

**SKEPTIC
ZONE**



**THINKING CAPS
MUST BE WORN
IN THIS AREA**

The
Podcast
from
Australia
for
Science
and
Reason

www.skepticzone.tv

1
00:00:12,960 --> 00:00:09,490
welcome to the skeptic zone the podcast

2
00:00:16,810 --> 00:00:12,970
from Australia for science and reason

3
00:00:20,930 --> 00:00:16,820
yuria hosts Richard Saunders and Stefan

4
00:00:25,980 --> 00:00:23,790
welcome back Richard back from the big

5
00:00:28,410 --> 00:00:25,990
dragon con how is it how are you going

6
00:00:30,210 --> 00:00:28,420
I'm doing well you know I I you'd think

7
00:00:32,370 --> 00:00:30,220
I'd be completely screwed up with time

8
00:00:34,590 --> 00:00:32,380
zones and jet lag but you like crazy no

9
00:00:36,540 --> 00:00:34,600
I wasn't there long enough to get jet

10
00:00:38,670 --> 00:00:36,550
lag what to feel the effects on there

11
00:00:41,160 --> 00:00:38,680
feel the effects on coming back I don't

12
00:00:43,229 --> 00:00:41,170
leave any effects over that ok you got

13
00:00:46,680 --> 00:00:43,239

back in your fine again um pretty well

14

00:00:48,660 --> 00:00:46,690

that's good so how was it amazing as you

15

00:00:51,990 --> 00:00:48,670

will find out no doubt when you come

16

00:00:54,119 --> 00:00:52,000

next you know i'm booked it in i'm sick

17

00:00:56,640 --> 00:00:54,129

of all these big junkets and jorts that

18

00:00:58,290 --> 00:00:56,650

the that the zone does and I don't tag

19

00:01:00,060 --> 00:00:58,300

along it's just not right there we were

20

00:01:02,280 --> 00:01:00,070

you know doing the show everything live

21

00:01:03,930 --> 00:01:02,290

which you'll hear next week because you

22

00:01:07,440 --> 00:01:03,940

know next week is our one year

23

00:01:09,270 --> 00:01:07,450

anniversary of the show one really isn't

24

00:01:13,050 --> 00:01:09,280

any year it's been a year we're making

25

00:01:15,510 --> 00:01:13,060

this huh it feels like five how do you

26

00:01:19,050 --> 00:01:15,520

know the area don't wait for next week

27

00:01:21,330 --> 00:01:19,060

this this episode skeptics own number 48

28

00:01:24,149 --> 00:01:21,340

for the eighteenth of September while I

29

00:01:28,109 --> 00:01:24,159

was there I had an interview with seth

30

00:01:29,219 --> 00:01:28,119

shostack Oh Seth isn't he a city guy is

31

00:01:32,850 --> 00:01:29,229

the search for extraterrestrial

32

00:01:34,920 --> 00:01:32,860

intelligence cv city guy what's a good

33

00:01:36,539 --> 00:01:34,930

question X he's one of these there you

34

00:01:38,789 --> 00:01:36,549

gotta find it that's it quite a big

35

00:01:40,139 --> 00:01:38,799

movement too and I suppose we're going

36

00:01:42,300 --> 00:01:40,149

to find out if there's even an inkling

37

00:01:44,029 --> 00:01:42,310

of anything going on we'll find out if

38

00:01:46,830 --> 00:01:44,039

there's there been any messages from

39

00:01:49,529 --> 00:01:46,840

extraterrestrials and his views on the

40

00:01:51,569 --> 00:01:49,539

long-term future of humans of human what

41

00:01:53,310 --> 00:01:51,579

will we do will we move out into space

42

00:01:56,190 --> 00:01:53,320

what are we going to do we evolve into

43

00:01:58,200 --> 00:01:56,200

something else hmm and evolve the law

44

00:02:00,359 --> 00:01:58,210

back to dinosaurs have already we're

45

00:02:02,550 --> 00:02:00,369

kind of getting it also another great

46

00:02:03,959 --> 00:02:02,560

show this is second the show just before

47

00:02:06,120 --> 00:02:03,969

the big anniversary so it's of inverse

48

00:02:08,999 --> 00:02:06,130

right-hand altum its celebration today

49

00:02:11,010 --> 00:02:09,009

and a bit of a twist um normally would

50

00:02:12,690 --> 00:02:11,020

have the think tank yeah and still do

51
00:02:15,630 --> 00:02:12,700
have the think tank but it's a new

52
00:02:18,300 --> 00:02:15,640
zealand think tank in new zealand Kylie

53
00:02:20,250 --> 00:02:18,310
Sturgis after visiting us at DragonCon

54
00:02:22,380 --> 00:02:20,260
jump on a plane went to Auckland New

55
00:02:24,210 --> 00:02:22,390
Zealand or just skeptics in the pub and

56
00:02:25,920 --> 00:02:24,220
recorded a think tank in New Zealand

57
00:02:28,860 --> 00:02:25,930
well for those folks haven't been to

58
00:02:29,970 --> 00:02:28,870
Auckland I there once and when you're

59
00:02:30,930 --> 00:02:29,980
talking about skipped if you in the pub

60
00:02:31,559 --> 00:02:30,940
I don't know how they would have even

61
00:02:33,539 --> 00:02:31,569
chosen

62
00:02:36,239 --> 00:02:33,549
pub to go because in every single

63
00:02:38,429 --> 00:02:36,249

building in the city of Auckland is a

64

00:02:39,959 --> 00:02:38,439

pub is it there actually yeah it's one

65

00:02:42,089 --> 00:02:39,969

after i look at this seem tight i would

66

00:02:43,979 --> 00:02:42,099

for being walk around yeah every single

67

00:02:46,559 --> 00:02:43,989

place was a pub there's no shops there's

68

00:02:49,020 --> 00:02:46,569

no milk bars as though restaurants they

69

00:02:52,890 --> 00:02:49,030

are all there's about a thousand pubs in

70

00:02:56,190 --> 00:02:52,900

the city centre so what'll be fun it's

71

00:02:57,690 --> 00:02:56,200

great one out it's a close behind you

72

00:03:01,640 --> 00:02:57,700

Stefan if you reach over there there's a

73

00:03:04,470 --> 00:03:01,650

magazine Ricci yeah uh-oh what's this

74

00:03:06,360 --> 00:03:04,480

what a spectacular cover it's the new

75

00:03:08,129 --> 00:03:06,370

skeptic magazine a new skeptic magazine

76

00:03:12,839 --> 00:03:08,139

from Australian skeptics you can

77

00:03:14,759 --> 00:03:12,849

subscribe at ww skeptics calm you this

78

00:03:17,339 --> 00:03:14,769

is really good and it's by our new

79

00:03:19,319 --> 00:03:17,349

editor Tim mendham so it's a new look

80

00:03:21,300 --> 00:03:19,329

magazine this a lot of interesting

81

00:03:23,189 --> 00:03:21,310

articles as a story of their about the

82

00:03:25,409 --> 00:03:23,199

amazing meeting it is chock-a-block

83

00:03:26,849 --> 00:03:25,419

chock-a-block there's a bit about an

84

00:03:29,610 --> 00:03:26,859

interview of joe nickell in there

85

00:03:32,429 --> 00:03:29,620

there's all sorts of things 64 pages yep

86

00:03:34,259 --> 00:03:32,439

it's a bumper edition it's fantastic so

87

00:03:36,599 --> 00:03:34,269

the new skeptic magazine is out

88

00:03:38,309 --> 00:03:36,609

available now you can subscribe on the

89

00:03:40,860 --> 00:03:38,319

website this looks like it should be the

90

00:03:42,360 --> 00:03:40,870

news agents it is us it's in a few news

91

00:03:44,300 --> 00:03:42,370

agents but we're working to get it in

92

00:03:47,399 --> 00:03:44,310

all it should be it all this is fabulous

93

00:03:50,729 --> 00:03:47,409

well well done get a sceptic thank you

94

00:03:53,369 --> 00:03:50,739

new editor Tim mendham well I can't wait

95

00:03:55,050 --> 00:03:53,379

to hear from seth shostack oh let's just

96

00:04:09,230 --> 00:03:55,060

get straight into the show let's do it

97

00:04:14,160 --> 00:04:11,900

Seth Shostak is an American astronomer

98

00:04:16,680 --> 00:04:14,170

he earned his physics degree from

99

00:04:18,780 --> 00:04:16,690

Princeton University and a PhD in

100

00:04:21,630 --> 00:04:18,790

astronomy from the California Institute

101

00:04:23,520 --> 00:04:21,640

of Technology he is the senior

102

00:04:25,830 --> 00:04:23,530

astronomer at the SETI Institute in

103

00:04:33,540 --> 00:04:25,840

Mountain View California and I caught up

104

00:04:36,750 --> 00:04:33,550

with Seth at DragonCon well we're here

105

00:04:39,180 --> 00:04:36,760

at dragon on in 2009 in Atlanta Georgia

106

00:04:40,740 --> 00:04:39,190

and I'm sitting here with dr. Steve

107

00:04:42,870 --> 00:04:40,750

Roberts from the Australian skeptics I

108

00:04:46,080 --> 00:04:42,880

Steve hi Richard and we're chatting with

109

00:04:47,460 --> 00:04:46,090

seth shostack myself hi rich very

110

00:04:51,510 --> 00:04:47,470

pleased that you could spare some time

111

00:04:53,760 --> 00:04:51,520

to speak to us today as the vacuum and

112

00:04:56,130 --> 00:04:53,770

is running around and elevators going up

113

00:04:58,170 --> 00:04:56,140

and down but it all adds to the to the

114

00:05:01,740 --> 00:04:58,180

ambience is just like a good restaurant

115

00:05:03,570 --> 00:05:01,750

it's like a good restaurant now you get

116

00:05:07,800 --> 00:05:03,580

a very interesting talk and I might kick

117

00:05:10,830 --> 00:05:07,810

off with that today in fact about the

118

00:05:13,200 --> 00:05:10,840

possible future of humanity in relation

119

00:05:16,380 --> 00:05:13,210

to population in the space why is that

120

00:05:18,420 --> 00:05:16,390

such an interest of yours well I think

121

00:05:19,980 --> 00:05:18,430

it's probably an interest of everyone at

122

00:05:22,080 --> 00:05:19,990

some point because you know you always

123

00:05:24,180 --> 00:05:22,090

want to know what's going to happen I've

124

00:05:25,560 --> 00:05:24,190

read quite a number of books about the

125

00:05:26,580 --> 00:05:25,570

long-term future the universe in fact I

126

00:05:28,500 --> 00:05:26,590

was going to write a book about the

127

00:05:29,940 --> 00:05:28,510

long-term future of the universe but

128

00:05:31,500 --> 00:05:29,950

it's hard for people to relate to

129

00:05:33,240 --> 00:05:31,510

something that might happen 10 to the

130

00:05:35,070 --> 00:05:33,250

hundredth years from now which is a lot

131

00:05:36,960 --> 00:05:35,080

and whereas if you're talking about

132

00:05:39,180 --> 00:05:36,970

things that might happen in 40 50 60

133

00:05:42,380 --> 00:05:39,190

years now that is interesting so I think

134

00:05:44,750 --> 00:05:42,390

that that's what prompted my particular

135

00:05:47,060 --> 00:05:44,760

interest in this subject actually so you

136

00:05:49,910 --> 00:05:47,070

hear these stories that the sun's going

137

00:05:52,130 --> 00:05:49,920

to go into a red giant in so many

138

00:05:54,560 --> 00:05:52,140

billion years you can we start panicking

139

00:05:56,120 --> 00:05:54,570

now we don't have to worry right exactly

140

00:05:57,830 --> 00:05:56,130

i mean you most people will say you know

141

00:05:58,880 --> 00:05:57,840

it no skin off my nose i don't care what

142

00:06:00,500 --> 00:05:58,890

having some five billion years and

143

00:06:02,420 --> 00:06:00,510

besides five billion years so now we'll

144

00:06:03,590 --> 00:06:02,430

have moved somewhere else anyhow so you

145

00:06:05,750 --> 00:06:03,600

know and it's hard to argue with that

146

00:06:07,340 --> 00:06:05,760

but if you if you say look actually

147

00:06:10,040 --> 00:06:07,350

after two hundred thousand years of Homo

148

00:06:11,750 --> 00:06:10,050

sapiens we may be running into some

149

00:06:14,150 --> 00:06:11,760

fundamental limits in the next

150

00:06:16,250 --> 00:06:14,160

generation then that's interesting and I

151
00:06:18,410 --> 00:06:16,260
I don't speak here of the usual concerns

152
00:06:19,820 --> 00:06:18,420
a global warming and so forth those are

153
00:06:21,350 --> 00:06:19,830
all serious but you know there are many

154
00:06:22,910 --> 00:06:21,360
people working about that these are

155
00:06:25,130 --> 00:06:22,920
other other concerns that i think are

156
00:06:26,840 --> 00:06:25,140
more fundamental actually right so

157
00:06:30,740 --> 00:06:26,850
you're really talking about things that

158
00:06:33,710 --> 00:06:30,750
can conceivably affect us possibly or at

159
00:06:35,990 --> 00:06:33,720
least it how children or legend yes

160
00:06:38,600 --> 00:06:36,000
absolutely i think what happens is that

161
00:06:40,010 --> 00:06:38,610
you run into limits in terms of how much

162
00:06:42,860 --> 00:06:40,020
energy you can dump into the atmosphere

163
00:06:44,210 --> 00:06:42,870

you run into limits of the kinds of

164

00:06:46,340 --> 00:06:44,220

metals and other resources that are

165

00:06:47,510 --> 00:06:46,350

necessary for a decent life style you

166

00:06:49,220 --> 00:06:47,520

know fundamental things not oil you can

167

00:06:51,710 --> 00:06:49,230

always replace oil but other things that

168

00:06:53,000 --> 00:06:51,720

like copper they run out of that that

169

00:06:55,310 --> 00:06:53,010

really make it very difficult to keep

170

00:06:56,480 --> 00:06:55,320

technological society going so these are

171

00:06:58,370 --> 00:06:56,490

all things that have time scales for

172

00:07:00,050 --> 00:06:58,380

from you know twenty to a hundred years

173

00:07:02,270 --> 00:07:00,060

somewhere there and you're mentioning in

174

00:07:04,010 --> 00:07:02,280

your talk the prospects of moving out

175

00:07:07,580 --> 00:07:04,020

from the planet talking about the moon

176

00:07:09,800 --> 00:07:07,590

asteroids Mars possibly do you do you

177

00:07:12,230 --> 00:07:09,810

perceive that happening within a

178

00:07:14,090 --> 00:07:12,240

relatively short time well if you look

179

00:07:17,000 --> 00:07:14,100

at the current NASA budgets one is not

180

00:07:19,970 --> 00:07:17,010

too optimistic about their move toward

181

00:07:21,530 --> 00:07:19,980

toward outer space and you know if we

182

00:07:22,670 --> 00:07:21,540

wanted to colonize the Moon and Mars we

183

00:07:24,800 --> 00:07:22,680

could do so certainly within a

184

00:07:26,300 --> 00:07:24,810

generation if you wanted to try that on

185

00:07:28,370 --> 00:07:26,310

you really think that would be feasible

186

00:07:29,930 --> 00:07:28,380

it's possible to do it its autonomy oh

187

00:07:31,190 --> 00:07:29,940

yeah it's all a matter of yes it's all a

188

00:07:32,900 --> 00:07:31,200

matter of whether you really want to do

189

00:07:34,820 --> 00:07:32,910

it I mean it's in a technology problem

190

00:07:36,830 --> 00:07:34,830

it's mostly money problem right I mean

191

00:07:38,720 --> 00:07:36,840

