you with some pretty severe

471

00:19:46,000 --> 00:19:44,690

scarring and the pictures that are bound

472

00:19:48,640 --> 00:19:46,010

on the internet of people having used

473

00:19:49,690 --> 00:19:48,650

black salvo are pretty gruesome but

474

00:19:51,660 --> 00:19:49,700

it'll also give you the false impression

475

00:19:54,180 --> 00:19:51,670

that you've cured your cancer and

476

00:19:55,990 --> 00:19:54,190

there's been plenty of examples

477

00:19:58,090 --> 00:19:56,000

unfortunately if people who have used

478

00:19:59,770 --> 00:19:58,100

this in order to draw their cancer out

479

00:20:01,180 --> 00:19:59,780

they've got this big chunk of their skin

480

00:20:02,290 --> 00:20:01,190

coming where they've assumed that that's

481

00:20:04,419 --> 00:20:02,300

their cancer because that's what they've

482

00:20:06,280 --> 00:20:04,429

been told by the their practitioners and

483

00:20:08,260 --> 00:20:06,290

they've gone on to not get any further

484

00:20:09,430 --> 00:20:08,270

cancer treatment and of course not only

485

00:20:11,650 --> 00:20:09,440

is that going to mean that the tumors

486

00:20:14,590 --> 00:20:11,660

there but the even if black self was

487

00:20:16,210 --> 00:20:14,600

able to get rid of say skin cancer cause

488

00:20:18,310 --> 00:20:16,220

it's on the surface it's not going to

489

00:20:20,350 --> 00:20:18,320

deal with the Mostafa of the metastatic

490

00:20:21,910 --> 00:20:20,360

elements of that cancer so it could have

491

00:20:23,140 --> 00:20:21,920

spread to elsewhere in your body while

492

00:20:25,240 --> 00:20:23,150

you're while people are using this

493

00:20:27,250 --> 00:20:25,250

ineffective treatment in the meantime so

494

00:20:29,700 --> 00:20:27,260

it's it's dangerous on a number of

495

00:20:32,650 --> 00:20:29,710

fronts really not just for the initial

496

00:20:34,570 --> 00:20:32,660

gruesome effect it can have on your skin

497

00:20:35,950 --> 00:20:34,580

but for the underlying fact that it

498

00:20:37,960 --> 00:20:35,960

doesn't deal with the fact that you have

499

00:20:41,760 --> 00:20:37,970

cancer yeah it's really not a really

500

00:20:43,990 --> 00:20:41,770

nasty stuff it is and thank you for

501
00:20:45,820 --> 00:20:44,000
giving our listeners a sort of an

502
00:20:49,180 --> 00:20:45,830
overview of it I've certainly seen some

503
00:20:50,990 --> 00:20:49,190
of the horrible results of very

504
00:20:53,090 --> 00:20:51,000
unfortunate people who

505
00:20:55,820 --> 00:20:53,100
trying to you know to get rid of their

506
00:20:57,770 --> 00:20:55,830
skin cancer or what-have-you and losing

507
00:21:01,100 --> 00:20:57,780
part of their face in some situations

508
00:21:03,380 --> 00:21:01,110
and it duds the stuff of nightmares it

509
00:21:05,270 --> 00:21:03,390
really is but people swear by it and

510
00:21:07,220 --> 00:21:05,280
people get almost this religious fervour

511
00:21:10,850 --> 00:21:07,230
about it but we find that about the many

512
00:21:12,170 --> 00:21:10,860
alternative treatments yeah it's

513
00:21:15,470 --> 00:21:12,180

absolutely true I mean I did actually

514

00:21:16,610 --> 00:21:15,480

see one conference in the UK a very

515

00:21:18,800 --> 00:21:16,620

small conference which is promoting

516

00:21:20,510 --> 00:21:18,810

black South and various of the things

517

00:21:22,490 --> 00:21:20,520

like miracle mineral supplement and

518

00:21:24,710 --> 00:21:22,500

things like that and their advice to

519

00:21:26,330 --> 00:21:24,720

this one guy in the audience who said he

520

00:21:27,590 --> 00:21:26,340

had throat cancer and was still needing

521

00:21:29,150 --> 00:21:27,600

to go to hospital essentially for the

522

00:21:31,310 --> 00:21:29,160

follow-ups because you know if you have

523

00:21:32,360 --> 00:21:31,320

cancer there's a reasonable chance in

524

00:21:33,650 --> 00:21:32,370

the first couple years that it might

525

00:21:35,000 --> 00:21:33,660

recur and that's why they give you a

526

00:21:37,160 --> 00:21:35,010

kind of a survival rate past a certain

527

00:21:39,890 --> 00:21:37,170

number of years and their advice this

528

00:21:41,510 --> 00:21:39,900

guy who had throat cancer was if you're

529

00:21:44,630 --> 00:21:41,520

going back to the hospital after you had

530

00:21:45,650 --> 00:21:44,640

the cancer operations that's only

531

00:21:48,020 --> 00:21:45,660

because the hospital want to keep you

532

00:21:50,360 --> 00:21:48,030

there so they can keep using you to make

533

00:21:53,300 --> 00:21:50,370

money instead what I would recommend is

534

00:21:55,280 --> 00:21:53,310

that you gargle with blacks Alvino the

535

00:21:56,780 --> 00:21:55,290

stuff that it does to people's the

536

00:21:58,010 --> 00:21:56,790

surface of people's skin is bad enough

537

00:22:00,080 --> 00:21:58,020

but I can't imagine what it'd be like

538

00:22:02,720 --> 00:22:00,090

gargling with the with that stuff so

539

00:22:04,670 --> 00:22:02,730

yeah they and a huge problem I think is

540

00:22:07,580 --> 00:22:04,680

that the practitioners believe it works

541

00:22:10,040 --> 00:22:07,590

it's not like they're saying take this

542

00:22:11,540 --> 00:22:10,050

stuff we know it's going to kill you at

543

00:22:14,270 --> 00:22:11,550

the end but we don't care because we're

544

00:22:15,830 --> 00:22:14,280

on scrupulous combat they really think

545

00:22:17,600 --> 00:22:15,840

what they're are they're selling and

546

00:22:19,220 --> 00:22:17,610

promoting will actually cure cancer that

547

00:22:22,160 --> 00:22:19,230

means they'll make these extremely

548

00:22:23,510 --> 00:22:22,170

dangerous totally extreme claims because

549

00:22:26,390 --> 00:22:23,520

they they think those claims are right

550

00:22:28,160 --> 00:22:26,400

and so yeah they can leave people with

551

00:22:31,160 --> 00:22:28,170

the best of intentions they can lead

552

00:22:32,900 --> 00:22:31,170

people into hugely dangerous situations

553

00:22:35,270 --> 00:22:32,910

and never realize what they're doing is

554

00:22:37,070 --> 00:22:35,280

is is going to put that those people's

555

00:22:38,870 --> 00:22:37,080

life attention at risk very certainly

556

00:22:42,050 --> 00:22:38,880

this is the story we've heard again and

557

00:22:44,390 --> 00:22:42,060

again over many years with all sorts of

558

00:22:46,340 --> 00:22:44,400

therapies and alternative treatments and

559

00:22:48,200 --> 00:22:46,350

things like that but the good news is

560

00:22:50,660 --> 00:22:48,210

owing to the efforts of the good

561

00:22:53,810 --> 00:22:50,670

thinking society that you've managed to

562

00:22:58,180 --> 00:22:53,820

get some action taken by ER or about

563

00:23:00,680 --> 00:22:58,190

eBay yeah we did it's a fairly unusual

564

00:23:03,470 --> 00:23:00,690

circuitous route that we achieve this

565

00:23:04,610 --> 00:23:03,480

actually but happened to be solved in a

566

00:23:06,110 --> 00:23:04,620

