

The Skeptic Zone
Show 375 - 27 Dec 2015



Karl Kruszelnicki
Richard Saunders

1
00:00:22,490 --> 00:00:09,089
welcome to the skeptic zone the podcast

2
00:00:29,370 --> 00:00:25,260
hello and welcome to the skeptic zone

3
00:00:34,020 --> 00:00:29,380
episode number 375 for the 27th of

4
00:00:38,940 --> 00:00:34,030
December 2015 the last skeptic zone 4

5
00:00:42,180 --> 00:00:38,950
2015 and to round off 2015 we have a

6
00:00:43,920 --> 00:00:42,190
special episode of special dr. Carl dr.

7
00:00:47,100 --> 00:00:43,930
Cohen are those people in Australia I

8
00:00:49,710 --> 00:00:47,110
don't need any prompting to know who dr.

9
00:00:52,170 --> 00:00:49,720
Carl is for those people listening

10
00:00:55,410 --> 00:00:52,180
internationally who may not caught up

11
00:00:58,860 --> 00:00:55,420
with dr. Carl I guess one way to look at

12
00:01:01,920 --> 00:00:58,870
him is that he's the Australian Bill Nye

13
00:01:04,680 --> 00:01:01,930

or Bill Nye is the American dr. Carl

14

00:01:07,530 --> 00:01:04,690

something like that he has been a media

15

00:01:10,859 --> 00:01:07,540

presence in Australian homes for decades

16

00:01:12,930 --> 00:01:10,869

and he always has something interesting

17

00:01:16,109 --> 00:01:12,940

to say a strong supporter of science and

18

00:01:19,200 --> 00:01:16,119

indeed he is a previous recipient of

19

00:01:22,039 --> 00:01:19,210

Australian skeptic of the year so this

20

00:01:24,390 --> 00:01:22,049

episode of the skeptic zone is a special

21

00:01:26,640 --> 00:01:24,400

conversation with dr. Carl dr. Carl

22

00:01:27,980 --> 00:01:26,650

crucial miss key I caught up with him

23

00:01:31,950 --> 00:01:27,990

just the other day at Sydney University

24

00:01:35,039 --> 00:01:31,960

and we chatted about chocolate naked

25

00:01:37,670 --> 00:01:35,049

mole rats the gullible generation human

26
00:01:41,130 --> 00:01:37,680
evolution DNA Arnold Schwarzenegger and

27
00:01:45,180 --> 00:01:41,140
much more but now it's time for me to

28
00:01:48,630 --> 00:01:45,190
run downstairs make up some chocolate

29
00:01:50,820 --> 00:01:48,640
chip pancakes oh yes well I'm doing that

30
00:02:12,520 --> 00:01:50,830
I hope you enjoy this episode of the

31
00:02:18,080 --> 00:02:16,370
so I'm here at Sydney Uni enjoying some

32
00:02:20,960 --> 00:02:18,090
chocolate and coffee with none other

33
00:02:23,330 --> 00:02:20,970
than dr. Carl hello dr. Carl Hawaii with

34
00:02:25,010 --> 00:02:23,340
my mouth full of chocolate I have this

35
00:02:27,380 --> 00:02:25,020
perverse thing where I like to maximize

36
00:02:30,500 --> 00:02:27,390
the pleasure and so I let it melt in my

37
00:02:33,410 --> 00:02:30,510
mouth now this is one of god's little

38
00:02:35,990 --> 00:02:33,420

jokes again there are six main

39

00:02:37,699 --> 00:02:36,000

crystalline forms of chocolate and the

40

00:02:38,930 --> 00:02:37,709

one that's the most delicious the one of

41

00:02:40,280 --> 00:02:38,940

melts in your mouth and there's a range

42

00:02:44,449 --> 00:02:40,290

ranging from Molly in your mouth all the

43

00:02:45,620 --> 00:02:44,459

way to something like candle wax the one

44

00:02:48,350 --> 00:02:45,630

that melts in your mouth is the most

45

00:02:51,470 --> 00:02:48,360

unstable once again got one of god's

46

00:02:53,900 --> 00:02:51,480

little jokes jugaad is just full of it

47

00:02:55,880 --> 00:02:53,910

mature audiences yeah really stuffed up

48

00:02:57,830 --> 00:02:55,890

on the knee joint hip joint I can go

49

00:03:00,470 --> 00:02:57,840

with and they joined forget it maybe you

50

00:03:03,770 --> 00:03:00,480

must have a holiday I saw you talking

51
00:03:05,990 --> 00:03:03,780
about the body and things like this I

52
00:03:07,850 --> 00:03:06,000
saw you just the other day on TV talking

53
00:03:10,430 --> 00:03:07,860
about the naked mole rat and immortality

54
00:03:13,910 --> 00:03:10,440
ah now that's after they come all right

55
00:03:15,319 --> 00:03:13,920
yeah so what's the deal with the naked

56
00:03:16,880 --> 00:03:15,329
mole rat you're saying it's not naked

57
00:03:18,710 --> 00:03:16,890
it's not a mole it's not a rat for

58
00:03:21,860 --> 00:03:18,720
beginners ok it's not naked because it

59
00:03:23,539 --> 00:03:21,870
has hair oh when I say here you know

60
00:03:26,900 --> 00:03:23,549
I've got a hundred thousand hairs on our

61
00:03:28,039 --> 00:03:26,910
scholar at least you do and about 5

62
00:03:30,020 --> 00:03:28,049
million all together on your body but

63
00:03:32,150 --> 00:03:30,030

most of them are invisible this is got a

64

00:03:35,330 --> 00:03:32,160

hundred hair's not 100 million 100 so

65

00:03:37,580 --> 00:03:35,340

it's not fully naked as close my all is

66

00:03:39,380 --> 00:03:37,590

on a mole rat it's not a wrap it

67

00:03:41,000 --> 00:03:39,390

basically looks like a small sausage

68

00:03:43,550 --> 00:03:41,010

that you cook at a barbecue with saber

69

00:03:45,860 --> 00:03:43,560

teeth on one end mm-hmm and it's really

70

00:03:47,569 --> 00:03:45,870

weird hmm that last bit of shock is

71

00:03:50,000 --> 00:03:47,579

coming down nicely there's good

72

00:03:52,940 --> 00:03:50,010

chocolate yeah well in else it's

73

00:03:55,580 --> 00:03:52,950

probably loaded with things but nervous

74

00:03:58,539 --> 00:03:55,590

you know so moving right along the naked

75

00:04:02,539 --> 00:03:58,549

mole rat does not get cancer it does not

76

00:04:07,670 --> 00:04:02,549

get older so you and I a born grow to

77

00:04:11,030 --> 00:04:07,680

adulthood and then the skin goes gets

78

00:04:13,340 --> 00:04:11,040

thinner the muscles weaken the oysters

79

00:04:16,690 --> 00:04:13,350

flexibility they begin to wear out the

80

00:04:18,920 --> 00:04:16,700

hair goes the makeup of hormones go

81

00:04:19,319 --> 00:04:18,930

everything gradually was down once

82

00:04:23,689 --> 00:04:19,329

you've

83

00:04:27,179 --> 00:04:23,699

aged peak sexual reproducibility however

84

00:04:29,999 --> 00:04:27,189

with the naked mole rat it sort of grows

85

00:04:33,089 --> 00:04:30,009

by the way for rats of that size rodents

86

00:04:34,860 --> 00:04:33,099

the average age that they get to is

87

00:04:36,839 --> 00:04:34,870

about one the half years and then ninety

88

00:04:38,429 --> 00:04:36,849

percent died of cancer hmhm ninety

89

00:04:40,980 --> 00:04:38,439

percent humans about ten to fifteen

90

00:04:44,490 --> 00:04:40,990

percent naked mole rat 0 so they get to

91

00:04:48,179 --> 00:04:44,500

be adults and then they just get older

92

00:04:50,969 --> 00:04:48,189

they do not show any other signs of

93

00:04:53,369 --> 00:04:50,979

aging they just get older and you get

94

00:04:55,770 --> 00:04:53,379

past one and a half years and up to one

95

00:04:58,080 --> 00:04:55,780

and a half decades how do you a need

96

00:04:59,490 --> 00:04:58,090

something that doesn't get older if you

97

00:05:00,779 --> 00:04:59,500

come across a naked mall right how would

98

00:05:02,760 --> 00:05:00,789

you determine how old it don't know

99

00:05:04,200 --> 00:05:02,770

you'd have to look at the literature I

100

00:05:06,689 --> 00:05:04,210

reckon they might put a little Nixon

101
00:05:08,399 --> 00:05:06,699
years or something like that so they'd

102
00:05:10,469 --> 00:05:08,409
have to tag them and keep town some way

103
00:05:14,700 --> 00:05:10,479
but they get to be 30 years of age

104
00:05:17,219 --> 00:05:14,710
without any signs of aging 30-34 a

105
00:05:19,559 --> 00:05:17,229
little mammal fredo mountain and no

106
00:05:21,480 --> 00:05:19,569
signs of aging and we don't know why and

107
00:05:23,339 --> 00:05:21,490
so do they died we don't know why they

108
00:05:24,869 --> 00:05:23,349
also don't do thermoregulation like you

109
00:05:28,379 --> 00:05:24,879
only I try to keep our temperature

110
00:05:29,839 --> 00:05:28,389
constant around 37 there 32 which is the

111
00:05:32,969 --> 00:05:29,849
temperature of where they live which is

112
00:05:35,040 --> 00:05:32,979
top right-hand corner of Africa I know

113
00:05:37,379 --> 00:05:35,050

that the geographers I saw having hissy

114

00:05:39,480 --> 00:05:37,389

fits at this stage okay the north or

115

00:05:42,170 --> 00:05:39,490

west if you like snow north otago

116

00:05:44,909 --> 00:05:42,180

northeast then livin the high plateaus

117

00:05:46,430 --> 00:05:44,919

underground and they've been there for

118

00:05:48,899 --> 00:05:46,440

about two and half million years and

119

00:05:53,010 --> 00:05:48,909

they just build these tunnels kilometres

120

00:05:54,149 --> 00:05:53,020

long and the as a result have one

121

00:05:57,420 --> 00:05:54,159

quarter of all their muscles in their

122

00:05:58,619 --> 00:05:57,430

jaw we have it in our legs and they just

123

00:06:01,019 --> 00:05:58,629

make these tunnels and then the ground

124

00:06:03,149 --> 00:06:01,029

does their summer irrigation for them

125

00:06:05,360 --> 00:06:03,159

they also don't feel chemical pain so

126
00:06:07,649 --> 00:06:05,370
you think what's the chemical pain well

127
00:06:09,540 --> 00:06:07,659
there's different sorts of pain is sharp

128
00:06:11,579 --> 00:06:09,550
pain there's dull pain and there's

129
00:06:13,709 --> 00:06:11,589
chemical pain like burning they don't

130
00:06:15,659 --> 00:06:13,719
get that acid burning pain which is

131
00:06:17,689 --> 00:06:15,669
essential for them because while you and

132
00:06:19,800 --> 00:06:17,699
I enjoy in inverted commas and

133
00:06:21,930 --> 00:06:19,810
atmosphere was an in

134
00:06:24,990 --> 00:06:21,940
carbon dioxide level of 400 parts per

135
00:06:27,240 --> 00:06:25,000
million they're not 400 there fifty

136
00:06:28,890 --> 00:06:27,250
thousand five percent and you and I

137
00:06:30,570 --> 00:06:28,900
would be very shortly dead from that

138
00:06:32,520 --> 00:06:30,580

they don't die from it and that it's

139

00:06:35,970 --> 00:06:32,530

only pain and the relevance of this to

140

00:06:40,350 --> 00:06:35,980

humans is that some of the nerves

141

00:06:44,250 --> 00:06:40,360

associated with post-traumatic pain seem

142

00:06:46,080 --> 00:06:44,260

to be chemical sensing nerves if we can

143

00:06:48,680 --> 00:06:46,090

understand how they work and don't work

144

00:06:50,909 --> 00:06:48,690

then maybe we can relieve this in humans

145

00:06:52,469 --> 00:06:50,919

there are some sorts of pain that we

146

00:06:55,230 --> 00:06:52,479

cannot relieve in humans unfortunately

147

00:06:56,940 --> 00:06:55,240

and this sort of post-traumatic pain

148

00:06:58,680 --> 00:06:56,950

we've had an injury the injury heals and

149

00:06:59,879 --> 00:06:58,690

still a pain is there there's no point

150

00:07:01,620 --> 00:06:59,889

in having the pain you don't need to

151
00:07:03,600 --> 00:07:01,630
have it like a phantom pain our

152
00:07:06,240 --> 00:07:03,610
different ago different just woke up a

153
00:07:09,659 --> 00:07:06,250
story on another family that doesn't

154
00:07:11,400 --> 00:07:09,669
have pain any pain at all but anyway

155
00:07:13,879 --> 00:07:11,410
this is a source for another time and

156
00:07:17,640 --> 00:07:13,889
they don't have any subcutaneous fat and

157
00:07:19,469 --> 00:07:17,650
they live in a weird beehive like

158
00:07:21,930 --> 00:07:19,479
existence where there's one female who

159
00:07:23,610 --> 00:07:21,940
does all of sex or sexing and she has

160
00:07:24,960 --> 00:07:23,620
all the babies and nobody else has

161
00:07:26,940 --> 00:07:24,970
babies and everybody's in the hive

162
