

1
00:00:00,000 --> 00:00:04,250
and now a message from the inside of

2
00:00:01,889 --> 00:00:08,599
Richard Saunders walk-in refrigerator

3
00:00:04,250 --> 00:00:08,599
bloody hell it's called in here

4
00:00:27,329 --> 00:00:32,769
hello and welcome to the skeptic zone

5
00:00:30,429 --> 00:00:37,090
show number 22 for the twentieth of

6
00:00:32,770 --> 00:00:39,970
March Friday the twentieth of March 2009

7
00:00:37,090 --> 00:00:41,890
a special in between sort of show today

8
00:00:39,969 --> 00:00:44,859
we have an interview with alum shahe

9
00:00:41,890 --> 00:00:47,620
from the United Kingdom he's a science

10
00:00:44,859 --> 00:00:50,049
communicator or is he you'll find out

11
00:00:47,619 --> 00:00:52,209
soon a science teacher who has released

12
00:00:50,049 --> 00:00:54,789
a video project on the web all about the

13
00:00:52,210 --> 00:00:55,899
importance of teaching science he is

14
00:00:54,789 --> 00:00:59,378
going to be talking to our reporter

15
00:00:55,899 --> 00:01:01,628
Kylie Sturgis then I'll be having a chat

16
00:00:59,378 --> 00:01:03,820
with dr. Karen stalls no from Australian

17
00:01:01,628 --> 00:01:06,189
skeptics and one of our reporters about

18
00:01:03,820 --> 00:01:09,010
her role is the new editor of the

19
00:01:06,189 --> 00:01:11,049
skeptic magazine followed by a catch up

20
00:01:09,010 --> 00:01:13,300
with dr. rachey where she's going to be

21
00:01:11,049 --> 00:01:15,640
commenting on some of the interesting

22
00:01:13,299 --> 00:01:19,989
developments she's had with the life

23
00:01:15,640 --> 00:01:22,299
wave from last week so I'll leave you to

24
00:01:19,989 --> 00:01:24,989
enjoy the show while I try to get out of

25
00:01:22,299 --> 00:01:24,989
this fridge

26
00:01:38,659 --> 00:01:43,500
you've just seen me walk across the red

27
00:01:40,978 --> 00:01:46,408
hot coals at temperature of over 500

28
00:01:43,500 --> 00:01:48,060
degrees Celsius I could tell you but I'm

29

00:01:46,409 --> 00:01:50,069
an expert in an ancient form of

30
00:01:48,060 --> 00:01:53,280
meditation that lets me block out pain

31
00:01:50,069 --> 00:01:55,590
at will I could then tell you that you

32
00:01:53,280 --> 00:01:57,769
could lead a happier life if you follow

33
00:01:55,590 --> 00:02:00,299
my teachings for a small fee of course

34
00:01:57,769 --> 00:02:03,149
or i could tell you the truth that

35
00:02:00,299 --> 00:02:05,220
walking on hot coals doesn't require any

36
00:02:03,149 --> 00:02:06,599
kind of magical powers it's just the

37
00:02:05,219 --> 00:02:08,939
case that the coals are a poor conductor

38
00:02:06,599 --> 00:02:10,379
of heat and i walked so quickly that

39
00:02:08,939 --> 00:02:13,049
there's hardly any time for heat

40
00:02:10,379 --> 00:02:15,479
transfer to take place separating truth

41
00:02:13,049 --> 00:02:21,360
from fraudulent mumbo-jumbo is just one

42
00:02:15,479 --> 00:02:23,250
reason why science is important I'm

43
00:02:21,360 --> 00:02:24,900

Carly Sturgis and you have just heard

44

00:02:23,250 --> 00:02:27,539
part of the introduction to the

45

00:02:24,900 --> 00:02:29,819
documentary why is science important a

46

00:02:27,539 --> 00:02:33,060
film and blog project by a longshot ha

47

00:02:29,818 --> 00:02:34,530
funded by the Wellcome Trust along is a

48

00:02:33,060 --> 00:02:37,109
physics teacher at an inner-city

49

00:02:34,530 --> 00:02:39,150
comprehensive school where science as in

50

00:02:37,109 --> 00:02:42,209
all UK schools is compulsory for

51

00:02:39,150 --> 00:02:43,739
students up to the age of 16 he says

52

00:02:42,209 --> 00:02:45,420
that he wears his passion for science on

53

00:02:43,739 --> 00:02:47,159
his sleeve but doesn't think that's

54

00:02:45,419 --> 00:02:49,589
enough to convince all of these students

55

00:02:47,159 --> 00:02:51,629
that science is important nor does he

56

00:02:49,590 --> 00:02:53,459
think like some in his profession that

57

00:02:51,629 --> 00:02:55,379
the importance of science is implicit in

58
00:02:53,459 --> 00:02:57,840
the courses taught or that it will

59
00:02:55,379 --> 00:03:00,659
somehow seep into students minds after a

60
00:02:57,840 --> 00:03:02,849
certain number of hours at school this

61
00:03:00,659 --> 00:03:04,859
little on to interview nearly 70

62
00:03:02,849 --> 00:03:07,289
scientists philosophers and science

63
00:03:04,859 --> 00:03:09,359
consultants worldwide in order to answer

64
00:03:07,289 --> 00:03:11,429
the question which his students posed in

65
00:03:09,359 --> 00:03:12,900
the documentary what's the point of

66
00:03:11,430 --> 00:03:14,819
science

67
00:03:12,900 --> 00:03:16,860
Alam has previously worked as a

68
00:03:14,818 --> 00:03:19,378
development producer on several TV

69
00:03:16,860 --> 00:03:21,420
programs and films including patterns in

70
00:03:19,378 --> 00:03:23,969
nature lords of the Ring about the Large

71
00:03:21,419 --> 00:03:25,438
Hadron Collider he has been recognized

72
00:03:23,969 --> 00:03:27,419
with a fellowship from the National

73
00:03:25,438 --> 00:03:29,699
Endowment for science technology and the

74
00:03:27,419 --> 00:03:32,488
arts and you can visit the official site

75
00:03:29,699 --> 00:03:40,679
for why is science important at the

76
00:03:32,489 --> 00:03:41,848
website ww-why science co uk firstly

77
00:03:40,680 --> 00:03:44,879
thank you along for doing this interview

78
00:03:41,848 --> 00:03:47,158
during a very busy school year how did

79
00:03:44,878 --> 00:03:49,560
the documentary why a science important

80
00:03:47,158 --> 00:03:53,699
come to be I guess the project really

81
00:03:49,560 --> 00:03:55,799
started in January 2008 when I returned

82
00:03:53,699 --> 00:03:59,280
to teaching after spending about seven

83
00:03:55,799 --> 00:04:01,920
years working as a TV producer and upon

84
00:03:59,280 --> 00:04:05,430
returning to the classroom I started to

85
00:04:01,919 --> 00:04:08,128
feel that my students didn't really know

86

00:04:05,430 --> 00:04:10,560
why they had to do science that there

87
00:04:08,128 --> 00:04:12,018
was nothing about the course or about

88
00:04:10,560 --> 00:04:14,930
what they were supposed to learn that

89
00:04:12,019 --> 00:04:17,220
really conveyed to them why science is

90
00:04:14,930 --> 00:04:20,220
absolutely important and why they should

91
00:04:17,220 --> 00:04:22,199
learn it and I discuss this with other

92
00:04:20,220 --> 00:04:24,090
teachers and so forth and was kind of a

93
00:04:22,199 --> 00:04:25,939
bit depressed to find that the standard

94
00:04:24,089 --> 00:04:28,109
answer was something along the lines of

95
00:04:25,939 --> 00:04:30,538
Sciences everywhere and we live in a

96
00:04:28,110 --> 00:04:31,560
technological world and therefore you

97
00:04:30,538 --> 00:04:33,598