conversation about

567

00:23:08,060 --> 00:23:06,120

selves and happened to google it to say

568

00:23:09,770 --> 00:23:08,070

oh yeah you can buy it on eBay and when

569

00:23:11,299 --> 00:23:09,780

I spotted that it was there on eBay it

570

00:23:13,940 --> 00:23:11,309

was actually being sold by someone in

571

00:23:15,140 --> 00:23:13,950

Merseyside where I live so that's that's

572

00:23:16,580 --> 00:23:15,150

interesting I didn't know where that

573

00:23:19,130 --> 00:23:16,590

person I don't know that there's someone

574

00:23:20,840 --> 00:23:19,140

out there selling black south and I

575

00:23:23,350 --> 00:23:20,850

spotted that not only was this being

576

00:23:27,110 --> 00:23:23,360

sold on eBay but it had a special deal

577

00:23:28,730 --> 00:23:27,120

with a chain of high street stores for

578

00:23:30,260 --> 00:23:28,740

sort of click and Collect so rather than

579

00:23:32,270 --> 00:23:30,270

getting it delivered to your house you

580

00:23:34,880 --> 00:23:32,280

can deliver to your hands good soul hmm

581

00:23:36,620 --> 00:23:34,890

I thought well this is this is adds an

582

00:23:37,730 --> 00:23:36,630

extra element to the story if you can

583

00:23:40,130 --> 00:23:37,740

pick up this incredibly dangerous

584

00:23:41,150 --> 00:23:40,140

product not just have it deliver to your

585

00:23:42,620 --> 00:23:41,160

hands because I should go into a high

586

00:23:45,980 --> 00:23:42,630

street store and pick it up this is

587

00:23:48,290 --> 00:23:45,990

bringing in a national chain Sainsbury's

588

00:23:50,000 --> 00:23:48,300

in Argos we were to the mall to kind of

589

00:23:51,230 --> 00:23:50,010

recognizable brands on the high street

590

00:23:52,940 --> 00:23:51,240

they're now involved in this kind of

591

00:23:54,260 --> 00:23:52,950

story and so I ordered some is back

592

00:23:56,030 --> 00:23:54,270

south and picked it up for my local

593

00:23:57,710 --> 00:23:56,040

Argos in Liverpool with a few photos of

594

00:23:59,840 --> 00:23:57,720

me doing that and the fact that it's

595

00:24:02,660 --> 00:23:59,850

involved some high street chains meant

596

00:24:04,280 --> 00:24:02,670

is the news value of this story went up

597

00:24:06,320 --> 00:24:04,290

a lot more because the the newspapers

598

00:24:08,660 --> 00:24:06,330

got to say the incredibly dangerous

599

00:24:10,820 --> 00:24:08,670

cancer so-called cure that you can pick

600

00:24:12,350 --> 00:24:10,830

up from the high street and so we give

601
00:24:14,060 --> 00:24:12,360
this story to other times and actually

602
00:24:16,580 --> 00:24:14,070
ran in The Times we're including a

603
00:24:18,230 --> 00:24:16,590
little box out on the front page so it's

604
00:24:19,940 --> 00:24:18,240
kind of almost the front it was on the

605
00:24:21,110 --> 00:24:19,950
actual front page of The Times for the

606
00:24:23,240 --> 00:24:21,120
day of one the most kind of respected

607
00:24:24,770 --> 00:24:23,250
newspapers in the country and as a

608
00:24:26,990 --> 00:24:24,780
result of the the coverage we've got in

609
00:24:28,460 --> 00:24:27,000
The Times eBay removed all the listings

610
00:24:30,470 --> 00:24:28,470
for black South kind of under pressure

611
00:24:32,780 --> 00:24:30,480
from the the the MHRA which is the

612
00:24:34,820 --> 00:24:32,790
regulator of medicines here in the UK so

613
00:24:36,790 --> 00:24:34,830

we're monitoring the situation at the

614

00:24:39,140 --> 00:24:36,800

moment but certainly there's no more

615

00:24:41,390 --> 00:24:39,150

listings for blacks tile from the UK I

616

00:24:42,470 --> 00:24:41,400

think it still one or two I think it's

617

00:24:44,540 --> 00:24:42,480

one from New Zealand and one from

618

00:24:46,940 --> 00:24:44,550

America that you can find but we're now

619

00:24:49,669 --> 00:24:46,950

using this story to help ensure either

620

00:24:51,440 --> 00:24:49,679

keeps blacks out of listings off of it

621

00:24:52,910 --> 00:24:51,450

off eBay so people can be selling this

622

00:24:55,250 --> 00:24:52,920

stuff which means ultimately much much

623

00:24:56,960 --> 00:24:55,260

harder for people who've been convinced

624

00:24:59,390 --> 00:24:56,970

that this stuff's effective to to buy

625

00:25:01,910 --> 00:24:59,400

this and potentially do serious damage

626
00:25:02,750 --> 00:25:01,920
themselves and for those people outside

627
00:25:05,950 --> 00:25:02,760
of the UK

628
00:25:08,350 --> 00:25:05,960
Marshwood what sort of store is Argos

629
00:25:10,760 --> 00:25:08,360
well it's actually one of the most

630
00:25:12,860 --> 00:25:10,770
recognized brands in the in the UK but

631
00:25:14,870 --> 00:25:12,870
it's not quite as a prominent as it used

632
00:25:18,530 --> 00:25:14,880
to be so Argos is a slightly curious

633
00:25:18,770 --> 00:25:18,540
beast that it's a catalog store so you

634
00:25:20,420 --> 00:25:18,780
go

635
00:25:22,370 --> 00:25:20,430
to the shop and as catalogs there of all

636
00:25:24,020 --> 00:25:22,380
the goods that Excel and you write down

637
00:25:25,160 --> 00:25:24,030
the number of the the piece that you

638
00:25:26,570 --> 00:25:25,170

want to go on by and give that to the

639

00:25:27,950 --> 00:25:26,580

people behind a counter and then they go

640

00:25:30,950 --> 00:25:27,960

off and get it so you can actually see

641

00:25:33,860 --> 00:25:30,960

any of the the products in store they're

642

00:25:36,740 --> 00:25:33,870

also in a warehouse mysteriously out

643

00:25:39,140 --> 00:25:36,750

back which was great before things that

644

00:25:41,270 --> 00:25:39,150

Amazon and eBay came along and general

645

00:25:42,590 --> 00:25:41,280

online ordering which I think undercut a

646

00:25:44,180 --> 00:25:42,600

lot of our grocers market is I don't

647

00:25:47,150 --> 00:25:44,190

have you got an equivalent to it to that

648

00:25:49,370 --> 00:25:47,160

kind of thing in in the in Australia or

649

00:25:51,680 --> 00:25:49,380

anywhere else but yeah that's that's

650

00:25:53,060 --> 00:25:51,690

Argus so I think the reason that they've

651
00:25:55,970 --> 00:25:53,070
got this partnership with eBay is

652
00:25:58,730 --> 00:25:55,980
because a lot of people who are ordering

653
00:25:59,930 --> 00:25:58,740
stuff online that's the kind of that's

654
00:26:01,970 --> 00:25:59,940
the kind of custom that all of us would

655
00:26:04,100 --> 00:26:01,980
have been using previously looking for

656
00:26:06,170 --> 00:26:04,110
new ways to keep them self relevant yeah

657
00:26:07,790 --> 00:26:06,180
I don't think we have a something I

658
00:26:09,530 --> 00:26:07,800
don't think we have quite the equivalent

659
00:26:11,660 --> 00:26:09,540
here but what we do have more and more

660
00:26:13,580 --> 00:26:11,670
now is click and Collect and I've even

661
00:26:15,920 --> 00:26:13,590
used that myself so I know exactly what

662
00:26:18,440 --> 00:26:15,930
you mean but once again folks there's a

663
00:26:20,420 --> 00:26:18,450

