

Show 89
2.July.2010



www.skepticzone.tv

1
00:00:20,400 --> 00:00:09,500
welcome to the skeptic zone the podcast

2
00:00:26,580 --> 00:00:23,040
hello and welcome to the skeptic zone

3
00:00:29,370 --> 00:00:26,590
show number 89 for the second of July

4
00:00:32,549 --> 00:00:29,380
2010 Richard Saunders here with you in

5
00:00:37,530 --> 00:00:32,559
Sydney Australia just about to start

6
00:00:40,320 --> 00:00:37,540
packing for our trip to Las Vegas for

7
00:00:41,970 --> 00:00:40,330
tau made the amazing meeting aid looking

8
00:00:44,369 --> 00:00:41,980
forward to that leaving in a couple of

9
00:00:46,439 --> 00:00:44,379
days on this week's show we have an

10
00:00:49,470 --> 00:00:46,449
interview conducted by our very own

11
00:00:52,770 --> 00:00:49,480
Kylie Sturgis with Pamela gay Pamela gay

12
00:00:55,200 --> 00:00:52,780
the famous astronomer a delightful lady

13
00:00:58,260 --> 00:00:55,210

and a very interesting interview and

14

00:01:00,990 --> 00:00:58,270

that's followed by a report from a very

15

00:01:02,970 --> 00:01:01,000

good friend of ours Delroy from the

16

00:01:07,380 --> 00:01:02,980

Granite State skeptics there in New

17

00:01:10,350 --> 00:01:07,390

Hampshire think free or die is their

18

00:01:12,270 --> 00:01:10,360

motto about magic bracelets and

19

00:01:13,529 --> 00:01:12,280

necklaces you know the sort of things

20

00:01:17,270 --> 00:01:13,539

that when you put them on they give you

21

00:01:19,980 --> 00:01:17,280

more strength power well-being wellness

22

00:01:22,080 --> 00:01:19,990

bring back the zest in your life feel

23

00:01:24,510 --> 00:01:22,090

better sleep better cure your ingrown

24

00:01:26,580 --> 00:01:24,520

toenails that whatever they suggest

25

00:01:28,889 --> 00:01:26,590

these things do and some of you may know

26

00:01:32,160 --> 00:01:28,899

that I'm certainly very interested in

27

00:01:35,760 --> 00:01:32,170

this topic magical power and balance

28

00:01:38,699 --> 00:01:35,770

devices and around off the show we have

29

00:01:40,889 --> 00:01:38,709

a clip from Radio to UE here in Sydney

30

00:01:44,639 --> 00:01:40,899

where I was interviewed by George and

31

00:01:48,389 --> 00:01:44,649

Paul couple of our nice DJ's year or so

32

00:01:49,740 --> 00:01:48,399

ago so a little bit of a shortened show

33

00:01:51,900 --> 00:01:49,750

this week because we're all so busy

34

00:01:53,990 --> 00:01:51,910

packing and doing all sorts of things to

35

00:01:56,790 --> 00:01:54,000

get ready for the amazing meeting and

36

00:01:58,919 --> 00:01:56,800

next week I was thinking about putting

37

00:02:00,510 --> 00:01:58,929

up a special episode of an old interview

38

00:02:03,449 --> 00:02:00,520

or something interesting but no I'm

39

00:02:06,270 --> 00:02:03,459

going to record some stuff live at Las

40

00:02:08,370 --> 00:02:06,280

Vegas and whack it up for you looking

41

00:02:20,780 --> 00:02:08,380

forward to that enough enough enough

42

00:02:28,170 --> 00:02:24,900

I'm Kylie Sturgis and I'm talking to dr.