need to know about science and

98
00:04:31,560 --> 00:04:36,478
personally I don't think those are good

99
00:04:33,598 --> 00:04:39,029
answers I I think as I say in the film i

100
00:04:36,478 --> 00:04:43,050

think the the importance of studying

101

00:04:39,029 --> 00:04:44,549

science is that it gives you thinking

102

00:04:43,050 --> 00:04:46,978

skills it gives you a way of looking at

103

00:04:44,550 --> 00:04:49,978

the world that is incredibly rich and

104

00:04:46,978 --> 00:04:53,430

rewarding um that can help you make

105

00:04:49,978 --> 00:04:55,800

better decisions in life and have the

106

00:04:53,430 --> 00:04:58,259

intellectual tools to deal with life

107

00:04:55,800 --> 00:04:59,579

better I didn't feel that this is the

108

00:04:58,259 --> 00:05:01,439

message that was getting through to my

109

00:04:59,579 --> 00:05:03,569

students and I certainly didn't feel

110

00:05:01,439 --> 00:05:06,209

that many of my colleagues in the

111

00:05:03,569 --> 00:05:08,519

profession were necessarily getting

112

00:05:06,209 --> 00:05:11,879

these other ideas about why science is

113

00:05:08,519 --> 00:05:14,158

important across to their students and I

114

00:05:11,879 --> 00:05:16,829

I just wanted to do something that would

115
00:05:14,158 --> 00:05:18,990
would rectify that and that may have

116
00:05:16,829 --> 00:05:23,189
been a grand ambition it may have been

117
00:05:18,990 --> 00:05:25,750
pretentious but at least the project is

118
00:05:23,189 --> 00:05:28,480
out there now so hopefully

119
00:05:25,750 --> 00:05:30,370
if some student ever gets set an essay

120
00:05:28,480 --> 00:05:31,629
by their teacher why it's important

121
00:05:30,370 --> 00:05:33,670
they'll be able to google it and come

122
00:05:31,629 --> 00:05:35,469
across my site and get some really

123
00:05:33,670 --> 00:05:37,420
decent answers well I think will be

124
00:05:35,470 --> 00:05:40,090
highly valued by great many people not

125
00:05:37,420 --> 00:05:42,160
just students one great element of Y

126
00:05:40,089 --> 00:05:44,199
science important are the numbers of

127
00:05:42,160 --> 00:05:46,480
contributors to the project including

128
00:05:44,199 --> 00:05:49,060
doctors feel played Simon Singh Susan

129
00:05:46,480 --> 00:05:51,550
Blackmore there's nearly 70 people who

130
00:05:49,060 --> 00:05:53,290
took part in it overall isn't that there

131
00:05:51,550 --> 00:05:55,180
are lots of participants there are lots

132
00:05:53,290 --> 00:05:58,569
of people who contributed to the project

133
00:05:55,180 --> 00:06:00,939
and I was really quite taken aback by

134
00:05:58,569 --> 00:06:03,699
the positive response from from the

135
00:06:00,939 --> 00:06:06,519
science community and all the other

136
00:06:03,699 --> 00:06:08,889
people who contributed and it's been

137
00:06:06,519 --> 00:06:11,469
quite overwhelming and I think that's

138
00:06:08,889 --> 00:06:13,539
evidence that this is a question that

139
00:06:11,470 --> 00:06:15,610
resonated with people and that this is a

140
00:06:13,540 --> 00:06:17,680
project that people felt needed to be

141
00:06:15,610 --> 00:06:19,569
done at the start of the documentary you

142
00:06:17,680 --> 00:06:21,519
even take it to trainee teachers and

143

00:06:19,569 --> 00:06:23,620
reflect upon how even in the profession

144
00:06:21,519 --> 00:06:25,240
of teaching we need to investigate our

145
00:06:23,620 --> 00:06:28,300
own reasons for promoting science

146
00:06:25,240 --> 00:06:30,189
literacy is that true I'm terribly

147
00:06:28,300 --> 00:06:31,569
conscious that you know there might be

148
00:06:30,189 --> 00:06:33,850
some people out there who say who is

149
00:06:31,569 --> 00:06:35,439
this guy trying to tell other teachers

150
00:06:33,850 --> 00:06:36,490
what they should be doing but I'm hoping

151
00:06:35,439 --> 00:06:39,100
they won't think that and they'll think

152
00:06:36,490 --> 00:06:40,329
that this is a tremendous be useful

153
00:06:39,100 --> 00:06:42,729
resource that they can point their

154
00:06:40,329 --> 00:06:44,529
students to or that you know might help

155
00:06:42,728 --> 00:06:46,180
them clarify their own ideas about why

156
00:06:44,529 --> 00:06:47,978
science is important whether

157
00:06:46,180 --> 00:06:49,900

interviewees who particularly surprised

158

00:06:47,978 --> 00:06:52,360

your produced answers that you really

159

00:06:49,899 --> 00:06:54,489

liked well one of the first answers I

160

00:06:52,360 --> 00:06:56,620

got was from mark made of Nick who's an

161

00:06:54,490 --> 00:07:02,379

old friend of mine and his answer was

162

00:06:56,620 --> 00:07:03,660

that a science is your mum besides pop

163

00:07:02,379 --> 00:07:06,728

culture I think that's one going to say

164

00:07:03,660 --> 00:07:07,960

and so I just don't feel like it's more

165

00:07:06,728 --> 00:07:09,099

important than literature and I don't

166

00:07:07,959 --> 00:07:10,959

think it's more important than TV or

167

00:07:09,100 --> 00:07:14,050

film but I think it's as important and

168

00:07:10,959 --> 00:07:15,579

so and it doesn't it doesn't it doesn't

169

00:07:14,050 --> 00:07:17,850

you know at the moment is

170

00:07:15,579 --> 00:07:21,370

underappreciated in that sense and I

171

00:07:17,850 --> 00:07:23,320

guess I feel like it's part of who we

172
00:07:21,370 --> 00:07:25,449
are it's part of being human is science

173
00:07:23,319 --> 00:07:28,569
it's not different from being human it

174
00:07:25,449 --> 00:07:31,389
is what makes you human you know when

175
00:07:28,569 --> 00:07:33,040
our ancestors first we'll judging around

176
00:07:31,389 --> 00:07:35,469
in the mud on a day like today which is

177
00:07:33,040 --> 00:07:37,060
really horrible I mean today is when you

178
00:07:35,470 --> 00:07:39,039
realize science important if if we can

179
00:07:37,060 --> 00:07:39,449
have science we would all be miserable

180
00:07:39,038 --> 00:07:42,449
too

181
00:07:39,449 --> 00:07:45,960
is cold it's wet it's rainy the fact

182
00:07:42,449 --> 00:07:47,848
that we've got heating buildings cars to

183
00:07:45,959 --> 00:07:50,008
drive around in buses try that is

184
00:07:47,848 --> 00:07:51,389
science that's it you know it's a part

185
00:07:50,009 --> 00:07:53,819
of sight apart the importance of start

186
00:07:51,389 --> 00:07:55,228
is the fact that you know we can't

187
00:07:53,819 --> 00:07:57,629
survive in most parts of the world

188
00:07:55,228 --> 00:07:59,728
without science that's given us the

189
00:07:57,629 --> 00:08:01,588
ability to survive and actually to think

190
00:07:59,728 --> 00:08:03,748
high things to appreciate poetry to

191
00:08:01,588 --> 00:08:05,338
appreciate literature to fall in love to

192
00:08:03,749 --> 00:08:07,740
