



# Near Death Experience Research to ASTROLOGY

**DR. MICHAEL GRAZIANO**

[skeptiko.com](http://skeptiko.com)

1  
00:00:10,910 --> 00:00:08,990  
on this episode of skeptic Oh Alex talks

2  
00:00:13,209 --> 00:00:10,920  
with Princeton neuroscientist dr.

3  
00:00:17,840 --> 00:00:13,219  
Michael Graziano about his book

4  
00:00:20,210 --> 00:00:17,850  
consciousness and the social brain named

5  
00:00:21,830 --> 00:00:20,220  
one who's published anything in the near

6  
00:00:23,630 --> 00:00:21,840  
death experience literature the auto

7  
00:00:25,340 --> 00:00:23,640  
body experience literature I've

8  
00:00:27,349 --> 00:00:25,350  
interviewed tons you can look on the

9  
00:00:29,240 --> 00:00:27,359  
website none of them have any knowledge

10  
00:00:32,089 --> 00:00:29,250  
yeah but the problem is that literature

11  
00:00:34,490 --> 00:00:32,099  
is that yeah I'm sure if you go to

12  
00:00:36,979 --> 00:00:34,500  
people I'm sure if you go to astrologers

13  
00:00:40,910 --> 00:00:36,989

that you would get a unanimous account

14

00:00:42,770 --> 00:00:40,920

of how astrology is valid Michael you're

15

00:00:45,979 --> 00:00:42,780

saying Bruce Grayson at the University

16

00:00:48,049 --> 00:00:45,989

of Virginia is studying astrology Jan

17

00:00:50,720 --> 00:00:48,059

Holden at the University of North Texas

18

00:00:53,389 --> 00:00:50,730

if when I interview Stuart Hameroff at

19

00:00:55,310 --> 00:00:53,399

university Arizona he's well-versed in

20

00:00:57,110 --> 00:00:55,320

the near death experience literature

21

00:01:00,650 --> 00:00:57,120

it's published in peer-reviewed journals

22

00:01:03,860 --> 00:01:00,660

it's not it's not astrology he feels a

23

00:01:05,329 --> 00:01:03,870

need to address it I google your name

24

00:01:07,520 --> 00:01:05,339

and near-death experience there's

25

00:01:09,320 --> 00:01:07,530

nothing and then I mention it to you and

26  
00:01:11,990 --> 00:01:09,330  
you bring out this astrology thing I

27  
00:01:14,920 --> 00:01:12,000  
mean that's that's insulting on on your

28  
00:01:27,780 --> 00:01:14,930  
part to not know of this research

29  
00:01:31,540 --> 00:01:29,980  
welcome to skeptic Oh where we explore

30  
00:01:34,210 --> 00:01:31,550  
controversial science with leading

31  
00:01:36,460 --> 00:01:34,220  
researchers thinkers and their critics

32  
00:01:38,520 --> 00:01:36,470  
I'm your host Alex Icarus and this week

33  
00:01:42,130 --> 00:01:38,530  
as you just heard I'm joined by

34  
00:01:44,770 --> 00:01:42,140  
Princeton University neuroscientist dr.

