

Episode **609**

THE
**SKEPTIC
ZONE**
PODCAST

14 June 2020

www.skepticzone.tv

Dinosaur News
with A/Prof. Paul Willis

Logical Fallacies
with Michelle Bijkersma
"Moving the Goal Posts"

Yet another loony
Coronavirus Conspiracy

The Book of a Tim
The History of Chiropractic
part #1



1
00:00:11,860 --> 00:00:09,119
welcome to the skeptic zone the podcast

2
00:00:22,729 --> 00:00:11,870
from Australia for science and reason

3
00:00:25,050 --> 00:00:22,739
[Music]

4
00:00:28,740 --> 00:00:25,060
yes it's the skeptics own podcast

5
00:00:31,200 --> 00:00:28,750
episode number 609 for the 14th of June

6
00:00:34,680 --> 00:00:31,210
2020 richardsaunders here with you from

7
00:00:38,100 --> 00:00:34,690
a foggy rainy soggy Sydney Australia in

8
00:00:40,139 --> 00:00:38,110
fact I can hear the rain falling down on

9
00:00:41,430 --> 00:00:40,149
the skeptics own studios at the moment

10
00:00:43,530 --> 00:00:41,440
coming up on this week's show I

11
00:00:45,719 --> 00:00:43,540
interview associate professor Paul

12
00:00:48,840 --> 00:00:45,729
Willis who is a paleontologist

13
00:00:51,420 --> 00:00:48,850

he likes pails he likes dinosaurs he

14

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

likes ancient things Paul and I have

15

00:00:55,740 --> 00:00:53,530

known each other for many years and it

16

00:00:58,560 --> 00:00:55,750

was a delight to hook up with Paul who's

17

00:01:00,210 --> 00:00:58,570

in Adelaide South Australia for this

18

00:01:03,660 --> 00:01:00,220

interview and in fact at Paul's

19

00:01:06,420 --> 00:01:03,670

suggestion we videoed the interview and

20

00:01:10,890 --> 00:01:06,430

that's up on the skeptics own YouTube

21

00:01:12,840 --> 00:01:10,900

channel lots of people use that to look

22

00:01:15,240 --> 00:01:12,850

through the skeptics own episodes and

23

00:01:18,749 --> 00:01:15,250

it's on the skeptics own Facebook page

24

00:01:20,639 --> 00:01:18,759

so if you want to hear the interview

25

00:01:24,090 --> 00:01:20,649

with Paul and I coming up great go ahead

26

00:01:26,730 --> 00:01:24,100

if you want to hear and see it a sneak

27

00:01:29,430 --> 00:01:26,740

peek behind the scenes then head to the

28

00:01:32,190 --> 00:01:29,440

skeptics on Facebook or YouTube anyway

29

00:01:35,460 --> 00:01:32,200

Paul and I discuss dinosaur news and

30

00:01:37,620 --> 00:01:35,470

he's new series about dinosaur news

31

00:01:40,649 --> 00:01:37,630

associate professor Paul Willis from

32

00:01:42,600 --> 00:01:40,659

paleo pictures following that it's

33

00:01:45,030 --> 00:01:42,610

Michelle big Asthma with logical

34

00:01:48,780 --> 00:01:45,040

fallacies this week Michelle looks at

35

00:01:51,180 --> 00:01:48,790

moving the goal posts not much moving of

36

00:01:54,350 --> 00:01:51,190

any goal posts lately or I do notice

37

00:01:57,539 --> 00:01:54,360

though here in Australia at least

38

00:01:59,370 --> 00:01:57,549

football various codes like that are

39

00:02:01,500 --> 00:01:59,380
starting to be played again one if

40

00:02:04,320 --> 00:02:01,510
they'll be moving the goal posts then we

41

00:02:06,240 --> 00:02:04,330
have the bizarre situation those are

42

00:02:09,960 --> 00:02:06,250
lots of bizarre situations and these

43

00:02:12,979 --> 00:02:09,970
days of the covert of a flyer a leaflet

44

00:02:16,259 --> 00:02:12,989
going around doing the rounds

45

00:02:20,910 --> 00:02:16,269
proclaiming that diseases are basically

46

00:02:23,850 --> 00:02:20,920
a myth that includes covert how crazy

47

00:02:26,910 --> 00:02:23,860
can you get find out as I read out this

48

00:02:29,009 --> 00:02:26,920
crazy covert letter later in the show

49

00:02:31,229 --> 00:02:29,019
then to round off the show it's the

50

00:02:34,050 --> 00:02:31,239
return of the book of Tim with Tim

51
00:02:37,470 --> 00:02:34,060
Mendham and Tim's going to be read

52
00:02:41,120 --> 00:02:37,480
from the current issue of the skeptic

53
00:02:44,880 --> 00:02:41,130
magazine part 1 of a history of

54
00:02:49,589 --> 00:02:44,890
chiropractic by dr. Stephen basa next

55
00:02:53,130 --> 00:02:49,599
week part 2 now before we get into the

56
00:02:56,820 --> 00:02:53,140
first interview on today's show just a

57
00:03:01,199 --> 00:02:56,830
quick look at the fact that in the last

58
00:03:04,520 --> 00:03:01,209
week the strange outfit known as

59
00:03:08,160 --> 00:03:04,530
homeopathy plus magical sugar and water

60
00:03:11,300 --> 00:03:08,170
are posting yet again the wonders of

61
00:03:13,979 --> 00:03:11,310
homeopathy as used in India to fight

62
00:03:16,440 --> 00:03:13,989
corona virus or to protect from corona

63
00:03:18,660 --> 00:03:16,450

virus and at the same time I've noticed

64

00:03:22,020 --> 00:03:18,670

news reports from India about how dire

65

00:03:24,809 --> 00:03:22,030

the situation is there so something's

66

00:03:25,559 --> 00:03:24,819

not working is it homeopathy Plus and my

67

00:03:30,479 --> 00:03:25,569

friend

68

00:03:33,449 --> 00:03:30,489

andris Pinta from the ESP the European

69

00:03:36,240 --> 00:03:33,459

skeptics podcast has been in touch with

70

00:03:39,960 --> 00:03:36,250

me lately and he's helping to organize

71

00:03:42,330 --> 00:03:39,970

yet more subtitles for the vaccination

72

00:03:45,000 --> 00:03:42,340

Chronicles and if you go to skipped exam

73

00:03:47,580 --> 00:03:45,010

dot TV scroll right to the bottom of the

74

00:03:49,890 --> 00:03:47,590

page you will see the vaccination

75

00:03:52,979 --> 00:03:49,900

chronicles a a documentary I did about

76

00:03:55,110 --> 00:03:52,989

four or five years ago and he's helping

77

00:03:58,500 --> 00:03:55,120

to organize let's see what have we done

78

00:04:00,960 --> 00:03:58,510

so far we've added polish captions and

79

00:04:03,690 --> 00:04:00,970

Slovenian captions with more to come

80

00:04:05,610 --> 00:04:03,700

thank you undress it's a wonderful thing

81

00:04:09,539 --> 00:04:05,620

to do to help that project and

82

00:04:12,809 --> 00:04:09,549

especially this time where vaccination

83

00:04:14,490 --> 00:04:12,819

is on everybody's mind but now it's time

84

00:04:17,460 --> 00:04:14,500

for me to run downstairs and get a nice

85

00:04:20,460 --> 00:04:17,470

hot cup of coffee while I dream about I

86

00:04:22,710 --> 00:04:20,470

don't know a warm bath and a big white

87

00:04:25,740 --> 00:04:22,720

fluffy dressing-gown that would be very

88

00:04:27,410 --> 00:04:25,750

good well I do that I hope you enjoy the

89

00:04:47,760 --> 00:04:27,420

skeptic Zone

90

00:04:53,879 --> 00:04:47,770

[Music]

91

00:04:57,770 --> 00:04:53,889

a piece of his mind with Professor Paul

92

00:05:06,899 --> 00:05:03,589

[Music]

