

A man with dark hair, wearing a red button-down shirt, is shown from the chest up on the left side of the image. He has a neutral expression and is looking towards the camera. The background is a blurred laboratory or office setting with various pieces of equipment, including what looks like a microscope and some blue containers. The overall lighting is somewhat dim, with some highlights on the equipment.

skeptiko.com

**AN END TO
BIOLOGICAL ROBOTS**

MARIO BEAUREGARD #195

1
00:00:14,709 --> 00:00:12,390
on this episode of skeptico alex talks

2
00:00:17,189 --> 00:00:14,719
with the neuroscientist dr mario

3
00:00:18,470 --> 00:00:17,199
beauregard about his new book

4
00:00:21,349 --> 00:00:18,480
brain wars

5
00:00:23,349 --> 00:00:21,359
there eventually will be another rev a

6
00:00:25,670 --> 00:00:23,359
big revolution in science

7
00:00:28,070 --> 00:00:25,680
and this will uh be about

8
00:00:28,950 --> 00:00:28,080
mind and consciousness and the same kind

9
00:00:31,429 --> 00:00:28,960
of

10
00:00:33,670 --> 00:00:31,439
revolution that they've had

11
00:00:36,150 --> 00:00:33,680
about 100 years ago in physics from

12
00:00:38,470 --> 00:00:36,160
classical physics to quantum physics

13
00:00:39,830 --> 00:00:38,480

at the same time in parallel of course

14

00:00:43,270 --> 00:00:39,840

like you said at the beginning of the

15

00:00:45,110 --> 00:00:43,280

interview if you talk to lay people

16

00:00:47,350 --> 00:00:45,120

to most people they do not believe that

17

00:00:49,910 --> 00:00:47,360

they are strictly biological robots that

18

00:00:52,150 --> 00:00:49,920

they don't have any influence over

19

00:00:54,869 --> 00:00:52,160

their brain activity or what's happening

20

00:00:56,229 --> 00:00:54,879

in the body and so on and so forth and

21

00:01:00,389 --> 00:00:56,239

so

22

00:01:03,750 --> 00:01:00,399

it won't be difficult uh if there's uh

23

00:01:06,469 --> 00:01:03,760

the the start of uh really a transition

24

00:01:09,109 --> 00:01:06,479

in science within science

25

00:01:10,390 --> 00:01:09,119

uh it will go uh

26

00:01:12,789 --> 00:01:10,400

quickly

27

00:01:15,910 --> 00:01:12,799

because the rest of the world um you

28

00:01:18,870 --> 00:01:15,920

know is very sympathetic regarding

29

00:01:21,590 --> 00:01:18,880

a non-materialist view of

30

00:01:22,950 --> 00:01:21,600

consciousness and of human life

31

00:01:35,350 --> 00:01:22,960

stay with us

32

00:01:38,550 --> 00:01:37,030

welcome to skeptica where we explore

33

00:01:41,270 --> 00:01:38,560

controversial science with leading

34

00:01:43,109 --> 00:01:41,280

researchers thinkers and their critics

35

00:01:45,350 --> 00:01:43,119

i'm your host alex sacaris and on this

36

00:01:47,990 --> 00:01:45,360

episode of skeptico we're going to talk

37

00:01:50,310 --> 00:01:48,000

to dr mario beauregard about his

38

00:01:52,950 --> 00:01:50,320

fascinating work in his very compelling

39

00:01:54,389 --> 00:01:52,960

book brain wars so on this show we've

40

00:01:56,469 --> 00:01:54,399

talked quite a bit about the end of

41

00:01:58,149 --> 00:01:56,479

materialism and the evidence for that

42

00:02:00,149 --> 00:01:58,159

which has been mounting and is pretty

43

00:02:01,910 --> 00:02:00,159

overwhelming at this point well here's a

44

00:02:03,670 --> 00:02:01,920

guy who's really pulled all that

45

00:02:06,310 --> 00:02:03,680

together in a way that really creates

46

00:02:08,790 --> 00:02:06,320

quite an overwhelmingly convincing case

47

00:02:10,949 --> 00:02:08,800

for anyone who dares to look

48

00:02:12,790 --> 00:02:10,959

here's my interview with dr mario

49

00:02:16,949 --> 00:02:12,800

beauregard

50

00:02:19,190 --> 00:02:16,959

skeptico

51
00:02:21,350 --> 00:02:19,200
dr beauregard is an associate research

52
00:02:23,589 --> 00:02:21,360
professor at the neuroscience research

53
00:02:26,150 --> 00:02:23,599
center at the university of montreal he

54
00:02:28,229 --> 00:02:26,160
has a phd in neuroscience also from the

55
00:02:30,630 --> 00:02:28,239
university of montreal and he also has

56
00:02:33,190 --> 00:02:30,640
two post-doctorate fellowships in

57
00:02:35,350 --> 00:02:33,200
experimental neuropsychology he's the

58
00:02:38,710 --> 00:02:35,360
author of over a hundred publications in

59
00:02:40,869 --> 00:02:38,720
neuroscience psychology and psychiatry

60
00:02:42,150 --> 00:02:40,879
and he's here today to talk about his

61
00:02:43,670 --> 00:02:42,160
latest book

62
00:02:46,550 --> 00:02:43,680
brain wars

63
00:02:47,990 --> 00:02:46,560

the scientific battle over the existence

64

00:02:50,710 --> 00:02:48,000

of the mind

65

00:02:52,710 --> 00:02:50,720

and proof that will change the way we

66

00:02:54,710 --> 00:02:52,720

live our lives

67

00:02:57,750 --> 00:02:54,720

mario thank you very much for joining me

68

00:02:59,270 --> 00:02:57,760

today on skeptico and welcome

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00:03:00,949 --> 00:02:59,280

thanks to you

70

00:03:02,710 --> 00:03:00,959

so your book

71

00:03:05,589 --> 00:03:02,720

brain wars

72

00:03:06,949 --> 00:03:05,599

and this battle over over whether we are

73

00:03:09,509 --> 00:03:06,959

really just

74

00:03:11,430 --> 00:03:09,519

biological robots as our friend stephen

75

00:03:14,229 --> 00:03:11,440

hawking likes to say

76

00:03:15,830 --> 00:03:14,239

is a frequent topic on this show so i

77

00:03:19,430 --> 00:03:15,840

think you're going to find an audience

78

00:03:21,830 --> 00:03:19,440

who is well aware of a lot of the issues

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00:03:23,670 --> 00:03:21,840