35  
00:01:47,290 --> 00:01:44,780  
Michael Graziano this is one of those

36  
00:01:50,410 --> 00:01:47,300  
interviews that I think is best left

37  
00:01:53,440 --> 00:01:50,420  
without a lot of introduction so let's

38  
00:01:55,540 --> 00:01:53,450

get right to the dialogue today we

39

00:01:58,270 --> 00:01:55,550

welcome Michael Graziano to skeptic Oh

40

00:02:01,060 --> 00:01:58,280

dr. Graziano is a neuroscientist at

41

00:02:03,190 --> 00:02:01,070

Princeton University with a long list of

42

00:02:05,650 --> 00:02:03,200

academic publications and many important

43

00:02:08,949 --> 00:02:05,660

scientific journals he's also published

44

00:02:12,040 --> 00:02:08,959

popular books on the brain like God soul

45

00:02:14,890 --> 00:02:12,050

mind brain and his latest which will

46

00:02:15,190 --> 00:02:14,900

talk about consciousness and the social

47

00:02:17,640 --> 00:02:15,200

brain

48

00:02:20,170 --> 00:02:17,650

he's also somewhat of a Renaissance man

49

00:02:23,530 --> 00:02:20,180

having published several noteworthy

50

00:02:25,600 --> 00:02:23,540

novels and some rather amazing chamber

51  
00:02:26,560 --> 00:02:25,610  
music that you can check out on his

52  
00:02:28,600 --> 00:02:26,570  
website as well

53  
00:02:30,729 --> 00:02:28,610  
dr. Graziano is a great pleasure to have

54  
00:02:34,660 --> 00:02:30,739  
you on skeptic oh thanks for joining me

55  
00:02:36,759 --> 00:02:34,670  
thank you it's a pleasure to be here so

56  
00:02:40,150 --> 00:02:36,769  
doctor Graziano you have a new book that

57  
00:02:43,270 --> 00:02:40,160  
came out last year titled consciousness

58  
00:02:45,520 --> 00:02:43,280  
in the social brain quite provocative a

59  
00:02:47,380 --> 00:02:45,530  
new theory on consciousness tell us a

60  
00:02:50,740 --> 00:02:47,390  
little bit about the book and this new

61  
00:02:53,920 --> 00:02:50,750  
theory of yours sure well the book

62  
00:02:59,319 --> 00:02:53,930  
really lays out this this theory and

63  
00:03:03,449 --> 00:02:59,329

it's an entirely rationalist theory it's

64

00:03:09,580 --> 00:03:08,050

in this way in it diverges from a lot of

65

00:03:13,569 --> 00:03:09,590

other theories of consciousness that are

66

00:03:17,289 --> 00:03:13,579

out there I would say that almost all

67

00:03:18,940 --> 00:03:17,299

past theories even the ones that

68

00:03:21,009 --> 00:03:18,950

scientists are putting forward that

69

00:03:23,380 --> 00:03:21,019

neuroscientists are putting forward but

70

00:03:25,300 --> 00:03:23,390

somewhere along the line deal in magic a

71

00:03:28,210 --> 00:03:25,310

lot of those people would like to admit

72

00:03:31,420 --> 00:03:28,220

to that I'm sure but in the end the

73

00:03:35,370 --> 00:03:31,430

question that's asked is typically how

74

00:03:38,500 --> 00:03:35,380

does a brain produce a non-physical

75

00:03:40,040 --> 00:03:38,510

magic and inner magical experience and

76

00:03:42,770 --> 00:03:40,050

that's a very difficult question

77

00:03:44,300 --> 00:03:42,780

the answer and what we're doing is

78

00:03:47,500 --> 00:03:44,310

really addressing the question in an

79

00:03:50,090 --> 00:03:47,510

entirely different way we think that

80

00:03:53,300 --> 00:03:50,100

well we know from neuroscience that the

81

00:03:57,260 --> 00:03:53,310

the brain is really an information

82

00:03:59,410 --> 00:03:57,270

processing device and when an

83

00:04:01,370 --> 00:03:59,420

information processing device

84

00:04:05,080 --> 00:04:01,380

introspects that is to say when it

85

00:04:08,750 --> 00:04:05,090

accesses internal data and on that basis

86

00:04:12,140 --> 00:04:08,760

concludes and reports that it has a

87

00:04:14,570 --> 00:04:12,150

magical property inside of it really the

88

00:04:18,259 --> 00:04:14,580

first question you would ask as a

89

00:04:20,930 --> 00:04:18,269

scientist is probably not how did it

90

00:04:23,720 --> 00:04:20,940

produce actual magic really the first

91

00:04:26,090 --> 00:04:23,730

question you might want to ask is how

92

00:04:28,400 --> 00:04:26,100

did it produce that self description and

93

00:04:30,680 --> 00:04:28,410

and what's the use well is there some

94

00:04:33,770 --> 00:04:30,690

adaptive advantage to describing itself

95

00:04:37,460 --> 00:04:33,780

that way or what are the circuits that

96

00:04:39,830 --> 00:04:37,470

compute that information or how did it

97

00:04:42,680 --> 00:04:39,840

evolve how did that kind of self

98

00:04:44,659 --> 00:04:42,690

description evolve over evolutionary

99

00:04:46,730 --> 00:04:44,669

time so these are the kinds of questions

100

00:04:49,520 --> 00:04:46,740

we're trying to get at they're very much

101  
00:04:53,990 --> 00:04:49,530  
in the domain of information processing

102  
00:04:56,570 --> 00:04:54,000  
they're objectively study Abul and and

103  
00:04:58,540 --> 00:04:56,580  
we think we've made quite a lot of

104  
00:05:01,520 --> 00:04:58,550  
interesting progress in that direction

105  
00:05:03,350 --> 00:05:01,530  
tell us summarize for us some of the

106  
00:05:06,290 --> 00:05:03,360  
progress you think you've made and why

107  
00:05:08,270 --> 00:05:06,300  
this theory offers a new and better

108  
00:05:14,330 --> 00:05:08,280  
vantage point to ask some of these

109  
00:05:20,120 --> 00:05:14,340  
questions well one of the things that I

110  
00:05:22,040 --> 00:05:20,130  
think people run into in science or in

111  
00:05:24,560 --> 00:05:22,050  
any attempt to understand ourselves or

112  
00:05:28,370 --> 00:05:24,570  
even the world around us the brain

113  
00:05:30,050 --> 00:05:28,380

constructs models of things it's one of

114

00:05:32,720 --> 00:05:30,060

the things brains do they construct

115

00:05:34,430 --> 00:05:32,730

informational descriptions or models of

116

00:05:37,700 --> 00:05:34,440

things and in fact we understand the

117

00:05:39,770 --> 00:05:37,710

world around us and in us solely through

118

00:05:42,110 --> 00:05:39,780

those models we don't really have direct

119

00:05:44,090 --> 00:05:42,120

access to the world around us and and

120

00:05:46,700 --> 00:05:44,100

the brains models are notoriously

121

00:05:47,990 --> 00:05:46,710

inaccurate and there's many many

122

00:05:51,710 --> 00:05:48,000

examples of that probably the most

123

00:05:53,540 --> 00:05:51,720

famous example is the color white we see

124

00:05:55,610 --> 00:05:53,550

white light as

125

00:05:58,370 --> 00:05:55,620

your brightness without any color

126  
00:06:00,590 --> 00:05:58,380  
because the visual system in the brain

127  
00:06:02,480 --> 00:06:00,600  
constructs that kind of a simplified

128  
00:06:04,070 --> 00:06:02,490  
model and we know that's physically

129  
00:06:06,200 --> 00:06:04,080  
wrong white light is a mixture of all

130  
00:06:09,170 --> 00:06:06,210  
colors we don't see it that way because

131  
00:06:11,660 --> 00:06:09,180  
our internal model describes it in a

132  
00:06:14,480 --> 00:06:11,670  
kind of quick and dirty simplified way

133  
00:06:15,890 --> 00:06:14,490  
as pure brightness with no color now

134  
00:06:18,710 --> 00:06:15,900  
that's just one example but pretty much

135  
00:06:22,390 --> 00:06:18,720  
every model of the world external or

136  
00:06:25,730 --> 00:06:22,400  
internal that the brain constructs is

137  
00:06:28,790 --> 00:06:25,740  
sketchy cartoonish a little bit faulty

138  
00:06:31,820 --> 00:06:28,800

and that means our intuitions are kind

139

00:06:34,490 --> 00:06:31,830

of at the mercy of those models so when

140

00:06:36,740 --> 00:06:34,500

we start introspecting and asking

141

00:06:40,790 --> 00:06:36,750

ourselves how you know how do I explain

142

00:06:43,580 --> 00:06:40,800

my internal experiences that that gets

143

00:06:46,220 --> 00:06:43,590

very tricky introspectively because

144

00:06:48,490 --> 00:06:46,230

we're relying on these informational

145

00:06:51,260 --> 00:06:48,500

models that are likely to be incorrect

146

00:06:53,810 --> 00:06:51,270

so what we're trying to do is take a

147

00:06:58,490 --> 00:06:53,820

much more objective or outside view of

148

00:07:01,850 --> 00:06:58,500

the process so what we think is going on

149

00:07:03,860 --> 00:07:01,860

in a nutshell so I talked about one of

150

00:07:08,720 --> 00:07:03,870

the things brains do they make models of

151  
00:07:11,570 --> 00:07:08,730  
things another talent brains have you

152  
00:07:14,360 --> 00:07:11,580  
might say is paying attention to things

153  
00:07:16,190 --> 00:07:14,370  
and by attention I mean something very

154  
00:07:17,870 --> 00:07:16,200  
specific and it's a difficult word

155  
00:07:19,820 --> 00:07:17,880  
because it has so many different

156  
00:07:22,160 --> 00:07:19,830  
meanings colloquial meanings and so on

157  
00:07:24,100 --> 00:07:22,170  
but I mean something very specific from

158  
00:07:27,950 --> 00:07:24,110  
a neuroscientists point of view

159  
00:07:30,230 --> 00:07:27,960  
attention is there's so many signals

160  
00:07:33,530 --> 00:07:30,240  
coming in at the same time a brain can't

161  
00:07:37,340 --> 00:07:33,540  
process them all and it selects some for

162  
00:07:40,910 --> 00:07:37,350  
deeper processing so now we have these

163  
00:07:43,220 --> 00:07:40,920

two kinds of processes going on in the

164

00:07:45,080 --> 00:07:43,230

brain one the brain constructs models of

165

00:07:48,770 --> 00:07:45,090

things that are useful to keep track of

166

00:07:52,400 --> 00:07:48,780

and number two the brain focuses its

167

00:07:54,950 --> 00:07:52,410

resources on some signals and you might

168

00:07:56,990 --> 00:07:54,960

ask what happens inevitably when the

169

00:07:59,180 --> 00:07:57,000

brain combines those two talents

170

00:08:03,800 --> 00:07:59,190

what happens if the brain builds one of

171

00:08:07,390 --> 00:08:03,810

these simplified models to describe its

172

00:08:09,440 --> 00:08:07,400

own process of paying attention to say

173

00:08:12,610 --> 00:08:09,450

right and we think this is what

174

00:08:15,520 --> 00:08:12,620

awareness is to be aware of something

175

00:08:18,260 --> 00:08:15,530

first a brain pays attention to it and

176

00:08:20,570 --> 00:08:18,270

second the brain builds its own kind of

177

00:08:23,600 --> 00:08:20,580

sketchy you might say almost cartoonish

178

00:08:26,600 --> 00:08:23,610

model of what it means for it to pay

179

00:08:28,700 --> 00:08:26,610

attention to that thing and then that

180

00:08:31,820 --> 00:08:28,710

brain is in a position has the

181

00:08:36,020 --> 00:08:31,830

information to say to report I am aware

182

00:08:38,029 --> 00:08:36,030

of that thing and so that you know in in

183

00:08:40,010 --> 00:08:38,039

a nutshell that's the theory I've often

184

00:08:42,980 --> 00:08:40,020

said it's a very easy theory to explain

185

00:08:46,070 --> 00:08:42,990

it's much harder to explain why it's a

186

00:08:49,370 --> 00:08:46,080

good theory because there's such a range

187

00:08:51,650 --> 00:08:49,380

of material out there in the literature

188

00:08:54,200 --> 00:08:51,660

that links up to it sure sure

189

00:08:57,920 --> 00:08:54,210

I like poker easy to learn hard to

190

00:09:00,220 --> 00:08:57,930

master huh so I want to jump back for a

191

00:09:04,310 --> 00:09:00,230

minute though to this idea of the

192

00:09:07,190 --> 00:09:04,320

assumption of magic which understandably

193

00:09:09,560 --> 00:09:07,200

riles up a lot of people and I think the

194

00:09:11,329 --> 00:09:09,570

pushback that a lot of people would give

195

00:09:14,540 --> 00:09:11,339

and probably have given Michael is that

196

00:09:16,670 --> 00:09:14,550

aren't you just kind of jumping past the

197

00:09:19,880 --> 00:09:16,680

really hard stuff I mean here's the deal

198

00:09:22,520 --> 00:09:19,890

there is this thing called consciousness

199

00:09:24,470 --> 00:09:22,530

so you can say you're assuming it's a

200

00:09:27,170 --> 00:09:24,480

magic you're assuming it's not but we

201  
00:09:30,860 --> 00:09:27,180  
still have to deal with it so aren't we

202  
00:09:32,900 --> 00:09:30,870  
just jumping past the existence of

203  
00:09:36,020 --> 00:09:32,910  
consciousness and if you want to go

204  
00:09:38,600 --> 00:09:36,030  
scientific I'd say great no magic let's

205  
00:09:41,180 --> 00:09:38,610  
start with the first step okay dr.