43

00:02:31,200 --> 00:02:28,180

Pamela gay dr. gay is an astronomer a

44

00:02:33,360 --> 00:02:31,210

writer and a podcaster who uses new

45

00:02:36,900 --> 00:02:33,370

media to engage people in science and

46

00:02:39,630 --> 00:02:36,910

technology you can find her blog at star

47

00:02:41,730 --> 00:02:39,640

Strider calm and today she talks to us

48

00:02:47,250 --> 00:02:41,740

about the many projects that she's

49

00:02:49,890 --> 00:02:47,260

involved in thank you very much for

50

00:02:52,590 --> 00:02:49,900

joining me dr. Pamela gay well it's my

51
00:02:54,960 --> 00:02:52,600
pleasure to be here thanks for coming to

52
00:02:57,030 --> 00:02:54,970
me so late in your night and so early in

53
00:02:59,190 --> 00:02:57,040
my morning welcome to good old

54
00:03:01,560 --> 00:02:59,200
international skypeing conference calls

55
00:03:04,080 --> 00:03:01,570
it's great isn't it I I don't think I

56
00:03:06,000 --> 00:03:04,090
could do my job if skype didn't exist I

57
00:03:08,340 --> 00:03:06,010
know what you mean speaking of

58
00:03:10,890 --> 00:03:08,350
everything that you do you have an

59
00:03:15,090 --> 00:03:10,900
incredibly busy schedule ahead with

60
00:03:18,230 --> 00:03:15,100
convergence tam 8 luna forums the

61
00:03:20,520 --> 00:03:18,240
Astronomical Society of the Pacific 2010

62
00:03:22,590 --> 00:03:20,530
what are some of the presentations that

63
00:03:24,750 --> 00:03:22,600

people can look forward to well I think

64

00:03:26,730 --> 00:03:24,760

the overall theme that I'm going for is

65

00:03:29,580 --> 00:03:26,740

how everyday people can be part of

66

00:03:32,550 --> 00:03:29,590

science I'm part I'm part of a project

67

00:03:34,920 --> 00:03:32,560

called Zooniverse we do Galaxy Zoo and

68

00:03:38,400 --> 00:03:34,930

Moon zoo and solar storm watch and

69

00:03:41,460 --> 00:03:38,410

several other projects that allow anyone

70

00:03:44,190 --> 00:03:41,470

even kids to get involved in looking at

71

00:03:47,630 --> 00:03:44,200

NASA image data from satellite missions

72

00:03:51,000 --> 00:03:47,640

and discovering something wonderful and

73

00:03:54,530 --> 00:03:51,010

so at tam 8 i'm going to be talking

74

00:03:57,240 --> 00:03:54,540

about how as scientists we can invite

75

00:03:59,460 --> 00:03:57,250

the people around us to be part of the

76

00:04:02,720 --> 00:03:59,470

scientific process it's it's not just

77

00:04:05,370 --> 00:04:02,730

for lab coats anymore and at the other

78

00:04:07,500 --> 00:04:05,380

sites i'll be presenting our research

79

00:04:10,530 --> 00:04:07,510

showing some of our results at

80

00:04:13,140 --> 00:04:10,540

convergence talking about how we work to

81

00:04:15,300 --> 00:04:13,150

educate people the lunar forums and at

82

00:04:17,820 --> 00:04:15,310

the Astronomical Society at the Pacific

83

00:04:19,349 --> 00:04:17,830

I'm going to be talking about well just

84

00:04:23,490 --> 00:04:19,359

how is it that people are interacting

85

00:04:24,900 --> 00:04:23,500

with our data so the why what and how

86

00:04:26,730 --> 00:04:24,910

it's happening is going to be getting

87

00:04:29,670 --> 00:04:26,740

told across all these different meetings

88

00:04:30,260 --> 00:04:29,680

it sounds like very optimistic news am I

89

00:04:34,490 --> 00:04:30,270

want

90

00:04:37,220 --> 00:04:34,500

well it's not just optimistic it's we

91

00:04:39,830 --> 00:04:37,230

have inspiring results it's good to be

92

00:04:44,030 --> 00:04:39,840

optimistic but it's better to inspire we

93

00:04:46,160 --> 00:04:44,040

we have cases of people discovering the

94

00:04:49,190 --> 00:04:46,170

light echo from a quasar of going

95

00:04:51,560 --> 00:04:49,200

through and finding stars moving quickly

96

00:04:53,300 --> 00:04:51,570

across the sky and orbital paths that

97

00:04:55,600 --> 00:04:53,310

are very different from our own we have

98

00:04:58,760 --> 00:04:55,610

people who are choosing to try and

99

00:05:01,730 --> 00:04:58,770

discover on their own why some galaxies

100

00:05:04,970 --> 00:05:01,740

look like small green peas and all of

101
00:05:07,370 --> 00:05:04,980
these wonderful discoveries are being

102
00:05:10,330 --> 00:05:07,380
made by people working at home on their

103
00:05:13,430 --> 00:05:10,340
laptops using social media to

104
00:05:16,040 --> 00:05:13,440
collaborate together and then coming to

105
00:05:18,050 --> 00:05:16,050
the pH DS for help rather than for

106
00:05:19,580 --> 00:05:18,060
direction and that's wonderful that is

107
00:05:22,130 --> 00:05:19,590
fantastic so that's definitely something

108
00:05:24,740 --> 00:05:22,140
to put into the Diaries to catch up with

109
00:05:27,110 --> 00:05:24,750
you on its if I can't wait to share the

110
00:05:29,210 --> 00:05:27,120
results yay now one of the other

111
00:05:31,070 --> 00:05:29,220
projects that I've seen mentioned on

112
00:05:34,190 --> 00:05:31,080
your site is and I hope I'm saying this

113
00:05:37,940 --> 00:05:34,200

correctly the verb or workish webcomic

114

00:05:42,670 --> 00:05:37,950

or whether it's it's it's Dutch so it's

115

00:05:46,790 --> 00:05:42,680

were verb oh ok green yeah so back in

116

00:05:49,640 --> 00:05:46,800

August of 2007 a Dutch school teacher

117

00:05:52,370 --> 00:05:49,650

having van arkel was looking through

118

00:05:54,410 --> 00:05:52,380

galaxies on the Galaxy Zoo website

119

00:05:56,000 --> 00:05:54,420

classifying them by what they look like

120

00:05:58,820 --> 00:05:56,010

their shape do they look like the letter

121

00:06:01,580 --> 00:05:58,830

S the letter Z are they big cotton balls

122

00:06:04,010 --> 00:06:01,590

of gas and one of the galaxies that she

123

00:06:06,530 --> 00:06:04,020

was classifying directly beneath it was

124

00:06:09,950 --> 00:06:06,540

what in that particular image was this

125

00:06:12,550 --> 00:06:09,960

big blue blob of gas um the particular

126
00:06:16,820 --> 00:06:12,560
telescope that was being used makes

127
00:06:20,810 --> 00:06:16,830
oxygen lines look blue instead of green

128
00:06:22,760 --> 00:06:20,820
and it strangely actually looks like the

129
00:06:26,660 --> 00:06:22,770
swamp thing or like a blue Kermit the

130
00:06:28,790 --> 00:06:26,670
Frog dancing and like any curious human

131
00:06:30,590 --> 00:06:28,800
being she wanted to know what it was so

132
00:06:33,650 --> 00:06:30,600
she went to the Galaxy Zoo forums and

133
00:06:36,350 --> 00:06:33,660
she wrote Hanny's for verb she's thought

134
00:06:39,890 --> 00:06:36,360
she used the Dutch word for thing for

135
00:06:43,700 --> 00:06:39,900
stuff um and then she asked the question

136
00:06:45,290 --> 00:06:43,710
what is this stuff below the galaxy and

137
00:06:47,630 --> 00:06:45,300
there's a lot of head-scratching and

138
00:06:50,680 --> 00:06:47,640

then there's the race for telescope time

139

00:06:53,600 --> 00:06:50,690

and we've been studying this object

140

00:06:55,730 --> 00:06:53,610

scientists all around the world across

141

00:06:57,380 --> 00:06:55,740

many wavelengths using variety of

142

00:07:00,110 --> 00:06:57,390

telescopes all the way down to Hubble

143

00:07:01,880 --> 00:07:00,120

Space Telescope essentially visiting the

144

00:07:04,640 --> 00:07:01,890

Oracles of knowledge is how we're going

145

00:07:07,130 --> 00:07:04,650

to tell it in the webcomic to try and

146

00:07:09,380 --> 00:07:07,140

get understanding of what this distant

147

00:07:11,090 --> 00:07:09,390

object actually is and I'm not going to

148

00:07:13,010 --> 00:07:11,100

reveal the punchline yet you're going to

149

00:07:15,920 --> 00:07:13,020

have to show up at DragonCon or

150

00:07:18,170 --> 00:07:15,930

downloaded after Labor Day weekend to

151

00:07:21,260 --> 00:07:18,180

find out the outcome but it's been an

152

00:07:23,930 --> 00:07:21,270

amazing adventure and it's always cool

153

00:07:25,460 --> 00:07:23,940

when your galactic objects decide to

154