93

00:05:08,999 --> 00:05:06,909

well folks I'm delighted to welcome to

94

00:05:10,739 --> 00:05:09,009

the skeptic zone a man I've known for

95

00:05:13,050 --> 00:05:10,749

many years almost two decades I think

96

00:05:15,029 --> 00:05:13,060

we've had some fun adventures together

97

00:05:17,850 --> 00:05:15,039

with Dinosaurs and skepticism and all

98

00:05:19,709 --> 00:05:17,860

sorts of things it's associate professor

99

00:05:21,929 --> 00:05:19,719

Paul Willis hello Paul

100

00:05:24,059 --> 00:05:21,939

get I Richard how you doing mate you

101
00:05:25,649 --> 00:05:24,069
know what during this crazy time of the

102
00:05:28,679 --> 00:05:25,659
the lockdown and the shut up and the get

103
00:05:30,570 --> 00:05:28,689
lost I'm doing too bad I can't remember

104
00:05:32,570 --> 00:05:30,580
the last time I had a sniffle or a cold

105
00:05:35,279 --> 00:05:32,580
or a cough or anything like that yeah

106
00:05:36,689 --> 00:05:35,289
might I say it looks like the pair of us

107
00:05:38,760 --> 00:05:36,699
are growing old disgracefully it's

108
00:05:45,540 --> 00:05:38,770
wonderful to see speak for yourself

109
00:05:47,399 --> 00:05:45,550
I can hear emit it where you may be in

110
00:05:49,969 --> 00:05:47,409
the past folks we've had some funny

111
00:05:52,379 --> 00:05:49,979
times Paul and I because occasionally

112
00:05:54,179 --> 00:05:52,389
Paul when you lived in Sydney we would

113
00:05:57,059 --> 00:05:54,189

be confused for each other I think when

114

00:06:00,629 --> 00:05:57,069

we both had darker hair yeah yeah when

115

00:06:02,309 --> 00:06:00,639

we were younger people I'm not sure who

116

00:06:04,140 --> 00:06:02,319

was whose doppelganger but we were

117

00:06:06,929 --> 00:06:04,150

mistaken on simple occasions

118

00:06:08,790 --> 00:06:06,939

well the strangest one to me was the

119

00:06:10,320 --> 00:06:08,800

phone rang here one day and I picked it

120

00:06:14,929 --> 00:06:10,330

up and I said hello and the voice on the

121

00:06:22,110 --> 00:06:18,290

that was this that was the strangest one

122

00:06:25,639 --> 00:06:22,120

Paul also known as paleo Paul let's talk

123

00:06:28,980 --> 00:06:25,649

about your latest series of videos and

124

00:06:31,279 --> 00:06:28,990

your outlets for what you love to do

125

00:06:34,379 --> 00:06:31,289

which is of course hunting for dinosaurs

126
00:06:38,429 --> 00:06:34,389
paleo pictures you've got a new weekly

127
00:06:41,219 --> 00:06:38,439
series with dinosaur news and it's more

128
00:06:43,709 --> 00:06:41,229
a regular series or should I say

129
00:06:46,260 --> 00:06:43,719
irregular series as I get enough

130
00:06:49,409 --> 00:06:46,270
material together to put out an episode

131
00:06:53,639 --> 00:06:49,419
and then I'll put out an episode the I

132
00:06:55,889 --> 00:06:53,649
the idea is is look Crona virus and the

133
00:06:58,679 --> 00:06:55,899
whole lockdown really messed about with

134
00:07:01,589 --> 00:06:58,689
the whole business model for paleo

135
00:07:03,929 --> 00:07:01,599
pictures yeah we couldn't go out and get

136
00:07:07,769 --> 00:07:03,939
sponsors we couldn't go out and do

137
00:07:11,100 --> 00:07:07,779
filming we couldn't do anything so we

138
00:07:15,839 --> 00:07:11,110

more or less put paleo pictures into

139

00:07:16,770 --> 00:07:15,849

hibernation but then it dawned on me

140

00:07:18,390 --> 00:07:16,780

that

141

00:07:20,310 --> 00:07:18,400

even in hibernation there's still

142

00:07:24,900 --> 00:07:20,320

something we can do to build brand

143

00:07:28,980 --> 00:07:24,910

identity right and still building the

144

00:07:31,320 --> 00:07:28,990

presence of paleo pictures on the social

145

00:07:34,250 --> 00:07:31,330

media sites and we're getting a lot of

146

00:07:37,500 --> 00:07:34,260

traction particularly in Instagram and

147

00:07:40,140 --> 00:07:37,510

you know the contributions to social

148

00:07:43,560 --> 00:07:40,150

media actually consist of posting up

149

00:07:46,770 --> 00:07:43,570

stories from paleontology as they come

150

00:07:48,900 --> 00:07:46,780

to my attention and I thought well it's

151
00:07:51,690 --> 00:07:48,910
not going to be that much effort to be

152
00:07:56,100 --> 00:07:51,700
able to string a group of those together

153
00:07:59,610 --> 00:07:56,110
and put out a bulletin of paleo news hmm

154
00:08:04,020 --> 00:07:59,620
so that people can you know in in one

155
00:08:05,850 --> 00:08:04,030
short little podcast are able to catch

156
00:08:07,920 --> 00:08:05,860
up on the latest and greatest in

157
00:08:10,980 --> 00:08:07,930
paleontology of dinosaurs and fossils

158
00:08:13,290 --> 00:08:10,990
and stories from the past presented to

159
00:08:15,540 --> 00:08:13,300
you in the president it sounds pretty

160
00:08:18,030 --> 00:08:15,550
good I've been enjoying the episodes

161
00:08:20,340 --> 00:08:18,040
you've putting up so far you've put up

162
00:08:22,170 --> 00:08:20,350
so far now let's talk about a few of the

163
00:08:26,280 --> 00:08:22,180

news items which really caught my

164

00:08:28,110 --> 00:08:26,290

attention a 100-year old now a 100

165

00:08:29,520 --> 00:08:28,120

million year old I was gonna say I

166

00:08:33,870 --> 00:08:29,530

wouldn't bother with a hundred year old

167

00:08:35,149 --> 00:08:33,880

a 100 degree carbon dated it's too young

168

00:08:39,120 --> 00:08:35,159

it is it is

169

00:08:41,100 --> 00:08:39,130

well this one is bizarre like a lot of

170

00:08:45,630 --> 00:08:41,110

ancient creatures are to us a I guess a

171

00:08:49,310 --> 00:08:45,640

spider scorpion yeah yeah really weird

172

00:08:53,760 --> 00:08:49,320

creature this one and this one came from

173

00:08:58,290 --> 00:08:53,770

amber in Burma and this a deposit or

174

00:09:01,820 --> 00:08:58,300

Myanmar this amber deposit has just been

175

00:09:05,490 --> 00:09:01,830

producing stunning fossils including

176
00:09:08,550 --> 00:09:05,500
hatchling dinosaur birds and all sorts

177
00:09:11,610 --> 00:09:08,560
of weird things well complete geckos and

178
00:09:13,770 --> 00:09:11,620
what-have-you and one of the creatures

179
00:09:15,870 --> 00:09:13,780
that came out and is December's about

180
00:09:19,200 --> 00:09:15,880
100 million years old as you said yeah

181
00:09:23,460 --> 00:09:19,210
is and they've got multiple specimens of

182
00:09:27,240 --> 00:09:23,470
it is a what looks like a cross between

183
00:09:30,590 --> 00:09:27,250
a spider and a scorpion they are both in

184
00:09:33,920 --> 00:09:30,600
the same group and one of all

185
00:09:36,710 --> 00:09:33,930
from the other and so you've got what

186
00:09:40,999 --> 00:09:36,720
looks like a sort of elongate spider

187
00:09:43,189 --> 00:09:41,009
with a long thin whip-like tail and

188
00:09:46,220 --> 00:09:43,199

these spider scorpions are thought to

189

00:09:50,900 --> 00:09:46,230

date back a couple hundred million years

190

00:09:54,559 --> 00:09:50,910

prior to this fine so you know that

191

00:09:59,120 --> 00:09:54,569

group probably goes back to about 300

192

00:10:07,129 --> 00:09:59,130

million years ago but if you're an

193

00:10:11,090 --> 00:10:07,139

arachnophobia terrifying to look in the

194

00:10:14,389 --> 00:10:11,100

glorious detail of this creature and I

195

00:10:15,920 --> 00:10:14,399

think this this group of creatures or

196

00:10:19,430 --> 00:10:15,930

what-have-you

197

00:10:22,970 --> 00:10:19,440

were on the planet for such a huge

198

00:10:25,430 --> 00:10:22,980

length of time before being extinct or

199

00:10:27,800 --> 00:10:25,440

dying out or evolving or whatever but

200

00:10:30,139 --> 00:10:27,810

for countless eons there were spiders

201
00:10:32,840 --> 00:10:30,149
scorpions and creatures like them well

202
00:10:34,490 --> 00:10:32,850
exactly I mean in a sense you're talking

203
00:10:39,009 --> 00:10:34,500
about a missing link you're talking

204
00:10:42,920 --> 00:10:39,019
about a representative of a group that's

205
00:10:45,790 --> 00:10:42,930
not fully fledged spider it's not a

206
00:10:48,259 --> 00:10:45,800
fully fledged scorpion it is a

207
00:10:49,579 --> 00:10:48,269
representative of the transition between

208
00:10:50,660 --> 00:10:49,589
those two groups

209
00:10:52,160 --> 00:10:50,670
there's going to be a movie now

210
00:10:54,050 --> 00:10:52,170
someone's going to listen to this and

211
00:10:58,069 --> 00:10:54,060
say oh the next movie is going to be the

212
00:11:00,400 --> 00:10:58,079
spider scorpion movie yeah even better

213
00:11:03,319 --> 00:11:00,410

because it's preserved in amber some

214

00:11:06,980 --> 00:11:03,329

some clueless person will want to

215

00:11:09,410 --> 00:11:06,990

reconstruct it from the DNA and probably

216

00:11:11,389 --> 00:11:09,420

confused the DNA with I don't know

217

00:11:14,720 --> 00:11:11,399

elephant DNA or something so we end up

218

00:11:17,179 --> 00:11:14,730

with a giant spider scorpion well having

219

00:11:20,300 --> 00:11:17,189

Jurassic Park lost a lot of opportunity

220

00:11:23,269 --> 00:11:20,310

they could have had creatures exactly a

221

00:11:26,079 --> 00:11:23,279

pox and errors and what a giant wombat

222

00:11:28,790 --> 00:11:26,089

drastic park let's have the joint end by

223

00:11:32,329 --> 00:11:28,800

speaking more like we're more likely to

224

00:11:35,569 --> 00:11:32,339

do that new cuz we can actually get DNA

225

00:11:41,540 --> 00:11:35,579

there only we could get DNA either for

226

00:11:44,030 --> 00:11:41,550

the larger species of of the wombats

227

00:11:45,769 --> 00:11:44,040

that lived in the cup

228

00:11:48,710 --> 00:11:45,779

a couple of tens of thousands of years

229

00:11:50,180 --> 00:11:48,720

ago right or the group called the

230

00:11:52,610 --> 00:11:50,190

Diprotodon tens which are often

231

00:11:54,050 --> 00:11:52,620

described as massive wombats the largest

232

00:11:55,819 --> 00:11:54,060

marsupials that have ever lived

233

00:11:58,370 --> 00:11:55,829

yeah I've seen the chances of getting

234

00:11:59,810 --> 00:11:58,380

DNA out of amber 100 million years old

235

00:12:01,699 --> 00:11:59,820

is zero

236

00:12:03,769 --> 00:12:01,709

well I mean makes it makes for fun

237

00:12:06,050 --> 00:12:03,779

movies anyway when one of our reporters

238

00:12:07,790 --> 00:12:06,060

on the Skippy and Trish Han one of her

239

00:12:10,819 --> 00:12:07,800

favorite movies is the original Jurassic

240

00:12:12,620 --> 00:12:10,829

Park and I saw it at her place about a

241

00:12:15,850 --> 00:12:12,630

year or two back and Wow it was a

242

00:12:19,550 --> 00:12:15,860

fabulous nostalgia trip yeah yeah really

243

00:12:23,720 --> 00:12:19,560

and some of the wonderful mistakes in it

244

00:12:33,620 --> 00:12:29,600

they they had a vile in the in when

245

00:12:38,210 --> 00:12:33,630

Nidre goes into steals the specimens of

246

00:12:40,639 --> 00:12:38,220

embryos one of the species of dinosaur

247

00:12:43,280 --> 00:12:40,649

is a thing I think it's a Kraken Saurus

248

00:12:45,439 --> 00:12:43,290

hmm and at the time it was only known

249

00:12:47,780 --> 00:12:45,449

from a couple of lumbar vertebrae of an

250

00:12:51,579 --> 00:12:47,790

adult right so the only way you could

251
00:12:54,439 --> 00:12:51,589
identify the embryos of Acrocanthosaurus

252
00:12:57,620 --> 00:12:54,449
would be to grow one to adulthood

253
00:12:59,750 --> 00:12:57,630