00:07:28,770 --> 00:07:26,950
structure and they they like bees there

163
00:07:31,850 --> 00:07:28,780

are workers yeah they're like these the

164

00:07:34,170 --> 00:07:31,860

only mammal that does this and then they

165

00:07:36,029 --> 00:07:34,180

don't get cancer we don't know what a

166

00:07:39,029 --> 00:07:36,039

couple of theories we don't know why so

167

00:07:40,350 --> 00:07:39,039

this is just showing that there's so

168

00:07:42,960 --> 00:07:40,360

many more exciting things to discover

169

00:07:44,430 --> 00:07:42,970

inside now let's use this as a bit of a

170

00:07:46,620 --> 00:07:44,440

segue we're not talking about animals

171

00:07:49,290 --> 00:07:46,630

that don't get cancer and there's a

172

00:07:51,570 --> 00:07:49,300

common myth out there that sharks don't

173

00:07:54,840 --> 00:07:51,580

get cancer which led to people selling

174

00:07:56,909 --> 00:07:54,850

stuff called shock [h__h] and tablets or

175

00:07:58,320 --> 00:07:56,919

something God so let's use this as a

176

00:08:01,200 --> 00:07:58,330

segue to talk about what you've been

177

00:08:03,240 --> 00:08:01,210

talking about lately which is loosely

178

00:08:05,820 --> 00:08:03,250

termed the gullible generation but it

179

00:08:09,890 --> 00:08:05,830

should be the gullible generation yes so

180

00:08:14,250 --> 00:08:09,900

if you go way back to the Great Fire of

181

00:08:17,159 --> 00:08:14,260

Rome and Nero's out of town and then

182

00:08:19,290 --> 00:08:17,169

they're having won their celebrations at

183

00:08:21,810 --> 00:08:19,300

the Circus Maximus if you been to Rome

184

00:08:23,700 --> 00:08:21,820

oh it's amazing oh yeah at the Coliseum

185

00:08:26,190 --> 00:08:23,710

which could take 70,000 people that's

186

00:08:28,620 --> 00:08:26,200

the size almost as the melbourne cricket

187

00:08:29,760 --> 00:08:28,630

ground right hmm you can take 70,000

188

00:08:32,969 --> 00:08:29,770

people eat

189

00:08:36,630 --> 00:08:32,979

they had it set up so that in a morning

190

00:08:39,180 --> 00:08:36,640

you could have boat races and Wars so

191

00:08:42,269 --> 00:08:39,190

good yeah and so they could kill each

192

00:08:43,469 --> 00:08:42,279

other and isn't drown after the

193

00:08:45,060 --> 00:08:43,479

amusement of the populace and then

194

00:08:46,920 --> 00:08:45,070

everybody go out and have lunch then

195

00:08:49,440 --> 00:08:46,930

come back and then be all dry and then

196

00:08:51,240 --> 00:08:49,450

you'd have a whole bunch of people fired

197

00:08:53,400 --> 00:08:51,250

the gladiators fighting the Lions and

198

00:08:56,670 --> 00:08:53,410

literally people flying through the air

199

00:08:58,410 --> 00:08:56,680

without ropes I heard that they would

200

00:09:01,590 --> 00:08:58,420

get up to extraordinary things are very

201
00:09:02,970 --> 00:09:01,600
creative mmmmmm amazing by the way the

202
00:09:04,769 --> 00:09:02,980
flight through the year without ropes

203
00:09:07,290 --> 00:09:04,779
was very simple they just got some poor

204
00:09:08,519 --> 00:09:07,300
bugger made him wear some wings got him

205
00:09:11,000 --> 00:09:08,529
on a catapult him through through the

206
00:09:14,280 --> 00:09:11,010
air everything was fine until he landed

207
00:09:16,980 --> 00:09:14,290
but we could laugh Nellie I know this is

208
00:09:19,050 --> 00:09:16,990
tough times but it was 10 times the

209
00:09:22,560 --> 00:09:19,060
Coliseum was big the Circus Maximus was

210
00:09:24,360 --> 00:09:22,570
bigger 150,000 people it was basically

211
00:09:26,610 --> 00:09:24,370
an oval and people go racing up and down

212
00:09:27,810 --> 00:09:26,620
the oval and around and around and so

213
00:09:29,819 --> 00:09:27,820

they were gearing up for one of the big

214

00:09:31,710 --> 00:09:29,829

circus maximus festivals and they're all

215

00:09:34,079 --> 00:09:31,720

these people selling food on the streets

216

00:09:35,790 --> 00:09:34,089

and it's thought of the fire arose from

217

00:09:38,370 --> 00:09:35,800

one of the food sellers on the streets

218

00:09:41,100 --> 00:09:38,380

hmm Nero's out of town comes back starts

219

00:09:43,079 --> 00:09:41,110

organizing stuff and then all the rumors

220

00:09:45,780 --> 00:09:43,089

start going that he actually said the

221

00:09:48,150 --> 00:09:45,790

fire so that you get land that he could

222

00:09:50,460 --> 00:09:48,160

then use for his own palaces but he

223

00:09:52,050 --> 00:09:50,470

didn't excuse he just kill anybody so

224

00:09:54,329 --> 00:09:52,060

that was one of the first cases i come

225

00:09:56,190 --> 00:09:54,339

across of a whole bunch of different

226

00:09:58,410 --> 00:09:56,200

rumors all of which is agree with each

227

00:10:01,470 --> 00:09:58,420

other about the real of course of what's

228

00:10:03,510 --> 00:10:01,480

going on then we move on some 1600 years

229

00:10:05,490 --> 00:10:03,520

for the great fire of london and there's

230

00:10:09,120 --> 00:10:05,500

some poor guy called Richard Herbert so

231

00:10:13,110 --> 00:10:09,130

Richard herbs picked up because he's

232

00:10:14,610 --> 00:10:13,120

both a Catholic which wasn't popular in

233

00:10:16,519 --> 00:10:14,620

England at their time and also a

234

00:10:19,319 --> 00:10:16,529

Frenchman though having this second

235

00:10:20,940 --> 00:10:19,329

anglo-dutch war and the French roll over

236

00:10:23,730 --> 00:10:20,950

the Dutch and so after a little bit of

237

00:10:26,100 --> 00:10:23,740

torture he confessed to having started

238

00:10:27,870 --> 00:10:26,110

the fire in Westminster to problems the

239

00:10:30,389 --> 00:10:27,880

fire actually started a bakery in

240

00:10:31,710 --> 00:10:30,399

pudding Lane and thousands of Allah

241

00:10:33,920 --> 00:10:31,720

thousands but hundreds of witnesses

242

00:10:37,050 --> 00:10:33,930

attested to this and secondly

243

00:10:38,610 --> 00:10:37,060

Westminster was that no stage infected

244

00:10:40,750 --> 00:10:38,620

by the fire it completely missed out on

245

00:10:42,280 --> 00:10:40,760

the fire so they realize that

246

00:10:44,380 --> 00:10:42,290

made a mistake tortured him a bit more

247

00:10:47,650 --> 00:10:44,390

and then he confessed to starting the

248

00:10:49,690 --> 00:10:47,660

fire by throwing a fire grenade through

249

00:10:51,220 --> 00:10:49,700

an open window in the bakery on pudding

250

00:10:54,760 --> 00:10:51,230

Lane and the problems was that were

251
00:10:55,810 --> 00:10:54,770
firstly the bakery had no windows

252
00:10:56,920 --> 00:10:55,820
secondly he was crippled in his

253
00:10:59,290 --> 00:10:56,930
shoulders so he couldn't throw anything

254
00:11:01,390 --> 00:10:59,300
thirdly he didn't land in the United

255
00:11:04,060 --> 00:11:01,400
Kingdom or the or Great Britain until

256
00:11:06,760 --> 00:11:04,070
two days after fire started but he was

257
00:11:08,560 --> 00:11:06,770
guilty of being a Catholic and French

258
00:11:11,020 --> 00:11:08,570
and so therefore he got home and the

259
00:11:14,410 --> 00:11:11,030
rumor was so powerful that the populace

260
00:11:16,420 --> 00:11:14,420
was so infuriated with him that as his

261
00:11:19,030 --> 00:11:16,430
body was lowered from the gala as they

262
00:11:20,590 --> 00:11:19,040
tore him apart literally while he was

263
00:11:22,180 --> 00:11:20,600

still sort of twitching away they tore

264

00:11:23,920 --> 00:11:22,190

him to pieces nothing's changed I mean

265

00:11:26,550 --> 00:11:23,930

we get these rumors going around

266

00:11:29,080 --> 00:11:26,560

especially now in social media and

267

00:11:30,760 --> 00:11:29,090

people still would rather cling onto the

268

00:11:32,530 --> 00:11:30,770

first thing they read as fact and and

269

00:11:35,380 --> 00:11:32,540

and then proceed down that line it's

270

00:11:36,910 --> 00:11:35,390

quite staggering it is strange it

271

00:11:39,160 --> 00:11:36,920

continues in the Middle Ages like the

272

00:11:40,750 --> 00:11:39,170

classic case or more recently is that

273

00:11:43,300 --> 00:11:40,760

the ancients used to think that the

274

00:11:45,490 --> 00:11:43,310

world was flat if you read my 25th book

275

00:11:47,500 --> 00:11:45,500

that turns out that that was started

276

00:11:49,960 --> 00:11:47,510

both simultaneously by coincidence in

277

00:11:52,330 --> 00:11:49,970

both England no in both France and the

278

00:11:54,370 --> 00:11:52,340

United States as an example of hey here

279

00:11:56,860 --> 00:11:54,380

we are in 1880 we are masters of the

280

00:11:58,030 --> 00:11:56,870

universe god we are so sophisticated you

281

00:11:59,470 --> 00:11:58,040

know back in the old days I used to

282

00:12:01,000 --> 00:11:59,480

think the world was flat right and it

283

00:12:02,680 --> 00:12:01,010

didn't like anybody who's taking a

284

00:12:04,270 --> 00:12:02,690

sailing boat out to sea yeah and you see

285

00:12:06,340 --> 00:12:04,280

a ship come over the horizon firstly you

286

00:12:07,990 --> 00:12:06,350

see the tip of the mast in easier yo

287

00:12:10,150 --> 00:12:08,000

they knew the world was read that was

288

00:12:12,100 --> 00:12:10,160

put to me once it was but somebody said

289

00:12:13,810 --> 00:12:12,110

are you skeptics you think you're so

290

00:12:16,330 --> 00:12:13,820

clever you used you people used to think

291

00:12:18,880 --> 00:12:16,340

the world was flat and now I'm shaking

292

00:12:20,650 --> 00:12:18,890

wedding how do I even reply to such a

293

00:12:22,420 --> 00:12:20,660

silly you know he said they're wrong

294

00:12:24,880 --> 00:12:22,430

which is hard because then you offend

295

00:12:26,470 --> 00:12:24,890

them and then following 120 years of

296

00:12:28,870 --> 00:12:26,480

letters to the editor the New York Times

297

00:12:30,850 --> 00:12:28,880

beginning in 1880 up to the present a

298

00:12:32,620 --> 00:12:30,860

whole bunch of conspiracy theories come

299

00:12:35,620 --> 00:12:32,630

up near different conspiracy theories

300

00:12:38,110 --> 00:12:35,630

sometimes it's the white sex trade

301
00:12:40,930 --> 00:12:38,120
against innocent females now sometimes

302
00:12:43,600 --> 00:12:40,940
as the the big business is trying to

303
00:12:45,730 --> 00:12:43,610
take over the running of the world in

304
00:12:47,470 --> 00:12:45,740
bar fights political influence then it's

305
00:12:49,980 --> 00:12:47,480
the Reds under the bed the Communists

306
00:12:52,320 --> 00:12:49,990
and then there's the Japanese men

307
00:12:54,720 --> 00:12:52,330
in Chinese menace and then there's a

308
00:12:56,070 --> 00:12:54,730
vietnamese medicine then it's the drug

309
00:12:57,449 --> 00:12:56,080
menace and there's all these conspiracy

310
00:12:58,769 --> 00:12:57,459
theories of pop up and go there and then

311
00:13:01,290 --> 00:12:58,779
there are little spikes in the system

312
00:13:02,970 --> 00:13:01,300
yeah and currently the most popular one

313
00:13:07,290 --> 00:13:02,980

is that the government can't be trusted

314

00:13:11,400 --> 00:13:07,300

in anything and so I see the media is

315

00:13:13,019 --> 00:13:11,410

being a way of spreading the myths to

316

00:13:17,269 --> 00:13:13,029

the gold ball more quickly so before it

317

00:13:19,800 --> 00:13:17,279

used to take weeks or years like I had a

318

00:13:21,840 --> 00:13:19,810

friend who was a car mechanic made of

319

00:13:22,980 --> 00:13:21,850

mine and he was really the car mechanics

320

00:13:25,139 --> 00:13:22,990

are not much into anything else in about

321

00:13:27,090 --> 00:13:25,149