00:07:27,380 --> 00:07:25,470

look like comic book characters

155

00:07:28,790 --> 00:07:27,390

completely on their own not only have

156

00:07:30,890 --> 00:07:28,800

people got that to look forward to

157

00:07:33,710 --> 00:07:30,900

you're just not stopping you've got a

158

00:07:36,290 --> 00:07:33,720

forthcoming 200th episode of astronomy

159

00:07:38,270 --> 00:07:36,300

cast and a new east or what are some

160

00:07:40,730 --> 00:07:38,280

have you got any plans in the works for

161

00:07:43,430 --> 00:07:40,740

that already well every time we hit one

162

00:07:44,870 --> 00:07:43,440

of these big numbers Fraser and I think

163

00:07:46,520 --> 00:07:44,880

we're gonna do a special episode and I

164

00:07:49,730 --> 00:07:46,530

think this time we're actually going to

165

00:07:54,260 --> 00:07:49,740

succeed yeah it's it's amazing to look

166

00:07:55,520 --> 00:07:54,270

back since we launched in 2006 and see

167

00:07:59,180 --> 00:07:55,530

all the science that has radically

168

00:08:02,630 --> 00:07:59,190

changed and I think in our 200th episode

169

00:08:05,690 --> 00:08:02,640

we're going to do some sort of a here's

170

00:08:08,570 --> 00:08:05,700

a science story we told in the past and

171

00:08:11,300 --> 00:08:08,580

here's what we believe today and take

172

00:08:14,030 --> 00:08:11,310

you on the newest leg of the facts based

173

00:08:18,020 --> 00:08:14,040

journey that I show is going on the east

174

00:08:19,640 --> 00:08:18,030

or is a way for us to make it easier for

175

00:08:22,040 --> 00:08:19,650

us to do the cool things we want to do

176

00:08:25,210 --> 00:08:22,050

we keep getting audience requests can

177

00:08:27,620 --> 00:08:25,220

you come talk at our event can you

178

00:08:30,140 --> 00:08:27,630

produce the following education

179

00:08:32,180 --> 00:08:30,150

materials can you help us learn better

180

00:08:35,930 --> 00:08:32,190

and to do all of these things it takes

181

00:08:37,850 --> 00:08:35,940

money and right now astronomy cast it's

182

00:08:41,030 --> 00:08:37,860

a labor of love we pay our audio

183

00:08:44,270 --> 00:08:41,040

engineer we pay a woman to help us

184

00:08:46,810 --> 00:08:44,280

handle all the letters all of the bills

185

00:08:50,300 --> 00:08:46,820

in all of the day-to-day paperwork but

186

00:08:53,510 --> 00:08:50,310

Fraser and I do this for free and often

187

00:08:56,079 --> 00:08:53,520

we pick up our own airfare wow the

188

00:08:59,170 --> 00:08:56,089

effects stillness yeah

189

00:09:02,379 --> 00:08:59,180

so having an eStore means you can more

190

00:09:04,780 --> 00:09:02,389

effectively inflict our audio on people

191

00:09:06,999 --> 00:09:04,790

who have cd drives and we can hopefully

192

00:09:08,710 --> 00:09:07,009

more effectively educate one of the

193

00:09:11,170 --> 00:09:08,720

other projects that you're involved in

194

00:09:12,879 --> 00:09:11,180

and that I've taken part in and members

195

00:09:15,759 --> 00:09:12,889

of a skeptic zone of taken part in is

196

00:09:19,210 --> 00:09:15,769

the 365 days of astronomy which has

197

00:09:21,189 --> 00:09:19,220

continued on into 2010 I was there when

198

00:09:24,189 --> 00:09:21,199

you got the past sec podcasting award in

199

00:09:26,230 --> 00:09:24,199

2009 which was wonderful George Rob

200

00:09:29,530 --> 00:09:26,240

running around waving it in the middle

201
00:09:31,090 --> 00:09:29,540
of the meeting so in the middle of a

202
00:09:33,939 --> 00:09:31,100
live show that we had for the skeptic

203
00:09:37,090 --> 00:09:33,949
zone so how does it how is it gone since

204
00:09:39,489 --> 00:09:37,100
that time oh it's been doing amazingly

205
00:09:41,769 --> 00:09:39,499
well although I i have to say we need

206
00:09:43,660 --> 00:09:41,779
audio so if any of your listeners out

207
00:09:46,509 --> 00:09:43,670
there want to be a part of the show we

208
00:09:49,660 --> 00:09:46,519
we could use your involvement um it's

209
00:09:52,989 --> 00:09:49,670
it's been amazing to see how people from

210
00:09:55,989 --> 00:09:52,999
all around the world have found the time

211
00:09:58,569 --> 00:09:55,999
to donate ten minutes of their story ten

212
00:10:01,049 --> 00:09:58,579
minutes of their love of astronomy of

213
00:10:04,119 --> 00:10:01,059

talking to their kids about Pluto of

214

00:10:07,030 --> 00:10:04,129

telling us about what caused them

215

00:10:10,650 --> 00:10:07,040

growing up in areas where science isn't

216

00:10:13,239 --> 00:10:10,660

really taught to go into science and

217

00:10:15,999 --> 00:10:13,249

we're catching the latest research

218

00:10:18,489 --> 00:10:16,009

results coming out of the observatories

219

00:10:24,519 --> 00:10:18,499

and we're finding about out about the

220

00:10:26,710 --> 00:10:24,529

water on the moon and there is so much

221

00:10:30,429 --> 00:10:26,720

depth to what you can say in astronomy

222

00:10:32,650 --> 00:10:30,439

everything from your personal stories to

223

00:10:36,730 --> 00:10:32,660

the stories of the greatest discoveries

224

00:10:40,419 --> 00:10:36,740

and I think 365 days by being the

225

00:10:42,879 --> 00:10:40,429

community's voice allows one place where

226

00:10:44,949 --> 00:10:42,889

all of these different entry points in

227

00:10:47,530 --> 00:10:44,959

astronomy can be expressed together and

228

00:10:50,350 --> 00:10:47,540

I just love listening to the variety of

229

00:10:52,059 --> 00:10:50,360

things people come up with and thank you

230

00:10:54,579 --> 00:10:52,069

for your bringing your own voice to it

231

00:10:56,980 --> 00:10:54,589

and I hope that more of your listeners

232

00:10:59,739 --> 00:10:56,990

will take the time to think hey I love

233

00:11:02,350 --> 00:10:59,749

astronomy I have a microphone maybe I

234

00:11:04,389 --> 00:11:02,360

should submit my 10 minutes of audio it

235

00:11:06,819 --> 00:11:04,399

is really that straightforward and I

236

00:11:08,769 --> 00:11:06,829

know from the community that is out

237

00:11:09,430 --> 00:11:08,779

there there's more than enough people

238

00:11:11,170 --> 00:11:09,440

who will

239

00:11:13,120 --> 00:11:11,180

to help out if you have an idea and

240

00:11:15,520 --> 00:11:13,130

they'll give you suggestions and and so

241

00:11:17,590 --> 00:11:15,530

I've don't try this try that and and

242

00:11:19,900 --> 00:11:17,600

just pull it together it makes merely

243

00:11:22,870 --> 00:11:19,910

interesting shows yeah our lead producer

244

00:11:27,190 --> 00:11:22,880

nancy atkinson is always there to help

245

00:11:29,440 --> 00:11:27,200

and she is a walking encyclopedia of our

246

00:11:31,660 --> 00:11:29,450

field and one of the most amazing people

247

00:11:33,940 --> 00:11:31,670

i could ever work with and this show

248

00:11:37,410 --> 00:11:33,950

wouldn't be possible without her out

249

00:11:40,090 --> 00:11:37,420

there as in in some ways the pod mom

250

00:11:42,280 --> 00:11:40,100

they think everything happened so what's

251

00:11:44,380 --> 00:11:42,290

plan for the rest of 2010 particularly

252

00:11:46,930 --> 00:11:44,390

after reading about issues facing

253

00:11:50,110 --> 00:11:46,940

education in the USA is there any way

254

00:11:53,350 --> 00:11:50,120

people can help well yeah it's a hearing

255

00:11:54,940 --> 00:11:53,360

that it's a huge problem and it's it's

256

00:11:56,830 --> 00:11:54,950

not just the United States these

257

00:11:58,960 --> 00:11:56,840

problems are affecting different nations

258

00:12:00,310 --> 00:11:58,970

in different ways and Italy they're

259

00:12:04,510 --> 00:12:00,320

shutting down some of their astronomical

260

00:12:07,540 --> 00:12:04,520

institutions in England they've cut 25

261

00:12:09,880 --> 00:12:07,550

percent of the postdoc and graduate

262

00:12:12,460 --> 00:12:09,890

positions in astronomy but the funding

263

00:12:14,700 --> 00:12:12,470

from the National councils here in the

