

#031

ELIZABETH

LOFTUS

Memory and Conspiracy

1
00:00:07,610 --> 00:00:05,210
welcome to tales from the rabbit hole

2
00:00:09,740 --> 00:00:07,620
I'm your host Nick West my guest today

3
00:00:11,749 --> 00:00:09,750
is I believe my fourth professor on the

4
00:00:14,570 --> 00:00:11,759
podcast and I think by far the most

5
00:00:16,550 --> 00:00:14,580
distinguished one professor Elizabeth

6
00:00:19,490 --> 00:00:16,560
Loftus is the professor of psychological

7
00:00:21,439 --> 00:00:19,500
science and criminology and a professor

8
00:00:23,630 --> 00:00:21,449
of law and society and the professor of

9
00:00:25,759 --> 00:00:23,640
cognitive sciences so our professor

10
00:00:29,330 --> 00:00:25,769
Loftus welcome to tales from the rabbit

11
00:00:30,019 --> 00:00:29,340
hole thank you thank you very much for

12
00:00:31,700 --> 00:00:30,029
doing this

13
00:00:33,830 --> 00:00:31,710

it's I've been a big fan of yours for

14

00:00:36,950 --> 00:00:33,840

quite some time I think I first saw you

15

00:00:38,680 --> 00:00:36,960

at the amazing meeting the James Randi

16

00:00:41,780 --> 00:00:38,690

Educational Foundation

17

00:00:45,049 --> 00:00:41,790

in 2014 I believe was the first time I

18

00:00:49,069 --> 00:00:45,059

saw you and then I saw you again at CSI

19

00:00:52,790 --> 00:00:49,079

Con in 2016 and you appeared again this

20

00:00:55,639 --> 00:00:52,800

year CSI icon in Las Vegas for the CSI

21

00:00:58,330 --> 00:00:55,649

con 2019 how did you get involved in

22

00:01:04,149 --> 00:00:58,340

doing things for the skeptical community

23

00:01:06,830 --> 00:01:04,159

I think I was invited to give some talks

24

00:01:10,010 --> 00:01:06,840

when I was teaching at my former

25

00:01:12,050 --> 00:01:10,020

University I started talking about you

26

00:01:15,950 --> 00:01:12,060

know memory distortion and false

27

00:01:19,820 --> 00:01:15,960

memories and and then the organization

28

00:01:24,080 --> 00:01:19,830

gave me some nice award and and then I

29

00:01:26,420 --> 00:01:24,090

got put on on the board of advisers or

30

00:01:31,730 --> 00:01:26,430

whatever they they call this board and

31

00:01:35,749 --> 00:01:31,740

so it's just a community that I've spent

32

00:01:37,280 --> 00:01:35,759

a lot of time with yeah and I think it

33

00:01:39,050 --> 00:01:37,290

really speaks for the quality of your

34

00:01:40,640 --> 00:01:39,060

work because it's a topic that's very

35

00:01:42,649 --> 00:01:40,650

very interesting to kind of the

36

00:01:45,350 --> 00:01:42,659

skeptical community because skeptical

37

00:01:47,980 --> 00:01:45,360

community is all about demanding

38

00:01:50,149 --> 00:01:47,990

evidence for for extreme claims and

39

00:01:51,770 --> 00:01:50,159

obviously one of the claims that people

40

00:01:54,350 --> 00:01:51,780

bring up all the time is that they

41

00:01:56,630 --> 00:01:54,360

remember something happening and what

42

00:01:58,969 --> 00:01:56,640

your work over the years has shown is

43

00:02:01,850 --> 00:01:58,979

that memory isn't quite as reliable as

44

00:02:04,190 --> 00:02:01,860

people think it is

45

00:02:07,639 --> 00:02:04,200

can you what's what's the most most

46

00:02:10,520 --> 00:02:07,649

famous example of your work where where

47

00:02:13,790 --> 00:02:10,530

you have done something with that really

48

00:02:16,450 --> 00:02:13,800

demonstrates the memory is not quite as

49

00:02:20,150 --> 00:02:16,460

most people think it is there are really

50

00:02:21,910 --> 00:02:20,160

kind of two sub categories of memory

51
00:02:25,220 --> 00:02:21,920
problem that that I've been

52
00:02:27,110 --> 00:02:25,230
investigating and of course many people

53
00:02:29,420 --> 00:02:27,120
understand that you could have a problem

54
00:02:31,940 --> 00:02:29,430
with forgetting that is not remembering

55
00:02:34,550 --> 00:02:31,950
something that actually happened but but

56
00:02:36,410 --> 00:02:34,560
I study the opposite which is when

57
00:02:39,170 --> 00:02:36,420
people remember things differently from

58
00:02:41,990 --> 00:02:39,180
the way they really were or when they

59
00:02:46,550 --> 00:02:42,000
remember entire events that did not

60
00:02:49,490 --> 00:02:46,560
happen to them and so you know some of

61
00:02:51,620 --> 00:02:49,500
the well-known examples in my research

62
00:02:54,950 --> 00:02:51,630
are examples where people remember

63
00:02:57,440 --> 00:02:54,960

differently we make people believe and

64

00:02:58,850 --> 00:02:57,450

remember that that the car involved in

65

00:03:01,610 --> 00:02:58,860

the accident went through a stop sign

66

00:03:04,550 --> 00:03:01,620

instead of a yield sign well there

67

00:03:07,550 --> 00:03:04,560

really was an accident but but the car

68

00:03:10,220 --> 00:03:07,560

did not go through the stop sign so

69

00:03:14,150 --> 00:03:10,230

that's an example and it's a fairly well

70

00:03:15,650 --> 00:03:14,160

known example of changing memory for the

71

00:03:19,580 --> 00:03:15,660

details of an event that actually

72

00:03:21,890 --> 00:03:19,590

happened but but then years later we

73

00:03:25,550 --> 00:03:21,900

would ask just how far can you go with

74

00:03:28,460 --> 00:03:25,560

people and we would plant entirely false

75

00:03:31,640 --> 00:03:28,470

memories into the minds of otherwise

76
00:03:33,860 --> 00:03:31,650
ordinary healthy people and one of the

77
00:03:35,990 --> 00:03:33,870
better known examples is our first

78
00:03:38,390 --> 00:03:36,000
effort to do this which is to make

79
00:03:41,180 --> 00:03:38,400
people believe and remember that when

80
00:03:44,540 --> 00:03:41,190
they were say five or six years old they

81
00:03:48,470 --> 00:03:44,550
were lost in a shopping mall frightened

82
00:03:51,410 --> 00:03:48,480
crying and ultimately rescued by an

83
00:03:55,310 --> 00:03:51,420
elderly person and reunited with their

84
00:03:58,600 --> 00:03:55,320
family so that's another example of an

85
00:04:01,580 --> 00:03:58,610
experimental finding that did achieve

86
00:04:04,699 --> 00:04:01,590
you know a fair amount of publicity and

87
00:04:06,590 --> 00:04:04,709
interest yeah that's a very well-known

88
00:04:08,720 --> 00:04:06,600

one I think and that comes up a lot to

89

00:04:13,490 --> 00:04:08,730

the I use that constantly as an example

90

00:04:15,740 --> 00:04:13,500

of of an implanted memory with with

91

00:04:17,420 --> 00:04:15,750

implanted memories you you're kind of

92

00:04:19,460 --> 00:04:17,430

creating a whole narrative that you give

93

00:04:21,500 --> 00:04:19,470

to someone do you give them the entire

94

00:04:25,100 --> 00:04:21,510

narrative or do they fill in a lot of

95

00:04:25,920 --> 00:04:25,110

the pieces themselves no we just give

96

00:04:28,499 --> 00:04:25,930

them a little

97

00:04:33,030 --> 00:04:28,509

paragraphs worth so if you were one of

98

00:04:34,950 --> 00:04:33,040

my subjects I would say to you Mick you

99

00:04:36,570 --> 00:04:34,960

know we've had a conversation with your

100

00:04:38,219 --> 00:04:36,580

mother we found out some things that

101
00:04:40,710 --> 00:04:38,229
happened to you when you were about five

102
00:04:42,330 --> 00:04:40,720
or six years old we'd like to ask you

103
00:04:44,999 --> 00:04:42,340
about these experiences see if you

104
00:04:48,450 --> 00:04:45,009
remember any of them and then I would

105
00:04:50,790 --> 00:04:48,460
give you some little scenarios about

106
00:04:53,879 --> 00:04:50,800
true events things your mother told us

107
00:04:57,210 --> 00:04:53,889
really did happen and then I'd give you

108
00:04:59,610 --> 00:04:57,220
a little bit of a paragraph of about a

109
00:05:02,370 --> 00:04:59,620
completely made-up event that that I

110
00:05:05,340 --> 00:05:02,380
made up with your mother about getting

111
00:05:07,529 --> 00:05:05,350
lost in a shopping mall or if you grew

112
00:05:12,210 --> 00:05:07,539
up and there were no malls then in some

113
00:05:16,200 --> 00:05:12,220

big public place and we try to get you

114

00:05:19,469 --> 00:05:16,210

to remember these experiences and people

115

00:05:22,529 --> 00:05:19,479

will not only regurgitate back the

116

00:05:24,480 --> 00:05:22,539

specific details that we use to plant

117

00:05:26,820 --> 00:05:24,490

the memory but they'll go beyond and

118

00:05:30,180 --> 00:05:26,830

they'll tell us things about what the

119

00:05:32,909 --> 00:05:30,190

person looked like who rescued them or

120

00:05:36,210 --> 00:05:32,919

other things they remember about the

121

00:05:39,150 --> 00:05:36,220

event I'll remember hearing my name being

122

00:05:41,460 --> 00:05:39,160

called over the loudspeaker some example

123

00:05:44,339 --> 00:05:41,470

like that detail like that that we never

124

00:05:46,950 --> 00:05:44,349

mentioned so when you're implanting

125

00:05:49,260 --> 00:05:46,960

these memories or triggering these these

126
00:05:50,850 --> 00:05:49,270
creations of false memories obviously it

127
00:05:52,409 --> 00:05:50,860
doesn't happen straight away he can't

128
00:05:54,600 --> 00:05:52,419
just like tell someone and they

129
00:05:56,460 --> 00:05:54,610
immediately remember it you kind of

130
00:05:58,110 --> 00:05:56,470
plant a seed and then come back later

131
00:06:01,730 --> 00:05:58,120
and it's kind of grown into something

132
00:06:05,100 --> 00:06:01,740
else that's often what happens yes they

133
00:06:08,520 --> 00:06:05,110
sometimes they start out gee I'm I'm not

134
00:06:13,080 --> 00:06:08,530
sure possibly maybe would it have been a

135
00:06:14,640 --> 00:06:13,090
you know at this location then they try

136
00:06:17,010 --> 00:06:14,650
to figure it out and then we do come

137
00:06:21,120 --> 00:06:17,020
back we might talk to them three times

138
00:06:24,230 --> 00:06:21,130

for example in our original study we

139

00:06:26,909 --> 00:06:24,240

found that about a quarter of our

140

00:06:30,270 --> 00:06:26,919

subjects fell swea to this suggestion

141

00:06:32,370 --> 00:06:30,280

and began to develop a partial or

142

00:06:34,909 --> 00:06:32,380

complete false memory about getting lost

143

00:06:37,890 --> 00:06:34,919

but I do have to say that other

144

00:06:39,300 --> 00:06:37,900

scientists who picked up on this

145

00:06:42,330 --> 00:06:39,310

paradigm and plan

146

00:06:44,040 --> 00:06:42,340

other kinds of false memories we're

147

00:06:46,470 --> 00:06:44,050

getting really good at it because they

148

00:06:48,110 --> 00:06:46,480

got even higher rates of false memories

149

00:06:50,730 --> 00:06:48,120

than we did

150

00:06:52,170 --> 00:06:50,740

so other certain people who are a lot

151
00:06:56,340 --> 00:06:52,180
more susceptible to this than other

152
00:06:59,640 --> 00:06:56,350
people we and others have looked at

153
00:07:03,780 --> 00:06:59,650
individual differences and we we have

154
00:07:06,960 --> 00:07:03,790
found things like if you're if you're

155
00:07:09,960 --> 00:07:06,970
someone who has lapses in memory and

156
00:07:12,120 --> 00:07:09,970
attention if you frequently find that

157
00:07:14,070 --> 00:07:12,130
you can't remember whether you did

158
00:07:15,960 --> 00:07:14,080
something or just thought about doing it

159
00:07:18,600 --> 00:07:15,970
did I mail that letter or did I just

160
00:07:22,710 --> 00:07:18,610
think about it did I close the garage

161
00:07:27,360 --> 00:07:22,720
door or I just think about it you're

162
00:07:30,630 --> 00:07:27,370
somewhat more susceptible if you are low

163
00:07:33,540 --> 00:07:30,640

and cognitive ability you're somewhat

164

00:07:35,760 --> 00:07:33,550

more susceptible but I do have to say

165

00:07:39,780 --> 00:07:35,770

that we have even studied people who

166

00:07:42,840 --> 00:07:39,790