15 years after everybody else he started

322

00:13:30,600 --> 00:13:27,100

getting into the big business conspiracy

323

00:13:33,240 --> 00:13:30,610

anybody saying oh no that's so 1985 man

324

00:13:34,980 --> 00:13:33,250

to see you 2,000 now and so it does he

325

00:13:37,079 --> 00:13:34,990

have the social media it gets everybody

326

00:13:40,350 --> 00:13:37,089

up to speed immediately yeah yeah yeah

327

00:13:44,010 --> 00:13:40,360

oh and it's so we have a whole bunch of

328

00:13:48,120 --> 00:13:44,020

myths and they seem to arise either from

329

00:13:51,840 --> 00:13:48,130

the media itself trying to get stories

330

00:13:54,480 --> 00:13:51,850

out or from false marketing false

331

00:13:56,370 --> 00:13:54,490

advertising false publicity as well as

332

00:13:58,199 --> 00:13:56,380

human frailties yeah like you've

333

00:14:00,690 --> 00:13:58,209

probably seen the video where there's a

334

00:14:03,780 --> 00:14:00,700

bunch of people playing the game of

335

00:14:05,970 --> 00:14:03,790

american football basketball us and you

336

00:14:07,740 --> 00:14:05,980

gotta count the number of albums a ball

337

00:14:09,329 --> 00:14:07,750

go yeah and you're busy concentrating on

338

00:14:11,040 --> 00:14:09,339

how many times as a ball is bounced by

339

00:14:12,090 --> 00:14:11,050

the White team yeah because I trading on

340

00:14:15,960 --> 00:14:12,100

what the people and why they're doing

341

00:14:17,040 --> 00:14:15,970

and then this black guerilla walks into

342

00:14:18,990 --> 00:14:17,050

the middle like a human in a black

343

00:14:20,970 --> 00:14:19,000

gorilla suit walks through stops face of

344

00:14:22,050 --> 00:14:20,980

the camera bends down bangs himself or

345

00:14:23,880 --> 00:14:22,060

herself on the chest and then

346

00:14:25,410 --> 00:14:23,890

straightens up and walks off what's and

347

00:14:27,660 --> 00:14:25,420

half the audience don't see that it

348

00:14:29,010 --> 00:14:27,670

called attention blindness or some

349

00:14:30,660 --> 00:14:29,020

phrase like that way you're so focused

350

00:14:33,210 --> 00:14:30,670

on one thing something else can happen

351

00:14:34,650 --> 00:14:33,220

which is completely not registered on

352

00:14:36,269 --> 00:14:34,660

and that's symptomatic of the fact that

353

00:14:39,900 --> 00:14:36,279

all you see in reality the whole world

354

00:14:42,480 --> 00:14:39,910

is and I use the word see literally in

355

00:14:44,460 --> 00:14:42,490

the vision sense all you see is an area

356

00:14:45,840 --> 00:14:44,470

the size of your thumbnail when you hold

357

00:14:47,370 --> 00:14:45,850

your arm out so if you get your arm and

358

00:14:49,319 --> 00:14:47,380

hold it all the way out and you look at

359

00:14:52,350 --> 00:14:49,329

your thumb about mostly best part of a

360

00:14:53,850 --> 00:14:52,360

meter away from you that size of the

361

00:14:55,560 --> 00:14:53,860

thumbnail is all you see in focus

362

00:14:56,940 --> 00:14:55,570

everything else well you walk in the

363

00:14:59,100 --> 00:14:56,950

room and you your eyes went flicker

364

00:15:01,330 --> 00:14:59,110

flicker flicker Oh cars got pink pipes

365

00:15:03,250 --> 00:15:01,340

in a bright orange office with

366

00:15:05,140 --> 00:15:03,260

basically I saw the cardboard cutouts

367

00:15:07,450 --> 00:15:05,150

behind you that's yeah hang on don't

368

00:15:09,280 --> 00:15:07,460

speak just ate a mate she's hot and so

369

00:15:11,740 --> 00:15:09,290

then you flick around and then you build

370

00:15:14,740 --> 00:15:11,750

up this virtual reality yeah all you see

371

00:15:17,290 --> 00:15:14,750

in focus at any given moment sharp 3d

372

00:15:18,970 --> 00:15:17,300

focus is an area the size of your thumb

373

00:15:20,710 --> 00:15:18,980

touches all you really have to write but

374

00:15:24,280 --> 00:15:20,720

there you can't your brain cannot handle

375

00:15:26,380 --> 00:15:24,290

anymore no no data there is so huge that

376

00:15:27,790 --> 00:15:26,390

your brain has to simplify it out and

377

00:15:29,980 --> 00:15:27,800

then just to alert you to the fact that

378

00:15:32,260 --> 00:15:29,990

there might be a killer carrot or rabbit

379

00:15:33,910 --> 00:15:32,270

on the side you've got motion to take

380

00:15:36,070 --> 00:15:33,920

divvy up there you see I something's

381

00:15:38,140 --> 00:15:36,080

clicking right field or left field all

382

00:15:39,310 --> 00:15:38,150

swivel over and look at and suddenly

383

00:15:42,190 --> 00:15:39,320

that's where you bring your thumbnail of

384

00:15:44,920 --> 00:15:42,200

attention to yeah so the other factor

385

00:15:47,500 --> 00:15:44,930

involved in why we go for conspiracy

386

00:15:50,910 --> 00:15:47,510

theories is that not only is our vision

387

00:15:52,930 --> 00:15:50,920

so complex the brain has to do massive

388

00:15:54,190 --> 00:15:52,940

simplifications the whole universe is

389

00:15:56,770 --> 00:15:54,200

complicated and we've got to simplify

390

00:15:59,890 --> 00:15:56,780

everything down and so with regard to

391

00:16:01,720 --> 00:15:59,900

visual illusions I like Carl Tyson

392

00:16:04,990 --> 00:16:01,730

degrassi or degrassi Tyson which one is

393

00:16:06,760 --> 00:16:05,000

video Neil like a university guess what

394

00:16:08,350 --> 00:16:06,770

I got one out of three right I can

395

00:16:09,970 --> 00:16:08,360

understand why you mixed up Carl me

396

00:16:12,690 --> 00:16:09,980

because he was a student in Carl seguir

397

00:16:15,280 --> 00:16:12,700

ok so he said you shouldn't call them

398

00:16:18,850 --> 00:16:15,290

optical illusions but brain failures and

399

00:16:22,300 --> 00:16:18,860

they are so the basic concept is that

400

00:16:24,040 --> 00:16:22,310

the universe is hideously complex and we

401

00:16:25,510 --> 00:16:24,050

just try to make up theories to

402

00:16:28,060 --> 00:16:25,520

understand what's going on and we got

403

00:16:29,740 --> 00:16:28,070

the media and the advertisers and the

404

00:16:33,330 --> 00:16:29,750

people with the vested interest telling

405

00:16:36,580 --> 00:16:33,340

lies to us lateral times and so you know

406

00:16:39,190 --> 00:16:36,590

rather than saying look I know you like

407

00:16:41,710 --> 00:16:39,200

sweet drinks here's a sweet drink drink

408

00:16:43,390 --> 00:16:41,720

coconut water they say oh coconut water

409

00:16:45,580 --> 00:16:43,400

will cure sunstroke civiles varicose

410

00:16:47,440 --> 00:16:45,590

veins and cancer and will make your

411

00:16:49,690 --> 00:16:47,450

handwriting better ignore the fact that

412

00:16:52,090 --> 00:16:49,700

as a sweet drink oh okay I'll buy a

413

00:16:54,730 --> 00:16:52,100

cubic meter of coconut water also these

414

00:16:56,650 --> 00:16:54,740

things like the superfood it's it's so

415

00:16:58,450 --> 00:16:56,660

seductive isn't it eat this it's a

416

00:17:00,730 --> 00:16:58,460

superfood by the word server should be

417

00:17:03,620 --> 00:17:00,740

only used in super man's super

418

00:17:05,600 --> 00:17:03,630

conductivity maybe

419

00:17:08,360 --> 00:17:05,610

the phosphate and superannuation and

420

00:17:10,610 --> 00:17:08,370

that's about it oh I actually went

421

00:17:12,970 --> 00:17:10,620

reading through why chia seeds of super

422

00:17:15,530 --> 00:17:12,980

fit you in purchases is so two years ago

423

00:17:17,420 --> 00:17:15,540

you know what there are so many things

424

00:17:19,760 --> 00:17:17,430

that come and go that I can't cry as if

425

00:17:22,220 --> 00:17:19,770

everything cimarex the latest one oh

426

00:17:25,309 --> 00:17:22,230

really give me a break so with the chia

427

00:17:26,900 --> 00:17:25,319

seeds when they came out I went reading

428

00:17:30,340 --> 00:17:26,910

through what they had in them and

429

00:17:33,530 --> 00:17:30,350

they're fairly high in omega-3s which

430

00:17:36,350 --> 00:17:33,540

part of a well-balanced diet but to get

431

00:17:38,150 --> 00:17:36,360

what you need for your daily intake of

432

00:17:40,250 --> 00:17:38,160

the various things that they thought

433

00:17:43,460 --> 00:17:40,260

were very good in it you'd have to eat a

434

00:17:45,560 --> 00:17:43,470

hundred grams of these seeds a day now I

435

00:17:46,880 --> 00:17:45,570

have cheer seizures for phone co likely

436

00:17:48,920 --> 00:17:46,890

tasting i love the way that when you

437

00:17:51,650 --> 00:17:48,930

sprinkle water or yogurt on and they

438

00:17:53,840 --> 00:17:51,660

smell they swell by 17 times in volume

439

00:17:55,730 --> 00:17:53,850

and he give this nice gelatinous clearly

440

00:17:57,470 --> 00:17:55,740

and they go between your teeth and then

441

00:18:00,500 --> 00:17:57,480

after you've had them for breakfast so I

442

00:18:02,120 --> 00:18:00,510

cut up fruit and then various nuts and I

443

00:18:03,710 --> 00:18:02,130

have them and then they're between my

444

00:18:06,770 --> 00:18:03,720

teeth annoying the heck out of me and

445

00:18:09,110 --> 00:18:06,780

then it says okay calm use your dental

446

00:18:10,580 --> 00:18:09,120

floss remember and then up for students

447

00:18:12,680 --> 00:18:10,590

my dental floss right and I love him for

448

00:18:15,230 --> 00:18:12,690

that but to think that they will cure

449

00:18:16,520 --> 00:18:15,240

cancer so sorry it's a complete life but

450

00:18:18,410 --> 00:18:16,530

yeah they just sort of part of a

451
00:18:20,690 --> 00:18:18,420
balanced diet and your drift in and out

452
00:18:23,420 --> 00:18:20,700
of here and this the whole superfood

453
00:18:25,190 --> 00:18:23,430
seeing is crazy i can tell you what the

454
00:18:28,160 --> 00:18:25,200
next one is going to be yeah i bet you a

455
00:18:32,030 --> 00:18:28,170
dollar i'm right on this one hmm cashews

456
00:18:33,920 --> 00:18:32,040
cashews no cashew juice cashew juice now

457
00:18:35,720 --> 00:18:33,930
you know the cashew nut yeah it's a nice

458
00:18:39,140 --> 00:18:35,730
nutters got fats them you need a lot of

459
00:18:40,640 --> 00:18:39,150
cash used to make cashew jism ah so what

460
00:18:42,890 --> 00:18:40,650
happens is i read about this in the new

461
00:18:44,950 --> 00:18:42,900
york times a while ago so by the way i

462
00:18:48,290 --> 00:18:44,960
recommend people read this for fun it's

463
00:18:50,540 --> 00:18:48,300

tennis shoes 10 articles free a month or

464

00:18:52,580 --> 00:18:50,550

you put pay 15 bucks and it's all you

465

00:18:57,800 --> 00:18:52,590

can eat and they'll talk about how the

466

00:18:59,480 --> 00:18:57,810

various hora column fairy dust drink

467

00:19:01,400 --> 00:18:59,490

manufacturers so I've done geeks with

468

00:19:03,230 --> 00:19:01,410

these people you have the big soft drink

469

00:19:04,970 --> 00:19:03,240

people and they live among themselves

470

00:19:06,740 --> 00:19:04,980

right we just get water and we put a bit

471

00:19:09,590 --> 00:19:06,750

of fairy dust in me in the public fall

472

00:19:12,890 --> 00:19:09,600

for us bloody idiots so the fairy dust

473

00:19:15,450 --> 00:19:12,900

drink manufacturers right they either

474

00:19:18,019 --> 00:19:15,460

big ones have been buying up

475

00:19:20,909 --> 00:19:18,029

the cashew apples around the world so

476

00:19:22,320 --> 00:19:20,919

think of a plumber smallish plum so you

477

00:19:24,899 --> 00:19:22,330

can't do this thing that the size of a

478

00:19:27,600 --> 00:19:24,909

smallest plum and you rip out the cashew

479

00:19:29,789 --> 00:19:27,610