kill it drip it down and identify that

254
00:13:05,540 --> 00:12:59,760
the lumbar vertebrae were the same thing

255
00:13:07,930 --> 00:13:05,550
and then you could say yes that was boy

256
00:13:10,819 --> 00:13:07,940
you're spoiling that the movie magic

257
00:13:13,790 --> 00:13:10,829
technically speaking I'm not a pen no no

258
00:13:16,579 --> 00:13:13,800
no I know I understand I I love all

259
00:13:18,590 --> 00:13:16,589
those movies I put my brain on hold it's

260
00:13:22,250 --> 00:13:18,600
it's having is having a lot of fun but

261
00:13:23,900 --> 00:13:22,260
we're talking about ancient Australian

262
00:13:27,410 --> 00:13:23,910
animals here let's go even further back

263
00:13:29,960 --> 00:13:27,420

another news item that you covered in in

264

00:13:31,790 --> 00:13:29,970

the series was a discovery of a new

265

00:13:33,620 --> 00:13:31,800

dinosaur in Victoria which is

266

00:13:35,509 --> 00:13:33,630

particularly interesting when it links

267

00:13:37,850 --> 00:13:35,519

up to other dinosaur species in the

268

00:13:39,590 --> 00:13:37,860

southern hemisphere and amazingly enough

269

00:13:42,829 --> 00:13:39,600

this thing could have lived in the

270

00:13:45,590 --> 00:13:42,839

Arctic Circle yeah this is a one of the

271

00:13:47,749 --> 00:13:45,600

very the meat-eating dinosaurs you know

272

00:13:48,889 --> 00:13:47,759

when you say the the theropods or the

273

00:13:50,720 --> 00:13:48,899

medium you go so that everyone thinks

274

00:13:54,679 --> 00:13:50,730

that rhinoceros or Allosaurus you know

275

00:13:56,689 --> 00:13:54,689

the be the Metis but the theropods are a

276

00:13:57,350 --> 00:13:56,699

really diverse group there's a lot of

277

00:13:59,990 --> 00:13:57,360

weird

278

00:14:03,350 --> 00:14:00,000

strange lineages and one of those

279

00:14:06,259 --> 00:14:03,360

strange lineages has just been

280

00:14:09,530 --> 00:14:06,269

identified from a neck bone found in

281

00:14:13,130 --> 00:14:09,540

Victoria again it's about 100 million

282

00:14:16,400 --> 00:14:13,140

years old and the only thing like it is

283

00:14:20,720 --> 00:14:16,410

from similar age deposits in Madagascar

284

00:14:23,300 --> 00:14:20,730

now at the time Australia was so far

285

00:14:25,280 --> 00:14:23,310

south that that site wouldn't that

286

00:14:28,639 --> 00:14:25,290

animal would have been living within the

287

00:14:31,430 --> 00:14:28,649

Antarctic Circle so you immediately

288

00:14:33,440 --> 00:14:31,440

we're learning a heck of a lot just

289

00:14:37,060 --> 00:14:33,450

simply by the finding and identification

290

00:14:42,710 --> 00:14:37,070

of that one single neck bone that this

291

00:14:46,430 --> 00:14:42,720

strange group of theropods were present

292

00:14:48,920 --> 00:14:46,440

across Gondwana the Giants of the

293

00:14:52,730 --> 00:14:48,930

southern continent but also that they

294

00:14:56,090 --> 00:14:52,740

were living in environments that we

295

00:14:59,329 --> 00:14:56,100

don't expect many animals to be living

296

00:15:03,199 --> 00:14:59,339

in today yeah although it would have

297

00:15:06,019 --> 00:15:03,209

probably been warmer below the Antarctic

298

00:15:09,500 --> 00:15:06,029

Circle 100 million years ago it wouldn't

299

00:15:12,139 --> 00:15:09,510

have been that much warmer it would

300

00:15:17,230 --> 00:15:12,149

still be pretty harsh conditions to make

301

00:15:20,720 --> 00:15:17,240

a living in so it really opens our whole

302

00:15:23,389 --> 00:15:20,730

understanding of the abilities of these

303

00:15:25,340 --> 00:15:23,399

creatures to live in a number of harsh

304

00:15:26,689 --> 00:15:25,350

environments now of course you know what

305

00:15:28,610 --> 00:15:26,699

you're talking about especially in this

306

00:15:30,250 --> 00:15:28,620

situation because you've been down to

307

00:15:33,199 --> 00:15:30,260

the Antarctic quite a few times

308

00:15:39,019 --> 00:15:33,209

yeah I've been down I think it's 11

309

00:15:41,630 --> 00:15:39,029

times now I was a expert to a guide with

310

00:15:44,810 --> 00:15:41,640

Aurora expeditions mm-hmm

311

00:15:47,480 --> 00:15:44,820

specifically my job was to introduce the

312

00:15:50,689 --> 00:15:47,490

tourists to the fossil deposits on the

313

00:15:52,730 --> 00:15:50,699

Antarctic Peninsula and there are

314

00:15:54,710 --> 00:15:52,740

spectacular fossil deposits there

315

00:15:57,410 --> 00:15:54,720

because they haven't been picked over by

316

00:16:00,230 --> 00:15:57,420

people yeah anywhere else in the world

317

00:16:02,060 --> 00:16:00,240

if you've got well there's a couple of

318

00:16:04,550 --> 00:16:02,070

factors that are in your favor in

319

00:16:06,889 --> 00:16:04,560

Antarctica everywhere else in the world

320

00:16:08,900 --> 00:16:06,899

where there have been spectacular fossil

321

00:16:10,430 --> 00:16:08,910

deposits though because they're easier

322

00:16:12,800 --> 00:16:10,440

to get to

323

00:16:14,780 --> 00:16:12,810

there's people around they many of them

324

00:16:17,119 --> 00:16:14,790

have been picked clean but also in

325

00:16:20,689 --> 00:16:17,129

Antarctica there's no soil there's no

326

00:16:23,180 --> 00:16:20,699

vegetation so you can see the bedrock in

327

00:16:27,050 --> 00:16:23,190

most places that you go to if there's no

328

00:16:30,259 --> 00:16:27,060

snow or ice and surprisingly large areas

329

00:16:31,579 --> 00:16:30,269

of the Antarctic Peninsula particularly

330

00:16:34,809 --> 00:16:31,589

on the eastern side where the fossils

331

00:16:37,249 --> 00:16:34,819

are a completely bare of snow and ice

332

00:16:41,929 --> 00:16:37,259

you see the bedrock you see the fossils

333

00:16:45,650 --> 00:16:41,939

and yeah it's and the icing on the cake

334

00:16:48,829 --> 00:16:45,660

is one set of deposits that produce

335

00:16:53,119 --> 00:16:48,839

fossils in Antarctica span the period of

336

00:16:57,470 --> 00:16:53,129

time dinosaurs disappeared the sequence

337

00:17:01,699 --> 00:16:57,480

of beds that date from about 70 million

338

00:17:05,329 --> 00:17:01,709

years down to about 55 million years ago

339

00:17:07,069 --> 00:17:05,339

that covers it and the extinction is

340

00:17:11,090 --> 00:17:07,079

almost slap-bang in the middle of that

341

00:17:14,870 --> 00:17:11,100

material we're talking about 66 65 to 66

342

00:17:19,850 --> 00:17:14,880

years ago 65.5 depends on the day of the

343

00:17:22,640 --> 00:17:19,860

week yeah but and there are places in

344

00:17:26,120 --> 00:17:22,650

Antarctica where you on Seymour Island

345

00:17:29,960 --> 00:17:26,130

where you can literally walk across an

346

00:17:32,830 --> 00:17:29,970

ancient seabed crammed full of fossils

347

00:17:35,870 --> 00:17:32,840

and then there's a line in the dirt and

348

00:17:38,890 --> 00:17:35,880

the fossils disappeared well and that

349

00:17:41,810 --> 00:17:38,900

line in the dirt is the KT extinction

350

00:17:43,549 --> 00:17:41,820

okay I keep threatening to come with you

351
00:17:45,200 --> 00:17:43,559
on your next expedition I'm sure we can

352
00:17:47,539 --> 00:17:45,210
share a cabin Paul I'm sure that

353
00:17:50,539 --> 00:17:47,549
wouldn't be any problem yeah yeah I'm

354
00:17:54,409 --> 00:17:50,549
not sure how that whole venture is going

355
00:17:55,399 --> 00:17:54,419
to go post Coburn but it would be nice

356
00:17:58,039 --> 00:17:55,409
to get back down there

357
00:18:00,799 --> 00:17:58,049
finally finally some news about t-rex

358
00:18:03,110 --> 00:18:00,809
and the fact that the animal itself

359
00:18:07,100 --> 00:18:03,120
seemed to change quite a bit during its

360
00:18:12,440 --> 00:18:07,110
like its its own lifespan yeah we've

361
00:18:15,590 --> 00:18:12,450
known for some time that t-rex was quite

362
00:18:17,870 --> 00:18:15,600
different as a juvenile inform as to

363
00:18:21,710 --> 00:18:17,880

what it was like when it was an adult

364

00:18:23,460 --> 00:18:21,720

and this had been quantified into a

365

00:18:26,100 --> 00:18:23,470

growth curve a couple

366

00:18:27,630 --> 00:18:26,110

times in the past but what happened and

367

00:18:31,110 --> 00:18:27,640

this is only last week that this was

368

00:18:35,180 --> 00:18:31,120

published eased some researchers went

369

00:18:38,789 --> 00:18:35,190

back and looked at all 44 specimens that

370

00:18:46,490 --> 00:18:38,799

are known for *Tran asaurus rex* they

371

00:18:50,789 --> 00:18:46,500

measured something like 1875 features of

372

00:18:54,299 --> 00:18:50,799

those specimens and then they plug that

373

00:18:56,820 --> 00:18:54,309

in to produce a growth curve so we know

374

00:19:00,060 --> 00:18:56,830

pretty accurately how long they lived

375

00:19:03,990 --> 00:19:00,070

when their growth spurts were the

376

00:19:07,049 --> 00:19:04,000

periods of of growth so you've got a

377

00:19:09,060 --> 00:19:07,059

juvenile you've got a sub-adult you've

378

00:19:10,440 --> 00:19:09,070

got an adult there's actually five

379

00:19:15,080 --> 00:19:10,450

periods of growth that they've

380

00:19:18,570 --> 00:19:15,090

identified and so we can actually track

381

00:19:22,980 --> 00:19:18,580

how these things changed as they grew

382

00:19:25,860 --> 00:19:22,990

and as a young creature they would have

383

00:19:29,460 --> 00:19:25,870

the most obvious differences a word they

384

00:19:32,520 --> 00:19:29,470

would tend to have an arrow and and

385

00:19:35,789 --> 00:19:32,530

relatively shallow skull mm-hmm

386

00:19:39,690 --> 00:19:35,799

and as they got older the skull got

387

00:19:42,090 --> 00:19:39,700

deeper and broader and they lost teeth

388

00:19:45,120 --> 00:19:42,100

well that makes a number of teeth the

389

00:19:48,930 --> 00:19:45,130

number of teeth decreased as they went

390

00:19:51,570 --> 00:19:48,940

as they grew older there are other many

391

00:19:54,120 --> 00:19:51,580

other differences but you know the the

392

00:19:57,750 --> 00:19:54,130

fact that we've now got this really

393

00:20:00,419 --> 00:19:57,760

detailed report as to how trance or has

394

00:20:02,760 --> 00:20:00,429

changed throughout its life it's really

395

00:20:06,060 --> 00:20:02,770

an insight into their biology it's

396

00:20:09,330 --> 00:20:06,070

fascinating to do do we have a decent

397

00:20:12,899 --> 00:20:09,340

understanding of what a life expectancy

398

00:20:18,350 --> 00:20:12,909

for a t-rex would be at 28 years hmm

399

00:20:22,820 --> 00:20:18,360

about 28 years and most of the growth is

400

00:20:25,950 --> 00:20:22,830

concentrated into a period from about I

401
00:20:31,649 --> 00:20:25,960
think it's about seven years old to

402
00:20:32,909 --> 00:20:31,659
about 15 you it's not as a constant

403
00:20:36,029 --> 00:20:32,919
flatline growth

404
00:20:37,220 --> 00:20:36,039
it's almost exponential and then it

405
00:20:39,890 --> 00:20:37,230
tapers off

406
00:20:42,409 --> 00:20:39,900
and that the main growth period is right

407
00:20:44,840 --> 00:20:42,419
in the middle there wow so much to find

408
00:20:46,789 --> 00:20:44,850
out and folks the only reason I knew

409
00:20:48,380 --> 00:20:46,799
about this these items we've been

410
00:20:50,500 --> 00:20:48,390
discussing today is I took the time and

411
00:20:54,470 --> 00:20:50,510
I watched the first three episodes of

412
00:20:56,810 --> 00:20:54,480
paleo pictures the dinosaur the news