we got to the mood like 40 years ago

192

00:07:40,250 --> 00:07:38,730

well we could get back to the moon if

193

00:07:41,390 --> 00:07:40,260

you really wanted I agree with you I

194

00:07:44,000 --> 00:07:41,400

think we could get back there very

195

00:07:46,370 --> 00:07:44,010

easily there's a money problem but when

196

00:07:49,280 --> 00:07:46,380

you consider that that's one thing

197

00:07:53,000 --> 00:07:49,290

to actually set up a permanent community

198

00:07:55,580 --> 00:07:53,010

say on the moon how would you even begin

199

00:07:57,440 --> 00:07:55,590

to tackle the problem of water well

200

00:07:58,520 --> 00:07:57,450

water would have to be recycled it turns

201
00:07:59,840 --> 00:07:58,530
out that there may be quite a bit of

202
00:08:01,730 --> 00:07:59,850
water actually on the moon but it's on

203
00:08:03,710 --> 00:08:01,740
the South Pole and it's ice is frozen

204
00:08:04,610 --> 00:08:03,720
but in the shadowed regions of the South

205
00:08:05,900 --> 00:08:04,620
Pole of the moon there's very good

206
00:08:07,400 --> 00:08:05,910
evidence that there's some water there

207
00:08:08,480 --> 00:08:07,410
quite a bit of water action you could

208
00:08:10,670 --> 00:08:08,490
pipe that around you don't want to carry

209
00:08:11,960 --> 00:08:10,680
water from the earth so you know how

210
00:08:14,120 --> 00:08:11,970
long does it take to colonize the moon

211
00:08:17,180 --> 00:08:14,130
in some substantial fashion I mean right

212
00:08:19,460 --> 00:08:17,190
Captain Cook Lance in Botany Bay in 1770

213
00:08:21,350 --> 00:08:19,470

or whenever it was and within 30 years

214

00:08:23,960 --> 00:08:21,360

you know Australia was a sort of a

215

00:08:25,520 --> 00:08:23,970

thriving place you know I I don't know

216

00:08:28,250 --> 00:08:25,530

that all the residents were on the up

217

00:08:30,110 --> 00:08:28,260

and up but you know it was they were

218

00:08:32,029 --> 00:08:30,120

able to survive these fatal shores right

219

00:08:33,409 --> 00:08:32,039

so if they could do that then I I do

220

00:08:34,880 --> 00:08:33,419

believe that we could colonize the Moon

221

00:08:35,990 --> 00:08:34,890

or Mars but I actually don't put a whole

222

00:08:38,000 --> 00:08:36,000

lot of stock in that that's not the

223

00:08:39,560 --> 00:08:38,010

salvation of the planet I mean I think

224

00:08:41,150 --> 00:08:39,570

it's something we should do and that we

225

00:08:43,880 --> 00:08:41,160

probably will do but if you're really

226
00:08:45,140 --> 00:08:43,890
talking about how to combat the kinds of

227
00:08:46,520 --> 00:08:45,150
short-term problems we're going to run

228
00:08:49,370 --> 00:08:46,530
into you need I think artificial

229
00:08:51,350 --> 00:08:49,380
habitats or maybe the asteroids let's do

230
00:08:54,260 --> 00:08:51,360
that that slide you had to the little

231
00:08:55,940 --> 00:08:54,270
base sitting on an asteroid now wouldn't

232
00:08:59,420 --> 00:08:55,950
you have all sorts of problems with the

233
00:09:00,920 --> 00:08:59,430
asteroid in its orbit would it could

234
00:09:02,480 --> 00:09:00,930
have possibly go eccentric or they're

235
00:09:04,280 --> 00:09:02,490
pretty stable well there are bits of

236
00:09:06,110 --> 00:09:04,290
fairly stable insofar as they don't

237
00:09:07,370 --> 00:09:06,120
interact with anything else occasionally

238
00:09:09,020 --> 00:09:07,380

they interact with one another occasion

239

00:09:10,970 --> 00:09:09,030

you'll get an asteroid you know hit you

240

00:09:12,590 --> 00:09:10,980

but that you know the chances of that

241

00:09:13,940 --> 00:09:12,600

happening are very very small in the

242

00:09:15,410 --> 00:09:13,950

movies whenever they go through the

243

00:09:17,780 --> 00:09:15,420

asteroid belt you see this you know hole

244

00:09:19,400 --> 00:09:17,790

hey love rocks coming your way that's

245

00:09:20,960 --> 00:09:19,410

slightly exaggerated actually if you

246

00:09:22,490 --> 00:09:20,970

were on an asteroid looking around for

247

00:09:24,020 --> 00:09:22,500

other asteroids you probably wouldn't

248

00:09:25,520 --> 00:09:24,030

see any and if you did you need

249

00:09:27,590 --> 00:09:25,530

binoculars and you see a pinpoint of

250

00:09:28,610 --> 00:09:27,600

light so yeah so the chances you're

251
00:09:30,170 --> 00:09:28,620
going to get hit by another asteroid

252
00:09:32,199 --> 00:09:30,180
they're pretty small that isn't your

253
00:09:34,819 --> 00:09:32,209
worst problem if you're on an asteroid

254
00:09:36,619 --> 00:09:34,829
maybe the lack of you know atmosphere

255
00:09:39,040 --> 00:09:36,629
that might bother you more that might

256
00:09:41,449 --> 00:09:39,050
bother you more and maybe its own

257
00:09:42,829 --> 00:09:41,459
rotation possibly know the rotation

258
00:09:45,049 --> 00:09:42,839
might be good to give you you know I

259
00:09:48,199 --> 00:09:45,059
don't know you changed change of view

260
00:09:49,999 --> 00:09:48,209
with the kasambahay did nothing one

261
00:09:51,919 --> 00:09:50,009
anyway well it's true at the asteroid

262
00:09:53,749 --> 00:09:51,929
belt then since it's maybe three times

263
00:09:55,220 --> 00:09:53,759

farther away from the Sun and the earth

264

00:09:57,350 --> 00:09:55,230

is and that means the intensity is down

265

00:09:58,489 --> 00:09:57,360

by a factor of 10 more or less so it's

266

00:10:00,289 --> 00:09:58,499

ten percent of the sunlight you have

267

00:10:01,489 --> 00:10:00,299

here on earth that's that's dimmer you

268

00:10:03,319 --> 00:10:01,499

would notice that the sunlight seems

269

00:10:04,669 --> 00:10:03,329

weaker but you could still grow things

270

00:10:07,789 --> 00:10:04,679

and so forth I mean it would be like a

271

00:10:09,319 --> 00:10:07,799

cloudy day you know you could you could

272

00:10:11,329 --> 00:10:09,329

survive with that level of sunlight I

273

00:10:13,569 --> 00:10:11,339

think that that's not such a formidable

274

00:10:15,590 --> 00:10:13,579

problem it's getting back to this

275

00:10:17,449 --> 00:10:15,600

interesting point about you're on an

276

00:10:19,009 --> 00:10:17,459

asteroid and you could possibly see

277

00:10:20,780 --> 00:10:19,019

another one going by oh you used

278

00:10:21,889 --> 00:10:20,790

binoculars or whatever but we're still

279

00:10:23,960 --> 00:10:21,899

talking about something within the

280

00:10:26,139 --> 00:10:23,970

confines of the solar system so you're

281

00:10:29,900 --> 00:10:26,149

getting light reflected from the Sun and

282

00:10:32,119 --> 00:10:29,910

I just had a thought in the space movies

283

00:10:34,699 --> 00:10:32,129

you see Enterprise going through

284

00:10:36,139 --> 00:10:34,709

interstellar space you see the spaceship

285

00:10:37,910 --> 00:10:36,149

going through interstellar space if it

286

00:10:40,460 --> 00:10:37,920

wasn't lit up artificially from its own

287

00:10:41,869 --> 00:10:40,470

lights would you see or would it be so

288

00:10:42,949 --> 00:10:41,879

dark it was here that all you see

289

00:10:44,329 --> 00:10:42,959

spacecraft well that depends on whether

290

00:10:46,489 --> 00:10:44,339

it had windows who lights on on the

291

00:10:47,749 --> 00:10:46,499

inside I mean you might see oh I doubt

292

00:10:49,309 --> 00:10:47,759

that would have navigation lights what's

293

00:10:52,369 --> 00:10:49,319

the point of that usually the outside of

294

00:10:53,840 --> 00:10:52,379

the Hollister's yet my stall in 15 you

295

00:10:55,460 --> 00:10:53,850

wouldn't sit you wouldn't see it well I

296

00:10:56,480 --> 00:10:55,470

mean there's a bit of a starlight I mean

297

00:10:58,340 --> 00:10:56,490

you know if you had really good night

298

00:10:59,929 --> 00:10:58,350

vision maybe you could pick it out but

299

00:11:01,369 --> 00:10:59,939

in general no you know it's not gonna be

300

00:11:02,960 --> 00:11:01,379

a lot of lights used to be and you

301

00:11:04,309 --> 00:11:02,970

wouldn't hear it either by the way if to

302

00:11:06,980 --> 00:11:04,319

be where the camera is to see it

303

00:11:08,449 --> 00:11:06,990

everywhere the camera is now of course

304

00:11:09,079 --> 00:11:08,459

after you got spend some time in

305

00:11:10,939 --> 00:11:09,089

Australia

306

00:11:13,489 --> 00:11:10,949

yeah I was delighted hear about

307

00:11:15,980 --> 00:11:13,499

early on and the Netherlands is this the

308

00:11:18,019 --> 00:11:15,990

and Steve you've certainly lived around

309

00:11:20,480 --> 00:11:18,029

the orders is the fate of the astronomer

310

00:11:22,340 --> 00:11:20,490

the travel well there is a lot of travel

311

00:11:23,660 --> 00:11:22,350

with astronomy in the old days that was

312

00:11:25,040 --> 00:11:23,670

primarily because the telescopes were

313

00:11:26,509 --> 00:11:25,050

never where you were living because you

314

00:11:29,150 --> 00:11:26,519

don't live on top of a mountain by

315

00:11:31,160 --> 00:11:29,160

preference or as a radio astronomer out

316

00:11:33,199 --> 00:11:31,170

in the deserts or some you know place

317

00:11:35,239 --> 00:11:33,209

which is very far from civilization as

318

00:11:36,559 --> 00:11:35,249

we know it I mean in Australia the

319

00:11:37,790 --> 00:11:36,569

reason that the parks telescope is out

320

00:11:39,769 --> 00:11:37,800

in the sheep country it's not because

321

00:11:41,960 --> 00:11:39,779

you know they like mutton so much it's

322

00:11:43,280 --> 00:11:41,970

the fact that it's far away from a lot

323

00:11:44,329 --> 00:11:43,290

of people where you get radio

324

00:11:47,600 --> 00:11:44,339

interference caused by whatever

325

00:11:49,639 --> 00:11:47,610

machinery to have yeah so there's that

326

00:11:51,049 --> 00:11:49,649

travel but in addition astronomy's an

327

00:11:52,999 --> 00:11:51,059

international endeavor it's one of these

328

00:11:54,230 --> 00:11:53,009

Sciences that is conducted

329

00:11:56,569 --> 00:11:54,240

internationally fact they're very few

330

00:11:57,559 --> 00:11:56,579

sciences that or not and as a

331

00:11:59,720 --> 00:11:57,569

consequence of that there are always

332

00:12:01,280 --> 00:11:59,730

meetings their conventions and so forth

333

00:12:02,509 --> 00:12:01,290

are just talking with your colleagues or

334

00:12:04,040 --> 00:12:02,519

maybe you have an experiment that

335

00:12:05,569 --> 00:12:04,050

involves the people in other countries

336

00:12:08,840 --> 00:12:05,579

so there is a lot of international

337

00:12:11,179 --> 00:12:08,850

travel and does that mean occasionally

338

00:12:13,669 --> 00:12:11,189

you are required to visit a certain area

339

00:12:16,100 --> 00:12:13,679

or in a servitor II because that's where

340

00:12:18,110 --> 00:12:16,110

a specialist bit of equipment is yes

341

00:12:19,819 --> 00:12:18,120

that is often the case I mean we went to

342

00:12:23,540 --> 00:12:19,829

parks the Parkes radio telescope for

343

00:12:25,220 --> 00:12:23,550

many months in 1995 because this was a

344

00:12:28,069 --> 00:12:25,230

very large antenna in the southern

345

00:12:29,749 --> 00:12:28,079

hemisphere right half the sky that they

346

00:12:31,790 --> 00:12:29,759

can see we can't see so well from the

347

00:12:34,879 --> 00:12:31,800

northern hemisphere big advantage of

348

00:12:37,460 --> 00:12:34,889

having a astronomy in Australia they

349

00:12:38,929 --> 00:12:37,470

have access to the southern sky and so

350

00:12:40,400 --> 00:12:38,939

we brought the receiving equipment we

351

00:12:41,989 --> 00:12:40,410

need and we just bolted it onto the

352

00:12:42,940 --> 00:12:41,999

parts telescope for a couple of couple

353

00:12:45,040 --> 00:12:42,950

months

354

00:12:47,080 --> 00:12:45,050

that's interesting you've been two parts

355

00:12:48,550 --> 00:12:47,090

piece of year xavier so a fairly remote

356

00:12:51,400 --> 00:12:48,560

country town it has two must be near a

357

00:12:53,680 --> 00:12:51,410

town because the people who work they

358

00:12:56,380 --> 00:12:53,690

have to live somewhere and buy food yes

359

00:12:58,150 --> 00:12:56,390

indeed have a school zone yes it's about

360

00:12:59,950 --> 00:12:58,160

a half hour drive I think and there's

361

00:13:02,560 --> 00:12:59,960

also that leave the technicians to be

362

00:13:04,720 --> 00:13:02,570

Paris and also the FL community based

363

00:13:07,810 --> 00:13:04,730

somewhere near to let's go that's right

364

00:13:09,220 --> 00:13:07,820

yes some telescopes sort of travel and

365

00:13:10,570 --> 00:13:09,230

astronomy though you need to travel just

366

00:13:13,030 --> 00:13:10,580

to get a conference in suite other

367

00:13:15,340 --> 00:13:13,040

astronomers yes oh thank you the same in

368

00:13:18,160 --> 00:13:15,350

most fields of endeavor and even

369

00:13:20,140 --> 00:13:18,170

skepticism yes yes I I don't think it's

370

00:13:22,960 --> 00:13:20,150

fundamentally any any different than any

371

00:13:24,340 --> 00:13:22,970

other line of work unless you your line

372

00:13:27,820 --> 00:13:24,350

of work doesn't involve international

373

00:13:30,210 --> 00:13:27,830

collaboration although that of course as

374

00:13:35,710 --> 00:13:30,220

you say going to the southern hemisphere

375

00:13:38,200 --> 00:13:35,720

you get a completely different view the

376

00:13:40,930 --> 00:13:38,210

big thing you say I have to say that it

377

00:13:43,270 --> 00:13:40,940

is sort of a chestnut in all just not in

378

00:13:44,950 --> 00:13:43,280

astronomy that God put all the

379

00:13:47,500 --> 00:13:44,960

interesting astronomy in the southern

380

00:13:49,120 --> 00:13:47,510

hemisphere and all the astronomers in

381

00:13:51,700 --> 00:13:49,130

the northern hemisphere now of course

382

00:13:53,230 --> 00:13:51,710

this is kind of ignores the astronomers

383

00:13:55,330 --> 00:13:53,240

in Australia and South African plays