206  
00:09:43,220 --> 00:09:41,190  
Graziano tell us what's necessary and

207  
00:09:46,340 --> 00:09:43,230  
sufficient to create consciousness that

208  
00:09:47,780 --> 00:09:46,350  
would be like a first logic rationalist

209  
00:09:50,500 --> 00:09:47,790  
kind of thing what's necessary and

210  
00:09:53,480 --> 00:09:50,510  
sufficient to create human consciousness

211  
00:09:56,180 --> 00:09:53,490  
mm-hmm well you know one way to put it

212  
00:09:57,560 --> 00:09:56,190  
and I've often used this example and it

213  
00:09:59,690 --> 00:09:57,570

kind of nicely encapsulate sauer

214

00:10:01,579 --> 00:09:59,700

approach and it is totally different

215

00:10:03,380 --> 00:10:01,589

certainly totally different from the

216

00:10:05,810 --> 00:10:03,390

perspective that you outlines but I

217

00:10:07,940 --> 00:10:05,820

think a lot of people take so here's an

218

00:10:11,000 --> 00:10:07,950

example I had a friend he was a

219

00:10:13,280 --> 00:10:11,010

psychologist and he told me about a

220

00:10:15,350 --> 00:10:13,290

patient of his and this patient had a

221

00:10:17,630 --> 00:10:15,360

delusion but he thought he had a

222

00:10:20,630 --> 00:10:17,640

squirrel in his head and you know that's

223

00:10:22,480 --> 00:10:20,640

a little odd but people have

224

00:10:24,980 --> 00:10:22,490

our delusions it's not that unusual

225

00:10:26,480 --> 00:10:24,990

anyway he had he was certain of it and

226

00:10:28,850 --> 00:10:26,490

you could not convince him otherwise he

227

00:10:29,450 --> 00:10:28,860

was fixed on this delusion he knew it to

228

00:10:32,510 --> 00:10:29,460

be true

229

00:10:34,400 --> 00:10:32,520

now you could tell him that's illogical

230

00:10:35,870 --> 00:10:34,410

and he would say yeah that's okay but

231

00:10:39,350 --> 00:10:35,880

there are things in the universe that

232

00:10:41,060 --> 00:10:39,360

transcend logic uh you could not argue

233

00:10:43,040 --> 00:10:41,070

them out of it so there are kind of two

234

00:10:45,800 --> 00:10:43,050

directions you could take and in trying

235

00:10:48,230 --> 00:10:45,810

to explain this phenomenon and one would

236

00:10:51,170 --> 00:10:48,240

be to ask okay how does his brain

237

00:10:53,870 --> 00:10:51,180

produce a squirrel how did the neurons

238

00:10:57,410 --> 00:10:53,880

secrete the squirrel now that would be a

239

00:10:58,940 --> 00:10:57,420

very unproductive approach and another

240

00:11:01,940 --> 00:10:58,950

approach would be to say well how does

241

00:11:04,460 --> 00:11:01,950

his brain construct that self

242

00:11:07,520 --> 00:11:04,470

description and how does it arrive at

243

00:11:10,040 --> 00:11:07,530

such certainty that the description is

244

00:11:12,950 --> 00:11:10,050

correct and how does the brain not know

245

00:11:15,950 --> 00:11:12,960

that it's a self description now those

246

00:11:17,690 --> 00:11:15,960

things you can get at from an objective

247

00:11:20,450 --> 00:11:17,700

point of view you can answer those

248

00:11:22,070 --> 00:11:20,460

questions and in effect what I think you

249

00:11:24,950 --> 00:11:22,080

can replace the word squirrel with the

250

00:11:27,830 --> 00:11:24,960

word awareness and I think the whole

251  
00:11:29,600 --> 00:11:27,840  
thing is exactly encapsulated I think

252  
00:11:33,350 --> 00:11:29,610  
almost all approaches to consciousness

253  
00:11:35,660 --> 00:11:33,360  
take the first direction how does a

254  
00:11:37,750 --> 00:11:35,670  
brain produce a squirrel it doesn't I

255  
00:11:39,740 --> 00:11:37,760  
guess I'd roll back to the first

256  
00:11:41,750 --> 00:11:39,750  
assumption which is embedded in that

257  
00:11:43,640 --> 00:11:41,760  
which is that you know a

258  
00:11:46,280 --> 00:11:43,650  
well-functioning brain creates

259  
00:11:48,410 --> 00:11:46,290  
consciousness or even before that you

260  
00:11:50,870 --> 00:11:48,420  
know evolution creates brain brain

261  
00:11:53,060 --> 00:11:50,880  
creates consciousness and I'd say right

262  
00:11:54,860 --> 00:11:53,070  
let's let's start there because you are

263  
00:11:57,170 --> 00:11:54,870

assuming that you're saying that that is

264

00:11:58,550 --> 00:11:57,180

one thing that's necessary to create

265

00:12:00,950 --> 00:11:58,560

consciousness is a well-functioning

266

00:12:03,340 --> 00:12:00,960

brain and then I'd say you know forget

267

00:12:05,870 --> 00:12:03,350

thinking I think you're missing though

268

00:12:07,760 --> 00:12:05,880

evolution creates brain I am NOT I do

269

00:12:10,730 --> 00:12:07,770

not think brain creates consciousness

270

00:12:12,860 --> 00:12:10,740

I think brains create information and

271

00:12:14,660 --> 00:12:12,870

the information informs us of something

272

00:12:17,960 --> 00:12:14,670

that's actually not physically correct

273

00:12:19,490 --> 00:12:17,970

and as a result we arrive at this

274

00:12:22,280 --> 00:12:19,500

conclusion that we have consciousness

275

00:12:24,140 --> 00:12:22,290

and we're captive to that brains only

276

00:12:26,270 --> 00:12:24,150

know the information available to them

277

00:12:29,960 --> 00:12:26,280

so we're captive to the information

278

00:12:32,060 --> 00:12:29,970

generated by our brains generated within

279

00:12:34,370 --> 00:12:32,070

their models we're captive to that so if

280

00:12:37,970 --> 00:12:34,380

a brain has a model that tell

281

00:12:39,680 --> 00:12:37,980

it uh you you're I don't know you're an

282

00:12:41,210 --> 00:12:39,690

elephant or you have a squirrel in your

283

00:12:42,980 --> 00:12:41,220

head that brain is captive to that

284

00:12:46,310 --> 00:12:42,990

information it can't escape that and

285

00:12:49,520 --> 00:12:46,320

likewise if brains have information in

286

00:12:51,500 --> 00:12:49,530

them that says you have this inner

287

00:12:53,780 --> 00:12:51,510

experience then for captive to that

288

00:12:55,940 --> 00:12:53,790

information I don't think we need to

289

00:12:59,210 --> 00:12:55,950

explain how brains produce the inner

290

00:13:01,690 --> 00:12:59,220

experience the thing to be explained as

291

00:13:05,480 --> 00:13:01,700

how and for what adaptive advantage

292

00:13:07,940 --> 00:13:05,490

brains construct the information that

293

00:13:09,290 --> 00:13:07,950

they have an inner experience but don't

294

00:13:12,230 --> 00:13:09,300

we kind of get into a matter of

295

00:13:15,430 --> 00:13:12,240

semantics there I mean you are assuming

296

00:13:19,010 --> 00:13:15,440

that a brain a well-functioning brain is

297

00:13:20,510 --> 00:13:19,020

necessary to produce everything else in

298

00:13:22,040 --> 00:13:20,520

that chain you say the models that

299

00:13:24,170 --> 00:13:22,050

produce the information that produced

300

00:13:25,820 --> 00:13:24,180

the consciousness you are starting with

301

00:13:28,220 --> 00:13:25,830

a well functioning brain so that is a

302

00:13:33,260 --> 00:13:28,230

necessary part of the equation for you

303

00:13:35,990 --> 00:13:33,270

right yes but I would still up I do not

304

00:13:37,850 --> 00:13:36,000

buy the word produce attached to the

305

00:13:40,090 --> 00:13:37,860

word consciousness I don't think brains

306

00:13:42,230 --> 00:13:40,100

produce consciousness any more than that

307

00:13:44,480 --> 00:13:42,240

delusional man's brain produced a

308

00:13:46,070 --> 00:13:44,490

squirrel again that's kind of semantics

309

00:13:48,650 --> 00:13:46,080

right so you're saying brains produced

310

00:13:51,260 --> 00:13:48,660

models brains process information and

311

00:13:54,440 --> 00:13:51,270

then yeah that you know creates as well

312

00:13:56,570 --> 00:13:54,450

again that's kind of a semantic kind of

313

00:13:58,490 --> 00:13:56,580

little game there that we're playing in

314

00:14:00,500 --> 00:13:58,500

terms of at the end we have this

315

00:14:02,600 --> 00:14:00,510

experience that we all call

316

00:14:04,550 --> 00:14:02,610

consciousness so I'm just go back to the

317

00:14:06,110 --> 00:14:04,560

first thing here let me let me throw

318

00:14:08,510 --> 00:14:06,120

something out that kind of throws a

319

00:14:10,730 --> 00:14:08,520

wrench into this Jeffery Schwartz MD

320