but you really do a great job of kind of

80

00:03:25,030 --> 00:03:23,680

presenting it in your book and pulling

81

00:03:27,509 --> 00:03:25,040

it all together

82

00:03:31,030 --> 00:03:27,519

can you tell us a little bit briefly

83

00:03:36,789 --> 00:03:34,309

well uh the the starting point is the uh

84

00:03:39,350 --> 00:03:36,799

what we call the the modern scientific

85

00:03:41,910 --> 00:03:39,360

uh world view so it's the

86

00:03:43,830 --> 00:03:41,920

the world view that is based on uh

87

00:03:46,390 --> 00:03:43,840

classical physics

88

00:03:48,869 --> 00:03:46,400

and this uh this view

89

00:03:52,390 --> 00:03:48,879

is based on a number of

90

00:03:53,830 --> 00:03:52,400

fundamental assumptions like materialism

91

00:03:57,509 --> 00:03:53,840

determinism

92

00:03:59,509 --> 00:03:57,519

reductionism also so applied to

93

00:04:00,630 --> 00:03:59,519

mind and brain it means that for

94

00:04:02,070 --> 00:04:00,640

instance

95

00:04:04,229 --> 00:04:02,080

um

96

00:04:08,470 --> 00:04:04,239

everything in the universe

97

00:04:11,110 --> 00:04:08,480

is only matter and energy therefore

98

00:04:11,910 --> 00:04:11,120

the brain is a physical object too

99

00:04:14,390 --> 00:04:11,920

and

100

00:04:17,030 --> 00:04:14,400

the mind can be reduced strictly to

101
00:04:18,150 --> 00:04:17,040
electrical and chemical processes

102
00:04:20,469 --> 00:04:18,160
in the brain

103
00:04:23,270 --> 00:04:20,479
uh it means also that

104
00:04:26,070 --> 00:04:23,280
everything is determined from a material

105
00:04:29,270 --> 00:04:26,080
or physical point of view so

106
00:04:32,310 --> 00:04:29,280
we don't have any uh freedom

107
00:04:35,510 --> 00:04:32,320
uh we're like biological robots uh

108
00:04:38,390 --> 00:04:35,520
totally determined by uh our neurons and

109
00:04:39,670 --> 00:04:38,400
our genes and so on and so forth

110
00:04:44,390 --> 00:04:39,680
and uh

111
00:04:46,390 --> 00:04:44,400
so we're reduced to material objects

112
00:04:49,430 --> 00:04:46,400
and we are determined by material

113
00:04:51,110 --> 00:04:49,440

processes so that's the what we call the

114

00:04:53,350 --> 00:04:51,120

modern uh

115

00:04:56,710 --> 00:04:53,360

scientific world view but uh right but

116

00:04:58,950 --> 00:04:56,720

dr dr beauregard is that really where

117

00:05:01,110 --> 00:04:58,960

science is at because i think that one

118

00:05:02,950 --> 00:05:01,120

of the problems that kind of the people

119

00:05:04,710 --> 00:05:02,960

on the street if you will folks that i

120

00:05:07,270 --> 00:05:04,720

talk to who are not engaged in this

121

00:05:10,150 --> 00:05:07,280

debate they kind of take a view of it

122

00:05:13,189 --> 00:05:10,160

kind of the way that a lot of folks in

123

00:05:15,590 --> 00:05:13,199

america and in north america treat uh

124

00:05:17,990 --> 00:05:15,600

catholicism or even christianity it's

125

00:05:21,110 --> 00:05:18,000

like yeah yeah yeah kinda but i don't

126

00:05:24,310 --> 00:05:21,120

really hold to all that uh do do most

127

00:05:27,029 --> 00:05:24,320

people really believe any of that and to

128

00:05:29,909 --> 00:05:27,039

what extent is that really the

129

00:05:32,550 --> 00:05:29,919

mainstream view within science

130

00:05:35,189 --> 00:05:32,560

well it it's the mainstream view

131

00:05:36,310 --> 00:05:35,199

i would see still in the biomedical

132

00:05:39,350 --> 00:05:36,320

field

133

00:05:42,230 --> 00:05:39,360

it is also uh in philosophy

134

00:05:44,469 --> 00:05:42,240

however in physics everything changed uh

135

00:05:46,629 --> 00:05:44,479

about 100 years ago so they've had their

136

00:05:48,310 --> 00:05:46,639

own revolution

137

00:05:50,950 --> 00:05:48,320

from classical physics to quantum

138

00:05:53,510 --> 00:05:50,960

physics and they de-materialize the

139

00:05:55,430 --> 00:05:53,520

world so the quantum physicist the

140

00:05:57,430 --> 00:05:55,440

founding fathers of quantum physics

141

00:05:59,350 --> 00:05:57,440

realized that

142

00:06:01,189 --> 00:05:59,360

you know the the world the universe is

143

00:06:02,870 --> 00:06:01,199

not constituted

144

00:06:04,790 --> 00:06:02,880

of a

145

00:06:06,790 --> 00:06:04,800

tiny

146

00:06:09,510 --> 00:06:06,800

physical particles

147

00:06:12,629 --> 00:06:09,520

like billiard balls for instance but the

148

00:06:14,629 --> 00:06:12,639

uh the they realize that um

149

00:06:17,430 --> 00:06:14,639

there's a very important

150

00:06:20,790 --> 00:06:17,440

mental component in the universe

151
00:06:22,870 --> 00:06:20,800
uh and this relates to the the so-called

152
00:06:24,790 --> 00:06:22,880
measurement problem or the observer

153
00:06:26,790 --> 00:06:24,800
effect so the

154
00:06:28,230 --> 00:06:26,800
the physicist and his

155
00:06:30,790 --> 00:06:28,240
instrument

156
00:06:33,749 --> 00:06:30,800
uh they are influencing to a certain

157
00:06:35,909 --> 00:06:33,759
extent the outcome of the experiment at

158
00:06:38,710 --> 00:06:35,919
the microphysical level

159
00:06:40,790 --> 00:06:38,720
uh whether they are measuring uh either

160
00:06:41,830 --> 00:06:40,800
particles or waves

161
00:06:43,110 --> 00:06:41,840
and so

162
00:06:46,230 --> 00:06:43,120
the the

163
00:06:49,590 --> 00:06:46,240

now it's uh recognized in quantum

164

00:06:52,469 --> 00:06:49,600

physics that you cannot explain uh the

165

00:06:54,710 --> 00:06:52,479

universe or to understand the universe

166

00:06:57,749 --> 00:06:54,720

without making reference to what we call

167

00:07:01,029 --> 00:06:57,759

mind and consciousness but

168

00:07:03,270 --> 00:07:01,039

in bio in the biomedical field uh

169

00:07:04,950 --> 00:07:03,280

including neuroscience it's a different

170

00:07:07,350 --> 00:07:04,960

ballgame uh

171

00:07:09,430 --> 00:07:07,360

most scientists in uh my field of

172

00:07:10,870 --> 00:07:09,440

research for instance are not aware of

173

00:07:12,629 --> 00:07:10,880

these uh

174

00:07:14,550 --> 00:07:12,639

they don't know very well quantum

175

00:07:17,670 --> 00:07:14,560

physics and they are not

176

00:07:20,710 --> 00:07:17,680

aware that there's been a revolution 100

177

00:07:21,749 --> 00:07:20,720

years ago regarding these uh fundamental

178

00:07:23,990 --> 00:07:21,759

issues

179

00:07:26,870 --> 00:07:24,000

and it's it's the same thing pretty much

180

00:07:29,510 --> 00:07:26,880

also in other fields like uh

181

00:07:32,629 --> 00:07:29,520

psychiatry for instance so it's uh we we

182

00:07:34,070 --> 00:07:32,639

find a lot of uh biological reductionism

183

00:07:37,189 --> 00:07:34,080

in psychiatry

184

00:07:40,150 --> 00:07:37,199

as uh especially with regard to uh

185

00:07:42,309 --> 00:07:40,160

the use of drugs for instance and um so

186

00:07:44,469 --> 00:07:42,319

on and so forth and so

187

00:07:45,830 --> 00:07:44,479

uh in philosophy it's the same thing

188

00:07:48,469 --> 00:07:45,840

still

189

00:07:49,589 --> 00:07:48,479

so even though uh physicists have shown

190

00:07:51,990 --> 00:07:49,599

that

191

00:07:54,390 --> 00:07:52,000

the universe cannot be reduced to uh a

192

00:07:55,670 --> 00:07:54,400

physical machine uh nearly a hundred

193

00:07:56,950 --> 00:07:55,680

years ago

194

00:08:01,029 --> 00:07:56,960

um

195

00:08:02,710 --> 00:08:01,039

the uh small scientists and philosophers

196

00:08:04,309 --> 00:08:02,720

are either not aware of that or they

197

00:08:08,150 --> 00:08:04,319

don't want to

198

00:08:10,550 --> 00:08:08,160

that but don't we have to be a little

199

00:08:13,350 --> 00:08:10,560

bit careful when we tread into the

200

00:08:15,029 --> 00:08:13,360

physicist territory and quantum physics

201

00:08:16,710 --> 00:08:15,039

in particular because there's a lot of

202

00:08:20,309 --> 00:08:16,720

pushback there's a whole

203

00:08:22,230 --> 00:08:20,319

tsunami of pushback on the the the way

204

00:08:24,469 --> 00:08:22,240

that quantum physics has been kind of

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00:08:26,230 --> 00:08:24,479