have exceptional memories superior

167

00:07:45,570 --> 00:07:42,850

memories about their own lives and they

168

00:07:47,400 --> 00:07:45,580

to a fall for these suggestions and

169

00:07:52,530 --> 00:07:47,410

develop false memories at a rate that's

170

00:07:53,909 --> 00:07:52,540

similar to ordinary people yeah it's

171

00:07:56,070 --> 00:07:53,919

interesting because I was doing a little

172

00:07:59,790 --> 00:07:56,080

research before before I spoke to you

173

00:08:05,219 --> 00:07:59,800

yesterday and I came across a TED talk

174

00:08:06,719 --> 00:08:05,229

by a guy called Scott Fraser and he he

175

00:08:09,500 --> 00:08:06,729

was talking about near the same type of

176

00:08:12,270 --> 00:08:09,510

subjects and he gave me an example of

177

00:08:14,760 --> 00:08:12,280

9/11 the collapses of the World Trade

178

00:08:18,540 --> 00:08:14,770

Center and he says that he had this very

179

00:08:20,670 --> 00:08:18,550

vivid memory of of the second tower

180

00:08:22,710 --> 00:08:20,680

collapse being shown over and over again

181

00:08:24,150 --> 00:08:22,720

on television but then he said that was

182

00:08:27,990 --> 00:08:24,160

a false memory because there wasn't any

183

00:08:31,080 --> 00:08:28,000

footage of that until the next day till

184

00:08:33,209 --> 00:08:31,090

24 hours later however it turns out

185

00:08:35,880 --> 00:08:33,219

there actually was and it turns out that

186

00:08:39,390 --> 00:08:35,890

what he was remembering in his TED talk

187

00:08:41,070 --> 00:08:39,400

was actually a false memory that somehow

188

00:08:42,719 --> 00:08:41,080

he's convinced himself off and he didn't

189

00:08:44,940 --> 00:08:42,729

actually realize this until later and he

190

00:08:47,250 --> 00:08:44,950

had to issue a correction to this so you

191

00:08:49,290 --> 00:08:47,260

got someone who's an expert in memory

192

00:08:52,530 --> 00:08:49,300

who knows about all these things and

193

00:08:55,290 --> 00:08:52,540

still manages to get fooled by it

194

00:08:57,960 --> 00:08:55,300

oh yeah well on just because your study

195

00:09:01,650 --> 00:08:57,970

memory doesn't mean you can be immune

196

00:09:03,060 --> 00:09:01,660

from these kinds of influences yeah you

197

00:09:06,090 --> 00:09:03,070

tell people you're an expert in memory -

198

00:09:07,440 --> 00:09:06,100

do they assume that then you personally

199

00:09:09,620 --> 00:09:07,450

have a very good memory do they ask you

200

00:09:12,720 --> 00:09:09,630

to do memory tricks and things like that

201
00:09:14,400 --> 00:09:12,730
usually they want to first they want to

202
00:09:16,680 --> 00:09:14,410
tell me that they've got a relative with

203
00:09:19,050 --> 00:09:16,690
Alzheimer's or somebody who has got some

204
00:09:20,730 --> 00:09:19,060
kind of dementia and can I give them

205
00:09:22,500 --> 00:09:20,740
some advice for how to deal with their

206
00:09:26,370 --> 00:09:22,510
relative that's that's how it often

207
00:09:29,250 --> 00:09:26,380
starts in an airplane conversation and I

208
00:09:31,290 --> 00:09:29,260
have to say you know I don't study that

209
00:09:34,020 --> 00:09:31,300
kind of memory problem I study the

210
00:09:36,530 --> 00:09:34,030
opposite yeah and false memories

211
00:09:41,580 --> 00:09:36,540
obviously have a huge implication for

212
00:09:42,930 --> 00:09:41,590
for trials for for the legal issues and

213
00:09:46,710 --> 00:09:42,940

you've you've been called as an expert

214

00:09:51,300 --> 00:09:46,720

witness many times what were the types

215

00:09:54,740 --> 00:09:51,310

of things that you you tell a jury when

216

00:09:57,570 --> 00:09:54,750

you're appearing as an expert witness

217

00:10:01,080 --> 00:09:57,580

well there are two types of cases that I

218

00:10:03,690 --> 00:10:01,090

have been involved in quite a bit one

219

00:10:06,420 --> 00:10:03,700

would be a typical eyewitness case we

220

00:10:09,330 --> 00:10:06,430

call it so somebody is a witness to an

221

00:10:11,810 --> 00:10:09,340

armed robbery and sometime later maybe

222

00:10:15,660 --> 00:10:11,820

goes to a lineup and tries to identify

223

00:10:19,790 --> 00:10:15,670

the person who committed that robbery so

224

00:10:23,190 --> 00:10:19,800

I might talk about the factors in that

225

00:10:25,500 --> 00:10:23,200

situation if they exist that could lead

226

00:10:28,320 --> 00:10:25,510

to difficulties for an accurate memory

227

00:10:31,410 --> 00:10:28,330

how much time passed between the crime

228

00:10:33,600 --> 00:10:31,420

and the attempt at identifying the

229

00:10:35,040 --> 00:10:33,610

perpetrator because if it's a longer

230

00:10:38,340 --> 00:10:35,050

period of time there's going to be a

231

00:10:40,650 --> 00:10:38,350

fading of memory also if there's a

232

00:10:43,980 --> 00:10:40,660

longer period of time the memory is more

233

00:10:45,630 --> 00:10:43,990

susceptible to contamination then I

234

00:10:48,030 --> 00:10:45,640

might want to know are you dealing with

235

00:10:50,700 --> 00:10:48,040

a cross-racial identification do you

236

00:10:53,370 --> 00:10:50,710

have a situation where a person is

237

00:10:54,990 --> 00:10:53,380

trying to identify a stranger of a

238

00:10:58,350 --> 00:10:55,000

different race than their own race

239

00:11:00,770 --> 00:10:58,360

people make more mistakes then I want to

240

00:11:03,750 --> 00:11:00,780

analyze and know about the

241

00:11:05,380 --> 00:11:03,760

characteristics of the lineup who was in

242

00:11:07,990 --> 00:11:05,390

the lineup who were the filler

243

00:11:10,930 --> 00:11:08,000

did they resemble the perpetrator what

244

00:11:13,120 --> 00:11:10,940

kind of instruction was given to the

245

00:11:16,329 --> 00:11:13,130

witness before the identification was

246

00:11:20,199 --> 00:11:16,339

made these are amongst the many factors

247

00:11:22,660 --> 00:11:20,209

that are important to consider because

248

00:11:25,690 --> 00:11:22,670

if you have a biased situation with a

249

00:11:27,910 --> 00:11:25,700

lot of problematic factors then you have

250

00:11:30,610 --> 00:11:27,920

a situation that might be more prone to

251

00:11:31,810 --> 00:11:30,620

error yeah and the third law so many

252

00:11:33,100 --> 00:11:31,820

factors that you have to take into

253

00:11:36,370 --> 00:11:33,110

account there and also be very difficult

254

00:11:38,380 --> 00:11:36,380

to kind of get all this across to a jury

255

00:11:40,060 --> 00:11:38,390

I mean it's you know it's something that

256

00:11:42,100 --> 00:11:40,070

you've been studying for there many many

257

00:11:46,210 --> 00:11:42,110

years and you can have asked to boil it

258

00:11:48,370 --> 00:11:46,220

down into a few examples do you have

259

00:11:50,620 --> 00:11:48,380

good success do you think in

260

00:11:55,660 --> 00:11:50,630

communicating these things to to jurors

261

00:11:59,980 --> 00:11:55,670

I think I have a way of talking about

262

00:12:03,900 --> 00:11:59,990

the basic concepts that is

263

00:12:06,610 --> 00:12:03,910

understandable to you know lay people

264

00:12:09,790 --> 00:12:06,620

sometimes I have a little bit of

265

00:12:11,650 --> 00:12:09,800

difficulty for example if I want it if I

266

00:12:15,819 --> 00:12:11,660

want to tell the jury that the

267

00:12:19,090 --> 00:12:15,829

correlation between say how accurate

268

00:12:22,750 --> 00:12:19,100

somebody is and their confidence level I

269

00:12:26,110 --> 00:12:22,760

know the correlation is 0.25 for example

270

00:12:30,009 --> 00:12:26,120

in one well-known paper how do you

271

00:12:33,550 --> 00:12:30,019

explain a correlation of 0.25 to a jury

272

00:12:36,130 --> 00:12:33,560

that has never taken a statistics course

273

00:12:39,130 --> 00:12:36,140

so occasionally there challenges like

274

00:12:41,380 --> 00:12:39,140

that needing to explain some kind of

275

00:12:44,110 --> 00:12:41,390

mathematical or scientific concept but

276

00:12:47,319 --> 00:12:44,120

for the most part I think people can

277

00:12:49,829 --> 00:12:47,329

understand many of the the basic

278

00:12:54,699 --> 00:12:49,839

concepts that I and other memory

279

00:12:57,880 --> 00:12:54,709

scientists try to convey during a jury

280

00:12:59,290 --> 00:12:57,890

trial yeah that correlation you bring is

281

00:13:03,280 --> 00:12:59,300

very interesting the correlation between

282

00:13:05,380 --> 00:13:03,290

confidence and the accuracy of a memory

283

00:13:06,670 --> 00:13:05,390

and people tend to assume that if

284

00:13:08,319 --> 00:13:06,680

someone like say something with

285

00:13:10,269 --> 00:13:08,329

confidence then they're more likely to

286

00:13:13,630 --> 00:13:10,279

be accurate but it turns out there isn't

287

00:13:17,610 --> 00:13:13,640

you know that much that much evidence

288

00:13:21,480 --> 00:13:18,960

Rivera's gotten a little more

289

00:13:23,280 --> 00:13:21,490

complicated because for years people

290

00:13:25,410 --> 00:13:23,290

talked about that that one particular

291

00:13:29,040 --> 00:13:25,420

paper with the correlation that I

292

00:13:32,040 --> 00:13:29,050

mentioned and in recent times there is a

293

00:13:35,190 --> 00:13:32,050

kind of a revaluation about the

294

00:13:37,800 --> 00:13:35,200

importance of confidence where if

295

00:13:41,190 --> 00:13:37,810

everything is ideal if the conditions

296

00:13:45,860 --> 00:13:41,200

are pristine and clean then confidence

297

00:13:48,450 --> 00:13:45,870

does seem to correlate with accuracy

298

00:13:50,850 --> 00:13:48,460

somebody who's confident more likely to

299

00:13:52,710 --> 00:13:50,860

be accurate than somebody who's not the

300

00:13:55,530 --> 00:13:52,720

problem is out there in the messy real

301
00:13:59,070 --> 00:13:55,540
world things are not clean and pristine

302
00:14:02,550 --> 00:13:59,080
and you can manipulate somebody's

303
00:14:05,250 --> 00:14:02,560
confidence it's very easy to do that

304
00:14:07,380 --> 00:14:05,260
yeah I remember I had an incident where

305
00:14:09,300 --> 00:14:07,390
somebody jumped into my yard like a

306
00:14:11,220 --> 00:14:09,310
burglar was getting away from a house

307
00:14:12,630 --> 00:14:11,230
next door and he ran through my yard and

308
00:14:15,870 --> 00:14:12,640
I called the police and then they asked

309
00:14:17,940 --> 00:14:15,880
me to describe this person to him and I

310
00:14:21,600 --> 00:14:17,950
kind of actually thought back to your

311
00:14:23,100 --> 00:14:21,610
talk and how difficult it is to have

312
00:14:24,960 --> 00:14:23,110
accurate memories about these types of

313
00:14:26,850 --> 00:14:24,970

things and I I kind of wanted to say

314

00:14:29,430 --> 00:14:26,860

something but I thought do I really know

315

00:14:31,050 --> 00:14:29,440

that yeah so you have actually had an

316

00:14:32,910 --> 00:14:31,060

effect very and perhaps not fingering

317

00:14:35,910 --> 00:14:32,920

the wrong person for this burglary of my

318

00:14:37,710 --> 00:14:35,920

neighbor's house but yes it is

319

00:14:41,610 --> 00:14:37,720

surprisingly difficult to remember

320

00:14:43,590 --> 00:14:41,620

things about people for for me like in a

321

00:14:44,940 --> 00:14:43,600

stressful situation like I couldn't

322

00:14:46,829 --> 00:14:44,950

remember what color shirt he was wearing

323

00:14:50,400 --> 00:14:46,839

or what color pants he was wearing or

324

00:14:53,160 --> 00:14:50,410

even how especially tall he was so I

325

00:14:56,840 --> 00:14:53,170

think perhaps people people overestimate

326

00:15:00,090 --> 00:14:56,850

their ability to to remember things I

327

00:15:02,760 --> 00:15:00,100

don't know about the overestimation um

328