00:14:13,190 --> 00:14:10,740

research psychiatrist UCLA School of

321

00:14:15,460 --> 00:14:13,200

Medicine a few years ago he writes a

322

00:14:19,370 --> 00:14:15,470

book titled you are not your brain

323

00:14:21,860 --> 00:14:19,380

here's this experiment it's amazingly

324

00:14:24,350 --> 00:14:21,870

straightforward but extremely important

325

00:14:27,020 --> 00:14:24,360

he gets a group of these people they

326

00:14:28,430 --> 00:14:27,030

have OCD the classical you know have to

327

00:14:30,440 --> 00:14:28,440

knock three times four they enter the

328

00:14:31,460 --> 00:14:30,450

door all that kind of stuff so he's

329

00:14:34,430 --> 00:14:31,470

trying to help these people he's trying

330

00:14:36,290 --> 00:14:34,440

to treat these people so he says ok take

331

00:14:39,470 --> 00:14:36,300

that awareness that we're talking about

332

00:14:42,320 --> 00:14:39,480

take that awareness and do this focus it

333

00:14:45,530 --> 00:14:42,330

this way gives him some meditation

334

00:14:48,050 --> 00:14:45,540

techniques right and he does an fMRI of

335

00:14:50,780 --> 00:14:48,060

their brain before

336

00:14:52,940 --> 00:14:50,790

and he does it after and I have to say

337

00:14:55,340 --> 00:14:52,950

this this research has been repeated in

338

00:14:56,060 --> 00:14:55,350

various ways for a number of years all

339

00:14:57,680 --> 00:14:56,070

over the place

340

00:15:01,280 --> 00:14:57,690

but he's the first guy to really hone in

341

00:15:04,850 --> 00:15:01,290

and say okay look after this after this

342

00:15:07,460 --> 00:15:04,860

attention thing awareness thing the

343

00:15:10,430 --> 00:15:07,470

brain is a different brain which at the

344

00:15:13,370 --> 00:15:10,440

very least it throws a huge monkey

345

00:15:15,950 --> 00:15:13,380

wrench in your theory in that now we

346

00:15:17,300 --> 00:15:15,960

have to ask what brain are we talking

347

00:15:20,030 --> 00:15:17,310

about are we talking about the brain

348

00:15:22,820 --> 00:15:20,040

before the thought or after the thought

349

00:15:25,400 --> 00:15:22,830

and then if we keep rolling that chicken

350

00:15:28,610 --> 00:15:25,410

and the egg thing back we say well if

351  
00:15:31,010 --> 00:15:28,620  
thoughts shape the physical structure of

352  
00:15:32,510 --> 00:15:31,020  
the brain and the physical structure of

353  
00:15:34,160 --> 00:15:32,520  
the brain is this building block for

354  
00:15:36,350 --> 00:15:34,170  
this whole thing however you want to

355  
00:15:38,750 --> 00:15:36,360  
call the consciousness thing then we

356  
00:15:40,550 --> 00:15:38,760  
have a a big chicken and egg problem and

357  
00:15:43,840 --> 00:15:40,560  
we keep rolling it back and we say well

358  
00:15:47,570 --> 00:15:43,850  
what came first the thought or the brain

359  
00:15:50,300 --> 00:15:47,580  
yep sorry don't see how that throws

360  
00:15:52,880 --> 00:15:50,310  
monkey wrenches into the approach we're

361  
00:15:56,120 --> 00:15:52,890  
taking but it's a very interesting point

362  
00:15:58,670 --> 00:15:56,130  
and certainly thinking changes the brain

363  
00:16:01,640 --> 00:15:58,680

and the brain functioning changes the

364

00:16:03,560 --> 00:16:01,650

brain that is certainly true and it's

365

00:16:05,720 --> 00:16:03,570

very it's well known in fact you can do

366

00:16:10,040 --> 00:16:05,730

something like practice up a skill and

367

00:16:11,810 --> 00:16:10,050

your brain Maps change accordingly you

368

00:16:14,780 --> 00:16:11,820

can have a thought and it changes the

369

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

activity patterns and the connectivity

370

00:16:18,950 --> 00:16:16,800

in your brain this is certainly true so

371

00:16:21,650 --> 00:16:18,960

what comes first what comes first the

372

00:16:24,200 --> 00:16:21,660

thought or the brain I'm not 100% sure

373

00:16:27,260 --> 00:16:24,210

what you mean by that he would say that

374

00:16:29,330 --> 00:16:27,270

a thought a thought changes the brain

375

00:16:31,940 --> 00:16:29,340

changes the physical structure of the

376

00:16:34,660 --> 00:16:31,950

brain and we keep rolling that back in

377

00:16:37,130 --> 00:16:34,670

the brains prior to hours prior to hours

378

00:16:39,140 --> 00:16:37,140

there was a thought and that changed the

379

00:16:41,390 --> 00:16:39,150

brain how do we ever get back to the

380

00:16:43,580 --> 00:16:41,400

starting point of the brain before the

381

00:16:45,080 --> 00:16:43,590

thought right I think what you're doing

382

00:16:47,420 --> 00:16:45,090

is making the assumption that the

383

00:16:49,550 --> 00:16:47,430

thought is a separate kind of

384

00:16:51,920 --> 00:16:49,560

metaphysical thing that when it happens

385

00:16:55,340 --> 00:16:51,930

causes a change in the brain as opposed

386

00:16:57,530 --> 00:16:55,350

to the there's a computer and it in

387

00:16:59,330 --> 00:16:57,540

processes information and in the act of

388

00:17:01,830 --> 00:16:59,340

processing information that changes its

389

00:17:05,550 --> 00:17:01,840

own States well again that's what the

390

00:17:07,290 --> 00:17:05,560

research from dr. schwartz indicates and

391

00:17:09,630 --> 00:17:07,300

that's why he wrote the box you are not

392

00:17:11,700 --> 00:17:09,640

your brain but right so that that

393

00:17:13,620 --> 00:17:11,710

research show anything other than when

394

00:17:15,240 --> 00:17:13,630

the brain functions it changes and we

395

00:17:18,990 --> 00:17:15,250

all knew that for the last hundred years

396

00:17:21,590 --> 00:17:19,000

so I'm sure that uh that's an

397

00:17:25,890 --> 00:17:21,600

interesting study but I don't see how it

398

00:17:28,620 --> 00:17:25,900

addresses the duality question okay well

399

00:17:30,390 --> 00:17:28,630

it does get to this attention issue but

400

00:17:32,520 --> 00:17:30,400

you know what let's let's kind of move

401  
00:17:34,200 --> 00:17:32,530  
on beyond that because one thing I

402  
00:17:37,500 --> 00:17:34,210  
wanted to mention is that in addition to

403  
00:17:40,740 --> 00:17:37,510  
your academic work at Princeton you also

404  
00:17:43,050 --> 00:17:40,750  
publish on popular sites which I think

405  
00:17:45,510 --> 00:17:43,060  
is great I mean you're an academic and

406  
00:17:47,130 --> 00:17:45,520  
you're you know highly skilled in this

407  
00:17:49,800 --> 00:17:47,140  
research but you're right stuff that

408  
00:17:52,220 --> 00:17:49,810  
everyone can read I read a post of yours

409  
00:17:55,250 --> 00:17:52,230  
on the Huffington Post titled

410  
00:17:57,870 --> 00:17:55,260  
consciousness and the unashamed

411  
00:18:03,890 --> 00:17:57,880  
rationalist go ahead tells us that makes

412  
00:18:15,020 --> 00:18:10,020  
in this study of consciousness there is

413  
00:18:18,780 --> 00:18:15,030

a certain squeamishness toward the most

414

00:18:22,490 --> 00:18:18,790

rationalist scientific approach there is

415

00:18:25,650 --> 00:18:22,500

I sense a desire to maintain mystery

416

00:18:26,940 --> 00:18:25,660

maybe partly because if the mystery is

417

00:18:29,760 --> 00:18:26,950

cleared up the field of consciousness

418

00:18:32,760 --> 00:18:29,770

studies goes away and that's you know a

419

00:18:35,700 --> 00:18:32,770

line of work that many people rely on or

420

00:18:37,440 --> 00:18:35,710

maybe there are personal reasons or

421

00:18:40,830 --> 00:18:37,450

emotional reasons or religious reasons

422

00:18:45,870 --> 00:18:40,840

why people love this notion of an

423

00:18:49,830 --> 00:18:45,880

unexplainable mystery and my approach to

424

00:18:52,470 --> 00:18:49,840

this is entirely mechanistic entirely

425

00:18:56,430 --> 00:18:52,480

rationalist and the question I'm asking

426

00:18:58,710 --> 00:18:56,440

in a sense is how far can we go in an

427

00:19:03,030 --> 00:18:58,720

entirely rationalist approach how far

428

00:19:05,250 --> 00:19:03,040

can we get and and be able to explain as

429

00:19:08,430 --> 00:19:05,260

much as possible and I think that kind

430

00:19:10,170 --> 00:19:08,440

of is the mission of science you know

431

00:19:12,060 --> 00:19:10,180

not not to explain everything because I

432

00:19:15,120 --> 00:19:12,070

don't think that it will ever happen but