actually live together for someone for

193
00:08:05,338 --> 00:08:10,319
30 40 50 years that's besides as let us

194
00:08:07,740 --> 00:08:11,939
do that before this you had a life

195
00:08:10,319 --> 00:08:14,189
expectancy of 30 years you know it was

196
00:08:11,939 --> 00:08:16,080
life was brutal and probably quite

197
00:08:14,189 --> 00:08:17,550
sublime in that sense if you enjoy

198
00:08:16,079 --> 00:08:20,399
sitting on the sofa watching the telly

199
00:08:17,550 --> 00:08:23,668
it's because that science has allowed

200

00:08:20,399 --> 00:08:25,709
that to happen and so it's a bit like

201
00:08:23,668 --> 00:08:26,938
ignoring science and feeling Sciences

202
00:08:25,709 --> 00:08:29,188
kind of irrelevant to use a bit like

203
00:08:26,939 --> 00:08:31,110
dissing your mum you know it's just like

204
00:08:29,189 --> 00:08:33,930
it it's where you've come from you've

205
00:08:31,110 --> 00:08:35,219
got you haven't got to appreciate it but

206
00:08:33,929 --> 00:08:37,078
it is a bit like dissing your mum and

207
00:08:35,219 --> 00:08:38,550
it's a bit rude isn't it to diss your

208
00:08:37,078 --> 00:08:40,620
mum you shouldn't do that and people

209
00:08:38,549 --> 00:08:43,789
diss science in the same way and they

210
00:08:40,620 --> 00:08:46,980
really shouldn't do that it's your mom

211
00:08:43,789 --> 00:08:48,240
it was an intriguing answer and one that

212
00:08:46,980 --> 00:08:50,940
got the project off to a really good

213
00:08:48,240 --> 00:08:53,278
start I felt one of my other favorites

214
00:08:50,940 --> 00:08:55,470

is a cartoon strip by a chap called

215

00:08:53,278 --> 00:08:57,509

Victor poor which you might need to

216

00:08:55,470 --> 00:08:58,980

think about for a little bit but I think

217

00:08:57,509 --> 00:09:01,139

it's a excellent response to the

218

00:08:58,980 --> 00:09:03,110

question now my personal favorite I

219

00:09:01,139 --> 00:09:06,089

think I'm a little bit torn between

220

00:09:03,110 --> 00:09:08,550

answers by Phil cook and Michael

221

00:09:06,089 --> 00:09:11,790

DePodesta they're both former teachers

222

00:09:08,549 --> 00:09:13,828

of mine so I am slightly biased but my

223

00:09:11,789 --> 00:09:16,409

cause assertion that the science is

224

00:09:13,828 --> 00:09:19,078

simply humanity's greatest achievement

225

00:09:16,409 --> 00:09:22,860

is something that I think I agree with

226

00:09:19,078 --> 00:09:24,419

and and that's why I really like that on

227

00:09:22,860 --> 00:09:27,329

sir because he just went out there and

228

00:09:24,419 --> 00:09:29,120

said it and I suspect many of the other

229

00:09:27,328 --> 00:09:32,638
respondents wish they had as well

230

00:09:29,120 --> 00:09:34,409
there's a kind of sense that perhaps we

231

00:09:32,639 --> 00:09:37,289
should it makes us sound arrogant to say

232

00:09:34,409 --> 00:09:39,719
such a thing but is it arrogant if it's

233

00:09:37,289 --> 00:09:41,789
the truth amongst your qualifications

234

00:09:39,720 --> 00:09:43,620
you'll also a science writer and you

235

00:09:41,789 --> 00:09:47,969
produce several films details of which

236

00:09:43,620 --> 00:09:49,948
can be found on the side WWF report com

237

00:09:47,970 --> 00:09:52,139
and you've said in a previous interview

238

00:09:49,948 --> 00:09:54,179
that science communication has to be

239

00:09:52,139 --> 00:09:56,389
much more than celebrating the wonder of

240

00:09:54,179 --> 00:09:58,469
science what led you to that conclusion

241

00:09:56,389 --> 00:10:01,049
okay first I'd like to make clear that

242

00:09:58,470 --> 00:10:03,930
the term science communication is a

243
00:10:01,049 --> 00:10:05,519
horrible one and it sounds awful and my

244
00:10:03,929 --> 00:10:07,799
friends laugh at me when when I tell

245
00:10:05,519 --> 00:10:10,169
them that's why i do but i think it's an

246
00:10:07,799 --> 00:10:12,179
increasingly important activity and I'll

247
00:10:10,169 --> 00:10:15,688
explain why in a minute when I first

248
00:10:12,179 --> 00:10:16,919
started working in this field science

249
00:10:15,688 --> 00:10:18,870
communication was a phrase that was

250
00:10:16,919 --> 00:10:20,729
associated with people who went round to

251
00:10:18,870 --> 00:10:23,159
schools and demonstrated things with

252
00:10:20,730 --> 00:10:25,528
liquid nitrogen made explosions and

253
00:10:23,159 --> 00:10:27,480
things now don't get me wrong I think

254
00:10:25,528 --> 00:10:29,850
there's a place for people like that

255
00:10:27,480 --> 00:10:33,720
they can genuinely help to enthuse

256
00:10:29,850 --> 00:10:35,430
children about science for example but I

257

00:10:33,720 --> 00:10:37,019
have to be honest art I don't think they

258
00:10:35,429 --> 00:10:39,859
do much more than that I don't think

259
00:10:37,019 --> 00:10:43,528
people who do these things have a

260
00:10:39,860 --> 00:10:46,639
lasting effect and I believe there's

261
00:10:43,528 --> 00:10:49,198
research which confirms my opinion now

262
00:10:46,639 --> 00:10:52,079
what I think science communication has

263
00:10:49,198 --> 00:10:55,979
to be about in in today's NH is is is

264
00:10:52,078 --> 00:10:57,028
about getting people to understand the

265
00:10:55,980 --> 00:10:58,949
kind of social and political

266
00:10:57,028 --> 00:11:01,110
implications of science know what do I

267
00:10:58,948 --> 00:11:04,008
mean by that well you know we live in an

268
00:11:01,110 --> 00:11:06,959
age where everybody is aware that

269
00:11:04,009 --> 00:11:09,240
climate change is happening some people

270
00:11:06,958 --> 00:11:10,979
may want to be in denial about it but I

271
00:11:09,240 --> 00:11:12,899

think the majority of people understand

272

00:11:10,980 --> 00:11:14,759

and appreciate that we have this big

273

00:11:12,899 --> 00:11:16,889

problem that we're going to have to deal

274

00:11:14,759 --> 00:11:20,100

with and we're only going to be able to

275

00:11:16,889 --> 00:11:23,000

deal with it through using science now

276

00:11:20,100 --> 00:11:25,528

the public need to be informed of

277

00:11:23,000 --> 00:11:27,629

science in order to be able to make the

278

00:11:25,528 --> 00:11:29,458

kind of decisions that we may need to

279

00:11:27,629 --> 00:11:31,199

make in the future and then this is a

280

00:11:29,458 --> 00:11:32,909

point that came up over and over again

281

00:11:31,198 --> 00:11:34,859

in the survey and and it's covered well

282

00:11:32,909 --> 00:11:37,049

in the film and it's not just global

283

00:11:34,860 --> 00:11:41,459

warming it's things like you know how do

284

00:11:37,049 --> 00:11:44,269

we make best use of our tax money for

285

00:11:41,458 --> 00:11:47,578

medicine you know where should we be

286
00:11:44,269 --> 00:11:50,399