00:15:05,490 --> 00:15:02,770

you know I often times when you ask

329

00:15:08,940 --> 00:15:05,500

people you know about characteristics or

330

00:15:11,910 --> 00:15:08,950

even you know how healthy are you or how

331

00:15:13,560 --> 00:15:11,920

smart are you or whatever they that lots

332

00:15:15,300 --> 00:15:13,570

of people lots and lots of people think

333

00:15:16,560 --> 00:15:15,310

they're above average more people think

334

00:15:22,140 --> 00:15:16,570

they're above average than is

335

00:15:24,360 --> 00:15:22,150

statistically impossible but well but we

336

00:15:26,069 --> 00:15:24,370

do know a fair amount about the factors

337

00:15:29,480 --> 00:15:26,079

that can lead to mistakes and your

338

00:15:31,730 --> 00:15:29,490

experience of trying to describe is

339

00:15:35,340 --> 00:15:31,740

especially difficult

340

00:15:38,610 --> 00:15:35,350

yeah line up and trying to identify the

341

00:15:41,670 --> 00:15:38,620

face you've seen before well in some

342

00:15:44,389 --> 00:15:41,680

sense that's a little easier but you can

343

00:15:46,680 --> 00:15:44,399

also be misled if it's not done properly

344

00:15:48,240 --> 00:15:46,690

indeed yeah I'm not sure I wouldn't be

345

00:15:49,800 --> 00:15:48,250

able to pick the person hey I did see

346

00:15:52,949 --> 00:15:49,810

his face he turned around to look at me

347

00:15:54,300 --> 00:15:52,959

as he was running away yeah it's I'm not

348

00:15:55,500 --> 00:15:54,310

sure I would be able to pick him out so

349

00:15:57,389 --> 00:15:55,510

I would feel very uncomfortable you know

350

00:15:58,650 --> 00:15:57,399

especially after you know hearing all

351

00:16:01,590 --> 00:15:58,660

these stories about people means

352

00:16:04,019 --> 00:16:01,600

identifying other people I want to talk

353

00:16:05,430 --> 00:16:04,029

a little bit about the you know some of

354

00:16:08,340 --> 00:16:05,440

those topics that I'm interested in are

355

00:16:12,629 --> 00:16:08,350

kind of conspiracy theory topics a big

356

00:16:14,040 --> 00:16:12,639

one is UFOs which is a conspiracy theory

357

00:16:17,040 --> 00:16:14,050

in a way because people are saying the

358

00:16:19,259 --> 00:16:17,050

government is covering up UFOs but a

359

00:16:20,730 --> 00:16:19,269

lot of people who believe that there are

360

00:16:23,550 --> 00:16:20,740

UFOs and that the government is covering

361

00:16:25,139 --> 00:16:23,560

it up they do so because of a personal

362

00:16:28,680 --> 00:16:25,149

experience

363

00:16:31,949 --> 00:16:28,690

they think that they saw a UFO and they

364

00:16:34,110 --> 00:16:31,959

give these very detailed reports of

365

00:16:36,740 --> 00:16:34,120

seeing a particular type of craft or

366

00:16:38,550 --> 00:16:36,750

something like that do you think that

367

00:16:42,509 --> 00:16:38,560

what do you think the role of false

368

00:16:45,720 --> 00:16:42,519

memory is in UFOs what I know a little

369

00:16:48,269 --> 00:16:45,730

about primarily because of the work of

370

00:16:52,439 --> 00:16:48,279

Richard McNally a professor of

371

00:16:54,569 --> 00:16:52,449

psychology at Harvard is the group of

372

00:16:57,900 --> 00:16:54,579

people who go even further than I just

373

00:17:00,150 --> 00:16:57,910

saw something up in the sky they believe

374

00:17:02,400 --> 00:17:00,160

that they were actually abducted by

375

00:17:05,520 --> 00:17:02,410

aliens and taken up on the spaceships

376

00:17:07,819 --> 00:17:05,530

and sexually experimented upon and then

377

00:17:10,260 --> 00:17:07,829

brought back to their beds on earth and

378

00:17:14,460 --> 00:17:10,270

they're a very interesting group of

379

00:17:19,250 --> 00:17:14,470

people they are often intelligent and

380

00:17:23,460 --> 00:17:19,260

highly functioning in society they often

381

00:17:26,280 --> 00:17:23,470

it starts with an experience of sleep

382

00:17:28,559 --> 00:17:26,290

paralysis where when you're in that

383

00:17:31,590 --> 00:17:28,569

in-between state between you know

384

00:17:34,049 --> 00:17:31,600

sleeping and waking up you sometimes

385

00:17:35,760 --> 00:17:34,059

experience a kind of paralysis and it

386

00:17:38,640 --> 00:17:35,770

can be kind of frightening if you don't

387

00:17:41,730 --> 00:17:38,650

know what it is they end up talking to a

388

00:17:44,260 --> 00:17:41,740

therapist who maybe believes an alien

389

00:17:46,780 --> 00:17:44,270

abduction and might hypnotized them and

390

00:17:49,000 --> 00:17:46,790

just certain things to them but they now

391

00:17:50,440 --> 00:17:49,010

have a whole abduction scenario that

392

00:17:54,090 --> 00:17:50,450

they think happened to them

393

00:17:57,430 --> 00:17:54,100

and when dr. McNally has studied these

394

00:17:59,740 --> 00:17:57,440

individuals at Harvard he finds that

395

00:18:01,780 --> 00:17:59,750

when they listen to their own abduction

396

00:18:05,260 --> 00:18:01,790

story played back to them on a tape

397

00:18:07,180 --> 00:18:05,270

recorder they're highly aroused the

398

00:18:10,210 --> 00:18:07,190

physiological measures like heart rate

399

00:18:14,580 --> 00:18:10,220

and so on are taken and they are as

400

00:18:17,860 --> 00:18:14,590

aroused as other people might be about a

401
00:18:21,580 --> 00:18:17,870
truly traumatic experience so they're a

402
00:18:24,460 --> 00:18:21,590
very interesting group of people now the

403
00:18:26,430 --> 00:18:24,470
ones who are just seeing unidentified

404
00:18:29,560 --> 00:18:26,440
objects and not believing they were

405
00:18:33,820 --> 00:18:29,570
abducted I mean that seems to me like an

406
00:18:35,920 --> 00:18:33,830
even easier thing to explain they may

407
00:18:38,290 --> 00:18:35,930
have seen something and then time passes

408
00:18:43,240 --> 00:18:38,300
they reconstruct a story about what it

409
00:18:46,330 --> 00:18:43,250
what it is and and their story has a lot

410
00:18:49,260 --> 00:18:46,340
of inferences and that crystallize and

411
00:18:51,810 --> 00:18:49,270
feel like memories they're they're

412
00:18:55,900 --> 00:18:51,820
potentially creating that story or

413
00:19:01,510 --> 00:18:55,910

distorting from an ambiguous stimulus

414

00:19:03,340 --> 00:19:01,520

into something that's more UFO like yeah

415

00:19:04,990 --> 00:19:03,350

and I think a lot of the people I talk

416

00:19:06,490 --> 00:19:05,000

to who have the most passion about it

417

00:19:08,740 --> 00:19:06,500

the things that happened to them

418

00:19:11,980 --> 00:19:08,750

happened quite a long time ago like five

419

00:19:15,010 --> 00:19:11,990

or ten years ago and so over time they

420

00:19:18,850 --> 00:19:15,020

kind of layer on like more details in

421

00:19:21,790 --> 00:19:18,860

their memories that can happen and if

422

00:19:24,100 --> 00:19:21,800

they are attending conferences where

423

00:19:25,360 --> 00:19:24,110

their other which might happen where

424

00:19:28,210 --> 00:19:25,370

there are other people talking about

425

00:19:30,940 --> 00:19:28,220

their experiences that that can be a

426

00:19:33,400 --> 00:19:30,950

source of influence that affects the

427

00:19:37,750 --> 00:19:33,410

reconstruction of any one individuals

428

00:19:39,910 --> 00:19:37,760

personal story yeah and they're very

429

00:19:41,950 --> 00:19:39,920

passionate about the subject and they're

430

00:19:43,000 --> 00:19:41,960

very defensive when it comes to me

431

00:19:45,400 --> 00:19:43,010

questioning things like did you really

432

00:19:48,520 --> 00:19:45,410

remember this this this thing happening

433

00:19:50,770 --> 00:19:48,530

now you know you talks you a lot of a

434

00:19:53,380 --> 00:19:50,780

lot of juries about this type of subject

435

00:19:56,290 --> 00:19:53,390

but do you actually have you ever

436

00:19:57,760 --> 00:19:56,300

experimented with trying to fight its

437

00:19:58,180 --> 00:19:57,770

policy fight somebody's memory try to

438

00:20:01,480 --> 00:19:58,190

convince

439

00:20:03,090 --> 00:20:01,490

somebody that they didn't have this this

440

00:20:05,710 --> 00:20:03,100

this event happened to them

441

00:20:07,720 --> 00:20:05,720

not with a group of people that you are

442

00:20:09,850 --> 00:20:07,730

interested in but this is in our

443

00:20:12,100 --> 00:20:09,860

experiments this is exactly what we have

444

00:20:14,710 --> 00:20:12,110

to do we've taken people through a

445

00:20:17,320 --> 00:20:14,720

process where we've successfully planted

446

00:20:20,619 --> 00:20:17,330

a false memory and now at the end of the

447

00:20:23,049 --> 00:20:20,629

experiment we have to convince debrief

448

00:20:26,799 --> 00:20:23,059

them and tell them guess what we

449

00:20:28,450 --> 00:20:26,809

deceived you and you weren't really lost

450

00:20:31,749 --> 00:20:28,460

in the mall or you weren't really

451

00:20:33,909 --> 00:20:31,759

attacked by an animal or you didn't

452

00:20:39,190 --> 00:20:33,919

really almost drown and have to be

453

00:20:40,930 --> 00:20:39,200

rescued and so we that's what debriefing

454

00:20:44,019 --> 00:20:40,940

at the end of an experiment is all about

455

00:20:47,019 --> 00:20:44,029

trying to convince somebody that the

456

00:20:49,899 --> 00:20:47,029

memory that we helped them create is not

457

00:20:53,409 --> 00:20:49,909

real and of course most people accept

458

00:20:55,889 --> 00:20:53,419

that information you know that they're

459

00:20:59,980 --> 00:20:55,899

often fascinated by the whole process

460

00:21:02,289 --> 00:20:59,990

and then they leave the experiment yeah

461

00:21:05,049 --> 00:21:02,299

I have almost admit I had very little

462

00:21:06,430 --> 00:21:05,059

luck doing that with people who you know

463

00:21:07,930 --> 00:21:06,440

I didn't implant false memories in them

464

00:21:10,210 --> 00:21:07,940

of course they actually have some kind

465

00:21:13,629 --> 00:21:10,220

of experience years ago that has evolved

466

00:21:15,190 --> 00:21:13,639

into this memory and if I try to

467

00:21:17,049 --> 00:21:15,200

question us at all they get very very

468

00:21:18,940 --> 00:21:17,059

defensive and say it's you know I know

469

00:21:21,310 --> 00:21:18,950

what I saw I think the most common thing

470

00:21:23,379 --> 00:21:21,320

that they tell me this is something that

471

00:21:26,409 --> 00:21:23,389

happens with another conspiracy theory

472

00:21:28,149 --> 00:21:26,419

the the chemtrails conspiracy theory I

473

00:21:30,490 --> 00:21:28,159

don't if you familiar with chemtrails

474

00:21:32,080 --> 00:21:30,500

it's the idea that these the the

475

00:21:33,820 --> 00:21:32,090

condensation trails the white lines

476

00:21:35,950 --> 00:21:33,830

behind planes are some kind of

477

00:21:38,350 --> 00:21:35,960

deliberate spraying by by the government

478

00:21:40,419 --> 00:21:38,360

it's a surprisingly common conspiracy

479

00:21:43,720 --> 00:21:40,429

theory like you know those millions of

480

00:21:45,340 --> 00:21:43,730

people give it some credence but when

481

00:21:47,350 --> 00:21:45,350

memory comes into play here is that

482

00:21:50,499 --> 00:21:47,360

people say they don't remember these

483

00:21:52,539 --> 00:21:50,509

lines behind planes ever persisting

484

00:21:55,119 --> 00:21:52,549

because they think they're normally they

485

00:21:57,310 --> 00:21:55,129

let the flame flies by and then the

486

00:21:59,230 --> 00:21:57,320

trail just evaporates in a few a few

487

00:22:00,820 --> 00:21:59,240

seconds or a few minutes when what

488

00:22:02,529 --> 00:22:00,830

actually happens is sometimes if the

489

00:22:04,720 --> 00:22:02,539

atmospheric conditions are right you can

490

00:22:06,730 --> 00:22:04,730