weaved into a lot of new age thought and

206

00:08:28,070 --> 00:08:26,240

i'm not saying at all that that's what

207

00:08:31,110 --> 00:08:28,080

you're doing but i think there's a lot

208

00:08:33,589 --> 00:08:31,120

of fuzziness there i think what we can

209

00:08:36,389 --> 00:08:33,599

say at the very least is that it's

210

00:08:39,670 --> 00:08:36,399

clearly an unsettled issue and we have

211

00:08:41,350 --> 00:08:39,680

to take seriously the thought that that

212

00:08:44,070 --> 00:08:41,360

quantum physics suggests that

213

00:08:46,710 --> 00:08:44,080

consciousness may be fundamental in the

214

00:08:49,269 --> 00:08:46,720

way that we generally think of matter as

215

00:08:51,590 --> 00:08:49,279

being fundamental so i'm with you on all

216

00:08:53,190 --> 00:08:51,600

that yeah yeah that that's exactly my

217

00:08:54,470 --> 00:08:53,200

point yes yeah i just don't want to get

218

00:08:57,430 --> 00:08:54,480

into that whole

219

00:09:00,389 --> 00:08:57,440

battle of you know whether the observer

220

00:09:02,470 --> 00:09:00,399

effect really is and whether shut up and

221

00:09:04,389 --> 00:09:02,480

calculate all that kind of stuff i just

222

00:09:05,590 --> 00:09:04,399

think but i do think we can't shy away

223

00:09:07,350 --> 00:09:05,600

from it and that's one of the things i

224

00:09:09,269 --> 00:09:07,360

really appreciate about your book is you

225

00:09:11,190 --> 00:09:09,279

don't shy away from anything but we

226

00:09:14,790 --> 00:09:11,200

can't shy away from the fact that

227

00:09:17,910 --> 00:09:14,800

quantum physics may very well be best

228

00:09:19,990 --> 00:09:17,920

interpreted as being supportive of

229

00:09:21,670 --> 00:09:20,000

these ideas that you're talking about

230

00:09:23,190 --> 00:09:21,680

but let me switch gears for a minute

231

00:09:24,949 --> 00:09:23,200

because what i really one of the things

232

00:09:28,710 --> 00:09:24,959

i want to focus on and i just mentioned

233

00:09:31,110 --> 00:09:28,720

it i really appreciate that you're clear

234

00:09:33,509 --> 00:09:31,120

right from the start about talking in

235

00:09:36,870 --> 00:09:33,519

these kind of military terms it's a

236

00:09:38,630 --> 00:09:36,880

brain war it's a battle over science so

237

00:09:40,070 --> 00:09:38,640

i want to spend a good deal of time

238

00:09:42,470 --> 00:09:40,080

talking about the book and the

239

00:09:44,630 --> 00:09:42,480

particular issues that you bring up

240

00:09:46,550 --> 00:09:44,640

because i think as you just said one

241

00:09:49,350 --> 00:09:46,560

thing it does is it how easily

242

00:09:52,230 --> 00:09:49,360

falsifiable some of the materialist

243

00:09:55,350 --> 00:09:52,240

positions are but at the same time i

244

00:09:56,310 --> 00:09:55,360

want to understand i want you to tell us

245

00:09:59,030 --> 00:09:56,320

why

246

00:10:01,269 --> 00:09:59,040

we are in this war at the end of the day

247

00:10:03,590 --> 00:10:01,279

why there is this battle because i think

248

00:10:06,550 --> 00:10:03,600

a lot of folks tune in to the fact that

249

00:10:08,870 --> 00:10:06,560

there's a a war that there is a battle

250

00:10:10,870 --> 00:10:08,880

but they don't get it i mean so you've

251
00:10:13,190 --> 00:10:10,880
done these experiments that find that

252
00:10:16,310 --> 00:10:13,200
people can control their brain so what

253
00:10:18,389 --> 00:10:16,320
why is there a war why is there a battle

254
00:10:20,790 --> 00:10:18,399
well because there's uh

255
00:10:24,790 --> 00:10:20,800
a commitment to a certain form of

256
00:10:26,550 --> 00:10:24,800
ideology in uh mainstream science why

257
00:10:27,750 --> 00:10:26,560
why is there such a con why is because

258
00:10:29,910 --> 00:10:27,760
the at

259
00:10:31,269 --> 00:10:29,920
the beginning of at the birth of modern

260
00:10:33,509 --> 00:10:31,279
science

261
00:10:35,509 --> 00:10:33,519
the scientists decided to

262
00:10:37,350 --> 00:10:35,519
keep a certain distance from the church

263
00:10:39,750 --> 00:10:37,360

the power of the church

264

00:10:43,190 --> 00:10:39,760

understandably and that

265

00:10:45,590 --> 00:10:43,200

has helped you know science to

266

00:10:47,829 --> 00:10:45,600

evolve you know to make great progress

267

00:10:50,790 --> 00:10:47,839

but at the same time

268

00:10:53,110 --> 00:10:50,800

uh the the the founding fathers

269

00:10:55,509 --> 00:10:53,120

of modern science

270

00:10:58,150 --> 00:10:55,519

rejected in a certain sense

271

00:10:59,829 --> 00:10:58,160

the domain of subjectivity uh the first

272

00:11:01,430 --> 00:10:59,839

person

273

00:11:03,910 --> 00:11:01,440

mental experiences

274

00:11:06,630 --> 00:11:03,920

these things were considered to be

275

00:11:07,990 --> 00:11:06,640

only secondary qualities

276

00:11:09,750 --> 00:11:08,000

and the

277

00:11:11,430 --> 00:11:09,760

at the beginning they thought

278

00:11:13,750 --> 00:11:11,440

that these things were not that

279

00:11:16,389 --> 00:11:13,760

important they decided to focus more on

280

00:11:18,069 --> 00:11:16,399

the physical uh you know the physical

281

00:11:19,829 --> 00:11:18,079

world matter

282

00:11:24,230 --> 00:11:19,839

as they called that

283

00:11:25,910 --> 00:11:24,240

and so this this point of view uh became

284

00:11:28,150 --> 00:11:25,920

dominant

285

00:11:30,630 --> 00:11:28,160

made progress during the following

286

00:11:31,750 --> 00:11:30,640

centuries during the 17th and 18th

287

00:11:35,750 --> 00:11:31,760

century

288

00:11:38,230 --> 00:11:35,760

this

289

00:11:39,350 --> 00:11:38,240

materialist and reductionist point of

290

00:11:42,630 --> 00:11:39,360

view

291

00:11:43,910 --> 00:11:42,640

became synonymous with science

292

00:11:46,470 --> 00:11:43,920

and

293

00:11:48,870 --> 00:11:46,480

in the 20th century it was uh it started

294

00:11:50,470 --> 00:11:48,880

to be challenged first by uh quantum

295

00:11:52,870 --> 00:11:50,480

physics but

296

00:11:54,310 --> 00:11:52,880

also in other domains

297

00:11:56,310 --> 00:11:54,320

um but

298

00:11:58,870 --> 00:11:56,320

we're now at the beginning of the 21st

299

00:12:00,710 --> 00:11:58,880

century and this view is still

300

00:12:03,030 --> 00:12:00,720

considered to be the

301
00:12:04,630 --> 00:12:03,040
you know the norm the standard the it's

302
00:12:06,150 --> 00:12:04,640
the mainstream view

303
00:12:08,389 --> 00:12:06,160
because

304
00:12:11,110 --> 00:12:08,399
it's based on a number of beliefs

305
00:12:12,230 --> 00:12:11,120
assumptions like we said before

306
00:12:15,509 --> 00:12:12,240
but

307
00:12:17,910 --> 00:12:15,519
for for a long time these assumptions

308
00:12:21,350 --> 00:12:17,920
seemed to explain very well

309
00:12:22,790 --> 00:12:21,360
uh the phenomena that were under

310
00:12:26,710 --> 00:12:22,800
investigations

311
00:12:27,990 --> 00:12:26,720
however now there's increasing evidence

312
00:12:30,710 --> 00:12:28,000
showing that

313
00:12:33,590 --> 00:12:30,720

a number of uh phenomena do not fit

314

00:12:35,509 --> 00:12:33,600

within this uh conventional uh

315

00:12:37,590 --> 00:12:35,519

materialist physical

316

00:12:38,710 --> 00:12:37,600

framework they cannot be explained very

317

00:12:40,949 --> 00:12:38,720

well

318

00:12:43,590 --> 00:12:40,959

by this framework and this is exactly

319

00:12:45,750 --> 00:12:43,600

what i'm discussing in my book brain

320

00:12:48,150 --> 00:12:45,760

wars and i think you do a wonderful job

321

00:12:50,069 --> 00:12:48,160

of it i want to get to that data i just

322

00:12:51,750 --> 00:12:50,079

want to drill into this point a little

323

00:12:54,310 --> 00:12:51,760

bit further because

324

00:12:55,750 --> 00:12:54,320

i think having covered this with a lot

325

00:12:58,150 --> 00:12:55,760

of different people

326

00:13:00,389 --> 00:12:58,160

i think there's something a little bit

327

00:13:03,190 --> 00:13:00,399

deeper going on and that's there's a

328

00:13:06,870 --> 00:13:03,200

comfort level that we all have

329

00:13:08,550 --> 00:13:06,880

with our consumerism our materialism our

330

00:13:11,110 --> 00:13:08,560

society that we've built and it's a

331

00:13:13,269 --> 00:13:11,120

wonderful wonderful society especially

332

00:13:15,110 --> 00:13:13,279

when we look back historically at how

333

00:13:17,430 --> 00:13:15,120

much people have struggled just to

334

00:13:18,949 --> 00:13:17,440

barely survive and we look at all the

335

00:13:20,949 --> 00:13:18,959

things that we have and the cars and the

336

00:13:21,670 --> 00:13:20,959

airplanes and the iphones and all that

337

00:13:25,430 --> 00:13:21,680

and

338

00:13:28,550 --> 00:13:25,440

we are so enmeshed in this materialism

339

00:13:31,430 --> 00:13:28,560

that is both consumer materialism but

340

00:13:33,590 --> 00:13:31,440

also scientific materialism then i think

341

00:13:34,550 --> 00:13:33,600

it's very very

342

00:13:36,550 --> 00:13:34,560

scary

343

00:13:39,509 --> 00:13:36,560

is the only word i can think of for

344

00:13:42,310 --> 00:13:39,519

folks to contemplate anything else how

345

00:13:43,190 --> 00:13:42,320

could we could we really maintain

346

00:13:45,430 --> 00:13:43,200

our

347

00:13:47,509 --> 00:13:45,440

way of life that we've all come become

348

00:13:49,509 --> 00:13:47,519

so comfortable with that we're better

349

00:13:51,110 --> 00:13:49,519

than this other country that we have a

350

00:13:53,190 --> 00:13:51,120

right to

351

00:13:57,269 --> 00:13:53,200

to kind of starve that other country

352

00:13:59,110 --> 00:13:57,279

deprive them of of money of oil of food

353

00:14:01,990 --> 00:13:59,120

whatever it is

354

00:14:05,030 --> 00:14:02,000

can we really maintain that if we take

355

00:14:06,710 --> 00:14:05,040

the long-term larger picture view of

356

00:14:07,670 --> 00:14:06,720

what it would mean

357

00:14:09,910 --> 00:14:07,680

to be

358

00:14:11,990 --> 00:14:09,920

post-materialistic

359

00:14:14,310 --> 00:14:12,000

both from a consumer standpoint but also

360

00:14:17,829 --> 00:14:14,320

from a scientific standpoint don't the

361

00:14:18,629 --> 00:14:17,839

issues get really big really quick when

362

00:14:20,790 --> 00:14:18,639

you

363

00:14:22,790 --> 00:14:20,800

think this thing through

364

00:14:24,550 --> 00:14:22,800

yes that's that's a very good point i

365

00:14:27,430 --> 00:14:24,560

agree with your analysis but there's

366

