



1
00:00:03,300 --> 00:00:09,180

[Music]

2
00:00:14,520 --> 00:00:13,230

so good evening tonight I'd like to tell

3
00:00:16,890 --> 00:00:14,530

you about an experiment that I've been

4
00:00:20,790 --> 00:00:16,900

thinking about for a long time and that

5
00:00:24,120 --> 00:00:20,800

is how do we measure if a machine is

6
00:00:28,679 --> 00:00:24,130

conscious and so we came up with this

7
00:00:31,679 --> 00:00:28,689

experiment and I thought if the results

8
00:00:34,259 --> 00:00:31,689

are positive great if the results are

9
00:00:36,840 --> 00:00:34,269

negative all right that's a good PETA

10
00:00:39,119 --> 00:00:36,850

good point of information but what

11
00:00:41,700 --> 00:00:39,129

turned out is neither of those and

12
00:00:44,459 --> 00:00:41,710

neither of those turned out to be a very

13
00:00:46,770 --> 00:00:44,469

large effect a larger effect and I've

14

00:00:49,290 --> 00:00:46,780

seen in all of the several dozen

15

00:00:52,549 --> 00:00:49,300

different sorts of SCI experiments that

16

00:00:56,850 --> 00:00:52,559

my laboratory is done so I'm not sure

17

00:00:57,330 --> 00:00:56,860

well you'll see so let's take a look

18

00:01:00,360 --> 00:00:57,340

first

19

00:01:03,240 --> 00:01:00,370

what can consciousness do what can only

20

00:01:05,670 --> 00:01:03,250

consciousness do we need to know that so

21

00:01:10,639 --> 00:01:05,680

that we can check if a machine can do

22

00:01:14,100 --> 00:01:10,649

that well the answer is quite easily sy

23

00:01:16,109 --> 00:01:14,110

ESP and and psychokinesis and so then

24

00:01:21,499 --> 00:01:16,119

the question is how do you motivate a

25

00:01:25,770 --> 00:01:21,509

machine in order to produce sy effects

26

00:01:28,919 --> 00:01:25,780

we can get some ideas about this by

27

00:01:31,699 --> 00:01:28,929

taking a look at some of the experiments

28

00:01:34,680 --> 00:01:31,709

that people have done in precognition

29

00:01:36,990 --> 00:01:34,690

there have been over a hundred studies

30

00:01:41,150 --> 00:01:37,000

carried out in laboratory precognition

31

00:01:43,589 --> 00:01:41,160

and they started roughly with Rhines

32

00:01:44,969 --> 00:01:43,599

experiments where he did card guessing

33

00:01:46,529 --> 00:01:44,979

and people would try to guess which card

34

00:01:48,930 --> 00:01:46,539

was going to be pulled up next

35

00:01:51,690 --> 00:01:48,940

there are lots and lots of experiments

36

00:01:53,969 --> 00:01:51,700

one really notable one is dean Riden's

37

00:01:57,389 --> 00:01:53,979

experiment in which he took a look at

38

00:01:59,430 --> 00:01:57,399

the effect of a stimulating image

39

00:02:01,469 --> 00:01:59,440

projected on a computer screen on

40

00:02:03,749 --> 00:02:01,479

people's autonomic nervous system and

41

00:02:05,779 --> 00:02:03,759

found that the response started several

42

00:02:10,199 --> 00:02:05,789

seconds before the image was shown

43

00:02:11,940 --> 00:02:10,209

another one is ben's set of experiments

44

00:02:14,339 --> 00:02:11,950

which he carried over carried out over a

45

00:02:16,050 --> 00:02:14,349

number of years and have recently been

46

00:02:18,600 --> 00:02:16,060

published in a mainstream journal in

47

00:02:21,510 --> 00:02:18,610

which he showed psychological

48

00:02:22,800 --> 00:02:21,520

pre-stimulus responses but the one that

49

00:02:24,390 --> 00:02:22,810

I like in

50

00:02:26,880 --> 00:02:24,400

particular just because of its

51
00:02:29,820 --> 00:02:26,890
simplicity is the one by Spottiswoode in

52
00:02:33,300 --> 00:02:29,830
May and so in this experiment they took

53
00:02:36,300 --> 00:02:33,310
a loud horn and blasted it in someone's

54
00:02:38,880 --> 00:02:36,310
ear at random times and looked for the

55
00:02:42,030 --> 00:02:38,890
physiological response the physiological

56
00:02:45,870 --> 00:02:42,040
response started several seconds before

57
00:02:47,400 --> 00:02:45,880
the horn was blasted so that provides a

58
00:02:51,440 --> 00:02:47,410
bit of a model for the type of

59
00:02:54,570 --> 00:02:51,450
experiment that we want to look at then

60
00:02:57,960 --> 00:02:54,580