413
00:20:59,630 --> 00:20:56,820

updates the Dino updates the paleo

414

00:21:01,310 --> 00:20:59,640

updates paleo pictures news it's called

415

00:21:05,299 --> 00:21:01,320

where can people see that for themselves

416

00:21:10,220 --> 00:21:05,309

Paul we've got a YouTube channel just

417

00:21:13,960 --> 00:21:10,230

look up paleo news or paleo pictures and

418

00:21:19,250 --> 00:21:13,970

also we are putting them out as a

419

00:21:23,120 --> 00:21:19,260

Instagram TV series which you can view

420

00:21:24,530 --> 00:21:23,130

through Paleo pictures on Instagram and

421

00:21:31,100 --> 00:21:24,540

if I can just give a shout out because

422

00:21:34,750 --> 00:21:31,110

paleo pictures as a business yeah pretty

423

00:21:39,169 --> 00:21:34,760

unusual beasts because not only are we a

424

00:21:42,530 --> 00:21:39,179

documentary production company but we

425

00:21:45,560 --> 00:21:42,540

also are a research company right and we

426

00:21:48,890 --> 00:21:45,570

aim to fund the research that we make

427

00:21:51,020 --> 00:21:48,900

the documentaries about it's a bit of an

428

00:21:52,760 --> 00:21:51,030

unusual beast and if it wasn't for a

429

00:21:55,310 --> 00:21:52,770

number of people in the skeptic

430

00:21:58,370 --> 00:21:55,320

community in Australia who came on board

431

00:22:01,460 --> 00:21:58,380

as shareholders really early on we

432

00:22:03,230 --> 00:22:01,470

wouldn't be where we are today so I'm

433

00:22:05,060 --> 00:22:03,240

not gonna embarrass anyone by naming

434

00:22:08,090 --> 00:22:05,070

names but a big shout out to all of

435

00:22:10,820 --> 00:22:08,100

those guys who got behind us and if

436

00:22:14,090 --> 00:22:10,830

anybody else is interested in supporting

437

00:22:18,320 --> 00:22:14,100

our activities we have got a patreon

438

00:22:22,640 --> 00:22:18,330

account right and if you want to support

439

00:22:24,710 --> 00:22:22,650

the future of paleontology and telling

440

00:22:27,380 --> 00:22:24,720

the world the wonders of the mysteries

441

00:22:29,630 --> 00:22:27,390

from the past then hop on to our patreon

442

00:22:32,419 --> 00:22:29,640

account and look at becoming a patreon a

443

00:22:34,700 --> 00:22:32,429

patron for Palio pictures folks you can

444

00:22:37,880 --> 00:22:34,710

support the future of the past how about

445

00:22:41,590 --> 00:22:37,890

that that's that's the message you like

446

00:22:46,700 --> 00:22:44,960

well Paul Willis associate professor

447

00:22:48,110 --> 00:22:46,710

Paul Willis always a pleasure to have

448

00:22:50,120 --> 00:22:48,120

you on the sceptic zone you've been at

449

00:22:51,890 --> 00:22:50,130

my guest on the show quite a few times

450

00:22:54,890 --> 00:22:51,900

you even have your own theme music which

451
00:22:56,419 --> 00:22:54,900
is quite an honor we look forward and I

452
00:22:59,419 --> 00:22:56,429
look forward especially myself to

453
00:23:01,700 --> 00:22:59,429
watching each new episode of paleo

454
00:23:03,140 --> 00:23:01,710
pictures news as it comes online but for

455
00:23:09,430 --> 00:23:03,150
now thank you very much

456
00:23:28,909 --> 00:23:16,860
[Music]

457
00:23:36,029 --> 00:23:32,999
dr. Harriet Hall MD no into thousands as

458
00:23:39,149 --> 00:23:36,039
the skeptic a retired family physician

459
00:23:41,219 --> 00:23:39,159
and former Air Force flight surgeon she

460
00:23:42,919 --> 00:23:41,229
writes about medicine so-called

461
00:23:44,219 --> 00:23:42,929
complementary and alternative medicine

462
00:23:47,999 --> 00:23:44,229
science

463
00:23:50,639 --> 00:23:48,009

pakery and critical thinking Harriet now

464

00:23:53,070 --> 00:23:50,649

has a free course a series of 10 video

465

00:23:56,339 --> 00:23:53,080

lectures on science-based medicine and

466

00:23:58,469 --> 00:23:56,349

alternative medicine the videos and an

467

00:24:01,979 --> 00:23:58,479

accompanying course guide can be found

468

00:24:06,109 --> 00:24:01,989

by following the link at skeptic info or

469

00:24:11,399 --> 00:24:06,119

by visiting web Randi's org slash

470

00:24:13,829 --> 00:24:11,409

educational - modules dot html' topics

471

00:24:16,349 --> 00:24:13,839

covered in the series are science-based

472

00:24:20,089 --> 00:24:16,359

medicine vs. evidence-based medicine

473

00:24:23,369 --> 00:24:20,099

what is camp chiropractic acupuncture

474

00:24:26,159 --> 00:24:23,379

homeopathy naturopathy and herbal

475

00:24:28,889 --> 00:24:26,169

medicine energy medicine miscellaneous

476

00:24:31,859 --> 00:24:28,899

alternatives pitfalls in research and

477

00:24:35,639 --> 00:24:31,869

science based medicine in the media and

478

00:24:38,219 --> 00:24:35,649

politics Harriette covers each topic in

479

00:24:41,489 --> 00:24:38,229

a matter-of-fact no-nonsense way that

480

00:24:43,130 --> 00:24:41,499

shorter educate and entertain skeptic

481

00:25:08,770 --> 00:24:43,140

dot info

482

00:25:10,690 --> 00:25:08,780

[Music]

483

00:25:13,490 --> 00:25:10,700

logical fallacies

484

00:25:16,620 --> 00:25:13,500

[Music]

485

00:25:18,690 --> 00:25:16,630

what are the logical fallacies and why

486

00:25:22,500 --> 00:25:18,700

is it important that critical thinkers

487

00:25:25,740 --> 00:25:22,510

should know about them a logical fallacy

488

00:25:27,450 --> 00:25:25,750

is an error we can make in reasoning but

489

00:25:31,130 --> 00:25:27,460

it usually crops up when we are

490

00:25:33,900 --> 00:25:31,140

discussing or arguing our point of view

491

00:25:36,210 --> 00:25:33,910

some people might even knowingly use

492

00:25:36,840 --> 00:25:36,220

them to try and score cheap points in an

493

00:25:40,800 --> 00:25:36,850

argument

494

00:25:43,350 --> 00:25:40,810

due to intellectual laziness they are

495

00:25:45,630 --> 00:25:43,360

traps we can fall into but if we know

496

00:25:47,910 --> 00:25:45,640

what to look out for we can spot them

497

00:25:53,850 --> 00:25:47,920

when they occur and stop ourselves from

498

00:25:57,600 --> 00:25:53,860

using them this time we'll look at

499

00:26:01,080 --> 00:25:57,610

moving the goal posts also known as

500

00:26:03,120 --> 00:26:01,090

raising the bar and the shifting sands

501
00:26:05,880 --> 00:26:03,130
this is when your opponent does not

502
00:26:08,370 --> 00:26:05,890
accept a successful answer to their

503
00:26:12,450 --> 00:26:08,380
challenge and insists on you answering

504
00:26:15,150 --> 00:26:12,460
more and more questions sometimes people

505
00:26:17,970 --> 00:26:15,160
simply cannot accept the fact that their

506
00:26:20,900 --> 00:26:17,980
challenge has been answered thus showing

507
00:26:24,570 --> 00:26:20,910
that their own point of view is wrong

508
00:26:27,660 --> 00:26:24,580
instead of acknowledging this and that

509
00:26:29,850 --> 00:26:27,670
can be awkward for any of us they'll add

510
00:26:32,430 --> 00:26:29,860
to their challenge with new conditions

511
00:26:35,910 --> 00:26:32,440
that makes it harder and harder to show

512
00:26:38,640 --> 00:26:35,920
them wrong a creationist challenge a

513
00:26:41,220 --> 00:26:38,650

paleontologist to show at least one

514

00:26:44,180 --> 00:26:41,230

example of a transitional fossil that

515

00:26:46,950 --> 00:26:44,190

links dinosaurs to birds when the

516

00:26:49,830 --> 00:26:46,960

paleontologist did just that the

517

00:26:53,280 --> 00:26:49,840

creationist complained that all this new

518

00:26:55,260 --> 00:26:53,290

fossil did was to create two new gaps on

519

00:26:57,990 --> 00:26:55,270

either side of the fossil record and

520

00:26:59,000 --> 00:26:58,000

wanted yet more examples to fill in

521

00:27:01,980 --> 00:26:59,010

those gaps

522

00:27:05,280 --> 00:27:01,990

since the creationists worldview and

523

00:27:07,920 --> 00:27:05,290

religion are to them beyond question it

524

00:27:10,110 --> 00:27:07,930

would be very hard bordering on

525

00:27:13,560 --> 00:27:10,120

impossible for them to accept evidence

526

00:27:15,600 --> 00:27:13,570

that contradicts this view they often

527

00:27:18,690 --> 00:27:15,610

resort to moving the goalposts

528

00:27:21,210 --> 00:27:18,700

to preserve their belief system in fact

529

00:27:23,190 --> 00:27:21,220

science has discovered thousands of

530

00:27:26,610 --> 00:27:23,200

examples of transitions in the fossil

531

00:27:28,830 --> 00:27:26,620

record showing clear evolutionary step

532

00:27:31,890 --> 00:27:28,840

within a Spacey's and from one species

533

00:27:34,350 --> 00:27:31,900

to another I think the moon landings

534

00:27:36,840 --> 00:27:34,360

were faked in a movie studio there was

535

00:27:40,440 --> 00:27:36,850

no way the USA had the technology to

536

00:27:43,200 --> 00:27:40,450

reach the moon in 1969 I mean look at

537

00:27:45,810 --> 00:27:43,210

all the hundreds of inconsistencies and

538

00:27:48,960 --> 00:27:45,820

impossible things we are supposed to

539

00:27:51,480 --> 00:27:48,970

believe as each claim made by those

540

00:27:53,100 --> 00:27:51,490

espousing a moon landing conspiracy is

541

00:27:55,799 --> 00:27:53,110

met and debunked

542

00:27:59,130 --> 00:27:55,809

for example the multiple light sources

543

00:28:02,040 --> 00:27:59,140

on the moon or the lack of stars in

544

00:28:05,220 --> 00:28:02,050

photos of the lunar sky they either

545

00:28:08,100 --> 00:28:05,230

reject the evidence outright or may well

546

00:28:10,890 --> 00:28:08,110

accept the evidence but then move on to

547

00:28:15,210 --> 00:28:10,900

yet another claim and another and

548

00:28:17,760 --> 00:28:15,220

another there appears to be no degree of

549

00:28:21,060 --> 00:28:17,770

evidence that will finally convince them

550

00:28:24,260 --> 00:28:21,070

that the landings were real and humans

551
00:28:26,520 --> 00:28:24,270
have been to the moon a breatharian

552
00:28:28,980 --> 00:28:26,530
someone who claims they can live on

553
00:28:31,169 --> 00:28:28,990
little more than fresh air was

554
00:28:33,990 --> 00:28:31,179
challenged to prove her amazing claim

555
00:28:37,470 --> 00:28:34,000
she agreed to be watched day and night

556
00:28:40,110 --> 00:28:37,480
in a city hotel room but after only 48

557
00:28:42,930 --> 00:28:40,120
hours she displayed symptoms of acute

558
00:28:45,950 --> 00:28:42,940
dehydration stress and high blood

559
00:28:48,480 --> 00:28:45,960
pressure she claimed it was due to

560
00:28:51,450 --> 00:28:48,490
polluted air and was moved to another

561
00:28:55,590 --> 00:28:51,460
hotel in the countryside but didn't

562
00:28:59,690 --> 00:28:55,600
improve this really happened in the year

563
00:29:03,140 --> 00:28:59,700

2000 the 60 Minutes TV show in Australia

564

00:29:06,990 --> 00:29:03,150

arranged for breatharian jazz Maheen or

565

00:29:09,810 --> 00:29:07,000

ellen grieve to be tested as per her

566

00:29:12,210 --> 00:29:09,820

claim she was happy with the test

567

00:29:15,080 --> 00:29:12,220

conditions but when it became apparent

568

00:29:18,150 --> 00:29:15,090

she was deteriorating from lack of food

569

00:29:21,720 --> 00:29:18,160

she changed the conditions of the test

570

00:29:25,230 --> 00:29:21,730

in effect moving the goal posts

571

00:29:28,169 --> 00:29:25,240

even though 60 minutes agreed her health

572

00:29:30,130 --> 00:29:28,179

continued to decline and the test was

573

00:29:31,399 --> 00:29:30,140

canceled

574

00:29:34,139 --> 00:29:31,409

[Music]