nut yes you didn't throw the rest of it

480

00:19:31,470 --> 00:19:29,799

away yeah and so what they're doing is

481

00:19:34,320 --> 00:19:31,480

buying up the rights for all of these

482

00:19:35,700 --> 00:19:34,330

cashew apples the witch squishy thing

483

00:19:39,149 --> 00:19:35,710

around the cashew nut that you eat is

484

00:19:41,970 --> 00:19:39,159

called the cashew apple and so the drink

485

00:19:43,289 --> 00:19:41,980

people are buying it up and in about six

486

00:19:45,450 --> 00:19:43,299

months to a year you're going to find

487

00:19:47,970 --> 00:19:45,460

that cash you juice causes cures

488

00:19:50,159 --> 00:19:47,980

everything it probably probably has

489

00:19:51,779 --> 00:19:50,169

already the next one so I'm being a

490

00:19:52,980 --> 00:19:51,789

dollar that it'll be the next super

491

00:19:55,950 --> 00:19:52,990

drink that'll come out and people or

492

00:19:57,330 --> 00:19:55,960

fall for it and in dubs you then will be

493

00:19:58,710 --> 00:19:57,340

involved with the market pyramid selling

494

00:20:00,899 --> 00:19:58,720

all the first oh you're getting back to

495

00:20:02,490 --> 00:20:00,909

your statement about the complexity of

496

00:20:04,200 --> 00:20:02,500

the universe it is complex and that's

497

00:20:07,620 --> 00:20:04,210

why I have to simplify the complexity of

498

00:20:09,990 --> 00:20:07,630

our modern society is far beyond what we

499

00:20:12,419 --> 00:20:10,000

evolved to do which is living on the

500

00:20:13,799 --> 00:20:12,429

plains and having babies having babe and

501
00:20:15,720 --> 00:20:13,809
in making it up babies for the next

502
00:20:17,460 --> 00:20:15,730
generation and that was it because I

503
00:20:20,580 --> 00:20:17,470
live after you 25 consider yourself

504
00:20:23,010 --> 00:20:20,590
lucky yeah yeah so this whole society we

505
00:20:25,110 --> 00:20:23,020
live in and it's increasingly so is far

506
00:20:27,180 --> 00:20:25,120
more complex than than we've been set up

507
00:20:29,820 --> 00:20:27,190
to deal with in a way sure and our

508
00:20:31,470 --> 00:20:29,830
brains are evolving if you read my 36th

509
00:20:35,610 --> 00:20:31,480
book house of cars it talks about the

510
00:20:38,039 --> 00:20:35,620
Flynn effect where brains with IQ is

511
00:20:40,710 --> 00:20:38,049
increasing by nine IQ points every

512
00:20:42,090 --> 00:20:40,720
generation and this is by John Flynn

513
00:20:46,320 --> 00:20:42,100

who's currently at the University of

514

00:20:47,490 --> 00:20:46,330

Otago and his seminal paper on us he

515

00:20:48,899 --> 00:20:47,500

wasn't the only one of few other people

516

00:20:52,320 --> 00:20:48,909

sort of hinted that but he was the first

517

00:20:55,460 --> 00:20:52,330

one to hit a big time he got hold of IQ

518

00:20:58,350 --> 00:20:55,470

records for the United States military

519

00:21:01,409 --> 00:20:58,360

everybody who invented who entered the

520

00:21:04,529 --> 00:21:01,419

United States military from 1932 on had

521

00:21:07,919 --> 00:21:04,539

to do an IQ test and what they found was

522

00:21:10,860 --> 00:21:07,929

the IQ test had to be increasingly made

523

00:21:13,710 --> 00:21:10,870

more difficult because what you do is

524

00:21:16,409 --> 00:21:13,720

you give her an IQ test two I don't

525

00:21:18,060 --> 00:21:16,419

2,000 people or 10,000 people and you're

526

00:21:21,269 --> 00:21:18,070

having their tests of knowledge what's

527

00:21:22,680 --> 00:21:21,279

the capital of Mexico and word associate

528

00:21:27,660 --> 00:21:22,690

word link

529

00:21:33,210 --> 00:21:27,670

Wisty test if sandwich is two foot lace

530

00:21:35,040 --> 00:21:33,220

so candolyn is to bovine and then yeah

531

00:21:37,440 --> 00:21:35,050

matrices and we go what is this

532

00:21:40,080 --> 00:21:37,450

expanding series a whole bunch of things

533

00:21:41,970 --> 00:21:40,090

and it's not perfect but it's a good

534

00:21:44,250 --> 00:21:41,980

first approximation and what you do is

535

00:21:46,980 --> 00:21:44,260

you send up so that the average of your

536

00:21:49,140 --> 00:21:46,990

entire population is a hundred so it was

537

00:21:50,670 --> 00:21:49,150

every IQ test every new version that

538

00:21:52,770 --> 00:21:50,680

comes out so i'll pick on one called the

539

00:21:56,010 --> 00:21:52,780

whisk WIC the wechsler intelligence

540

00:21:58,770 --> 00:21:56,020

scale of a at les's and it has been

541

00:22:01,050 --> 00:21:58,780

through whisk and whisk one two three

542

00:22:03,030 --> 00:22:01,060

four whatever and the average is a

543

00:22:06,150 --> 00:22:03,040

hundred and you've got two thirds of the

544

00:22:09,870 --> 00:22:06,160

population between 8515 and I'm in there

545

00:22:11,070 --> 00:22:09,880

I'm at 110 so my IQ is just barely above

546

00:22:12,720 --> 00:22:11,080

average I'm in there with the great

547

00:22:14,430 --> 00:22:12,730

unwashed at sixty-six percent of

548

00:22:16,650 --> 00:22:14,440

population and by the way just a little

549

00:22:19,650 --> 00:22:16,660

diversion here if anybody tells you

550

00:22:21,210 --> 00:22:19,660

there are Q is 160 Barse is a lie I've

551

00:22:23,250 --> 00:22:21,220

come across a few of them and I don't

552

00:22:24,780 --> 00:22:23,260

know why they love the number 160 but

553

00:22:26,910 --> 00:22:24,790

when you follow it through you finally

554

00:22:29,010 --> 00:22:26,920

just made the number up but anyway

555

00:22:31,050 --> 00:22:29,020

getting back to the IQ test yes and so

556

00:22:32,670 --> 00:22:31,060

they've had to be scaled up words by

557

00:22:34,890 --> 00:22:32,680

nine IQ points every city every

558

00:22:37,710 --> 00:22:34,900

generation it's a lot and it's not just

559

00:22:39,030 --> 00:22:37,720

in America it's in all of the developed

560

00:22:42,090 --> 00:22:39,040

countries of the world this is it a

561

00:22:45,240 --> 00:22:42,100

wealthy enough to afford giving out Q

562

00:22:47,730 --> 00:22:45,250

tests to a whole bunch put the pillows

563

00:22:50,880 --> 00:22:47,740

pacifica society we can't be evolved in

564

00:22:53,490 --> 00:22:50,890

that right we don't know well i'm using

565

00:22:57,390 --> 00:22:53,500

here as my role model wider definition

566

00:23:01,110 --> 00:22:57,400

of the word Ebola we will evolve

567

00:23:03,150 --> 00:23:01,120

epigenetics I i use Arnold

568

00:23:07,590 --> 00:23:03,160

Schwarzenegger as my role model for

569

00:23:11,280 --> 00:23:07,600

advice in things regarding renewable

570

00:23:14,580 --> 00:23:11,290

energy and hard work and he did not

571

00:23:17,670 --> 00:23:14,590

build up his muscles by lying on the

572

00:23:20,280 --> 00:23:17,680

lounge watching TV drinking beer and

573

00:23:22,230 --> 00:23:20,290

theeeen I really I really want some

574

00:23:23,460 --> 00:23:22,240

muscles I'll bring more beer no he

575

00:23:24,600 --> 00:23:23,470

actually went out and he worked at a

576

00:23:27,030 --> 00:23:24,610

regardless of what else he'd be

577

00:23:29,400 --> 00:23:27,040

certainly didn't work at it and what was

578

00:23:33,240 --> 00:23:29,410

wonderful about Arnold was that he was

579

00:23:35,250 --> 00:23:33,250

the first poor person who had symmetry

580

00:23:38,400 --> 00:23:35,260

so you'll notice that many actors

581

00:23:40,170 --> 00:23:38,410

our short so Tom Cruise for example

582

00:23:43,200 --> 00:23:40,180

beautiful symmetry you thought it was

583

00:23:44,970 --> 00:23:43,210

hard to get a big person now to be

584

00:23:47,550 --> 00:23:44,980

symmetrical so you look at his ab dose

585

00:23:49,230 --> 00:23:47,560

from the early days and he's got the six

586

00:23:51,360 --> 00:23:49,240

tendinous intersections and they dead

587

00:23:52,740 --> 00:23:51,370

square and he was symmetrical from one

588

00:23:54,180 --> 00:23:52,750

side the body to the other and he was

589

00:23:55,710 --> 00:23:54,190

the first tall person to be able to do

590

00:23:58,560 --> 00:23:55,720

that and if you've seen his movie

591

00:24:00,660 --> 00:23:58,570

pumping iron I have it at home I was

592

00:24:02,880 --> 00:24:00,670

great yeah so that's why I know he works

593

00:24:04,380 --> 00:24:02,890

out getting so there's an opening shot

594

00:24:07,290 --> 00:24:04,390

and the camera comes past these

595

00:24:10,470 --> 00:24:07,300

diminutive ladies ballerinas at a ballet

596

00:24:13,470 --> 00:24:10,480

bar and a sort of lady lady lady cameras

597

00:24:16,680 --> 00:24:13,480

patty log pad pad pad pad Arnold

598

00:24:18,840 --> 00:24:16,690

something is this guy his leg is equal

599

00:24:20,610 --> 00:24:18,850

to their mass right though they must

600

00:24:23,820 --> 00:24:20,620

wait 40 kilograms he's probably 120

601
00:24:25,830 --> 00:24:23,830
right at least he's just huge and he's

602
00:24:27,630 --> 00:24:25,840
working at the ballet bar on top of his

603
00:24:30,300 --> 00:24:27,640
muscle work to try and get himself

604
00:24:33,570 --> 00:24:30,310
symmetrical too square and so in the

605
00:24:36,600 --> 00:24:33,580
same way your muscles get bigger if you

606
00:24:39,510 --> 00:24:36,610
work at them so do I think does the

607
00:24:41,970 --> 00:24:39,520
brain and our society is providing the

608
00:24:43,860 --> 00:24:41,980
impetus so you don't pass that on to the

609
00:24:46,590 --> 00:24:43,870
next generation the society still

610
00:24:48,330 --> 00:24:46,600
connected oh well firstly you can why we

611
00:24:50,700 --> 00:24:48,340
already can via epigenetics you know the

612
00:24:53,160 --> 00:24:50,710
Dutch hunger winter remote that will

613
00:24:55,620 --> 00:24:53,170

come back there but the Society of sub

614

00:24:57,600 --> 00:24:55,630

is continually changing and so to chain

615

00:24:59,160 --> 00:24:57,610

know the answer is we don't know but

616

00:25:00,930 --> 00:24:59,170

here's two possible things number one

617

00:25:03,120 --> 00:25:00,940

back in the year nineteen hundred only

618

00:25:06,210 --> 00:25:03,130

three percent of people had jobs where

619

00:25:07,440 --> 00:25:06,220

they sat down and thought hmm and then

620

00:25:09,030 --> 00:25:07,450

they told the other ninety seven percent

621

00:25:12,990 --> 00:25:09,040

you go over there pick a little Vincent

622

00:25:14,670 --> 00:25:13,000

cameras nowadays 35% number two the

623

00:25:17,010 --> 00:25:14,680

world has become more abstract you go to

624

00:25:19,380 --> 00:25:17,020

a kid of 1900 you say hey kid if 1900

625

00:25:21,750 --> 00:25:19,390

cat dog tell me what's happening with a

626

00:25:24,300 --> 00:25:21,760

cat and a dog and the kiddo go the dog

627

00:25:26,160 --> 00:25:24,310

chases the cat today the kid will say

628

00:25:28,620 --> 00:25:26,170

well obviously they're both mammals yes

629

00:25:33,150 --> 00:25:28,630

so this is Zoe and the other factor is

630

00:25:34,920 --> 00:25:33,160

the epigenetic so where changes can be

631

00:25:37,830 --> 00:25:34,930

passed from generation to generation

632

00:25:39,870 --> 00:25:37,840

which almost sounds like Y Cinco ism so

633

00:25:40,680 --> 00:25:39,880

the DNA doesn't change but the way that

634

00:25:42,680 --> 00:25:40,690

it is red

635

00:25:45,360 --> 00:25:42,690

and this was seen in the various

636

00:25:47,310 --> 00:25:45,370

Scandinavian hunger winters but more

637

00:25:49,800 --> 00:25:47,320

recently the Dutch hunger winter there's

638

00:25:51,660 --> 00:25:49,810

a movie called a bridge too far about

639

00:25:53,310 --> 00:25:51,670