384

00:13:56,470 --> 00:13:55,340

like that by but it must be said there

385

00:13:57,880 --> 00:13:56,480

is some truth in that because if you

386

00:14:00,100 --> 00:13:57,890

want to for example study the center of

387

00:14:01,510 --> 00:14:00,110

our galaxy that's not so easily seen

388

00:14:03,340 --> 00:14:01,520

from the north it only barely edges

389

00:14:05,230 --> 00:14:03,350

above the horizon most parts of the

390

00:14:07,650 --> 00:14:05,240

United States where is in Australia you

391

00:14:10,240 --> 00:14:07,660

can see that all the time yes there so

392

00:14:13,030 --> 00:14:10,250

you know that and that's a of course a

393

00:14:15,430 --> 00:14:13,040

very interesting place the center of our

394

00:14:17,500 --> 00:14:15,440

galaxy so you know they're just a lot of

395

00:14:19,210 --> 00:14:17,510

astronomical objects that you have in

396

00:14:20,890 --> 00:14:19,220

the southern hemisphere the Magellanic

397

00:14:23,080 --> 00:14:20,900

Clouds for example the nearest galaxies

398

00:14:24,820 --> 00:14:23,090

to our own yeah here in the south yeah

399

00:14:26,770 --> 00:14:24,830

and they're visible with the naked eye

400

00:14:27,950 --> 00:14:26,780

because most Australians I would hope I

401
00:14:29,750 --> 00:14:27,960
would certainly hope

402
00:14:32,120 --> 00:14:29,760
familiar of the Magellanic Clouds and

403
00:14:34,010 --> 00:14:32,130
faint but visible yeah well if you

404
00:14:36,050 --> 00:14:34,020
Gellin could could see them yeah then I

405
00:14:38,810 --> 00:14:36,060
would hope it the average resident of

406
00:14:40,850 --> 00:14:38,820
Penrith could see them yeah you do see

407
00:14:42,110 --> 00:14:40,860
him from melbourne on a clear night from

408
00:14:43,910 --> 00:14:42,120
the middle of melbourne it's elvin

409
00:14:45,560 --> 00:14:43,920
really you can see the magic do you

410
00:14:47,450 --> 00:14:45,570
there what a fate the hot and make out

411
00:14:50,120 --> 00:14:47,460
if you go to the bush they're highly

412
00:14:51,680 --> 00:14:50,130
prominent yes yes I won't say they sort

413
00:14:54,170 --> 00:14:51,690

of luminous but you know you you silly

414

00:14:56,810 --> 00:14:54,180

spotting if you physically a night as to

415

00:14:58,610 --> 00:14:56,820

cloud to ever go away and after about a

416

00:15:01,010 --> 00:14:58,620

week in Australian without so those are

417

00:15:02,960 --> 00:15:01,020

louder galaxies that a lot of people

418

00:15:05,600 --> 00:15:02,970

would think that wispy clouds now of

419

00:15:07,150 --> 00:15:05,610

course in the Magellanic Clouds who

420

00:15:09,620 --> 00:15:07,160

knows who knows they could be

421

00:15:11,000 --> 00:15:09,630

intelligent life it could be I mean a

422

00:15:13,160 --> 00:15:11,010

lot of stars in the Magellanic Clouds

423

00:15:16,070 --> 00:15:13,170

they have you know tens of billions of

424

00:15:17,870 --> 00:15:16,080

stars each and so why not and in fact

425

00:15:19,280 --> 00:15:17,880

one of the experiments we did at the

426

00:15:21,190 --> 00:15:19,290

Parkes radio telescope nothing that we

427

00:15:23,630 --> 00:15:21,200

wrote up and nothing that we actually

428

00:15:24,800 --> 00:15:23,640

even told many people about it was just

429

00:15:26,450 --> 00:15:24,810

an experiment I did together with a

430

00:15:28,460 --> 00:15:26,460

fellow by the name of Ronnie kurz who is

431

00:15:31,880 --> 00:15:28,470

perhaps the most prominent astronomer in

432

00:15:33,470 --> 00:15:31,890

Australia actually no he and I actually

433

00:15:34,910 --> 00:15:33,480

looked at the center of the galaxy using

434

00:15:36,680 --> 00:15:34,920

the Parkes radio telescope hoping that

435

00:15:40,250 --> 00:15:36,690

we might find some very strong beacon

436

00:15:41,630 --> 00:15:40,260

that some enterprising civilization may

437

00:15:42,740 --> 00:15:41,640

have put their knowing that everybody

438

00:15:44,600 --> 00:15:42,750

will be looking at the center of the

439

00:15:46,970 --> 00:15:44,610

galaxy yeah we didn't see anything but

440

00:15:49,880 --> 00:15:46,980

it was a tough job because we only

441

00:15:52,370 --> 00:15:49,890

tried one night of course the I mean the

442

00:15:54,470 --> 00:15:52,380

segue is to talk about setting search

443

00:15:55,730 --> 00:15:54,480

for extraterrestrial intelligence how

444

00:15:57,470 --> 00:15:55,740

long have you been involved with that

445

00:15:59,930 --> 00:15:57,480

program i joined the SETI Institute

446

00:16:01,250 --> 00:15:59,940

actually in 1990 so it's been a long

447

00:16:03,110 --> 00:16:01,260

time I think that's the longest job I've

448

00:16:04,840 --> 00:16:03,120

ever had I was interested in steady even

449

00:16:08,450 --> 00:16:04,850

before that I was working in Europe

450

00:16:10,010 --> 00:16:08,460

doing radio astronomy but i did a SETI

451
00:16:12,680 --> 00:16:10,020
experiment in the netherlands together

452
00:16:14,240 --> 00:16:12,690
with Joe Carter who is at the SETI

453
00:16:16,520 --> 00:16:14,250
Institute now and heads up our city

454
00:16:17,750 --> 00:16:16,530
programs actually and she came to the

455
00:16:19,250 --> 00:16:17,760
Netherlands there for a couple of weeks

456
00:16:20,270 --> 00:16:19,260
and I said you know we could do a SETI

457
00:16:22,010 --> 00:16:20,280
experiment I know how to run the

458
00:16:23,960 --> 00:16:22,020
telescope year and we did we looked at

459
00:16:25,580 --> 00:16:23,970
in fact the center of the galaxy for

460
00:16:27,290 --> 00:16:25,590
four hours which is about the best you

461
00:16:29,490 --> 00:16:27,300
can do on any given day in the

462
00:16:33,660 --> 00:16:29,500
Netherlands

463
00:16:36,510 --> 00:16:33,670

so I mean the statement is obvious so

464

00:16:37,710 --> 00:16:36,520

far nothing no that's great people often

465

00:16:39,420 --> 00:16:37,720

ask me you know well have you found

466

00:16:40,680 --> 00:16:39,430

anything and I have to turn that around

467

00:16:42,270 --> 00:16:40,690

said you know do you think that we

468

00:16:43,830 --> 00:16:42,280

wouldn't tell you or that you wouldn't

469

00:16:45,480 --> 00:16:43,840

know if we found something I mean I

470

00:16:47,250 --> 00:16:45,490

wouldn't be here i'd be you know in

471

00:16:49,820 --> 00:16:47,260

stockholm collected collecting a prize

472

00:16:52,020 --> 00:16:49,830

he probably would you probably would um

473

00:16:53,700 --> 00:16:52,030

do you ever get the point where he is

474

00:16:55,680 --> 00:16:53,710

starting to get frustrated or is it

475

00:16:56,940 --> 00:16:55,690

something that you realize might take a

476

00:16:58,800 --> 00:16:56,950

long time you don't get frustrated

477

00:17:00,480 --> 00:16:58,810

because the experiments always changing

478

00:17:01,590 --> 00:17:00,490

if you're doing the same thing over and

479

00:17:03,840 --> 00:17:01,600

over and over again I think you would

480

00:17:05,850 --> 00:17:03,850

probably get very very bored of that I

481

00:17:07,050 --> 00:17:05,860

mean that would become tiresome to begin

482

00:17:08,309 --> 00:17:07,060

with all the really boring stuff the

483

00:17:10,260 --> 00:17:08,319

listening is it were that's all

484

00:17:11,370 --> 00:17:10,270

automated so you have to do that but the

485

00:17:13,710 --> 00:17:11,380

real point is that the technology

486

00:17:15,000 --> 00:17:13,720

changes so that the experiments every

487

00:17:16,470 --> 00:17:15,010

five years are really radically

488

00:17:18,270 --> 00:17:16,480

different in terms of their capability

489

00:17:20,610 --> 00:17:18,280

yeah but beyond that you also have

490

00:17:22,920 --> 00:17:20,620

learned more right within the next three

491

00:17:24,720 --> 00:17:22,930

years the NASA's Kepler mission is going

492

00:17:26,579 --> 00:17:24,730

to tell us what fraction of stars have

493

00:17:28,590 --> 00:17:26,589

earth like planets well when we know

494

00:17:30,180 --> 00:17:28,600

that number that's going to help in the

495

00:17:32,370 --> 00:17:30,190

search because it may turn out that a

496

00:17:34,650 --> 00:17:32,380

certain kind of star system

497

00:17:36,480 --> 00:17:34,660

preferentially has cousins of the earth

498

00:17:38,610 --> 00:17:36,490

orbiting it if we know that then we can

499

00:17:40,200 --> 00:17:38,620

target those stars so the field is

500

00:17:41,850 --> 00:17:40,210

always changing both because of this new

501
00:17:44,280 --> 00:17:41,860
knowledge and because the technology

502
00:17:45,540 --> 00:17:44,290
gets faster all the time that mean one

503
00:17:48,360 --> 00:17:45,550
of the variables in the Drake Equation

504
00:17:50,070 --> 00:17:48,370
is going to be filled in yes one is and

505
00:17:53,160 --> 00:17:50,080
and that is you know what fraction of

506
00:17:55,230 --> 00:17:53,170
planets are earth-like planets are it's

507
00:17:57,060 --> 00:17:55,240
actually n to be as the factory nuts you

508
00:17:59,550 --> 00:17:57,070
know how many planets in a planetary

509
00:18:01,050 --> 00:17:59,560
system our earth like and we don't we

510
00:18:04,450 --> 00:18:01,060
don't know what that is the others you

511
00:18:06,070 --> 00:18:04,460
are you oh I remember this

512
00:18:08,730 --> 00:18:06,080
I'm sure most of my listeners will

513
00:18:12,520 --> 00:18:08,740

remember a time where we didn't know or

514

00:18:15,340 --> 00:18:12,530

identify where any extra solar planets

515

00:18:17,020 --> 00:18:15,350

were and now I don't know even know what

516

00:18:19,780 --> 00:18:17,030

the number is yeah I don't either but

517

00:18:21,760 --> 00:18:19,790

it's in excess of 350 but but really

518

00:18:23,710 --> 00:18:21,770

that that number while impressive it's

519

00:18:25,510 --> 00:18:23,720

not so interesting what's interesting is

520

00:18:27,130 --> 00:18:25,520

to know what fraction of stars have

521

00:18:28,540 --> 00:18:27,140

planets right because you can keep

522

00:18:30,040 --> 00:18:28,550

adding planets and adding plants in any

523

00:18:33,010 --> 00:18:30,050

plans but what you really want to know

524

00:18:34,540 --> 00:18:33,020

is look our planets rare planets like

525

00:18:36,580 --> 00:18:34,550

the earth are they rare are they common

526

00:18:39,130 --> 00:18:36,590

place and that we don't know despite

527

00:18:40,900 --> 00:18:39,140

having found 350 planets none of them is

528

00:18:42,430 --> 00:18:40,910

really a cousin of the earth and the

529

00:18:44,440 --> 00:18:42,440

question is is that because they're not

530

00:18:45,790 --> 00:18:44,450

there are because simply our instruments

531

00:18:47,530 --> 00:18:45,800

are not yet capable of finding it and

532

00:18:49,240 --> 00:18:47,540

that's what's going to change thanks to

533

00:18:51,520 --> 00:18:49,250

Kepler into saying the next thousand

534

00:18:54,400 --> 00:18:51,530

days three years that's incredible yeah

535

00:18:57,430 --> 00:18:54,410

because the the information that we're

536

00:18:59,830 --> 00:18:57,440

receiving now the new knowledge things

537

00:19:02,470 --> 00:18:59,840

that completely floored me and I'm sure

538

00:19:05,620 --> 00:19:02,480

many other people the knowledge that

539

00:19:08,020 --> 00:19:05,630

there are giant gas planets orbiting

540

00:19:10,690 --> 00:19:08,030

their stars at the extremely close range

541

00:19:13,390 --> 00:19:10,700

yeah that was the first planet around an

542

00:19:16,300 --> 00:19:13,400

ordinary star that was discovered 1995

543

00:19:20,440 --> 00:19:16,310

by the two swiss astronomers 51 pegasi

544

00:19:21,610 --> 00:19:20,450

is the name of the star orbits that star

545

00:19:23,290 --> 00:19:21,620

in four and a half days weather no

546

00:19:25,450 --> 00:19:23,300

planets in our solar system that orbit

547

00:19:27,220 --> 00:19:25,460

in four and a half days mercury takes 88

548

00:19:29,170 --> 00:19:27,230

and that's the fastest so nobody was

549

00:19:31,570 --> 00:19:29,180

expecting to find a planet that orbit

550

00:19:33,370 --> 00:19:31,580

that quickly and not only that is a very

551
00:19:35,890 --> 00:19:33,380
large plan nobody expects to find very

552
00:19:37,150 --> 00:19:35,900
large planets close in on the basis of

553
00:19:38,560 --> 00:19:37,160
what we know about how planets are

554
00:19:42,130 --> 00:19:38,570
formed we expect that they will be

555
00:19:43,870 --> 00:19:42,140
formed far out far far out any the solar

556
00:19:45,330 --> 00:19:43,880
systems of their birth so how did that

557
00:19:47,470 --> 00:19:45,340
planet get to where it is and

558
00:19:50,140 --> 00:19:47,480
immediately that their additions began

559
00:19:52,210 --> 00:19:50,150
to rip out their pads and papers and

560
00:19:54,490 --> 00:19:52,220
sorry their pads and pencils and try and

561
00:19:56,500 --> 00:19:54,500
figure this out and their best guess is

562
00:19:57,760 --> 00:19:56,510
that these planets migrate inward in

563
00:19:59,650 --> 00:19:57,770

other words they're born in the

564

00:20:03,170 --> 00:19:59,660

boondocks and they move to the big city

565

00:20:05,070 --> 00:20:03,180

they slowly spiral in

566

00:20:07,050 --> 00:20:05,080

presumably they reach a point where

567

00:20:09,390 --> 00:20:07,060

they're in equilibrium or they could

568

00:20:11,670 --> 00:20:09,400

continually spiral into their son well

569

00:20:13,410 --> 00:20:11,680

it depends some of them might indeed

570

00:20:14,580 --> 00:20:13,420

despite all the way into the Sun of

571

00:20:17,010 --> 00:20:14,590

course you don't see those guys because

572

00:20:19,020 --> 00:20:17,020

they're long gone but some of them will

573

00:20:21,150 --> 00:20:19,030

be able to get into an orbit where they

574

00:20:22,140 --> 00:20:21,160

just sort of distort the star that

575

00:20:24,240 --> 00:20:22,150

they're orbiting because they're very

576

00:20:25,830 --> 00:20:24,250

close after all they distort the gas of