575

00:29:37,019 --> 00:29:34,149

protecting our worldview or belief

576

00:29:41,070 --> 00:29:37,029

system is a very human thing to do and

577

00:29:43,710 --> 00:29:41,080

we all do it to one degree or another it

578

00:29:46,470 --> 00:29:43,720

can at times protect us from simply

579

00:29:49,440 --> 00:29:46,480

believing in whatever someone tells us

580

00:29:52,769 --> 00:29:49,450

and we should not be afraid to ask for

581

00:29:55,889 --> 00:29:52,779

more information and evidence you might

582

00:29:58,169 --> 00:29:55,899

call it healthy skepticism but there

583

00:30:00,509 --> 00:29:58,179

comes a point when moving the goalposts

584

00:30:03,360 --> 00:30:00,519

is about rejecting evidence that

585

00:30:09,090 --> 00:30:03,370

conflicts with what we want or need to

586

00:30:11,669 --> 00:30:09,100

be true knowing a logical fallacy when

587

00:30:14,370 --> 00:30:11,679

you hear one and even knowing its name

588

00:30:18,060 --> 00:30:14,380

is important when arguing your point of

589

00:30:20,879 --> 00:30:18,070

view however you may come across as

590

00:30:23,490 --> 00:30:20,889

arrogant and not get very far if you

591

00:30:27,210 --> 00:30:23,500

call it out by name to your opponent

592

00:30:29,519 --> 00:30:27,220

when you hear it being used if your

593

00:30:32,340 --> 00:30:29,529

opponent calls you out for using one

594

00:30:35,940 --> 00:30:32,350

it's time to stop and think about how

595

00:30:38,250 --> 00:30:35,950

you were making your case use your

596

00:30:41,580 --> 00:30:38,260

knowledge of logical fallacies wisely

597

00:30:43,830 --> 00:30:41,590

and remember that even if your point of

598

00:30:46,860 --> 00:30:43,840

view is right and you know all the

599

00:30:50,370 --> 00:30:46,870

pitfalls in arguing your case it doesn't

600

00:30:53,789 --> 00:30:50,380

always mean you'll win on the day and a

601
00:30:59,580 --> 00:30:53,799
skeptics we must also remember that we

602
00:31:01,320 --> 00:30:59,590
too can be wrong at times I'm Michele

603
00:31:12,090 --> 00:31:01,330
bigger smart from the Vick skeptics

604
00:31:12,100 --> 00:31:21,070
[Music]

605
00:31:33,020 --> 00:31:24,880
to the organizer spooky encounters like

606
00:31:35,720 --> 00:31:33,030
stump far outback Australia I am writing

607
00:31:41,570 --> 00:31:35,730
to you to complain about the lack of

608
00:31:45,380 --> 00:31:41,580
ghosts of late in your so-called most

609
00:31:48,490 --> 00:31:45,390
haunted house in the world tour imagine

610
00:31:51,920 --> 00:31:48,500
my displeasure when upon arriving at the

611
00:31:57,380 --> 00:31:51,930
location the haunted house in question

612
00:31:59,420 --> 00:31:57,390
turned out to be an outhouse even worse

613
00:32:08,750 --> 00:31:59,430

there was a lengthy queue of people

614

00:32:11,570 --> 00:32:08,760

waiting to use it when at last it was my

615

00:32:16,120 --> 00:32:11,580

turn to enter the house

616

00:32:20,720 --> 00:32:16,130

the only disturbing aspect I encountered

617

00:32:28,330 --> 00:32:20,730

was the smell please be so kind as to

618

00:32:46,400 --> 00:32:36,560

yours disappointedly etc etc PS I also

619

00:33:08,270 --> 00:32:46,410

think your gift shop can do better than

620

00:33:09,980 --> 00:33:08,280

to sell hoarded toilet paper now we've

621

00:33:12,500 --> 00:33:09,990

been talking about over the last couple

622

00:33:15,200 --> 00:33:12,510

of months only a surprise all the

623

00:33:17,690 --> 00:33:15,210

conspiracies and scams and cons and

624

00:33:21,500 --> 00:33:17,700

wacky theories and etc to do with

625

00:33:23,840 --> 00:33:21,510

coronavirus and our reporter Heidi

626

00:33:26,060 --> 00:33:23,850

Robertson from the rock skeptic has

627

00:33:28,630 --> 00:33:26,070

brought this to the attention of the

628

00:33:32,120 --> 00:33:28,640

other skeptics own reporters this is a

629

00:33:34,490 --> 00:33:32,130

leaflet or a flyer just something

630

00:33:37,340 --> 00:33:34,500

printed out on a sheet of paper that's

631

00:33:42,770 --> 00:33:37,350

been appearing in letter boxes in

632

00:33:47,010 --> 00:33:42,780

Australia and it reads as follows

633

00:33:51,990 --> 00:33:47,020

[Music]