full report about this whole eBay and

664

00:26:22,580 --> 00:26:20,430

black self story at good thinking

665

00:26:24,830 --> 00:26:22,590

Society org and I recommend you go there

666

00:26:26,810 --> 00:26:24,840

it's a very good it's concise

667

00:26:29,240 --> 00:26:26,820

interesting report with a link to the

668

00:26:31,490 --> 00:26:29,250

the story the coverage in The Times

669

00:26:34,070 --> 00:26:31,500

newspaper well much people can hear

670

00:26:37,880 --> 00:26:34,080

about that and a lot more things of

671

00:26:40,250 --> 00:26:37,890

course of course at QED one of the one

672

00:26:42,800 --> 00:26:40,260

of the premier skeptical conventions

673

00:26:43,900 --> 00:26:42,810

anywhere in the world coming up tell us

674

00:26:46,640 --> 00:26:43,910

all about it

675

00:26:48,860 --> 00:26:46,650

yeah we've released our tickets now for

676
00:26:50,420 --> 00:26:48,870
our for QED so those tickets now on sale

677
00:26:52,460 --> 00:26:50,430
I think it's the seventh year we've been

678
00:26:54,290 --> 00:26:52,470
doing QED which just uh feels

679
00:26:56,480 --> 00:26:54,300
astonishing to me that we've been going

680
00:26:59,510 --> 00:26:56,490
for quite so long and have been getting

681
00:27:01,400 --> 00:26:59,520
bigger and more established every year

682
00:27:03,820 --> 00:27:01,410
so last year was the biggest one we've

683
00:27:06,170 --> 00:27:03,830
ever done and we had I think we had 666

684
00:27:06,680 --> 00:27:06,180
people there we didn't do that on

685
00:27:08,510 --> 00:27:06,690
purpose

686
00:27:10,250 --> 00:27:08,520
that's just how how it turned out once

687
00:27:12,380 --> 00:27:10,260
you kind of included organizers and

688
00:27:15,260 --> 00:27:12,390

speakers and panelists and podcasts and

689

00:27:18,170 --> 00:27:15,270

all kind of stuff really but yeah we've

690

00:27:20,690 --> 00:27:18,180

announced the first seven of our

691

00:27:22,160 --> 00:27:20,700

speakers so our Gorsky I'm sure people

692

00:27:23,960 --> 00:27:22,170

will be very familiar with Dave Gorski

693

00:27:26,180 --> 00:27:23,970

news from science-based medicine he's

694

00:27:27,290 --> 00:27:26,190

really speaking and Simon Singh from the

695

00:27:29,300 --> 00:27:27,300

good thinking society is going to be

696

00:27:31,950 --> 00:27:29,310

demonstrating an actual world war two

697

00:27:34,170 --> 00:27:31,960

enigma machine and how that

698

00:27:36,840 --> 00:27:34,180

with broken he's actually got a genuine

699

00:27:38,610 --> 00:27:36,850

machine from that was used to to break

700

00:27:41,490 --> 00:27:38,620

the enigma cord and if we talked us

701
00:27:43,590 --> 00:27:41,500
through that um we've got cabins and

702
00:27:45,660 --> 00:27:43,600
apathy who's a journalist in America who

703
00:27:47,640 --> 00:27:45,670
specializes in health care and

704
00:27:49,230 --> 00:27:47,650
alternative medicine quackery kind of

705
00:27:51,300 --> 00:27:49,240
stories and she's written for Forbes and

706
00:27:52,650 --> 00:27:51,310
Slate and people have that and yeah

707
00:27:55,050 --> 00:27:52,660
we've got lots of lots of different

708
00:27:57,390 --> 00:27:55,060
people really and tickets are there

709
00:27:59,310 --> 00:27:57,400
until now they're priced at 109 pounds

710
00:28:00,600 --> 00:27:59,320
for the weekend or 75 pounds if you're a

711
00:28:03,240 --> 00:28:00,610
student and it's taking place in

712
00:28:05,070 --> 00:28:03,250
Manchester on the fourteenth and

713
00:28:08,240 --> 00:28:05,080

fifteenth of October

714

00:28:10,890 --> 00:28:08,250

it should be fun the last QED was huge

715

00:28:13,800 --> 00:28:10,900

in terms of we had the most people we've

716

00:28:15,540 --> 00:28:13,810

ever had but we're also doing uh we were

717

00:28:17,310 --> 00:28:15,550

running so many different sort of tracks

718

00:28:19,890 --> 00:28:17,320

at once so we had the main stage of

719

00:28:21,810 --> 00:28:19,900

speakers we had a second room of panels

720

00:28:25,200 --> 00:28:21,820

we had a third room of podcast and a

721

00:28:26,640 --> 00:28:25,210

fourth room of little workshops and they

722

00:28:28,740 --> 00:28:26,650

were in a fifth room that was a cinema

723

00:28:31,290 --> 00:28:28,750

and we had a sixth room that was Richard

724

00:28:35,160 --> 00:28:31,300

wife and put on a special room of

725

00:28:37,620 --> 00:28:35,170

optical illusions and yeah it was a very

726

00:28:39,030 --> 00:28:37,630

it was a different QED and I think

727

00:28:40,620 --> 00:28:39,040

probably the most exciting QED we've

728

00:28:41,910 --> 00:28:40,630

we've had and we're looking through the

729

00:28:43,350 --> 00:28:41,920

same thing again so we should have all

730

00:28:44,970 --> 00:28:43,360

those different rooms rowing at once

731

00:28:46,680 --> 00:28:44,980

which is a lot of stuff to do but it

732

00:28:49,680 --> 00:28:46,690

means that there's always something for

733

00:28:52,260 --> 00:28:49,690

everyone and I mean I was very very

734

00:28:54,270 --> 00:28:52,270

lucky I appeared at QED two years

735

00:28:56,010 --> 00:28:54,280

running through odd series of

736

00:28:57,570 --> 00:28:56,020

circumstances I found myself in

737

00:28:58,980 --> 00:28:57,580

Manchester to you or the first one

738

00:29:00,840 --> 00:28:58,990

actually you very kindly flew me out

739

00:29:02,820 --> 00:29:00,850

which I was very very grateful for but

740

00:29:05,400 --> 00:29:02,830

the next year I was in that neck of the

741

00:29:07,800 --> 00:29:05,410

woods and I took part in QED once again

742

00:29:11,070 --> 00:29:07,810

both times were absolutely wonderful I

743

00:29:12,690 --> 00:29:11,080

hear nothing but good reports since then

744

00:29:14,610 --> 00:29:12,700

and I know that our very own reporter

745

00:29:16,740 --> 00:29:14,620

and president of Australian skeptics are

746

00:29:18,810 --> 00:29:16,750

on so give certainly has been to QED and

747

00:29:21,480 --> 00:29:18,820

enjoys it very much you had dr. Karl

748

00:29:23,340 --> 00:29:21,490

over there it's a wonderful convention

749

00:29:27,840 --> 00:29:23,350

and tickets are on sale now what's that

750

00:29:30,960 --> 00:29:27,850

website Marsh its QED calm org

751
00:29:33,660 --> 00:29:30,970
just to remind everybody QED conned org

752
00:29:36,060 --> 00:29:33,670
if you're in the UK or you're near the

753
00:29:37,140 --> 00:29:36,070
UK or you're thinking of going to the UK

754
00:29:39,510 --> 00:29:37,150
at that time of the year

755
00:29:41,450 --> 00:29:39,520
please make this a priority you won't

756
00:29:44,299 --> 00:29:41,460
regret it it really is

757
00:29:46,340 --> 00:29:44,309
tastic convention while marche thank you

758
00:29:48,289 --> 00:29:46,350
once again fulfilling the skeptic zone

759
00:29:51,409 --> 00:29:48,299
audience in on the goings-on at the good

760
00:29:53,450 --> 00:29:51,419
thinking society again folks I recommend

761
00:29:55,490 --> 00:29:53,460
you subscribe to their newsletter it's a