spread out into a cloud and sometimes

491

00:22:09,070 --> 00:22:06,740

like a whole bunch of them can can join

492

00:22:11,499 --> 00:22:09,080

together and cover the sky and they

493

00:22:13,210 --> 00:22:11,509

claim they never remember seeing this

494

00:22:15,340 --> 00:22:13,220

before

495

00:22:17,020 --> 00:22:15,350

and I think you know what it is it's

496

00:22:19,210 --> 00:22:17,030

just they were never paying attention to

497

00:22:21,640 --> 00:22:19,220

it before and then they do pay attention

498

00:22:24,460 --> 00:22:21,650

to it and it's something that they just

499

00:22:26,860 --> 00:22:24,470

haven't noticed but since it's there in

500

00:22:28,510 --> 00:22:26,870

the sky all the time how can people you

501
00:22:30,550 --> 00:22:28,520
know how can you convey to people that

502
00:22:32,410 --> 00:22:30,560
they just haven't noticed it for twenty

503
00:22:33,700 --> 00:22:32,420
years and then they just notice it one

504
00:22:37,630 --> 00:22:33,710
day even though it was there all the

505
00:22:40,360 --> 00:22:37,640
time well I worked on a few cases where

506
00:22:42,160 --> 00:22:40,370
the key issue is why did somebody not

507
00:22:46,870 --> 00:22:42,170
notice something that seemed very

508
00:22:50,160 --> 00:22:46,880
obvious not your thing but why did some

509
00:22:53,590 --> 00:22:50,170
why did a police officer not notice when

510
00:22:56,560 --> 00:22:53,600
somebody was fighting over here and if

511
00:22:59,350 --> 00:22:56,570
you're paying attention over here in a

512
00:23:01,150 --> 00:22:59,360
different location and you can be paying

513
00:23:03,700 --> 00:23:01,160

attention to something even that's

514

00:23:06,820 --> 00:23:03,710

rather innocuous you can miss something

515

00:23:10,120 --> 00:23:06,830

very obvious and the best demonstration

516

00:23:13,720 --> 00:23:10,130

of that I think is that you know about

517

00:23:16,060 --> 00:23:13,730

the invisible gorilla I do oh you're

518

00:23:18,700 --> 00:23:16,070

you're watching and you you're supposed

519

00:23:20,680 --> 00:23:18,710

to be counting the passes of the players

520

00:23:23,980 --> 00:23:20,690

with the white shirts and you missive a

521

00:23:26,200 --> 00:23:23,990

big black gorilla that walks right

522

00:23:30,570 --> 00:23:26,210

through the center of the basketball

523

00:23:33,880 --> 00:23:30,580

game that is a perfect example of how

524

00:23:36,520 --> 00:23:33,890

inattentional blindness as as we call it

525

00:23:38,530 --> 00:23:36,530

mmm but you can if you're not paying

526

00:23:41,320 --> 00:23:38,540

attention and you're concentrating on

527

00:23:44,440 --> 00:23:41,330

something else you can miss a whole lot

528

00:23:46,660 --> 00:23:44,450

of things yes that's a great example I

529

00:23:48,130 --> 00:23:46,670

loved that when I I was sad that I

530

00:23:50,140 --> 00:23:48,140

didn't actually work on me the first

531

00:23:52,000 --> 00:23:50,150

time because I had someone that you got

532

00:23:54,460 --> 00:23:52,010

told me like there's a gorilla that I

533

00:23:57,600 --> 00:23:54,470

missed out on the experience but I can

534

00:24:02,560 --> 00:23:57,610

totally see it happening well I

535

00:24:05,770 --> 00:24:02,570

experienced you because I saw a talk

536

00:24:08,200 --> 00:24:05,780

last summer by one of the I went to a

537

00:24:10,230 --> 00:24:08,210

conference last summer on the psychology

538

00:24:12,610 --> 00:24:10,240

of magic and they brought together

539

00:24:15,010 --> 00:24:12,620

cognitive psychologists like me and

540

00:24:17,860 --> 00:24:15,020

magicians to share our experiences and

541

00:24:20,580 --> 00:24:17,870

learn from each other and one of the

542

00:24:25,350 --> 00:24:20,590

inventors of the invisible gorilla

543

00:24:27,630 --> 00:24:25,360

started his talk and you see and

544

00:24:29,940 --> 00:24:27,640

see these players playing back throwing

545

00:24:31,650 --> 00:24:29,950

the ball back and forth and I thought to

546

00:24:33,480 --> 00:24:31,660

myself this is not gonna work everybody

547

00:24:35,400 --> 00:24:33,490

knows about the invisible gorilla

548

00:24:39,480 --> 00:24:35,410

they're gonna see the gorilla just as

549

00:24:42,539 --> 00:24:39,490

you did but the surprise is something

550

00:24:45,120 --> 00:24:42,549

else changed so there you are looking at

551
00:24:49,110 --> 00:24:45,130
the gorilla because you know about it

552
00:24:51,870 --> 00:24:49,120
and the curtain behind these players

553
00:24:54,270 --> 00:24:51,880
changes colors and a big lion appears on

554
00:24:56,520 --> 00:24:54,280
the curtain and people don't notice so

555
00:24:59,340 --> 00:24:56,530
you'll be tricked into having the

556
00:25:01,380 --> 00:24:59,350
experience in some other way it is quite

557
00:25:02,820 --> 00:25:01,390
amazing how you can miss things like

558
00:25:04,710 --> 00:25:02,830
this there's another example I think was

559
00:25:07,200 --> 00:25:04,720
a guy giving doing a card trick on a

560
00:25:10,110 --> 00:25:07,210
table and he's saying you know to try to

561
00:25:12,450 --> 00:25:10,120
spot the trick and he he he changes the

562
00:25:14,250 --> 00:25:12,460
color of his shirt three times during

563
00:25:15,900 --> 00:25:14,260

the demonstration but you don't notice

564

00:25:18,390 --> 00:25:15,910

that because you're focusing on on the

565

00:25:21,840 --> 00:25:18,400

cards so yeah there it is very dramatic

566

00:25:23,520 --> 00:25:21,850

examples do you think there's have you

567

00:25:25,020 --> 00:25:23,530

found it useful to show examples like

568

00:25:27,470 --> 00:25:25,030

this to people and say look how you can

569

00:25:31,260 --> 00:25:27,480

be tricked and maybe you've been tricked

570

00:25:34,560 --> 00:25:31,270

well in the case I was testifying on

571

00:25:36,900 --> 00:25:34,570

behalf of an officer who was being

572

00:25:39,900 --> 00:25:36,910

reprimanded and potentially losing his

573

00:25:42,480 --> 00:25:39,910

job because he failed to report a fight

574

00:25:47,039 --> 00:25:42,490

that he people thought he should have

575

00:25:49,200 --> 00:25:47,049

seen and reported and his defense was

576

00:25:52,440 --> 00:25:49,210

that look I was concentrating over he

577

00:25:55,320 --> 00:25:52,450

over here that's why I didn't notice it

578

00:26:00,180 --> 00:25:55,330

didn't report it and we actually showed

579

00:26:03,090 --> 00:26:00,190

the gorilla tape to the judge who then

580

00:26:05,549 --> 00:26:03,100

acquitted this officer really

581

00:26:07,650 --> 00:26:05,559

that's quite a quite amazing yeah it's

582

00:26:09,690 --> 00:26:07,660

it's sometimes difficult to get people

583

00:26:12,210 --> 00:26:09,700

to watch things you know the people I

584

00:26:13,650 --> 00:26:12,220

deal with a more conspiracy mindless or

585

00:26:16,169 --> 00:26:13,660

they're very suspicious of me they think

586

00:26:18,630 --> 00:26:16,179

that I'm trying to brainwash them and so

587

00:26:21,000 --> 00:26:18,640

when I question things like their memory

588

00:26:23,190 --> 00:26:21,010

they think this I'm trying to somehow

589

00:26:25,289 --> 00:26:23,200

get inside their brain and mess with

590

00:26:27,690 --> 00:26:25,299

them so I think the more kind of mutual

591

00:26:30,630 --> 00:26:27,700

things that I can give them to give give

592

00:26:32,700 --> 00:26:30,640

examples the better well here's a

593

00:26:35,549 --> 00:26:32,710

thought for you

594

00:26:38,460 --> 00:26:35,559

on this issue that you're talking about

595

00:26:41,789 --> 00:26:38,470

here of not being able to

596

00:26:44,909 --> 00:26:41,799

persuade these believers not being able

597

00:26:46,769 --> 00:26:44,919

to budge them in fact we could just

598

00:26:49,139 --> 00:26:46,779

brainstorm about this other experience

599

00:26:52,409 --> 00:26:49,149

that I've had I have been for a long

600

00:26:54,930 --> 00:26:52,419

time working on these cases where let's

601
00:26:57,840 --> 00:26:54,940
say a woman goes to a therapist she's

602
00:27:00,029 --> 00:26:57,850
got an eating disorder she's depressed

603
00:27:01,590 --> 00:27:00,039
and the therapist says you know everyone

604
00:27:03,509 --> 00:27:01,600
I've seen with those symptoms was

605
00:27:05,249 --> 00:27:03,519
sexually abused as a child maybe

606
00:27:08,269 --> 00:27:05,259
something like that happened to you and

607
00:27:10,680 --> 00:27:08,279
there begins this suggestive process

608
00:27:13,259 --> 00:27:10,690
well let's just close your eyes and

609
00:27:17,039 --> 00:27:13,269
imagine who might have done this and the

610
00:27:21,529 --> 00:27:17,049
woman is led to to believe and think and

611
00:27:26,190 --> 00:27:21,539
even remember extensive brutalization

612
00:27:29,759 --> 00:27:26,200
and then accuse family members ruin the

613
00:27:33,379 --> 00:27:29,769

whole family dynamic create a mess of a

614

00:27:35,759 --> 00:27:33,389

situation there and at some point

615

00:27:39,629 --> 00:27:35,769

hundreds of there thousands of these

616

00:27:41,580 --> 00:27:39,639

cases but hundreds of these people have

617

00:27:44,639 --> 00:27:41,590

started to realize their memories are

618

00:27:47,129 --> 00:27:44,649

false so how does that happen they call

619

00:27:49,519 --> 00:27:47,139

themselves to retractors how does that

620

00:27:52,680 --> 00:27:49,529

happen well one thing that happens is

621

00:27:55,350 --> 00:27:52,690

their health insurance runs out so they

622

00:27:57,389 --> 00:27:55,360

can no longer go every week to see the

623

00:28:00,810 --> 00:27:57,399

therapist that is propping up this

624

00:28:03,570 --> 00:28:00,820

belief system but short of that

625

00:28:06,509 --> 00:28:03,580

sometimes they'll see other people on TV

626
00:28:08,549 --> 00:28:06,519
for example talking about how they went

627
00:28:11,129 --> 00:28:08,559
through this suggestive therapy process

628
00:28:14,700 --> 00:28:11,139
and now realize what it did to them and

629
00:28:17,460 --> 00:28:14,710
they'll start to identify with another

630
00:28:20,129 --> 00:28:17,470
retractor and I don't know whether

631
00:28:21,539 --> 00:28:20,139
there's anything you can learn by taking

632
00:28:23,580 --> 00:28:21,549
a look at some of the studies of

633
00:28:25,830 --> 00:28:23,590
retractors and how do they get to that

634
00:28:29,310 --> 00:28:25,840
point and think about whether there's

635
00:28:31,409 --> 00:28:29,320
any I mean anything yeah I mean you can

636
00:28:34,680 --> 00:28:31,419
do you can't take these people out of

637
00:28:36,419 --> 00:28:34,690
their support group yeah they're

638
00:28:38,070 --> 00:28:36,429

probably not gonna let you do that but

639

00:28:41,249 --> 00:28:38,080

maybe there are some other things you

640

00:28:42,690 --> 00:28:41,259

can learn from the retractors that's

641

00:28:45,180 --> 00:28:42,700

very interesting I never heard the term

642

00:28:47,580 --> 00:28:45,190

retractor before as a group so

643

00:28:50,279 --> 00:28:47,590

interesting to kind of see and watch

644

00:28:51,290 --> 00:28:50,289

what the common factors are there I do

645

00:28:54,260 --> 00:28:51,300

know that

646

00:28:56,480 --> 00:28:54,270

being exposed to people like conspiracy

647

00:28:58,400 --> 00:28:56,490

theorists being exposed to people who

648

00:29:00,980 --> 00:28:58,410

were once conspiracy theorists and now

649

00:29:03,440 --> 00:29:00,990

are not is very useful in giving them

650

00:29:05,930 --> 00:29:03,450

some perspective but it takes a long

651
00:29:07,430 --> 00:29:05,940
time for them to come around but what

652
00:29:09,020 --> 00:29:07,440
we're talking about with people

653
00:29:10,820 --> 00:29:09,030
realizing their memories might be faulty