264

00:12:16,990 --> 00:12:14,710

United States our research dollars

265

00:12:19,780 --> 00:12:17,000

according to an email I got the other

266

00:12:22,060 --> 00:12:19,790

day are currently on hold waiting for

267

00:12:23,860 --> 00:12:22,070

the Congress to decide how much money

268

00:12:28,510 --> 00:12:23,870

will be allocated in the new financial

269

00:12:31,800 --> 00:12:28,520

year and state to state well the states

270

00:12:34,450 --> 00:12:31,810

are going bankrupt and Illinois were

271

00:12:37,150 --> 00:12:34,460

hundreds of millions of dollars behind

272

00:12:41,230 --> 00:12:37,160

and the money going out to universities

273

00:12:43,600 --> 00:12:41,240

to schools and without money you can't

274

00:12:45,100 --> 00:12:43,610

pay your teachers and the solutions that

275

00:12:46,960 --> 00:12:45,110

are being come up with our brutal

276

00:12:50,380 --> 00:12:46,970

increase class sizes increase

277

00:12:52,810 --> 00:12:50,390

enrollments cut down on materials costs

278

00:12:54,970 --> 00:12:52,820

cut down on the opportunities you

279

00:12:58,270 --> 00:12:54,980

provide your professors so they can go

280

00:13:01,000 --> 00:12:58,280

out and collaborate just having your

281

00:13:04,420 --> 00:13:01,010

travel funding zeroed doesn't seem like

282

00:13:06,400 --> 00:13:04,430

that Harsha thing but if you're

283

00:13:07,900 --> 00:13:06,410

collaborating across the globe skype is

284

00:13:11,260 --> 00:13:07,910

nice but sometimes you want to see

285

00:13:14,110 --> 00:13:11,270

someone face to face the the best things

286

00:13:16,000 --> 00:13:14,120

that people can do our go to your

287

00:13:18,180 --> 00:13:16,010

schools and don't demand more science

288

00:13:21,820 --> 00:13:18,190

education go to your schools and say I

289

00:13:23,500 --> 00:13:21,830

want to help how can I help you get more

290

00:13:26,520 --> 00:13:23,510

science education

291

00:13:29,680 --> 00:13:26,530

be the person who goes out and finds the

292

00:13:32,170 --> 00:13:29,690

PhD scientist who might be working as a

293

00:13:35,350 --> 00:13:32,180

computer scientist and has the spare

294

00:13:38,530 --> 00:13:35,360

time to go in and spend a couple

295

00:13:41,200 --> 00:13:38,540

afternoons a week teaching science in a

296

00:13:43,900 --> 00:13:41,210

school in an after-school program go out

297

00:13:46,240 --> 00:13:43,910

find the companies locally that can

298

00:13:48,790 --> 00:13:46,250

donate the microscopes that can't be

299

00:13:50,800 --> 00:13:48,800

replaced from school budgets be the

300

00:13:53,350 --> 00:13:50,810

facilitator that makes the change we

301
00:13:55,480 --> 00:13:53,360
need in these schools and anyone in the

302
00:13:57,340 --> 00:13:55,490
world should be able to go to their

303
00:13:59,290 --> 00:13:57,350
local school system and find out how to

304
00:14:01,600 --> 00:13:59,300
get involved in after-school programs

305
00:14:04,150 --> 00:14:01,610
this is really the best way you can make

306
00:14:05,920 --> 00:14:04,160
a difference in the kid's life yeah I've

307
00:14:07,060 --> 00:14:05,930
just recently joined a school at the

308
00:14:10,930 --> 00:14:07,070
beginning of this year they have a

309
00:14:12,490 --> 00:14:10,940
astronomy club and so of course the one

310
00:14:16,630 --> 00:14:12,500
fellow on the entire campus who's got

311
00:14:18,430 --> 00:14:16,640
himself a lovely star trek tie and and I

312
00:14:20,530 --> 00:14:18,440
said you realize that I'm a podcaster

313
00:14:22,240 --> 00:14:20,540

and I'm going to be chasing you down in

314

00:14:25,930 --> 00:14:22,250

order to interview you and the students

315

00:14:28,090 --> 00:14:25,940

for the 365 days and he said the huh the

316

00:14:31,420 --> 00:14:28,100

podcast what where did that kind of you

317

00:14:34,300 --> 00:14:31,430

you just wait you just wait mr. gonna

318

00:14:36,670 --> 00:14:34,310

give so so that's that's been my big

319

00:14:39,550 --> 00:14:36,680

goal for for 2010 and certainly to get

320

00:14:41,530 --> 00:14:39,560

out another episode for 365 so hopefully

321

00:14:46,380 --> 00:14:41,540

that will that but but absolutely

322

00:14:50,170 --> 00:14:48,640

dr. Pamela gay will be at many

323

00:14:53,890 --> 00:14:50,180

forthcoming conferences including

324

00:14:57,040 --> 00:14:53,900

teammate and the galaxy sue site is at

325

00:15:07,420 --> 00:14:57,050

Galaxy Zoo dot org where you can help

326

00:15:09,340 --> 00:15:07,430

astronomers explore the universe this is

327

00:15:11,560 --> 00:15:09,350

desirae shell hosted skeptically

328

00:15:13,930 --> 00:15:11,570

speaking check out our website at

329

00:15:17,830 --> 00:15:13,940

skeptically speaking calm and listen to

330

00:15:21,580 --> 00:15:17,840

us live on see jsr 88.5 FM in Edmonton

331

00:15:30,880 --> 00:15:21,590

Alberta Canada I now return you to the

332

00:15:32,530 --> 00:15:30,890

skeptic zone everywhere I look there are

333

00:15:33,880 --> 00:15:32,540

increased amounts of bracelets and

334

00:15:35,830 --> 00:15:33,890

necklaces for sale that promise

335

00:15:38,080 --> 00:15:35,840

increased performance better health and

336

00:15:40,120 --> 00:15:38,090

increase strength I have noticed that

337

00:15:42,990 --> 00:15:40,130

more and more in sports stores vitamin

338

00:15:46,120 --> 00:15:43,000

stores infomercials and ads and now

339

00:15:47,770 --> 00:15:46,130

sparkpeople.com is showing these ads for

340

00:15:50,320 --> 00:15:47,780

these types of bracelets and necklaces

341

00:15:53,440 --> 00:15:50,330

and I understand that ads pay for the

342

00:15:55,420 --> 00:15:53,450

site so we may use it for free and while

343

00:15:56,920 --> 00:15:55,430

spark people may choose to take their

344

00:15:59,110 --> 00:15:56,930

money wherever they can get it as

345

00:16:01,960 --> 00:15:59,120

consumers should be more cautious with

346

00:16:04,300 --> 00:16:01,970

our money with our society seemingly

347

00:16:06,190 --> 00:16:04,310

desperate need for science understanding

348

00:16:08,800 --> 00:16:06,200

these bracelets and necklaces drive the

349

00:16:11,710 --> 00:16:08,810

point home even more what is a magic

350

00:16:13,810 --> 00:16:11,720

bracelet or necklace it varies in

351

00:16:15,730 --> 00:16:13,820

development but the usual claim is ions

352

00:16:18,430 --> 00:16:15,740

in the bracelet or some electromagnetic

353

00:16:21,310 --> 00:16:18,440

energy from ions in the bracelet claim

354

00:16:23,770 --> 00:16:21,320

to balance your body affect the ions in

355

00:16:25,990 --> 00:16:23,780

your body that is out of balance thus

356

00:16:28,240 --> 00:16:26,000

calming the inflammation and pain you

357

00:16:30,250 --> 00:16:28,250

are experiencing the problem with this

358

00:16:32,920 --> 00:16:30,260

claim is a flaw and understanding of

359

00:16:34,900 --> 00:16:32,930

ions ions can only be formed when an

360

00:16:38,170 --> 00:16:34,910

ionic compound is dissolved in a solvent

361

00:16:41,740 --> 00:16:38,180

creating a solution they cannot maintain

362

00:16:43,840 --> 00:16:41,750

eye on status in a solid the positive

363

00:16:47,710 --> 00:16:43,850

and negative ions attract each other to

364

00:16:51,280 --> 00:16:47,720

form strong bonds creating a solid ionic

365

00:16:53,110 --> 00:16:51,290

compounds are solid when ions bond

366

00:16:55,450 --> 00:16:53,120

together there is no longer any outward

367

00:16:58,000 --> 00:16:55,460

effect as the ions need for electrons

368

00:16:59,260 --> 00:16:58,010

has been satisfied now your body has

369

00:17:01,690 --> 00:16:59,270

solutions running

370

00:17:03,910 --> 00:17:01,700

through it and yes it has ions in it

371

00:17:05,770 --> 00:17:03,920

these are called electrolytes the body

372

00:17:08,410 --> 00:17:05,780

does not allow for an imbalance of

373

00:17:09,940 --> 00:17:08,420

positive ions over negative ions should

374