00:14:29,350 --> 00:14:27,440

something else also

367

00:14:31,350 --> 00:14:29,360

you scientists are humans and humans

368

00:14:33,030 --> 00:14:31,360

have their own belief systems and they

369

00:14:34,949 --> 00:14:33,040

become attached

370

00:14:35,990 --> 00:14:34,959

in the long term with their belief

371

00:14:39,110 --> 00:14:36,000

systems

372

00:14:40,150 --> 00:14:39,120

so uh scientists a number of scientists

373

00:14:41,030 --> 00:14:40,160

have been

374

00:14:43,990 --> 00:14:41,040

you know

375

00:14:45,430 --> 00:14:44,000

have believed very much in this uh

376
00:14:46,710 --> 00:14:45,440
materialist

377
00:14:49,350 --> 00:14:46,720
view

378
00:14:52,150 --> 00:14:49,360
for centuries and uh

379
00:14:54,550 --> 00:14:52,160
so it's like uh it has become a central

380
00:14:55,910 --> 00:14:54,560
dharma in various fields including

381
00:14:58,550 --> 00:14:55,920
neuroscience

382
00:15:00,870 --> 00:14:58,560
so it's it's um

383
00:15:02,230 --> 00:15:00,880
very dangerous it's scary for a number

384
00:15:05,030 --> 00:15:02,240
of people if you're starting to

385
00:15:07,269 --> 00:15:05,040
challenge this mainstream uh

386
00:15:09,110 --> 00:15:07,279
uh dogma the central dogma you know it's

387
00:15:11,829 --> 00:15:09,120
it's a little bit like in

388
00:15:13,110 --> 00:15:11,839

any other domains of society including

389

00:15:15,590 --> 00:15:13,120

religion

390

00:15:18,629 --> 00:15:15,600

uh if you threaten the belief of

391

00:15:20,230 --> 00:15:18,639

specific uh you know religious groups

392

00:15:23,829 --> 00:15:20,240

then you might be in trouble and that's

393

00:15:26,150 --> 00:15:23,839

exactly what we see also in in science

394

00:15:28,550 --> 00:15:26,160

but at a certain point when the

395

00:15:31,990 --> 00:15:28,560

so-called anomalous data

396

00:15:34,470 --> 00:15:32,000

accumulates there comes a a point where

397

00:15:37,030 --> 00:15:34,480

uh the old paradigm cannot resist

398

00:15:39,910 --> 00:15:37,040

anymore and i believe that now we are in

399

00:15:42,870 --> 00:15:39,920

a sort of uh transition period tower the

400

00:15:45,030 --> 00:15:42,880

new paradigm so there there the next

401
00:15:47,910 --> 00:15:45,040
scientific revolution should be about

402
00:15:50,629 --> 00:15:47,920
mind consciousness in my view very good

403
00:15:53,030 --> 00:15:50,639
well i think you do a nice job in the

404
00:15:54,470 --> 00:15:53,040
book of kind of pointing out how

405
00:15:57,030 --> 00:15:54,480
dramatic

406
00:15:59,269 --> 00:15:57,040
the parrot the existing paradigm is

407
00:16:02,150 --> 00:15:59,279
frayed at the edges and i like the way

408
00:16:04,550 --> 00:16:02,160
you start and tie together a lot of

409
00:16:06,870 --> 00:16:04,560
science that we all think we're very

410
00:16:09,910 --> 00:16:06,880
familiar with and we're comfortable with

411
00:16:12,550 --> 00:16:09,920
and you show us how that really violates

412
00:16:14,389 --> 00:16:12,560
this scientific materialism that we've

413
00:16:16,310 --> 00:16:14,399

all come become so

414

00:16:19,110 --> 00:16:16,320

accepting of so maybe you want to talk a

415

00:16:22,150 --> 00:16:19,120

little bit about for example the placebo

416

00:16:23,030 --> 00:16:22,160

effect and also hypnosis and how these

417

00:16:24,870 --> 00:16:23,040

two

418

00:16:27,030 --> 00:16:24,880

areas and chap there are chapters in

419

00:16:27,749 --> 00:16:27,040

your book where you do a very nice job

420

00:16:32,949 --> 00:16:27,759

of

421

00:16:35,829 --> 00:16:32,959

the research in a very accessible way

422

00:16:38,870 --> 00:16:35,839

but tell us the placebo effect and

423

00:16:41,749 --> 00:16:38,880

hypnosis how those violate the a very

424

00:16:43,430 --> 00:16:41,759

strict understanding of reductionist

425

00:16:44,710 --> 00:16:43,440

materialism

426

00:16:47,430 --> 00:16:44,720

yeah well

427

00:16:49,430 --> 00:16:47,440

for for a number of uh materialist

428

00:16:52,069 --> 00:16:49,440

thinkers and scientists

429

00:16:55,030 --> 00:16:52,079

uh the mind is totally powerless doesn't

430

00:16:56,949 --> 00:16:55,040

have any uh cannot exert any power on

431

00:16:59,030 --> 00:16:56,959

what's going on at the brain level and

432

00:17:01,749 --> 00:16:59,040

also in the body can you break that down

433

00:17:02,629 --> 00:17:01,759

and explain why that would have to be

434

00:17:04,470 --> 00:17:02,639

true

435

00:17:05,829 --> 00:17:04,480

if you were a strict scientific

436

00:17:10,549 --> 00:17:05,839

materialist

437

00:17:13,110 --> 00:17:10,559

positions so this is uh a position that

438

00:17:14,549 --> 00:17:13,120

is called epiphenomenalism so it means

439

00:17:16,710 --> 00:17:14,559

that uh

440

00:17:19,350 --> 00:17:16,720

the the these uh

441

00:17:22,230 --> 00:17:19,360

these proponents recognize that my

442

00:17:24,150 --> 00:17:22,240

mental processes uh do exist but they

443

00:17:25,909 --> 00:17:24,160

are powerless they don't have any uh

444

00:17:28,309 --> 00:17:25,919

they cannot exert any influence so

445

00:17:29,669 --> 00:17:28,319

that's one position but you have other

446

00:17:32,549 --> 00:17:29,679

position like

447

00:17:35,350 --> 00:17:32,559

uh eliminative reductionism also so

448

00:17:37,270 --> 00:17:35,360

you're trying to eliminate uh all mental

449

00:17:38,870 --> 00:17:37,280

processes like philosopher daniel

450

00:17:40,549 --> 00:17:38,880

dennett or the

451
00:17:42,310 --> 00:17:40,559
the churchlands for instance so they

452
00:17:44,070 --> 00:17:42,320
will say that

453
00:17:47,029 --> 00:17:44,080
consciousness and all the other mental

454
00:17:49,190 --> 00:17:47,039
processes are simply illusion that the

455
00:17:52,950 --> 00:17:49,200
only thing that exists is

456
00:17:55,110 --> 00:17:52,960
electrochemical activity uh in the brain

457
00:17:56,870 --> 00:17:55,120
so if this is true then of course you

458
00:17:58,710 --> 00:17:56,880
cannot influence

459
00:18:01,350 --> 00:17:58,720
the activity of your brain by your

460
00:18:03,830 --> 00:18:01,360
beliefs your expectations you see

461
00:18:05,750 --> 00:18:03,840
but that is exactly what the the placebo

462
00:18:08,630 --> 00:18:05,760
demonstrates that

463
00:18:11,270 --> 00:18:08,640

your beliefs and expectations about a

464

00:18:13,669 --> 00:18:11,280

false fake treatment

465

00:18:15,510 --> 00:18:13,679

can significantly alter

466

00:18:17,830 --> 00:18:15,520

what's happening in the brain and also

467

00:18:19,750 --> 00:18:17,840

in the physiological systems connected

468

00:18:22,549 --> 00:18:19,760

uh to the brain

469

00:18:25,510 --> 00:18:22,559

so for instance during the last decade

470

00:18:28,470 --> 00:18:25,520

there have been uh several brain imaging

471

00:18:30,470 --> 00:18:28,480

studies about the placebo effect and in

472

00:18:32,230 --> 00:18:30,480

some cases for instance there was a very

473

00:18:34,950 --> 00:18:32,240

interesting uh study done at the

474

00:18:37,190 --> 00:18:34,960

university of british columbia

475

00:18:39,590 --> 00:18:37,200

they did a study to measure the impact

476

00:18:41,510 --> 00:18:39,600

of a placebo treatment on

477

00:18:44,870 --> 00:18:41,520

people suffering from

478

00:18:47,029 --> 00:18:44,880

severe form of parkinson's disease

479

00:18:49,350 --> 00:18:47,039

in parkinson's disease there's a

480

00:18:51,590 --> 00:18:49,360

a great level of destruction

481

00:18:54,789 --> 00:18:51,600

of the nerve cell the neuron producing a

482

00:18:58,150 --> 00:18:54,799

chemical messenger that we call dopamine

483

00:19:00,470 --> 00:18:58,160

dopamine is the key chemical messenger

484

00:19:02,390 --> 00:19:00,480

in motor function but it's also involved

485

00:19:05,750 --> 00:19:02,400

in many other

486

00:19:06,870 --> 00:19:05,760

activities uh but in that specific case

487

00:19:08,230 --> 00:19:06,880

the uh

488

00:19:11,029 --> 00:19:08,240

the patients

489

00:19:12,789 --> 00:19:11,039

add a level of destruction of about 70

490

00:19:14,150 --> 00:19:12,799

to 80 percent

491

00:19:16,470 --> 00:19:14,160

uh so the

492

00:19:19,430 --> 00:19:16,480

the level of destruction of the nerve

493

00:19:21,190 --> 00:19:19,440

cells producing dopamine was quite high

494

00:19:23,350 --> 00:19:21,200

and of course they were severely

495

00:19:25,350 --> 00:19:23,360

impaired from a clinical point of view

496

00:19:28,230 --> 00:19:25,360

they had trouble to move

497

00:19:30,390 --> 00:19:28,240

they were experiencing a lot of tremors

498

00:19:32,310 --> 00:19:30,400

and so the the neurologists doing the

499

00:19:34,789 --> 00:19:32,320

the study presented them

500

00:19:35,750 --> 00:19:34,799

a fake treatment it was only distilled

501
00:19:36,710 --> 00:19:35,760
water

502
00:19:38,549 --> 00:19:36,720
but they

503
00:19:41,590 --> 00:19:38,559
they told the patients that this was

504
00:19:45,029 --> 00:19:41,600
potentially a revolutionary treatment a

505
00:19:46,230 --> 00:19:45,039
new treatment for parkinson's disease

506
00:19:48,230 --> 00:19:46,240
and

507
00:19:51,270 --> 00:19:48,240
following the injection after a few

508
00:19:53,190 --> 00:19:51,280
minutes they scanned them with

509
00:19:57,590 --> 00:19:53,200
technology that we call functional

510
00:19:59,510 --> 00:19:57,600
magnetic resonance imaging or fmri

511
00:20:01,830 --> 00:19:59,520
uh apparently in that specific case it

512
00:20:03,510 --> 00:20:01,840
was positron emission tomography so they

513
00:20:06,870 --> 00:20:03,520

were interested in measuring the

514

00:20:09,510 --> 00:20:06,880

activity of dopamine in the brain and so

515

00:20:12,070 --> 00:20:09,520

very rapidly those patients who most

516

00:20:13,750 --> 00:20:12,080

believed in the the fig treatment which

517

00:20:15,590 --> 00:20:13,760

was distilled water

518

00:20:17,669 --> 00:20:15,600

they started to produce

519

00:20:20,150 --> 00:20:17,679

dopamine and to release dopamine in

520

00:20:23,510 --> 00:20:20,160

their brains in amount comparable to

521

00:20:25,350 --> 00:20:23,520

that scene in young healthy people

522

00:20:27,510 --> 00:20:25,360

and in parallel

523

00:20:29,350 --> 00:20:27,520

they started to get much better from a

524

00:20:31,590 --> 00:20:29,360

clinical point of view so they had less

525

00:20:33,430 --> 00:20:31,600

tremors

526
00:20:35,029 --> 00:20:33,440
they had more strength

527
00:20:37,750 --> 00:20:35,039
and so

528
00:20:39,750 --> 00:20:37,760