762
00:29:58,130 --> 00:29:55,500
really good way to keep up with their

763
00:30:00,289 --> 00:29:58,140

investigations and as you can hear they

764

00:30:03,260 --> 00:30:00,299

really get things done so Marsh all

765

00:30:05,600 --> 00:30:03,270

power to you thanks a lot Richard thanks

766

00:30:28,620 --> 00:30:05,610

wrapping the show

767

00:30:34,590 --> 00:30:31,880

hey Richard oh hi Trish hi

768

00:30:36,240 --> 00:30:34,600

Wow would you like a coffee yeah thanks

769

00:30:38,220 --> 00:30:36,250

what you're working on I'm trying to

770

00:30:41,070 --> 00:30:38,230

come up with a new promo to play on the

771

00:30:42,960 --> 00:30:41,080

sceptic zone who's it for the good

772

00:30:45,270 --> 00:30:42,970

thinking Society in the UK you know

773

00:30:47,220 --> 00:30:45,280

Michael Marshall Simon Singh Laura

774

00:30:48,840 --> 00:30:47,230

Thomas and background oh yeah I know

775

00:30:51,290 --> 00:30:48,850

them they've been doing some great work

776

00:30:54,030 --> 00:30:51,300

investigating veterinary homeopathy

777

00:30:56,490 --> 00:30:54,040

veterinary homeopathy what you sugarpill

778

00:30:57,480 --> 00:30:56,500

this for cows I know right and also

779

00:30:59,750 --> 00:30:57,490

they're looking at some of the dodgy

780

00:31:02,130 --> 00:30:59,760

medical advice given by UK chiropractors

781

00:31:05,160 --> 00:31:02,140

really okay look I'll mention all that

782

00:31:07,950 --> 00:31:05,170

in the promo now their website is good

783

00:31:10,740 --> 00:31:07,960

thinking society org

784

00:31:12,240 --> 00:31:10,750

and they've recently been reporting on

785

00:31:15,180 --> 00:31:12,250

the resurgence of faith healer peter

786

00:31:16,620 --> 00:31:15,190

Popoff you know right okay look thanks

787

00:31:28,290 --> 00:31:16,630

to that it gives me something good to

788

00:31:30,480 --> 00:31:28,300

think about and now direct from the cafe

789

00:31:37,220 --> 00:31:30,490
at Australia's Science Channel

790

00:31:41,550 --> 00:31:39,690
Britain has said cheerio see you

791

00:31:43,380 --> 00:31:41,560
tomorrow coal powered electricity for

792

00:31:46,500 --> 00:31:43,390
the first time since the frickin

793

00:31:48,390 --> 00:31:46,510
Industrial Revolution not a day has gone

794

00:31:50,550 --> 00:31:48,400
by without firing up their coal sessions

795

00:31:53,580 --> 00:31:50,560
since they invented them in the 1800s

796

00:31:55,680 --> 00:31:53,590
but Friday the 21st of April Britain was

797

00:31:58,080 --> 00:31:55,690
able to rely on clean alternatives like

798

00:31:59,550 --> 00:31:58,090
natural gas nuclear and renewables for

799

00:32:01,860 --> 00:31:59,560
24 hours

800

00:32:04,110 --> 00:32:01,870
it's the beginning of an end of an era

801
00:32:05,700 --> 00:32:04,120
no more crowded smokestacks glimpse

802
00:32:07,230 --> 00:32:05,710
through a fog of pollution as little

803
00:32:09,480 --> 00:32:07,240
urchin children run around with soot on

804
00:32:11,160 --> 00:32:09,490
their faces in the street this was

805
00:32:12,690 --> 00:32:11,170
possible partly because spring has

806
00:32:14,280 --> 00:32:12,700
sprung in Britain that time of year

807
00:32:16,950 --> 00:32:14,290
where power demands are at their lowest

808
00:32:18,990 --> 00:32:16,960
it is kind of two steps forward one step

809
00:32:21,420 --> 00:32:19,000
back as they we're back on call the next

810
00:32:23,790 --> 00:32:21,430
day but this milestone is part of a

811
00:32:25,740 --> 00:32:23,800
long-term trend as the stretches of coal

812
00:32:28,500 --> 00:32:25,750
free power get longer and longer

813
00:32:31,950 --> 00:32:28,510

in fact Britain aims to close all coal

814

00:32:34,440 --> 00:32:31,960

stations by 2025 that's so soon guys

815

00:32:36,540 --> 00:32:34,450

so we salute the motherland for showing

816

00:32:37,690 --> 00:32:36,550

Australia that a country with seven and

817

00:32:40,240 --> 00:32:37,700

a half million

818

00:32:43,180 --> 00:32:40,250

us square kilometers and 37 million more

819

00:32:47,799 --> 00:32:43,190

people can make a clean break from dirty

820

00:33:02,279 --> 00:32:47,809

coal for more brouhaha and Australian

821

00:33:09,759 --> 00:33:05,200

save-the-date saikhan is returning to

822

00:33:12,370 --> 00:33:09,769

Las Vegas for 2017 today you turned on

823

00:33:14,710 --> 00:33:12,380

your computer or your phone Facebook

824

00:33:17,860 --> 00:33:14,720

told you that vaccines are an evil

825

00:33:21,129 --> 00:33:17,870

government plot Twitter told you the Sun

826

00:33:22,810 --> 00:33:21,139

is revolving around a Flat Earth and the

827

00:33:25,649 --> 00:33:22,820

House Science Committee told you that

828

00:33:30,509 --> 00:33:25,659

climate change is nothing to worry about

829

00:33:32,980 --> 00:33:30,519

meanwhile up is down true is false

830

00:33:36,639 --> 00:33:32,990

Oceania has always been at war with

831

00:33:40,210 --> 00:33:36,649

Eastasia and dogs and cats may in fact

832

00:33:43,810 --> 00:33:40,220

be living together enough already it's

833

00:33:46,360 --> 00:33:43,820

time once again for the forces of reason

834

00:33:48,759 --> 00:33:46,370

and science to come together time for

835

00:33:51,519 --> 00:33:48,769

critical thinkers to connect learn from

836

00:33:54,879 --> 00:33:51,529

each other and sharpen their skills time

837

00:33:57,519 --> 00:33:54,889

for the leading lights of skepticism to

838

00:34:01,509 --> 00:33:57,529

share their wisdom and to rally the

839

00:34:04,420 --> 00:34:01,519

troops it's time for saikhan 2017 back

840

00:34:10,970 --> 00:34:07,900

October the 26th to the 29th joined

841

00:34:14,360 --> 00:34:10,980

luminaries such as James the amazing

842

00:34:17,480 --> 00:34:14,370

Randi Richard Dawkins Eugenie Scott the

843

00:34:20,330 --> 00:34:17,490

skeptics guide to the universe susan

844

00:34:25,040 --> 00:34:20,340

gerbic Harriet Hall Richard Wiseman

845

00:34:27,800 --> 00:34:25,050

Carrie papi Joe Nickell and many many

846

00:34:30,470 --> 00:34:27,810

more the master of ceremonies is none

847

00:34:32,570 --> 00:34:30,480

other than George her up for the biggest

848

00:34:35,150 --> 00:34:32,580

skeptics event of the year returning

849

00:34:37,490 --> 00:34:35,160

triumphantly to the Excalibur Hotel and

850

00:34:40,850 --> 00:34:37,500

Casino in Las Vegas the city of

851
00:34:43,340 --> 00:34:40,860
illusions saikhan 2017 will be packed

852
00:34:46,160 --> 00:34:43,350
with fascinating talks and presentations

853
00:34:49,400 --> 00:34:46,170
dazzling entertainment and fun social

854
00:34:51,980 --> 00:34:49,410
events with fellow skeptics this October

855
00:34:54,220 --> 00:34:51,990
getaway from fake news and conspiracy

856
00:34:58,480 --> 00:34:54,230
theories filling up your news feeds at

857
00:35:02,720 --> 00:34:58,490
saikhan 2017 your alternative to

858
00:35:11,330 --> 00:35:02,730
alternative facts for more information

859
00:35:11,340 --> 00:35:25,870
[Music]