577

00:20:27,870 --> 00:20:25,840

the star the outer regions of that star

578

00:20:30,030 --> 00:20:27,880

in just such a way that it pulls them

579

00:20:31,560 --> 00:20:30,040

along and keeps them from spiraling in

580

00:20:33,570 --> 00:20:31,570

so it turns out that there may be some

581

00:20:35,220 --> 00:20:33,580

stable situation there where they're

582

00:20:37,980 --> 00:20:35,230

orbiting very very close without going

583

00:20:39,060 --> 00:20:37,990

all the way in especially yeah so yeah

584

00:20:41,670 --> 00:20:39,070

that's that that's a completely

585

00:20:43,110 --> 00:20:41,680

unexpected sort of thing dozen years ago

586

00:20:45,510 --> 00:20:43,120

nobody would have you know consider this

587

00:20:47,900 --> 00:20:45,520

an interesting question to ask would

588

00:20:51,450 --> 00:20:47,910

this be possible but there must be a

589

00:20:53,160 --> 00:20:51,460

mazing very variation in solar systems

590

00:20:55,620 --> 00:20:53,170

ranging from gas giants in the middle

591

00:20:57,810 --> 00:20:55,630

near the Sun all the way up to cooter

592

00:20:59,220 --> 00:20:57,820

like planets new extremes we don't know

593

00:21:02,250 --> 00:20:59,230

what average solar systems look like

594

00:21:05,070 --> 00:21:02,260

yeah yeah and and you know obviously we

595

00:21:07,260 --> 00:21:05,080

assumed on the basis of the one example

596

00:21:09,630 --> 00:21:07,270

we had naming our own solar system that

597

00:21:11,280 --> 00:21:09,640

everybody else's solar system would be

598

00:21:12,570 --> 00:21:11,290

sort of like ours little rocky planets

599

00:21:14,370 --> 00:21:12,580

on the inside big gas giants on the

600

00:21:16,500 --> 00:21:14,380

outside and that's just sort of assuming

601
00:21:18,690 --> 00:21:16,510
that as i did when i was a kid that

602
00:21:20,400 --> 00:21:18,700
everybody's mom had a mom who could

603
00:21:22,950 --> 00:21:20,410
everybody's mom cooked the way my mom

604
00:21:25,680 --> 00:21:22,960
did I just assumed that then I grew up

605
00:21:29,340 --> 00:21:25,690
and I found that wasn't true to my

606
00:21:30,870 --> 00:21:29,350
disappointment I have to say but so we

607
00:21:33,120 --> 00:21:30,880
assume that other solar systems are like

608
00:21:35,040 --> 00:21:33,130
our own and we don't know that that's

609
00:21:37,080 --> 00:21:35,050
true or whether it's not true i mean we

610
00:21:39,750 --> 00:21:37,090
just don't know but the Kepler mission

611
00:21:41,400 --> 00:21:39,760
will help us answer that question and

612
00:21:43,500 --> 00:21:41,410
again the time scaled answered it's not

613
00:21:45,420 --> 00:21:43,510

decades or centuries this is something

614

00:21:47,520 --> 00:21:45,430

we're going to learn very quickly

615

00:21:49,830 --> 00:21:47,530

it's extraordinary form of social

616

00:21:51,990 --> 00:21:49,840

systems has been modeled and make the

617

00:21:53,970 --> 00:21:52,000

modeling at random and see what can a

618

00:21:56,010 --> 00:21:53,980

sore eyes and do millions of experiments

619

00:21:57,480 --> 00:21:56,020

in a computer and they carry out all

620

00:21:59,580 --> 00:21:57,490

shapes and sizes so they can be viewed

621

00:22:02,130 --> 00:21:59,590

planets close in all of us further out

622

00:22:03,720 --> 00:22:02,140

but the conditions for life on Earth

623

00:22:05,730 --> 00:22:03,730

have fairly restricted that we need to

624

00:22:09,360 --> 00:22:05,740

save that means to our laws of two cows

625

00:22:12,000 --> 00:22:09,370

over either Goldilocks and only when you

626

00:22:14,730 --> 00:22:12,010

get a sort of like in one particular

627

00:22:16,740 --> 00:22:14,740

zone so the number of stars already the

628

00:22:19,020 --> 00:22:16,750

planet is only one of many many factors

629

00:22:20,930 --> 00:22:19,030

of the equation we need to know how far

630

00:22:23,520 --> 00:22:20,940

they aren't how hot it is or how cold

631

00:22:26,750 --> 00:22:23,530

it's a kind of finding life and so on a

632

00:22:29,970 --> 00:22:26,760

deserve oceans or if it's a gas giant

633

00:22:35,040 --> 00:22:29,980

could he be swimming of the liquefied

634

00:22:37,710 --> 00:22:35,050

gas and so on so you sure if they have

635

00:22:40,530 --> 00:22:37,720

to have to run finger figures down a bit

636

00:22:41,730 --> 00:22:40,540

so now for the possibility of planets

637

00:22:43,650 --> 00:22:41,740

not being quite in the right place to

638

00:22:45,450 --> 00:22:43,660

support life well well that's correct

639

00:22:47,640 --> 00:22:45,460

when I say an earth-like planet of

640

00:22:49,290 --> 00:22:47,650

course what Kepler is in fact nominally

641

00:22:51,360 --> 00:22:49,300

looking for that means a planet that's

642

00:22:52,680 --> 00:22:51,370

not only the same size as Earth but

643

00:22:55,050 --> 00:22:52,690

that's located at the right distance

644

00:22:56,670 --> 00:22:55,060

from its star to be as you savor every

645

00:22:58,290 --> 00:22:56,680

trading the Goldilocks zone where it's

646

00:22:59,250 --> 00:22:58,300

not too hot not too cold you have liquid

647

00:23:02,400 --> 00:22:59,260

water and maybe you know something

648

00:23:04,920 --> 00:23:02,410

cooking up down there a lot of bizarre

649

00:23:07,890 --> 00:23:04,930

question is olu stuff about UFOs and

650

00:23:10,590 --> 00:23:07,900

extraterrestrials or so on believed I so

651
00:23:12,840 --> 00:23:10,600
some parts of society subculture all

652
00:23:14,580 --> 00:23:12,850
this and the public is aware of it it's

653
00:23:16,289 --> 00:23:14,590
in the movies and so on

654
00:23:18,450 --> 00:23:16,299
I was wondering if the public interest

655
00:23:20,880 --> 00:23:18,460
in that actually damages your calls as

656
00:23:23,250 --> 00:23:20,890
he affects getting funding for sitting

657
00:23:24,899 --> 00:23:23,260
well I don't think so I maybe I'm being

658
00:23:27,330 --> 00:23:24,909
naive but I don't honestly think so I

659
00:23:29,370 --> 00:23:27,340
get a lot of Correspondence about UFOs

660
00:23:31,409 --> 00:23:29,380
and you know people call up with a

661
00:23:33,899 --> 00:23:31,419
frequently and they also send me lots of

662
00:23:35,580 --> 00:23:33,909
email asking questions about UFOs are

663
00:23:37,649 --> 00:23:35,590

simply to tell me what they've seen or

664

00:23:39,419 --> 00:23:37,659

to send me photos and so forth I don't

665

00:23:40,620 --> 00:23:39,429

believe that these people are thinking

666

00:23:43,289 --> 00:23:40,630

I'm definitely not going to give these

667

00:23:44,700 --> 00:23:43,299

guys money because you know they don't

668

00:23:49,680 --> 00:23:44,710

think that we're being visited and I do

669

00:23:51,149 --> 00:23:49,690

I just don't see that as an issue there

670

00:23:52,649 --> 00:23:51,159

is some tension between the UFO

671

00:23:54,149 --> 00:23:52,659

community in the city community for

672

00:23:55,950 --> 00:23:54,159

reasons that are not entirely clear to

673

00:23:57,240 --> 00:23:55,960

me I mean after all in some sense we're

674

00:24:00,299 --> 00:23:57,250

both looking for extraterrestrial

675

00:24:02,100 --> 00:24:00,309

intelligence but that they've already

676

00:24:03,840 --> 00:24:02,110

found it well you see there is that

677

00:24:07,169 --> 00:24:03,850

difference they claim they've succeeded

678

00:24:08,760 --> 00:24:07,179

and we don't make that claim it but yeah

679

00:24:10,680 --> 00:24:08,770

there is some sort of emotional tension

680

00:24:12,180 --> 00:24:10,690

here but I don't I don't know that it

681

00:24:13,740 --> 00:24:12,190

hurts I honestly done a third of the

682

00:24:16,159 --> 00:24:13,750

American population and for that matter

683

00:24:18,240 --> 00:24:16,169

a third of the population of Australia

684

00:24:19,799 --> 00:24:18,250

thinks that we're being visited so it's

685

00:24:22,049 --> 00:24:19,809

not a fringe believe its main SHINee

686

00:24:23,669 --> 00:24:22,059

believe well Steve Roberts thanks for

687

00:24:26,039 --> 00:24:23,679

joining us up here today in the very

688

00:24:28,169 --> 00:24:26,049

interesting middle of the Hilton Hotel

689

00:24:29,880 --> 00:24:28,179

here in Atlanta the elevators going up

690

00:24:32,730 --> 00:24:29,890

and down with bizarre in Oliver English

691

00:24:34,529 --> 00:24:32,740

exam 50 and of course Alex seth shostack

692

00:24:36,120 --> 00:24:34,539

thank you so much for giving us your

693

00:24:47,570 --> 00:24:36,130

time today for the skeptics gentlemen

694

00:24:52,770 --> 00:24:50,640

this is desiree shell hosted skeptically

695

00:24:55,230 --> 00:24:52,780

speaking check out our website at

696

00:24:59,130 --> 00:24:55,240

skeptically speaking calm and listen to

697

00:25:02,880 --> 00:24:59,140

us live on CJ sr 88.5 FM in Edmonton

698

00:25:12,639 --> 00:25:02,890

Alberta Canada I now return you to the

699

00:25:18,139 --> 00:25:15,649

British illusionist and Mentalist Derren

700

00:25:20,119 --> 00:25:18,149

Brown recently wowed the world by

701

00:25:22,430 --> 00:25:20,129

seeming to predict the winning lotto

702

00:25:25,459 --> 00:25:22,440

numbers this caused a great deal of

703

00:25:28,939 --> 00:25:25,469

media commentary and I was asked to give

704

00:25:35,039 --> 00:25:28,949

my thoughts on Sydney radio to UE with

705

00:25:40,720 --> 00:25:38,259

last week on the program under Brady who

706

00:25:44,289 --> 00:25:40,730

gives us the UK report later on in the

707

00:25:47,859 --> 00:25:44,299

show told us about a British illusionist

708

00:25:49,299 --> 00:25:47,869

Derren Brown who left viewers in Britain

709

00:25:50,560 --> 00:25:49,309

scratching their heads after he appeared

710

00:25:53,259 --> 00:25:50,570

to have correctly predicted the six

711

00:25:54,639 --> 00:25:53,269

winning numbers in the UK's televised

712

00:25:58,570 --> 00:25:54,649

lottery draw now it was quite an amazing

713

00:26:00,220 --> 00:25:58,580

story after leaving viewers in suspense

714

00:26:02,109 --> 00:26:00,230

as to Halloway actually did it he

715

00:26:04,119 --> 00:26:02,119

finally revealed all overnight in a

716

00:26:05,879 --> 00:26:04,129

ratings bonanza apparently which drew in

717

00:26:08,649 --> 00:26:05,889

more than four and a half million people

718

00:26:10,090 --> 00:26:08,659

called how to win the lottery well of

719

00:26:11,259 --> 00:26:10,100

course you'd be watching naturally

720

00:26:13,060 --> 00:26:11,269

enough because everyone wanted to find

721

00:26:14,739 --> 00:26:13,070

out how to win the lottery so here we've

722

00:26:18,340 --> 00:26:14,749

got this blokey and he is an illusionist

723

00:26:20,350 --> 00:26:18,350

Derren Brown who well to all intents and

724

00:26:24,730 --> 00:26:20,360

purposes correctly predicted the six

725

00:26:26,320 --> 00:26:24,740

winning numbers in a UK lottery draw he

726

00:26:27,580 --> 00:26:26,330

stated now this is darren brown he

727

00:26:29,470 --> 00:26:27,590

stated that the correct numbers were

728

00:26:33,009 --> 00:26:29,480

chosen by a combination of quote deep

729

00:26:35,499 --> 00:26:33,019

maths and averaging out the subconscious

730

00:26:37,960 --> 00:26:35,509

predictions of 24 people a method

731

00:26:39,879 --> 00:26:37,970

inspired by an Old Country Fair trick

732

00:26:42,190 --> 00:26:39,889

this was his interpretation of it all

733

00:26:43,749 --> 00:26:42,200

sounds rather fabulous doesn't it he

734

00:26:45,430 --> 00:26:43,759

claimed that the trick tells how a crowd

735

00:26:47,769 --> 00:26:45,440

of people at a country fair accurately

736

00:26:52,060 --> 00:26:47,779

estimated the weight of an ox when their

737

00:26:54,129 --> 00:26:52,070

guesses were all averaged out yeah okay

738

00:26:55,450 --> 00:26:54,139

but of course needless to say many

739

00:26:57,669 --> 00:26:55,460

people aren't buying the explanation

740

00:26:59,619 --> 00:26:57,679

mathematicians of dismisses explanation

741

00:27:01,659 --> 00:26:59,629

is absolute complete nutter rubbish

742

00:27:03,159 --> 00:27:01,669

absolutely completely nonsense so I

743

00:27:05,350 --> 00:27:03,169

thought that I'd go to the bloke that I

744

00:27:08,019 --> 00:27:05,360

always turn to in situations like this

745

00:27:09,730 --> 00:27:08,029

who always has an answer for all of this

746

00:27:10,749 --> 00:27:09,740

and well he's a bit of a skeptic at

747

00:27:12,730 --> 00:27:10,759

heart because he is the vice president

748

00:27:15,129 --> 00:27:12,740

of the Australia skeptics Association

749

00:27:16,450 --> 00:27:15,139

Richard Saunders good evening hey gland

750

00:27:17,739 --> 00:27:16,460

good evening hi might this would be

751
00:27:19,480 --> 00:27:17,749
right up your alley you'd love this one

752
00:27:22,149 --> 00:27:19,490
I loved it i thought it was

753
00:27:25,359 --> 00:27:22,159
fantastically good fun and the way that

754
00:27:27,129 --> 00:27:25,369
the media and the television stations

755
00:27:29,049 --> 00:27:27,139
were reporting you know something in

756
00:27:32,409 --> 00:27:29,059
britain even here in australia really

757
00:27:35,350 --> 00:27:32,419
knocked my socks off so all marks Derren

758
00:27:37,299 --> 00:27:35,360
Brown for pulling off what he wanted to

759
00:27:40,389 --> 00:27:37,309
do which was to get attention and have

760
00:27:43,509 --> 00:27:40,399
an amusing and entertaining spot on the

761
00:27:46,180 --> 00:27:43,519
TV and look I watched her tonight on I

762
00:27:48,100 --> 00:27:46,190
think it was on today tonight they

763
00:27:51,430 --> 00:27:48,110

showed they showed part of

764

00:27:52,570 --> 00:27:51,440

his how to win the lottery show which

765

00:27:53,799 --> 00:27:52,580

drew an audience of four and a half

766

00:27:55,000 --> 00:27:53,809

million people which in itself is

767

00:27:56,590 --> 00:27:55,010

outstanding but of course that just

768