prioritizing other taxpayers monies in

287
00:11:47,578 --> 00:11:52,859
terms of scientific research these kind

288
00:11:50,399 --> 00:11:55,828
of decisions which every society on the

289
00:11:52,860 --> 00:11:58,289
planet needs to be making are based on

290
00:11:55,828 --> 00:12:01,378
science and unless we are science

291
00:11:58,289 --> 00:12:04,728
communicators do our best to make sure

292
00:12:01,379 --> 00:12:08,038
people are well informed we end up with

293
00:12:04,729 --> 00:12:09,509
stupid situations like for example what

294
00:12:08,038 --> 00:12:11,598
we have in the UK at the moment where

295
00:12:09,509 --> 00:12:14,788
people are rejecting the MMR vaccine

296
00:12:11,599 --> 00:12:16,979
largely through ignorance and that's why

297
00:12:14,788 --> 00:12:18,899
I think engaging people in this

298
00:12:16,979 --> 00:12:21,028
political and cultural issues around

299
00:12:18,899 --> 00:12:23,339
Sciences is far more important than

300
00:12:21,028 --> 00:12:25,408
saying oh look if you're a scientist you

301
00:12:23,339 --> 00:12:26,729
can make stuff blow up I think that

302
00:12:25,408 --> 00:12:28,078
there's enough people doing that and I

303
00:12:26,729 --> 00:12:30,389
think we need some more grown-up science

304
00:12:28,078 --> 00:12:32,158
communicators and again I'm sure that

305
00:12:30,389 --> 00:12:34,349
makes me sound arrogant but there you go

306
00:12:32,158 --> 00:12:36,269
you've got several films which can be

307
00:12:34,349 --> 00:12:38,489
found online when I was checking out

308
00:12:36,269 --> 00:12:40,739
wires science important on youtube I

309
00:12:38,489 --> 00:12:42,720
discovered several smaller documentaries

310
00:12:40,739 --> 00:12:44,849
one was called science is better than

311
00:12:42,720 --> 00:12:46,199
magic have you investigated the

312
00:12:44,849 --> 00:12:47,879
influence of magic tricks in the

313
00:12:46,198 --> 00:12:50,399
classroom and what do you think they

314

00:12:47,879 --> 00:12:52,499
contribute to learning as I say in my

315
00:12:50,399 --> 00:12:56,068
video I'm probably not the only science

316
00:12:52,499 --> 00:12:57,989
geek who likes magic in fact I always

317
00:12:56,068 --> 00:13:00,028
seem to be meeting scientists who are

318
00:12:57,989 --> 00:13:02,639
brilliant at card tricks or coin tricks

319
00:13:00,028 --> 00:13:05,038
and I think there's a reason for that

320
00:13:02,639 --> 00:13:08,100
and I think the reason is we like to

321
00:13:05,038 --> 00:13:10,528
know how things work and and when you

322
00:13:08,100 --> 00:13:12,959
see a really brilliant magic trick what

323
00:13:10,528 --> 00:13:14,458
I do when I see a really brilliant magic

324
00:13:12,958 --> 00:13:16,438
trick what I do is try to work out how

325
00:13:14,458 --> 00:13:18,418
it works and I get a certain degree of

326
00:13:16,438 --> 00:13:20,428
satisfaction from knowing you know I

327
00:13:18,418 --> 00:13:22,828
think I know enough about magic that I

328
00:13:20,428 --> 00:13:25,769

can usually tell how a particular

329

00:13:22,828 --> 00:13:28,948

illusion is performed and that's kind of

330

00:13:25,769 --> 00:13:31,078

satisfying but only up to a point and

331

00:13:28,948 --> 00:13:35,068

that that's the point that I like to

332

00:13:31,078 --> 00:13:38,248

make to my students so i often use magic

333

00:13:35,068 --> 00:13:41,338

in the classroom to introduce the idea

334

00:13:38,249 --> 00:13:43,408

to my students that science is about

335

00:13:41,339 --> 00:13:47,459

knowing how things work knowing how

336

00:13:43,408 --> 00:13:48,899

really amazing things work and that with

337

00:13:47,458 --> 00:13:51,478

that knowledge you can go and do other

338

00:13:48,899 --> 00:13:53,489

amazing things so there's this parallel

339

00:13:51,479 --> 00:13:55,559

with science but with magic rather so

340

00:13:53,489 --> 00:13:56,999

there's this parallel with magic in

341

00:13:55,558 --> 00:14:00,769

science but science is kind of

342

00:13:56,999 --> 00:14:03,720

infinitely richer which may offend some

343
00:14:00,769 --> 00:14:05,009
magicians but I seem to be offending

344
00:14:03,720 --> 00:14:07,408
people left right and center with my

345
00:14:05,009 --> 00:14:09,568
view so there you go so yes science is

346
00:14:07,408 --> 00:14:12,568
better than magic because it's an

347
00:14:09,568 --> 00:14:14,188
infinitely richer a field of activity

348
00:14:12,568 --> 00:14:15,208
the use of magic tricks and the

349
00:14:14,188 --> 00:14:19,399
classroom is a really

350
00:14:15,208 --> 00:14:22,078
good way of engaging students initially

351
00:14:19,399 --> 00:14:24,869
but what I use it for is mainly to make

352
00:14:22,078 --> 00:14:27,349
the point that magic compared to science

353
00:14:24,869 --> 00:14:29,189
is really simple and uninteresting

354
00:14:27,350 --> 00:14:30,629
finally what are your plans for your

355
00:14:29,188 --> 00:14:32,428
next project I know you're in the middle

356
00:14:30,629 --> 00:14:34,670
of a very busy school term at the moment

357
00:14:32,428 --> 00:14:38,999
so will that be your focus for a while

358
00:14:34,669 --> 00:14:41,849
next projects okay so I I the film was

359
00:14:38,999 --> 00:14:44,339
only launched online literally or kind

360
00:14:41,850 --> 00:14:45,749
of a week and a half ago and frankly I'm

361
00:14:44,339 --> 00:14:48,449
absolutely exhausted it was an

362
00:14:45,749 --> 00:14:50,339
exhausting process making the film I was

363
00:14:48,448 --> 00:14:52,740
regularly working 18 hours a day six

364
00:14:50,339 --> 00:14:54,420
days a week and during the whole

365
00:14:52,740 --> 00:14:56,519
production of the film I was teaching

366
00:14:54,419 --> 00:14:58,528
three days a week as well it's one of

367
00:14:56,519 --> 00:15:00,448
the hardest things I've ever done and I

368
00:14:58,528 --> 00:15:01,889
just want to break now unfortunately

369
00:15:00,448 --> 00:15:04,349
I've still got two more weeks of school

370
00:15:01,889 --> 00:15:07,409
left until the Easter break but i'm

371

00:15:04,350 --> 00:15:09,389
planning to veg out for two weeks in all

372
00:15:07,409 --> 00:15:11,159
honesty i have got a couple of ideas up

373
00:15:09,389 --> 00:15:13,350
my sleeves but I'm not really ready to

374
00:15:11,159 --> 00:15:15,448
share that with the world yet but I'll

375
00:15:13,350 --> 00:15:17,759
let you know as soon as I am thank you

376
00:15:15,448 --> 00:15:20,338
very much along you can find his film

377
00:15:17,759 --> 00:15:22,318
why is science important by looking on

378
00:15:20,339 --> 00:15:24,480
YouTube and checking out the full blog

379
00:15:22,318 --> 00:15:31,548
project and all the contributors on the

380
00:15:24,480 --> 00:15:31,548
official site at [WWE science co uk](http://WWE.science.co.uk)