let's see if we can look at lower

61
00:02:59,750 --> 00:02:57,970
life-forms and or maybe that's not a PC

62
00:03:02,789 --> 00:02:59,760
thing to say all right other life-forms

63
00:03:04,320 --> 00:03:02,799

other living systems and see what sort

64

00:03:05,900 --> 00:03:04,330

of experiments have been carried out

65

00:03:08,640 --> 00:03:05,910

there and there have been quite a few

66

00:03:10,440 --> 00:03:08,650

Morris nearly five decades ago carried

67

00:03:12,479 --> 00:03:10,450

out an experiment with goldfish where

68

00:03:16,680 --> 00:03:12,489

he'd scoop goldfish a goldfish out of

69

00:03:19,410 --> 00:03:16,690

the it's aquarium and found that just

70

00:03:20,910 --> 00:03:19,420

before he was going to scoop it it

71

00:03:23,250 --> 00:03:20,920

became agitated

72

00:03:25,110 --> 00:03:23,260

there was no visual cues or anything and

73

00:03:26,849 --> 00:03:25,120

he did control experiments with that and

74

00:03:30,180 --> 00:03:26,859

showed that a goldfish is have

75

00:03:32,250 --> 00:03:30,190

precognition very recently Alvarez

76

00:03:34,620 --> 00:03:32,260

published in the Journal of scientific

77

00:03:40,440 --> 00:03:34,630

exploration a similar experiment with

78

00:03:44,390 --> 00:03:40,450

finches where finches were in a cage and

79

00:03:48,270 --> 00:03:44,400

were being shown on the screen

80

00:03:51,059 --> 00:03:48,280

an image here of a crawling snake at

81

00:03:54,690 --> 00:03:51,069

random times and the Finch was being

82

00:03:56,789 --> 00:03:54,700

videod at the same time and again in

83

00:04:00,270 --> 00:03:56,799

this sort of controlled environment

84

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

control experiment alvarez found that

85

00:04:06,030 --> 00:04:03,880

finches significantly showed agitation

86

00:04:09,599 --> 00:04:06,040

before images of snakes were going to be

87

00:04:11,759 --> 00:04:09,609

flashed up and finally a really strange

88

00:04:14,009 --> 00:04:11,769

little experiment by widly that was

89

00:04:17,099 --> 00:04:14,019

carried out while bee that was carried

90

00:04:20,120 --> 00:04:17,109

out about eight or nine years ago was on

91

00:04:23,340 --> 00:04:20,130

earth worms in which he blasted

92

00:04:26,279 --> 00:04:23,350

earthworms with some vibrations from a

93

00:04:29,190 --> 00:04:26,289

speaker coil and found that they showed

94

00:04:31,469 --> 00:04:29,200

signs of anticipation of the blast

95

00:04:35,040 --> 00:04:31,479

before it was about to occur

96

00:04:36,869 --> 00:04:35,050

so this gives us ideas of what we ought

97

00:04:39,779 --> 00:04:36,879

to do we need to do this sort of an

98

00:04:42,510 --> 00:04:39,789

experiment but with a machine and this

99

00:04:47,969 --> 00:04:42,520

is the experiment that that I'm talking

100

00:04:50,850 --> 00:04:47,979

about so it starts with two random event

101
00:04:52,589 --> 00:04:50,860
generators one I call the subject the

102
00:04:54,629 --> 00:04:52,599
controller random event generator and

103
00:04:57,689 --> 00:04:54,639
the second one is the subject random

104
00:04:59,969 --> 00:04:57,699
event generator each of them puts out a

105
00:05:04,679 --> 00:04:59,979
data stream of random bits which are

106
00:05:07,200 --> 00:05:04,689
collected by the computer then what

107
00:05:11,159 --> 00:05:07,210
happens is when the writes it a set of

108
00:05:13,379 --> 00:05:11,169
bits comes from the controller reg into

109
00:05:16,019 --> 00:05:13,389
the computer at that point the computer

110
00:05:19,290 --> 00:05:16,029
sends out a signal through a serial port

111
00:05:22,889 --> 00:05:19,300
to a relay and that relay then shuts off

112
00:05:25,260 --> 00:05:22,899
the power to the subject reg so in other

113
00:05:28,920 --> 00:05:25,270

words the controller reg shuts off the

114

00:05:31,170 --> 00:05:28,930

subject reg at random times and what we

115

00:05:33,809 --> 00:05:31,180

do is we monitor the output of the

116

00:05:36,600 --> 00:05:33,819

subject reg to see if there's any change

117

00:05:40,230 --> 00:05:36,610

in its output before it's about to be

118

00:05:43,529 --> 00:05:40,240