the Second World War we're trying to get

640

00:25:56,070 --> 00:25:53,320

to a bridge in Arnhem as in Arnhem Land

641

00:25:58,320 --> 00:25:56,080

but in this case in Holland Holland so

642

00:26:00,750 --> 00:25:58,330

the Second World War the tide has turned

643

00:26:01,980 --> 00:26:00,760

against the Nazis the Allies have hit

644

00:26:03,510 --> 00:26:01,990

the mainland of Europe they're heading

645

00:26:04,590 --> 00:26:03,520

for this bridge in Holland they're

646

00:26:06,630 --> 00:26:04,600

trying to get there before we do they

647

00:26:07,980 --> 00:26:06,640

don't get there but to help them the

648

00:26:11,040 --> 00:26:07,990

Dutch rise up against the nazi

649

00:26:12,810 --> 00:26:11,050

oppressors the Allies don't get there

650

00:26:16,470 --> 00:26:12,820

everybody stuck for winter it's an in

651
00:26:19,290 --> 00:26:16,480
commonly savage winter and then the the

652
00:26:21,210 --> 00:26:19,300
Nazis punish the Dutch by starving them

653
00:26:23,040 --> 00:26:21,220
and many people die and as you would

654
00:26:24,900 --> 00:26:23,050
expect in addition to people dying the

655
00:26:27,480 --> 00:26:24,910
old and the frail died the young and the

656
00:26:29,760 --> 00:26:27,490
frail die and women who are pregnant if

657
00:26:31,500 --> 00:26:29,770
they can survive give birth the smaller

658
00:26:33,060 --> 00:26:31,510
babies there's no surprise it's terrible

659
00:26:34,950 --> 00:26:33,070
there's no surprise what is surprising

660
00:26:37,590 --> 00:26:34,960
is when those babies grew up as women

661
00:26:39,540 --> 00:26:37,600
and had babies they had smaller babies

662
00:26:42,720 --> 00:26:39,550
and it continued to the next generation

663
00:26:45,180 --> 00:26:42,730

and this is called epigenetics so think

664

00:26:46,470 --> 00:26:45,190

of the DNA and there are hundreds of

665

00:26:47,970 --> 00:26:46,480

ways to think of it but in this is

666

00:26:52,200 --> 00:26:47,980

simplify thinking of the DNA as a

667

00:26:53,790 --> 00:26:52,210

blueprint and you choose to read this

668

00:26:56,070 --> 00:26:53,800

part of the blueprint differently so the

669

00:26:58,320 --> 00:26:56,080

blueprint is still there and it's called

670

00:27:00,540 --> 00:26:58,330

epigenetics and one form of epigenetics

671

00:27:03,660 --> 00:27:00,550

epi means around genetics is genetics is

672

00:27:05,820 --> 00:27:03,670

that you put methyl groups on two parts

673

00:27:09,420 --> 00:27:05,830

of the DNA and that affects how they're

674

00:27:12,450 --> 00:27:09,430

red and so it might be that in your case

675

00:27:14,760 --> 00:27:12,460

at a certain stage the volume knob for

676
00:27:18,270 --> 00:27:14,770
producing growth hormone was turned on

677
00:27:21,540 --> 00:27:18,280
and yet for these babies they've still

678
00:27:24,630 --> 00:27:21,550
got the part of the brain that makes

679
00:27:27,120 --> 00:27:24,640
growth hormone but the volume knob was

680
00:27:28,980 --> 00:27:27,130
turned out so there was a methyl group

681
00:27:31,530 --> 00:27:28,990
stuck on to the bit of the DNA saying

682
00:27:34,470 --> 00:27:31,540
from the mother but this is a bad time

683
00:27:36,120 --> 00:27:34,480
to grow babies I'm going to make you

684
00:27:37,200 --> 00:27:36,130
small as well and you make your children

685
00:27:40,050 --> 00:27:37,210
small and after a couple of generations

686
00:27:41,880 --> 00:27:40,060
you'll revert to the mean so there is a

687
00:27:44,820 --> 00:27:41,890
sort of life singer

688
00:27:48,240 --> 00:27:44,830

the reason that license is another

689

00:27:51,720 --> 00:27:48,250

diversion here this inheritance of

690

00:27:53,100 --> 00:27:51,730

acquired characteristics it was poo

691

00:27:54,870 --> 00:27:53,110

pooed and laughed at you know because I

692

00:27:57,210 --> 00:27:54,880

said oh what the giraffe got call

693

00:27:58,680 --> 00:27:57,220

because he kept on stretching it yes I

694

00:28:01,980 --> 00:27:58,690

kept on reading of the Torah leads and

695

00:28:03,960 --> 00:28:01,990

it was especially loved by the Soviet

696

00:28:05,550 --> 00:28:03,970

Union and this actually led to massive

697

00:28:09,090 --> 00:28:05,560

crop failures because I was just wrong

698

00:28:12,660 --> 00:28:09,100

and I Cinco was loved be by Starlin

699

00:28:15,930 --> 00:28:12,670

because what he was saying was if we can

700

00:28:17,910 --> 00:28:15,940

apply changes to the populace we will

701
00:28:19,620 --> 00:28:17,920
then get them giving birth to better

702
00:28:21,840 --> 00:28:19,630
babies and we will overcome the evil

703
00:28:25,680 --> 00:28:21,850
decadent West the inheritance of

704
00:28:28,200 --> 00:28:25,690
acquired characteristics so it does turn

705
00:28:30,930 --> 00:28:28,210
out that you can get that happening and

706
00:28:33,570 --> 00:28:30,940
so now you need to a week to grieve via

707
00:28:38,250 --> 00:28:33,580
this epigenetic phenomena an overweight

708
00:28:39,840 --> 00:28:38,260
father can give birth to cookin father a

709
00:28:43,530 --> 00:28:39,850
child would be more likely to be

710
00:28:47,670 --> 00:28:43,540
overweight a woman who grows up entirely

711
00:28:50,760 --> 00:28:47,680
in a very smoky atmosphere and the day

712
00:28:52,950 --> 00:28:50,770
before the baby is born moves to

713
00:28:55,380 --> 00:28:52,960

beautifully clean air she's moving from

714

00:28:58,650 --> 00:28:55,390

an area with high asthma too low asthma

715

00:29:00,750 --> 00:28:58,660

but her baby carries the risk of high

716

00:29:03,120 --> 00:29:00,760

asthma it is born as though it is still

717

00:29:04,290 --> 00:29:03,130

and when it's born it has asthma the

718

00:29:05,430 --> 00:29:04,300

Raiders olds living in a dirty

719

00:29:07,680 --> 00:29:05,440

environment even though I was living in

720

00:29:09,450 --> 00:29:07,690

a clean environment so the dirty air

721

00:29:12,510 --> 00:29:09,460

that comes into the lungs of the mother

722

00:29:16,770 --> 00:29:12,520

somehow then goes through the umbilical

723

00:29:18,450 --> 00:29:16,780

cord onto the baby's DNA and then adds

724

00:29:20,670 --> 00:29:18,460

we thought because we're not talking

725

00:29:22,110 --> 00:29:20,680

about epigenetics being involved with

726

00:29:23,460 --> 00:29:22,120

methyl groups will discover that there's

727

00:29:25,860 --> 00:29:23,470

more than just my soul groups I'll be

728

00:29:28,020 --> 00:29:25,870

bloody everything but at least in a

729

00:29:30,000 --> 00:29:28,030

simple form they change it changes how

730

00:29:31,860 --> 00:29:30,010

the baby's DNA is red so it's more

731

00:29:33,420 --> 00:29:31,870

likely to have asthma doing in fact that

732

00:29:35,160 --> 00:29:33,430

in mind that there is no such diseases

733

00:29:37,020 --> 00:29:35,170

of asthma is a symptom on disease but

734

00:29:38,520 --> 00:29:37,030

that's too complicated we're talking

735

00:29:40,080 --> 00:29:38,530

then about conspiracy theory well yeah

736

00:29:41,760 --> 00:29:40,090

right so the world is complicated and

737

00:29:44,460 --> 00:29:41,770

we'll just go to do an example here

738

00:29:47,250 --> 00:29:44,470

about how our own brains to simplify

739

00:29:48,930 --> 00:29:47,260

things create conspiracies hmmm so this

740

00:29:50,400 --> 00:29:48,940

is the godfather thing in America

741

00:29:52,950 --> 00:29:50,410

there's a piece of chain called The

742

00:29:54,340 --> 00:29:52,960

Godfather been around for a while it's a

743

00:29:56,720 --> 00:29:54,350

chain it sells Pete

744

00:30:00,500 --> 00:29:56,730

you're like pieces from a chain their

745

00:30:05,750 --> 00:30:00,510

pizza from a chain and in two thousand

746

00:30:07,730 --> 00:30:05,760

eleven and twelve the guy Kane CA I am

747

00:30:10,010 --> 00:30:07,740

NOT McCain McCain Matthew Kane somebody

748

00:30:14,810 --> 00:30:10,020

came he decided he would run for the

749

00:30:16,100 --> 00:30:14,820

Republican nominee for being put forward

750

00:30:17,690 --> 00:30:16,110

by the Republicans as their candidate

751

00:30:20,120 --> 00:30:17,700

for being a president and he sort of

752

00:30:23,330 --> 00:30:20,130

blossomed for a while then fade away and

753

00:30:26,720 --> 00:30:23,340

it turned out that came to the public no

754

00:30:28,430 --> 00:30:26,730

knowledge that 15 years earlier one and

755

00:30:31,310 --> 00:30:28,440

a half decades earlier he had been the

756

00:30:33,170 --> 00:30:31,320

CEO of Godfather pizzas then there so

757

00:30:34,790 --> 00:30:33,180

they kind of a survey and it was found

758

00:30:37,220 --> 00:30:34,800

that if you were a Republican you

759

00:30:39,410 --> 00:30:37,230

thought that by day god dammit these

760

00:30:40,940 --> 00:30:39,420

Godfather pieces taste better than ever

761

00:30:43,910 --> 00:30:40,950

if you were Democrat you thought they

762

00:30:46,250 --> 00:30:43,920

were worse obviously go the same they

763

00:30:47,870 --> 00:30:46,260

didn't sort of pick out the encoding

764

00:30:49,160 --> 00:30:47,880

demographic of each person and throw

765

00:30:52,010 --> 00:30:49,170

anchovies into one and mud into the

766

00:30:54,260 --> 00:30:52,020

other so just shows you how something as

767

00:30:56,270 --> 00:30:54,270

simple as a political thing chair

768

00:30:58,100 --> 00:30:56,280

political alliance change debut believe

769

00:31:00,140 --> 00:30:58,110

so a random person comes in through the

770

00:31:02,810 --> 00:31:00,150

door and suppose you've got on their

771

00:31:05,210 --> 00:31:02,820

chest a little badge saying young Labour

772

00:31:07,730 --> 00:31:05,220

Party young green party young liberal

773

00:31:10,370 --> 00:31:07,740

party it will affect how you deal with

774

00:31:13,460 --> 00:31:10,380

them and it shouldn't it shouldn't it

775

00:31:15,740 --> 00:31:13,470

surely does well it's up to us to over

776

00:31:17,720 --> 00:31:15,750

be home right now and come over come out

777

00:31:19,220 --> 00:31:17,730

well we'll take a short break calm we'll

778

00:31:21,230 --> 00:31:19,230

come back we'll wrap up with some ideas

779

00:31:37,400 --> 00:31:21,240

that we might have about how people can

780

00:31:43,410 --> 00:31:40,260

the skeptic magazine the journal from

781

00:31:45,630 --> 00:31:43,420

Australian skeptics subscribe online to

782

00:31:50,910 --> 00:31:45,640

the world's second oldest skeptical

783

00:31:53,670 --> 00:31:50,920

magazine visit w WC apx com au and click

784

00:31:57,500 --> 00:31:53,680

the publication's League you can also

785

00:32:00,960 --> 00:31:57,510

find their over 30 years of back issues

786

00:32:12,180 --> 00:32:00,970

free to download the skeptic magazine

787

00:32:13,740 --> 00:32:12,190

from Australian skeptics did you see

788

00:32:15,930 --> 00:32:13,750

that UFO sighting that made the news

789

00:32:18,210 --> 00:32:15,940

what did that latest study about

790

00:32:19,830 --> 00:32:18,220

alternative treatments really say is

791

00:32:22,770 --> 00:32:19,840

this photo making the rounds real or

792

00:32:24,660 --> 00:32:22,780

hoax duffle news is a unique website

793

00:32:26,790 --> 00:32:24,670

featuring news about pseudoscience the

794

00:32:28,520 --> 00:32:26,800

paranormal anomalies and questionable

795

00:32:31,470 --> 00:32:28,530

claims framed with the skeptical view

796

00:32:33,230 --> 00:32:31,480

come visit doubtful newscom every day

797

00:32:36,960 --> 00:32:33,240

for news about cryptozoology

798

00:32:39,870 --> 00:32:36,970

conspiracies shams scams and more follow