381
00:15:35,610 --> 00:15:44,440
this far you're listening too far by

382
00:15:42,070 --> 00:15:48,629
George Arab you can find out more about

383
00:15:44,440 --> 00:15:53,200
George her ad by visiting his website at

384
00:15:48,629 --> 00:15:55,000
www.allaboutdoors.com where you can even

385
00:15:53,200 --> 00:15:57,310

find the lyrics to the song try singing

386

00:15:55,000 --> 00:16:00,580

along with it of course he's singing

387

00:15:57,309 --> 00:16:04,750

about the 365 days of astronomy podcast

388

00:16:00,580 --> 00:16:08,379

one podcast every day for 2009 and you

389

00:16:04,750 --> 00:16:12,070

can find that at 365 days of astronomy

390

00:16:08,379 --> 00:16:16,529

onward or go check it out there'll be a

391

00:16:12,070 --> 00:16:16,530

contribution by the skeptic zone in May

392

00:16:21,259 --> 00:16:27,970

there by Carly today it's

393

00:16:23,778 --> 00:16:30,980

crazy just all stars and stars opposite

394

00:16:27,970 --> 00:16:32,509

George her ab let me tell you something

395

00:16:30,980 --> 00:16:35,269

about Georgia wrap the first time I met

396

00:16:32,509 --> 00:16:38,350

him was the amazing meeting six in Las

397

00:16:35,269 --> 00:16:42,528

Vegas I was on a panel with james randi

398

00:16:38,350 --> 00:16:45,800

Daniel Loxton Adam Savage Banacek been

399

00:16:42,528 --> 00:16:49,338

Radford dr. Steve novella and George

400
00:16:45,799 --> 00:16:51,620
Abbott after the panel he came up and

401
00:16:49,339 --> 00:16:53,529
thanked me for being part of the panel

402
00:16:51,620 --> 00:16:56,149
with him which I thought was rather nice

403
00:16:53,528 --> 00:17:02,058
next time I remember meeting George was

404
00:16:56,149 --> 00:17:03,679
a dragon con last year and I must be one

405
00:17:02,058 --> 00:17:05,298
of the only people who has ever fallen

406
00:17:03,679 --> 00:17:09,649
asleep during her George or a

407
00:17:05,298 --> 00:17:11,599
performance but I must say it was jet

408
00:17:09,650 --> 00:17:14,000
lag George it really was i thought your

409
00:17:11,599 --> 00:17:16,838
performance was funny was great it was

410
00:17:14,000 --> 00:17:20,509
full of energy and i nodded off to sleep

411
00:17:16,838 --> 00:17:22,308
much to my embarrassment I remember that

412
00:17:20,509 --> 00:17:25,879
party we went to George in that hotel

413
00:17:22,308 --> 00:17:27,859
room where I was bending spoons bending

414
00:17:25,880 --> 00:17:30,590
spoons for lots of people including the

415
00:17:27,859 --> 00:17:34,298
lovely astronomer the girl we all love

416
00:17:30,589 --> 00:17:37,069
Pamela gay and as I bent a spoon for her

417
00:17:34,298 --> 00:17:40,788
eyring heard later you were sitting

418
00:17:37,069 --> 00:17:43,029
behind me giving commentary about what I

419
00:17:40,788 --> 00:17:43,029
was doing

420
00:17:49,349 --> 00:17:54,399
well I'm here with dr. Karen stalls no

421
00:17:52,809 --> 00:17:56,619
reporter for the skeptic zone and more

422
00:17:54,400 --> 00:17:59,110
importantly maybe editor of the skeptic

423
00:17:56,619 --> 00:18:00,789
magazine Carrie maybe maybe editor

424
00:17:59,109 --> 00:18:02,229
people have been raving about the

425
00:18:00,789 --> 00:18:03,609
skeptic magazine can you tell us a

426
00:18:02,230 --> 00:18:05,069
little bit more about it we've been

427
00:18:03,609 --> 00:18:07,479
receiving so much positive feedback

428

00:18:05,069 --> 00:18:09,879
about the magazine then you look at the

429
00:18:07,480 --> 00:18:11,589
magazine then you content as well so I

430
00:18:09,880 --> 00:18:14,140
just keep sending your feedback in tell

431
00:18:11,589 --> 00:18:16,179
me what you want and I might listen you

432
00:18:14,140 --> 00:18:19,990
might you might I might I'm the editor

433
00:18:16,180 --> 00:18:22,029
up at the final scene ww skeptics calm

434
00:18:19,990 --> 00:18:24,190
daddy look the skeptic magazine you can

435
00:18:22,029 --> 00:18:26,680
read articles by your favorite skeptic

436
00:18:24,190 --> 00:18:31,090
zone reporters like Karen herself or dr.