00:28:00,370 --> 00:27:56,600

proves one thing we all want to win talk

769

00:28:03,160 --> 00:28:00,380

tree but in in the little bit of a

770

00:28:06,039 --> 00:28:03,170

snippet that they showed he appeared to

771

00:28:08,049 --> 00:28:06,049

me to actually almost be taking the piss

772

00:28:09,490 --> 00:28:08,059

out of himself I mean he almost owned up

773

00:28:13,360 --> 00:28:09,500

to the fact that this is an illusion

774

00:28:16,030 --> 00:28:13,370

well instead when you were introducing

775

00:28:19,120 --> 00:28:16,040

the segment in the story that's what he

776

00:28:21,419 --> 00:28:19,130

is he's an illusionist when he pulls up

777

00:28:25,720 --> 00:28:21,429

the amazingly impossible ii astonishing

778

00:28:28,960 --> 00:28:25,730

people all automatically forget for some

779

00:28:32,650 --> 00:28:28,970

reason that it an illusion a trick akan

780

00:28:34,030 --> 00:28:32,660

where icon is a bit too heavy when when

781

00:28:35,830 --> 00:28:34,040

David Copperfield or another great

782

00:28:38,740 --> 00:28:35,840

magician saws the lady in half or

783

00:28:42,520 --> 00:28:38,750

applies across the stage we all know

784

00:28:44,140 --> 00:28:42,530

it's a very very very clever trick so

785

00:28:46,600 --> 00:28:44,150

when darren brown does something where

786

00:28:49,120 --> 00:28:46,610

he appears to manipulate people's minds

787

00:28:52,360 --> 00:28:49,130

or behaviors or actions or predict the

788

00:28:53,890 --> 00:28:52,370

winning lotto numbers please be

789

00:28:56,710 --> 00:28:53,900

entertained by it have your socks

790

00:28:57,970 --> 00:28:56,720

knocked off but it's a trick did I get

791

00:28:59,620 --> 00:28:57,980

too carried away don't get too carried

792

00:29:01,240 --> 00:28:59,630

away because you know you guys and girls

793

00:29:02,530 --> 00:29:01,250

with the Australian skeptics you you

794

00:29:05,470 --> 00:29:02,540

love all of this sort of stuff and

795

00:29:07,120 --> 00:29:05,480

particularly you love the the people who

796

00:29:10,870 --> 00:29:07,130

do take themselves seriously and who

797

00:29:12,159 --> 00:29:10,880

purport to be able to do all these

798

00:29:13,570 --> 00:29:12,169

wondrous things which you have

799

00:29:16,299 --> 00:29:13,580

absolutely no scientific basis

800

00:29:18,820 --> 00:29:16,309

whatsoever well it comes back to the

801

00:29:21,280 --> 00:29:18,830

fact that magic or the profession of

802

00:29:23,980 --> 00:29:21,290

conjuring as it's really known is a very

803

00:29:27,310 --> 00:29:23,990

ancient and Noble and respected and

804

00:29:29,710 --> 00:29:27,320

decent part for the idea is to fool you

805

00:29:32,200 --> 00:29:29,720

to trick you and ultimately to give you

806

00:29:34,299 --> 00:29:32,210

a great night entertainment and leave

807

00:29:38,770 --> 00:29:34,309

you wondering or a scratching your head

808

00:29:42,060 --> 00:29:38,780

but they don't ever say by the way I

809

00:29:44,799 --> 00:29:42,070

really am making the woman fly or I

810

00:29:46,990 --> 00:29:44,809

really am defying the laws of physics by

811

00:29:49,090 --> 00:29:47,000

sawing this woman and half a day I me to

812

00:29:52,390 --> 00:29:49,100

astonish you and amaze you and I hope

813

00:29:55,360 --> 00:29:52,400

you all equally have a great time where

814

00:29:57,130 --> 00:29:55,370

we what we find is very sad is some

815

00:29:59,230 --> 00:29:57,140

people who have learned very interesting

816

00:30:01,400 --> 00:29:59,240

and skillful magic tricks will then go

817

00:30:03,500 --> 00:30:01,410

and say by the way I really

818

00:30:05,270 --> 00:30:03,510

doing this you know it does this isn't a

819

00:30:07,250 --> 00:30:05,280

trick I'm doing this by some strange

820

00:30:09,380 --> 00:30:07,260

magical powers which science hasn't

821

00:30:12,050 --> 00:30:09,390

caught up with and the magicians in the

822

00:30:14,210 --> 00:30:12,060

skeptics say oh come on why you spoiling

823

00:30:15,740 --> 00:30:14,220

it for everybody else this is a noble

824

00:30:18,020 --> 00:30:15,750

art you shouldn't be doing this with him

825

00:30:20,000 --> 00:30:18,030

and yet there would be plenty of people

826

00:30:23,660 --> 00:30:20,010

who would have watched that who I assume

827

00:30:26,270 --> 00:30:23,670

would go away thinking it really

828

00:30:28,550 --> 00:30:26,280

happened well I that's all very well

829

00:30:31,100 --> 00:30:28,560

that's fine maybe that's part of the fun

830

00:30:33,590 --> 00:30:31,110

in the magic of it if they get back to

831

00:30:36,290 --> 00:30:33,600

the basics and again it all in all in

832

00:30:38,900 --> 00:30:36,300

what he is he is an illusionist it's an

833

00:30:40,550 --> 00:30:38,910

illusion I guess you can't convince some

834

00:30:42,980 --> 00:30:40,560

people because a good illusion that

835

00:30:45,350 --> 00:30:42,990

looks real that's the whole amount of a

836

00:30:47,450 --> 00:30:45,360

good magic trick you have to it almost

837

00:30:48,770 --> 00:30:47,460

sucks you in and there's a part of your

838

00:30:50,060 --> 00:30:48,780

brain that always has to remember oh

839

00:30:52,160 --> 00:30:50,070

it's a drink it's a trick that they've

840

00:30:54,020 --> 00:30:52,170

worked the ears to make to make it look

841

00:30:56,750 --> 00:30:54,030

like that it's really happen tell what

842

00:30:58,400 --> 00:30:56,760

you've done this i watch it a couple of

843

00:31:00,620 --> 00:30:58,410

times actually and I've studied it very

844

00:31:03,410 --> 00:31:00,630

carefully I don't know the exact

845

00:31:05,570 --> 00:31:03,420

mechanisms that he employed and I don't

846

00:31:07,520 --> 00:31:05,580

know if I want to even if I did I mean I

847

00:31:09,530 --> 00:31:07,530

must quete well would it be right if I

848

00:31:11,630 --> 00:31:09,540

blabbed a trick you know to for the

849

00:31:14,930 --> 00:31:11,640

world to know I think it's got something

850

00:31:17,540 --> 00:31:14,940

to do with a probably ultimately camera

851

00:31:19,220 --> 00:31:17,550

trickery in the end but is that the

852

00:31:21,110 --> 00:31:19,230

important thing as long as people were

853

00:31:23,030 --> 00:31:21,120

entertained and as long as they don't

854

00:31:25,280 --> 00:31:23,040

take it too seriously I think that's

855

00:31:27,680 --> 00:31:25,290

more important I think you're right so

856

00:31:29,150 --> 00:31:27,690

in other words when his final program on

857

00:31:30,590 --> 00:31:29,160

the topic of how to bring down a casino

858

00:31:32,480 --> 00:31:30,600

goes to where we shouldn't worry too

859

00:31:34,340 --> 00:31:32,490

much about watching that's how we can go

860

00:31:36,500 --> 00:31:34,350

and close down Star City yeah I don't

861

00:31:38,000 --> 00:31:36,510

think so and if you really could predict

862

00:31:40,220 --> 00:31:38,010

the winning lotto numbers that would be

863

00:31:43,460 --> 00:31:40,230

the end of lotto in this country in all

864

00:31:44,870 --> 00:31:43,470

countries it would just be so spooky our

865

00:31:46,460 --> 00:31:44,880

world out there Richard isn't it it's

866

00:31:48,110 --> 00:31:46,470

good but it's good fun play good on you

867

00:31:49,640 --> 00:31:48,120

Michael talking into more I hope they're

868

00:31:52,010 --> 00:31:49,650

thanks might find out Richard Saunders

869

00:31:54,140 --> 00:31:52,020

there from the Australian skeptics going

870

00:31:56,600 --> 00:31:54,150

where no man has gone before that's not

871

00:31:58,130 --> 00:31:56,610

true actually Richard and his crew were

872

00:31:59,900 --> 00:31:58,140

just fabulous of being able to look at

873

00:32:01,880 --> 00:31:59,910

some of these things and it's very

874

00:32:04,160 --> 00:32:01,890

simply just to break it all down so that

875

00:32:07,340 --> 00:32:04,170

it's not quite as you like mystical and

876

00:32:09,250 --> 00:32:07,350

amazing is it my first seem I could

877

00:32:11,530 --> 00:32:09,260

somebody actually just pick the winner

878

00:32:25,890 --> 00:32:11,540

lotto numbers like that not that simple

879

00:32:30,130 --> 00:32:28,240

astronomy cast who takes a fact space

880

00:32:32,020 --> 00:32:30,140

journey through the cosmos as it offers

881

00:32:34,690 --> 00:32:32,030

listeners weekly discussions on

882

00:32:37,630 --> 00:32:34,700

astronomical topics ranging from planets

883

00:32:40,060 --> 00:32:37,640

to cosmology hosted by Fraser Cain of

884

00:32:40,930 --> 00:32:40,070

Universe Today and myself dr. Pamela gay

885

00:32:43,600 --> 00:32:40,940

of southern illinois university

886

00:32:45,460 --> 00:32:43,610

edwardsville this show brings the

887

00:32:47,890 --> 00:32:45,470

questions of an avid astronomy lover

888

00:32:49,990 --> 00:32:47,900

directly to an astronomer together

889

00:32:51,520 --> 00:32:50,000

Fraser and I explore what is known and

890

00:32:54,280 --> 00:32:51,530

being discovered about the universe

891

00:32:56,380 --> 00:32:54,290

around us join us each week as we take a

892

00:33:05,800 --> 00:32:56,390

fact space journey through the cosmos at

893

00:33:13,050 --> 00:33:05,810

astronomy cast com join us now for

894

00:33:17,860 --> 00:33:16,060

I'm Carly Sturgis and on the tenth of

895

00:33:20,170 --> 00:33:17,870

September on the way back from dragoncon

896

00:33:22,300 --> 00:33:20,180

I was honored to be invited to speak at

897

00:33:25,390 --> 00:33:22,310

the very first skeptics in the pub in

898

00:33:27,310 --> 00:33:25,400

Auckland New Zealand out of the 50 or so

899

00:33:29,530 --> 00:33:27,320

who attended a group helped out with an

900

00:33:31,660 --> 00:33:29,540

impromptu think tank in the courtyard of

901
00:33:34,570 --> 00:33:31,670
the horse and trap a lovely pub in the

902
00:33:36,760 --> 00:33:34,580
suburb of Mount Eden the very first

903
00:33:39,320 --> 00:33:36,770
skeptics in the pub in Auckland say

904
00:33:41,700 --> 00:33:39,330
hello Oakland

905
00:33:45,180 --> 00:33:41,710
so how many people did we end up getting

906
00:33:47,610 --> 00:33:45,190
do you think em over 40 / 40 people and

907
00:33:49,140 --> 00:33:47,620
you are a michael patrick you Mike

908
00:33:51,690 --> 00:33:49,150
you're Patrick or I can hear something

909
00:33:53,520 --> 00:33:51,700
coming fast so cute hugs me feeling me I

910
00:33:54,660 --> 00:33:53,530
can meet the train station of all the

911
00:33:56,640 --> 00:33:54,670
pubs we had to go we had to go to the

912
00:33:59,100 --> 00:33:56,650
one with a train station the name and

913
00:34:00,330 --> 00:33:59,110

skeptics owners got and the bus

914

00:34:02,370 --> 00:34:00,340

announcements we've got actual

915

00:34:04,080 --> 00:34:02,380

transforming works well done auckland

916

00:34:07,410 --> 00:34:04,090

another thing that Aucklanders managed

917

00:34:09,480 --> 00:34:07,420

to get going is a couple of ideas and

918

00:34:11,040 --> 00:34:09,490

people tend to get in the pub which is a

919

00:34:12,810 --> 00:34:11,050

good thing because then that's part of

920

00:34:15,600 --> 00:34:12,820

the point of being here and once a month

921

00:34:18,120 --> 00:34:15,610

meetings and but I think one of the good

922

00:34:19,830 --> 00:34:18,130

things is them as positive message

923

00:34:21,870 --> 00:34:19,840

skepticism needs to be positive m

924

00:34:23,850 --> 00:34:21,880

education is more effective than

925

00:34:28,230 --> 00:34:23,860

criticism although i do like curses are

926
00:34:29,730 --> 00:34:28,240
sizing myself so um no modi culture

927
00:34:34,020 --> 00:34:29,740
bashing please and there are other

928
00:34:36,570 --> 00:34:34,030
assistive focusin and the idea of having

929
00:34:38,850 --> 00:34:36,580
speakers having a talk every time me 20

930
00:34:42,720 --> 00:34:38,860
minutes la flair then I discussion and

931
00:34:45,389 --> 00:34:42,730
to invite plenty speakers along and yeah

932
00:34:49,110 --> 00:34:45,399
I think that's that's once a month hub

933
00:34:50,760 --> 00:34:49,120
is good yes and so puppies good what

934
00:34:52,590 --> 00:34:50,770
some of the big issues that haven't bled

935
00:34:55,889 --> 00:34:52,600
these people here and I've got about all

936
00:34:58,770 --> 00:34:55,899
let me see 2 4 6 8 0 about maybe nearly

937
00:35:00,060 --> 00:34:58,780
15 of us what led you to come here

938
00:35:02,040 --> 00:35:00,070

because I think there's something that

939

00:35:03,330 --> 00:35:02,050

needs to be heard anyone want to

940

00:35:06,150 --> 00:35:03,340

volunteer one of the things that said

941

00:35:08,130 --> 00:35:06,160

was no married culture bashing that

942

00:35:09,510 --> 00:35:08,140

intrigues me I think one of the main

943

00:35:11,700 --> 00:35:09,520

reasons a lot of people came here is

944

00:35:15,120 --> 00:35:11,710

because of the recent court case where

945

00:35:16,380 --> 00:35:15,130

Janet Moses young Mary lady was killed

946

00:35:18,140 --> 00:35:16,390

by a group of people who honestly

947

00:35:21,430 --> 00:35:18,150

believe they were performing an exorcism

948

00:35:22,990 --> 00:35:21,440

so they say she basically drowns and

949

00:35:24,579 --> 00:35:23,000

her own living room because they were

950

00:35:28,450 --> 00:35:24,589

pouring water down her mouth and into

951
00:35:31,329 --> 00:35:28,460
our eyeballs and she died and they got

952
00:35:33,460 --> 00:35:31,339
300 hours community service as the

953
00:35:34,540 --> 00:35:33,470
penalties on no jail time and they're

954
00:35:36,160 --> 00:35:34,550
not allowed out of the houses between

955
00:35:37,510 --> 00:35:36,170
six at night and nine in the morning

956
00:35:39,370 --> 00:35:37,520
that's their punishment for killing this

957
00:35:41,440 --> 00:35:39,380
young lady and they are basically lost

958
00:35:43,349 --> 00:35:41,450
because they honestly believed that they

959
00:35:47,380 --> 00:35:43,359