shut off and so we carried out a series

119

00:05:45,570 --> 00:05:43,539

of tests and so there were tests which

120

00:05:48,570 --> 00:05:45,580

typically consisted of several hundred

121

00:05:51,029 --> 00:05:48,580

runs then we did control experiments and

122

00:05:53,939 --> 00:05:51,039

the control was exactly the same setup

123

00:05:56,070 --> 00:05:53,949

except this wire was disconnected so in

124

00:05:57,659 --> 00:05:56,080

other words the controller reg and the

125

00:05:59,730 --> 00:05:57,669

computer both thought that they were

126
00:06:01,739 --> 00:05:59,740
going to shut off the subject reg but it

127
00:06:04,709 --> 00:06:01,749
never actually got shut off and so that

128
00:06:10,320 --> 00:06:04,719
was our control and we carried this out

129
00:06:12,300 --> 00:06:10,330
in in a in a series of runs so let's now

130
00:06:13,889 --> 00:06:12,310
go through the protocol and it's

131
00:06:16,050 --> 00:06:13,899
important that I go through this

132
00:06:18,230 --> 00:06:16,060
procedure with you because later when we

133
00:06:20,790 --> 00:06:18,240
look at the data we'll want to see

134
00:06:23,639 --> 00:06:20,800
exactly what it was in the procedure

135
00:06:26,820 --> 00:06:23,649
that might have caused what we saw so we

136
00:06:29,309 --> 00:06:26,830
ran a series of test trials we ran a

137
00:06:30,300 --> 00:06:29,319
series of control trials then we added

138
00:06:32,850 --> 00:06:30,310

together

139

00:06:35,550 --> 00:06:32,860

the results of all that series of test

140

00:06:37,469 --> 00:06:35,560

trials called a run and we synchronized

141

00:06:39,360 --> 00:06:37,479

them to the shut off time because that

142

00:06:40,980 --> 00:06:39,370

was the common time between them because

143

00:06:42,830 --> 00:06:40,990

the runs were of different lengths since

144

00:06:45,470 --> 00:06:42,840

the shut off was at random time

145

00:06:48,230 --> 00:06:45,480

we did the same for control times and

146

00:06:51,680 --> 00:06:48,240

then to analyze it the computer took an

147

00:06:54,620 --> 00:06:51,690

11 bit wide window and scanned it across

148

00:06:57,860 --> 00:06:54,630

the time going up to the shut off effect

149

00:07:00,500 --> 00:06:57,870

and then finally after all of this was

150

00:07:02,810 --> 00:07:00,510

done it was displayed on the computer

151
00:07:05,870 --> 00:07:02,820
screen and at that point the operator

152
00:07:07,220 --> 00:07:05,880
jamesu my student and I took a look at

153
00:07:08,600 --> 00:07:07,230
the display output and that was the

154
00:07:11,300 --> 00:07:08,610
first time that we actually saw the

155
00:07:15,020 --> 00:07:11,310
result so what sort of results did we

156
00:07:17,660 --> 00:07:15,030
get here we take a look this is a plot

157
00:07:21,710 --> 00:07:17,670
of the average bit value as a function

158
00:07:23,780 --> 00:07:21,720
of time before the shut off and we ran

159
00:07:26,060 --> 00:07:23,790
five hundred and fifty two test trials

160
00:07:28,760 --> 00:07:26,070
in the same number of control trials the

161
00:07:31,910 --> 00:07:28,770
bit rate was 40 bits per second you can

162
00:07:35,390 --> 00:07:31,920
see the blue line which is the control

163
00:07:37,790 --> 00:07:35,400

was pretty much random the red line was

164

00:07:39,800 --> 00:07:37,800

random until about one second before the

165

00:07:42,860 --> 00:07:39,810

shut off event at which point it took a

166

00:07:45,140 --> 00:07:42,870

nosedive and it was a big nosedive these

167

00:07:49,220 --> 00:07:45,150

are this is the p equals zero point one

168

00:07:50,660 --> 00:07:49,230

this is the p equals zero point zero any

169

00:07:52,430 --> 00:07:50,670

ninety-nine point nine nine percent

170

00:07:55,790 --> 00:07:52,440

confidence interval so it's a

171

00:07:56,930 --> 00:07:55,800

significant change so we've got to think

172

00:07:58,730 --> 00:07:56,940

about this for a minute

173

00:08:02,270 --> 00:07:58,740

what what what what could be going on

174

00:08:04,130 --> 00:08:02,280

here so the the z score if you average

175

00:08:06,580 --> 00:08:04,140

the z score in this period it's three