437
00:18:26,680 --> 00:18:32,860
Richie are even Haley Sturgis and I

438
00:18:31,089 --> 00:18:34,659
think I'm hopefully Iran so give will be

439
00:18:32,859 --> 00:18:38,289
making contributions but better I'm on

440
00:18:34,660 --> 00:18:40,029
his case yeah so and and lots of other

441
00:18:38,289 --> 00:18:42,309
people who involved in the zone also

442
00:18:40,029 --> 00:18:43,839

helped make the skeptic magazine it's a

443

00:18:42,309 --> 00:18:46,389

great magazine one of the best skeptical

444

00:18:43,839 --> 00:18:49,119

magazines in the world ww skeptics

445

00:18:46,390 --> 00:18:50,200

comdata you subscribe today and I tell

446

00:18:49,119 --> 00:18:52,689

you what you people listening in the

447

00:18:50,200 --> 00:18:54,549

United States the Australian dollar has

448

00:18:52,690 --> 00:18:56,380

tanked it's dived it's doing the

449

00:18:54,549 --> 00:18:58,299

Australian crawl it's gone to the bottom

450

00:18:56,380 --> 00:19:01,170

of the pool so if you buy something from

451

00:18:58,299 --> 00:19:02,980

Australia at the moment it's dirt cheap

452

00:19:01,170 --> 00:19:07,150

it's getting better and better all the

453

00:19:02,980 --> 00:19:09,610

time well this in-between sort of

454

00:19:07,150 --> 00:19:11,890

special show is not normally the show we

455

00:19:09,609 --> 00:19:15,099

have dr. Rachel reports but I'd like to

456

00:19:11,890 --> 00:19:18,040

have a little dr. rachy update hi dr. AG

457
00:19:15,099 --> 00:19:20,769
pirate suit last week's episode was life

458
00:19:18,039 --> 00:19:23,200
wave patches yeah actually can um can

459
00:19:20,769 --> 00:19:26,019
you not disturb me i'm reading living

460
00:19:23,200 --> 00:19:29,019
now the health and well-being free

461
00:19:26,019 --> 00:19:30,250
holistic magazine oh sorry this is a

462
00:19:29,019 --> 00:19:32,259
very interesting stuff in here actually

463
00:19:30,250 --> 00:19:35,019
in fact sorry you just mentioned a life

464
00:19:32,259 --> 00:19:38,140
way yes yeah you were just having a look

465
00:19:35,019 --> 00:19:40,359
at Nova Nova magazine folks that's your

466
00:19:38,140 --> 00:19:41,890
favorite oh it is it's a free magazine

467
00:19:40,359 --> 00:19:43,599
here in Sydney and most of Australia

468
00:19:41,890 --> 00:19:46,600
it's a quite a big publication

469
00:19:43,599 --> 00:19:48,129
physically big it's free as I've just

470
00:19:46,599 --> 00:19:52,179
said and

471
00:19:48,130 --> 00:19:54,700
um it's chock-a-block full of Wu's yeah

472
00:19:52,180 --> 00:19:57,640
it's Australia's realistic journalism

473
00:19:54,700 --> 00:19:58,870
touted as it says here that it's one

474
00:19:57,640 --> 00:20:01,300
hundred and thirty-eight thousand copies

475
00:19:58,869 --> 00:20:02,259
are distributed monthly free when I

476
00:20:01,299 --> 00:20:03,549
wouldn't doubt it it's full of

477
00:20:02,259 --> 00:20:05,559
advertising anyway what I was gonna say

478
00:20:03,549 --> 00:20:07,389
is since you mentioned advertising I

479
00:20:05,559 --> 00:20:10,899
came across an ad in her life wave

480
00:20:07,390 --> 00:20:13,000
patches we are there is one huge number

481
00:20:10,900 --> 00:20:14,350
nine page nine yet new breakthrough

482
00:20:13,000 --> 00:20:17,549
patch technology that will revolutionize

483
00:20:14,349 --> 00:20:20,439
the wellness industry isn't that amazing

484
00:20:17,549 --> 00:20:24,089
so you wanted to ask me about a no

485

00:20:20,440 --> 00:20:26,559
reaction you have received from not only

486
00:20:24,089 --> 00:20:31,149
doing your doctor each and life wavered

487
00:20:26,559 --> 00:20:34,240
the blogger yes I had a very interesting

488
00:20:31,150 --> 00:20:38,170
exchange with some believers on my blog

489
00:20:34,240 --> 00:20:41,319
in fact this week and it was it was very

490
00:20:38,170 --> 00:20:43,029
interesting because the first couple of

491
00:20:41,319 --> 00:20:44,529
posts i got from this person who turned

492
00:20:43,029 --> 00:20:47,049
out to be what I suspect is actually a

493
00:20:44,529 --> 00:20:50,339
distributor of these patches were very

494
00:20:47,049 --> 00:20:53,470
polite and very formal so dear Rachel no

495
00:20:50,339 --> 00:20:54,939
I've I've used these patches for five

496
00:20:53,470 --> 00:20:55,900
months now and I don't whilst I don't

497
00:20:54,940 --> 00:20:57,960
know anything about the glutathione

498
00:20:55,900 --> 00:21:01,570
patch specifically which was the one I

499
00:20:57,960 --> 00:21:03,250

described as being used for autism this

500

00:21:01,569 --> 00:21:05,589

person said that they had used the ice

501

00:21:03,250 --> 00:21:08,579

wave pain ones and that they've had a

502

00:21:05,589 --> 00:21:10,539

lot of success with them and you know I

503

00:21:08,579 --> 00:21:11,949

shouldn't try them because they're

504

00:21:10,539 --> 00:21:13,089

really are great and people shouldn't

505

00:21:11,950 --> 00:21:14,559

worry about the fact that it's Molly

506

00:21:13,089 --> 00:21:16,569

level marketing just use them and have a

507

00:21:14,559 --> 00:21:19,240

good life so it was very positive it was

508

00:21:16,569 --> 00:21:22,210

a nice placed as I wrote back to this

509

00:21:19,240 --> 00:21:24,039

person and in fact can I just refer to

510

00:21:22,210 --> 00:21:25,870

my notes because I have yes oh you've

511

00:21:24,039 --> 00:21:27,430