00:17:13,120 --> 00:17:09,950

there be an imbalance it would be that

375

00:17:16,060 --> 00:17:13,130

you do not have enough or you have too

376

00:17:18,610 --> 00:17:16,070

many electrolytes in your body the most

377

00:17:21,280 --> 00:17:18,620

likely cause of this electrolyte change

378

00:17:22,990 --> 00:17:21,290

is your activity level or illness quote

379

00:17:25,510 --> 00:17:23,000

electrolytes are minerals in your body

380

00:17:27,870 --> 00:17:25,520

that have electric charge they hire in

381

00:17:29,710 --> 00:17:27,880

your blood urine and body fluids

382

00:17:31,270 --> 00:17:29,720

maintaining the right balance of

383

00:17:33,730 --> 00:17:31,280

electrolytes helps your body's blood

384

00:17:36,190 --> 00:17:33,740

chemistry muscle action and other

385

00:17:38,920 --> 00:17:36,200

processes sodium calcium potassium

386

00:17:41,710 --> 00:17:38,930

chlorine phosphate and magnesium are all

387

00:17:44,320 --> 00:17:41,720

electrolytes you get them from the foods

388

00:17:46,120 --> 00:17:44,330

you eat and the fluids you drink levels

389

00:17:48,910 --> 00:17:46,130

of electrolytes in your body can become

390

00:17:51,390 --> 00:17:48,920

too low or too high that can happen when

391

00:17:54,130 --> 00:17:51,400

the amount of water in your body changes

392

00:17:56,850 --> 00:17:54,140

causes include some medicines vomiting

393

00:17:59,350 --> 00:17:56,860

diarrhea sweating or kidney problems

394

00:18:02,020 --> 00:17:59,360

problems most often occur with levels of

395

00:18:03,910 --> 00:18:02,030

sodium potassium or calcium that quote

396

00:18:06,400 --> 00:18:03,920

was from the US National Library of

397

00:18:08,050 --> 00:18:06,410

Medicine there is not a single device

398

00:18:11,140 --> 00:18:08,060

out there that is going to fix this

399

00:18:13,930 --> 00:18:11,150

problem what is a really good fix your

400

00:18:17,050 --> 00:18:13,940

fluid intake just plain clean water

401
00:18:18,580 --> 00:18:17,060
drink more or less of it maybe a sports

402
00:18:21,070 --> 00:18:18,590
drink depending on your doctor's

403
00:18:23,440 --> 00:18:21,080
diagnosis if necessary and you will feel

404
00:18:25,510 --> 00:18:23,450
better you will have better endurance

405
00:18:29,530 --> 00:18:25,520
speed and muscle performance and there

406
00:18:33,520 --> 00:18:29,540
is no magic involved oh but it works for

407
00:18:36,630 --> 00:18:33,530
me does it really yes the pain goes away

408
00:18:39,130 --> 00:18:36,640
within a few minutes after I put it on

409
00:18:41,140 --> 00:18:39,140
what is the common thread that makes

410
00:18:44,740 --> 00:18:41,150
these situations tricky and believable

411
00:18:47,500 --> 00:18:44,750
the answer you you cannot do a study

412
00:18:49,360 --> 00:18:47,510
with only you involved too many ways for

413
00:18:51,730 --> 00:18:49,370

your mind to play tricks with you not

414

00:18:53,950 --> 00:18:51,740

even knowing it if your pain is the

415

00:18:55,810 --> 00:18:53,960

result of a minor problem chances are it

416

00:18:57,940 --> 00:18:55,820

would have gone away without the item if

417

00:19:00,420 --> 00:18:57,950

you're paying keeps falling persisting

418

00:19:04,040 --> 00:19:00,430

chances are it's not a minor problem and

419

00:19:06,770 --> 00:19:04,050

will require you to see your doctor

420

00:19:09,230 --> 00:19:06,780

some things to consider what were you

421

00:19:11,690 --> 00:19:09,240

doing at the time are you distracted at

422

00:19:14,960 --> 00:19:11,700

any point are you favoring that area or

423

00:19:17,750 --> 00:19:14,970

the placebo effect then minor aches and

424

00:19:19,790 --> 00:19:17,760

pains will go away within minutes when

425

00:19:22,580 --> 00:19:19,800

you are distracted or become into what

426

00:19:25,460 --> 00:19:22,590

you are doing aches and pains tend to go

427

00:19:27,380 --> 00:19:25,470

away if you are favoring the afflicted

428

00:19:29,960 --> 00:19:27,390

area then the pains have a tendency to

429

00:19:32,090 --> 00:19:29,970

go away sometimes we do not even realize

430

00:19:34,010 --> 00:19:32,100

at the time we are favoring the limb

431

00:19:36,380 --> 00:19:34,020

when we are doing various activities and

432

00:19:40,250 --> 00:19:36,390

another factor to consider is the

433

00:19:42,680 --> 00:19:40,260

placebo effect quote the placebo effect

434

00:19:44,780 --> 00:19:42,690

is immeasurable observable or felt

435

00:19:47,000 --> 00:19:44,790

improvement in health or behavior not

436

00:19:49,750 --> 00:19:47,010

attributable to a medication or invasive

437

00:19:52,520 --> 00:19:49,760

treatment that has been administered a

438

00:19:55,580 --> 00:19:52,530

placebo which is Latin for I shall

439

00:19:57,800 --> 00:19:55,590

please is a pharmacologically inert

440

00:20:00,200 --> 00:19:57,810

substance such as saline solution or

441

00:20:02,440 --> 00:20:00,210

starch tablet that produces an effect

442

00:20:05,030 --> 00:20:02,450

similar to what would be expected of

443

00:20:07,820 --> 00:20:05,040

pharmacologically active substances such

444

00:20:10,640 --> 00:20:07,830

as an antibiotic that quote was from the

445

00:20:13,490 --> 00:20:10,650

skeptics dictionary this is a powerful

446

00:20:15,710 --> 00:20:13,500

effect on the mind and body you want the

447

00:20:17,360 --> 00:20:15,720

pain to go away you inadvertently look

448

00:20:19,550 --> 00:20:17,370

to things to ease that pain it's

449

00:20:22,520 --> 00:20:19,560

understandable but it can also lead to

450

00:20:25,040 --> 00:20:22,530

the mind being easily fooled something

451
00:20:27,680 --> 00:20:25,050
else to consider if these items actually

452
00:20:31,280 --> 00:20:27,690
worked then why do companies that make

453
00:20:33,680 --> 00:20:31,290
them get shut down or suit why do they

454
00:20:37,010 --> 00:20:33,690
change their healing claims to fit

455
00:20:39,320 --> 00:20:37,020
within the law quote in September of

456
00:20:41,990 --> 00:20:39,330
2006 the Chicago Court sided with the

457
00:20:45,170 --> 00:20:42,000
FTC and ordered cutie park and his

458
00:20:48,680 --> 00:20:45,180
companies to turn over 22.5 million in

459
00:20:51,680 --> 00:20:48,690
net profits and provide up to sixty 4.5

460
00:20:54,020 --> 00:20:51,690
million more in refunds to consumers who

461
00:20:56,300 --> 00:20:54,030
had bought the bracelets during the

462
00:21:00,050 --> 00:20:56,310
trial Park testified that he could not

463
00:21:02,000 --> 00:21:00,060

define the term ionization but picked it

464

00:21:04,760 --> 00:21:02,010

because it was simple and easy to

465

00:21:06,560 --> 00:21:04,770

remember the court concluded that his

466

00:21:09,380 --> 00:21:06,570

testimony on ionization was

467

00:21:14,210 --> 00:21:09,390

contradictory and full of observation

468

00:21:15,640 --> 00:21:14,220

and that he is a clever marketer but a

469

00:21:18,730 --> 00:21:15,650

poor witness

470

00:21:21,430 --> 00:21:18,740

Park also acknowledged that cutie had at

471

00:21:23,710 --> 00:21:21,440

least a 25-percent refund rate from

472

00:21:26,650 --> 00:21:23,720

dissatisfied customers that's more than

473

00:21:30,940 --> 00:21:26,660

a hundred thousand people that quote was

474

00:21:33,100 --> 00:21:30,950

from quack watch another quote q ray is

475

00:21:35,620 --> 00:21:33,110

a crescent of metal capped with a pair

476

00:21:38,440 --> 00:21:35,630

of metal beads in the past it is

477

00:21:40,420 --> 00:21:38,450

marketed as a pain relief device now it

478

00:21:43,140 --> 00:21:40,430

is being marketed as a way to achieve

479

00:21:45,730 --> 00:21:43,150

performance balance and vitality and

480

00:21:48,220 --> 00:21:45,740

also as something that will balance the

481

00:21:50,950 --> 00:21:48,230

negative and positive energy forces in

482

00:21:53,170 --> 00:21:50,960

your body all of this apparently with

483

00:21:56,080 --> 00:21:53,180

the work of ionization which is a five

484