860
00:35:31,430 --> 00:35:28,730
now folks are just a little while ago I

861
00:35:33,620 --> 00:35:31,440
was very lucky enough to receive a book

862
00:35:35,960 --> 00:35:33,630
for review from our friends at Allen &

863
00:35:38,960 --> 00:35:35,970

Unwin and they produce many fine science

864

00:35:41,120 --> 00:35:38,970

books and this one's pretty unusual I

865

00:35:42,650 --> 00:35:41,130

didn't know what the thing about it when

866

00:35:45,050 --> 00:35:42,660

I opened up the package and I saw the

867

00:35:47,870 --> 00:35:45,060

title of the book it's called and then

868

00:35:50,540 --> 00:35:47,880

you're dead a scientific exploration of

869

00:35:53,600 --> 00:35:50,550

the world's most interesting ways to die

870

00:35:56,000 --> 00:35:53,610

by Cody Cassidy and Paul Dodie and I

871

00:35:57,440 --> 00:35:56,010

thought what what sort of a book is this

872

00:35:59,630 --> 00:35:57,450

but it didn't take me long to flip

873

00:36:02,870 --> 00:35:59,640

through and start reading it to discover

874

00:36:04,910 --> 00:36:02,880

that it does tackle a very strange

875

00:36:08,330 --> 00:36:04,920

subject but it does it so well in good

876
00:36:09,950 --> 00:36:08,340
scientific terms and I'm lucky enough to

877
00:36:13,430 --> 00:36:09,960
have with me from the bay area one of

878
00:36:15,830 --> 00:36:13,440
the authors of the book dr. Paul Doty

879
00:36:17,870 --> 00:36:15,840
hello hello and thank you for having me

880
00:36:20,960 --> 00:36:17,880
on my pleasure my pleasure especially

881
00:36:24,110 --> 00:36:20,970
after reading this this fascinatingly

882
00:36:27,560 --> 00:36:24,120
strange McCobb in a sort of a way book

883
00:36:30,650 --> 00:36:27,570
about all the interesting ways to die

884
00:36:32,630 --> 00:36:30,660
many topics covered and I will say the

885
00:36:35,930 --> 00:36:32,640
book is I quite like the fact that the

886
00:36:38,720 --> 00:36:35,940
book is in tiny little tiny chapters of

887
00:36:39,140 --> 00:36:38,730
four or five pages each let's get to the

888
00:36:41,720 --> 00:36:39,150

beginning

889

00:36:44,240 --> 00:36:41,730

what on earth motivated you and your

890

00:36:46,550 --> 00:36:44,250

co-author to write such a book well Cody

891

00:36:49,190 --> 00:36:46,560

came up with the idea for the book he

892

00:36:51,980 --> 00:36:49,200

had been reading sebastien youngest book

893

00:36:55,040 --> 00:36:51,990

the perfect storm and he noted in there

894

00:36:58,190 --> 00:36:55,050

this incredibly detailed description of

895

00:37:00,830 --> 00:36:58,200

how you die by drowning and he thought

896

00:37:03,980 --> 00:37:00,840

that was really interesting I wonder

897

00:37:08,210 --> 00:37:03,990

what the science is behind other ways to

898

00:37:11,600 --> 00:37:08,220

die and so he called me up as his

899

00:37:13,400 --> 00:37:11,610

scientist friend and said hey do you

900

00:37:15,020 --> 00:37:13,410

think we could get together and come up

901
00:37:17,750 --> 00:37:15,030
with ideas and really look at the

902
00:37:19,430 --> 00:37:17,760
science behind the world's most

903
00:37:23,060 --> 00:37:19,440
interesting ways to die

904
00:37:25,160 --> 00:37:23,070
and that's true because I would have

905
00:37:27,560 --> 00:37:25,170
thought just looking at the title you

906
00:37:29,480 --> 00:37:27,570
might be discussing some ways some

907
00:37:32,170 --> 00:37:29,490
people have died and moving on but no

908
00:37:34,059 --> 00:37:32,180
you actually go into the science

909
00:37:35,230 --> 00:37:34,069
we'll just pick a couple of the topics

910
00:37:38,109 --> 00:37:35,240
at random some of the ones that I

911
00:37:39,519 --> 00:37:38,119
particularly loved to read about there's

912
00:37:41,170 --> 00:37:39,529
a whole chapter there when I say a

913
00:37:43,990 --> 00:37:41,180

chapter it's a mini chapter it's a

914

00:37:46,269 --> 00:37:44,000

section of the book about time travel

915

00:37:48,279 --> 00:37:46,279

and I thought what what what how does

916

00:37:50,650 --> 00:37:48,289

that work but of course what you do is

917

00:37:53,260 --> 00:37:50,660

you suppose we jumped into a time

918

00:37:55,150 --> 00:37:53,270

machine and landed some billions of

919

00:37:57,819 --> 00:37:55,160

years ago then some millions of years

920

00:37:59,260 --> 00:37:57,829

ago and the science behind that not the

921

00:38:01,480 --> 00:37:59,270

time travel we don't know how that works

922

00:38:03,910 --> 00:38:01,490

but what you would expect when you

923

00:38:06,760 --> 00:38:03,920

arrived is quite interesting yeah so you

924

00:38:09,760 --> 00:38:06,770

know we don't realize how nice a place

925

00:38:13,240 --> 00:38:09,770

the earth is right now and if you go

926
00:38:15,039 --> 00:38:13,250
back a couple billion years or actually

927
00:38:17,769 --> 00:38:15,049
let's go back to the more closer the

928
00:38:19,930 --> 00:38:17,779
beginning four billion years there's the

929
00:38:23,410 --> 00:38:19,940
earth has an atmosphere but it doesn't

930
00:38:26,680 --> 00:38:23,420
have any oxygen in it and then a couple

931
00:38:29,349 --> 00:38:26,690
billion years ago if you go then well it

932
00:38:31,180 --> 00:38:29,359
turns out one of the greatest pollution

933
00:38:34,120 --> 00:38:31,190
events in the history of the world

934
00:38:39,039 --> 00:38:34,130
happens now get this can you imagine an

935
00:38:42,130 --> 00:38:39,049
organism creating a gas and ejecting the

936
00:38:44,670 --> 00:38:42,140
gas into the atmosphere that kills every

937
00:38:47,920 --> 00:38:44,680
other organism on earth hmm well

938
00:38:50,829 --> 00:38:47,930

blue-green algae did that they actually

939

00:38:53,680 --> 00:38:50,839

created this waste product called oxygen

940

00:38:55,510 --> 00:38:53,690

and put it into the atmosphere and and

941

00:38:58,480 --> 00:38:55,520

most of the organisms in fact all the

942

00:39:01,210 --> 00:38:58,490

other organisms were anaerobic oxygen

943

00:39:03,460 --> 00:39:01,220

killed them so this organism produced a

944

00:39:06,130 --> 00:39:03,470

waste gas that then killed almost

945

00:39:07,960 --> 00:39:06,140

everything else now of course we if we

946

00:39:10,779 --> 00:39:07,970

went back to that time period would have

947

00:39:12,190 --> 00:39:10,789