got your notes here with you we're

512

00:21:25,869 --> 00:21:29,949

actually here at our favorite Club we

513

00:21:27,430 --> 00:21:32,019

normally do the think tank from we're

514
00:21:29,950 --> 00:21:34,809
here tonight it's a tuesday night were

515
00:21:32,019 --> 00:21:37,660
here for trivia and last week we won so

516
00:21:34,809 --> 00:21:39,339
it worked quite optimistic about we had

517
00:21:37,660 --> 00:21:42,070
de ver happy singer with us oh you know

518
00:21:39,339 --> 00:21:44,189
he claims that he won it for us doesn't

519
00:21:42,069 --> 00:21:44,189
he

520
00:21:45,769 --> 00:21:49,379
yeah so this guy said that he in his

521
00:21:48,180 --> 00:21:51,900
opinion the patches do as they

522
00:21:49,380 --> 00:21:53,940
advertised and when I wrote back to him

523
00:21:51,900 --> 00:21:55,769
and suggested that that could be a

524
00:21:53,940 --> 00:21:58,380
possible placebo effect because he was

525
00:21:55,769 --> 00:22:00,720
talking about the pain ones having an

526
00:21:58,380 --> 00:22:02,100
effect and you know that's not and I'm

527
00:22:00,720 --> 00:22:03,420
falling off and growing back you know

528
00:22:02,099 --> 00:22:06,149
you're stippling on your head will feel

529
00:22:03,420 --> 00:22:08,970
bit better it's possibly a placebo and

530
00:22:06,150 --> 00:22:11,100
he responded with saying that what does

531
00:22:08,970 --> 00:22:12,450
it matter if it's placebo I'm happy to

532
00:22:11,099 --> 00:22:13,889
pay it it makes me feel better so that's

533
00:22:12,450 --> 00:22:16,470
fine and I said well that's all good and

534
00:22:13,890 --> 00:22:17,940
well but you know I'm as long as you've

535
00:22:16,470 --> 00:22:19,589
had a good experience that's fine but

536
00:22:17,940 --> 00:22:22,080
when it comes down to families and

537
00:22:19,589 --> 00:22:24,839
parents and kids with autism I think

538
00:22:22,079 --> 00:22:26,879
it's misleading of life wave to infer

539
00:22:24,839 --> 00:22:31,409
that they can be helpful in yeah in

540
00:22:26,880 --> 00:22:33,360
autism which is a disease like a few no

541
00:22:31,410 --> 00:22:35,430
unattached lemme it's not going to go

542

00:22:33,359 --> 00:22:37,319
away by itself like a nation might be a

543
00:22:35,430 --> 00:22:38,970
better description maybe sorry it's a

544
00:22:37,319 --> 00:22:40,679
year yeah you're right but we know what

545
00:22:38,970 --> 00:22:41,759
you mean yeah it's something that's not

546
00:22:40,680 --> 00:22:44,039
going to get better you through the

547
00:22:41,759 --> 00:22:47,069
course of the condition you know like a

548
00:22:44,039 --> 00:22:49,200
headache anyway so this time he wrote

549
00:22:47,069 --> 00:22:51,569
back he still said hi Rachel but he

550
00:22:49,200 --> 00:22:53,250
spins so do you believe in acupuncture

551
00:22:51,569 --> 00:22:55,980
and do you think all alternative

552
00:22:53,250 --> 00:22:57,390
therapies are bogus and so I had to

553
00:22:55,980 --> 00:22:58,860
really be careful to keep my head and

554
00:22:57,390 --> 00:23:00,150
just to be too very thoroughly address

555
00:22:58,859 --> 00:23:02,759
each one of his questions without

556
00:23:00,150 --> 00:23:06,390

calling him an idiot but um oh here's

557

00:23:02,759 --> 00:23:11,069

your steak oh yeah thank you oh that

558

00:23:06,390 --> 00:23:12,210

looks good kindle mistakes folks oh it's

559

00:23:11,069 --> 00:23:14,250

just tend to a steak night and they were

560

00:23:12,210 --> 00:23:17,970

quite good I might get one no no you got

561

00:23:14,250 --> 00:23:20,400

one last time um anyway so I wish I wish

562

00:23:17,970 --> 00:23:23,339

this had them this microphone cadet

563

00:23:20,400 --> 00:23:26,230

could pick up smell that smells behind

564

00:23:23,339 --> 00:23:29,720

you sorry

565

00:23:26,230 --> 00:23:31,130

so then when I started to talk a little

566

00:23:29,720 --> 00:23:32,779

bit about the science behind the

567

00:23:31,130 --> 00:23:34,400

glutathione patch he then asked me if

568

00:23:32,779 --> 00:23:35,809

I'd like to participate in a study and

569

00:23:34,400 --> 00:23:38,000

perhaps mr. Schmidt would like to help

570

00:23:35,809 --> 00:23:39,759

me and we could do a test and see if

571
00:23:38,000 --> 00:23:45,140
they elevate your blood glue the file

572
00:23:39,759 --> 00:23:47,180
sent I politely informed him that you

573
00:23:45,140 --> 00:23:49,370
can't just whip up a clinical study in a

574
00:23:47,180 --> 00:23:51,529
lab in an afternoon and secondly that

575
00:23:49,369 --> 00:23:53,059
mr. Schmidt apparently under 17 million

576
00:23:51,529 --> 00:23:55,039
dollars in his first year of selling

577
00:23:53,059 --> 00:23:59,859
these magic patches so he could probably

578
00:23:55,039 --> 00:24:02,839
afford to do his own clinical trial hmm

579
00:23:59,859 --> 00:24:05,359
yeah and he didn't like that and he then

580
00:24:02,839 --> 00:24:07,699
started to go with a big pharma

581
00:24:05,359 --> 00:24:09,529
conspiracy angling and say well you're

582
00:24:07,700 --> 00:24:11,930
saying you want peer-reviewed science or

583
00:24:09,529 --> 00:24:13,220
you're just are you too good for this

584
00:24:11,930 --> 00:24:14,810
you know you don't call him one of your

585
00:24:13,220 --> 00:24:17,120
peers just because he's not a doctrine

586
00:24:14,809 --> 00:24:18,740
and what peer-reviewed stuff do you read

587