were doing the right thing which is

960
00:35:48,430 --> 00:35:47,390
removing a ghost lady what about some of

961
00:35:50,200 --> 00:35:48,440
the things that you feel like you could

962
00:35:51,460 --> 00:35:50,210
have a control over things that you can

963
00:35:52,599 --> 00:35:51,470

have a sale but what are some of the big

964

00:35:54,430 --> 00:35:52,609

things that you think if I just had a

965

00:35:56,349 --> 00:35:54,440

few more people or a few more voices or

966

00:36:00,250 --> 00:35:56,359

or maybe a couple of tactics I could do

967

00:36:03,370 --> 00:36:00,260

something about X what is X the other

968

00:36:06,099 --> 00:36:03,380

day was there's a displaced end of the

969

00:36:08,290 --> 00:36:06,109

mall for a chiropractic company that's

970

00:36:09,940 --> 00:36:08,300

in that's in the area I grabbed a couple

971

00:36:13,780 --> 00:36:09,950

of their flyers I've actually scanned

972

00:36:15,790 --> 00:36:13,790

them I was going to look for an expert

973

00:36:18,460 --> 00:36:15,800

opinion to see if there's something we

974

00:36:20,680 --> 00:36:18,470

can something actionable that they've

975

00:36:23,410 --> 00:36:20,690

said on the flyers and on their run on

976
00:36:26,190 --> 00:36:23,420
their materials whether that's something

977
00:36:29,170 --> 00:36:26,200
that we can send to some sort of a

978
00:36:31,450 --> 00:36:29,180
whoever's in charge of advertising I

979
00:36:34,329 --> 00:36:31,460
guess to say look they're saying this

980
00:36:35,920 --> 00:36:34,339
and here's what the actual vector and

981
00:36:38,349 --> 00:36:35,930
that's something that's just come up

982
00:36:40,910 --> 00:36:38,359
because of course um Simon soon and the

983
00:36:45,750 --> 00:36:43,770
yeah that's something that I'm trying to

984
00:36:49,560 --> 00:36:45,760
do is I keep an eye out for things that

985
00:36:53,040 --> 00:36:49,570
I can great they're material and say

986
00:36:55,680 --> 00:36:53,050
here you know this is wrong someone

987
00:36:57,390 --> 00:36:55,690
should know that complain about it and

988
00:36:59,820 --> 00:36:57,400

so what we have here is some concerns

989

00:37:01,440 --> 00:36:59,830

which seem to be universal you're

990

00:37:03,720 --> 00:37:01,450

hearing about other countries other

991

00:37:05,910 --> 00:37:03,730

other authors you mentioned Simon Singh

992

00:37:09,510 --> 00:37:05,920

standing up and then saying not this

993

00:37:13,170 --> 00:37:09,520

isn't on ya goes unchallenged in New

994

00:37:15,270 --> 00:37:13,180

Zealand there's I don't think there is a

995

00:37:17,570 --> 00:37:15,280

new zealand skeptic scripts but I see

996

00:37:20,250 --> 00:37:17,580

Bale all of it and in the media windows

997

00:37:23,400 --> 00:37:20,260

and pseudoscience and when there's

998

00:37:25,200 --> 00:37:23,410

things that you know things are at and

999

00:37:28,290 --> 00:37:25,210

pseudoscientific that there is no

1000

00:37:31,980 --> 00:37:28,300

pushback part of my desire to get people

1001
00:37:33,240 --> 00:37:31,990
here was was trying you know try find

1002
00:37:35,280 --> 00:37:33,250
out if there was enough people in

1003
00:37:36,810 --> 00:37:35,290
Auckland who actually want a traditional

1004
00:37:39,030 --> 00:37:36,820
available to go off the common actually

1005
00:37:40,800 --> 00:37:39,040
come to me to start with but I said to

1006
00:37:43,140 --> 00:37:40,810
start that push back just to see it

1007
00:37:46,440 --> 00:37:43,150
snorky for John Edwards to come and rip

1008
00:37:48,240 --> 00:37:46,450
people off the tuna flavor is 100 bucks

1009
00:37:50,070 --> 00:37:48,250
and he's doing at the moment isn't he

1010
00:37:51,510 --> 00:37:50,080
his comets come to New Zealand and and

1011
00:37:53,670 --> 00:37:51,520
and he's not the only psychic New

1012
00:37:56,550 --> 00:37:53,680
Zealand we have a real ass TV show

1013
00:37:58,500 --> 00:37:56,560

called sensing murder oh yes whenever we

1014

00:38:00,960 --> 00:37:58,510

get mail from New Zealand it's about

1015

00:38:03,480 --> 00:38:00,970

sensing murder I can see people nodding

1016

00:38:06,300 --> 00:38:03,490

I want a Qantas media world a couple

1017

00:38:09,270 --> 00:38:06,310

years back for for best program and all

1018

00:38:10,530 --> 00:38:09,280

you're kidding won an award and that's

1019

00:38:12,900 --> 00:38:10,540

kind of thing that really gets me and

1020

00:38:14,490 --> 00:38:12,910

and there was no it wasn't there's no

1021

00:38:16,230 --> 00:38:14,500

letter in the newspaper that says we

1022

00:38:17,550 --> 00:38:16,240

find this important because was there

1023

00:38:19,200 --> 00:38:17,560

just ripping people off there was

1024

00:38:20,880 --> 00:38:19,210

nothing like that and that's what kind

1025

00:38:23,920 --> 00:38:20,890

of really kind of disappointed being

1026

00:38:25,540 --> 00:38:23,930

part of the reason why I hope that

1027

00:38:27,940 --> 00:38:25,550

enough people not going to get some in

1028

00:38:30,520 --> 00:38:27,950

together I don't think it's big issues

1029

00:38:33,370 --> 00:38:30,530

well there are but what's not that's not

1030

00:38:36,400 --> 00:38:33,380

it's just gently nibble away on a crap

1031

00:38:38,320 --> 00:38:36,410

that you see in the TV it's skeptics in

1032

00:38:40,930 --> 00:38:38,330

Oakland we need all crap is that gonna

1033

00:38:43,750 --> 00:38:40,940

be able crap mean the boy away crap I

1034

00:38:46,180 --> 00:38:43,760

think the best did I just you're right

1035

00:38:48,460 --> 00:38:46,190

the newspaper funda stupid bloody top

1036

00:38:51,370 --> 00:38:48,470

back shows and say well I was a pilot

1037

00:38:53,710 --> 00:38:51,380

wasn't it you know just to say where do

1038

00:38:57,040 --> 00:38:53,720

you where do you come up with this

1039

00:38:59,590 --> 00:38:57,050

nonsense you know proved to me that this

1040

00:39:02,860 --> 00:38:59,600

works by the bengal their journeys and

1041

00:39:03,970 --> 00:39:02,870

his teach these t-shirts it says thing

1042

00:39:07,090 --> 00:39:03,980

you'll find it's a bit more complicated

1043

00:39:09,250 --> 00:39:07,100

than that because everybody wants

1044

00:39:11,380 --> 00:39:09,260

ten-second answers to questions that

1045

00:39:14,530 --> 00:39:11,390

have taken millennia to try and solve it

1046

00:39:17,590 --> 00:39:14,540

says it's the classic fairy setting news

1047

00:39:20,110 --> 00:39:17,600

bite yeah and it just doesn't exist what

1048

00:39:21,730 --> 00:39:20,120

other things make you oh here we go well

1049

00:39:24,610 --> 00:39:21,740

it didn't actually intend to contribute

1050

00:39:27,190 --> 00:39:24,620

but two of the things have already sort

1051

00:39:29,080 --> 00:39:27,200

of been my personal bugbears and one of

1052

00:39:30,640 --> 00:39:29,090

them was the marketer case that probably

1053

00:39:33,160 --> 00:39:30,650

for the opposite reason to the one

1054

00:39:35,350 --> 00:39:33,170

suggested because somebody blogged about

1055

00:39:37,030 --> 00:39:35,360

that on the on the website will actually

1056

00:39:38,830 --> 00:39:37,040

bought the actual sentencing decision

1057

00:39:40,780 --> 00:39:38,840

and gave it to that person because i

1058

00:39:42,250 --> 00:39:40,790

think if you obviously if you have a

1059

00:39:43,840 --> 00:39:42,260

view you need to be informed about the

1060

00:39:46,030 --> 00:39:43,850

sex and the reason people aren't

1061

00:39:48,490 --> 00:39:46,040

informed is because of media and that's

1062

00:39:51,640 --> 00:39:48,500

my one of my big bug bears because i

1063

00:39:54,250 --> 00:39:51,650

think they bear a lot of the blame in

1064

00:39:56,830 --> 00:39:54,260

terms of what everybody said I guess

1065

00:39:59,680 --> 00:39:56,840

substantively and I've got a celica Luna

1066

00:40:03,120 --> 00:39:59,690

and substantively and procedurally

1067

00:40:05,830 --> 00:40:03,130

because firstly they report crap

1068

00:40:08,200 --> 00:40:05,840

inaccurate stuff most of the time but

1069

00:40:10,030 --> 00:40:08,210

also they are the means by which most of

1070

00:40:12,640 --> 00:40:10,040

everybody else's rubbish as sort of

1071

00:40:16,600 --> 00:40:12,650

spread throughout the community and they

1072

00:40:19,030 --> 00:40:16,610

don't challenge ever well almost never

1073

00:40:21,130 --> 00:40:19,040

you Hadley viously great journalism in

1074

00:40:23,500 --> 00:40:21,140

New Zealand that really challenges bad

1075

00:40:26,860 --> 00:40:23,510

beliefs and dodgy ideas and that's my

1076

00:40:29,950 --> 00:40:26,870

personal on a daily basis I think right

1077

00:40:31,630 --> 00:40:29,960

there was a story about how Antarctica

1078

00:40:34,060 --> 00:40:31,640

is melting or something like that and

1079

00:40:36,370 --> 00:40:34,070

you're driving don't big drill

1080

00:40:38,410 --> 00:40:36,380

to get ancient water and what they're

1081

00:40:42,610 --> 00:40:38,420

showing your TV a bloody Paulo be a

1082

00:40:45,820 --> 00:40:42,620

falling off a nice for what it is right

1083

00:40:48,610 --> 00:40:45,830

this rubbish have no processes

1084

00:40:51,880 --> 00:40:48,620

whatsoever so one goal could be said is

1085

00:40:54,130 --> 00:40:51,890

to get in touch with journalists get in

1086

00:40:56,410 --> 00:40:54,140

touch with the media have a voice there

1087

00:40:58,810 --> 00:40:56,420

be represented va a contact point for

1088

00:41:02,410 --> 00:40:58,820

them the Auckland skeptics could be one

1089

00:41:03,640 --> 00:41:02,420

perhaps do you think of you yeah

1090

00:41:05,530 --> 00:41:03,650

unfortunately I'm putting herself in

1091

00:41:09,070 --> 00:41:05,540

Georgia position I am a journalist I'm

1092

00:41:10,570 --> 00:41:09,080

teens that's it he has to leave now the

1093

00:41:12,940 --> 00:41:10,580

one the one thing about journalism is

1094

00:41:15,520 --> 00:41:12,950

its in green that journalism needs

1095

00:41:18,100 --> 00:41:15,530

balance and that's that's fine where

1096

00:41:19,900 --> 00:41:18,110

there's two equally dissenting sides to

1097

00:41:22,120 --> 00:41:19,910

the story yeah unfortunately science

1098

00:41:24,550 --> 00:41:22,130

doesn't work like that and but because

1099

00:41:26,380 --> 00:41:24,560

bounce is ingrained and people expect

1100

00:41:29,200 --> 00:41:26,390

bounce in their new stories it means

1101

00:41:31,270 --> 00:41:29,210

that for every scientific pieces written

1102

00:41:33,400 --> 00:41:31,280

there has to be the response at

1103

00:41:35,830 --> 00:41:33,410

the end which is someone who says that

1104

00:41:37,000 --> 00:41:35,840

actually it's not true and you know you

1105

00:41:38,770 --> 00:41:37,010

don't have to spend thousands and

1106

00:41:39,880 --> 00:41:38,780

pharmaceuticals because the plant in

1107

00:41:43,050 --> 00:41:39,890

your garden is going to cure your cancer

1108

00:41:45,700 --> 00:41:43,060

and and unfortunately that's just we and

1109

00:41:49,030 --> 00:41:45,710

journalism is the good thing of course

1110

00:41:50,770 --> 00:41:49,040

is that blogs aren't new aren't

1111

00:41:53,650 --> 00:41:50,780

constrained by those journalistic

1112

00:41:56,560 --> 00:41:53,660

standards good blogs well how writes a

1113

00:41:57,790 --> 00:41:56,570

reply will and correct errors and will

1114

00:41:59,830 --> 00:41:57,800

make sure that people can understand

1115

00:42:02,590 --> 00:41:59,840

when errors with me made and are not

1116

00:42:04,930 --> 00:42:02,600

visible but they can focus in on what

1117

00:42:06,610 --> 00:42:04,940

what actual story is and point to the

1118

00:42:09,310 --> 00:42:06,620

real facts point to the papers and

1119

00:42:11,380 --> 00:42:09,320

that's something that journalists and

1120

00:42:14,170 --> 00:42:11,390

use people traditionally newspapers and

1121

00:42:17,410 --> 00:42:14,180

even online aren't able to do and that's

1122

00:42:19,480 --> 00:42:17,420

a big problem I know that channel 7 and

1123

00:42:20,830 --> 00:42:19,490

Yahoo have recently contacted the

1124

00:42:23,350 --> 00:42:20,840

Australian skeptics and allowed them

1125

00:42:25,090 --> 00:42:23,360

space for an official blog on their site

1126

00:42:26,890 --> 00:42:25,100

so possibly even getting in touch with

1127

00:42:29,710 --> 00:42:26,900

groups and saying we could contribute

1128

00:42:31,090 --> 00:42:29,720

writers in this regard to your site to

1129

00:42:33,040 --> 00:42:31,100

add to the balance perspective on

1130

00:42:34,890 --> 00:42:33,050

occasion that that's another avenue to

1131

00:42:38,160 --> 00:42:34,900

look into this being that they may

1132

00:42:40,289 --> 00:42:38,170

actually want contributions from people

1133

00:42:42,779 --> 00:42:40,299

as well they made us not know who to ask

1134

00:42:44,069 --> 00:42:42,789

I know that Vicki hi does get into the

1135

00:42:48,079 --> 00:42:44,079

newspaper from time to time some people

1136

00:42:50,760 --> 00:42:48,089

people ring her when they need a skeptic

1137

00:42:52,500 --> 00:42:50,770

but maybe if we make it knowing that

1138

00:42:56,519 --> 00:42:52,510

there are people available I want to

1139

00:42:59,490 --> 00:42:56,529

talk who have some knowledge and there's

1140

00:43:01,410 --> 00:42:59,500

from many different qualifications here

1141

00:43:03,630 --> 00:43:01,420

aren't there I've met lawyers I've met

1142

00:43:06,420 --> 00:43:03,640

scientists journalists we've even got a

1143

00:43:08,819 --> 00:43:06,430

cartoonist people who are artists

1144

00:43:10,440 --> 00:43:08,829

students student teachers does that

1145

00:43:11,579 --> 00:43:10,450

surprise you in any way the fact that

1146

00:43:13,589 --> 00:43:11,589

people come from so many different

1147

00:43:16,440 --> 00:43:13,599

backgrounds and disciplines people are

1148

00:43:18,120 --> 00:43:16,450

shaking the head science would surprise