and they were more optimistic at least

529
00:20:41,830 --> 00:20:39,760
for a certain period of time

530
00:20:44,070 --> 00:20:41,840
so this this is a very nice uh

531
00:20:46,710 --> 00:20:44,080
illustration of the power of what we

532
00:20:49,110 --> 00:20:46,720
call mind and by mine i mean all the

533
00:20:52,390 --> 00:20:49,120
mental activity mental events

534
00:20:54,870 --> 00:20:52,400
and in that specific case uh this effect

535
00:20:57,590 --> 00:20:54,880
is related simply to the

536
00:20:59,510 --> 00:20:57,600
the beliefs and also the expectations

537
00:21:02,470 --> 00:20:59,520
that the patients add

538
00:21:04,710 --> 00:21:02,480

regarding uh the fake treatment so it's

539

00:21:07,110 --> 00:21:04,720

a very nice illustration

540

00:21:09,110 --> 00:21:07,120

another interesting case is that of

541

00:21:10,070 --> 00:21:09,120

hypnosis

542

00:21:13,669 --> 00:21:10,080

so

543

00:21:16,549 --> 00:21:13,679

hypnosis is based on the suggestions

544

00:21:19,350 --> 00:21:16,559

uh coming from a hypnotist

545

00:21:21,830 --> 00:21:19,360

and the the subject of the experiment

546

00:21:22,710 --> 00:21:21,840

except the uh the suggestions

547

00:21:25,350 --> 00:21:22,720

um

548

00:21:27,110 --> 00:21:25,360

nowadays the experts in this field of

549

00:21:30,710 --> 00:21:27,120

research consider that

550

00:21:32,310 --> 00:21:30,720

all forms of hypnosis are in reality

551
00:21:34,470 --> 00:21:32,320
self-hypnosis

552
00:21:35,909 --> 00:21:34,480
that means that if the subject does not

553
00:21:38,870 --> 00:21:35,919
want to accept

554
00:21:41,430 --> 00:21:38,880
these suggestions from the hypnotists

555
00:21:44,230 --> 00:21:41,440
it won't work

556
00:21:45,750 --> 00:21:44,240
so the again during the last decade

557
00:21:48,630 --> 00:21:45,760
there's been a number of uh brain

558
00:21:50,789 --> 00:21:48,640
imaging studies that have been done

559
00:21:53,029 --> 00:21:50,799
simply to measure whether really there's

560
00:21:55,669 --> 00:21:53,039
something happening at the brain level

561
00:21:56,390 --> 00:21:55,679
because uh skeptics have been arguing

562
00:21:59,270 --> 00:21:56,400
for

563
00:22:02,630 --> 00:21:59,280

a long time that um it knows this is

564

00:22:05,510 --> 00:22:02,640

simply wishful thinking that it's only

565

00:22:06,149 --> 00:22:05,520

uh based on social compliance from the

566

00:22:07,590 --> 00:22:06,159

uh

567

00:22:09,830 --> 00:22:07,600

the subjects

568

00:22:11,430 --> 00:22:09,840

you only won't please the hypnotist but

569

00:22:14,870 --> 00:22:11,440

there's nothing else

570

00:22:16,710 --> 00:22:14,880

so uh several research teams have

571

00:22:19,270 --> 00:22:16,720

attempted to research this question

572

00:22:21,270 --> 00:22:19,280

using brain imaging and for instance

573

00:22:23,830 --> 00:22:21,280

there was a very interesting study that

574

00:22:25,669 --> 00:22:23,840

done at harvard

575

00:22:27,990 --> 00:22:25,679

they were interested the researchers

576

00:22:31,510 --> 00:22:28,000

were looking for the uh the neural

577

00:22:32,870 --> 00:22:31,520

correlates of color vision so neural

578

00:22:34,149 --> 00:22:32,880

correlates

579

00:22:36,470 --> 00:22:34,159

are

580

00:22:38,630 --> 00:22:36,480

physical processes in the brain whether

581

00:22:41,350 --> 00:22:38,640

electrical or chemical

582

00:22:43,990 --> 00:22:41,360

that are related to a specific mental

583

00:22:46,789 --> 00:22:44,000

activity for instance uh it can be

584

00:22:48,710 --> 00:22:46,799

perception perception of color

585

00:22:50,390 --> 00:22:48,720

so in that case the

586

00:22:53,190 --> 00:22:50,400

scan the subjects

587

00:22:56,149 --> 00:22:53,200

uh highly uh it noticeable subjects

588

00:23:00,950 --> 00:22:56,159

which means that these people had the

589

00:23:03,270 --> 00:23:00,960

capacity to uh enter quite easily into a

590

00:23:04,870 --> 00:23:03,280

a trend state

591

00:23:06,950 --> 00:23:04,880

deep enough

592

00:23:09,510 --> 00:23:06,960

and so they these these subjects were

593

00:23:12,549 --> 00:23:09,520

able to um

594

00:23:14,630 --> 00:23:12,559

to imagine that they were

595

00:23:17,110 --> 00:23:14,640

looking or seeing

596

00:23:19,270 --> 00:23:17,120

different types of pattern colors

597

00:23:22,950 --> 00:23:19,280

in accordance with the suggestions of

598

00:23:25,909 --> 00:23:22,960

the the researchers doing the study and

599

00:23:28,549 --> 00:23:25,919

so uh it was very interesting because

600

00:23:31,510 --> 00:23:28,559

the when they were presenting

601
00:23:33,350 --> 00:23:31,520
stimuli that were colored but the

602
00:23:36,630 --> 00:23:33,360
researchers were training the uh the

603
00:23:38,310 --> 00:23:36,640
subjects that this distinctly were only

604
00:23:39,510 --> 00:23:38,320
green

605
00:23:42,870 --> 00:23:39,520
the uh

606
00:23:44,789 --> 00:23:42,880
the brain regions uh associated with the

607
00:23:47,110 --> 00:23:44,799
treatment the processing of color in the

608
00:23:48,830 --> 00:23:47,120
brain were not activated

609
00:23:50,630 --> 00:23:48,840
even though the stimuli were

610
00:23:53,669 --> 00:23:50,640
colored and

611
00:23:57,110 --> 00:23:53,679
and the reverse effect was also measured

612
00:23:59,430 --> 00:23:57,120
was also observed in the study that is

613
00:24:01,029 --> 00:23:59,440

uh when there was no color

614

00:24:03,350 --> 00:24:01,039

in the stimuli

615

00:24:06,789 --> 00:24:03,360

there was still activation in the

616

00:24:09,029 --> 00:24:06,799

regions of the brain processing colors

617

00:24:11,750 --> 00:24:09,039

so again this is a very nice

618

00:24:13,669 --> 00:24:11,760

illustration that what's going on at the

619

00:24:15,830 --> 00:24:13,679

minor level can

620

00:24:18,549 --> 00:24:15,840

exert a great influence over what's

621

00:24:20,630 --> 00:24:18,559

happening in terms of brain activity

622

00:24:22,230 --> 00:24:20,640

right exactly like i said you do a very

623

00:24:23,909 --> 00:24:22,240

nice job in the book and i really

624

00:24:25,909 --> 00:24:23,919

encourage folks to get to get the book

625

00:24:28,149 --> 00:24:25,919

whether you're a skeptic or a proponent

626
00:24:30,710 --> 00:24:28,159
or whatever just the person interested

627
00:24:33,750 --> 00:24:30,720
in science i think you'll enjoy the way

628
00:24:35,510 --> 00:24:33,760
that you bring forth this research and

629
00:24:37,909 --> 00:24:35,520
you really document a way that's easy

630
00:24:40,070 --> 00:24:37,919
accessible you do have the nice uh

631
00:24:41,830 --> 00:24:40,080
annotations references to the research

632
00:24:44,549 --> 00:24:41,840
if people want to go look it up but

633
00:24:45,750 --> 00:24:44,559
that's all there so the question then

634
00:24:48,470 --> 00:24:45,760
remains

635
00:24:51,430 --> 00:24:48,480
so why are we still having a war you've

636
00:24:53,029 --> 00:24:51,440
you've just now linked up for us two

637
00:24:54,950 --> 00:24:53,039
things that we already were pretty

638
00:24:57,750 --> 00:24:54,960

accepting of hey we all have heard of

639

00:25:00,310 --> 00:24:57,760

the placebo effect we know that every

640

00:25:03,190 --> 00:25:00,320

study every pharmaceutical study every

641

00:25:05,110 --> 00:25:03,200

scientific study has to allow for a

642

00:25:06,950 --> 00:25:05,120

placebo effect so they must

643

00:25:09,269 --> 00:25:06,960

recognize that there's some reality to

644

00:25:10,230 --> 00:25:09,279

it and hypnosis has become so common

645

00:25:12,310 --> 00:25:10,240

that i think

646

00:25:14,470 --> 00:25:12,320

at least one out of three people have

647

00:25:17,269 --> 00:25:14,480

had some kind of hypnosis while at the

648

00:25:19,669 --> 00:25:17,279

dentist or someplace else so given that

649

00:25:22,230 --> 00:25:19,679

we accept these

650

00:25:24,549 --> 00:25:22,240

modalities these treatments these

651

00:25:26,390 --> 00:25:24,559

understandings that violate strict

652

00:25:29,190 --> 00:25:26,400

materialism why are we still in the

653

00:25:31,430 --> 00:25:29,200

battle why do we still have the war

654

00:25:33,590 --> 00:25:31,440

well because uh

655

00:25:34,630 --> 00:25:33,600

a number of scientists considered that

656

00:25:36,950 --> 00:25:34,640

you can

657

00:25:39,029 --> 00:25:36,960

interpret these phenomena

658

00:25:41,190 --> 00:25:39,039

using a strictly uh materialist

659

00:25:44,789 --> 00:25:41,200

framework how do they do that what would

660

00:25:47,110 --> 00:25:44,799

be the well they they will say that

661

00:25:49,110 --> 00:25:47,120

for instance you can reduce uh the

662

00:25:50,789 --> 00:25:49,120

beliefs and the expectations of a

663

00:25:53,430 --> 00:25:50,799

patient regarding

664

00:25:55,269 --> 00:25:53,440

the fake treatment to

665

00:25:57,830 --> 00:25:55,279

electrical and chemical activity in

666

00:26:00,310 --> 00:25:57,840

specific portions of the brain so what

667

00:26:03,510 --> 00:26:00,320

they are saying essentially is that it's

668

00:26:04,390 --> 00:26:03,520

the brain acting upon the brain there's

669

00:26:09,590 --> 00:26:04,400

no

670

00:26:12,549 --> 00:26:09,600

functions

671

00:26:15,190 --> 00:26:12,559

uh apart from the brain to explain this

672

00:26:18,230 --> 00:26:15,200

kind of phenomenon that's what they say

673

00:26:21,510 --> 00:26:18,240

but doesn't that kind of result in some

674

00:26:22,710 --> 00:26:21,520

kind of recursive logic that at the end

675

00:26:24,630 --> 00:26:22,720

of the day

676

00:26:26,470 --> 00:26:24,640

gets into all sorts of other problems

677

00:26:29,430 --> 00:26:26,480

made what what what is the starting

678

00:26:30,789 --> 00:26:29,440

point in their explanation for such an

679

00:26:32,789 --> 00:26:30,799

activity it gets into the whole

680

00:26:35,669 --> 00:26:32,799

neuroplasticity argument you know i mean

681

00:26:37,830 --> 00:26:35,679

like if we show that neuroplasticity is

682

00:26:39,830 --> 00:26:37,840

real and that we can rewire our brain

683

00:26:41,909 --> 00:26:39,840

and and you've done some research on

684

00:26:44,710 --> 00:26:41,919

this as well and yeah some work on this

685

00:26:46,470 --> 00:26:44,720

yeah then doesn't it ultimately lead to

686

00:26:49,110 --> 00:26:46,480

the question of well then what was the

687

00:26:51,590 --> 00:26:49,120

beginning point and wasn't there some

688

00:26:53,590 --> 00:26:51,600

observer some consciousness that might