00:24:17,119 --> 00:24:20,469
that's not big farmer and it must be

588
00:24:18,740 --> 00:24:22,670
rough you know this whole stuff yeah

589
00:24:20,470 --> 00:24:26,269
anyway and then just just integrated

590
00:24:22,670 --> 00:24:28,610
into him basically um he copied and

591
00:24:26,269 --> 00:24:31,609
pasted just about all of my blog and

592
00:24:28,609 --> 00:24:34,219
then addressed every point himself

593
00:24:31,609 --> 00:24:35,329
saying well you said this in fact one of

594
00:24:34,220 --> 00:24:37,910
the things I mean one of the logical

595
00:24:35,329 --> 00:24:40,399
fallacies he's used here is I said that

596
00:24:37,910 --> 00:24:41,900
um it's devious and deceitful of life

597
00:24:40,400 --> 00:24:43,790
way to say that these things can cure

598
00:24:41,900 --> 00:24:46,040
autism and he says will because I said

599

00:24:43,789 --> 00:24:48,079
there's no known cure and he said well

600
00:24:46,039 --> 00:24:49,909
no cure that you know of but it's

601
00:24:48,079 --> 00:24:51,559
science social they know everything so

602
00:24:49,910 --> 00:24:52,759
he's saying therefore the science

603
00:24:51,559 --> 00:24:55,569
doesn't know them then therefore

604
00:24:52,759 --> 00:24:58,308
lifewave cure yeah autism you know

605
00:24:55,569 --> 00:24:59,960
so at this point I got a little bit fed

606
00:24:58,308 --> 00:25:02,178
up and fortunately I had some good

607
00:24:59,960 --> 00:25:07,338
friends in the blogosphere Richard mmm

608
00:25:02,179 --> 00:25:09,229
you do and they jumped in to help me so

609
00:25:07,338 --> 00:25:12,108
big shoutouts to Sean the blogger not

610
00:25:09,229 --> 00:25:13,580
who's a good he's a great guy he's

611
00:25:12,108 --> 00:25:15,378
always commenting on my blogs and a big

612
00:25:13,579 --> 00:25:17,388
shout-out to Joel birch thanks Joel for

613
00:25:15,378 --> 00:25:21,769

helping me out and you as well yep you

614

00:25:17,388 --> 00:25:23,988

jumped on your booty so in the end most

615

00:25:21,769 --> 00:25:25,548

of my friends got on and basically told

616

00:25:23,989 --> 00:25:27,798

this guy if you wanted to sell us know

617

00:25:25,548 --> 00:25:29,778

if he were trying to spout your snake

618

00:25:27,798 --> 00:25:31,460

oil business here then forget it because

619

00:25:29,778 --> 00:25:33,769

it's the place of science and reason and

620

00:25:31,460 --> 00:25:36,079

you need facts and evidence we don't

621

00:25:33,769 --> 00:25:39,440

accept you saying that you know I used

622

00:25:36,079 --> 00:25:42,618

it worked yes yes oh and I also wanted

623

00:25:39,440 --> 00:25:46,159

to particularly point out one line which

624

00:25:42,618 --> 00:25:49,608

was left by um who was this Oh by Matt

625

00:25:46,159 --> 00:25:52,190

Matt is from I like patello blogspot I'm

626

00:25:49,608 --> 00:25:53,298

Matt he's a Melbourne and he said that

627

00:25:52,190 --> 00:25:55,190

he was amazed by the number of

628
00:25:53,298 --> 00:25:57,259
paragraphs that the true believers will

629
00:25:55,190 --> 00:25:59,989
happily spout all the while avoiding the

630
00:25:57,259 --> 00:26:02,298
simple expedient of supplying any actual

631
00:25:59,989 --> 00:26:04,608
evidence and this I think is spot-on

632
00:26:02,298 --> 00:26:08,269
Matt a link to a peer-reviewed study

633
00:26:04,608 --> 00:26:11,710
takes up but a single line people thank

634
00:26:08,269 --> 00:26:11,710
you doctor 'he win

635
00:26:13,359 --> 00:26:19,750
hi I'm Alice at eight host of the new by

636
00:26:16,839 --> 00:26:21,669
weekly podcast the pseudo-scientists the

637
00:26:19,750 --> 00:26:24,220
official podcast of the young Australian

638
00:26:21,670 --> 00:26:26,890
skeptics John Eliot birch daily breeders

639
00:26:24,220 --> 00:26:29,140
Jason ball Jack Scanlon hey rush and

640
00:26:26,890 --> 00:26:31,480
myself to hear what our generation have

641
00:26:29,140 --> 00:26:33,910
to say about quackery science and the

642
00:26:31,480 --> 00:26:39,058
issues that concern us subscribe to our

643
00:26:33,910 --> 00:26:39,058
podcast located at young of skeptics com

644
00:26:48,109 --> 00:26:53,490
well thanks for listening to the skeptic

645
00:26:50,609 --> 00:26:55,679
zone show number 22 and try as I might I

646
00:26:53,490 --> 00:26:57,539
just can't get out of this fridge George

647
00:26:55,680 --> 00:27:00,509
I don't know what I'm going to do

648
00:26:57,539 --> 00:27:03,240
nevermind I'm sure your socks will keep

649
00:27:00,509 --> 00:27:06,480
me warm join us next week for a skeptic

650
00:27:03,240 --> 00:27:08,730
zone number 23 with dr. Rachel reports

651
00:27:06,480 --> 00:27:10,769
the roundup with my koala hand grain of

652
00:27:08,730 --> 00:27:13,140
salt with her answer give and you have a

653
00:27:10,769 --> 00:27:16,019
popular think tank where we get to drink

654
00:27:13,140 --> 00:27:20,000
lots of cheap champagne until next week

655
00:27:16,019 --> 00:27:20,000
this is goodbye from Richard Saunders

656

00:27:20,750 --> 00:27:28,200
you've been listening to the skeptic

657
00:27:23,160 --> 00:27:31,230
zone visit our website at WWF digs on TV

658
00:27:28,200 --> 00:27:33,549
for comments contacts and extra video

659
00:27:31,230 --> 00:27:36,509
reports

660
00:27:33,549 --> 00:27:39,348
us kids

661
00:27:36,509 --> 00:27:39,348
me

662
00:27:45,089 --> 00:27:47,119
Oh

663
00:27:52,230 --> 00:27:54,289
you