433

00:19:15,810 --> 00:19:15,130

to see how much can be explained and in

434

00:19:17,370 --> 00:19:15,820

particular

435

00:19:19,410 --> 00:19:17,380

see how much can be explained by

436

00:19:23,610 --> 00:19:19,420

entirely rational and mechanistic means

437

00:19:25,830 --> 00:19:23,620

and testable means that to give to give

438

00:19:29,600 --> 00:19:25,840

a shot at that and that's kind of the

439

00:19:31,950 --> 00:19:29,610

the mission of science that's how I

440

00:19:33,390 --> 00:19:31,960

approach this question of consciousness

441

00:19:36,750 --> 00:19:33,400

so that's kind of what I mean by the

442

00:19:39,000 --> 00:19:36,760

unashamed rationalist good and I'm glad

443

00:19:42,090 --> 00:19:39,010

you brought up the issue of spirituality

444

00:19:44,340 --> 00:19:42,100

and religion because you touch on it a

445

00:19:46,080 --> 00:19:44,350

couple of times and I'm not really

446

00:19:48,720 --> 00:19:46,090

exactly sure where you're coming from on

447

00:19:51,420 --> 00:19:48,730

page 58 of your book consciousness and

448

00:19:54,180 --> 00:19:51,430

the social brain you write the question

449

00:19:56,610 --> 00:19:54,190

of where the soul is located becomes

450

00:19:58,020 --> 00:19:56,620

complicated with out-of-body experiences

451  
00:20:00,660 --> 00:19:58,030  
I want to break that down in a couple of

452  
00:20:03,330 --> 00:20:00,670  
ways first of all tell us about a little

453  
00:20:05,520 --> 00:20:03,340  
bit more about this soul thing and why

454  
00:20:08,130 --> 00:20:05,530  
you think these questions of religion

455  
00:20:11,610 --> 00:20:08,140  
and spirituality intersect with

456  
00:20:17,810 --> 00:20:11,620  
consciousness it one do they at all and

457  
00:20:21,900 --> 00:20:17,820  
why do they mm-hm well oh one point I

458  
00:20:23,370 --> 00:20:21,910  
think that scientists do themselves and

459  
00:20:25,890 --> 00:20:23,380  
the rest of us a disservice when they

460  
00:20:28,260 --> 00:20:25,900  
shy away from religion a lot of

461  
00:20:32,760 --> 00:20:28,270  
scientists just treat it as something

462  
00:20:35,250 --> 00:20:32,770  
kind of icky and don't want to address

463  
00:20:36,510 --> 00:20:35,260

it and decide if the word religions

464

00:20:39,020 --> 00:20:36,520

somewhere in there then they'll just

465

00:20:42,420 --> 00:20:39,030

leave it alone the problem is that

466

00:20:44,340 --> 00:20:42,430

religion is a huge part of humanity it's

467

00:20:47,490 --> 00:20:44,350

a huge part of who people are it has a

468

00:20:50,340 --> 00:20:47,500

giant impact on us culturally it's a

469

00:20:53,400 --> 00:20:50,350

creative driving force an emotional and

470

00:20:56,220 --> 00:20:53,410

social driving force and as an actual

471

00:20:59,310 --> 00:20:56,230

real-life phenomenon human religion that

472

00:21:01,560 --> 00:20:59,320

deserves a it deserves scientific study

473

00:21:02,670 --> 00:21:01,570

so that's one point I would make it

474

00:21:03,900 --> 00:21:02,680

somebody but wait a minute

475

00:21:05,760 --> 00:21:03,910

how does that intersect with

476

00:21:08,480 --> 00:21:05,770

consciousness I'm with you and we've

477

00:21:11,700 --> 00:21:08,490

done we've done dozens of shows on on

478

00:21:13,590 --> 00:21:11,710

Christianity and cultish thinking and

479

00:21:14,760 --> 00:21:13,600

how that happens and all the rest of

480

00:21:18,510 --> 00:21:14,770

that but I don't see the intersection

481

00:21:21,120 --> 00:21:18,520

between religion and consciousness and

482

00:21:23,280 --> 00:21:21,130

in fact I think it really muddies the

483

00:21:25,830 --> 00:21:23,290

water when we kind of bring in this

484

00:21:28,470 --> 00:21:25,840

phony science versus religion debate

485

00:21:29,139 --> 00:21:28,480

that doesn't really add anything to the

486

00:21:34,659 --> 00:21:29,149

scientific

487

00:21:35,979 --> 00:21:34,669

questions well one of the one of the key

488

00:21:39,879 --> 00:21:35,989

points in this theory that we're

489

00:21:42,039 --> 00:21:39,889

building is that you can ask what do we

490

00:21:44,049 --> 00:21:42,049

use awareness for and of course most of

491

00:21:46,719 --> 00:21:44,059

us think of awareness consciousness is a

492

00:21:49,989 --> 00:21:46,729

private phenomenon but we use it

493

00:21:51,940 --> 00:21:49,999

socially we attribute awareness to other

494

00:21:54,190 --> 00:21:51,950

people it's one of the ways we use this

495

00:21:56,440 --> 00:21:54,200

whole concept of awareness so I talked

496

00:21:57,940 --> 00:21:56,450

to you over the phone and I get a strong

497

00:21:59,829 --> 00:21:57,950

sense that you're a being with an

498

00:22:02,200 --> 00:21:59,839

awareness and a consciousness and this

499

00:22:04,539 --> 00:22:02,210

is very critical for any kind of social

500

00:22:06,579 --> 00:22:04,549

interaction in fact without it we

501  
00:22:10,989 --> 00:22:06,589  
wouldn't be a successful species because

502  
00:22:15,190 --> 00:22:10,999  
we rely on this intense social ability

503  
00:22:17,799 --> 00:22:15,200  
the ability to intuit what's going on in

504  
00:22:22,079 --> 00:22:17,809  
someone else's mind on the basis of very

505  
00:22:26,079 --> 00:22:22,089  
fleeting cues almost instantaneously and

506  
00:22:30,789 --> 00:22:26,089  
what I think is happening and is that

507  
00:22:32,409 --> 00:22:30,799  
it's this same ability this same ability

508  
00:22:34,359 --> 00:22:32,419  
not only to attribute awareness to

509  
00:22:35,799 --> 00:22:34,369  
ourselves and to the people around us

510  
00:22:38,440 --> 00:22:35,809  
but think of all the other ways we

511  
00:22:41,139 --> 00:22:38,450  
attribute awareness well to our pets of

512  
00:22:43,899 --> 00:22:41,149  
course or children attribute awareness

513  
00:22:46,499 --> 00:22:43,909

to their stuffed animals we get mad at

514

00:22:50,739 --> 00:22:46,509

the coffee machine when it doesn't work

515

00:22:52,690 --> 00:22:50,749

we attribute in animistic societies

516

00:22:56,440 --> 00:22:52,700

attribute awareness and consciousness to

517

00:22:58,419 --> 00:22:56,450

trees and rivers and I would say that

518

00:23:01,450 --> 00:22:58,429

it's the exactly the same process that

519

00:23:06,549 --> 00:23:01,460

leads people to attribute awareness to

520

00:23:09,419 --> 00:23:06,559

empty spaces and around them and to the

521

00:23:12,339 --> 00:23:09,429

events around them and from that flows

522

00:23:15,969 --> 00:23:12,349

some of the kind of core basics of

523

00:23:19,440 --> 00:23:15,979

religion these beliefs in spirits that

524

00:23:22,329 --> 00:23:19,450

are separate from bodies that explain

525

00:23:25,680 --> 00:23:22,339

for example the behavior of the world

526

00:23:27,669 --> 00:23:25,690

those the storms of the rains or

527

00:23:29,709 --> 00:23:27,679

everything in the universe that's

528

00:23:33,369 --> 00:23:29,719

otherwise inexplicable that is

529

00:23:35,889 --> 00:23:33,379

attributed to a deity so there's a

530

00:23:37,690 --> 00:23:35,899

thread running through religion that at

531

00:23:41,669 --> 00:23:37,700

its root has to do with our

532

00:23:45,430 --> 00:23:41,679

extraordinary social capability of

533

00:23:47,769 --> 00:23:45,440

building models of minds and attributing

534

00:23:48,279 --> 00:23:47,779

them to the things and the spaces around

535

00:23:50,799 --> 00:23:48,289

us

536

00:23:52,869 --> 00:23:50,809

and that that's the link yeah I don't

537

00:23:55,419 --> 00:23:52,879

know Michael that's ten years I mean you

538

00:23:58,539 --> 00:23:55,429

run into the same problem that we

539

00:24:00,849 --> 00:23:58,549

criticize Christian apologists for I

540

00:24:03,519 --> 00:24:00,859

mean you're beginning with the end and

541

00:24:05,349 --> 00:24:03,529

working backwards saying okay I know all

542

00:24:07,389 --> 00:24:05,359

about this experience that people are

543

00:24:09,369 --> 00:24:07,399

having so let me go ahead and explain it

544

00:24:12,700 --> 00:24:09,379

from my rationalist perspective I think

545

00:24:15,820 --> 00:24:12,710

it just complicates things and creates

546

00:24:17,619 --> 00:24:15,830

this big mess I'd go back to this quote

547