634

00:33:55,390 --> 00:33:52,000

the coronavirus is a scam dear citizen

635

00:33:58,330 --> 00:33:55,400

you have been deceived by the media

636

00:34:02,190 --> 00:33:58,340

government pharmaceutical companies and

637

00:34:07,680 --> 00:34:02,200

doctors it has been known for at least

638

00:34:11,110 --> 00:34:07,690

150 years the germs do not cause disease

639

00:34:14,110 --> 00:34:11,120

this was proven by a biologist by the

640

00:34:17,470 --> 00:34:14,120

name of Antoine B champ he was a

641

00:34:19,780 --> 00:34:17,480

contemporary of Louis Pasteur it was

642

00:34:22,830 --> 00:34:19,790

proven that germs are the result of a

643

00:34:25,660 --> 00:34:22,840

disease and are not the cause of it

644

00:34:28,450 --> 00:34:25,670

recent technology and understanding of

645

00:34:32,280 --> 00:34:28,460

vitamins has further confirmed this

646

00:34:36,550 --> 00:34:32,290

information disease is unnatural and

647

00:34:39,610 --> 00:34:36,560

doesn't occur by itself in nature humans

648

00:34:41,650 --> 00:34:39,620

have strayed from nature by growing

649

00:34:45,090 --> 00:34:41,660

cereal crops to store for the winter

650

00:34:48,220 --> 00:34:45,100

period when foods are scarce

651
00:34:51,040 --> 00:34:48,230
unfortunately there is a hidden cost in

652
00:34:53,800 --> 00:34:51,050
eating grain food when plants make a

653
00:34:56,050 --> 00:34:53,810
seed they add toxic chemicals and sharp

654
00:34:58,720 --> 00:34:56,060
edges to discourage foraging animals

655
00:35:01,750 --> 00:34:58,730
from eating grass seeds and some tree

656
00:35:04,390 --> 00:35:01,760
seeds when animals eat grain seeds the

657
00:35:07,630 --> 00:35:04,400
toxic chemicals and sharp edges irritate

658
00:35:10,660 --> 00:35:07,640
the gut causing inflammation of the gut

659
00:35:14,110 --> 00:35:10,670
aligning leaky gut syndrome

660
00:35:17,410 --> 00:35:14,120
this causes gaps in the gut lining to

661
00:35:19,020 --> 00:35:17,420
expand which allows gut bacteria and

662
00:35:23,170 --> 00:35:19,030
food material to enter the bloodstream

663
00:35:27,700 --> 00:35:23,180

and also grain is deficient in vitamins

664

00:35:28,560 --> 00:35:27,710

which humans need grain is a high octane

665

00:35:32,170 --> 00:35:28,570

fuel

666

00:35:36,430 --> 00:35:32,180

designed for birds when humans eat grain

667

00:35:39,370 --> 00:35:36,440

it causes an acceleration of their

668

00:35:42,100 --> 00:35:39,380

metabolic rate and a small increase in

669

00:35:44,440 --> 00:35:42,110

body temperature a doctor would call

670

00:35:48,100 --> 00:35:44,450

this a fever but this fever is not

671

00:35:51,670 --> 00:35:48,110

caused by germs but by fast digesting

672

00:35:56,350 --> 00:35:51,680

sugars from grain milk and sugar sources

673

00:35:57,250 --> 00:35:56,360

this is the true cause of 99% of all

674

00:36:01,930 --> 00:35:57,260

human disease

675

00:36:02,500 --> 00:36:01,940

these note junk food causes disease not

676
00:36:05,620 --> 00:36:02,510
germs

677
00:36:09,100 --> 00:36:05,630
that's why coronavirus mostly occurs on

678
00:36:13,780 --> 00:36:09,110
cruise ships nursing homes theme parks

679
00:36:16,210 --> 00:36:13,790
and fast food outlets now the next

680
00:36:21,190 --> 00:36:16,220
couple of sentences are in big bold

681
00:36:24,730 --> 00:36:21,200
print there is only one human disease

682
00:36:27,400 --> 00:36:24,740
which is called vitamin deficiency

683
00:36:31,300 --> 00:36:27,410
disease there are not thousands of

684
00:36:34,420 --> 00:36:31,310
different diseases there is no such

685
00:36:36,400 --> 00:36:34,430
thing as viruses I know because I have

686
00:36:39,850 --> 00:36:36,410
worked in an electron microscope unit

687
00:36:42,490 --> 00:36:39,860
where I have learnt how to use all the

688
00:36:45,490 --> 00:36:42,500

equipment I also learned about the

689

00:36:48,610 --> 00:36:45,500

electron microscopes limitations as well

690

00:36:52,810 --> 00:36:48,620

an electron microscope wouldn't be able

691

00:36:56,850 --> 00:36:52,820

to find a quote virus in quote if in

692

00:37:00,180 --> 00:36:56,860

fact they did exist

693

00:37:04,990 --> 00:37:00,190

you can't photograph what you can't find

694

00:37:08,770 --> 00:37:05,000

all alleged photos of viruses are blurry

695

00:37:11,980 --> 00:37:08,780

images why this is a deliberate

696

00:37:15,730 --> 00:37:11,990

deception because viruses don't exist so

697

00:37:18,340 --> 00:37:15,740

they have to make the furrows unclear so

698

00:37:22,660 --> 00:37:18,350

that nobody can see that the photos are

699

00:37:25,480 --> 00:37:22,670

of cell debris and are not photos of

700

00:37:27,550 --> 00:37:25,490

viruses the electron microscope can see

701
00:37:30,670 --> 00:37:27,560
individual atoms so there can be no

702
00:37:34,180 --> 00:37:30,680
excuse for not having clear and precise

703
00:37:35,430 --> 00:37:34,190
images of the so-called quote viruses

704
00:37:39,490 --> 00:37:35,440
end quote

705
00:37:42,630 --> 00:37:39,500
viruses are illogical nonsense you can't

706
00:37:45,880 --> 00:37:42,640
be dead one minute and alive the next a

707
00:37:49,810 --> 00:37:45,890
virus is something that has no brain

708
00:37:53,110 --> 00:37:49,820
legs nervous system sight ears and

709
00:37:56,170 --> 00:37:53,120
wouldn't be able to survive in a real

710
00:37:58,570 --> 00:37:56,180
world don't be fooled by medical and

711
00:38:03,100 --> 00:37:58,580
government officials who hope to gain

712
00:38:07,450 --> 00:38:03,110
profit power money and population

713
00:38:09,820 --> 00:38:07,460

control from this huge global scale

714

00:38:13,060 --> 00:38:09,830

now the next part is interesting and

715

00:38:16,180 --> 00:38:13,070

I'll get to that in a minute so it's in

716

00:38:18,600 --> 00:38:16,190

bold print help to stop this medical

717

00:38:22,680 --> 00:38:18,610

system dictatorship sign petitions

718

00:38:26,230 --> 00:38:22,690

against force vaccinations refer to

719

00:38:30,580 --> 00:38:26,240

informed medical options party for

720

00:38:34,270 --> 00:38:30,590

petitions against forced medications now

721

00:38:37,300 --> 00:38:34,280

I put out at a call-out on the skeptic

722

00:38:39,550 --> 00:38:37,310

zone Twitter page or Twitter feed for

723

00:38:42,670 --> 00:38:39,560

anybody who might know anything about

724

00:38:46,950 --> 00:38:42,680

this flyer and the information and I had

725

00:38:49,660 --> 00:38:46,960

a tip-off which led me to debate org and

726

00:38:52,210 --> 00:38:49,670

one of the people who take part in

727

00:38:58,200 --> 00:38:52,220

debates on that website who goes under

728

00:39:02,830 --> 00:38:58,210

the moniker of AK headed in' know so an

729

00:39:06,820 --> 00:39:02,840

egyptian-themed icon and they have

730

00:39:10,180 --> 00:39:06,830

started a debate as a recording six days

731

00:39:12,820 --> 00:39:10,190

ago the corona virus is a fraud and if

732

00:39:15,310 --> 00:39:12,830

we go down and read their opening

733

00:39:17,170 --> 00:39:15,320

arguments it's word-for-word what I just

734

00:39:18,760 --> 00:39:17,180

read to you you have been deceived by

735

00:39:20,230 --> 00:39:18,770

the media government pharmaceutical

736

00:39:22,150 --> 00:39:20,240

companies and doctors it has been known

737

00:39:25,050 --> 00:39:22,160

for at least 150 years excetera exoteric

738

00:39:27,490 --> 00:39:25,060

syrup right at the end though it says

739

00:39:29,140 --> 00:39:27,500

don't be fooled by the medical and

740

00:39:31,900 --> 00:39:29,150

government officials who help to gain

741

00:39:34,030 --> 00:39:31,910

profit power money and population

742

00:39:36,910 --> 00:39:34,040

control from this huge global scam

743

00:39:39,250 --> 00:39:36,920

helped to stop this medical system

744

00:39:41,740 --> 00:39:39,260

dictatorship and then it says sign

745

00:39:44,920 --> 00:39:41,750

petitions against force vaccinations and

746

00:39:49,060 --> 00:39:44,930

medications so it doesn't talk about

747

00:39:52,540 --> 00:39:49,070

going to I'm up I'm up

748

00:39:57,430 --> 00:39:52,550

what is I'm up well the website is I'm

749

00:40:00,610 --> 00:39:57,440

mop party calm and it says here the

750

00:40:02,800 --> 00:40:00,620

informed medical options party i mop

751
00:40:06,220 --> 00:40:02,810
formerly known as the involuntary

752
00:40:11,260 --> 00:40:06,230
medication objectors vaccination

753
00:40:12,940 --> 00:40:11,270
fluoride party so that gives you an

754
00:40:17,370 --> 00:40:12,950
inkling I think of what they are all

755
00:40:20,950 --> 00:40:17,380
about and it says they want to stand

756
00:40:23,170 --> 00:40:20,960
candidates for elections I'm up believe

757
00:40:25,390 --> 00:40:23,180
that the medical freedoms of Australians

758
00:40:27,849 --> 00:40:25,400
are at risk like never before in history

759
00:40:30,640 --> 00:40:27,859
so a little bit of scare mongering there

760
00:40:31,210 --> 00:40:30,650
I mops principal platforms are as

761
00:40:33,940 --> 00:40:31,220
follows

762
00:40:37,150 --> 00:40:33,950
no forced medication no compulsory or

763
00:40:40,270 --> 00:40:37,160

coerced vaccinations no fluoride in our

764

00:40:43,030 --> 00:40:40,280

water and one of the prominent people

765

00:40:48,070 --> 00:40:43,040

featured in the videos on this website

766

00:40:50,920 --> 00:40:48,080

is none other than Judy why Lehmann who

767

00:40:53,140 --> 00:40:50,930

we've mentioned before past recipient of

768

00:40:55,859 --> 00:40:53,150

the Australian skeptics bent spoon award

769

00:41:01,870 --> 00:40:55,869

for her anti vaccination rhetoric and

770

00:41:04,450 --> 00:41:01,880

downplaying the the emergency that was

771

00:41:07,359 --> 00:41:04,460

and still is the coronavirus situation

772

00:41:09,730 --> 00:41:07,369

and there are all sorts of PhDs and

773

00:41:12,670 --> 00:41:09,740

people associated with that movement

774

00:41:15,280 --> 00:41:12,680

that particular party but we are

775

00:41:17,410 --> 00:41:15,290

reminded of that old adage that no

776

00:41:20,650 --> 00:41:17,420

matter how crazy the idea is you'll

777

00:41:23,849 --> 00:41:20,660

always find percentage of doctors or

778

00:41:26,800 --> 00:41:23,859

PhDs or people like that who support it

779

00:41:28,750 --> 00:41:26,810

now I I really don't know if this

780

00:41:32,200 --> 00:41:28,760

ridiculous flier with its conspiracy

781

00:41:35,829 --> 00:41:32,210

theories and nonsense is truly linked to

782

00:41:38,290 --> 00:41:35,839

the imop party I'm a mop there's got to

783

00:41:41,079 --> 00:41:38,300

be a joke in there somewhere maybe the

784

00:41:43,150 --> 00:41:41,089

party itself I doubt it I think somebody

785

00:41:45,430 --> 00:41:43,160

has just found that online somewhere

786

00:41:48,130 --> 00:41:45,440

probably on that debate

787

00:41:50,829 --> 00:41:48,140

org or who knows where copied it and

788

00:41:53,020 --> 00:41:50,839

just tacked on the imop information

789

00:41:54,849 --> 00:41:53,030

because they did a google and saw that

790

00:41:57,750 --> 00:41:54,859

here in australia there is such a party

791

00:42:00,520 --> 00:41:57,760

who are running petitions against

792

00:42:03,700 --> 00:42:00,530

basically vaccination when you boil down

793

00:42:07,750 --> 00:42:03,710

to it but that flyer i think i will now

794

00:42:10,660 --> 00:42:07,760

upload to corona conspiracy dot cloud

795

00:42:12,370 --> 00:42:10,670

now we've mentioned this before and i

796

00:42:16,060 --> 00:42:12,380

recommend you go and have a look at that

797

00:42:17,800 --> 00:42:16,070

website corona conspiracy cloud it's a

798

00:42:21,849 --> 00:42:17,810

site where people have been posting up

799

00:42:25,030 --> 00:42:21,859

no end of conspiracies and quackery and

800

00:42:27,099 --> 00:42:25,040

bad advice to do with corona virus and

801
00:42:30,099 --> 00:42:27,109
it's beautifully laid out there's lots

802
00:42:31,400 --> 00:42:30,109
of thumbnails here you can scroll down

803
00:42:33,740 --> 00:42:31,410
which i'm doing now

804
00:42:37,370 --> 00:42:33,750
and for example what's the first one

805
00:42:40,599 --> 00:42:37,380
here covert 19 is a false flag operation

806
00:42:45,500 --> 00:42:40,609
to usher in the New World Order

807
00:42:48,170 --> 00:42:45,510
well there you go and also appearing on

808
00:42:51,490 --> 00:42:48,180
this site amongst all the quackery and

809
00:42:54,289 --> 00:42:51,500
nonsense are posts from homeopathy plus

810
00:42:59,740 --> 00:42:54,299
especially in regards to how wonderfully

811
00:43:03,140 --> 00:42:59,750
well homeopathy is working in India not

812
00:43:05,860 --> 00:43:03,150
well somebody once said and i'll say it

813
00:43:17,770 --> 00:43:05,870

again we live in interesting times

814

00:43:20,839 --> 00:43:17,780

[Music]

815

00:43:22,670 --> 00:43:20,849

Alaura ciao mi chiamo profesora de

816

00:43:25,940 --> 00:43:22,680

Beauty volumen senorita telugu

817

00:43:29,079 --> 00:43:25,950

sulakshana para la moda physica de

818

00:43:32,960 --> 00:43:29,089

chemica Bureau Jia astronomia

819

00:43:33,859 --> 00:43:32,970

Mathematica atonte ultra cosy guarda me

820

00:43:36,019 --> 00:43:33,869

su YouTube

821

00:43:37,760 --> 00:43:36,029

arrivederci hey everyone this is

822

00:43:40,039 --> 00:43:37,770

Professor Dave I want to teach you about

823

00:43:42,140 --> 00:43:40,049

all kinds of things regarding science I

824

00:43:44,029 --> 00:43:42,150

want to tell you about physics I want to

825

00:43:47,480 --> 00:43:44,039

tell you about chemistry biology

826

00:43:49,970 --> 00:43:47,490

astronomy math and many many more things

827

00:43:52,430 --> 00:43:49,980

come check me out on youtube the channel

828

00:43:52,830 --> 00:43:52,440

is called professor Dave explains take

829

00:43:55,800 --> 00:43:52,840

it easy

830

00:44:07,230 --> 00:43:55,810

[Music]