689

00:26:55,269 --> 00:26:53,600

have started this process

690

00:26:58,149 --> 00:26:55,279

yeah but for for them the

691

00:27:00,149 --> 00:26:58,159

neuroplasticity is simply the brain uh

692

00:27:02,310 --> 00:27:00,159

rewiring itself

693

00:27:04,149 --> 00:27:02,320

again they want uh

694

00:27:06,870 --> 00:27:04,159

they don't need uh you know

695

00:27:08,470 --> 00:27:06,880

consciousness and other mental functions

696

00:27:10,470 --> 00:27:08,480

to explain that

697

00:27:11,269 --> 00:27:10,480

that's what he's saying but

698

00:27:15,029 --> 00:27:11,279

uh

699

00:27:17,669 --> 00:27:15,039

explanation

700

00:27:21,190 --> 00:27:17,679

uh because you know the brain doesn't uh

701
00:27:23,590 --> 00:27:21,200
the brain to me will respond to the um

702
00:27:26,070 --> 00:27:23,600
the expectations or the beliefs

703
00:27:28,950 --> 00:27:26,080
and so if your

704
00:27:31,750 --> 00:27:28,960
beliefs are negative about fake

705
00:27:33,430 --> 00:27:31,760
treatment bogus treatment then you will

706
00:27:34,630 --> 00:27:33,440
experience something totally different

707
00:27:35,510 --> 00:27:34,640
so

708
00:27:37,190 --> 00:27:35,520
uh

709
00:27:39,110 --> 00:27:37,200
in terms of the chemical messengers

710
00:27:41,510 --> 00:27:39,120
involved in the response and so it's

711
00:27:43,909 --> 00:27:41,520
called in the sibo effect

712
00:27:45,990 --> 00:27:43,919
uh it's exactly the reverse

713
00:27:47,510 --> 00:27:46,000

so you you need a

714

00:27:49,269 --> 00:27:47,520

a person

715

00:27:51,510 --> 00:27:49,279

and the consciousness

716

00:27:53,990 --> 00:27:51,520

in order to produce phenomenon like that

717

00:27:55,909 --> 00:27:54,000

otherwise doesn't make any sense at all

718

00:27:59,430 --> 00:27:55,919

because the brain itself

719

00:28:01,669 --> 00:27:59,440

is quite neutral so you can influence it

720

00:28:04,710 --> 00:28:01,679

in a way or another for instance we've

721

00:28:07,669 --> 00:28:04,720

done a another brain imaging studies

722

00:28:10,630 --> 00:28:07,679

a positron emissions tomography study

723

00:28:12,789 --> 00:28:10,640

and uh in that case we measured

724

00:28:16,389 --> 00:28:12,799

the activity of

725

00:28:18,870 --> 00:28:16,399

serotonin which is uh very much involved

726

00:28:20,710 --> 00:28:18,880

in mood regulation

727

00:28:21,909 --> 00:28:20,720

and also in the emotions a lot of

728

00:28:26,070 --> 00:28:21,919

emotions

729

00:28:27,029 --> 00:28:26,080

and uh so we have our subjects to simply

730

00:28:30,710 --> 00:28:27,039

um

731

00:28:33,830 --> 00:28:30,720

remember and try to reenact the saddest

732

00:28:35,669 --> 00:28:33,840

episode of their lives and we we had

733

00:28:37,590 --> 00:28:35,679

another condition in which we asked the

734

00:28:40,950 --> 00:28:37,600

same thing but this time

735

00:28:42,950 --> 00:28:40,960

they had to uh reenact the happiest

736

00:28:46,310 --> 00:28:42,960

moment of their lives

737

00:28:49,909 --> 00:28:46,320

and in a matter of only a few minutes

738

00:28:53,190 --> 00:28:49,919

we measured uh either increases in terms

739

00:28:56,549 --> 00:28:53,200

of serotonin production or decrease

740

00:28:57,430 --> 00:28:56,559

increases in the positive uh the happy

741

00:29:03,510 --> 00:28:57,440

state

742

00:29:06,149 --> 00:29:03,520

within a few minutes

743

00:29:08,549 --> 00:29:06,159

in regions of the brain related to uh

744

00:29:10,470 --> 00:29:08,559

emotions and mood regulation

745

00:29:12,710 --> 00:29:10,480

you see so

746

00:29:15,350 --> 00:29:12,720

this shows really that

747

00:29:16,549 --> 00:29:15,360

the content itself of the uh the mental

748

00:29:17,830 --> 00:29:16,559

processes

749

00:29:21,269 --> 00:29:17,840

their nature

750

00:29:23,430 --> 00:29:21,279

will influence the direction that the

751
00:29:25,750 --> 00:29:23,440
brain activity will take

752
00:29:28,070 --> 00:29:25,760
um so that's why i'm claiming that it's

753
00:29:30,149 --> 00:29:28,080
not possible to interpret this

754
00:29:33,190 --> 00:29:30,159
this kind of phenomenon

755
00:29:36,789 --> 00:29:33,200
without you know uh recognizing the

756
00:29:39,750 --> 00:29:36,799
existence of uh mental processes it

757
00:29:41,669 --> 00:29:39,760
certainly seems a lot cleaner but it

758
00:29:43,269 --> 00:29:41,679
seems rather obvious what about this

759
00:29:45,590 --> 00:29:43,279
argument and you'll hear this sometimes

760
00:29:47,830 --> 00:29:45,600
too what about folks who say okay

761
00:29:49,750 --> 00:29:47,840
just because you've shown that maybe

762
00:29:51,110 --> 00:29:49,760
this strict materialism as you've

763
00:29:53,750 --> 00:29:51,120

defined it

764

00:29:55,510 --> 00:29:53,760

doesn't work in this situation

765

00:29:57,830 --> 00:29:55,520

maybe there's something else down the

766

00:30:00,070 --> 00:29:57,840

road that quote-unquote science will

767

00:30:03,110 --> 00:30:00,080

discover that will explain this we don't

768

00:30:05,510 --> 00:30:03,120

need to jump to this idea of

769

00:30:06,789 --> 00:30:05,520

there being a you inside your head

770

00:30:08,470 --> 00:30:06,799

they're being consciousness they're

771

00:30:10,470 --> 00:30:08,480

being dualism no matter what word you

772

00:30:12,789 --> 00:30:10,480

want to throw at it we don't need to

773

00:30:14,710 --> 00:30:12,799

jump off of the ship that we're on just

774

00:30:16,470 --> 00:30:14,720

yet just because we have this finding

775

00:30:18,630 --> 00:30:16,480

well how do you respond to that

776

00:30:21,190 --> 00:30:18,640

well yeah this is called promissory

777

00:30:25,029 --> 00:30:21,200

materialism and

778

00:30:29,029 --> 00:30:25,039

this concept uh was uh proposed by

779

00:30:32,549 --> 00:30:29,039

a famous philosopher science karl popper

780

00:30:35,669 --> 00:30:32,559

in the 20th century and uh but popper

781

00:30:37,830 --> 00:30:35,679

analyzed the text of the materialist

782

00:30:39,669 --> 00:30:37,840

across a number of centuries

783

00:30:41,990 --> 00:30:39,679

and uh the funny thing is that he

784

00:30:45,269 --> 00:30:42,000

realized that they were exactly saying

785

00:30:48,070 --> 00:30:45,279

the same thing 300 300 years ago or 200

786

00:30:51,029 --> 00:30:48,080

years ago or 100 years ago so they've

787

00:30:52,470 --> 00:30:51,039

always been arguing this

788

00:30:54,789 --> 00:30:52,480

and so that's

789

00:30:57,190 --> 00:30:54,799

one aspect of the thing but now we have

790

00:31:00,549 --> 00:30:57,200

evidence

791

00:31:02,470 --> 00:31:00,559

showing in my view that this this

792

00:31:05,110 --> 00:31:02,480

materialist outlook

793

00:31:07,909 --> 00:31:05,120

is simply wrong it's false

794

00:31:09,909 --> 00:31:07,919

and i'm referring here to uh

795

00:31:11,990 --> 00:31:09,919

the the studies about the the so-called

796

00:31:14,950 --> 00:31:12,000

near-death uh phenomena near death

797

00:31:16,789 --> 00:31:14,960

experience phenomenon especially during

798

00:31:18,710 --> 00:31:16,799

cardiac arrests

799

00:31:21,029 --> 00:31:18,720

why this is important because during

800

00:31:23,590 --> 00:31:21,039

cardiac arrest there's a

801
00:31:24,630 --> 00:31:23,600
the blood flow to the brain will cease

802
00:31:26,630 --> 00:31:24,640
uh

803
00:31:28,149 --> 00:31:26,640
following a number of seconds usually

804
00:31:30,230 --> 00:31:28,159
quite rapidly

805
00:31:32,950 --> 00:31:30,240
and if you're measuring electrical

806
00:31:35,029 --> 00:31:32,960
activity in the brain using an eeg or

807
00:31:37,909 --> 00:31:35,039
electrons photograph

808
00:31:41,110 --> 00:31:37,919
the eeg will become flat within 10 to 20

809
00:31:43,430 --> 00:31:41,120
seconds usually so in that kind of state

810
00:31:45,430 --> 00:31:43,440
according to mainstream neuroscience

811
00:31:47,269 --> 00:31:45,440
higher mental functions

812
00:31:49,350 --> 00:31:47,279
are not possible

813
00:31:50,870 --> 00:31:49,360

yet during the last

814

00:31:52,470 --> 00:31:50,880

10 years

815

00:31:54,470 --> 00:31:52,480

i think there's been four or five

816

00:31:56,710 --> 00:31:54,480

different studies

817

00:31:58,149 --> 00:31:56,720

documenting over a hundred cases of

818

00:32:01,110 --> 00:31:58,159

patients

819

00:32:02,389 --> 00:32:01,120

who we've reported conscious mental

820

00:32:05,190 --> 00:32:02,399

activity

821

00:32:07,750 --> 00:32:05,200

uh during a state of cardiac arrest

822

00:32:11,669 --> 00:32:07,760

so this is quite uh interesting

823

00:32:13,990 --> 00:32:11,679

um and it's very hard for materialists

824

00:32:17,110 --> 00:32:14,000

scientists or philosophers to uh

825

00:32:19,269 --> 00:32:17,120

interpret this kind of phenomenon

826
00:32:21,830 --> 00:32:19,279
yes indeed you know we've covered that

827
00:32:24,149 --> 00:32:21,840
topic extensively on this show

828
00:32:25,590 --> 00:32:24,159
but i do like the way that you summed it

829
00:32:27,750 --> 00:32:25,600
up there and the way that you sum it up

830
00:32:28,470 --> 00:32:27,760
in your book is quite nice

831
00:32:31,350 --> 00:32:28,480
so

832
00:32:32,870 --> 00:32:31,360
let's get on to the other elephant in

833
00:32:35,029 --> 00:32:32,880
the room here

834
00:32:37,269 --> 00:32:35,039
dr beauregard one of the criticisms of

835
00:32:40,830 --> 00:32:37,279
your work and it's sometimes made

836
00:32:44,149 --> 00:32:40,840
explicitly and sometimes just subtly

837
00:32:45,830 --> 00:32:44,159
implied is that you're pushing some kind

838
00:32:48,710 --> 00:32:45,840

of you're peddling some kind of

839

00:32:51,110 --> 00:32:48,720

christian agenda you really are trying

840

00:32:52,310 --> 00:32:51,120

to convert people to some kind of

841

00:32:54,070 --> 00:32:52,320

religion

842

00:32:56,310 --> 00:32:54,080

how do you respond to that

843

00:32:58,310 --> 00:32:56,320

well i would say that this is not true

844

00:32:59,830 --> 00:32:58,320

at all because i'm not i'm not religious

845

00:33:01,110 --> 00:32:59,840

at all i don't have any religious

846

00:33:02,950 --> 00:33:01,120

affiliation

847

00:33:06,549 --> 00:33:02,960

uh so

848

00:33:08,710 --> 00:33:06,559

uh this is uh funny to hear

849

00:33:11,190 --> 00:33:08,720

however i would i consider myself to be

850

00:33:13,509 --> 00:33:11,200

a spiritual person but

851
00:33:16,149 --> 00:33:13,519
i'm not pushing any religious agenda

852
00:33:18,710 --> 00:33:16,159
here i don't have any ties with

853