00:24:19,839 --> 00:24:17,629

of yours that I read I mean let's focus

548

00:24:22,180 --> 00:24:19,849

in on the data a little bit because you

549

00:24:25,359 --> 00:24:22,190

said the question of where the soul is

550

00:24:27,759 --> 00:24:25,369

located becomes complicated without of

551

00:24:30,339 --> 00:24:27,769

body experiences aha now here's an

552

00:24:33,039 --> 00:24:30,349

experience we can really hone in on we

553

00:24:34,869 --> 00:24:33,049

can really look at the data and see how

554

00:24:36,940 --> 00:24:34,879

it fits these different theories and

555

00:24:39,039 --> 00:24:36,950

then you go on to say that these

556

00:24:40,960 --> 00:24:39,049

out-of-body experiences are illusion and

557

00:24:43,690 --> 00:24:40,970

you make this passing reference to Olaf

558

00:24:45,940 --> 00:24:43,700

blanks research where he stimulated this

559

00:24:48,070 --> 00:24:45,950

part of people's brain and they had some

560

00:24:50,080 --> 00:24:48,080

aspects of an auto body experience which

561

00:24:53,409 --> 00:24:50,090

I have to tell you I've talked to a lot

562

00:24:55,930 --> 00:24:53,419

of very credible well published academic

563

00:24:58,810 --> 00:24:55,940

researchers who have researched OBEs and

564

00:25:01,239 --> 00:24:58,820

have researched near-death experience

565

00:25:04,629 --> 00:25:01,249

science and none of them think very

566

00:25:08,129 --> 00:25:04,639

highly of blocks research in terms of

567

00:25:11,320 --> 00:25:08,139

coming anywhere close to really

568

00:25:13,899 --> 00:25:11,330

replicating these kind of experiences

569

00:25:16,239 --> 00:25:13,909

but moreover the big thing about it is

570

00:25:18,009 --> 00:25:16,249

you know it's it's I want to hear what

571

00:25:19,930 --> 00:25:18,019

you mean when you say it complicates

572

00:25:22,089 --> 00:25:19,940

complicated without a body experience

573

00:25:24,310 --> 00:25:22,099

because I think heck yes it's

574

00:25:27,009 --> 00:25:24,320

complicated it's complicated because

575

00:25:29,139 --> 00:25:27,019

here we have these people who in the

576

00:25:31,379 --> 00:25:29,149

case of near-death experience let's look

577

00:25:34,060 --> 00:25:31,389

at they have a non functioning brain

578

00:25:36,430 --> 00:25:34,070

which we both agreed was kind of the

579

00:25:39,039 --> 00:25:36,440

starting point for this whole chain of

580

00:25:40,539 --> 00:25:39,049

events that lead to consciousness I

581

00:25:42,460 --> 00:25:40,549

won't say create consciousness because I

582

00:25:43,779 --> 00:25:42,470

know you don't like that but lead to the

583

00:25:46,269 --> 00:25:43,789

creating of models and processing

584

00:25:48,519 --> 00:25:46,279

information here we have these people

585

00:25:52,690 --> 00:25:48,529

they no longer have a functioning brain

586

00:25:54,899 --> 00:25:52,700

and yet they do have this experience of

587

00:25:57,029 --> 00:25:54,909

processing information I

588

00:25:58,700 --> 00:25:57,039

interviewed dr. Jeff long I don't know

589

00:26:01,460 --> 00:25:58,710

if you know these guys know this guy but

590

00:26:05,180 --> 00:26:01,470

comprehensive study of near you know him

591

00:26:07,049 --> 00:26:05,190

nope sorry a comprehensive survey of

592

00:26:09,659 --> 00:26:07,059

2,000 of these people have had these

593

00:26:12,089 --> 00:26:09,669

near-death experience detailed records

594

00:26:13,859 --> 00:26:12,099

of their recollections during their

595

00:26:17,190 --> 00:26:13,869

out-of-body experience and their

596

00:26:19,529 --> 00:26:17,200

accurate interviewed dr. penny Sartori

597

00:26:21,269 --> 00:26:19,539

also Jan Holden at University of North

598

00:26:23,430 --> 00:26:21,279

Texas both did similar research

599

00:26:25,489 --> 00:26:23,440

independently where they took these

600

00:26:28,320 --> 00:26:25,499

people they had a cardiac arrest and

601  
00:26:30,239 --> 00:26:28,330  
they had an out-of-body experience and

602  
00:26:32,509 --> 00:26:30,249  
they go to him again it's pretty simple

603  
00:26:34,710 --> 00:26:32,519  
say what do you remember about your

604  
00:26:37,799 --> 00:26:34,720  
resuscitation again we have the non

605  
00:26:40,339 --> 00:26:37,809  
functioning brain and we have the people

606  
00:26:43,529 --> 00:26:40,349  
who have the auto body experience have

607  
00:26:46,369 --> 00:26:43,539  
much more statistically significant

608  
00:26:49,080 --> 00:26:46,379  
accurate details of the resuscitation

609  
00:26:50,190 --> 00:26:49,090  
than the other group that didn't so we

610  
00:26:52,589 --> 00:26:50,200  
have all this evidence that keeps

611  
00:26:55,169 --> 00:26:52,599  
pointing to that yeah it's really

612  
00:26:57,869 --> 00:26:55,179  
complicated with out-of-body experiences

613  
00:26:59,489 --> 00:26:57,879

because unlike that little experiment

614

00:27:01,619 --> 00:26:59,499

that Blanc did that's kind of hokey

615

00:27:03,570 --> 00:27:01,629

stimulating the back we have a lot of

616

00:27:06,089 --> 00:27:03,580

evidence that these people with these

617

00:27:09,810 --> 00:27:06,099

non functioning brains are still having

618

00:27:12,180 --> 00:27:09,820

these rather dramatic experiences right

619

00:27:14,099 --> 00:27:12,190

well I mean III I guess I could say

620

00:27:16,349 --> 00:27:14,109

equally I've talked to an awful lot of

621

00:27:18,060 --> 00:27:16,359

experts in neuroscience we're quite

622

00:27:20,099 --> 00:27:18,070

impressed with the Blancas experiment

623

00:27:22,200 --> 00:27:20,109

and who do consider it to be a classic

624

00:27:24,659 --> 00:27:22,210

out-of-body experience named one who

625

00:27:26,310 --> 00:27:24,669

studied who's published anything in the

626

00:27:28,409 --> 00:27:26,320

near death experience literature the

627

00:27:30,180 --> 00:27:28,419

auto body experience literature every

628

00:27:31,979 --> 00:27:30,190

I've interviewed a bunch of him I've

629

00:27:34,529 --> 00:27:31,989

interviewed tons you can look on the

630

00:27:37,379 --> 00:27:34,539

website none of them have right now hey

631

00:27:40,739 --> 00:27:37,389

I'll tell you this I do I do a google

632

00:27:43,589 --> 00:27:40,749

search of the problem is that literature

633

00:27:45,989 --> 00:27:43,599

is that yeah I'm sure if you go to

634

00:27:48,479 --> 00:27:45,999

people I'm sure if you go to astrologers

635

00:27:51,330 --> 00:27:48,489

that you would get a unanimous account

636

00:27:53,039 --> 00:27:51,340

of how astrology is valid I think maybe

637

00:27:55,379 --> 00:27:53,049

a little bit of this is going on here

638

00:27:57,509 --> 00:27:55,389

with respect Michael you're saying Bruce

639

00:28:00,810 --> 00:27:57,519

Grayson at the University of Virginia is

640

00:28:03,210 --> 00:28:00,820

studying astrology Jan Holden at

641

00:28:05,700 --> 00:28:03,220

University of North Texas you know hey

642

00:28:08,790 --> 00:28:05,710

even when I when I interview Stuart

643

00:28:10,590 --> 00:28:08,800

Hameroff at university Arizona he's got

644

00:28:12,870 --> 00:28:10,600

he's well-versed in the near death

645

00:28:15,210 --> 00:28:12,880

experience literature it's published in

646

00:28:17,850 --> 00:28:15,220

peer-reviewed journals it's not it's not

647

00:28:21,240 --> 00:28:17,860

astrology he's well-versed in it he

648

00:28:23,010 --> 00:28:21,250

feels a need to address it I google your

649

00:28:25,320 --> 00:28:23,020

name and near-death experience there's

650

00:28:27,360 --> 00:28:25,330

nothing and I mention it to you and you

651  
00:28:30,060 --> 00:28:27,370  
bring out this astrology thing I mean

652  
00:28:33,510 --> 00:28:30,070  
that's that's insulting on your part to

653  
00:28:35,880 --> 00:28:33,520  
not know of this research that could be

654  
00:28:39,200 --> 00:28:35,890  
I mean I I'm aware there's a there's an

655  
00:28:42,360 --> 00:28:39,210  
NDE world out there I would say that

656  
00:28:45,150 --> 00:28:42,370  
it's very very difficult and I'm very

657  
00:28:47,160 --> 00:28:45,160  
skeptical of the claim that the brain is

658  
00:28:48,900 --> 00:28:47,170  
actually non functioning it's almost

659  
00:28:51,690 --> 00:28:48,910  
impossible to demonstrate that there's

660  