799

00:32:41,400 --> 00:32:39,880

us on twitter at doubtful news critical

800

00:32:43,710 --> 00:32:41,410

thinking is essential in assessing

801
00:32:54,430 --> 00:32:43,720
today's news duffel news helps you

802
00:33:00,340 --> 00:32:57,279
I'm Gauss's hello an ally Dawson to her

803
00:33:02,139 --> 00:33:00,350
that the skeptics on podcasts for Cydia

804
00:33:04,119 --> 00:33:02,149
does is open Deutschland and in skeptic

805
00:33:06,690 --> 00:33:04,129
a fab and gift for vital information

806
00:33:11,919 --> 00:33:06,700
Oberon's on the skeptic magazine

807
00:33:16,960 --> 00:33:11,929
reserved vvv point gavey OOP a punk talk

808
00:33:19,930 --> 00:33:16,970
hv dejala vvv won't give a rupee potok

809
00:33:32,740 --> 00:33:19,940
on Tonto off its en facebook twitter and

810
00:33:37,280 --> 00:33:35,750
and so we're back here with dr. khalid

811
00:33:39,080 --> 00:33:37,290
taking a nice little break here at the

812
00:33:40,790 --> 00:33:39,090
sydney university just before christmas

813
00:33:43,430 --> 00:33:40,800

time Carl we're talking about how

814

00:33:46,220 --> 00:33:43,440

complex society is in the universe in

815

00:33:48,560 --> 00:33:46,230

general we just happen to be a poor saps

816

00:33:52,220 --> 00:33:48,570

caught up along with the flow of things

817

00:33:55,220 --> 00:33:52,230

and we're looking at ways than in which

818

00:33:58,490 --> 00:33:55,230

we can arm ourselves prepare ourselves

819

00:34:00,350 --> 00:33:58,500

and which brings me naturally onto

820

00:34:02,360 --> 00:34:00,360

skepticism and why people are skeptical

821

00:34:05,390 --> 00:34:02,370

and how that helps what's your take on

822

00:34:07,160 --> 00:34:05,400

them well basically I'm not very deep

823

00:34:09,440 --> 00:34:07,170

I'm fairly good at recognizing people

824

00:34:14,180 --> 00:34:09,450

who are so let me give you one quote

825

00:34:17,390 --> 00:34:14,190

from Alexander Pope who this guy from

826

00:34:19,940 --> 00:34:17,400

the past you know Phil's rush in where

827

00:34:22,250 --> 00:34:19,950

angels fear true yeah that's right so

828

00:34:25,010 --> 00:34:22,260

that's him he said a little learning is

829

00:34:28,340 --> 00:34:25,020

a dangerous thing he was a guy and he

830

00:34:30,560 --> 00:34:28,350

said drink deep and then he gives

831

00:34:32,060 --> 00:34:30,570

alternative or taste not either one of

832

00:34:34,760 --> 00:34:32,070

the other either drink deeply or don't

833

00:34:36,650 --> 00:34:34,770

even go in there the perience spring

834

00:34:38,750 --> 00:34:36,660

that was a spring in Greece Macedonia

835

00:34:40,250 --> 00:34:38,760

where you would drink of it and you

836

00:34:42,410 --> 00:34:40,260

would get knowledge knowledge even if it

837

00:34:45,080 --> 00:34:42,420

be not Granger it's a drink not yeah

838

00:34:47,320 --> 00:34:45,090

drink deep or taste not yeah the period

839

00:34:50,720 --> 00:34:47,330

spring the puter stream because they're

840

00:34:53,030 --> 00:34:50,730

shallow drafts intoxicate the brain so

841

00:34:54,800 --> 00:34:53,040

if you just sort of get a little tiny

842

00:34:59,480 --> 00:34:54,810

fact a little intoxicated brain like for

843

00:35:01,790 --> 00:34:59,490

example the quack of a duck does not

844

00:35:05,800 --> 00:35:01,800

echo wow this object clear it's rice

845

00:35:10,010 --> 00:35:05,810

yeah shallow-draft intoxicate the brain

846

00:35:11,510 --> 00:35:10,020

but drinking deeply largely you know

847

00:35:14,480 --> 00:35:11,520

this is again yeah so if you drink

848

00:35:16,520 --> 00:35:14,490

deeply if you get true knowledge you'll

849

00:35:20,030 --> 00:35:16,530

find the des another case so in fact

850

00:35:22,250 --> 00:35:20,040

with ducks and duck farms all you have

851
00:35:26,810 --> 00:35:22,260
to do is bring up a duck farm and it's a

852
00:35:29,600 --> 00:35:26,820
mate do they do they echo and like a yes

853
00:35:31,700 --> 00:35:29,610
they're really annoying and the reason

854
00:35:34,130 --> 00:35:31,710
it is such a funny sentence is that the

855
00:35:36,560 --> 00:35:34,140
words duck and quack I've got that it

856
00:35:37,610 --> 00:35:36,570
okay here the letter K it makes you

857
00:35:39,380 --> 00:35:37,620
smart because you're thinking you're

858
00:35:41,960 --> 00:35:39,390
mouthing it out yourself and to say that

859
00:35:44,620 --> 00:35:41,970
it a que you have to put your lips wide

860
00:35:47,240 --> 00:35:44,630
and that's what you do when you smile so

861
00:35:49,880 --> 00:35:47,250
order they they love comedians love

862
00:35:52,240 --> 00:35:49,890
chucking the K into a word to make you

863
00:35:56,090 --> 00:35:52,250

laugh so that's one the other thing is

864

00:35:58,910 --> 00:35:56,100

there is another way of being skip

865

00:36:00,790 --> 00:35:58,920

avoiding being fooled and has to tidy up

866

00:36:04,910 --> 00:36:00,800

the place so they did a study where they

867

00:36:07,130 --> 00:36:04,920

had a whole bunch of pictures doc

868

00:36:09,470 --> 00:36:07,140

pictures on the screen and some of them

869

00:36:11,300 --> 00:36:09,480

you can see I there's a chair or that's

870

00:36:12,650 --> 00:36:11,310

a roof of a house and some of them were

871

00:36:15,380 --> 00:36:12,660

just crap there was nothing there at all

872

00:36:16,370 --> 00:36:15,390

I was just purely random and now some of

873

00:36:18,080 --> 00:36:16,380

them deliberately had information

874

00:36:20,360 --> 00:36:18,090

something not and then halfway through

875

00:36:22,190 --> 00:36:20,370

the computer failed which is all planned

876

00:36:24,350 --> 00:36:22,200

and I said I look I'm sorry Richard

877

00:36:25,700 --> 00:36:24,360

Lucas will go to another room and then

878

00:36:28,370 --> 00:36:25,710

you go to another room and there'd be

879

00:36:30,380 --> 00:36:28,380

another computer and the desk that the

880

00:36:32,600 --> 00:36:30,390

computer was sitting on was really full

881

00:36:36,110 --> 00:36:32,610

of crap and mess and yesterday's lunch

882

00:36:38,090 --> 00:36:36,120

and either they say oh let's just get

883

00:36:40,790 --> 00:36:38,100

into it and if they said let's just get

884

00:36:43,520 --> 00:36:40,800

into it in the images that were purely

885

00:36:45,830 --> 00:36:43,530

random you would see images that were

886

00:36:48,140 --> 00:36:45,840

not there but if they say oh look which

887

00:36:49,400 --> 00:36:48,150

you can use a hand this is really help

888

00:36:52,580 --> 00:36:49,410

us clear but they say you clear my desk

889

00:36:54,770 --> 00:36:52,590

and when you created a bit of order then

890

00:36:56,720 --> 00:36:54,780

you wouldn't try to create order by

891

00:36:58,160 --> 00:36:56,730

seeing images that weren't there this is

892

00:37:01,160 --> 00:36:58,170

like fooling with your parrot all your

893

00:37:03,920 --> 00:37:01,170

sensor maybe yeah Fotolia is the seeing

894

00:37:06,260 --> 00:37:03,930

of images and randomness making patterns

895

00:37:09,200 --> 00:37:06,270

out of right yes so here's one thing if

896

00:37:10,970 --> 00:37:09,210

somebody says to you hey the World Trade

897

00:37:12,800 --> 00:37:10,980

Center was brought down by the US

898

00:37:14,420 --> 00:37:12,810

government quickly go and tidy up your

899

00:37:17,600 --> 00:37:14,430

room and they say I can ever tell that

900

00:37:19,130 --> 00:37:17,610

to me again with you so if you created

901
00:37:21,410 --> 00:37:19,140
some water you'll is likely to believe

902
00:37:25,520 --> 00:37:21,420
crap or try to find all with is not yeah

903
00:37:29,120 --> 00:37:25,530
another one is that it's good to be able

904
00:37:31,430 --> 00:37:29,130
to see reality is going back to

905
00:37:34,940 --> 00:37:31,440
Alexander Pope because then you can both

906
00:37:35,770 --> 00:37:34,950
avoid paranoia and build up trust and

907
00:37:38,260 --> 00:37:35,780
then become

908
00:37:40,330 --> 00:37:38,270
part of a society where we all work

909
00:37:42,220 --> 00:37:40,340
together rather than miss trusting each

910
00:37:43,840 --> 00:37:42,230
other and by the way you can fool me you

911
00:37:46,180 --> 00:37:43,850
could tell me that your name is really

912
00:37:48,070 --> 00:37:46,190
bright and rather than Richard and I

913
00:37:50,320 --> 00:37:48,080

would believe you now the session of

914

00:37:51,970 --> 00:37:50,330

default positions of humans yes and we

915

00:37:53,740 --> 00:37:51,980

believe what we hear you generally

916

00:37:55,600 --> 00:37:53,750

speaking that gets us through we have to

917

00:37:57,430 --> 00:37:55,610

use it because we can't doubt everything

918

00:38:00,280 --> 00:37:57,440

and we have to be as a group because

919

00:38:01,810 --> 00:38:00,290

we're so weak so I'm staring at my

920

00:38:04,690 --> 00:38:01,820

fingernails right now and they are the

921

00:38:06,910 --> 00:38:04,700

most pathetic claws yes right my teeth

922

00:38:08,800 --> 00:38:06,920

your teeth you could give me a nasty

923

00:38:10,180 --> 00:38:08,810

bite you but you're not like a dog which

924

00:38:13,150 --> 00:38:10,190

could sort of rittman when they can

925

00:38:16,360 --> 00:38:13,160

drive your eyes and nowhere near as

926
00:38:18,250 --> 00:38:16,370
sharp as that of an eagle your fin your

927
00:38:19,720 --> 00:38:18,260
your skin is nowhere near as good as a

928
00:38:21,010 --> 00:38:19,730
cow which you can sort of brush up

929
00:38:22,480 --> 00:38:21,020
against a barbed wire fence you and I

930
00:38:25,870 --> 00:38:22,490
would start leaking red stuff everywhere

931
00:38:27,700 --> 00:38:25,880
right so we need to have this language

932
00:38:31,060 --> 00:38:27,710
so we can form a group to go with our

933
00:38:33,220 --> 00:38:31,070
brain so there is this evolutionary

934
00:38:34,870 --> 00:38:33,230
pressure that we stick together as a

935
00:38:37,990 --> 00:38:34,880
group because that makes us strong and

936
00:38:39,850 --> 00:38:38,000
we have the psychopathic ones which I

937
00:38:41,140 --> 00:38:39,860
talk about my 32nd book who take

938
00:38:43,090 --> 00:38:41,150

advantage of that but the other always

939

00:38:45,460 --> 00:38:43,100

been around okay no the second thing is

940

00:38:48,190 --> 00:38:45,470

this sentence from Sir Francis Bacon was

941

00:38:49,810 --> 00:38:48,200

this little rhyme if a man shall begin

942

00:38:53,080 --> 00:38:49,820

with certainties and he means woman of

943

00:38:56,320 --> 00:38:53,090

course he shall Indian doubts but if he

944

00:38:57,640 --> 00:38:56,330

will be content to begin with doubts he

945

00:38:58,840 --> 00:38:57,650

shall end in certainty so he started

946

00:39:01,060 --> 00:38:58,850

saying I don't really know what's going

947

00:39:03,610 --> 00:39:01,070

on well but I'm going to go and look at

948

00:39:05,410 --> 00:39:03,620

this thoroughly as opposed to gia says

949

00:39:07,360 --> 00:39:05,420

here on the computer screen that the

950

00:39:09,070 --> 00:39:07,370

World Trade building was brought down by

951
00:39:10,930 --> 00:39:09,080
the United States government it must be

952
00:39:12,490 --> 00:39:10,940
true yes therefore I will adjust

953
00:39:14,920 --> 00:39:12,500
everything to fit in with their belief

954
00:39:16,120 --> 00:39:14,930
right so start with doubt yeah and then

955
00:39:17,830 --> 00:39:16,130
work your way through the traumas that

956
00:39:19,750 --> 00:39:17,840
takes time it takes time yes and wasn't

957
00:39:22,270 --> 00:39:19,760
it and then there's a problem there in

958