00:21:59,890 --> 00:21:56,090

dollar word for electric charge that

485

00:22:02,230 --> 00:21:59,900

quote was from cbc marketplace if it was

486

00:22:04,120 --> 00:22:02,240

a true medical cure wouldn't a medical

487

00:22:06,850 --> 00:22:04,130

community embrace these bracelets and

488

00:22:08,560 --> 00:22:06,860

necklaces the Hippocratic oath would

489

00:22:11,650 --> 00:22:08,570

surely require them to push these

490

00:22:13,930 --> 00:22:11,660

medical miracles the facts are no matter

491

00:22:17,410 --> 00:22:13,940

what the brand or scientific claim is

492

00:22:20,050 --> 00:22:17,420

the result is the same it does not work

493

00:22:24,490 --> 00:22:20,060

the bottom line of these products they

494

00:22:26,530 --> 00:22:24,500

are gimmicks and they are expensive how

495

00:22:28,660 --> 00:22:26,540

can I help myself not to get sucked into

496

00:22:31,210 --> 00:22:28,670

these gimmicks watch out for the

497

00:22:35,140 --> 00:22:31,220

following red flags scientifically

498

00:22:38,140 --> 00:22:35,150

proven scientific studies show US patent

499

00:22:40,510 --> 00:22:38,150

pending testimonials doctors and

500

00:22:43,840 --> 00:22:40,520

scientists supporting the claim physical

501
00:22:46,000 --> 00:22:43,850
tests shown ie person not wearing magic

502
00:22:49,240 --> 00:22:46,010
item can support himself against the

503
00:22:51,070 --> 00:22:49,250
force same person wearing the magic item

504
00:22:54,700 --> 00:22:51,080
now can support themselves against the

505
00:22:56,950 --> 00:22:54,710
same force if these claims are being

506
00:22:58,870 --> 00:22:56,960
made then is really something to raise

507
00:23:01,600 --> 00:22:58,880
your eyebrows and question what is going

508
00:23:04,860 --> 00:23:01,610
on the old cliché still holds true here

509
00:23:09,220 --> 00:23:04,870
if it sounds too good to be true

510
00:23:11,610 --> 00:23:09,230
miracles do not exist what is needed in

511
00:23:14,410 --> 00:23:11,620
cases like these is critical thinking if

512
00:23:17,830 --> 00:23:14,420
the information is good and the data is

513
00:23:19,510 --> 00:23:17,840

collected properly and is good then why

514

00:23:21,660 --> 00:23:19,520

the need to fill the commercial with

515

00:23:24,430 --> 00:23:21,670

gimmicks question the claims being made

516

00:23:26,590 --> 00:23:24,440

question the results being shown if you

517

00:23:28,750 --> 00:23:26,600

cannot afford to go to the doctor to fix

518

00:23:29,170 --> 00:23:28,760

your ailment then you really can't

519

00:23:31,120 --> 00:23:29,180

afford

520

00:23:46,110 --> 00:23:31,130

throw your money away on a bracelet or

521

00:23:50,350 --> 00:23:48,430

astronomy cast takes a fact space

522

00:23:52,240 --> 00:23:50,360

journey through the cosmos as it offers

523

00:23:54,940 --> 00:23:52,250

listeners weekly discussions on

524

00:23:57,790 --> 00:23:54,950

astronomical topics ranging from planets

525

00:24:00,130 --> 00:23:57,800

to cosmology hosted by Fraser Cain of

526

00:24:01,150 --> 00:24:00,140

Universe Today and myself dr. Pamela

527

00:24:03,820 --> 00:24:01,160

gave southern illinois university

528

00:24:05,680 --> 00:24:03,830

edwardsville this show brings the

529

00:24:08,140 --> 00:24:05,690

questions of an avid astronomy lover

530

00:24:10,210 --> 00:24:08,150

directly to an astronomer together

531

00:24:11,770 --> 00:24:10,220

Fraser and I explore what is known and

532

00:24:14,530 --> 00:24:11,780

being discovered about the universe

533

00:24:16,600 --> 00:24:14,540

around us join us each week as we take a

534

00:24:28,000 --> 00:24:16,610

fax space journey through the cosmos at

535

00:24:29,650 --> 00:24:28,010

astronomy cast calm it's ten to nine

536

00:24:31,540 --> 00:24:29,660

with georgia pawn to ue now being a

537

00:24:33,460 --> 00:24:31,550

skeptic has a long and honorable history

538

00:24:35,980 --> 00:24:33,470

there was a time when most people

539

00:24:37,810 --> 00:24:35,990

thought the earth was flat mm-hmm few

540

00:24:39,580 --> 00:24:37,820

people still think that like there was a

541

00:24:41,650 --> 00:24:39,590

time when it was thought that the Sun

542

00:24:42,880 --> 00:24:41,660

revolved around the earth and there are

543

00:24:45,040 --> 00:24:42,890

people who still think that as well an

544

00:24:47,200 --> 00:24:45,050

invader doesn't even today I knew you'd

545

00:24:49,750 --> 00:24:47,210

say that even today we talk about the

546

00:24:51,580 --> 00:24:49,760

Sun going down when in fact it's the

547

00:24:52,930 --> 00:24:51,590

earth going around isn't it really i'm

548

00:24:55,120 --> 00:24:52,940

in the Sun ain't going down the sun's

549

00:24:56,560 --> 00:24:55,130

going around we're going around then

550

00:24:58,870 --> 00:24:56,570

there are the skeptics who don't believe

551
00:25:00,700 --> 00:24:58,880
in water divining well I don't blame

552
00:25:01,930 --> 00:25:00,710
them although we had a bloke in our

553
00:25:03,190 --> 00:25:01,940
backyard when I was a kid and he

554
00:25:05,110 --> 00:25:03,200
reckoned that there was a there was a

555
00:25:08,170 --> 00:25:05,120
river under there somewhere I saw a long

556
00:25:09,580 --> 00:25:08,180
a TV show about it and believe me they

557
00:25:11,590 --> 00:25:09,590
don't you and that was done by the

558
00:25:13,870 --> 00:25:11,600
skeptic something that new strategy of

559
00:25:16,630 --> 00:25:13,880
skipped and then the skeptics who want

560
00:25:18,010 --> 00:25:16,640
proof before they believe in ghosts fair

561
00:25:19,510 --> 00:25:18,020
enough for natural I'm going to ask him

562
00:25:21,310 --> 00:25:19,520
about global warming in the second deck

563
00:25:23,740 --> 00:25:21,320

um and this morning we've got the head

564

00:25:25,210 --> 00:25:23,750

skeptic Richard Saunders former

565

00:25:26,830 --> 00:25:25,220

president of the Australian skeptics

566

00:25:28,960 --> 00:25:26,840

incorporated member of the mystery

567

00:25:30,250 --> 00:25:28,970

investigators and if you have any

568

00:25:31,720 --> 00:25:30,260

questions for Richard you welcome to

569

00:25:34,360 --> 00:25:31,730

give us a call while we're chatting are

570

00:25:36,820 --> 00:25:34,370

13 13 32 I'm sorry we don't have any

571

00:25:38,440 --> 00:25:36,830

eerie music good morning Richard you

572

00:25:40,120 --> 00:25:38,450

mean the Sun doesn't revolve around the

573

00:25:41,860 --> 00:25:40,130

earth yeah

574

00:25:44,470 --> 00:25:41,870

I didn't know that I got that one wrong

575

00:25:46,180 --> 00:25:44,480

didn't I got to ask you gotta go to ask

576

00:25:48,010 --> 00:25:46,190

you that the the topic of the moment

577

00:25:50,800 --> 00:25:48,020

what do the skeptics think about global

578

00:25:52,510 --> 00:25:50,810

warming we generally we like to listen

579

00:25:55,180 --> 00:25:52,520

to the best evidence available at the

580

00:25:57,430 --> 00:25:55,190

time the pity that the shame about the

581

00:25:59,470 --> 00:25:57,440

word skeptic is anybody can use it for

582

00:26:01,690 --> 00:25:59,480

anything people can say well we're

583

00:26:03,730 --> 00:26:01,700

skeptical we don't think the global

584

00:26:06,430 --> 00:26:03,740

warming's reality is getting bad baggage

585

00:26:08,890 --> 00:26:06,440

it is it is good a skeptic is now

586

00:26:10,570 --> 00:26:08,900

becoming equal to deny as in Holocaust a

587

00:26:11,860 --> 00:26:10,580

night where it's unfortunately the word

588

00:26:15,430 --> 00:26:11,870

has sort of meant that for a long time

589

00:26:17,800 --> 00:26:15,440

and try as we might we can't find a

590

00:26:19,960 --> 00:26:17,810

better word which is encompasses what we

591

00:26:22,540 --> 00:26:19,970

really do and what we were that's what

592

00:26:25,000 --> 00:26:22,550

science is about and I'm reading a book

593

00:26:26,920 --> 00:26:25,010

on calc by Karl poppers major work at

594

00:26:27,880 --> 00:26:26,930

the moment and the word skeptic pops up