00:28:53,580 --> 00:28:51,700  
no no functioning no activity in the

661  
00:28:55,410 --> 00:28:53,590  
brain it's almost impossible I just

662  
00:28:58,980 --> 00:28:55,420  
don't believe that there are the

663  
00:29:00,480 --> 00:28:58,990

scanning methods available to arrive at

664

00:29:02,250 --> 00:29:00,490

that kind of conclusion of course these

665

00:29:04,140 --> 00:29:02,260

brains are functioning if these people

666

00:29:06,530 --> 00:29:04,150

are having experiences their brains are

667

00:29:08,730 --> 00:29:06,540

in some manner functioning my

668

00:29:11,430 --> 00:29:08,740

neuroscientist I mean I think you can't

669

00:29:13,590 --> 00:29:11,440

be more well-versed anyone this is basic

670

00:29:16,950 --> 00:29:13,600

I spoke with one of the world's leading

671

00:29:19,490 --> 00:29:16,960

experts on EEG and I've also spoken with

672

00:29:22,920 --> 00:29:19,500

other ones and I'll tell you point-blank

673

00:29:27,120 --> 00:29:22,930

anyone who's had a cardiac arrest within

674

00:29:29,250 --> 00:29:27,130

15 seconds has we can assume through all

675

00:29:31,410 --> 00:29:29,260

the human studies we've done and all the

676  
00:29:33,720 --> 00:29:31,420  
animal studies we've done that they have

677  
00:29:35,910 --> 00:29:33,730  
a flatline non functioning brain so

678  
00:29:38,460 --> 00:29:35,920  
people can point to some people point to

679  
00:29:40,770 --> 00:29:38,470  
sometimes to some deep brain activity

680  
00:29:42,300 --> 00:29:40,780  
that might be going on and a study comes

681  
00:29:45,000 --> 00:29:42,310  
out on rats with this deep brain

682  
00:29:48,060 --> 00:29:45,010  
activity but none of that matches all

683  
00:29:50,460 --> 00:29:48,070  
the other research we have of what a

684  
00:29:51,990 --> 00:29:50,470  
brain looks like when it's normally

685  
00:29:53,910 --> 00:29:52,000  
functioning and producing this

686  
00:29:55,770 --> 00:29:53,920  
experience that we all talk about so

687  
00:29:57,990 --> 00:29:55,780  
what you just said is it just doesn't

688  
00:30:00,330 --> 00:29:58,000

match with the data it says to just

689

00:30:02,640 --> 00:30:00,340

assume that oh I know that people have

690

00:30:04,230 --> 00:30:02,650

cardiac arrest normally we don't think

691

00:30:06,090 --> 00:30:04,240

of their brain is functioning but you're

692

00:30:08,070 --> 00:30:06,100

skeptical so you have to assume in these

693

00:30:10,170 --> 00:30:08,080

situations that the burdens on you to

694

00:30:12,840 --> 00:30:10,180

kind of say why we should go against

695

00:30:15,060 --> 00:30:12,850

everything we already know yeah I think

696

00:30:17,700 --> 00:30:15,070

the burdens on the NDE people to show us

697

00:30:19,820 --> 00:30:17,710

that there's really NDEs and I and I

698

00:30:21,960 --> 00:30:19,830

think pretty much most of my

699

00:30:25,590 --> 00:30:21,970

neuroscience colleagues that

700

00:30:27,840 --> 00:30:25,600

conclude that no there's there are these

701  
00:30:28,470 --> 00:30:27,850  
experiences they are related to brain

702  
00:30:31,169 --> 00:30:28,480  
function

703  
00:30:32,580 --> 00:30:31,179  
there's no mind or experience

704  
00:30:35,129 --> 00:30:32,590  
independent of the functioning of the

705  
00:30:37,560 --> 00:30:35,139  
brain okay but again you know one of

706  
00:30:40,169 --> 00:30:37,570  
them ahead I'm sorry I was going to say

707  
00:30:42,269 --> 00:30:40,179  
one of them one of the cornerstone

708  
00:30:46,230 --> 00:30:42,279  
observations from which all neuroscience

709  
00:30:48,749 --> 00:30:46,240  
emerged is that damage the brain and

710  
00:30:52,169 --> 00:30:48,759  
you've damaged bits and pieces of the

711  
00:30:58,019 --> 00:30:52,179  
mind and that observation

712  
00:30:59,909 --> 00:30:58,029  
you know from Hippocrates on is like I

713  
00:31:02,070 --> 00:30:59,919

said a cornerstone it really shows the

714

00:31:03,810 --> 00:31:02,080

deep relationship between the

715

00:31:08,220 --> 00:31:03,820

functioning the brain and what we call

716

00:31:09,629 --> 00:31:08,230

the mind right but if I can persist just

717

00:31:13,080 --> 00:31:09,639

a little bit because you keep saying

718

00:31:16,529 --> 00:31:13,090

there's this army of neuroscientists who

719

00:31:18,749 --> 00:31:16,539

all agree with you that this near-death

720

00:31:20,460 --> 00:31:18,759

experience science isn't important

721

00:31:23,220 --> 00:31:20,470

because there's just they're making some

722

00:31:26,009 --> 00:31:23,230

fatal flaw and I challenge you to tell

723

00:31:29,249 --> 00:31:26,019

me one who has any kind of familiarity

724

00:31:31,590 --> 00:31:29,259

with that research who's published

725

00:31:33,899 --> 00:31:31,600

anything about that research you

726

00:31:35,399 --> 00:31:33,909

obviously haven't so I don't think I

727

00:31:38,159 --> 00:31:35,409

think you're admitting that you're not

728

00:31:40,080 --> 00:31:38,169

familiar with the research so who is one

729

00:31:42,480 --> 00:31:40,090

of your colleagues who who we could talk

730

00:31:44,639 --> 00:31:42,490

to who really has challenged that

731

00:31:46,560 --> 00:31:44,649

research in a more direct way and I

732

00:31:49,680 --> 00:31:46,570

would just like dr. PIM van Lommel

733

00:31:54,330 --> 00:31:49,690

somebody we've talked to publishes this

734

00:31:56,129 --> 00:31:54,340

long 10 year study of a cardiologist 20

735

00:31:57,960 --> 00:31:56,139

year cardiologist in the Netherlands

736

00:32:00,600 --> 00:31:57,970

publishes in The Lancet right one of the

737

00:32:03,139 --> 00:32:00,610

top medical journals in the country tell

738

00:32:05,700 --> 00:32:03,149

me who has a substantive

739

00:32:07,499 --> 00:32:05,710

counter-argument to the claims that he

740

00:32:09,210 --> 00:32:07,509

makes in that paper right that's an

741

00:32:11,999 --> 00:32:09,220

academic paper that we should take

742

00:32:13,529 --> 00:32:12,009

seriously you're not aware of it you

743

00:32:15,360 --> 00:32:13,539

should be aware of it but you're not

744

00:32:16,919 --> 00:32:15,370

tell me one of your colleagues you're

745

00:32:19,470 --> 00:32:16,929

talking about who is aware of it whose

746

00:32:21,749 --> 00:32:19,480

pas something about it I I don't know

747

00:32:24,240 --> 00:32:21,759

any serious or reputable scientists who

748

00:32:28,680 --> 00:32:24,250

have bothered to do experiments to

749

00:32:30,480 --> 00:32:28,690

refute psychic phenomena we're talking

750

00:32:32,639 --> 00:32:30,490

about The Lancet eing into the future

751  
00:32:33,899 --> 00:32:32,649  
we're talking about The Lancet we're

752  
00:32:35,820 --> 00:32:33,909  
talking about someone who is a

753  
00:32:38,460 --> 00:32:35,830  
cardiologist for 20 years

754  
00:32:41,760 --> 00:32:38,470  
and you're countering with psychic

755  
00:32:43,890 --> 00:32:41,770  
phenomena exactly that's what it is it's

756  
00:32:45,450 --> 00:32:43,900  
a psychic phenomena but you've never

757  
00:32:46,980 --> 00:32:45,460  
you've never examined any of the

758  
00:32:50,130 --> 00:32:46,990  
literature you've never read any of the

759  
00:32:52,560 --> 00:32:50,140  
literature I've read a certain amount of

760  
00:32:54,540 --> 00:32:52,570  
it what what have you read again tell me

761  
00:32:57,750 --> 00:32:54,550  
one of the large right there there's a

762  
00:33:00,450 --> 00:32:57,760  
large literature on a astrology that I

763  
00:33:01,800 --> 00:33:00,460

had decided to read one piece of

764

00:33:05,100 --> 00:33:01,810

near-death experience

765

00:33:07,470 --> 00:33:05,110

you cannot cite one piece of near-death

766

00:33:09,000 --> 00:33:07,480

experience science literature I chose

767

00:33:11,370 --> 00:33:09,010

you Bruce Grayson at the University

768

00:33:14,010 --> 00:33:11,380

Arizona I said it 3 or 4 people who are

769

00:33:17,040 --> 00:33:14,020

well respected academics Peter fennec

770

00:33:18,600 --> 00:33:17,050

Sam Varney at Cornell and and you're

771

00:33:20,250 --> 00:33:18,610

gonna and you want to talk about psych

772

00:33:22,260 --> 00:33:20,260

so tell me one that you've read Michael

773

00:33:24,060 --> 00:33:22,270

one that you've read me what you're

774

00:33:27,930 --> 00:33:24,070