00:39:24,250 --> 00:39:22,280
the way in a world where the money is

959
00:39:26,290 --> 00:39:24,260
being concentrated in the hands of the

960
00:39:28,360 --> 00:39:26,300
wealthy so the poor buggers are working

961
00:39:30,130 --> 00:39:28,370
lambda as an example I've been reading

962
00:39:31,840 --> 00:39:30,140
science fiction books were at the rate

963
00:39:33,520 --> 00:39:31,850

of one book every day from when I was 16

964

00:39:35,110 --> 00:39:33,530

to it was about 32 and I had to stop

965

00:39:36,550 --> 00:39:35,120

when I started studying medicine because

966

00:39:39,550 --> 00:39:36,560

the body of knowledge I had to bring my

967

00:39:40,960 --> 00:39:39,560

head was so huge but always in the

968

00:39:42,970 --> 00:39:40,970

future there will be robots and

969

00:39:46,120 --> 00:39:42,980

computers and we would have all his

970

00:39:48,970 --> 00:39:46,130

leisure time but instead we're working

971

00:39:54,040 --> 00:39:48,980

longer when I was a kid you could

972

00:39:56,770 --> 00:39:54,050

run a family on one adults wage and buy

973

00:39:58,510 --> 00:39:56,780

a car buy some land a house and have a

974

00:40:00,070 --> 00:39:58,520

holiday once a year nowadays you're both

975

00:40:02,290 --> 00:40:00,080

parents working they're working not just

976

00:40:05,109 --> 00:40:02,300

40 or 37 half hours a week but much

977

00:40:07,000 --> 00:40:05,119

longer and they got toys like thin

978

00:40:09,490 --> 00:40:07,010

screen TVs but the important things like

979

00:40:11,320 --> 00:40:09,500

education are much more expensive who

980

00:40:13,599 --> 00:40:11,330

have been conned and there's this shift

981

00:40:15,550 --> 00:40:13,609

of money which I wrote about in my 36th

982

00:40:18,400 --> 00:40:15,560

book or thirty fourth book about is

983

00:40:20,410 --> 00:40:18,410

called the one percent and so the

984

00:40:23,740 --> 00:40:20,420

perrito effect and the money going from

985

00:40:26,770 --> 00:40:23,750

the poor to the wealthy and the perrito

986

00:40:28,930 --> 00:40:26,780

was this guy who is a economist and

987

00:40:30,490 --> 00:40:28,940

engineer and sculptor and powered in the

988

00:40:32,170 --> 00:40:30,500

early nineteen hundreds and he did some

989

00:40:34,960 --> 00:40:32,180

statistics and he worked out that in

990

00:40:37,390 --> 00:40:34,970

most countries around the world about

991

00:40:39,370 --> 00:40:37,400

twenty percent the population had eighty

992

00:40:42,790 --> 00:40:39,380

percent of the wealth which is a bit

993

00:40:45,940 --> 00:40:42,800

unfair but firstly it didn't matter

994

00:40:50,080 --> 00:40:45,950

providing that country had an effective

995

00:40:51,910 --> 00:40:50,090

healthcare system and a just legal

996

00:40:54,340 --> 00:40:51,920

system and a good education system so

997

00:40:56,650 --> 00:40:54,350

that your kids and my kids could both

998

00:40:58,570 --> 00:40:56,660

get access to the important things and

999

00:41:00,250 --> 00:40:58,580

if you killed off that twenty percent

1000

00:41:02,020 --> 00:41:00,260

another twenty percent would rise and

1001
00:41:05,080 --> 00:41:02,030
take over what we're looking at now is

1002
00:41:11,190 --> 00:41:05,090
not 2080 but we're looking at 199 and so

1003
00:41:14,890 --> 00:41:11,200
in january twenty last year which was

1004
00:41:17,290 --> 00:41:14,900
2014 Oxfam came out with a figure saying

1005
00:41:18,460 --> 00:41:17,300
that to equal the wealth of the bottom

1006
00:41:20,620 --> 00:41:18,470
half of the world three and a half

1007
00:41:24,670 --> 00:41:20,630
billion people you needed 85

1008
00:41:28,330 --> 00:41:24,680
billionaires hmm by march two months

1009
00:41:30,550 --> 00:41:28,340
later it had dropped a 65 so you needed

1010
00:41:32,830 --> 00:41:30,560
20 roughly 20 fewer billionaires to

1011
00:41:34,120 --> 00:41:32,840
equal a wealth so this the money being

1012
00:41:35,410 --> 00:41:34,130
funneled across and people are working

1013
00:41:37,599 --> 00:41:35,420

such long hours they don't have the time

1014

00:41:38,890 --> 00:41:37,609

to think about it so when I go to the

1015

00:41:41,109 --> 00:41:38,900

airport there's this woman called Mary

1016

00:41:42,849 --> 00:41:41,119

who loves to search my bags and make

1017

00:41:44,620 --> 00:41:42,859

jokes me about what new shirts I'm

1018

00:41:46,859 --> 00:41:44,630

carrying with me and what my wife does I

1019

00:41:49,570 --> 00:41:46,869

said but it may happen I never see you

1020

00:41:50,770 --> 00:41:49,580

in the in the mornings I'm only seeing

1021

00:41:54,220 --> 00:41:50,780

you at night and she's all well what

1022

00:41:56,020 --> 00:41:54,230

happens is that I work from midday till

1023

00:41:57,820 --> 00:41:56,030

four o'clock in the afternoon I go home

1024

00:41:59,349 --> 00:41:57,830

and over there in time for the way at

1025

00:42:01,760 --> 00:41:59,359

mistakes and then I admit the kids and

1026

00:42:03,740 --> 00:42:01,770

then I'm with them

1027

00:42:05,870 --> 00:42:03,750

all 7 30 then my husband comes home

1028

00:42:07,940 --> 00:42:05,880

because he's working 10 hour shifts as a

1029

00:42:10,370 --> 00:42:07,950

car mechanic and then I go out and I

1030

00:42:11,930 --> 00:42:10,380

work from eight o'clock at night till

1031

00:42:13,220 --> 00:42:11,940

three o'clock in the morning they'll go

1032

00:42:15,260 --> 00:42:13,230

straight from there to another job at

1033

00:42:20,780 --> 00:42:15,270

the airport so you've got a family of

1034

00:42:23,270 --> 00:42:20,790

two parents working three jobs and not

1035

00:42:24,860 --> 00:42:23,280

able to but they've got a car because

1036

00:42:26,000 --> 00:42:24,870

he's a car mechanic they can't buy their

1037

00:42:28,610 --> 00:42:26,010

own property and gotta be way out in the

1038

00:42:30,890 --> 00:42:28,620

sticks and so overwhelmingly we're short

1039

00:42:32,930 --> 00:42:30,900

of time yeah yeah that's all of us yeah

1040

00:42:34,250 --> 00:42:32,940

and that's part of the problem yeah yeah

1041

00:42:36,800 --> 00:42:34,260

so much for the robots and computers

1042

00:42:38,180 --> 00:42:36,810

means or it isn't we've got the robots

1043

00:42:40,130 --> 00:42:38,190

in the computers well we've got the

1044

00:42:41,390 --> 00:42:40,140

computers more certain down have the

1045

00:42:44,510 --> 00:42:41,400

leisure time we don't have a leisure

1046

00:42:45,710 --> 00:42:44,520

time why not and how come you're really

1047

00:42:47,510 --> 00:42:45,720

smaller number of people getting what

1048

00:42:50,480 --> 00:42:47,520

yet so there's another conspiracy theory

1049

00:42:52,130 --> 00:42:50,490

that I'm done well this this thing about

1050

00:42:55,670 --> 00:42:52,140

drinking deeply the well of knowledge or

1051
00:42:56,780 --> 00:42:55,680
sipping this is absolutely conspiracy if

1052
00:42:59,750 --> 00:42:56,790
there is this what the anti-vaccination

1053
00:43:02,120 --> 00:42:59,760
people do and I guess it just it's one

1054
00:43:05,570 --> 00:43:02,130
that one in such sad about the chicken

1055
00:43:07,940 --> 00:43:05,580
chicken Spock party yeah because I had a

1056
00:43:09,770 --> 00:43:07,950
look at that more deeply and just for my

1057
00:43:14,420 --> 00:43:09,780
own purposes i went into chicken pox so

1058
00:43:17,720 --> 00:43:14,430
firstly chicken pox is not benign one in

1059
00:43:19,160 --> 00:43:17,730
every 60,000 kids or one every 60,000

1060
00:43:23,120 --> 00:43:19,170
people who gets it will die of it

1061
00:43:25,160 --> 00:43:23,130
secondly there's a condition that people

1062
00:43:26,630 --> 00:43:25,170
who are not or have not been trained as

1063
00:43:28,700 --> 00:43:26,640

pediatric doctors would never have heard

1064

00:43:29,990 --> 00:43:28,710

of and I know about because I was

1065

00:43:34,910 --> 00:43:30,000

trained as a pediatric doctor which is

1066

00:43:36,680 --> 00:43:34,920

called arterial ischemia syndrome and

1067

00:43:39,080 --> 00:43:36,690

what it means is that you got a five

1068

00:43:41,740 --> 00:43:39,090

year old kid having a stroke no not a

1069

00:43:44,080 --> 00:43:41,750

sixty-year-old a five year old kid and

1070

00:43:46,700 --> 00:43:44,090

one-third of those who suffer from that

1071

00:43:47,990 --> 00:43:46,710

we've got chicken pox yeah chicken pox

1072

00:43:51,290 --> 00:43:48,000

has that as a side effects which they

1073

00:43:52,640 --> 00:43:51,300

didn't know yet the mothers a large

1074

00:43:54,170 --> 00:43:52,650

percentage of the mother's been infected

1075

00:43:55,550 --> 00:43:54,180

with chicken pox between the age of 0

1076

00:43:58,520 --> 00:43:55,560

and six months have kids with all sorts

1077

00:44:02,180 --> 00:43:58,530

of nasty abnormalities and finally long

1078

00:44:05,810 --> 00:44:02,190

term four and five decades from now half

1079

00:44:08,590 --> 00:44:05,820

a century from now one in every five of

1080

00:44:10,540 --> 00:44:08,600

the kids who got chickenpox he's got

1081

00:44:13,120 --> 00:44:10,550

shingles yeah and shingles can range

1082

00:44:15,490 --> 00:44:13,130

from 0 that is a bit of a rash on half

1083

00:44:18,610 --> 00:44:15,500

once drop of my body has gone away all

1084

00:44:21,120 --> 00:44:18,620

the way to I'm paralyzed in my legs my

1085

00:44:23,140 --> 00:44:21,130

muscles are too weak I'm now got a

1086

00:44:25,990 --> 00:44:23,150

relentless pain for the rest of my life

1087

00:44:30,070 --> 00:44:26,000

and blenders and blinds and like so many

1088

00:44:32,410 --> 00:44:30,080

I brain yeah this orders yeah and yet

1089

00:44:33,970 --> 00:44:32,420

the people who say our chicken pox is

1090

00:44:35,920 --> 00:44:33,980

just a childhood disease it goes it

1091

00:44:37,150 --> 00:44:35,930

doesn't affect you again they have not

1092

00:44:39,100 --> 00:44:37,160

got the full information so that gives

1093

00:44:41,320 --> 00:44:39,110

back to Alexander Pope yes and then

1094

00:44:42,990 --> 00:44:41,330

drinking deeply here's a well of

1095

00:44:46,780 --> 00:44:43,000

knowledge yes not just superficially

1096

00:44:49,150 --> 00:44:46,790

well it's what we do Carl we we keep

1097

00:44:51,640 --> 00:44:49,160

trying to encourage people to drink

1098

00:44:53,410 --> 00:44:51,650

deeply mmm it's not easy not it's

1099

00:44:54,640 --> 00:44:53,420

complicated i don't have time and they

1100

00:44:56,830 --> 00:44:54,650

don't have time if they're if they're

1101
00:44:59,080 --> 00:44:56,840
just working flat out to try and pay the

1102
00:45:01,240 --> 00:44:59,090
bills it and then one of their friends

1103
00:45:04,270 --> 00:45:01,250
says don't get your kids vaccinated

1104
00:45:05,560 --> 00:45:04,280
because i didn't and then a second

1105
00:45:07,660 --> 00:45:05,570
friend says it and in the third they

1106
00:45:09,610 --> 00:45:07,670
don't have the time to go and dream

1107
00:45:12,370 --> 00:45:09,620
deeply because they're working so hard

1108
00:45:15,330 --> 00:45:12,380
the poor buggers but then again to their

1109
00:45:17,830 --> 00:45:15,340
way of thinking they have they have

1110
00:45:21,430 --> 00:45:17,840
dragged on d they're given their friends

1111
00:45:23,410 --> 00:45:21,440
have but even still they will do they

1112
00:45:25,540 --> 00:45:23,420
will use dr. Google they'll listen to

1113
00:45:27,760 --> 00:45:25,550

their friends I'll read the the bad

1114

00:45:30,100 --> 00:45:27,770

information and to them they have done

1115

00:45:32,740 --> 00:45:30,110

their research well the trouble of dr.