some oxygen to breathe the only thing

948

00:39:13,930 --> 00:39:12,200

there was to eat this blue-green algae

949

00:39:16,870 --> 00:39:13,940

so it probably gets a little bit boring

950

00:39:20,470 --> 00:39:16,880

yeah and no land plants the land is just

951

00:39:22,450 --> 00:39:20,480

barren so not not not an interesting

952

00:39:24,549 --> 00:39:22,460

time but at least you could breathe and

953

00:39:28,210 --> 00:39:24,559

and then we said well how about a

954

00:39:31,059 --> 00:39:28,220

hundred and fifty million years ago well

955

00:39:34,930 --> 00:39:31,069

there were dinosaurs around and that'd

956

00:39:38,260 --> 00:39:34,940

be so cool except you're way down from

957

00:39:40,120 --> 00:39:38,270

the top of the food chain I mean you you

958

00:39:44,410 --> 00:39:40,130

are lunch is what we call you at that

959

00:39:45,670 --> 00:39:44,420

time so but finally some time after the

960

00:39:49,599 --> 00:39:45,680

dinosaurs get a limb

961

00:39:53,559 --> 00:39:49,609

by the impact the the meteorite impact

962

00:39:56,109 --> 00:39:53,569

then it's probably a disc air this food

963

00:39:58,870 --> 00:39:56,119

we're doing pretty well

964

00:40:01,930 --> 00:39:58,880

if you jump a billion years into the

965

00:40:05,170 --> 00:40:01,940

future the Sun has swollen up and gotten

966

00:40:08,079 --> 00:40:05,180

water and it has evaporated all the

967

00:40:09,339 --> 00:40:08,089

oceans on earth so then you even though

968

00:40:12,190 --> 00:40:09,349

there might still be oxygen around

969

00:40:14,440 --> 00:40:12,200

there's no water so you're in deep

970

00:40:18,220 --> 00:40:14,450

trouble so I can live in this little

971

00:40:19,930 --> 00:40:18,230

billion year plus interval in which the

972

00:40:23,710 --> 00:40:19,940

earth is habitable so we're kind of

973

00:40:25,210 --> 00:40:23,720

lucky indeed we are and and it didn't

974

00:40:27,309 --> 00:40:25,220

quite occurred to me because the the

975

00:40:28,839 --> 00:40:27,319

romance of time travel is something like

976

00:40:30,940 --> 00:40:28,849

you see in Doctor Who or the other

977

00:40:33,640 --> 00:40:30,950

movies where people go back to an

978

00:40:36,490 --> 00:40:33,650

earlier period in human history or you

979

00:40:38,470 --> 00:40:36,500

know not not too far either way but

980

00:40:39,849 --> 00:40:38,480

you're right for most of the existence

981

00:40:41,849 --> 00:40:39,859

of the earth you'd have a lot of trouble

982

00:40:44,859 --> 00:40:41,859

if you stepped out of the time machine

983

00:40:48,609 --> 00:40:44,869

you betcha in fact the universe is

984

00:40:50,829 --> 00:40:48,619

uniformly deadly to humans and you can't

985

00:40:53,530 --> 00:40:50,839

hardly even conceive of a place you

986

00:40:55,030 --> 00:40:53,540

could go anywhere in space and time I'll

987

00:40:56,470 --> 00:40:55,040

let you I'm not only let you search

988

00:40:58,329 --> 00:40:56,480

through all of space all I search

989

00:41:00,190 --> 00:40:58,339

through all of time if that the

990

00:41:02,109 --> 00:41:00,200

probability of finding a place where you

991

00:41:06,160 --> 00:41:02,119

can survive for more than four minutes

992

00:41:08,049 --> 00:41:06,170

it's like really unlikely yeah I'm glad

993

00:41:10,960 --> 00:41:08,059

I'm glad we're here actually I'm glad to

994

00:41:13,000 --> 00:41:10,970

here look other topics in the book what

995

00:41:14,710 --> 00:41:13,010

if he skydive from outer space what if

996

00:41:16,120 --> 00:41:14,720

you jumped into a black hole what would

997

00:41:19,750 --> 00:41:16,130

happen to your body then what if you

998

00:41:21,120 --> 00:41:19,760

just stayed in bed bizarre things like

999

00:41:23,799 --> 00:41:21,130

what if you were swallowed by a whale

1000

00:41:26,770 --> 00:41:23,809

there's quite a lot of content in the

1001
00:41:28,510 --> 00:41:26,780
book one of my other favorites was you

1002
00:41:30,760 --> 00:41:28,520
theorized well what would happen if you

1003
00:41:32,410 --> 00:41:30,770
travel to Jupiter the planet Jupiter and

1004
00:41:34,630 --> 00:41:32,420
yeah oh that would be great the view

1005
00:41:36,849 --> 00:41:34,640
would be amazing but that is absolutely

1006
00:41:39,250 --> 00:41:36,859
one of the most dangerous things you

1007
00:41:43,539 --> 00:41:39,260
could could possibly do yeah in fact we

1008
00:41:46,420 --> 00:41:43,549
dropped a exploration satellite the

1009
00:41:48,819 --> 00:41:46,430
Galileo probe into Jupiter so we have

1010
00:41:52,630 --> 00:41:48,829
some pretty good data about what happens

1011
00:41:55,720 --> 00:41:52,640
so you drop into Jupiter and you'll see

1012
00:41:57,910 --> 00:41:55,730
coming in and it the deceleration

1013
00:41:59,890 --> 00:41:57,920

because the atmosphere gets thick really

1014

00:42:02,380 --> 00:41:59,900

fast so first of all

1015

00:42:04,809 --> 00:42:02,390

deceleration might kill you so you have

1016

00:42:07,450 --> 00:42:04,819

to very carefully enter Jupiter to keep

1017

00:42:09,970 --> 00:42:07,460

the acceleration level down and then

1018

00:42:12,069 --> 00:42:09,980

let's say you try to breathe the air

1019

00:42:15,069 --> 00:42:12,079

there's there's just no oxygen the

1020

00:42:16,509 --> 00:42:15,079

atmosphere is hydrogen and helium and I

1021

00:42:19,450 --> 00:42:16,519

guess the only good part about that is

1022

00:42:21,759 --> 00:42:19,460

that when you let out your last scream

1023

00:42:24,789 --> 00:42:21,769

it will be a nice high pitch like people

1024

00:42:26,710 --> 00:42:24,799

breathing the helium okay but that that

1025

00:42:29,589 --> 00:42:26,720

scream is going to last a while as you

1026

00:42:32,710 --> 00:42:29,599

fall down in Jupiter the air gets

1027

00:42:35,529 --> 00:42:32,720

thicker and thicker under the gravity on

1028

00:42:38,170 --> 00:42:35,539

Jupiter and eventually the air is as

1029

00:42:40,809 --> 00:42:38,180

thick as the areas on the earth as and

1030

00:42:43,390 --> 00:42:40,819

then it gets as thick as densest water

1031

00:42:47,650 --> 00:42:43,400

Wow so you just sort of float there a

1032

00:42:49,989 --> 00:42:47,660

bit and but if you were to plunge down

1033

00:42:52,120 --> 00:42:49,999

even deeper into Jupiter that the

1034