00:33:20,470 --> 00:33:18,720
religious organizations great and i'm

854
00:33:23,269 --> 00:33:20,480
glad you had a chance to get that out

855
00:33:25,190 --> 00:33:23,279
there because i think it's often subtly

856
00:33:27,110 --> 00:33:25,200
implied and sometimes not even so subtly

857
00:33:29,590 --> 00:33:27,120
implied that that's what's really going

858
00:33:32,070 --> 00:33:29,600
on here and at the same time

859
00:33:34,389 --> 00:33:32,080
you're good totally false good

860
00:33:37,430 --> 00:33:34,399
because at the same time though i think

861
00:33:38,549 --> 00:33:37,440
there's we can be too reactionary the

862
00:33:41,269 --> 00:33:38,559
other way

863
00:33:43,029 --> 00:33:41,279

because we have to i think and i'd love

864

00:33:45,430 --> 00:33:43,039

to i'm just throwing out my opinion i

865

00:33:47,750 --> 00:33:45,440

really want to get your opinion but i

866

00:33:50,830 --> 00:33:47,760

don't think we can play down the

867

00:33:53,430 --> 00:33:50,840

spiritual implications of some of this

868

00:33:55,590 --> 00:33:53,440

work for example the near-death

869

00:33:58,230 --> 00:33:55,600

experience science we can look at it

870

00:34:00,230 --> 00:33:58,240

purely uh analytically from the science

871

00:34:02,149 --> 00:34:00,240

standpoint and we can say wow this looks

872

00:34:04,710 --> 00:34:02,159

like there's something there and we

873

00:34:07,269 --> 00:34:04,720

would be very inclined then to take the

874

00:34:10,470 --> 00:34:07,279

next step in terms of what they're

875

00:34:13,270 --> 00:34:10,480

telling us about spirituality and how it

876

00:34:15,510 --> 00:34:13,280

does link back at least in some general

877

00:34:18,310 --> 00:34:15,520

way to some of the wisdom traditions and

878

00:34:20,550 --> 00:34:18,320

religions that we've had over time so

879

00:34:23,750 --> 00:34:20,560

what is your thought on that do we need

880

00:34:25,430 --> 00:34:23,760

to go there do we need to say hey there

881

00:34:28,069 --> 00:34:25,440

are some spiritual implications here

882

00:34:31,430 --> 00:34:28,079

that may have to be dealt with once we

883

00:34:33,669 --> 00:34:31,440

cross this chasm to a post-materialistic

884

00:34:36,310 --> 00:34:33,679

world or do we just kind of keep our

885

00:34:39,270 --> 00:34:36,320

nose to the grindstone and ignore all

886

00:34:41,589 --> 00:34:39,280

that and just pretend like it's all just

887

00:34:45,109 --> 00:34:41,599

about materialism

888

00:34:47,270 --> 00:34:45,119

no no um i i can i agree with you uh

889

00:34:50,389 --> 00:34:47,280

because if

890

00:34:52,149 --> 00:34:50,399

uh of course when we speak of uh

891

00:34:53,030 --> 00:34:52,159

so-called near-death experience during

892

00:34:55,589 --> 00:34:53,040

uh

893

00:34:57,589 --> 00:34:55,599

cardiac arrest for instance the people

894

00:34:58,470 --> 00:34:57,599

usually are reanimated within a few

895

00:35:03,030 --> 00:34:58,480

minutes

896

00:35:05,109 --> 00:35:03,040

because we cannot stay in that kind of

897

00:35:08,550 --> 00:35:05,119

state for a long long time

898

00:35:10,069 --> 00:35:08,560

without uh you know severe cerebral

899

00:35:11,589 --> 00:35:10,079

damage

900

00:35:15,390 --> 00:35:11,599

so

901
00:35:17,670 --> 00:35:15,400
about their

902
00:35:18,870 --> 00:35:17,680
transcendental component of their

903
00:35:21,829 --> 00:35:18,880
experience

904
00:35:24,230 --> 00:35:21,839
uh whether it's being a meeting with a

905
00:35:26,390 --> 00:35:24,240
beautiful being a flight or meeting with

906
00:35:27,829 --> 00:35:26,400
deceased friends or relatives and so on

907
00:35:29,430 --> 00:35:27,839
and so forth

908
00:35:31,670 --> 00:35:29,440
that from a scientific point of view we

909
00:35:35,109 --> 00:35:31,680
cannot validate it or not

910
00:35:37,589 --> 00:35:35,119
we can only uh attempt to validate what

911
00:35:38,870 --> 00:35:37,599
the report from a perceptual point of

912
00:35:41,990 --> 00:35:38,880
view so the

913
00:35:45,510 --> 00:35:42,000

um the out of body component of this

914

00:35:48,150 --> 00:35:45,520

experience that can be corroborated by

915

00:35:49,829 --> 00:35:48,160

external source and it's been done in a

916

00:35:52,870 --> 00:35:49,839

few cases

917

00:35:54,390 --> 00:35:52,880

by members of the medical staff

918

00:35:56,790 --> 00:35:54,400

so but

919

00:35:58,470 --> 00:35:56,800

of course like you said

920

00:36:01,030 --> 00:35:58,480

what they are reporting from a

921

00:36:04,390 --> 00:36:01,040

subjective point of view

922

00:36:06,950 --> 00:36:04,400

seems to um you know validate some

923

00:36:10,230 --> 00:36:06,960

spiritual traditions seems to

924

00:36:11,589 --> 00:36:10,240

uh provide certain evidence that there

925

00:36:16,150 --> 00:36:11,599

might be

926
00:36:16,870 --> 00:36:16,160
uh spiritual realms out there uh

927
00:36:25,030 --> 00:36:16,880
and

928
00:36:29,589 --> 00:36:27,270
this would not surprise me at all if

929
00:36:32,150 --> 00:36:29,599
there's a there are a multitude of

930
00:36:34,550 --> 00:36:32,160
spiritual realms that we don't know yet

931
00:36:37,190 --> 00:36:34,560
um and i don't think it's it's not

932
00:36:37,990 --> 00:36:37,200
scientific to have that kind of point of

933
00:36:38,870 --> 00:36:38,000
view

934
00:36:39,750 --> 00:36:38,880
um

935
00:36:43,190 --> 00:36:39,760
uh

936
00:36:44,950 --> 00:36:43,200
it's human isn't it i mean that's the

937
00:36:48,150 --> 00:36:44,960
part i think we have to acknowledge that

938
00:36:50,069 --> 00:36:48,160

these are fundamental human questions

939

00:36:51,910 --> 00:36:50,079

that the whole endeavor of science

940

00:36:54,310 --> 00:36:51,920

that's why it came about was to

941

00:36:55,910 --> 00:36:54,320

understand who we are what place we are

942

00:36:57,829 --> 00:36:55,920

what place we have in the universe what

943

00:36:59,670 --> 00:36:57,839

happens to us when we die these are the

944

00:37:02,630 --> 00:36:59,680

ultimate questions so i i think that

945

00:37:04,390 --> 00:37:02,640

this couldn't be more fairly put that

946

00:37:05,670 --> 00:37:04,400

these are real concerns that we all have

947

00:37:09,030 --> 00:37:05,680

we have to acknowledge

948

00:37:11,589 --> 00:37:09,040

yes and also uh spiritual experiences

949

00:37:12,950 --> 00:37:11,599

have been reported across all uh

950

00:37:16,230 --> 00:37:12,960

traditions

951
00:37:17,910 --> 00:37:16,240
uh cultures and since the beginning of

952
00:37:20,630 --> 00:37:17,920
time you know so

953
00:37:22,390 --> 00:37:20,640
uh they really do exist from a

954
00:37:24,390 --> 00:37:22,400
subjective point of view

955
00:37:26,310 --> 00:37:24,400
now we don't have the uh of course we

956
00:37:27,109 --> 00:37:26,320
don't have a scientific explanation for

957
00:37:31,270 --> 00:37:27,119
the

958
00:37:34,069 --> 00:37:31,280
what i'm saying is that we we need to

959
00:37:36,950 --> 00:37:34,079
remain uh open-minded regarding this

960
00:37:38,710 --> 00:37:36,960
aspect very good near the end of your

961
00:37:42,390 --> 00:37:38,720
book brain wars

962
00:37:44,790 --> 00:37:42,400
you talk about a shift in consciousness

963
00:37:46,790 --> 00:37:44,800

and i'd like you to talk about that and

964

00:37:48,950 --> 00:37:46,800

whether you really think

965

00:37:51,829 --> 00:37:48,960

number one that is likely that can come

966

00:37:54,230 --> 00:37:51,839

about we are so enmeshed we are so

967

00:37:57,030 --> 00:37:54,240

married to this materialism can we

968

00:37:59,510 --> 00:37:57,040

really get beyond it and question two

969

00:38:01,910 --> 00:37:59,520

related to that is how might that come

970

00:38:04,550 --> 00:38:01,920

about is it going to be an evolutionary

971

00:38:07,510 --> 00:38:04,560

change or does it require a radical

972

00:38:08,310 --> 00:38:07,520

revolutionary shift

973

00:38:13,750 --> 00:38:08,320

uh

974

00:38:15,589 --> 00:38:13,760

at least in my own field

975

00:38:17,270 --> 00:38:15,599

there's a increasing number of

976
00:38:19,190 --> 00:38:17,280
scientists

977
00:38:22,069 --> 00:38:19,200
and also in other disciplines

978
00:38:25,510 --> 00:38:22,079
challenging the old materialist

979
00:38:27,589 --> 00:38:25,520
worldview so it's done not only by

980
00:38:30,069 --> 00:38:27,599
scientists but also by philosophers

981
00:38:31,270 --> 00:38:30,079
themselves so in the last few years

982
00:38:33,910 --> 00:38:31,280
we've seen

983
00:38:36,390 --> 00:38:33,920
books uh came out you know about the

984
00:38:38,069 --> 00:38:36,400
waning of materialism and so on and so

985
00:38:39,990 --> 00:38:38,079
forth and

986
00:38:41,829 --> 00:38:40,000
so now uh

987
00:38:43,670 --> 00:38:41,839
several different scientists are

988
00:38:45,750 --> 00:38:43,680

starting to question this

989

00:38:48,950 --> 00:38:45,760

uh so so we're in a transition period

990

00:38:50,069 --> 00:38:48,960

like i said before and uh in certain

991

00:38:53,270 --> 00:38:50,079

circles

992

00:38:56,310 --> 00:38:53,280

uh scientists are uh creating sorts of

993

00:38:58,470 --> 00:38:56,320

uh union we're getting together or

994

00:38:59,510 --> 00:38:58,480

trying to getting organized

995

00:39:01,510 --> 00:38:59,520

um

996

00:39:03,510 --> 00:39:01,520

and uh

997

00:39:04,950 --> 00:39:03,520

for instance there's a

998

00:39:07,910 --> 00:39:04,960

special issue

999

00:39:09,829 --> 00:39:07,920

of a journal which a mainstream journal

1000

00:39:11,670 --> 00:39:09,839

in neuroscience called frontiers in

1001
00:39:13,750 --> 00:39:11,680
human neuroscience

1002
00:39:16,390 --> 00:39:13,760
and next year there will be a special

1003
00:39:17,510 --> 00:39:16,400
issue about the possibility of non-local

1004
00:39:19,750 --> 00:39:17,520
mind

1005
00:39:22,550 --> 00:39:19,760
and this is a sign of time because

1006
00:39:24,950 --> 00:39:22,560
only 10 years ago or 15 20 years ago

1007
00:39:27,670 --> 00:39:24,960
this would have not been possible at all

1008
00:39:30,790 --> 00:39:27,680
so now it's becoming possible

1009
00:39:33,829 --> 00:39:30,800
to discuss these important issues

1010
00:39:37,109 --> 00:39:33,839
publicly and even to challenge

1011
00:39:40,150 --> 00:39:37,119
the mainstream view openly overtly so

1012
00:39:42,470 --> 00:39:40,160
that this was not possible at all before

1013
00:39:45,670 --> 00:39:42,480

so there's there's a progress uh

1014

00:39:47,190 --> 00:39:45,680

regarding this uh this uh evolution in

1015

00:39:48,950 --> 00:39:47,200