831

00:44:14,370 --> 00:44:07,240

the surgeon explained and now a reading

832

00:44:18,770 --> 00:44:14,380

from the book of Tim with Tim Mendham

833

00:44:23,610 --> 00:44:21,930

hi my name's Tim Mendham I'm the

834

00:44:25,950 --> 00:44:23,620

executive officer of Australian skeptics

835

00:44:28,530 --> 00:44:25,960

and also editor of our magazine the

836

00:44:31,470 --> 00:44:28,540

skeptic and this time I'll be reading an

837

00:44:34,860 --> 00:44:31,480

article called back to the past which

838

00:44:38,090 --> 00:44:34,870

actually comes out about June 2020 you

839

00:44:41,250 --> 00:44:38,100

with a magazine that's pretty up-to-date

840

00:44:44,330 --> 00:44:41,260

then again at the same time it is a

841

00:44:48,120 --> 00:44:44,340

reprint of a classic catch article from

842

00:44:52,710 --> 00:44:48,130

1995 and the thing is it's about

843

00:44:55,770 --> 00:44:52,720

chiropractic and between 1995 and 2020

844

00:44:58,680 --> 00:44:55,780

not much has changed so it's still very

845

00:45:01,560 --> 00:44:58,690

relevant this was written by dr. Steven

846

00:45:03,350 --> 00:45:01,570

Besser a retired GP and former

847

00:45:06,780 --> 00:45:03,360

vice-president of the Victorian sceptics

848

00:45:11,100 --> 00:45:06,790

he gave this article as a presentation

849

00:45:12,810 --> 00:45:11,110

at our 1995 convention in the article

850

00:45:15,720 --> 00:45:12,820

Steven says he wants to review the

851
00:45:19,040 --> 00:45:15,730
history of chiropractic and examine its

852
00:45:21,960 --> 00:45:19,050
scientific status at the time this was

853
00:45:23,420 --> 00:45:21,970
very timely and so was the hundredth

854
00:45:27,450 --> 00:45:23,430
anniversary of the founding of

855
00:45:29,730 --> 00:45:27,460
chiropractic now this year in 420 fifth

856
00:45:32,100 --> 00:45:29,740
he adds that to avoid any potential

857
00:45:34,950 --> 00:45:32,110
confusion and misunderstanding

858
00:45:37,500 --> 00:45:34,960
I thought it would be helpful to start

859
00:45:39,360 --> 00:45:37,510
with some conclusions what I'm saying

860
00:45:42,570 --> 00:45:39,370
here is that many of the claims of

861
00:45:44,730 --> 00:45:42,580
chiropractic are at present unscientific

862
00:45:48,180 --> 00:45:44,740
or more accurately scientifically

863
00:45:49,770 --> 00:45:48,190

unproven what he is not saying is that

864

00:45:52,320 --> 00:45:49,780

all of orthodox medicine is

865

00:45:54,270 --> 00:45:52,330

scientifically proven those who wish to

866

00:45:56,730 --> 00:45:54,280

read that message into this paper are

867

00:45:58,890 --> 00:45:56,740

advised to stop reading now to save

868

00:46:03,720 --> 00:45:58,900

disappointment and to preserve their

869

00:46:06,210 --> 00:46:03,730

prejudice the early history chiropractic

870

00:46:10,980 --> 00:46:06,220

was founded by Daniel David Palmer in

871

00:46:14,040 --> 00:46:10,990

September 1895 in Davenport Iowa in the

872

00:46:17,640 --> 00:46:14,050

u.s. Palmer was born in Ontario Canada

873

00:46:21,300 --> 00:46:17,650

in 1845 and at the age of 20 travelled

874

00:46:23,610 --> 00:46:21,310

with his brother to the USA in 1887 he

875

00:46:26,160 --> 00:46:23,620

moved to Iowa and opened a magnetic

876

00:46:27,840 --> 00:46:26,170

healing practice practitioners of

877

00:46:29,350 --> 00:46:27,850

magnetic healing believed they belong to

878

00:46:31,330 --> 00:46:29,360

a select group of persons

879

00:46:34,170 --> 00:46:31,340

whose personal magnetism was so great

880

00:46:37,690 --> 00:46:34,180

gave them the power to cure disease

881

00:46:39,220 --> 00:46:37,700

according to the official history Parma

882

00:46:43,120 --> 00:46:39,230

performed the first chiropractic

883

00:46:45,790 --> 00:46:43,130

adjustment in September 1895 on Harvey

884

00:46:49,300 --> 00:46:45,800

Lillard a janitor working in the

885

00:46:52,570 --> 00:46:49,310

building where Palmer practiced little

886

00:46:55,270 --> 00:46:52,580

art had been deaf for 17 years claiming

887

00:46:57,640 --> 00:46:55,280

he became so subtly and something gave

888

00:47:00,670 --> 00:46:57,650

way in his back while stooped in a

889

00:47:03,190 --> 00:47:00,680

cramped position Palmer examined Lillard

890

00:47:06,820 --> 00:47:03,200

and found an out-of-place vertebra in

891

00:47:08,550 --> 00:47:06,830

his spine after applying pressure that

892

00:47:12,520 --> 00:47:08,560

moved the vertebra back into place

893

00:47:14,140 --> 00:47:12,530

Lilith's hearing returned Palmer

894

00:47:16,540 --> 00:47:14,150

believed he had succeeded in one of his

895

00:47:19,960 --> 00:47:16,550

life's quests to find the secret of

896

00:47:23,440 --> 00:47:19,970

disease why one person falls ill while

897

00:47:25,660 --> 00:47:23,450

his or her neighbor does not he confided

898

00:47:28,380 --> 00:47:25,670

his discovery to a friend Reverend

899

00:47:31,630 --> 00:47:28,390

Samuel weed who suggested the name

900

00:47:35,530 --> 00:47:31,640

chiropractic from the Greek for done by

901
00:47:37,240 --> 00:47:35,540
hand Palmer had no medical training and

902
00:47:40,030 --> 00:47:37,250
was unaware that the nerves of hearing

903
00:47:41,320 --> 00:47:40,040
are entirely within the skull he

904
00:47:43,180 --> 00:47:41,330
believed he had restored the man's

905
00:47:46,330 --> 00:47:43,190
hearing by relieving pressure on a

906
00:47:49,030 --> 00:47:46,340
spinal nerve affecting hearing Palmer

907
00:47:52,030 --> 00:47:49,040
proposed the principle of the spinal

908
00:47:55,000 --> 00:47:52,040
subluxation and established chiropractic

909
00:47:57,640 --> 00:47:55,010
based upon it he believed that the body

910
00:47:59,620 --> 00:47:57,650
requires an unobstructed flow through

911
00:48:03,030 --> 00:47:59,630
the nervous system of an ethereal

912
00:48:05,680 --> 00:48:03,040
substance called innate intelligence

913
00:48:08,110 --> 00:48:05,690

vertebral subluxations minor

914

00:48:10,030 --> 00:48:08,120

dislocations of the spinal column were

915

00:48:12,760 --> 00:48:10,040

believed to interfere with the flow of

916

00:48:16,480 --> 00:48:12,770

innate and caused an alteration in

917

00:48:19,240 --> 00:48:16,490

nervous tone by depriving areas of the

918

00:48:22,720 --> 00:48:19,250

body of innate subluxations produced

919

00:48:25,300 --> 00:48:22,730

disease and parma claimed that 95% of

920

00:48:28,660 --> 00:48:25,310

all diseases were caused by subluxated

921

00:48:30,670 --> 00:48:28,670

vertebra treatment involved identifying

922

00:48:32,620 --> 00:48:30,680

these subluxations and manually

923

00:48:35,140 --> 00:48:32,630

restoring the vertebra to their normal

924

00:48:37,210 --> 00:48:35,150

alignment thus releasing the innate

925

00:48:40,700 --> 00:48:37,220

intelligence allowing the body's natural

926
00:48:43,280 --> 00:48:40,710
healing powers to cure the patient

927
00:48:46,460 --> 00:48:43,290
from its inception chiropractic was

928
00:48:48,260 --> 00:48:46,470
defended as a science for chiropractors

929
00:48:50,720 --> 00:48:48,270
though scientific knowledge was not

930
00:48:53,290 --> 00:48:50,730
acquired by experimental control of

931
00:48:55,280 --> 00:48:53,300
variables in a carefully designed study

932
00:48:57,710 --> 00:48:55,290
instead they examined and treated

933
00:48:59,780 --> 00:48:57,720
patients and argued as many still do

934
00:49:03,099 --> 00:48:59,790
today that the results of their clinical

935
00:49:06,680 --> 00:49:03,109
treatments constituted scientific proof

936
00:49:08,930 --> 00:49:06,690
Thomas and violet Joshua or BJ as is

937
00:49:10,760 --> 00:49:08,940
known had brought out his father's

938
00:49:12,980 --> 00:49:10,770

burgeoning chiropractic business after a

939

00:49:15,320 --> 00:49:12,990

bitter falling-out and assumed control

940

00:49:18,079 --> 00:49:15,330

of the financial and educational affairs

941

00:49:20,870 --> 00:49:18,089

proclaiming our school is on a business

942

00:49:23,960 --> 00:49:20,880

not a professional basis we manufacture

943

00:49:25,190 --> 00:49:23,970

chiropractors BJ was not an advocate of

944

00:49:28,430 --> 00:49:25,200

systematic science

945

00:49:29,780 --> 00:49:28,440

he and Coulter in 1990 said that there

946

00:49:32,300 --> 00:49:29,790

has been a long history with in

947

00:49:34,640 --> 00:49:32,310

chiropractic of anti-intellectualism and

948

00:49:37,730 --> 00:49:34,650

again this was heavily influenced by BJ

949

00:49:40,970 --> 00:49:37,740

Palmer we can't give you brains but we

950

00:49:42,800 --> 00:49:40,980

can give you a diploma throughout the

951

00:49:45,140 --> 00:49:42,810

19th century supporters of natural

952

00:49:47,780 --> 00:49:45,150

theology held to the view that science

953

00:49:50,240 --> 00:49:47,790

ennobled man because it demonstrated the

954

00:49:52,310 --> 00:49:50,250

magnificence of God chiropractors

955

00:49:54,109 --> 00:49:52,320

envisioned man as a microcosm of the

956

00:49:57,140 --> 00:49:54,119

universe with the innate intelligence

957

00:49:59,829 --> 00:49:57,150

and manifestation of a larger universal

958

00:50:02,380 --> 00:49:59,839

intelligence controlling everything

959

00:50:05,180 --> 00:50:02,390

chiropractic as a new scientific law

960

00:50:07,430 --> 00:50:05,190

enabling healing of the sick was an

961

00:50:10,339 --> 00:50:07,440

important contribution to revealing the

962

00:50:12,589 --> 00:50:10,349

goodness of God by comparison the

963

00:50:16,359 --> 00:50:12,599

emerging scientific medicine was

964

00:50:18,890 --> 00:50:16,369

regarded as atheistic materialism

965

00:50:21,290 --> 00:50:18,900

chiropractic was described by supporters

966

00:50:23,570 --> 00:50:21,300

as quote the only truly scientific

967

00:50:25,750 --> 00:50:23,580

method of healing because it balanced

968

00:50:28,099 --> 00:50:25,760

the spiritual and the material

969

00:50:30,079 --> 00:50:28,109

chiropractors believed their science was

970

00:50:32,839 --> 00:50:30,089

superior to medicine clinically and

971

00:50:34,310 --> 00:50:32,849

morally and attempted to appeal to those

972

00:50:37,010 --> 00:50:34,320

who were concerned about the growth of

973

00:50:40,310 --> 00:50:37,020

science and the perceived decline in

974

00:50:42,650 --> 00:50:40,320

spiritual values during the early years

975

00:50:44,930 --> 00:50:42,660

of the 20th century in many states of