doing is appealing to Authority I'm

775

00:33:31,290 --> 00:33:27,940

sorry it doesn't interest Princeton a

776

00:33:35,520 --> 00:33:31,300

Princeton neuroscientist you are the

777

00:33:39,720 --> 00:33:35,530

authority well in that case I say that I

778

00:33:41,340 --> 00:33:39,730

am very very skeptical of I believe that

779

00:33:43,140 --> 00:33:41,350

there are such things as near-death

780

00:33:44,640 --> 00:33:43,150

experiences why do you believe there are

781

00:33:47,250 --> 00:33:44,650

why do you believe that

782

00:33:48,810 --> 00:33:47,260

oh because people report them but I do

783

00:33:51,300 --> 00:33:48,820

you know they report them you haven't

784

00:33:55,170 --> 00:33:51,310

read the literature I believe that they

785

00:34:00,990 --> 00:33:55,180

are caused by activity in the brain and

786

00:34:03,450 --> 00:34:01,000

you base that on what well why you read

787

00:34:06,210 --> 00:34:03,460

any of the literature Michael which is

788

00:34:08,820 --> 00:34:06,220

fine look I don't want to pound on you

789

00:34:11,550 --> 00:34:08,830

anymore this your research is really

790

00:34:14,430 --> 00:34:11,560

important tell us where you're going

791

00:34:17,730 --> 00:34:14,440

with this important theory this

792

00:34:19,290 --> 00:34:17,740

attention schema theory at Princeton

793

00:34:20,630 --> 00:34:19,300

yeah where does this take you in the

794

00:34:23,580 --> 00:34:20,640

future

795

00:34:25,350 --> 00:34:23,590

well we can we continue to put it to

796

00:34:27,930 --> 00:34:25,360

experimental test every good theory

797

00:34:30,930 --> 00:34:27,940

should be falsifiable we think this one

798

00:34:34,020 --> 00:34:30,940

is as well and it is susceptible to

799

00:34:39,740 --> 00:34:34,030

experimental tests and what we've done

800

00:34:45,270 --> 00:34:39,750

having laid out the theory is began to

801  
00:34:47,190 --> 00:34:45,280  
test it in specific ways with behavioral

802  
00:34:49,379 --> 00:34:47,200  
experiments on attention and awareness

803  
00:34:52,549 --> 00:34:49,389  
with imaging study

804  
00:34:58,829 --> 00:34:52,559  
putting people in scanners to look at Oh

805  
00:35:00,870 --> 00:34:58,839  
brain areas and and isolate the network

806  
00:35:04,490 --> 00:35:00,880  
or parts of the network that seem to be

807  
00:35:07,829 --> 00:35:04,500  
involved in these computations and with

808  
00:35:12,539 --> 00:35:07,839  
disruption experiments such as what's

809  
00:35:14,880 --> 00:35:12,549  
called transcranial magnetic stimulation

810  
00:35:19,279 --> 00:35:14,890  
it's a method of temporarily disrupting

811  
00:35:21,870 --> 00:35:19,289  
neuronal activity in select spots and

812  
00:35:25,980 --> 00:35:21,880  
measuring the effects of that when we

813  
00:35:28,799 --> 00:35:25,990

target it to specific cortical areas so

814

00:35:31,170 --> 00:35:28,809

we have it we have a very large full

815

00:35:33,539 --> 00:35:31,180

plate you might say of experiments to do

816

00:35:36,539 --> 00:35:33,549

to address this theory find out what its

817

00:35:42,059 --> 00:35:36,549

validity is or is not and that's kind of

818

00:35:44,579 --> 00:35:42,069

the strength of Sciences - as I said

819

00:35:45,990 --> 00:35:44,589

outline falsifiable theories and then

820

00:35:47,549 --> 00:35:46,000

put them to the test

821

00:35:50,160 --> 00:35:47,559

right and that's kind of where we are

822

00:35:53,400 --> 00:35:50,170

right and on your your website at

823

00:35:54,990 --> 00:35:53,410

Princeton DTU which anyone can find very

824

00:35:56,759 --> 00:35:55,000

easily by googling your name you have

825

00:35:58,829 --> 00:35:56,769

quite a nice do you keep people

826

00:36:02,960 --> 00:35:58,839

regularly updated on things that are

827

00:36:05,999 --> 00:36:02,970

going on in your lab well mostly I

828

00:36:09,299 --> 00:36:06,009

update the publication list and so and I

829

00:36:10,759 --> 00:36:09,309

have links to the publications so anyone

830

00:36:13,529 --> 00:36:10,769

can go look at what the latest

831

00:36:17,700 --> 00:36:13,539

publications are on this topic one just

832

00:36:21,509 --> 00:36:17,710

came out in PNAS month or she would go

833

00:36:24,329 --> 00:36:21,519

on this topic of consciousness good and

834

00:36:26,130 --> 00:36:24,339

as I mentioned you are you're very out

835

00:36:28,609 --> 00:36:26,140

there public and write a lot of things

836

00:36:30,950 --> 00:36:28,619

that anyone can pick up and read and

837

00:36:33,230 --> 00:36:30,960

again this latest book of yours

838

00:36:35,460 --> 00:36:33,240

consciousness and the social brain

839

00:36:37,710 --> 00:36:35,470

obviously is on Amazon and all those

840

00:36:39,779 --> 00:36:37,720

other places people can find it it's

841

00:36:41,759 --> 00:36:39,789

really been great having you on I know I

842

00:36:43,680 --> 00:36:41,769

had to push you a little bit on some of

843

00:36:45,779 --> 00:36:43,690

these hot-button issues that we like to

844

00:36:47,430 --> 00:36:45,789

talk about but I do appreciate your

845

00:36:50,220 --> 00:36:47,440

openness and willing to dialogue about

846

00:36:52,890 --> 00:36:50,230

this so best luck with all your work and

847

00:36:55,499 --> 00:36:52,900

thanks again for joining me good thank

848

00:37:01,960 --> 00:36:55,509

you I always enjoy a lively conversation

849

00:37:03,849 --> 00:37:01,970

and I we did offer up that dinner yes

850

00:37:06,280 --> 00:37:03,859

thanks again to dr. Graziano for joining

851  
00:37:08,320 --> 00:37:06,290  
me today on skeptic Oh as a follow-up to

852  
00:37:10,810 --> 00:37:08,330  
this interview I'm very happy to say

853  
00:37:14,260 --> 00:37:10,820  
that dr. Jeffery Schwartz from UCLA

854  
00:37:17,080 --> 00:37:14,270  
Medical School has agreed to join me to

855  
00:37:19,359 --> 00:37:17,090  
talk about one of the small points that

856  
00:37:21,849 --> 00:37:19,369  
we covered in this interview

857  
00:37:24,490 --> 00:37:21,859  
you know there's much much I could say

858  
00:37:27,339 --> 00:37:24,500  
about this interview but probably not a

859  
00:37:30,580 --> 00:37:27,349  
lot that I haven't said already many

860  
00:37:33,730 --> 00:37:30,590  
times in other shows the one question I

861  
00:37:36,970 --> 00:37:33,740  
T up from this interview has to do with

862  
00:37:40,630 --> 00:37:36,980  
dr. Graziano's reliance on this idea of

863  
00:37:43,990 --> 00:37:40,640

the emergent property of consciousness

864

00:37:45,790 --> 00:37:44,000

and just what exactly you make of that

865

00:37:47,230 --> 00:37:45,800

so let me know your thoughts on that of

866

00:37:50,080 --> 00:37:47,240

course the place to do it is it The

867

00:37:54,460 --> 00:37:50,090

Skeptical website you can find it at ske

868

00:37:57,160 --> 00:37:54,470

P tik o comm from there you can bounce

869

00:37:58,839 --> 00:37:57,170

on over to the forum or leave a comment

870

00:38:00,790 --> 00:37:58,849

right there in the comment section of

871

00:38:03,400 --> 00:38:00,800

the page you can also drop me an e-mail

872

00:38:05,530 --> 00:38:03,410

or connect with me on facebook it's

873

00:38:08,920 --> 00:38:05,540

always great to hear from folks and and

874

00:38:11,950 --> 00:38:08,930

hear how their own personal journey with

875

00:38:13,599 --> 00:38:11,960

some of this information is going so I

876

00:38:16,690 --> 00:38:13,609

have a number of interesting shows

877

00:38:18,700 --> 00:38:16,700

coming up not sure what exactly one I'm

878

00:38:20,859 --> 00:38:18,710

going to bring to you next but have an

879

00:38:22,780 --> 00:38:20,869

interesting show on healing and I think

880

00:38:25,089 --> 00:38:22,790

I've been sitting on that for a while

881

00:38:28,450 --> 00:38:25,099

and I think that one might be ready to

882

00:38:30,970 --> 00:38:28,460

come out or as promised we might hear

883

00:38:32,440 --> 00:38:30,980

from dr. Jeffery Schwartz so I guess

884

00:38:35,230 --> 00:38:32,450

I'll have to keep you guessing a little

885

00:38:36,970 --> 00:38:35,240

bit until next episode but I do hope

886

00:38:40,390 --> 00:38:36,980

you'll stick around for all of that and

887

00:38:40,720 --> 00:38:40,400

until next time take care and bye for