our field

1016

00:39:51,510 --> 00:39:48,960

um and so

1017

00:39:54,310 --> 00:39:51,520

so i think that um

1018

00:39:56,390 --> 00:39:54,320

there eventually will be another level a

1019

00:39:58,710 --> 00:39:56,400

big revolution in science

1020

00:40:01,109 --> 00:39:58,720

and this will uh be about

1021

00:40:01,990 --> 00:40:01,119

mind and consciousness and the same kind

1022

00:40:04,470 --> 00:40:02,000

of

1023

00:40:06,710 --> 00:40:04,480

revolution that they've had

1024

00:40:08,870 --> 00:40:06,720

about 100 years ago in physics from

1025

00:40:11,510 --> 00:40:08,880

classical physics to quantum physics

1026

00:40:14,150 --> 00:40:11,520

will have the probably the same

1027

00:40:15,589 --> 00:40:14,160

you know in our own field

1028

00:40:17,990 --> 00:40:15,599

and uh

1029

00:40:19,270 --> 00:40:18,000

at the same time in parallel of course

1030

00:40:22,470 --> 00:40:19,280

like you said at the beginning of the

1031

00:40:24,470 --> 00:40:22,480

interview if you talk to lay people

1032

00:40:26,630 --> 00:40:24,480

uh to most people they do not believe

1033

00:40:29,349 --> 00:40:26,640

that they are strictly biological robots

1034

00:40:31,589 --> 00:40:29,359

that they don't have any influence over

1035

00:40:34,310 --> 00:40:31,599

their brain activity or what's happening

1036

00:40:35,670 --> 00:40:34,320

in the body and so on and so forth and

1037

00:40:39,910 --> 00:40:35,680

so

1038

00:40:43,430 --> 00:40:39,920

it won't be difficult uh if there's uh

1039

00:40:45,910 --> 00:40:43,440

the start of uh really a transition in

1040

00:40:48,550 --> 00:40:45,920

science within science

1041

00:40:49,829 --> 00:40:48,560

uh it will go uh

1042

00:40:52,470 --> 00:40:49,839

quickly

1043

00:40:55,349 --> 00:40:52,480

because the rest of the world you know

1044

00:40:58,309 --> 00:40:55,359

is very sympathetic regarding

1045

00:41:00,630 --> 00:40:58,319

a non-materialist view of

1046

00:41:02,710 --> 00:41:00,640

consciousness and of human life

1047

00:41:05,589 --> 00:41:02,720

of the universe right right very good

1048

00:41:07,109 --> 00:41:05,599

very good point so dr bergaard tell us a

1049

00:41:09,829 --> 00:41:07,119

little bit about the research that

1050

00:41:11,270 --> 00:41:09,839

you're currently engaged in and also if

1051

00:41:13,510 --> 00:41:11,280

you want to tell us anything else we can

1052

00:41:16,950 --> 00:41:13,520

find out about the book that'd be great

1053

00:41:19,030 --> 00:41:16,960

too so what are you working on nowadays

1054

00:41:21,109 --> 00:41:19,040

well i'm doing uh

1055

00:41:23,829 --> 00:41:21,119

i'm doing uh

1056

00:41:26,470 --> 00:41:23,839

brain imaging uh experiments regarding

1057

00:41:28,790 --> 00:41:26,480

uh some types of altered well altered

1058

00:41:30,390 --> 00:41:28,800

states of consciousness and especially

1059

00:41:32,069 --> 00:41:30,400

uh spiritual

1060

00:41:34,390 --> 00:41:32,079

uh consciousness

1061

00:41:37,670 --> 00:41:34,400

uh so so that's one thing i'm also uh

1062

00:41:39,270 --> 00:41:37,680

investigating uh the the capacity of um

1063

00:41:42,470 --> 00:41:39,280

the human mind

1064

00:41:45,349 --> 00:41:42,480

to influence uh or to control

1065

00:41:47,430 --> 00:41:45,359

the activity of regions involved in

1066

00:41:49,270 --> 00:41:47,440

emotional responses so it's called

1067

00:41:52,150 --> 00:41:49,280

emotion regulation

1068

00:41:53,990 --> 00:41:52,160

so that's that's uh one aspect but uh

1069

00:41:55,750 --> 00:41:54,000

from a theoretical point of view i'm

1070

00:41:57,510 --> 00:41:55,760

also uh

1071

00:41:59,990 --> 00:41:57,520

in the process of developing a new

1072

00:42:03,270 --> 00:42:00,000

theory about uh the role and the impact

1073

00:42:05,109 --> 00:42:03,280

of mining consciousness in nature

1074

00:42:06,230 --> 00:42:05,119

great would you want to tip your hand a

1075

00:42:08,470 --> 00:42:06,240

little bit and tell us what you're

1076

00:42:11,270 --> 00:42:08,480

thinking in general well the

1077

00:42:14,309 --> 00:42:11,280

uh i'm planning to present this uh this

1078

00:42:16,390 --> 00:42:14,319

theory in this special issue that will

1079

00:42:19,829 --> 00:42:16,400

be published next year in the

1080

00:42:23,829 --> 00:42:19,839

frontiers of in human neuroscience

1081

00:42:27,109 --> 00:42:23,839

and well basic ideas about that it's uh

1082

00:42:29,109 --> 00:42:27,119

mind consciousness are irreducible they

1083

00:42:30,950 --> 00:42:29,119

cannot be reduced to matter they are

1084

00:42:33,109 --> 00:42:30,960

fundamental uh

1085

00:42:35,750 --> 00:42:33,119

in the universe as much as

1086

00:42:36,790 --> 00:42:35,760

the fundamental forces of physics

1087

00:42:39,349 --> 00:42:36,800

um

1088

00:42:42,069 --> 00:42:39,359

and the uh you know the

1089

00:42:44,630 --> 00:42:42,079

so so they are as important as what we

1090

00:42:46,150 --> 00:42:44,640

call space time and also the uh the

1091

00:42:47,030 --> 00:42:46,160

physical world

1092

00:42:47,910 --> 00:42:47,040

and

1093

00:42:50,069 --> 00:42:47,920

so

1094

00:42:52,150 --> 00:42:50,079

what i'm planning to do is simply to

1095

00:42:54,790 --> 00:42:52,160

demonstrate that from

1096

00:42:56,950 --> 00:42:54,800

an empirical point of view so i i'm

1097

00:43:00,390 --> 00:42:56,960

presenting a series of empirical

1098

00:43:03,349 --> 00:43:00,400

evidence showing that

1099

00:43:05,829 --> 00:43:03,359

mental processes and events

1100

00:43:08,390 --> 00:43:05,839

exert a great influence

1101

00:43:10,829 --> 00:43:08,400

within the body the brain and body

1102

00:43:13,750 --> 00:43:10,839

but also outside of the physical

1103

00:43:15,270 --> 00:43:13,760

body uh beyond the confines of the brain

1104

00:43:17,829 --> 00:43:15,280

and the body

1105

00:43:18,470 --> 00:43:17,839

so in essence that's the uh the gist of

1106

00:43:23,510 --> 00:43:18,480

it

1107

00:43:25,430 --> 00:43:23,520

teaser for the for the upcoming article

1108

00:43:28,069 --> 00:43:25,440

and we'll certainly look for that you

1109

00:43:31,030 --> 00:43:28,079

know what the the good news is that when

1110

00:43:31,829 --> 00:43:31,040

i'm presenting these things um you know

1111

00:43:33,190 --> 00:43:31,839

to

1112

00:43:34,630 --> 00:43:33,200

uh

1113

00:43:36,390 --> 00:43:34,640

for instance can be department of

1114

00:43:38,230 --> 00:43:36,400

psychiatry or even to some

1115

00:43:40,550 --> 00:43:38,240

neuroscientist and

1116

00:43:42,630 --> 00:43:40,560

these days now they are more willing to

1117

00:43:44,069 --> 00:43:42,640

listen you know and to reflect about

1118

00:43:46,309 --> 00:43:44,079

these things and

1119

00:43:48,390 --> 00:43:46,319

like i said before 10 years ago this

1120

00:43:51,270 --> 00:43:48,400

would not have been possible at all so

1121

00:43:52,950 --> 00:43:51,280

it's a sign that things are starting to

1122

00:43:55,829 --> 00:43:52,960

change really

1123

00:43:57,990 --> 00:43:55,839

right that's very interesting to hear

1124

00:44:00,710 --> 00:43:58,000

from someone who's on the front line of

1125

00:44:02,790 --> 00:44:00,720

this work like you are i really value

1126

00:44:05,109 --> 00:44:02,800

that opinion and i think folks will will

1127

00:44:07,190 --> 00:44:05,119

take part in that so the book again is

1128

00:44:09,349 --> 00:44:07,200

brain wars the scientific battle over

1129

00:44:11,349 --> 00:44:09,359

the existence of the mind and the proof

1130

00:44:13,910 --> 00:44:11,359

that will change the way we live our

1131

00:44:15,750 --> 00:44:13,920

lives dr mario beauregard thank you

1132

00:44:17,430 --> 00:44:15,760

again so much for joining me today on

1133

00:44:20,550 --> 00:44:17,440

skeptico

1134

00:44:22,550 --> 00:44:20,560

thanks very much alex

1135

00:44:24,790 --> 00:44:22,560

thanks again to dr mario beauregard for

1136

00:44:26,790 --> 00:44:24,800

joining me today on skeptico a couple of

1137

00:44:28,230 --> 00:44:26,800

questions i'd tee up from this interview

1138

00:44:30,710 --> 00:44:28,240

the first would have to do with the

1139

00:44:32,870 --> 00:44:30,720

placebo effect i haven't really talked a

1140

00:44:35,190 --> 00:44:32,880

lot about the placebo effect on this

1141

00:44:38,230 --> 00:44:35,200

show but i think dr beauregard does a

1142

00:44:40,550 --> 00:44:38,240

nice job of showing how it too

1143

00:44:43,030 --> 00:44:40,560

adds to the mounting evidence against

1144

00:44:45,829 --> 00:44:43,040

scientific materialism so i'd be

1145

00:44:48,470 --> 00:44:45,839

interested to hear how you pull that

1146

00:44:50,470 --> 00:44:48,480

apart and how you process some of the

1147

00:44:52,950 --> 00:44:50,480

research that he's pointing to in that

1148

00:44:54,950 --> 00:44:52,960

area and the second question would be

1149

00:44:57,910 --> 00:44:54,960

returning to a topic we talk about

1150

00:45:00,710 --> 00:44:57,920

frequently and that is the paradigm

1151

00:45:03,190 --> 00:45:00,720

shift so dr beauregard is suggesting

1152

00:45:04,470 --> 00:45:03,200

that hey things really are moving in the

1153

00:45:07,030 --> 00:45:04,480

right direction

1154

00:45:09,910 --> 00:45:07,040

and that this science which seems pretty

1155

00:45:12,230 --> 00:45:09,920

self-evident to most of us is gaining

1156

00:45:15,230 --> 00:45:12,240

traction i'd like to think that's true

1157

00:45:17,750 --> 00:45:15,240

but i think embedded in that belief is a

1158

00:45:20,550 --> 00:45:17,760

misunderstanding of just how powerful

1159

00:45:22,630 --> 00:45:20,560

the forces that would resist that

1160

00:45:24,390 --> 00:45:22,640

really are and the fact that they

1161

00:45:26,950 --> 00:45:24,400

haven't really been challenged to a

1162

00:45:29,349 --> 00:45:26,960

great degree right now makes it hard to

1163

00:45:32,069 --> 00:45:29,359

estimate just how hard their pushback

1164

00:45:33,990 --> 00:45:32,079

might be anyways i'm tipping my hand as

1165

00:45:36,390 --> 00:45:34,000

to my take on that but i think it'd be

1166

00:45:38,710 --> 00:45:36,400

interesting to dredge that up and debate

1167

00:45:40,790 --> 00:45:38,720

that one more time and the place to do

1168

00:45:42,870 --> 00:45:40,800

that of course is either in the forum or

1169

00:45:47,190 --> 00:45:42,880

on the comment section of the website

1170

00:45:47,910 --> 00:45:47,200

the website address again is k e p t i k