976

00:50:47,990 --> 00:50:44,940

the USA legislation was introduced

977

00:50:50,420 --> 00:50:48,000

mandating basic scientific training in

978

00:50:52,370 --> 00:50:50,430

response chiropractic colleges taught

979

00:50:54,589 --> 00:50:52,380

sufficient science to pass the basic

980

00:50:56,329 --> 00:50:54,599

tests while continuing to

981

00:50:58,910 --> 00:50:56,339

the importance of the earlier teachings

982

00:51:01,180 --> 00:50:58,920

a good example of this is the response

983

00:51:03,140 --> 00:51:01,190

to the germ theory of disease

984

00:51:05,920 --> 00:51:03,150

chiropractic initially taught that

985

00:51:08,900 --> 00:51:05,930

bacteria were unrelated to disease in

986

00:51:10,940 --> 00:51:08,910

response to the science legislation some

987

00:51:13,279 --> 00:51:10,950

bacteriology was introduced into

988

00:51:14,989 --> 00:51:13,289

chiropractic education the

989

00:51:18,259 --> 00:51:14,999

chiropractor's were taught that bacteria

990

00:51:20,359 --> 00:51:18,269

were not causally related to disease it

991

00:51:22,969 --> 00:51:20,369

was vertebral subluxations that caused

992

00:51:26,420 --> 00:51:22,979

disease by making a person susceptible

993

00:51:27,529 --> 00:51:26,430

to bacterial infection this was an

994

00:51:29,989 --> 00:51:27,539

important period during which

995

00:51:32,150 --> 00:51:29,999

chiropractic tried to retain sufficient

996

00:51:34,789 --> 00:51:32,160

distance from scientific medicine to be

997

00:51:36,380 --> 00:51:34,799

seen as a distinct alternative while

998

00:51:38,059 --> 00:51:36,390

absorbing enough of the teachings of

999

00:51:41,120 --> 00:51:38,069

science and medicine to retain

1000

00:51:43,430 --> 00:51:41,130

credibility initially these attempts

1001
00:51:46,190 --> 00:51:43,440
were unsuccessful and chiropractic

1002
00:51:48,890 --> 00:51:46,200
entered a period of decline even as

1003
00:51:50,779 --> 00:51:48,900
recently at the 1960s many chiropractic

1004
00:51:53,710 --> 00:51:50,789
schools in the USA were using textbooks

1005
00:51:56,539 --> 00:51:53,720
that had not been updated for decades

1006
00:51:59,029 --> 00:51:56,549
beginning in the 1970s the tide began to

1007
00:52:00,950 --> 00:51:59,039
turn and interestingly there was a

1008
00:52:03,279 --> 00:52:00,960
growing skepticism about medicine and

1009
00:52:05,479 --> 00:52:03,289
science that helped things along

1010
00:52:07,849 --> 00:52:05,489
scientific medicine was accused of being

1011
00:52:09,549 --> 00:52:07,859
reductionist and of having ignored the

1012
00:52:11,989 --> 00:52:09,559
more human aspects of health care

1013
00:52:14,569 --> 00:52:11,999

chiropractic joined this chorus of

1014

00:52:16,880 --> 00:52:14,579

criticism and the Alliance was formed

1015

00:52:19,549 --> 00:52:16,890

between chiropractic and the growing

1016

00:52:22,039 --> 00:52:19,559

holistic health movement in some

1017

00:52:24,620 --> 00:52:22,049

quarters chiropractic even dusted off

1018

00:52:26,480 --> 00:52:24,630

its spiritual emphasis having once again

1019

00:52:31,309 --> 00:52:26,490

found a receptive audience

1020

00:52:33,690 --> 00:52:31,319

[Music]

1021

00:52:35,270 --> 00:52:33,700

that's the end of part 1 of this article

1022

00:52:38,190 --> 00:52:35,280

part 2

1023

00:52:42,299 --> 00:52:38,200

make sure you tune in next week to hear

1024

00:52:44,400 --> 00:52:42,309

about the chiropractic laws and other

1025

00:52:47,130 --> 00:52:44,410

exciting things and the way chiropractic

1026
00:52:48,140 --> 00:52:47,140
has developed or not over the recent

1027
00:52:51,930 --> 00:52:48,150
decades

1028
00:52:56,700 --> 00:52:51,940
that's classic ash chiropractic from the

1029
00:52:58,589 --> 00:52:56,710
June 2020 issue of the skeptic now at

1030
00:53:00,630 --> 00:52:58,599
the time of this recording this issue is

1031
00:53:03,059 --> 00:53:00,640
not available for free to download

1032
00:53:05,700 --> 00:53:03,069
unlike almost all of the other issues of

1033
00:53:08,420 --> 00:53:05,710
our magazine you can see those other

1034
00:53:12,000 --> 00:53:08,430
issues that skeptics calm a you and

1035
00:53:15,450 --> 00:53:12,010
download everything from 1981 up till

1036
00:53:18,780 --> 00:53:15,460
the last year but this article does form

1037
00:53:22,109 --> 00:53:18,790
part of a major investigative feature in

1038
00:53:26,039 --> 00:53:22,119

the June 2020 issue of the magazine on

1039

00:53:29,789 --> 00:53:26,049

chiropractic in which we look at so many

1040

00:53:32,609 --> 00:53:29,799

different aspects shocky research junky

1041

00:53:35,430 --> 00:53:32,619

philosophy those chiropractors who

1042

00:53:37,980 --> 00:53:35,440

belong in a shame file for promoting all

1043

00:53:39,710 --> 00:53:37,990

sorts of xiangqi science and medicine in

1044

00:53:42,690 --> 00:53:39,720

various other aspects of the industry

1045

00:53:45,510 --> 00:53:42,700

including the role or lack of it of

1046

00:53:47,730 --> 00:53:45,520

regulators this is part of a major

1047

00:53:49,370 --> 00:53:47,740

undertaking by Australian skeptics and

1048

00:53:52,130 --> 00:53:49,380

others to look at this particular

1049

00:53:54,720 --> 00:53:52,140

industry which wants to be seen as

1050

00:53:57,089 --> 00:53:54,730

scientific but his underpinnings are

1051
00:53:58,620 --> 00:53:57,099
anything but if you want to read more

1052
00:54:00,930 --> 00:53:58,630
about chiropractic in this issue of the

1053
00:54:03,960 --> 00:54:00,940
magazine you'll have to subscribe which

1054
00:54:04,980 --> 00:54:03,970
we can do on our website skeptics calm a

1055
00:54:31,109 --> 00:54:04,990
you

1056
00:54:35,250 --> 00:54:31,119
people who continue to support the

1057
00:54:39,599 --> 00:54:35,260
podcast at WWDC arrogant Evie via

1058
00:54:41,460 --> 00:54:39,609
patreon or PayPal welcome to some new

1059
00:54:44,220 --> 00:54:41,470
patreon in the last week thank you very

1060
00:54:46,710 --> 00:54:44,230
much I shall write a little thank-you

1061
00:54:49,500 --> 00:54:46,720
letter to you and to the people who have

1062
00:54:51,930 --> 00:54:49,510
contributed more via our just chipping

1063
00:54:55,200 --> 00:54:51,940

in much appreciated

1064

00:54:57,750 --> 00:54:55,210

truly much appreciated in fact it's

1065

00:54:59,550 --> 00:54:57,760

because of people like you supporting

1066

00:55:01,950 --> 00:54:59,560

and chipping in that the show keeps

1067

00:55:04,740 --> 00:55:01,960

going coming up on next week's show

1068

00:55:07,020 --> 00:55:04,750

another logical fallacy with Michele

1069

00:55:09,030 --> 00:55:07,030

bickers MA another type written letter

1070

00:55:11,010 --> 00:55:09,040

who writes letters on typewriters

1071

00:55:13,980 --> 00:55:11,020

anymore and soon there'll be another

1072

00:55:16,680 --> 00:55:13,990

think tank session with the skeptics own

1073

00:55:19,410 --> 00:55:16,690

reporters but for this week this is

1074

00:55:23,099 --> 00:55:19,420

Richard Saunders signing off from Sydney

1075

00:55:26,180 --> 00:55:23,109

Australia what do you want hmm you've

1076

00:55:30,800 --> 00:55:26,190

had your breakfast yeah I know

1077

00:55:41,280 --> 00:55:33,359

mm-hmm you know I'm trying to record

1078

00:55:43,980 --> 00:55:41,290

don't you you've been listening to the

1079

00:55:50,910 --> 00:55:43,990

skeptic zone podcast please visit our

1080

00:55:53,460 --> 00:55:50,920

website at wwlp.com tax and to access

1081

00:55:57,060 --> 00:55:53,470

the bat catalog of episodes going back

1082

00:56:00,690 --> 00:55:57,070

to 2008 you can follow the skeptic zone

1083

00:56:03,089 --> 00:56:00,700

podcast on twitter at skeptic zone visit

1084

00:56:03,990 --> 00:56:03,099

our facebook page or leave a review on

1085

00:56:06,660 --> 00:56:04,000

itunes

1086

00:56:10,050 --> 00:56:06,670

you can also support the skeptic zone

1087

00:56:13,470 --> 00:56:10,060

via patreon or PayPal the skeptic zone

1088

00:56:15,150 --> 00:56:13,480

podcast is an independent production the

1089

00:56:17,310 --> 00:56:15,160

views and opinions expressed on the

1090

00:56:19,620 --> 00:56:17,320

skeptic zone are not necessarily those

1091

00:56:24,849 --> 00:56:19,630

of Australian skeptics or any other

1092

00:56:24,859 --> 00:56:33,090

you

1093

00:56:38,230 --> 00:56:36,010

okay we have here Riley and Holly

1094

00:56:43,480 --> 00:56:38,240

Franklin do you want to say hello hello

1095

00:56:46,330 --> 00:56:43,490

hello and we have a dice out of one of

1096

00:56:48,250 --> 00:56:46,340

Holly's board games what game have we

1097

00:56:49,060 --> 00:56:48,260

taken this dice out of time of the

1098

00:56:55,000 --> 00:56:49,070

Daleks

1099

00:56:57,100 --> 00:56:55,010

don't have numbers 1 to 6 we have 6

1100

00:56:58,960 --> 00:56:57,110

different symbols Holly do you want to

1101
00:57:02,380 --> 00:56:58,970
tell us what these 6 different symbols

1102
00:57:06,040 --> 00:57:02,390
are all right tell us running diplomacy

1103
00:57:08,560 --> 00:57:06,050
science cunning tactics and strength ok

1104
00:57:11,680 --> 00:57:08,570
so we've got 6 different symbols that

1105
00:57:14,590 --> 00:57:11,690
represent the six different things that

1106
00:57:17,230 --> 00:57:14,600
the doctor uses to complete these

1107
00:57:19,270 --> 00:57:17,240
challenges in the board game Riley's

1108
00:57:22,330 --> 00:57:19,280
gonna roll the dice and holly is going

1109
00:57:25,930 --> 00:57:22,340
to make the predictions so Holly which

1110
00:57:29,060 --> 00:57:25,940
of the six things do you want to predict

1111
00:57:32,330 --> 00:57:29,070
is going to come up the first time

1112
00:57:36,280 --> 00:57:32,340
so the options are running diplomacy

1113
00:57:41,140 --> 00:57:36,290

science cunning tactics and strength

1114

00:57:45,050 --> 00:57:41,150

tactics tactics okay Riley roll the dice

1115

00:57:48,590 --> 00:57:45,060

what's that strength okay

1116

00:57:53,930 --> 00:57:48,600

holy make another guess diplomacy

1117

00:57:57,880 --> 00:57:53,940

diplomacy okay Riley what's that got one

1118

00:58:02,000 --> 00:57:57,890

okay last one make one last kiss

1119

00:58:02,630 --> 00:58:02,010

science science whoops whoops on the

1120

00:58:07,610 --> 00:58:02,640

ground

1121

00:58:17,330 --> 00:58:07,620

what does it land on really did we get

1122

00:58:19,310 --> 00:58:17,340

two out of three science high five okay