595

00:26:29,500 --> 00:26:27,890

all through it because that's the

596

00:26:31,030 --> 00:26:29,510

scientific method somebody comes up with

597

00:26:32,950 --> 00:26:31,040

an idea and you have to treat it

598

00:26:34,570 --> 00:26:32,960

skeptically until it's proven but

599

00:26:36,880 --> 00:26:34,580

Richard there's there's no in-between

600

00:26:38,380 --> 00:26:36,890

and being skeptical about global warming

601
00:26:40,780 --> 00:26:38,390
because if you say something

602
00:26:42,790 --> 00:26:40,790
contradictory to it your religion

603
00:26:44,830 --> 00:26:42,800
inevitably get a job for someone all

604
00:26:46,270 --> 00:26:44,840
hell yet our you do well you get them on

605
00:26:48,420 --> 00:26:46,280
both sides know where it comes to global

606
00:26:51,580 --> 00:26:48,430
warming I think that generally speaking

607
00:26:53,050 --> 00:26:51,590
we don't have a really firm stand on it

608
00:26:56,190 --> 00:26:53,060
because it's a little outside our area

609
00:26:58,780 --> 00:26:56,200
and my budgie agrees with me that

610
00:27:01,240 --> 00:26:58,790
generally speaking we tend to go with

611
00:27:03,010 --> 00:27:01,250
the body of good scientific evidence

612
00:27:06,070 --> 00:27:03,020
which suggests yes to global warming is

613
00:27:07,870 --> 00:27:06,080

really happening disappointed parents

614

00:27:10,780 --> 00:27:07,880

are disappointed in you re you've lost

615

00:27:12,490 --> 00:27:10,790

10 points I think you see we can be said

616

00:27:14,590 --> 00:27:12,500

that we're skeptical of the global

617

00:27:16,330 --> 00:27:14,600

warming so you how about that oh nice so

618

00:27:18,070 --> 00:27:16,340

you're going with the establishment view

619

00:27:21,250 --> 00:27:18,080

now and I thought skeptics re and anyway

620

00:27:23,020 --> 00:27:21,260

let's move on from that the bit about

621

00:27:24,460 --> 00:27:23,030

the ghosts and the supernatural and the

622

00:27:26,680 --> 00:27:24,470

water divining that's where you guys

623

00:27:28,120 --> 00:27:26,690

really excel isn't it well we've had a

624

00:27:30,400 --> 00:27:28,130

lot of experience that we've been at it

625

00:27:32,770 --> 00:27:30,410

since 1980 and it occurred to me the

626

00:27:36,010 --> 00:27:32,780

other day that you know the Australian

627

00:27:37,720 --> 00:27:36,020

skeptics been doing skeptical things and

628

00:27:39,670 --> 00:27:37,730

me and saying these things since 1980

629

00:27:41,860 --> 00:27:39,680

and we're still on the right track

630

00:27:44,020 --> 00:27:41,870

because we haven't had to public out the

631

00:27:47,110 --> 00:27:44,030

apologize or give away all our money or

632

00:27:49,990 --> 00:27:47,120

make major drastic alterations to the

633

00:27:51,510 --> 00:27:50,000

way we think we're willing to it just

634

00:27:53,880 --> 00:27:51,520

hasn't happened yet

635

00:27:57,270 --> 00:27:53,890

I saw your wonderful program about water

636

00:28:00,360 --> 00:27:57,280

diviner you went to a lot of trouble to

637

00:28:02,820 --> 00:28:00,370

to show every example so that you were

638

00:28:05,070 --> 00:28:02,830

giving it a fair go and I think recently

639

00:28:07,950 --> 00:28:05,080

you had one on about ghosts and you went

640

00:28:09,420 --> 00:28:07,960

to a lot of places where ghosts are

641

00:28:11,850 --> 00:28:09,430

alleged to be and of course they were

642

00:28:15,420 --> 00:28:11,860

never there but if you ever come close

643

00:28:17,940 --> 00:28:15,430

to two auras defining a ghost never not

644

00:28:20,310 --> 00:28:17,950

not even close to being close I

645

00:28:22,830 --> 00:28:20,320

personally make a point of going on

646

00:28:24,390 --> 00:28:22,840

ghost tours well there goes to us for

647

00:28:26,880 --> 00:28:24,400

fun there are ghost tours which claimed

648

00:28:28,560 --> 00:28:26,890

to be serious and then there are people

649

00:28:30,270 --> 00:28:28,570

who are really scared and want you to

650

00:28:31,500 --> 00:28:30,280

come along and check out things and I've

651

00:28:33,390 --> 00:28:31,510

been on all sorts of ghost

652

00:28:35,520 --> 00:28:33,400

investigations like this yeah look I

653

00:28:36,900 --> 00:28:35,530

think look I don't believe in ghosts

654

00:28:39,150 --> 00:28:36,910

personally but I think it'd be a good

655

00:28:41,400 --> 00:28:39,160

place if we had ghosts because it makes

656

00:28:43,050 --> 00:28:41,410

life more exciting I mean it's it's

657

00:28:44,340 --> 00:28:43,060

pretty sort of I don't know it's pretty

658

00:28:45,720 --> 00:28:44,350

sort of an exciting to think with the

659

00:28:47,610 --> 00:28:45,730

only things here it's not to think

660

00:28:49,860 --> 00:28:47,620

there's another dimension there I said I

661

00:28:51,510 --> 00:28:49,870

can't rule them out of course I don't

662

00:28:53,430 --> 00:28:51,520

know if they're really goes there or not

663

00:28:55,170 --> 00:28:53,440

but what I can say is all the

664

00:28:57,540 --> 00:28:55,180

investigations that we've done and I've

665

00:28:59,070 --> 00:28:57,550

personally been on i'm not some um chair

666

00:29:01,950 --> 00:28:59,080

skeptic saying oh there's no such things

667

00:29:03,720 --> 00:29:01,960

as ghosts there's yet to be any any good

668

00:29:05,790 --> 00:29:03,730

evidence at all that they're ghosts are

669

00:29:07,320 --> 00:29:05,800

real now tomorrow i might be invited to

670

00:29:09,120 --> 00:29:07,330

the most haunted house in Australia

671

00:29:10,980 --> 00:29:09,130

although many houses make that claim

672

00:29:12,360 --> 00:29:10,990

yeah I don't have a conversation with a

673

00:29:13,800 --> 00:29:12,370

ghost and then I'll change my mind

674

00:29:16,650 --> 00:29:13,810

excellent please give us a call if that

675

00:29:17,880 --> 00:29:16,660

happens have what sort of what sort of

676

00:29:20,010 --> 00:29:17,890

things do people tell you with these

677

00:29:23,580 --> 00:29:20,020

haunted houses and and how do you do

678

00:29:25,890 --> 00:29:23,590

bunk them well we can't really debunk

679

00:29:28,740 --> 00:29:25,900

something we can't debunk stories and

680

00:29:29,970 --> 00:29:28,750

tales someone will say I was here in the

681

00:29:32,190 --> 00:29:29,980

ghost walk right through the house and

682

00:29:33,570 --> 00:29:32,200

gave me a cup of tea and kept going well

683

00:29:36,030 --> 00:29:33,580

there's not much we can say about that

684

00:29:38,880 --> 00:29:36,040

we can we can listen and that's about

685

00:29:40,650 --> 00:29:38,890

all we can do but in the case of a 100

686

00:29:43,320 --> 00:29:40,660

place I visited where someone was very

687

00:29:46,020 --> 00:29:43,330

scared and I treated that very seriously

688

00:29:47,760 --> 00:29:46,030

there were things like a picture frame

689

00:29:49,140 --> 00:29:47,770

would fall off the wall and they

690

00:29:51,060 --> 00:29:49,150

couldn't figure it out and you know they

691

00:29:54,000 --> 00:29:51,070

put it down to ghostly activity and I

692

00:29:55,830 --> 00:29:54,010

discovered that the floorboard near the

693

00:29:57,480 --> 00:29:55,840

war where the picture frame was was

694

00:29:59,250 --> 00:29:57,490

falling down was a bit loose and if you

695

00:30:02,910 --> 00:29:59,260

actually stood outside in another room

696

00:30:04,100 --> 00:30:02,920

on the floorboard yeah and it feels like

697

00:30:06,799 --> 00:30:04,110

that um

698

00:30:09,680 --> 00:30:06,809

but no sometimes we can't we can't I

699

00:30:11,630 --> 00:30:09,690

remember being a very young and I guess

700

00:30:13,940 --> 00:30:11,640

naive broadcast and we had uri geller

701
00:30:16,580 --> 00:30:13,950
coming to the studio and he did the key

702
00:30:18,380 --> 00:30:16,590
bending in the spoon my eyes lit up like

703
00:30:20,360 --> 00:30:18,390
a couple of sources god he was good and

704
00:30:21,890 --> 00:30:20,370
then about two years later James Randi