1149

00:43:21,329 --> 00:43:18,130

you that people that believe in strange

1150

00:43:23,579 --> 00:43:21,339

things come from all areas in all walks

1151

00:43:27,589 --> 00:43:23,589

of life and even a highly intelligent

1152

00:43:31,079 --> 00:43:27,599

people oh no disappointment here I'm

1153

00:43:37,589 --> 00:43:31,089

when the poor polar bear did anybody go

1154

00:43:39,450 --> 00:43:37,599

oh you unfeeling bastards so highly

1155

00:43:43,109 --> 00:43:39,460

intelligent but slightly sociopathic no

1156

00:43:44,460 --> 00:43:43,119

no but no i would say i would say in

1157

00:43:45,990 --> 00:43:44,470

fact you're very caring because you're

1158

00:43:48,900 --> 00:43:46,000

making the effort here to do something

1159

00:43:50,250 --> 00:43:48,910

for the community by being skeptics i

1160

00:43:52,410 --> 00:43:50,260

mean that's one of the overall messages

1161

00:43:54,690 --> 00:43:52,420

here we're caring about not only the

1162

00:43:57,150 --> 00:43:54,700

health and welfare and consumer rights

1163

00:43:58,260 --> 00:43:57,160

of these people but many of you also

1164

00:44:00,660 --> 00:43:58,270

touching upon well there's cultural

1165

00:44:03,240 --> 00:44:00,670

aspects to consider in New Zealand this

1166

00:44:05,460 --> 00:44:03,250

is Auckland after all how does that

1167

00:44:08,069 --> 00:44:05,470

impact upon being a skeptic people are

1168

00:44:10,710 --> 00:44:08,079

nodding shaking yet oh hi I'm John the

1169

00:44:12,690 --> 00:44:10,720

thing that I see about Auckland is it in

1170

00:44:16,650 --> 00:44:12,700

New Zealand and generals were small

1171

00:44:18,059 --> 00:44:16,660

diverse country where people have had to

1172

00:44:20,700 --> 00:44:18,069

get along because we're all come from

1173

00:44:23,700 --> 00:44:20,710

diverse backgrounds so there's a culture

1174

00:44:28,289 --> 00:44:23,710

of not getting at one another and that

1175

00:44:31,650 --> 00:44:28,299

there's a culture of not knocking you

1176

00:44:34,740 --> 00:44:31,660

are seen to be knocking something you

1177

00:44:36,630 --> 00:44:34,750

are a bad person skeptics get up and say

1178

00:44:38,279 --> 00:44:36,640

that sensing the murder is bad and

1179

00:44:40,410 --> 00:44:38,289

everyone else is enjoying the

1180

00:44:41,360 --> 00:44:40,420

entertainment they say get lost your

1181

00:44:43,370 --> 00:44:41,370

knocker you know

1182

00:44:46,250 --> 00:44:43,380

there's this culture there and that's a

1183

00:44:47,690 --> 00:44:46,260

problem that I see there and I'm

1184

00:44:50,090 --> 00:44:47,700

interested in finding ways around that

1185

00:44:51,680 --> 00:44:50,100

as well as that I was saying something

1186

00:44:52,880 --> 00:44:51,690

he was saying so but the only obsession

1187

00:44:54,590 --> 00:44:52,890

that was going to make is you talk about

1188

00:44:56,600 --> 00:44:54,600

cultural diversity and I'm just looking

1189

00:44:59,600 --> 00:44:56,610

around this tape around the room is that

1190

00:45:01,910 --> 00:44:59,610

anybody in this pub who is not European

1191

00:45:08,710 --> 00:45:01,920

yes I was just thinking that myself is

1192

00:45:11,090 --> 00:45:08,720

all addressed hello we have women here

1193

00:45:13,040 --> 00:45:11,100

big boys and unlike video everyone so

1194

00:45:14,540 --> 00:45:13,050

I'm relieved there are a few well I'm

1195

00:45:17,380 --> 00:45:14,550

certainly happy to represent the

1196

00:45:19,790 --> 00:45:17,390

Australians by being a female yeah yeah

1197

00:45:21,740 --> 00:45:19,800

culture is no excuse for bleeding thank

1198

00:45:24,230 --> 00:45:21,750

you how do you think you might be able

1199

00:45:26,240 --> 00:45:24,240

to tap into other people's backgrounds

1200

00:45:28,190 --> 00:45:26,250

and perhaps make them see that this is

1201

00:45:31,340 --> 00:45:28,200

something that isn't just as you said

1202

00:45:33,650 --> 00:45:31,350

white geeky boy let's all be fans of Ben

1203

00:45:37,430 --> 00:45:33,660

Goldacre and say Steve novellas a hottie

1204

00:45:38,870 --> 00:45:37,440

that sort of thing oh come on you knew

1205

00:45:40,250 --> 00:45:38,880

that you're thinking Steve novellas a

1206

00:45:42,380 --> 00:45:40,260

hottie that's why you're coming along

1207

00:45:45,080 --> 00:45:42,390

yeah that's it today's unshackling

1208

00:45:46,520 --> 00:45:45,090

yourself from your back room so I guess

1209

00:45:48,230 --> 00:45:46,530

there's a challenge there in terms of

1210

00:45:49,610 --> 00:45:48,240

other people be jeans is that the

1211

00:45:51,950 --> 00:45:49,620

cultural thing is quite strongly the

1212

00:45:53,750 --> 00:45:51,960

struggling you know and that's a hard

1213

00:45:55,640 --> 00:45:53,760

thing to breach because it's family it's

1214

00:45:58,010 --> 00:45:55,650

find out what's all that stuff as well

1215

00:45:59,930 --> 00:45:58,020

maybe one solution could be touching

1216

00:46:02,150 --> 00:45:59,940

base with people who are into consumer

1217

00:46:04,250 --> 00:46:02,160

rights organizations people with human

1218

00:46:06,170 --> 00:46:04,260

rights organizations it's good that this

1219

00:46:08,090 --> 00:46:06,180

meeting has happened because we're just

1220

00:46:10,250 --> 00:46:08,100

starting to meet people who you know

1221

00:46:12,470 --> 00:46:10,260

like minded individuals we just need to

1222

00:46:16,040 --> 00:46:12,480

get it wider diversity of people along

1223

00:46:17,390 --> 00:46:16,050

not just middle-aged males does anyone

1224

00:46:19,550 --> 00:46:17,400

have any comments you make about the

1225

00:46:21,670 --> 00:46:19,560

atheist skeptic link and interesting

1226

00:46:24,380 --> 00:46:21,680

thing an interesting thing why I

1227

00:46:27,140 --> 00:46:24,390

definitely see the link between skips as

1228

00:46:28,460 --> 00:46:27,150

and atheism because well from my

1229

00:46:31,640 --> 00:46:28,470

perspective anyway religion is that it's

1230

00:46:34,130 --> 00:46:31,650

very easy to be skeptical of and I see a

1231

00:46:35,390 --> 00:46:34,140

very strong link between not believing

1232

00:46:37,460 --> 00:46:35,400

and say alternative medicine or not

1233

00:46:39,770 --> 00:46:37,470

believe in God because they're both

1234

00:46:42,860 --> 00:46:39,780

things that have very little or no

1235

00:46:44,430 --> 00:46:42,870

evidence for them I know that there are

1236

00:46:46,170 --> 00:46:44,440

plenty of there

1237

00:46:47,579 --> 00:46:46,180

and reasonable number of religious

1238

00:46:50,460 --> 00:46:47,589

people who would also say that they're

1239

00:46:52,680 --> 00:46:50,470

skeptics and who would not believe in a

1240

00:46:55,410 --> 00:46:52,690

lot of things but on the other hand i

1241

00:46:56,579 --> 00:46:55,420

also think well you know you don't

1242

00:46:59,490 --> 00:46:56,589

believe in all these other things but

1243

00:47:00,839 --> 00:46:59,500

you believe in the sky 2,000 years ago

1244

00:47:02,849 --> 00:47:00,849

that was nailed to a tree and that means

1245

00:47:04,559 --> 00:47:02,859

all your sins is forgiven that might be

1246

00:47:06,329 --> 00:47:04,569

in fact a really good topic for debate

1247

00:47:10,020 --> 00:47:06,339

or discussion for are skeptics in the

1248

00:47:11,880 --> 00:47:10,030

pub one night danger be caught because

1249

00:47:13,490 --> 00:47:11,890

there is no pigeonhole you can't

1250

00:47:16,319 --> 00:47:13,500

pigeonhole escaped it you can't see

1251
00:47:17,940 --> 00:47:16,329
everyone here believes this and doesn't

1252
00:47:19,200 --> 00:47:17,950
believe in that because everyone has

1253
00:47:22,099 --> 00:47:19,210
their own opinions and that's been

1254
00:47:25,829 --> 00:47:22,109
formed through their entire lives and so

1255
00:47:28,559 --> 00:47:25,839
although i'm at i'm an atheist and idly

1256
00:47:30,000 --> 00:47:28,569
kind of kept away from atheism comes to

1257
00:47:32,099 --> 00:47:30,010
fighting pseudo-scientists to believe

1258
00:47:34,410 --> 00:47:32,109
you find the bed fellows that you can to

1259
00:47:35,970 --> 00:47:34,420
to fight those kind of things and there

1260
00:47:38,550 --> 00:47:35,980
may well be thousands of Christians like

1261
00:47:39,990 --> 00:47:38,560
there who find the idea of psychics

1262
00:47:41,970 --> 00:47:40,000
completely up horned against their

1263
00:47:44,280 --> 00:47:41,980

principles and we shouldn't discount

1264

00:47:46,109 --> 00:47:44,290

those people simply because we happen to

1265

00:47:48,059 --> 00:47:46,119

disagree with them about organized

1266

00:47:50,339 --> 00:47:48,069

religion and and it's one of those

1267

00:47:51,510 --> 00:47:50,349

difficult things that that we're gonna

1268

00:47:54,510 --> 00:47:51,520

have to deal with in when we have to

1269

00:47:56,640 --> 00:47:54,520

debate but but we can't afford if we're

1270

00:47:58,740 --> 00:47:56,650

going to use skepticism and the skeptics

1271

00:48:00,180 --> 00:47:58,750

in the pub in Oakland positively we

1272

00:48:02,099 --> 00:48:00,190

can't afford to eating eat whole groups

1273

00:48:04,349 --> 00:48:02,109

of people just because they don't have

1274

00:48:06,569 --> 00:48:04,359

one specific belief that we may disagree

1275

00:48:08,760 --> 00:48:06,579

with yeah I'm kind of along the same

1276

00:48:10,440 --> 00:48:08,770

lines as Mike on there but getting back

1277

00:48:12,510 --> 00:48:10,450

to the previous thing about how we

1278

00:48:15,630 --> 00:48:12,520

actually work on the skepticism I think

1279

00:48:17,339 --> 00:48:15,640

we have to start working more on says

1280

00:48:20,760 --> 00:48:17,349

bad work more on children but educating

1281

00:48:22,140 --> 00:48:20,770

children so I've got three kids myself

1282

00:48:23,819 --> 00:48:22,150

and I know that school holidays coming

1283

00:48:25,740 --> 00:48:23,829

up a lot of the school holiday programs

1284

00:48:28,230 --> 00:48:25,750

are run through churches or church

1285

00:48:29,520 --> 00:48:28,240

groups you know Salvation Army the local

1286

00:48:31,140 --> 00:48:29,530

Baptist group all that kind of stuff and

1287

00:48:32,700 --> 00:48:31,150

there are very few other there are some

1288

00:48:35,280 --> 00:48:32,710

secular groups there are no true

1289

00:48:36,870 --> 00:48:35,290

critical thinking school camps or school

1290

00:48:38,280 --> 00:48:36,880

programs or anything like that that goes

1291

00:48:40,079 --> 00:48:38,290

around for kids and even in schools

1292

00:48:41,460 --> 00:48:40,089

there are actual you know evangelists

1293

00:48:42,720 --> 00:48:41,470

and preachers that come into schools and

1294

00:48:44,520 --> 00:48:42,730

you can give permission for your child

1295

00:48:46,470 --> 00:48:44,530

to go and listen to them and yet I think

1296

00:48:48,420 --> 00:48:46,480

there are any advantage little skeptics

1297

00:48:50,220 --> 00:48:48,430

or you know that go into schools to

1298

00:48:51,720 --> 00:48:50,230

promote critical thinking with children

1299

00:48:53,570 --> 00:48:51,730

and children are sponges they will

1300

00:48:55,820 --> 00:48:53,580

believe anything you're told

1301

00:48:58,220 --> 00:48:55,830

at the most recent dragoncon we had an

1302

00:49:00,680 --> 00:48:58,230

amazing number of parents and teachers

1303

00:49:02,180 --> 00:49:00,690

and presenting parents hopefully some of

1304

00:49:04,790 --> 00:49:02,190

the audio will come up on several of the

1305

00:49:07,250 --> 00:49:04,800

podcasts and I know that people are just

1306

00:49:09,070 --> 00:49:07,260

astounded at how much support there was

1307

00:49:11,330 --> 00:49:09,080

for the idea of a critical thinking show

1308

00:49:12,830 --> 00:49:11,340

you might know that Richard Saunders and

1309

00:49:14,900 --> 00:49:12,840

dr. Rachel Dunlop do the mystery

1310

00:49:16,520 --> 00:49:14,910

investigators which is a children's show

1311

00:49:20,210 --> 00:49:16,530

and they presented at Dragon Con this

1312

00:49:23,150 --> 00:49:20,220

year and we had mostly parents in the

1313

00:49:25,280 --> 00:49:23,160

audience a couple of kids who just went

1314

00:49:27,500 --> 00:49:25,290

nutso and ran around with dowsing rods

1315

00:49:28,910 --> 00:49:27,510

for the demonstrations but it was quite

1316

00:49:31,280 --> 00:49:28,920

a lot of parent sayings is really clever

1317

00:49:32,900 --> 00:49:31,290

I could do this or people who didn't

1318

00:49:36,800 --> 00:49:32,910

have kids but we're interested in maybe

1319

00:49:38,330 --> 00:49:36,810

the performance or presentation side and

1320

00:49:40,610 --> 00:49:38,340

saying I could probably do something

1321

00:49:43,190 --> 00:49:40,620

similar so maybe getting in touch with

1322

00:49:45,230 --> 00:49:43,200

science communication bodies presenting

1323

00:49:46,730 --> 00:49:45,240

groups at museums and so forth and

1324

00:49:48,440 --> 00:49:46,740

seeing if you could take part I believe

1325

00:49:49,700 --> 00:49:48,450

the Victorian skeptics do something

1326

00:49:51,680 --> 00:49:49,710

similar like that they have a stall

1327

00:49:54,230 --> 00:49:51,690

during science week do you have science

1328

00:49:55,940 --> 00:49:54,240

week here in New Zealand some people

1329

00:49:57,410 --> 00:49:55,950

shrugging some people nodding looking

1330

00:49:59,030 --> 00:49:57,420

looking into that might be might be

1331

00:50:00,410 --> 00:49:59,040

useful no big loss of a shrinking into

1332

00:50:02,270 --> 00:50:00,420

the cell oh god please don't make me

1333

00:50:03,590 --> 00:50:02,280

dress up as a science clown juggle for

1334

00:50:05,630 --> 00:50:03,600

the intent of the kids I can't handle

1335

00:50:06,860 --> 00:50:05,640

better anyone else have any good ideas

1336

00:50:08,630 --> 00:50:06,870

or things that they would like to do I

1337

00:50:11,590 --> 00:50:08,640