00:42:53,559 --> 00:42:52,130

pressure begins to go up and just sort

1035

00:42:57,370 --> 00:42:53,569

of crushes you

1036

00:43:00,220 --> 00:42:57,380

and if you go down as far as the Galileo

1037

00:43:02,319 --> 00:43:00,230

probe went down you would be taken apart

1038

00:43:05,499 --> 00:43:02,329

into your component atoms by the

1039

00:43:07,900 --> 00:43:05,509

temperature but the cool part is the

1040

00:43:10,359 --> 00:43:07,910

best part of all is that the hydrogen

1041

00:43:13,359 --> 00:43:10,369

atoms in your body would join the

1042

00:43:16,930 --> 00:43:13,369

hydrogen atoms deep in Jupiter which we

1043

00:43:19,450 --> 00:43:16,940

believe are liquid metal hydrogen Wow

1044

00:43:21,640 --> 00:43:19,460

and so you would join the liquid metal

1045

00:43:24,210 --> 00:43:21,650

hydrogen of Jupiter and so you might

1046

00:43:27,190 --> 00:43:24,220

imagine yourself and it's like the

1047

00:43:30,309 --> 00:43:27,200

villain in Terminator 2 you know the

1048

00:43:33,279 --> 00:43:30,319

metal guy is made of metal right you'd

1049

00:43:36,279 --> 00:43:33,289

be made of metal like that that would

1050

00:43:40,239 --> 00:43:36,289

now that would be a very very

1051
00:43:41,799 --> 00:43:40,249
interesting way to die indeed no I won't

1052
00:43:43,200 --> 00:43:41,809
go through too many more of the topics

1053
00:43:45,190 --> 00:43:43,210
because I don't want to spoil it for the

1054
00:43:47,440 --> 00:43:45,200
everybody who's going to be reading this

1055
00:43:48,910 --> 00:43:47,450
book because it is fascinating and I

1056
00:43:51,069 --> 00:43:48,920
really and I keep getting back to this

1057
00:43:52,479 --> 00:43:51,079
the fact that it's in in bite-sized

1058
00:43:54,309 --> 00:43:52,489
chunks mean if you're on the the

1059
00:43:56,259 --> 00:43:54,319
commuting on the bus or the train or

1060
00:43:57,670 --> 00:43:56,269
whatever you can read a couple of

1061
00:43:59,440 --> 00:43:57,680
chapters on your way to work

1062
00:44:01,900 --> 00:43:59,450
it's you're not committed to to

1063
00:44:03,970 --> 00:44:01,910

continuing on and then you can move on

1064

00:44:05,920 --> 00:44:03,980

to the next chapter what surprised you

1065

00:44:08,950 --> 00:44:05,930

when you were doing all the research for

1066

00:44:11,979 --> 00:44:08,960

all these interesting ways to die what

1067

00:44:13,109 --> 00:44:11,989

really shocked me was that as a

1068

00:44:17,489 --> 00:44:13,119

physicist

1069

00:44:19,710 --> 00:44:17,499

that magnetism can kill you and it turns

1070

00:44:22,109 --> 00:44:19,720

out that no magnet on earth can hurt you

1071

00:44:26,549 --> 00:44:22,119

I mean you can go into a magnetic field

1072

00:44:29,730 --> 00:44:26,559

and MRI machine which is we measure it

1073

00:44:31,109 --> 00:44:29,740

call it 2 Tesla and the Earth's magnetic

1074

00:44:33,690 --> 00:44:31,119

field that we live in all the time is

1075

00:44:35,910 --> 00:44:33,700

only 50 micro Tesla Wow

1076

00:44:37,769 --> 00:44:35,920

so it's a really strong magnetic field

1077

00:44:39,480 --> 00:44:37,779

it does nothing you know people that

1078

00:44:43,019 --> 00:44:39,490

have gone into MRIs and come out they

1079

00:44:45,269 --> 00:44:43,029

come out again no change okay there's a

1080

00:44:48,180 --> 00:44:45,279

star out there in space called a

1081

00:44:52,559 --> 00:44:48,190

magnetar whoo and it's a neutron star

1082

00:45:00,109 --> 00:44:52,569

and it's magnetic field is a hundred

1083

00:45:03,950 --> 00:45:00,119

billion times stronger than a MRI so

1084

00:45:07,650 --> 00:45:03,960

that's such a strong magnetic field that

1085

00:45:09,809 --> 00:45:07,660

your atoms are actually made every

1086

00:45:12,839 --> 00:45:09,819

electron in your body as a magnet yeah

1087

00:45:15,269 --> 00:45:12,849

and with that strong a magnetic field it

1088

00:45:17,489 --> 00:45:15,279

takes over the motions of the electrons

1089

00:45:20,160 --> 00:45:17,499

and the atoms and it stretches your

1090

00:45:22,410 --> 00:45:20,170

atoms into cigar shapes and then

1091

00:45:25,499 --> 00:45:22,420

stretches them into lines and then

1092

00:45:28,200 --> 00:45:25,509

breaks every bond between the atoms in

1093

00:45:30,809 --> 00:45:28,210

your body so you become a gas Wow and

1094

00:45:32,910 --> 00:45:30,819

then it doesn't stop there rip the

1095

00:45:38,700 --> 00:45:32,920

electrons out of all the atoms in your

1096

00:45:41,999 --> 00:45:38,710

body so you become a human plasma your

1097

00:45:44,880 --> 00:45:42,009

your plasma shaped like a human so I

1098

00:45:47,220 --> 00:45:44,890

thought if I'm gonna pick any way in the

1099

00:45:50,069 --> 00:45:47,230

book to die I'm gonna go to the magnetar

1100

00:45:53,279 --> 00:45:50,079

yes well and there there are a lot of

1101
00:45:55,529 --> 00:45:53,289
choices there are a lot of choices what

1102
00:45:56,970 --> 00:45:55,539
if you vacationed on Venus if you live

1103
00:45:59,609 --> 00:45:56,980
through a nuclear winter I guess it

1104
00:46:02,430 --> 00:45:59,619
that'd be pretty tough what if you were

1105
00:46:04,620 --> 00:46:02,440
caught in a human stampede the list goes

1106
00:46:07,289 --> 00:46:04,630
on and on and on folks the book is

1107
00:46:09,269 --> 00:46:07,299
called and then you're dead a scientific

1108
00:46:10,979 --> 00:46:09,279
exploration the world's most interesting

1109
00:46:13,349 --> 00:46:10,989
ways to die it's just been released this

1110
00:46:16,200 --> 00:46:13,359
month by dr. Paul Doherty and Cody

1111
00:46:17,700 --> 00:46:16,210
Cassidy and I'll add a link to that book

1112
00:46:19,859 --> 00:46:17,710
in the show notes from the good people

1113
00:46:21,749 --> 00:46:19,869

of Allen an unknown well Paul thank you

1114

00:46:24,029 --> 00:46:21,759

very much for your time I really am

1115

00:46:25,799 --> 00:46:24,039

still enjoying this book I haven't

1116

00:46:26,690 --> 00:46:25,809

decided which interesting way I would

1117

00:46:31,670 --> 00:46:26,700

like to die

1118

00:46:34,160 --> 00:46:31,680

I'll decide when I'm 92 a good a good

1119

00:46:37,630 --> 00:46:34,170

Tyson thanks for importing me to

1120

00:46:48,440 --> 00:46:37,640

Australia and the sceptic zone

1121

00:46:51,410 --> 00:46:48,450

[Music]