705
00:30:24,049 --> 00:30:21,900
the magician followed in his footsteps

706
00:30:25,700 --> 00:30:24,059
and I was saying but but but but but but

707
00:30:27,470 --> 00:30:25,710
you know uri geller and he said oh come

708
00:30:29,210 --> 00:30:27,480
on give me the spoon give me the keys

709
00:30:30,919 --> 00:30:29,220
bump on Foreman he did it right in front

710
00:30:32,630 --> 00:30:30,929
of you said it's a trick mate yeah I

711
00:30:34,760 --> 00:30:32,640
thought my god it is I've been sunk

712
00:30:37,250 --> 00:30:34,770
right Ian Richard one of your old

713
00:30:39,409 --> 00:30:37,260

favorites is religion you must have you

714

00:30:40,669 --> 00:30:39,419

read that the three blockbusting books

715

00:30:43,490 --> 00:30:40,679

that are out there at the moment I've

716

00:30:45,230 --> 00:30:43,500

read I've read one of them mmm religion

717

00:30:49,549 --> 00:30:45,240

is the interesting topic because by and

718

00:30:52,430 --> 00:30:49,559

large officially we don't really get

719

00:30:54,200 --> 00:30:52,440

into those muddy waters we only try to

720

00:30:56,450 --> 00:30:54,210

stick to things that we can actually

721

00:30:59,659 --> 00:30:56,460

prove one way or the other or at least

722

00:31:00,799 --> 00:30:59,669

claims that can be proven I hang at the

723

00:31:04,159 --> 00:31:00,809

moment there's a bit of a logic problem

724

00:31:06,980 --> 00:31:04,169

you should if if something can't be

725

00:31:08,570 --> 00:31:06,990

proven right well you've got to say no

726

00:31:10,820 --> 00:31:08,580

it doesn't exist like like for example

727

00:31:12,560 --> 00:31:10,830

and here's the classical if i said to

728

00:31:15,289 --> 00:31:12,570

you there's a coca-cola factory on the

729

00:31:16,760 --> 00:31:15,299

other side of the moon yeah you can't

730

00:31:18,560 --> 00:31:16,770

prove that is it that it isn't there

731

00:31:20,299 --> 00:31:18,570

that's right right so therefore you say

732

00:31:21,680 --> 00:31:20,309

you it's up to you now to prove that

733

00:31:23,840 --> 00:31:21,690

it's there and if I can't prove it's

734

00:31:24,860 --> 00:31:23,850

there it doesn't exist well if you can't

735

00:31:26,750 --> 00:31:24,870

prove it's there it means you can't

736

00:31:28,520 --> 00:31:26,760

prove it there it might be there just

737

00:31:30,289 --> 00:31:28,530

means you can't prove it okay I'm with

738

00:31:32,150 --> 00:31:30,299

ghost lord I know some of you blokes

739

00:31:34,130 --> 00:31:32,160

were very busy down there when Mary

740

00:31:36,500 --> 00:31:34,140

Magdalene appeared on a fence down at

741

00:31:38,480 --> 00:31:36,510

coogee and I think you had something to

742

00:31:41,120 --> 00:31:38,490

say about the piece of toast with Jesus

743

00:31:43,400 --> 00:31:41,130

on it and all the posts and things like

744

00:31:45,350 --> 00:31:43,410

that the Holy post and the Holy totally

745

00:31:46,730 --> 00:31:45,360

exact nervous and lately one of our

746

00:31:48,919 --> 00:31:46,740

listeners wants to ask you a question to

747

00:31:51,080 --> 00:31:48,929

you daily you could I just curious as to

748

00:31:54,289 --> 00:31:51,090

whether skeptics are generally atheists

749

00:31:55,640 --> 00:31:54,299

or not it's we i shouldn't be they

750

00:31:57,710 --> 00:31:55,650

shouldn't be what they shouldn't be

751
00:31:59,450 --> 00:31:57,720
strictly but we've never really taken a

752
00:32:01,430 --> 00:31:59,460
poll and it's not something we ask

753
00:32:02,750 --> 00:32:01,440
people if they want to come along to

754
00:32:04,430 --> 00:32:02,760
meetings or join us or chat to us

755
00:32:07,190 --> 00:32:04,440
generally speaking because generally all

756
00:32:09,590 --> 00:32:07,200
all scientists should be skeptical no

757
00:32:12,140 --> 00:32:09,600
Richard absolutely yeah yeah is your

758
00:32:15,470 --> 00:32:12,150
society a fabulous experience thanks Lee

759
00:32:17,779 --> 00:32:15,480
is your society more of a fun thing than

760
00:32:19,460 --> 00:32:17,789
a than a serious thing both we actually

761
00:32:21,560 --> 00:32:19,470
have two sides we have an enormous

762
00:32:24,019 --> 00:32:21,570
amount of fun you can't imagine all the

763
00:32:26,180 --> 00:32:24,029

tricks we get up to magic tricks of

764

00:32:28,249 --> 00:32:26,190

course spoon bending fooling people just

765

00:32:30,379 --> 00:32:28,259

for just for fun and we never take it

766

00:32:32,810 --> 00:32:30,389

too seriously but then yes there is the

767

00:32:35,479 --> 00:32:32,820

very serious side and that revolves arge

768

00:32:37,669 --> 00:32:35,489

Lea round people ripping people off I'll

769

00:32:39,889 --> 00:32:37,679

remove your your curse for a thousand

770

00:32:41,659 --> 00:32:39,899

dollars or if you book yourself up to my

771

00:32:43,489 --> 00:32:41,669

special machine which scientists don't

772

00:32:45,169 --> 00:32:43,499

know about and i'll charge you three

773

00:32:47,509 --> 00:32:45,179

hundred dollars i can remove your cancer

774

00:32:49,279 --> 00:32:47,519

terrible things we actually awful people

775

00:32:51,019 --> 00:32:49,289

i must say i was very impressed by the

776

00:32:53,089 --> 00:32:51,029

way and i saw your video about the water

777

00:32:55,310 --> 00:32:53,099

diviners and i was very impressed with

778

00:32:57,080 --> 00:32:55,320

the gentle way you helped those people

779

00:32:59,299 --> 00:32:57,090

and dealt with them who genuinely

780

00:33:00,799 --> 00:32:59,309

believe that they could divine water you

781

00:33:01,999 --> 00:33:00,809

prove that they couldn't but you were

782

00:33:03,919 --> 00:33:02,009

very nice to them you weren't you

783

00:33:05,749 --> 00:33:03,929

weren't nasty too well we realized that

784

00:33:07,099 --> 00:33:05,759

most people claiming paranormal stuff

785

00:33:09,680 --> 00:33:07,109

and especially most people claiming

786

00:33:12,169 --> 00:33:09,690

psychic ability are actually quite

787

00:33:14,629 --> 00:33:12,179

sincere and they really do believe it

788

00:33:16,249 --> 00:33:14,639

they're not out to con anybody very

789

00:33:17,629 --> 00:33:16,259

small percentage of people we come

790

00:33:19,009 --> 00:33:17,639

across are actually the cons and the

791

00:33:20,330 --> 00:33:19,019

Sharks yeah I guess you don't listen to

792

00:33:22,159 --> 00:33:20,340

to your weekend late on Sunday nights

793

00:33:23,839 --> 00:33:22,169

too well I don't want to take too much

794

00:33:26,029 --> 00:33:23,849

about that okay oh good to talk to you

795

00:33:27,680 --> 00:33:26,039

Richard for us thank you I'm gonna go in

796

00:33:29,749 --> 00:33:27,690

soon and the budgie still going in

797

00:33:31,489 --> 00:33:29,759

ecology he's helping interest I keep

798

00:33:34,879 --> 00:33:31,499

keep digging there's still enough oxygen

799

00:33:50,259 --> 00:33:34,889

haha thanks my Richard Saunders the hits

800

00:33:56,599 --> 00:33:53,029

thank you for listening to the skeptic

801
00:33:59,299 --> 00:33:56,609
zone so next week's show show number 90

802
00:34:02,119 --> 00:33:59,309
will be the first of our amazing meeting

803
00:34:04,989 --> 00:34:02,129
eight specials this one will be a little

804
00:34:07,430 --> 00:34:04,999
report on the scene what's happening

805
00:34:09,859 --> 00:34:07,440
hopefully we can bump into a few good

806
00:34:12,589 --> 00:34:09,869
people to talk to and I'll bring that to

807
00:34:16,849 --> 00:34:12,599
you direct from the south point casino

808
00:34:19,129 --> 00:34:16,859
in Las Vegas so until then this is

809
00:34:24,799 --> 00:34:19,139
Richard Saunders for this week signing

810
00:34:27,079 --> 00:34:24,809
off from Sydney Australia you've been

811
00:34:31,639 --> 00:34:27,089
listening to the skeptic zone visit our

812
00:34:34,099 --> 00:34:31,649
website at wwc a petting zoo TV for

813
00:34:36,440 --> 00:34:34,109

comments contacts and extra video

814

00:34:47,970 --> 00:34:36,450

reports