654
00:29:13,370 --> 00:29:10,830
seems very very similar to people

655
00:29:15,110 --> 00:29:13,380
realizing their conspiracy beliefs might

656
00:29:17,050 --> 00:29:15,120
be faulty the way they kind of get out

657
00:29:20,240 --> 00:29:17,060
there escaping the rabbit hole of

658
00:29:22,400 --> 00:29:20,250
conspiracy beliefs it's kind of seems

659
00:29:26,570 --> 00:29:22,410
like there might be some quite strong

660
00:29:29,000 --> 00:29:26,580
parallels there with the right and so

661
00:29:31,460 --> 00:29:29,010
the the lesson for you maybe is maybe

662
00:29:35,180 --> 00:29:31,470
you should have some of these former

663
00:29:39,380 --> 00:29:35,190

believers on your on your program yeah I

664

00:29:41,990 --> 00:29:39,390

did idea maybe get some of your your

665

00:29:43,490 --> 00:29:42,000

podcast friends to interview them

666

00:29:46,100 --> 00:29:43,500

because you're yeah because you know

667

00:29:47,870 --> 00:29:46,110

yeah they're you know the believers are

668

00:29:50,810 --> 00:29:47,880

suspicious of you they might not listen

669

00:29:52,850 --> 00:29:50,820

all the way through but you know just if

670

00:29:57,890 --> 00:29:52,860

you want to showcase and feature some of

671

00:30:00,710 --> 00:29:57,900

these former believers and yeah that may

672

00:30:02,390 --> 00:30:00,720

be a way to get somewhere yeah I do

673

00:30:04,400 --> 00:30:02,400

actually try to do that and I've had a

674

00:30:09,830 --> 00:30:04,410

few people on the show who believe in in

675

00:30:11,570 --> 00:30:09,840

various things like 9/11 being a inside

676

00:30:13,360 --> 00:30:11,580

job of some sort and the chemtrail

677

00:30:15,980 --> 00:30:13,370

people have had a few of those people on

678

00:30:18,020 --> 00:30:15,990

and they're very interesting to talk to

679

00:30:19,820 --> 00:30:18,030

and I think it's quite useful for other

680

00:30:24,020 --> 00:30:19,830

people to to view those and have some

681

00:30:27,170 --> 00:30:24,030

kind of perspective on it I want to talk

682

00:30:29,960 --> 00:30:27,180

to you about a recent conspiracy theory

683

00:30:32,570 --> 00:30:29,970

is the Jeffrey Epstein conspiracy theory

684

00:30:35,810 --> 00:30:32,580

saying that he he was murdered and not

685

00:30:37,760 --> 00:30:35,820

not so much that part of it the there

686

00:30:41,420 --> 00:30:37,770

are people who are accusing Jeffrey

687

00:30:44,210 --> 00:30:41,430

Epstein of various things that happened

688

00:30:47,270 --> 00:30:44,220

on his his Island with various people

689

00:30:49,070 --> 00:30:47,280

and you know there were going to be

690

00:30:51,530 --> 00:30:49,080

people who say that either they're

691

00:30:54,470 --> 00:30:51,540

making it up or they're missing mister

692

00:30:57,500 --> 00:30:54,480

remembering it and this is a very touchy

693

00:30:59,780 --> 00:30:57,510

subject for a lot of people and I know

694

00:31:02,000 --> 00:30:59,790

you have a lot of personal experience

695

00:31:05,510 --> 00:31:02,010

with with being attacked because of your

696

00:31:08,060 --> 00:31:05,520

work on

697

00:31:11,380 --> 00:31:08,070

recovered memory like a childhood sexual

698

00:31:14,600 --> 00:31:11,390

abuse and things like that how do you

699

00:31:16,220 --> 00:31:14,610

delicately bring up the subject how do

700

00:31:20,330 --> 00:31:16,230

you get around this this kind of almost

701
00:31:23,300 --> 00:31:20,340
instant rejection of of any kind of

702
00:31:27,770 --> 00:31:23,310
suspicion of recovering memories well

703
00:31:30,380 --> 00:31:27,780
that that's a long question I'm not sure

704
00:31:32,630 --> 00:31:30,390
which part of it to answer well we'll

705
00:31:35,710 --> 00:31:32,640
start with Epstein I I have only

706
00:31:41,770 --> 00:31:35,720
newspaper knowledge about that case

707
00:31:44,150 --> 00:31:41,780
although I I am a you know a friendly

708
00:31:47,750 --> 00:31:44,160
friendly acquaintance with Alan

709
00:31:51,320 --> 00:31:47,760
Dershowitz who himself has been accused

710
00:31:58,790 --> 00:31:51,330
of abuse in the context of the epstein

711
00:32:02,390 --> 00:31:58,800
world he's written an amazing op-ed

712
00:32:04,670 --> 00:32:02,400
piece about how he's innocent he how

713
00:32:07,100 --> 00:32:04,680

hard it is to defend yourself when you

714

00:32:11,900 --> 00:32:07,110

when in this especially in this climate

715

00:32:15,440 --> 00:32:11,910

and and I tend to believe him but again

716

00:32:19,790 --> 00:32:15,450

I have only newspaper that's just one

717

00:32:25,040 --> 00:32:19,800

person's situation attached to Epstein I

718

00:32:29,120 --> 00:32:25,050

get involved in lots of cases where the

719

00:32:33,020 --> 00:32:29,130

defense says it didn't happen somebody

720

00:32:36,830 --> 00:32:33,030

is making an accusation and usually I

721

00:32:39,680 --> 00:32:36,840

talk about art again are there factors

722

00:32:43,760 --> 00:32:39,690

in this situation that could be

723

00:32:47,240 --> 00:32:43,770

responsible for creating a story if the

724

00:32:49,790 --> 00:32:47,250

story isn't true if it didn't happen and

725

00:32:54,140 --> 00:32:49,800

I'm looking to see was there suggestive

726

00:32:56,930 --> 00:32:54,150

psychotherapy did this person start

727

00:33:00,740 --> 00:32:56,940

reading books that suggested that

728

00:33:02,510 --> 00:33:00,750

certain things had happened to them did

729

00:33:04,670 --> 00:33:02,520

this person go to group therapy and

730

00:33:06,560 --> 00:33:04,680

start to pick up details from other

731

00:33:09,350 --> 00:33:06,570

people's stories that weren't there

732

00:33:13,310 --> 00:33:09,360

before did the story change from one

733

00:33:16,310 --> 00:33:13,320

point in time to another looking for

734

00:33:18,000 --> 00:33:16,320

kind of red flags in in the particular

735

00:33:19,980 --> 00:33:18,010

situation

736

00:33:23,190 --> 00:33:19,990

and then the other thing that I often do

737

00:33:26,520 --> 00:33:23,200

in these court cases is there's you

738

00:33:28,799 --> 00:33:26,530

often a prosecution expert who in one

739

00:33:30,930 --> 00:33:28,809

way or another is saying I talked to the

740

00:33:34,460 --> 00:33:30,940

accuser and I believe our memories are

741

00:33:36,840 --> 00:33:34,470

real well we have no business doing that

742

00:33:38,789 --> 00:33:36,850

because without independent

743

00:33:40,799 --> 00:33:38,799

corroboration you can't know whether

744

00:33:43,940 --> 00:33:40,809

you're dealing with a real memory or one

745

00:33:47,510 --> 00:33:43,950

that is a product of imagination

746

00:33:52,460 --> 00:33:47,520

suggestion or some other process so

747

00:33:57,169 --> 00:33:52,470

sometimes I'm involved in a as an expert

748

00:34:00,060 --> 00:33:57,179

in a challenge to an opposing experts

749

00:34:04,409 --> 00:34:00,070

misrepresentations of the science or Mis

750

00:34:07,320 --> 00:34:04,419

statements of fact yeah must be very

751

00:34:10,109 --> 00:34:07,330

difficult that you know some some woman

752

00:34:13,609 --> 00:34:10,119

makes an accusation against someone

753

00:34:16,550 --> 00:34:13,619

based on what she says is her memory and

754

00:34:18,960 --> 00:34:16,560

people are going to be defending her and

755

00:34:20,639 --> 00:34:18,970

if you then say or perhaps you're

756

00:34:22,200 --> 00:34:20,649

misremembering this or you know you're

757

00:34:23,639 --> 00:34:22,210

kind of making things up to some degree

758

00:34:24,000 --> 00:34:23,649

and you've misremembered it over the

759

00:34:25,859 --> 00:34:24,010

years

760

00:34:27,629 --> 00:34:25,869

then the defenders are going to say

761

00:34:30,480 --> 00:34:27,639

that's some kind of attack against this

762

00:34:32,879 --> 00:34:30,490

person and then they're going to be

763

00:34:35,669 --> 00:34:32,889

personally angry at you for attacking

764

00:34:40,859 --> 00:34:35,679

this person how do you how do you deal

765

00:34:43,580 --> 00:34:40,869

with you know that happens and and you

766

00:34:47,369 --> 00:34:43,590

know I have to you know I try to say

767

00:34:52,379 --> 00:34:47,379

even if you're dealing with a person who

768

00:34:55,590 --> 00:34:52,389

did abuse someone even if there was an

769

00:34:57,660 --> 00:34:55,600

example of abuse it doesn't mean that a

770

00:35:00,060 --> 00:34:57,670

hundred other people get to walk up to

771

00:35:02,040 --> 00:35:00,070

the ATM machine and say the word abuse

772

00:35:06,540 --> 00:35:02,050

and money should spew out you have to

773

00:35:10,620 --> 00:35:06,550

look at all of these situations to to

774

00:35:12,480 --> 00:35:10,630

see whether you're dealing with an

775

00:35:14,640 --> 00:35:12,490

authentic memory or one that is a

776

00:35:17,370 --> 00:35:14,650

product of some other or process but

777

00:35:21,570 --> 00:35:17,380

I'll tell you I know it's not a

778

00:35:25,640 --> 00:35:21,580

particularly popular thing that I do

779

00:35:28,830 --> 00:35:25,650

study false memories or to worry about

780

00:35:31,590 --> 00:35:28,840

false accusations right right now we're

781

00:35:33,300 --> 00:35:31,600

in a climate that people people

782

00:35:37,590 --> 00:35:33,310

really want to talk to you about false

783

00:35:40,080 --> 00:35:37,600

accusations yeah there's the whole thing

784

00:35:45,030 --> 00:35:40,090

about false memories is relatively new

785

00:35:47,700 --> 00:35:45,040

in and in history and and that I

786

00:35:51,240 --> 00:35:47,710

remember my mother was a social worker

787

00:35:54,680 --> 00:35:51,250

in the 1970's and early 80's and she

788

00:35:56,640 --> 00:35:54,690

worked with children who were being

789

00:35:58,770 --> 00:35:56,650

abused and has to be removed from

790

00:36:00,600 --> 00:35:58,780

families and to be like get sent to

791

00:36:01,890 --> 00:36:00,610

foster families so she dealt with that

792

00:36:05,370 --> 00:36:01,900

type of thing and it was around that

793

00:36:09,450 --> 00:36:05,380

time that we had the satanic ritual

794

00:36:12,600 --> 00:36:09,460

abuse scare where people in the media

795

00:36:14,420 --> 00:36:12,610

were all getting up in arms about this

796

00:36:18,180 --> 00:36:14,430

the idea that there was this ongoing

797

00:36:23,270 --> 00:36:18,190

huge amount of satanic ritual abuse and

798

00:36:25,350 --> 00:36:23,280

the evidence for that was largely was it

799

00:36:29,090 --> 00:36:25,360

repressed memories and recovered

800

00:36:32,730 --> 00:36:29,100

memories because these were kitties

801
00:36:36,330 --> 00:36:32,740
those were those were due to highly

802
00:36:39,000 --> 00:36:36,340
suggest them coercive interviews of

803
00:36:42,510 --> 00:36:39,010
those little kids so it wasn't so much

804
00:36:46,230 --> 00:36:42,520
the days of the McMartin case and in the

805
00:36:48,450 --> 00:36:46,240
early 80s in California and then many

806
00:36:50,100 --> 00:36:48,460
other cities across the United States

807
00:36:54,120 --> 00:36:50,110
and other places had their own little

808
00:36:57,990 --> 00:36:54,130
mini McMartin and daycare workers were

809
00:36:59,730 --> 00:36:58,000
being thrown in jail and it was you know

810
00:37:01,850 --> 00:36:59,740
many of those people have now been freed

811
00:37:05,370 --> 00:37:01,860
and it's there's a recognition of the

812
00:37:07,080 --> 00:37:05,380
you know that the the abuse of memory

813
00:37:09,390 --> 00:37:07,090

was on the part of the people doing the

814

00:37:12,330 --> 00:37:09,400

interviewing yeah yeah my mother was a

815

00:37:14,310 --> 00:37:12,340

social worker in in the UK and we had

816

00:37:16,440 --> 00:37:14,320

the same thing over there in the UK with