think one of the overwhelming things is

1338

00:50:16,370 --> 00:50:11,600

have fun network I think that as

1339

00:50:20,480 --> 00:50:16,380

skeptics we need to become I guess

1340

00:50:23,870 --> 00:50:20,490

polite educators especially in New

1341

00:50:25,040 --> 00:50:23,880

Zealand as you said earlier with when

1342

00:50:26,420 --> 00:50:25,050

you come up against other people they

1343

00:50:28,370 --> 00:50:26,430

don't like being rubbed the wrong way

1344

00:50:31,310 --> 00:50:28,380

we're a culture of just getting on with

1345

00:50:35,960 --> 00:50:31,320

everyone and I think what we need to do

1346

00:50:38,450 --> 00:50:35,970

is really sort of take advice from other

1347

00:50:42,830 --> 00:50:38,460

guys that have looked at you know how to

1348

00:50:45,640 --> 00:50:42,840

approach people how to I guess calm down

1349

00:50:48,290 --> 00:50:45,650

for a start stop rolling your eyes and

1350

00:50:52,250 --> 00:50:48,300

actually listen to the other people and

1351
00:50:56,540 --> 00:50:52,260
then be able to walk them through their

1352
00:50:59,540 --> 00:50:56,550
own logical state that's really and and

1353
00:51:02,060 --> 00:50:59,550
then yet sort of try and 180 them round

1354
00:51:06,510 --> 00:51:02,070
two and with kids of my own I know that

1355
00:51:09,720 --> 00:51:06,520
they look to us to show

1356
00:51:11,520 --> 00:51:09,730
what to do and where to go and if yeah

1357
00:51:13,050 --> 00:51:11,530
if they're looking at I guess the wrong

1358
00:51:16,410 --> 00:51:13,060
blackboard they're going to learn the

1359
00:51:20,340 --> 00:51:16,420
wrong stuff it's being able to show them

1360
00:51:21,600 --> 00:51:20,350
a something that is believable something

1361
00:51:22,830 --> 00:51:21,610
that they can turn around and they know

1362
00:51:27,590 --> 00:51:22,840
it's going to still be standing there

1363
00:51:30,450 --> 00:51:27,600

and really sort of give them a good base

1364

00:51:33,090 --> 00:51:30,460

so they can continue on with it's such

1365

00:51:35,510 --> 00:51:33,100

an opportunity because um the Internet

1366

00:51:38,760 --> 00:51:35,520

has made everything so much more and

1367

00:51:40,530 --> 00:51:38,770

accessible no longer no two years ago

1368

00:51:43,470 --> 00:51:40,540

three years ago four years ago you were

1369

00:51:46,170 --> 00:51:43,480

a skeptic no and you know you struggle

1370

00:51:49,830 --> 00:51:46,180

to find anyone else to to converse with

1371

00:51:51,450 --> 00:51:49,840

you know you know on Twitter and I'm in

1372

00:51:54,180 --> 00:51:51,460

contact with Kylie I mean you know em

1373

00:51:55,710 --> 00:51:54,190

with dr. Richie I've had emails from I

1374

00:51:57,930 --> 00:51:55,720

had an email from james randi it was

1375

00:51:59,610 --> 00:51:57,940

just awesome to open up my inbox and

1376

00:52:01,230 --> 00:51:59,620

find an email from james randi these

1377

00:52:02,630 --> 00:52:01,240

people aren't untouchable there are

1378

00:52:05,250 --> 00:52:02,640

people out there who are willing to help

1379

00:52:07,440 --> 00:52:05,260

all over the world and in and it would

1380

00:52:08,520 --> 00:52:07,450

be remiss not to use those kind of

1381

00:52:10,500 --> 00:52:08,530

resources and I think we've got a real

1382

00:52:11,940 --> 00:52:10,510

opportunity to be positive I think

1383

00:52:14,310 --> 00:52:11,950

that's the key thing is to be positive

1384

00:52:16,290 --> 00:52:14,320

not to be negative about skepticism but

1385

00:52:19,320 --> 00:52:16,300

we positive and kick that message to as

1386

00:52:22,050 --> 00:52:19,330

many people as as we can with without

1387

00:52:29,180 --> 00:52:22,060

without getting into the old habit of

1388

00:52:35,459 --> 00:52:31,650

yes he did he got an email out of James

1389

00:52:37,349 --> 00:52:35,469

Randi I think that's a good point that

1390

00:52:40,349 --> 00:52:37,359

you touched on and one that that I find

1391

00:52:42,509 --> 00:52:40,359

irritating to is this idea that if that

1392

00:52:44,190 --> 00:52:42,519

there's such negativity associated with

1393

00:52:46,200 --> 00:52:44,200

it if you were a few trying to be

1394

00:52:47,969 --> 00:52:46,210

rational and reasonable it's like you're

1395

00:52:49,440 --> 00:52:47,979

cold and unfeeling and you're not really

1396

00:52:51,809 --> 00:52:49,450

compassionate and you don't really

1397

00:52:55,650 --> 00:52:51,819

understand how I feel and you know

1398

00:52:56,999 --> 00:52:55,660

there's that real negativity whereas i'm

1399

00:52:58,890 --> 00:52:57,009

normally trying to say well actually

1400

00:53:01,589 --> 00:52:58,900

it's because i really care deeply about

1401
00:53:03,150 --> 00:53:01,599
you know this poor child not dying

1402
00:53:04,769 --> 00:53:03,160
because they have cancer win this

1403
00:53:06,959 --> 00:53:04,779
perfectly good medical treatment

1404
00:53:08,519 --> 00:53:06,969
available to them that's why you know

1405
00:53:12,420 --> 00:53:08,529
all these people in jail who shouldn't

1406
00:53:14,279 --> 00:53:12,430
be that's why i get so i guess i'm

1407
00:53:16,140 --> 00:53:14,289
passionate about it it's not a negative

1408
00:53:19,019 --> 00:53:16,150
thing that it's actually because you can

1409
00:53:21,359 --> 00:53:19,029
that that's why you you are escaped it

1410
00:53:22,890 --> 00:53:21,369
you mentioned the internet as a powerful

1411
00:53:24,359 --> 00:53:22,900
force for getting people together where

1412
00:53:27,599 --> 00:53:24,369
can people go to find out more about the

1413
00:53:29,430 --> 00:53:27,609

auckland skeptics okay i started

1414

00:53:32,579 --> 00:53:29,440

christchurch skeptics in the pub about

1415

00:53:34,400 --> 00:53:32,589

three or four months ago and we've got

1416

00:53:36,599 --> 00:53:34,410

it down to the point now where we have

1417

00:53:37,920 --> 00:53:36,609

fortnightly meetings alternating monday

1418

00:53:39,089 --> 00:53:37,930

and tuesday because some people can't

1419

00:53:41,279 --> 00:53:39,099

make it on Monday some people can't make

1420

00:53:42,839 --> 00:53:41,289

it on Tuesday we also have monthly video

1421

00:53:44,759 --> 00:53:42,849

evenings but they tend to be a more

1422

00:53:48,089 --> 00:53:44,769

atheists theme thing but I'm fine with

1423

00:53:49,680 --> 00:53:48,099

that I've also started this one and mike

1424

00:53:51,719 --> 00:53:49,690

has been put in charge of this one

1425

00:53:53,849 --> 00:53:51,729

because well I don't live here yeah and

1426

00:53:55,079 --> 00:53:53,859

we've also started the Wellington

1427

00:53:56,700 --> 00:53:55,089

skeptics in the pub meet up and

1428

00:54:00,900 --> 00:53:56,710

hopefully the first meeting of that will

1429

00:54:03,120 --> 00:54:00,910

be on the night opening night of the New

1430

00:54:05,309 --> 00:54:03,130

Zealand skeptics conference 2009 in

1431

00:54:07,049 --> 00:54:05,319

Wellington brilliant so you have the new

1432

00:54:09,539 --> 00:54:07,059

zealand skeptics conference coming up

1433

00:54:11,309 --> 00:54:09,549

soon we do at the end of the month and i

1434

00:54:12,839 --> 00:54:11,319

hope that some people here will not find

1435

00:54:14,940 --> 00:54:12,849

it too difficult to make the jump across

1436

00:54:16,440 --> 00:54:14,950

the ocean in order to see some of the

1437

00:54:17,880 --> 00:54:16,450

australian conferences that are coming

1438

00:54:19,799 --> 00:54:17,890

to have people got plans for those i

1439

00:54:21,329 --> 00:54:19,809

want one hand people were waving hands

1440

00:54:22,709 --> 00:54:21,339

people are nodding we'll see how it goes

1441

00:54:24,539 --> 00:54:22,719

and certainly I hope that some of the

1442

00:54:25,799 --> 00:54:24,549

members from those conferences will be

1443

00:54:28,170 --> 00:54:25,809

able to head towards New Zealand because

1444

00:54:29,910 --> 00:54:28,180

you are a country with with an identity

1445

00:54:31,650 --> 00:54:29,920

that deserves just as much respect as

1446

00:54:34,979 --> 00:54:31,660

Australia it's just as much as us

1447

00:54:36,930 --> 00:54:34,989

possibly a little bit more so good so

1448

00:54:38,190 --> 00:54:36,940

all hail to Auckland skeptics and thank

1449

00:54:39,959 --> 00:54:38,200

you very much ladies and gentlemen for

1450

00:54:45,480 --> 00:54:39,969

being part of the first think tank in

1451

00:54:50,320 --> 00:54:48,580

the official meetup com site for the

1452

00:54:54,390 --> 00:54:50,330

Auckland skeptics can be found on

1453

00:54:56,860 --> 00:54:54,400

Auckland skeptics in the pub net NZ

1454

00:54:59,500 --> 00:54:56,870

skeptics in New Zealand should also be

1455

00:55:13,000 --> 00:54:59,510

checking out skeptics in the pub dotnet

1456

00:55:17,850 --> 00:55:13,010

dealt NZ there's a new podcast called

1457

00:55:21,010 --> 00:55:17,860

the geologic podcast a balanced come

1458

00:55:25,990 --> 00:55:21,020

rational look at the world and all of

1459

00:55:28,600 --> 00:55:26,000

the people in it mother ah four notes

1460

00:55:30,940 --> 00:55:28,610

away all right here's the deal is the

1461

00:55:33,910 --> 00:55:30,950

sky ladies George raw but he's got his

1462

00:55:35,980 --> 00:55:33,920

geologic podcast maybe the last figure

1463

00:55:37,450 --> 00:55:35,990

what I do is listen to this garbage I'll

1464

00:55:39,460 --> 00:55:37,460

be look at the code of things he does

1465

00:55:45,430 --> 00:55:39,470

he's got his one big is called religious

1466

00:55:47,680 --> 00:55:45,440

were out of the week baby does this

1467

00:55:51,030 --> 00:55:47,690

stupid Hitler's grammar talks about

1468

00:55:55,030 --> 00:55:51,040

entertainment news it must be time for

1469

00:55:57,100 --> 00:55:55,040

grandma's entertainment report that's

1470

00:55:59,560 --> 00:55:57,110

this george karl has got some strange

1471

00:56:03,610 --> 00:55:59,570

fascination with edibles ray talks about

1472

00:56:08,020 --> 00:56:03,620

them and then called interesting phone

1473

00:56:14,550 --> 00:56:08,030

I mean it's all just so stupid the last

1474

00:56:19,950 --> 00:56:16,960

believe your time will be better spent

1475

00:56:38,060 --> 00:56:19,960

making yourself a sandwich or something

1476

00:56:42,930 --> 00:56:40,560

so New Zealand's a bit of a party town a

1477

00:56:45,870 --> 00:56:42,940

Stefan New Zealand is a big party town I

1478

00:56:48,240 --> 00:56:45,880

couldn't could not believe how many pubs

1479

00:56:50,340 --> 00:56:48,250

they were in that in that place I don't

1480

00:56:51,990 --> 00:56:50,350

whether all I have a suspicion because I

1481

00:56:54,210 --> 00:56:52,000

was after hours that all the shops they

1482

00:56:56,640 --> 00:56:54,220

sort of they said all if shopfronts

1483

00:56:58,440 --> 00:56:56,650

actually wrote revolve around and will

1484

00:56:59,940 --> 00:56:58,450

and all those sort of bars and bottle

1485

00:57:01,890 --> 00:56:59,950

shops and stuffs that are replaced on

1486

00:57:03,360 --> 00:57:01,900

high it was I couldn't believe it well

1487

00:57:04,320 --> 00:57:03,370

those new zealand skeptics certainly

1488

00:57:06,660 --> 00:57:04,330

sound like they're having a good time

1489

00:57:09,570 --> 00:57:06,670

new zealand skeptics in the pub and you

1490

00:57:12,450 --> 00:57:09,580

heard the details there on Kylie's think

1491

00:57:14,220 --> 00:57:12,460

tank how to get involved New Zealand

1492

00:57:16,260 --> 00:57:14,230

people get involved I mean I needed over

1493

00:57:19,110 --> 00:57:16,270

there there's a few crazies few wackos

1494

00:57:21,120 --> 00:57:19,120

oh yeah they did a little bit of a level

1495

00:57:23,220 --> 00:57:21,130

headedness over there in New Zealand

1496

00:57:24,510 --> 00:57:23,230

yeah you know where to go and suss it

1497

00:57:26,250 --> 00:57:24,520

out I think you should reach I think you

1498

00:57:28,260 --> 00:57:26,260

need to go there's the ambassador I do

1499

00:57:30,660 --> 00:57:28,270

and sort it out yeah I don't do enough

1500

00:57:32,760 --> 00:57:30,670

travel now you do something you know I

1501

00:57:34,740 --> 00:57:32,770

don't do it let me go all right you go

1502

00:57:37,320 --> 00:57:34,750

okay I'll go so what's gonna happen next

1503

00:57:39,240 --> 00:57:37,330

week next week is our special one year

1504

00:57:41,130 --> 00:57:39,250

anniversary episode of the skeptic zone

1505

00:57:45,540 --> 00:57:41,140

with the live skeptic zone from

1506

00:57:48,810 --> 00:57:45,550

dragoncon Wow next year many are gonna

1507

00:57:52,440 --> 00:57:48,820

be there with ya well it looks like

1508

00:57:54,720 --> 00:57:52,450

let's do a movement get Stefan out of

1509

00:57:56,550 --> 00:57:54,730

the country or get Stefan to dragon to

1510

00:57:58,230 --> 00:57:56,560

dragoncon actually I'm get I've got a

1511

00:58:01,290 --> 00:57:58,240

plan to get there yeah I've actually

1512

00:58:02,940 --> 00:58:01,300

created my own New Age product which I'm

1513

00:58:04,860 --> 00:58:02,950

going to be offering for sale soon and

1514

00:58:06,870 --> 00:58:04,870

with the with the funds of the funds

1515

00:58:09,240 --> 00:58:06,880

from the product I'm going to use to get

1516

00:58:10,560 --> 00:58:09,250

a drink I hear about that Oh big

1517

00:58:11,730 --> 00:58:10,570

announcements coming out Gyptian all

1518

00:58:13,610 --> 00:58:11,740

right sir either the next couple weeks

1519

00:58:16,050 --> 00:58:13,620

fix or maybe even at the birthday chat

1520

00:58:18,020 --> 00:58:16,060

see you next week Richard buys there all

1521

00:58:19,480 --> 00:58:18,030

right

1522

00:58:25,540 --> 00:58:19,490

you

1523

00:58:29,290 --> 00:58:25,550

zone visit our website at [www skeptics](http://www.skeptics)

1524

00:58:31,930 --> 00:58:29,300

on TV for comments contacts and extra

1525

00:58:43,120 --> 00:58:31,940

video reports