1116

00:45:34,510 --> 00:45:32,750

google is it's easy to misread it so

1117

00:45:37,320 --> 00:45:34,520

firstly you can pay to have your

1118

00:45:39,640 --> 00:45:37,330

homepage put up there hi and secondly

1119

00:45:41,230 --> 00:45:39,650

high in the list of search engines and

1120

00:45:43,710 --> 00:45:41,240

secondly the fossil fuel companies have

1121

00:45:46,540 --> 00:45:43,720

been funding thousands literally

1122

00:45:48,730 --> 00:45:46,550

thousands of disinformation sites around

1123

00:45:51,480 --> 00:45:48,740

the world so if you go searching on the

1124

00:45:53,290 --> 00:45:51,490

web and say really is Antarctica

1125

00:45:55,230 --> 00:45:53,300

increasing in ice and is the world

1126
00:45:57,760 --> 00:45:55,240
cooling down you get one of these

1127
00:46:00,070 --> 00:45:57,770
deliberate disinformation sites so you

1128
00:46:01,780 --> 00:46:00,080
can't just trust the first thing at your

1129
00:46:05,770 --> 00:46:01,790
root yeah and you never have been able

1130
00:46:08,920 --> 00:46:05,780
to either like is a fact that if I give

1131
00:46:10,270 --> 00:46:08,930
you a sentence on a screen about the New

1132
00:46:12,580 --> 00:46:10,280
World Order and how the United Nations

1133
00:46:15,480 --> 00:46:12,590
is try to turn us all into slaves if I

1134
00:46:18,850 --> 00:46:15,490
give that to you on a screen in bold

1135
00:46:21,950 --> 00:46:18,860
serif typeface which you can read easily

1136
00:46:24,530 --> 00:46:21,960
or sort of faded sands

1137
00:46:26,210 --> 00:46:24,540
vitalic you won't believe it either read

1138
00:46:27,859 --> 00:46:26,220

you believe it hard to read you won't

1139

00:46:29,750 --> 00:46:27,869

believe it so we want to simplify this

1140

00:46:33,079 --> 00:46:29,760

part of what wanting to simplify the

1141

00:46:35,030 --> 00:46:33,089

world down and what you find is if

1142

00:46:37,089 --> 00:46:35,040

somebody were to say he was a barking

1143

00:46:39,170 --> 00:46:37,099

mad person lying in their own vomit

1144

00:46:40,640 --> 00:46:39,180

surround by dogs licking their words

1145

00:46:41,900 --> 00:46:40,650

they give you a bit of paper saying the

1146

00:46:43,940 --> 00:46:41,910

world is cooling down you wouldn't

1147

00:46:46,760 --> 00:46:43,950

believe but if it's on a computer screen

1148

00:46:49,280 --> 00:46:46,770

yeah oh wow I can read it easily it must

1149

00:46:53,270 --> 00:46:49,290

be true presentation taste absolutely

1150

00:46:55,040 --> 00:46:53,280

it's and making mistakes I make mistakes

1151

00:46:57,020 --> 00:46:55,050

all the time like so I've already come

1152

00:46:59,210 --> 00:46:57,030

across for mistakes in my latest book

1153

00:47:01,450 --> 00:46:59,220

she'll be concise and there was one

1154

00:47:04,040 --> 00:47:01,460

mistake i made about why your fingertips

1155

00:47:05,690 --> 00:47:04,050

wrinkle you go into a bath and stay

1156

00:47:07,730 --> 00:47:05,700

there for a long time prunes yeah they

1157

00:47:09,290 --> 00:47:07,740

prove i got that totally wrong and i got

1158

00:47:12,920 --> 00:47:09,300

that wrong for two decades but as soon

1159

00:47:16,220 --> 00:47:12,930

as I found out I said so immediately and

1160

00:47:18,230 --> 00:47:16,230

public Italy in both on my podcast and

1161

00:47:20,180 --> 00:47:18,240

in writing on my home page I had made a

1162

00:47:21,890 --> 00:47:20,190

mistake I didn't try to cover it up and

1163

00:47:24,380 --> 00:47:21,900

say no what I meant was is I said yeah I

1164

00:47:26,620 --> 00:47:24,390

done wrong this is where I was wrong

1165

00:47:29,329 --> 00:47:26,630

with which is the scientific method

1166

00:47:31,190 --> 00:47:29,339

indeed which is counterintuitive hmm

1167

00:47:35,150 --> 00:47:31,200

scientists are different I remember I

1168

00:47:36,320 --> 00:47:35,160

was sitting down at the table and

1169

00:47:37,790 --> 00:47:36,330

physically used to have such a theme

1170

00:47:40,609 --> 00:47:37,800

morning tea and ask them a question

1171

00:47:42,770 --> 00:47:40,619

about water droplets and so somebody

1172

00:47:44,390 --> 00:47:42,780

ringing the triple j said IMA I've been

1173

00:47:46,760 --> 00:47:44,400

smoking all this dog I can't say another

1174

00:47:49,280 --> 00:47:46,770

day obvious mogul his boss can I don't

1175

00:47:52,790 --> 00:47:49,290

open smoke yeah guys like that I've been

1176

00:47:56,150 --> 00:47:52,800

contemplating it was a big raining are

1177

00:47:57,500 --> 00:47:56,160

my veranda and this some rain does

1178

00:47:59,390 --> 00:47:57,510

little puddles at the front and

1179

00:48:02,359 --> 00:47:59,400

sometimes the wind blows from the north

1180

00:48:05,120 --> 00:48:02,369

south east the west and so the raindrops

1181

00:48:08,540 --> 00:48:05,130

come from different directions but no

1182

00:48:13,940 --> 00:48:08,550

matter what direction the raindrops come

1183

00:48:17,210 --> 00:48:13,950

from the ripples are always circular and

1184

00:48:19,010 --> 00:48:17,220

I said you sure I said yeah so I ran it

1185

00:48:20,660 --> 00:48:19,020

past the clever people in physics and we

1186

00:48:22,250 --> 00:48:20,670

argued about it backwards and forwards

1187

00:48:23,720 --> 00:48:22,260

and all these professorial people said

1188

00:48:25,849 --> 00:48:23,730

it then finally one of the deep

1189

00:48:27,710 --> 00:48:25,859

professors after about 20 minutes as

1190

00:48:29,720 --> 00:48:27,720

we're coming to the end of t times I've

1191

00:48:33,140 --> 00:48:29,730

got it and everyone looked at and he

1192

00:48:34,670 --> 00:48:33,150

said all the wind does and gravity is

1193

00:48:39,130 --> 00:48:34,680

provide the initial in

1194

00:48:43,060 --> 00:48:39,140

pulse to the water the speed at which

1195

00:48:46,640 --> 00:48:43,070

the ripple travels through the water is

1196

00:48:48,110 --> 00:48:46,650

entirely dependent upon the

1197

00:48:51,080 --> 00:48:48,120

characteristics of the water thus our

1198

00:48:52,640 --> 00:48:51,090

speed of sound in water so you might end

1199

00:48:54,170 --> 00:48:52,650

up with the water coming the water

1200

00:48:55,370 --> 00:48:54,180

droplet coming in an angle it might be

1201

00:48:57,080 --> 00:48:55,380

safe three millimeters by two

1202

00:49:00,950 --> 00:48:57,090

millimeters it might be slightly oval

1203

00:49:03,740 --> 00:49:00,960

but when it expands its 100 millimeters

1204

00:49:06,140 --> 00:49:03,750

by 101 200 millimeters by 201

1205

00:49:09,410 --> 00:49:06,150

millimeters and so the speed at which

1206

00:49:10,760 --> 00:49:09,420

the ripples travel depends entirely upon

1207

00:49:12,470 --> 00:49:10,770

the properties of the water not the

1208

00:49:21,770 --> 00:49:12,480

initial impulse and all the other

1209

00:49:23,000 --> 00:49:21,780

physicist when they saw the the solution

1210

00:49:24,350 --> 00:49:23,010

being given to them they said oh yeah

1211

00:49:26,780 --> 00:49:24,360

that's obviously the one that makes so

1212

00:49:29,120 --> 00:49:26,790

much sense and not and they all said

1213

00:49:31,940 --> 00:49:29,130

yells wrong yeah so I just don't mind

1214

00:49:35,450 --> 00:49:31,950

saying they're wrong which is of course

1215

00:49:37,460 --> 00:49:35,460

counterintuitive general humans oh yeah

1216

00:49:40,460 --> 00:49:37,470

I do love a bit where they said sciences

1217

00:49:42,770 --> 00:49:40,470

of religion yeah we rely on belief and

1218

00:49:44,330 --> 00:49:42,780

gut feelings come later yes I just

1219

00:49:47,150 --> 00:49:44,340

another religion or science is just your

1220

00:49:49,940 --> 00:49:47,160

belief system I've heard it all to Karl

1221

00:49:53,030 --> 00:49:49,950

where can people take you out and our

1222

00:49:56,180 --> 00:49:53,040

latest book just go to dr. Carl calm dr

1223

00:49:58,790 --> 00:49:56,190

k RL calm and while it is very nice of

1224

00:50:01,100 --> 00:49:58,800

you to buy my books you can get most of

1225

00:50:02,960 --> 00:50:01,110

the information for free on my homepage

1226
00:50:04,940 --> 00:50:02,970
in the great moments in science section

1227
00:50:07,670 --> 00:50:04,950
don't tell the bookseller I apologize

1228
00:50:09,290 --> 00:50:07,680
now it's not as long it'll it's only

1229
00:50:11,750 --> 00:50:09,300
about 600 words instead of eight hundred

1230
00:50:13,610 --> 00:50:11,760
or a thousand or 3,000 but the essential

1231
00:50:14,840 --> 00:50:13,620
busy so if your bid broke just get it

1232
00:50:16,100 --> 00:50:14,850
for free off my homepage you don't have

1233
00:50:18,050 --> 00:50:16,110
to buy my books but I'll still love you

1234
00:50:21,080 --> 00:50:18,060
more if you do now I love you equally

1235
00:50:23,030 --> 00:50:21,090
either way dr. Cole happy new year to

1236
00:50:24,890 --> 00:50:23,040
you and thank you very much yes oh how

1237
00:50:27,440 --> 00:50:24,900
come they used to have one of the holy

1238
00:50:43,039 --> 00:50:27,450

days of obligation as New Year's Day my

1239

00:50:48,240 --> 00:50:45,900

I'm to help support the skeptic zone and

1240

00:50:52,039 --> 00:50:48,250

look pretty damn stylish while you're

1241

00:50:55,260 --> 00:50:52,049

about it visit mr. Katz origami jewelry

1242

00:50:57,930 --> 00:50:55,270

owww skip eggs on TV and click the link

1243

00:51:01,529 --> 00:50:57,940

or simply Google mr. Katz origami

1244

00:51:05,240 --> 00:51:01,539

jewelry also on Facebook pendants

1245

00:51:24,500 --> 00:51:05,250

earrings and cufflinks support mr. cat

1246

00:51:28,560 --> 00:51:26,910

thank you for listening to the skeptic

1247

00:51:31,830 --> 00:51:28,570

zone and thank you very much dr. Karl

1248

00:51:33,750 --> 00:51:31,840

now I've invited dr. Karl in 2016 to

1249

00:51:35,460 --> 00:51:33,760

come along and join us at skeptics in

1250

00:51:39,210 --> 00:51:35,470

the pub in Sydney which is the first

1251
00:51:41,760 --> 00:51:39,220
thursday of the month every month at the

1252
00:51:43,650 --> 00:51:41,770
crown hotel which is at a corner of

1253
00:51:46,830 --> 00:51:43,660
Goulburn and Elizabeth streets in Sydney

1254
00:51:49,440 --> 00:51:46,840
just near museum station everybody is

1255
00:51:52,140 --> 00:51:49,450
welcome come along have a drink have

1256
00:51:54,960 --> 00:51:52,150
some dinner if you're a believer or

1257
00:51:57,510 --> 00:51:54,970
skeptical or whatever come along and well

1258
00:51:59,490 --> 00:51:57,520
hopefully have a fun evening now

1259
00:52:02,850 --> 00:51:59,500
something that's been brought to my

1260
00:52:06,440 --> 00:52:02,860
attention over the last few weeks it's a

1261
00:52:09,660 --> 00:52:06,450
product called patched PA TCH d

1262
00:52:11,460 --> 00:52:09,670
apostrophe D oh yes the new wonder

1263
00:52:13,560 --> 00:52:11,470

product it's the size of a little chip

1264

00:52:16,970 --> 00:52:13,570

and you stick it on the back of your

1265

00:52:21,840 --> 00:52:16,980

phone and it will protect your health or

1266

00:52:23,550 --> 00:52:21,850

will it now being very very wishy-washy

1267

00:52:25,440 --> 00:52:23,560

with their claims I wrote to them saying

1268

00:52:26,730 --> 00:52:25,450

you're making quite amazing health

1269

00:52:28,470 --> 00:52:26,740

claims here and they wrote back saying

1270

00:52:30,810 --> 00:52:28,480

we're not making any health claims judge

1271

00:52:33,540 --> 00:52:30,820

for yourself this is an interesting

1272

00:52:40,830 --> 00:52:33,550

exercise for you budding skeptics if you

1273

00:52:43,050 --> 00:52:40,840

go to ww patch com PITC HD com click the

1274

00:52:45,660 --> 00:52:43,060

menu link and then you can click on how

1275

00:52:48,260 --> 00:52:45,670

patched works which I'm clicking on

1276

00:52:52,800 --> 00:52:48,270

right now and you can read about their

1277

00:52:56,160 --> 00:52:52,810

science and what you might consider

1278

00:52:59,010 --> 00:52:56,170

doing then is going to Facebook to the

1279

00:53:02,310 --> 00:52:59,020

patched side on Facebook and leaving

1280

00:53:06,000 --> 00:53:02,320

your polite comments please feel free to

1281

00:53:08,700 --> 00:53:06,010

question them about the science now

1282

00:53:13,800 --> 00:53:08,710

needless to say quite frankly I'm

1283

00:53:15,630 --> 00:53:13,810

skeptical quite skeptical but there's

1284

00:53:17,940 --> 00:53:15,640

your holiday project if you so desire

1285

00:53:20,580 --> 00:53:17,950

why not check out patched have a look at

1286

00:53:23,340 --> 00:53:20,590

the science and you can let them know

1287

00:53:25,890 --> 00:53:23,350

whether you agree with their science or

1288

00:53:28,770 --> 00:53:25,900

don't any product that claims it reduces

1289

00:53:31,080 --> 00:53:28,780

radiation by 95% and can protect

1290

00:53:34,920 --> 00:53:31,090

sensitive parts of your body is

1291

00:53:36,819 --> 00:53:34,930

certainly worth investigation coming up

1292

00:53:40,479 --> 00:53:36,829

on the skeptic zone in 2016

1293

00:53:42,089 --> 00:53:40,489

who knows who knows I can't look into

1294

00:53:45,880 --> 00:53:42,099

the future and neither can anybody else

1295

00:53:47,469 --> 00:53:45,890

no because I've been looking at

1296

00:53:50,009 --> 00:53:47,479

predictions for years and years and

1297

00:53:52,390 --> 00:53:50,019

years by Australia's best psychics oh

1298

00:53:54,099 --> 00:53:52,400

boy talking about ninety-five percent

1299

00:53:56,589 --> 00:53:54,109

that's what they get wrong by the way

1300

00:53:58,959 --> 00:53:56,599

but doubtless over the next few weeks

1301
00:54:00,519 --> 00:53:58,969
you'll see various people who claim to

1302
00:54:03,489 --> 00:54:00,529
be psychic popping up on morning

1303
00:54:06,609 --> 00:54:03,499
television in the newspapers making all

1304
00:54:09,249 --> 00:54:06,619
sorts of predictions for 2016 I make no

1305
00:54:12,190 --> 00:54:09,259
predictions for 2016 except to say that

1306
00:54:14,349 --> 00:54:12,200
I think it starts on Friday hmm have a

1307
00:54:18,630 --> 00:54:14,359
good new year's eve everybody be safe

1308
00:54:21,609 --> 00:54:18,640
don't drink and drive really just don't

1309
00:54:24,099 --> 00:54:21,619
but for this week for this year this is

1310
00:54:30,670 --> 00:54:24,109
Richard Saunders signing off from Sydney

1311
00:54:32,769 --> 00:54:30,680
Australia you've been listening to the

1312
00:54:36,999 --> 00:54:32,779
skeptics own podcast visit our website

1313
00:54:40,299 --> 00:54:37,009

at wwc a petting zoo TV for contacts an

1314

00:54:43,449 --> 00:54:40,309

archive of all episodes since 2008 and

1315

00:54:45,489 --> 00:54:43,459

our online store please support the

1316

00:54:48,849 --> 00:54:45,499

skeptic zone by following us on twitter

1317

00:54:52,359 --> 00:54:48,859

at skeptic zone liking us on facebook

1318

00:54:53,890 --> 00:54:52,369

and leaving a review on iTunes you can

1319

00:54:57,699 --> 00:54:53,900

also show your support by subscribing

1320

00:55:00,759 --> 00:54:57,709

via paypal for as little as 99 cents a

1321

00:55:02,380 --> 00:55:00,769

week the skeptic zone is an independent

1322

00:55:04,839 --> 00:55:02,390

production the views and opinions

1323

00:55:06,910 --> 00:55:04,849

expressed on the skeptic zone and not

1324

00:55:09,309 --> 00:55:06,920

necessarily those of Australian skeptic