817

00:37:17,910 --> 00:37:16,450

the different flavour but essentially

818

00:37:20,670 --> 00:37:17,920

the same thing

819

00:37:21,600 --> 00:37:20,680

so with those were children I guess it

820

00:37:23,010 --> 00:37:21,610

must be very very different with

821

00:37:25,020 --> 00:37:23,020

children because they don't really have

822

00:37:27,660 --> 00:37:25,030

the brains are very very different and

823

00:37:29,610 --> 00:37:27,670

they don't really have the same I guess

824

00:37:32,460 --> 00:37:29,620

even the same concept of memory as

825

00:37:35,400 --> 00:37:32,470

adults have well you can you can plant

826

00:37:38,670 --> 00:37:35,410

false beliefs in the minds of young

827

00:37:40,530 --> 00:37:38,680

children and it's fairly easy to do

828

00:37:42,540 --> 00:37:40,540

there's their studies out there some of

829

00:37:43,730 --> 00:37:42,550

which I've participated in where

830

00:37:46,190 --> 00:37:43,740

children have been

831

00:37:48,140 --> 00:37:46,200

led to believe and remember that they

832

00:37:49,670 --> 00:37:48,150

got their hand caught in a mousetrap and

833

00:37:52,579 --> 00:37:49,680

they had to go to a hospital to get the

834

00:37:54,530 --> 00:37:52,589

mousetrap removed very detailed

835

00:37:59,859 --> 00:37:54,540

recollection of this thing that was just

836

00:38:03,470 --> 00:37:59,869

suggested to them yeah I was just

837

00:38:07,450 --> 00:38:03,480

reminded of something else that I did

838

00:38:12,770 --> 00:38:07,460

was I once posted on a conspiracy forum

839

00:38:14,960 --> 00:38:12,780

I think at one of your talks and I asked

840

00:38:16,849 --> 00:38:14,970

people what they thought of your talk

841

00:38:17,720 --> 00:38:16,859

and it was just it was just a fairly

842

00:38:19,970 --> 00:38:17,730

straightforward one

843

00:38:21,650 --> 00:38:19,980

not so much about the the recovered

844

00:38:24,250 --> 00:38:21,660

memory of childhood abuse it was just

845

00:38:27,710 --> 00:38:24,260

about the malleability of memory and

846

00:38:31,130 --> 00:38:27,720

they were overwhelmingly very very angry

847

00:38:33,050 --> 00:38:31,140

at me for posting this this talk and I

848

00:38:35,839 --> 00:38:33,060

think they they really genuinely thought

849

00:38:39,800 --> 00:38:35,849

that I was trying to brainwash them just

850

00:38:42,349 --> 00:38:39,810

by posting a video of yours if you had

851

00:38:46,730 --> 00:38:42,359

much interaction with more extreme

852

00:38:49,070 --> 00:38:46,740

conspiracy theorists I'm not sure what

853

00:38:52,940 --> 00:38:49,080

what you mean by more extreme because

854

00:38:56,030 --> 00:38:52,950

mostly I live in this world of of people

855

00:38:59,450 --> 00:38:56,040

thinking they have recovered repressed

856

00:39:01,400 --> 00:38:59,460

memories of years of brutalization that

857

00:39:04,520 --> 00:39:01,410

were allegedly buried into the

858

00:39:07,579 --> 00:39:04,530

unconscious and and so you know mostly

859

00:39:10,010 --> 00:39:07,589

I'm thinking about that situation yeah

860

00:39:11,150 --> 00:39:10,020

yeah I think if I perhaps deal with

861

00:39:14,780 --> 00:39:11,160

people who are a little bit more a

862

00:39:16,670 --> 00:39:14,790

little bit more mmm inventive in their

863

00:39:19,570 --> 00:39:16,680

they're recovering memories wasn't very

864

00:39:22,520 --> 00:39:19,580

very simple one though you have to say

865

00:39:26,180 --> 00:39:22,530

if they remember for example you know

866

00:39:30,260 --> 00:39:26,190

being abducted by an alien or at least

867

00:39:32,630 --> 00:39:30,270

they're not suing et like they're suing

868

00:39:34,480 --> 00:39:32,640

their parents and their other relatives

869

00:39:38,450 --> 00:39:34,490

and their former neighbors and whatever

870

00:39:42,170 --> 00:39:38,460

yeah so it doesn't create that level of

871

00:39:44,390 --> 00:39:42,180

havoc in the community yeah UFOs I think

872

00:39:46,250 --> 00:39:44,400

it relatively harmless some of them yeah

873

00:39:47,270 --> 00:39:46,260

some of the other conspiracy theories

874

00:39:48,530 --> 00:39:47,280

are a bit more harmful like the

875

00:39:50,089 --> 00:39:48,540

chemtrails thing people think that

876
00:39:51,920 --> 00:39:50,099
they're being poisoned and so they start

877
00:39:54,770 --> 00:39:51,930
taking these remedies for chemtrail

878
00:39:56,750 --> 00:39:54,780
poisoning one thing with the chemtrails

879
00:39:57,750 --> 00:39:56,760
which was interesting is that people

880
00:40:01,410 --> 00:39:57,760
stayed

881
00:40:04,290 --> 00:40:01,420
the sky was a lot more blue in the past

882
00:40:06,960 --> 00:40:04,300
and I did a little bit of research into

883
00:40:09,000 --> 00:40:06,970
this and I saw some studies where they

884
00:40:12,540 --> 00:40:09,010
said that people remember color more

885
00:40:14,670 --> 00:40:12,550
vividly as time goes by if it's if they

886
00:40:16,560 --> 00:40:14,680
try to recall a color it actually gets

887
00:40:18,810 --> 00:40:16,570
bluer and bluer with time is that

888
00:40:20,610 --> 00:40:18,820

something you've come across never I

889

00:40:22,920 --> 00:40:20,620

haven't seen that fine that kind of

890

00:40:24,570 --> 00:40:22,930

interesting but I'd like to see the

891

00:40:28,320 --> 00:40:24,580

study and know whether it was replicated

892

00:40:29,940 --> 00:40:28,330

and yes I should also send it to you

893

00:40:32,160 --> 00:40:29,950

because it was a fascinating thing it

894

00:40:34,710 --> 00:40:32,170

and it was specifically with blue as

895

00:40:37,320 --> 00:40:34,720

well blue is when the colors that got

896

00:40:39,990 --> 00:40:37,330

more vibrant with time and that you know

897

00:40:42,020 --> 00:40:40,000

people's actually there's actually an

898

00:40:44,880 --> 00:40:42,030

explanation for why people remember this

899

00:40:48,750 --> 00:40:44,890

and another thing I don't if you've

900

00:40:51,270 --> 00:40:48,760

heard of the the Mandela effect yes yeah

901
00:40:55,290 --> 00:40:51,280
what do you think is what kind of

902
00:40:57,300 --> 00:40:55,300
psychological factors are behind that so

903
00:40:59,970 --> 00:40:57,310
I'm assuming you you're referring to the

904
00:41:02,310 --> 00:40:59,980
idea that many people have a belief like

905
00:41:05,250 --> 00:41:02,320
that Mandela died in prison or something

906
00:41:09,620 --> 00:41:05,260
and in fact he didn't die until much

907
00:41:13,470 --> 00:41:09,630
later when he was out of prison and

908
00:41:16,170 --> 00:41:13,480
these well we could make a distinction

909
00:41:20,040 --> 00:41:16,180
between a belief about the world a

910
00:41:23,880 --> 00:41:20,050
belief and a memory for your own

911
00:41:25,680 --> 00:41:23,890
personal experience hmm I study people's

912
00:41:27,300 --> 00:41:25,690
memories for their own personal

913
00:41:29,820 --> 00:41:27,310

experience and how you can contaminate

914

00:41:32,820 --> 00:41:29,830

and distort them I think it would be

915

00:41:35,280 --> 00:41:32,830

even easier to distort a belief about

916

00:41:37,830 --> 00:41:35,290

the world you just need some highly

917

00:41:41,250 --> 00:41:37,840

credible people to utter the the belief

918

00:41:43,770 --> 00:41:41,260

and utter it with confidence and give a

919

00:41:46,140 --> 00:41:43,780

lot of detail to it and others others

920

00:41:49,740 --> 00:41:46,150

will follow and you don't have your own

921

00:41:53,940 --> 00:41:49,750

personal experience to but against it

922

00:41:57,090 --> 00:41:53,950

and to to challenge it so the idea that

923

00:42:00,570 --> 00:41:57,100

somebody could utter the belief and talk

924

00:42:04,350 --> 00:42:00,580

about it convince other people oh yeah

925

00:42:05,460 --> 00:42:04,360

doesn't seem too surprising and that's

926

00:42:07,740 --> 00:42:05,470

what's very much what I see with

927

00:42:10,620 --> 00:42:07,750

conspiracy theorists it's people are

928

00:42:13,289 --> 00:42:10,630

kind of having a belief implanted in the

929

00:42:14,789 --> 00:42:13,299

their brains and they think that it's

930

00:42:16,200 --> 00:42:14,799

backed with evidence but it's because

931

00:42:19,079 --> 00:42:16,210

they've only seen like this one set of

932

00:42:20,729 --> 00:42:19,089

evidence that people have presented them

933

00:42:22,829 --> 00:42:20,739

and I guess in a way it's kind of

934

00:42:24,420 --> 00:42:22,839

similar to implanting a memory

935

00:42:25,440 --> 00:42:24,430

implanting a belief I never really

936

00:42:27,630 --> 00:42:25,450

thought about before

937

00:42:29,880 --> 00:42:27,640

that's very interesting you know the

938

00:42:32,640 --> 00:42:29,890

Mandela effect people remember all kinds

939

00:42:36,359 --> 00:42:32,650

of strange things that they think they

940

00:42:39,089 --> 00:42:36,369

remember seeing but it weren't actually

941

00:42:40,680 --> 00:42:39,099

true and then from that they get the

942

00:42:42,210 --> 00:42:40,690

idea that there's some kind of the

943

00:42:43,859 --> 00:42:42,220

living in some kind of alternate reality

944

00:42:48,059 --> 00:42:43,869

or some kind of computer matrix or

945

00:42:53,579 --> 00:42:48,069

something yes like following on from

946

00:42:55,680 --> 00:42:53,589

that like evolutionary reasons why

947

00:42:57,690 --> 00:42:55,690

people do these things these little

948

00:43:01,170 --> 00:42:57,700

little tricks of the of the memory

949

00:43:04,049 --> 00:43:01,180

they're like reasons why that the people

950

00:43:05,719 --> 00:43:04,059

here have evolved to do it and there are

951

00:43:08,729 --> 00:43:05,729

ways we can actually use that

952

00:43:12,660 --> 00:43:08,739

evolutionary basis of memory to help

953

00:43:14,969 --> 00:43:12,670

help fix it I I could say something

954

00:43:17,370 --> 00:43:14,979

about that because because psychologists

955

00:43:20,009 --> 00:43:17,380

who study memory distortion are often

956

00:43:21,930 --> 00:43:20,019

asked you know why would we be created

957

00:43:23,759 --> 00:43:21,940

this way why would God or Darwin

958

00:43:27,029 --> 00:43:23,769

whatever your theory is there have

959

00:43:31,589 --> 00:43:27,039

created our memories to be susceptible

960

00:43:34,469 --> 00:43:31,599

to contamination and and and change and

961

00:43:37,680 --> 00:43:34,479

some of the answers that psychologists

962

00:43:40,890 --> 00:43:37,690

have given go a lot like this well first

963

00:43:44,309 --> 00:43:40,900

of all this malleable system means that

964

00:43:47,759 --> 00:43:44,319

if a spontaneous error enters your

965

00:43:50,370 --> 00:43:47,769

memory system you can update with

966

00:43:52,529 --> 00:43:50,380

accurate information when you learn it's

967

00:43:54,269 --> 00:43:52,539

wrong and this is what's right you can

968

00:43:59,099 --> 00:43:54,279

update your memory and that updating

969

00:44:02,370 --> 00:43:59,109

ability would be valuable other people

970

00:44:05,969 --> 00:44:02,380

have said that sometimes a distorted

971

00:44:08,789 --> 00:44:05,979

memory actually is good for you I mean

972

00:44:11,670 --> 00:44:08,799

we have for example people in general

973

00:44:13,589 --> 00:44:11,680

believe that they got grades that were

974

00:44:16,229 --> 00:44:13,599

better than they really did or they gave

975

00:44:17,999 --> 00:44:16,239

more to charity than they really did or

976

00:44:19,950 --> 00:44:18,009

their kids walked and talked in an

977

00:44:22,019 --> 00:44:19,960

earlier age and then they really did or

978

00:44:24,270 --> 00:44:22,029

they voted in elections that they didn't

979

00:44:26,220 --> 00:44:24,280

vote in we have these press

980

00:44:30,330 --> 00:44:26,230