1122

00:46:54,090 --> 00:46:51,420

exist you

1123

00:46:56,640 --> 00:46:54,100

see a stock simply idiot hey Sal you

1124

00:46:57,540 --> 00:46:56,650

guys guys I just had the most amazing

1125

00:47:00,990 --> 00:46:57,550

experience

1126

00:47:03,000 --> 00:47:01,000

been to the pub I told you not to hang

1127

00:47:05,280 --> 00:47:03,010

out with mash you know she was blessed

1128

00:47:07,980 --> 00:47:05,290

by peter Popoff no Yellin I'm not

1129

00:47:10,290 --> 00:47:07,990

talking about psychics it was a really

1130

00:47:12,240 --> 00:47:10,300

SP experience now you have been to the

1131

00:47:12,720 --> 00:47:12,250

pub either that or you've been smoking

1132

00:47:15,240 --> 00:47:12,730

something

1133

00:47:17,700 --> 00:47:15,250

no punters the ESP is the European

1134

00:47:19,620 --> 00:47:17,710

sceptics podcast it's the most amazing

1135

00:47:21,420 --> 00:47:19,630

thing you get to know so much about

1136

00:47:24,390 --> 00:47:21,430

sceptics and their activities across

1137

00:47:26,160 --> 00:47:24,400

Europe you know events hot topics and

1138

00:47:27,390 --> 00:47:26,170

interviews with lots of interesting

1139

00:47:29,130 --> 00:47:27,400

people oh wow cool

1140

00:47:31,560 --> 00:47:29,140

by the way punters you just come into

1141

00:47:34,590 --> 00:47:31,570

the false dichotomy fallacy I guess that

1142

00:47:36,360 --> 00:47:34,600

means I'm really wrong yep then you can

1143

00:47:38,250 --> 00:47:36,370

even learn about those fallacies in the

1144

00:47:40,560 --> 00:47:38,260

show and hear about people spreading

1145

00:47:43,740 --> 00:47:40,570

silly ideas you should really check it

1146

00:47:47,400 --> 00:47:43,750

out it's the ESP the European sceptics

1147

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

podcast it's on every week all right so

1148

00:47:51,780 --> 00:47:49,420

where can I get this is the experience

1149

00:47:54,540 --> 00:47:51,790

it sounds good you can go online at the

1150

00:47:58,440 --> 00:47:54,550

ESP door to you follow it on twitter at

1151

00:48:00,510 --> 00:47:58,450

es podcast underscore EU or like the

1152

00:48:02,070 --> 00:48:00,520

podcast on Facebook oh and you can also

1153

00:48:07,650 --> 00:48:02,080

contact the show by sending them an

1154

00:48:09,360 --> 00:48:07,660

email to info at the ESPE you and if you

1155

00:48:12,000 --> 00:48:09,370

want to subscribe do a quick search for

1156

00:48:18,150 --> 00:48:12,010

the European skeptic podcast on

1157

00:48:20,210 --> 00:48:18,160

soundcloud iTunes or stitcher I don't

1158

00:48:23,060 --> 00:48:20,220

know I you can

1159

00:48:33,599 --> 00:48:23,070

Healy

1160

00:48:36,760 --> 00:48:36,069

thank you for listening to the skeptic

1161

00:48:39,339 --> 00:48:36,770

zone now

1162

00:48:42,069 --> 00:48:39,349

fans of Maynard if you go to Maynard

1163

00:48:45,010 --> 00:48:42,079

Comte you and of course you know about

1164

00:48:46,750 --> 00:48:45,020

that site from his podcasts and bunga

1165

00:48:48,819 --> 00:48:46,760

bunga and planet Maynard and all that

1166

00:48:50,859 --> 00:48:48,829

sort of thing but you'll find links

1167

00:48:52,569 --> 00:48:50,869

there to some recent video work Maenads

1168

00:48:55,000 --> 00:48:52,579

been doing and to let you know that

1169

00:48:58,030 --> 00:48:55,010

Maynard is the perfect frontman for

1170

00:49:00,819 --> 00:48:58,040

videos if you need somebody to be at

1171

00:49:03,099 --> 00:49:00,829

your function your location your media

1172

00:49:05,859 --> 00:49:03,109

event to interview the stars to

1173

00:49:08,440 --> 00:49:05,869

interview the people whoever you wish

1174

00:49:11,740 --> 00:49:08,450

Maynard is your man he specializes in

1175

00:49:14,650 --> 00:49:11,750

red carpet interviews or interviews in

1176

00:49:16,540 --> 00:49:14,660

general and he's great doing audio

1177

00:49:20,620 --> 00:49:16,550

reports as you know listening to the

1178

00:49:22,810 --> 00:49:20,630

skeptic zone or video reports he's the

1179

00:49:25,329 --> 00:49:22,820

man for you more information if you're

1180

00:49:28,480 --> 00:49:25,339

interested in using Maynard if you live

1181

00:49:31,359 --> 00:49:28,490

in the Sydney area may not come today

1182

00:49:33,220 --> 00:49:31,369

you check out his work and drop him a

1183

00:49:35,589 --> 00:49:33,230

line if you'd like to engage his

1184

00:49:37,950 --> 00:49:35,599

services he's one of the best and he's

1185

00:49:41,079 --> 00:49:37,960

been one of the best since the 1980s and

1186

00:49:42,849 --> 00:49:41,089

we are very lucky indeed to have Maynard

1187

00:49:45,880 --> 00:49:42,859

a part of the sceptic zone now for many

1188

00:49:48,400 --> 00:49:45,890

years coming up on next week's show I'm

1189

00:49:49,569 --> 00:49:48,410

gonna do a call out to my reporter

1190

00:49:57,460 --> 00:49:49,579

reporters

1191

00:50:00,490 --> 00:49:57,470

mm-hmm I hope I hope to have an

1192

00:50:01,900 --> 00:50:00,500

interview or a segment or a report or

1193

00:50:04,150 --> 00:50:01,910

something from one of my wonderful

1194

00:50:07,329 --> 00:50:04,160

reporters who do who do such a great job

1195

00:50:09,010 --> 00:50:07,339

all of them all of them and we miss them

1196

00:50:10,510 --> 00:50:09,020

we miss them when they're not part of

1197

00:50:14,020 --> 00:50:10,520

the show so hopefully next week we'll

1198

00:50:14,950 --> 00:50:14,030

have a a report from a reporter that

1199

00:50:17,140 --> 00:50:14,960

would be nice

1200

00:50:20,349 --> 00:50:17,150

but for this week at least this is

1201
00:50:26,859 --> 00:50:20,359
Richard Saunders signing off from a very

1202
00:50:33,079 --> 00:50:29,270
you've been listening to the skeptic

1203
00:50:35,990 --> 00:50:33,089
zone podcast visit our website at WWF

1204
00:50:39,650 --> 00:50:36,000
eggs on TV for contacts an archive of

1205
00:50:42,559 --> 00:50:39,660
all episodes since 2008 and our online

1206
00:50:45,280 --> 00:50:42,569
store please support the skeptic zone by

1207
00:50:48,290 --> 00:50:45,290
following us on Twitter at skeptic zone

1208
00:50:51,319 --> 00:50:48,300
liking us on Facebook and leaving a

1209
00:50:54,200 --> 00:50:51,329
review on iTunes you can also show your

1210
00:50:57,680 --> 00:50:54,210
support by subscribing via PayPal for as

1211
00:51:00,020 --> 00:50:57,690
little as 99 cents a week the skeptic

1212
00:51:01,819 --> 00:51:00,030
zone is an independent production the

1213
00:51:03,950 --> 00:51:01,829

views and opinions expressed on the

1214

00:51:06,490 --> 00:51:03,960

skeptic zone and not necessarily those

1215

00:51:16,940 --> 00:51:06,500

of Australian skeptic tea or any other

1216

00:51:19,190 --> 00:51:16,950

skeptical organisation to the good

1217

00:51:22,849 --> 00:51:19,200

thinking newsletter and it comes into my

1218

00:51:25,609 --> 00:51:22,859

inbox regularly and I just have to pause

1219

00:51:28,190 --> 00:51:25,619

Marsh there's a plane coming yeah that's

1220

00:51:31,010 --> 00:51:28,200

not a problem that's my it's my turn to

1221

00:51:32,359 --> 00:51:31,020

be on the flight path and I can tell you

1222

00:51:37,010 --> 00:51:32,369

because I've got my flight radar

1223

00:51:38,450 --> 00:51:37,020

tracking wow that's wow okay so you keep

1224

00:51:40,160 --> 00:51:38,460

that open to track it as the medical

1225

00:51:41,569 --> 00:51:40,170

officer doesn't get surprised by well I

1226

00:51:43,700 --> 00:51:41,579

got surprised by this one cuz I was

1227

00:51:47,150 --> 00:51:43,710

looking at your website that's a Sydney

1228

00:51:53,420 --> 00:51:47,160

to Adelaide flight right now going over