these enhancing memory distortions that

981

00:44:32,010 --> 00:44:30,340

are very common why they allow us to

982

00:44:34,460 --> 00:44:32,020

feel a little better about ourselves

983

00:44:37,590 --> 00:44:34,470

maybe make us a little happier and

984

00:44:40,530 --> 00:44:37,600

interestingly / depressed people don't

985

00:44:43,710 --> 00:44:40,540

do that as much so maybe this malleable

986

00:44:48,210 --> 00:44:43,720

system is one then has this kind of

987

00:44:49,680 --> 00:44:48,220

benefit and then the last point and this

988

00:44:52,650 --> 00:44:49,690

is a point that has really been

989

00:44:57,000 --> 00:44:52,660

developed by Dan Schachter a memory

990

00:45:00,570 --> 00:44:57,010

scientists also teaching at Harvard the

991

00:45:03,180 --> 00:45:00,580

same system that's involved in memory is

992

00:45:06,650 --> 00:45:03,190

also involved the same brain structures

993

00:45:09,210 --> 00:45:06,660

and so on in anticipating the future or

994

00:45:12,480 --> 00:45:09,220

anticipating different possible futures

995

00:45:14,790 --> 00:45:12,490

and you do want flexibility there to be

996

00:45:18,870 --> 00:45:14,800

able to imagine different possible

997

00:45:21,960 --> 00:45:18,880

futures and plan for things that could

998

00:45:23,840 --> 00:45:21,970

happen and this flexible system that

999

00:45:27,380 --> 00:45:23,850

works in the past and in the future

1000

00:45:31,890 --> 00:45:27,390

might be a system that works well for

1001
00:45:33,900 --> 00:45:31,900
good planning for the future so I'm just

1002
00:45:37,140 --> 00:45:33,910
telling you some of the ways that I and

1003
00:45:40,110 --> 00:45:37,150
others have talked about why would we be

1004
00:45:42,090 --> 00:45:40,120
created with a memory though that works

1005
00:45:43,920 --> 00:45:42,100
like this yeah that's fascinating

1006
00:45:45,750 --> 00:45:43,930
because a lot of what you were saying

1007
00:45:48,980 --> 00:45:45,760
that kind of resonated with what I've

1008
00:45:51,360 --> 00:45:48,990
read about people forming false beliefs

1009
00:45:53,490 --> 00:45:51,370
especially in the conspiracy community

1010
00:45:54,990 --> 00:45:53,500
and like they they form a false belief

1011
00:45:58,440 --> 00:45:55,000
and in a way it makes them feel better

1012
00:46:00,390 --> 00:45:58,450
about themselves and the people form

1013
00:46:03,390 --> 00:46:00,400

false memories or they exaggerate their

1014

00:46:06,060 --> 00:46:03,400

memories for similar reasons it's almost

1015

00:46:08,250 --> 00:46:06,070

kind of a little brain chemistry thing

1016

00:46:10,170 --> 00:46:08,260

like a little dopamine type type hit if

1017

00:46:12,090 --> 00:46:10,180

you get some kind of you know good

1018

00:46:13,860 --> 00:46:12,100

memory about yourself or you have formed

1019

00:46:17,250 --> 00:46:13,870

some belief that makes makes you feel

1020

00:46:18,150 --> 00:46:17,260

better about yourself I think yes it's

1021

00:46:19,680 --> 00:46:18,160

really interesting I think there are a

1022

00:46:22,320 --> 00:46:19,690

lot of other parallels that I'm gonna

1023

00:46:24,450 --> 00:46:22,330

have to look into this more the

1024

00:46:27,470 --> 00:46:24,460

parallels between the malleability and

1025

00:46:30,540 --> 00:46:27,480

memory and the malleability of belief

1026

00:46:33,300 --> 00:46:30,550

you know it can affect base belief

1027

00:46:34,560 --> 00:46:33,310

rather than memory based belief very

1028

00:46:36,510 --> 00:46:34,570

interesting

1029

00:46:38,910 --> 00:46:36,520

the the you know the thing to keep in

1030

00:46:40,320 --> 00:46:38,920

mind is look for the benefit because I

1031

00:46:43,380 --> 00:46:40,330

am in my little world

1032

00:46:44,880 --> 00:46:43,390

I've had people I've had people say who

1033

00:46:46,680 --> 00:46:44,890

would ever want to make up that they

1034

00:46:48,210 --> 00:46:46,690

were abused by their father if they

1035

00:46:49,560 --> 00:46:48,220

weren't who would ever want to believe

1036

00:46:52,230 --> 00:46:49,570

something so awful

1037

00:46:54,060 --> 00:46:52,240

there'd be no good reason why you would

1038

00:46:56,760 --> 00:46:54,070

want to well maybe there is a good

1039

00:46:58,710 --> 00:46:56,770

reason and the good reason is that you

1040

00:47:00,390 --> 00:46:58,720

now have an explanation for your

1041

00:47:02,820 --> 00:47:00,400

problems you don't have to you know you

1042

00:47:05,610 --> 00:47:02,830

consider that you're a bad person or

1043

00:47:07,770 --> 00:47:05,620

you're a crazy person your problems are

1044

00:47:10,080 --> 00:47:07,780

now due to the fact that you were abused

1045

00:47:13,290 --> 00:47:10,090

you often get a lot of empathy and

1046

00:47:17,430 --> 00:47:13,300

sympathy and a new community to connect

1047

00:47:19,710 --> 00:47:17,440

with for these beliefs look for the

1048

00:47:21,870 --> 00:47:19,720

benefit yeah and I see the community

1049

00:47:23,730 --> 00:47:21,880

aspect of it and the being listens to

1050

00:47:25,230 --> 00:47:23,740

aspect of it and in conspiracy theories

1051
00:47:27,870 --> 00:47:25,240
as well so there's definitely crossover

1052
00:47:30,150 --> 00:47:27,880
there I asked on Twitter if people any

1053
00:47:31,710 --> 00:47:30,160
any questions for you you know I've got

1054
00:47:34,140 --> 00:47:31,720
a couple of interesting ones somebody

1055
00:47:35,870 --> 00:47:34,150
asked yeah what are your thoughts on how

1056
00:47:38,250 --> 00:47:35,880
imagery and information in pop culture

1057
00:47:40,260 --> 00:47:38,260
feed into the image bank of false

1058
00:47:42,650 --> 00:47:40,270
memories so I suppose that's like how

1059
00:47:45,480 --> 00:47:42,660
things that are repeated in pop culture

1060
00:47:49,710 --> 00:47:45,490
affects people's memories of other

1061
00:47:51,390 --> 00:47:49,720
things well this is this is so cool that

1062
00:47:53,760 --> 00:47:51,400
you could be talking to me and then

1063
00:47:56,220 --> 00:47:53,770

someone else can pop in with a Twitter

1064

00:48:02,130 --> 00:47:56,230

question I I just this is so 21st

1065

00:48:05,250 --> 00:48:02,140

century I anyhow I'm enjoying this pop

1066

00:48:08,280 --> 00:48:05,260

culture and social media completely play

1067

00:48:11,610 --> 00:48:08,290

a role in all this hmm you know the the

1068

00:48:14,640 --> 00:48:11,620

aliens that are doing the abducting they

1069

00:48:16,920 --> 00:48:14,650

tend to look similar and that's because

1070

00:48:20,100 --> 00:48:16,930

you know the media presentation of

1071

00:48:24,360 --> 00:48:20,110

aliens is is where people are getting

1072

00:48:27,660 --> 00:48:24,370

their their imagery it's from from kind

1073

00:48:29,600 --> 00:48:27,670

of a common source that's out there yeah

1074

00:48:32,370 --> 00:48:29,610

somebody asked their a related question

1075

00:48:34,800 --> 00:48:32,380

what other societally common memory

1076

00:48:36,420 --> 00:48:34,810

errors are there from history or from

1077

00:48:39,030 --> 00:48:36,430

the modern day and I think that's about

1078

00:48:40,830 --> 00:48:39,040

like types of memory areas that are

1079

00:48:43,980 --> 00:48:40,840

common across different societies around

1080

00:48:46,550 --> 00:48:43,990

the world are the memory errors similar

1081

00:48:48,329 --> 00:48:46,560

across societies or other societal

1082

00:48:50,700 --> 00:48:48,339

specific differences in

1083

00:48:52,650 --> 00:48:50,710

Hera's well again if I could just talk

1084

00:48:56,039 --> 00:48:52,660

about the world I know about that and

1085

00:48:59,339 --> 00:48:56,049

these are the thousands of people who

1086

00:49:03,839 --> 00:48:59,349

are claiming that they have been falsely

1087

00:49:06,120 --> 00:49:03,849

accused based on a massive repression

1088

00:49:09,390 --> 00:49:06,130

and supposing recovery of horrible

1089

00:49:12,900 --> 00:49:09,400

brutalization this this phenomenon may

1090

00:49:17,190 --> 00:49:12,910

have started in North America but it got

1091

00:49:19,950 --> 00:49:17,200

exported to Europe England all over

1092

00:49:23,459 --> 00:49:19,960

Scandinavia other parts of Europe

1093

00:49:26,309 --> 00:49:23,469

Australia New Zealand and so you began

1094

00:49:29,459 --> 00:49:26,319

to see collections of similar kinds of

1095

00:49:32,479 --> 00:49:29,469

things going on psychotherapist who were

1096

00:49:35,190 --> 00:49:32,489

using highly suggestive procedures

1097

00:49:38,880 --> 00:49:35,200

getting people to remember things making

1098

00:49:41,370 --> 00:49:38,890

accusations it didn't seem to be

1099

00:49:46,890 --> 00:49:41,380

happening so much in Asian cultures and

1100

00:49:50,249 --> 00:49:46,900

and it's just an observation I'm not

1101

00:49:54,749 --> 00:49:50,259

quite sure why but you you tended to see

1102

00:49:57,209 --> 00:49:54,759

this cropping up more in in the the

1103

00:50:00,089 --> 00:49:57,219

countries that I've mentioned yeah that

1104

00:50:03,180 --> 00:50:00,099

reminds me of another culture bowel

1105

00:50:05,759 --> 00:50:03,190

syndrome which was a whiplash someone

1106

00:50:08,069 --> 00:50:05,769

said that whiplash injuries don't happen

1107

00:50:10,229 --> 00:50:08,079

in countries where you can't sue the

1108

00:50:11,579 --> 00:50:10,239

person who hit you from behind in a car

1109

00:50:13,170 --> 00:50:11,589

like people get these whiplash injuries

1110

00:50:16,319 --> 00:50:13,180

when someone hits them from behind in a

1111

00:50:18,930 --> 00:50:16,329

car and there are about like 20 times

1112

00:50:20,459 --> 00:50:18,940

more common in the United States than

1113

00:50:22,380 --> 00:50:20,469

they are in Japan even though the

1114

00:50:25,039 --> 00:50:22,390

accident rate is it's relatively similar

1115

00:50:27,209 --> 00:50:25,049

and I think it's just simply because

1116

00:50:28,799 --> 00:50:27,219

people are being kind of infected with

1117

00:50:30,569 --> 00:50:28,809

this idea this if you get hit from

1118

00:50:32,729 --> 00:50:30,579

behind in your car you get you get some

1119

00:50:35,849 --> 00:50:32,739

kind of whiplash injury and I suppose

1120

00:50:38,009 --> 00:50:35,859

you can kind of think of the idea of

1121

00:50:40,589 --> 00:50:38,019

recovered memory as being a little

1122

00:50:42,509 --> 00:50:40,599

little mimetic virus spreading around

1123

00:50:44,579 --> 00:50:42,519

the world it kind of started here and it

1124

00:50:47,219 --> 00:50:44,589

can have spread to to other countries

1125

00:50:49,170 --> 00:50:47,229

because people's brains are similar yes

1126

00:50:51,779 --> 00:50:49,180

I have thought about it that way that

1127

00:50:55,640 --> 00:50:51,789

you know the way Europe got infected

1128

00:50:57,749 --> 00:50:55,650

is that American North American

1129

00:51:00,509 --> 00:50:57,759

psychologists and psychiatrists were

1130

00:51:02,250 --> 00:51:00,519

invited to go over and give speeches and

1131

00:51:05,630 --> 00:51:02,260

they started speaking about

1132

00:51:08,309 --> 00:51:05,640

repressed memories satanic ritual abuse

1133

00:51:10,589 --> 00:51:08,319

multiple personality disorder which is

1134

00:51:12,870 --> 00:51:10,599

an alcohol to associate of identity

1135

00:51:15,900 --> 00:51:12,880

disorder and then you began to see these

1136

00:51:18,329 --> 00:51:15,910

things growing a little seed is planted

1137

00:51:21,450 --> 00:51:18,339

and it then grows in another part of

1138

00:51:24,960 --> 00:51:21,460

part of the world yeah another quick

1139

00:51:26,730 --> 00:51:24,970

question from Twitter as other objective

1140

00:51:31,440 --> 00:51:26,740

ways to distinguish memories of real

1141

00:51:35,069 --> 00:51:31,450

world events from false memories oh well

1142

00:51:37,920 --> 00:51:35,079

I'm sorry to disappoint people but as at

1143

00:51:40,079 --> 00:51:37,930

the end of my TED talk I left the

1144

00:51:42,359 --> 00:51:40,089

audience with the one take-home message

1145

00:51:43,769 --> 00:51:42,369

that I wanted to leave people which is

1146

00:51:46,769 --> 00:51:43,779

just because somebody tells you

1147

00:51:49,470 --> 00:51:46,779

something with a lot of detail they say

1148

00:51:51,390 --> 00:51:49,480

it with a lot of confidence even if they

1149

00:51:53,460 --> 00:51:51,400

show a lot of emotion when they tell the

1150

00:51:55,529 --> 00:51:53,470

story it doesn't mean it really happened

1151

00:51:59,400 --> 00:51:55,539

be false memories have these same

1152

00:52:02,730 --> 00:51:59,410

characteristics and you can't do a brain

1153

00:52:04,980 --> 00:52:02,740

scan or brain scans you know the false

1154

00:52:08,160 --> 00:52:04,990

memories look like the true ones mm-hmm

1155

00:52:10,710 --> 00:52:08,170

emotional wreck or physiological of

1156

00:52:12,599 --> 00:52:10,720

recordings of emotional arousal looks

1157

00:52:16,140 --> 00:52:12,609

similar for the false memories and the

1158

00:52:18,599 --> 00:52:16,150

true ones so you need independent

1159

00:52:21,660 --> 00:52:18,609

corroboration and it really has to be

1160

00:52:22,980 --> 00:52:21,670

independent corroboration one last

1161

00:52:25,140 --> 00:52:22,990

question from Twitter which is actually

1162

00:52:27,599 --> 00:52:25,150

something I'm very interested in is as

1163

00:52:30,509 --> 00:52:27,609

the the notion of memory changed with

1164

00:52:32,670 --> 00:52:30,519

modernity like has historically people's

1165

00:52:35,700 --> 00:52:32,680

ideas about what memory is and how

1166

00:52:37,589 --> 00:52:35,710

reliable it is has that changed over

1167

00:52:39,269 --> 00:52:37,599

time were people more or less trusting

1168

00:52:41,519 --> 00:52:39,279

of their memories back in the Middle

1169

00:52:44,400 --> 00:52:41,529

Ages so I don't know about the Middle

1170

00:52:48,150 --> 00:52:44,410

Ages but over time people have used

1171

00:52:50,970 --> 00:52:48,160

different metaphors to to to talk about

1172

00:52:54,539 --> 00:52:50,980

memory I mean so that you know they may

1173

00:52:57,259 --> 00:52:54,549

have likened it to a videotape recording

1174

00:53:00,990 --> 00:52:57,269

and at some point and then a computer

1175

00:53:03,450 --> 00:53:01,000

and you know what in some recent

1176

00:53:06,450 --> 00:53:03,460

presentation I likened it to a Wikipedia

1177

00:53:08,730 --> 00:53:06,460

page because you could go in there and

1178

00:53:11,009 --> 00:53:08,740

edit it but other people can too

1179

00:53:12,539 --> 00:53:11,019

yeah it's interesting that they in the

1180

00:53:14,460 --> 00:53:12,549

olden days people didn't have these

1181

00:53:15,400 --> 00:53:14,470

these analogies that they could they

1182

00:53:17,500 --> 00:53:15,410

could make so

1183

00:53:20,650 --> 00:53:17,510

now we think of memory as being like a

1184

00:53:22,960 --> 00:53:20,660

video recorder here the the common idea

1185

00:53:26,289 --> 00:53:22,970

of a visual memory or an auditory memory

1186

00:53:28,480 --> 00:53:26,299

is that a recording but what would

1187

00:53:31,349 --> 00:53:28,490

people have thought of memory being

1188

00:53:34,329 --> 00:53:31,359

analogous to back before tape recorders

1189

00:53:36,010 --> 00:53:34,339

I'd have to go back and it may be here

1190

00:53:38,230 --> 00:53:36,020

back in the with the early philosophers

1191

00:53:40,240 --> 00:53:38,240

and I'm not sure I really got a good

1192

00:53:43,059 --> 00:53:40,250

grade undergraduate when I took

1193

00:53:45,160 --> 00:53:43,069

philosophy it was too abstract for me

1194

00:53:47,410 --> 00:53:45,170

yeah it's interesting about interesting

1195

00:53:50,770 --> 00:53:47,420

well thank you very much for this very

1196

00:53:54,819 --> 00:53:50,780

interesting conversation what are you

1197

00:53:57,099 --> 00:53:54,829

working on naira well let's see we just

1198

00:54:00,549 --> 00:53:57,109

published a paper on the malleability of

1199

00:54:02,500 --> 00:54:00,559

memory for symptoms this might relate to

1200

00:54:04,240 --> 00:54:02,510

your with the whiplash example yeah

1201
00:54:06,520 --> 00:54:04,250
that's real just put people through a

1202
00:54:08,799 --> 00:54:06,530
painful experience for example

1203
00:54:11,470 --> 00:54:08,809
the painful experience we use is called

1204
00:54:14,140 --> 00:54:11,480
the cold pressor task where you stick

1205
00:54:16,510 --> 00:54:14,150
your hand into ice-cold water for 90

1206
00:54:18,819 --> 00:54:16,520
seconds it's painful you rate your pain

1207
00:54:21,789 --> 00:54:18,829
on a 100-point scale let's say you gave

1208
00:54:24,010 --> 00:54:21,799
it an 80 later on I come back to you and

1209
00:54:26,529 --> 00:54:24,020
I say now you know last week when you

1210
00:54:30,309 --> 00:54:26,539
did this and you told us that the pain

1211
00:54:32,950 --> 00:54:30,319
was 260 on a 100-point scale why did you

1212
00:54:35,349 --> 00:54:32,960
read it that way what that does is

1213
00:54:38,650 --> 00:54:35,359

people remember their pain as less than

1214

00:54:40,900 --> 00:54:38,660

it actually was and this is an example

1215

00:54:45,309 --> 00:54:40,910

of how even memory for symptoms is

1216

00:54:48,059 --> 00:54:45,319

malleable so I see this connecting to

1217

00:54:50,849 --> 00:54:48,069

your whiplash example if somebody is

1218

00:54:53,200 --> 00:54:50,859

attaching a label to an ambiguous

1219

00:54:55,870 --> 00:54:53,210

whatever you or you're feeling in your

1220

00:54:57,970 --> 00:54:55,880

neck and says whiplash it can maybe

1221

00:55:01,930 --> 00:54:57,980

start to hurt more than it would

1222

00:55:03,819 --> 00:55:01,940

otherwise well that's I suppose one of

1223

00:55:06,490 --> 00:55:03,829

one of the differences of what's

1224

00:55:10,510 --> 00:55:06,500

happening when you have get hit from

1225

00:55:12,760 --> 00:55:10,520

behind in the United States versus say

1226

00:55:14,890 --> 00:55:12,770

in another country yeah that's very

1227

00:55:19,539 --> 00:55:14,900

interesting other ways you can use

1228

00:55:21,480 --> 00:55:19,549

things like that as therapy of reducing

1229

00:55:25,960 --> 00:55:21,490

the severity of some of these symptoms

1230

00:55:27,910 --> 00:55:25,970

potentially yes potentially if more work

1231

00:55:29,110 --> 00:55:27,920

is done on this idea of the malleability

1232

00:55:31,810 --> 00:55:29,120

of symptoms

1233

00:55:36,060 --> 00:55:31,820

I see you maybe you can find a way to

1234

00:55:39,660 --> 00:55:36,070

essentially remind people even falsely

1235

00:55:43,870 --> 00:55:39,670

that the experience wasn't as bad as

1236

00:55:48,580 --> 00:55:43,880

perhaps it really was and maybe they

1237

00:55:51,130 --> 00:55:48,590

have a softer memory about it now a lot

1238

00:55:54,070 --> 00:55:51,140

of people might object to that kind of

1239

00:55:55,960 --> 00:55:54,080

tampering with with your memory even

1240

00:55:57,820 --> 00:55:55,970

when I suggested that you could plan a

1241

00:55:59,380 --> 00:55:57,830

false memory that you got sick eating a

1242

00:56:00,940 --> 00:55:59,390

fattening food and people don't want to

1243

00:56:02,860 --> 00:56:00,950

eat the food as much and I thought this

1244

00:56:05,650 --> 00:56:02,870

week this could be on we could be on the

1245

00:56:07,870 --> 00:56:05,660

brink of a new dieting technique here it

1246

00:56:11,350 --> 00:56:07,880

still bothered people yeah I don't like

1247

00:56:14,470 --> 00:56:11,360

the idea of brainwashing whose problems

1248

00:56:16,450 --> 00:56:14,480

by messing with their mind yeah people

1249

00:56:18,490 --> 00:56:16,460

are very very touchy Avera about their

1250

00:56:21,280 --> 00:56:18,500

minds it's such a personal thing that's

1251

00:56:22,780 --> 00:56:21,290

I think he just kind of freaks people

1252

00:56:24,820 --> 00:56:22,790

out in a way just to think that they

1253

00:56:28,900 --> 00:56:24,830

might not be in control of everything

1254

00:56:31,300 --> 00:56:28,910

that's going on in their brains I saw in

1255

00:56:34,390 --> 00:56:31,310

an interview you did with Kerry poppy

1256

00:56:36,040 --> 00:56:34,400

for CSI a couple of years ago that

1257

00:56:39,400 --> 00:56:36,050

you're working on an autobiography is

1258

00:56:44,400 --> 00:56:39,410

that true well the annual review of

1259

00:56:47,020 --> 00:56:44,410

psychology has a new feature where

1260

00:56:50,380 --> 00:56:47,030

they're getting autobiographies ten

1261

00:56:54,010 --> 00:56:50,390

thousand word autobiographies so I I did

1262

00:56:56,850 --> 00:56:54,020

write a autobiography okay you know a

1263

00:57:01,330 --> 00:56:56,860

couple years ago for the annual review

1264

00:57:04,570 --> 00:57:01,340

and I did an I did one for a book a book

1265

00:57:06,970 --> 00:57:04,580

chapter ten years ago I think both of

1266

00:57:09,880 --> 00:57:06,980

those are posted on my University of

1267

00:57:12,040 --> 00:57:09,890

california-irvine website so people who

1268

00:57:14,860 --> 00:57:12,050

might want to read them help yourself

1269

00:57:16,420 --> 00:57:14,870

great if you want to know I was looking

1270

00:57:18,190 --> 00:57:16,430

for it on Wikipedia I thought it was

1271

00:57:22,000 --> 00:57:18,200

going to be a hero to biographical book

1272

00:57:23,770 --> 00:57:22,010

no Wikipedia on on Amazon but nothing

1273

00:57:25,690 --> 00:57:23,780

was there but yeah I'd be very

1274

00:57:28,030 --> 00:57:25,700

interesting I will check it out

1275

00:57:31,870 --> 00:57:28,040

all right well is anything else that

1276

00:57:35,620 --> 00:57:31,880

you'd like to finish with no I think but

1277

00:57:39,280 --> 00:57:35,630

I I would say you know even better than

1278

00:57:42,579 --> 00:57:39,290

reading the autobiography slate.com did

1279

00:57:44,349 --> 00:57:42,589

a long article called the memory doctor

1280

00:57:46,299 --> 00:57:44,359

the author of that articles he's found

1281

00:57:49,359 --> 00:57:46,309

about maybe a year researching and

1282

00:57:53,700 --> 00:57:49,369

writing it it's a huge article the

1283

00:57:57,489 --> 00:57:53,710

memory doctor and it takes you through

1284

00:58:01,299 --> 00:57:57,499

40 years of my life and research and

1285

00:58:03,700 --> 00:58:01,309

thinking and and applications and what

1286

00:58:06,880 --> 00:58:03,710

is so beautiful about will solitons

1287

00:58:10,150 --> 00:58:06,890

article is he won a prize for this

1288

00:58:14,140 --> 00:58:10,160

article the best online reporting in

1289

00:58:16,390 --> 00:58:14,150

science for the year it came out so it

1290

00:58:19,779 --> 00:58:16,400

got vetted for accuracy it got vetted

1291

00:58:22,299 --> 00:58:19,789

for his writing and he won this this big

1292

00:58:24,719 --> 00:58:22,309

prize so usually I say if you want to

1293

00:58:28,680 --> 00:58:24,729

read something I and I have a link to

1294

00:58:30,969 --> 00:58:28,690

solitons article also on my UCI website

1295

00:58:32,920 --> 00:58:30,979

yeah that's great I will put a link to

1296

00:58:36,549 --> 00:58:32,930

it in the show notes for this podcast

1297

00:58:39,309 --> 00:58:36,559

have you said okay well once again we're

1298

00:58:40,749 --> 00:58:39,319

coming up on an hour and this has been a

1299

00:58:44,019 --> 00:58:40,759

very very interesting conversation

1300

00:58:45,549 --> 00:58:44,029

giving me a lot to think about and I'd