176

00:08:10,580 --> 00:08:06,590

point four for the last half a second

177

00:08:12,260 --> 00:08:10,590

the number of bits that was changed in

178

00:08:15,410 --> 00:08:12,270

other words we had more zeroes than ones

179

00:08:18,500 --> 00:08:15,420

at the very end that number of bits was

180

00:08:21,320 --> 00:08:18,510

very significant about one bit in 40 had

181

00:08:22,970 --> 00:08:21,330

to be changed which is much more which

182

00:08:24,620 --> 00:08:22,980

is much larger than you normally see in

183

00:08:26,690 --> 00:08:24,630

psychokinesis experiments where it's

184

00:08:29,780 --> 00:08:26,700

typically one bit in 10,000 that's

185

00:08:31,370 --> 00:08:29,790

changed so we scratched our head and we

186

00:08:33,589 --> 00:08:31,380

said something's got to be wrong here so

187

00:08:36,230 --> 00:08:33,599

we we looked at the hardware we looked

188

00:08:38,900 --> 00:08:36,240

at the software double checked checked

189

00:08:40,490 --> 00:08:38,910

triple checked each point was associated

190

00:08:42,260 --> 00:08:40,500

with the time stamp we double checked

191

00:08:44,060 --> 00:08:42,270

the time stamps that they were accurate

192

00:08:45,980 --> 00:08:44,070

that there was no leakage there was no

193

00:08:48,290 --> 00:08:45,990

interference between the systems on and

194

00:08:50,300 --> 00:08:48,300

on and on then I had another person come

195

00:08:52,040 --> 00:08:50,310

in analyze the data on a completely

196

00:08:53,930 --> 00:08:52,050

different system using completely

197

00:08:54,420 --> 00:08:53,940

different software we got the same

198

00:08:57,660 --> 00:08:54,430

result

199

00:09:00,240 --> 00:08:57,670

so we thought okay if this is really

200

00:09:03,690 --> 00:09:00,250

real can we do it again so two days

201
00:09:06,450 --> 00:09:03,700
later we ran it again and so the second

202
00:09:10,130 --> 00:09:06,460
run gave us more or less the same

203
00:09:15,480 --> 00:09:10,140
results again a nosedive in the last

204
00:09:17,340 --> 00:09:15,490
second before shut off okay two times

205
00:09:21,420 --> 00:09:17,350
can you do it three times like three

206
00:09:24,960 --> 00:09:21,430
Bluecoats same thing third time and a

207
00:09:27,030 --> 00:09:24,970
day later so then we took the these

208
00:09:29,700 --> 00:09:27,040
three sets of data compiled them

209
00:09:32,280 --> 00:09:29,710
together and plotted them and so this is

210
00:09:34,380 --> 00:09:32,290
the combination so this consists of

211
00:09:38,190 --> 00:09:34,390
seventeen hundred and thirty test runs

212
00:09:41,670 --> 00:09:38,200
and control runs and the nosedive here

213
00:09:45,120 --> 00:09:41,680

is even more apparent and if you want to

214

00:09:48,300 --> 00:09:45,130

take the z-score of this nosedive it's

215

00:09:50,700 --> 00:09:48,310

about six and a half in the last half a

216

00:09:52,680 --> 00:09:50,710

second which are odds against chance of

217

00:09:54,390 --> 00:09:52,690

well more than a million to one this is

218

00:09:59,580 --> 00:09:54,400

the entire global consciousness project

219

00:10:03,210 --> 00:09:59,590

has this z-score so what what what the

220

00:10:06,480 --> 00:10:03,220

devil is happening here so we thought

221

00:10:08,490 --> 00:10:06,490

okay maybe maybe we need to try changing

222

00:10:11,760 --> 00:10:08,500

things so we decided let's do some

223

00:10:14,640 --> 00:10:11,770

variations and maybe we shouldn't have

224

00:10:18,000 --> 00:10:14,650

but we did so the first thing that we

225

00:10:20,220 --> 00:10:18,010

did was we reduced the bit rate so we

226
00:10:22,700 --> 00:10:20,230
went to ten bits a second instead of 40

227
00:10:25,590 --> 00:10:22,710
bits a second the effect disappeared

228
00:10:27,300 --> 00:10:25,600
there's no no significant change in the

229
00:10:29,280 --> 00:10:27,310
output okay

230
00:10:31,170 --> 00:10:29,290
so reducing the bits didn't help what

231
00:10:33,000 --> 00:10:31,180
about increasing the bit rate we

232
00:10:36,180 --> 00:10:33,010
increased the bit rate to 100 bits per

233
00:10:38,820 --> 00:10:36,190
second again no output nothing no

234
00:10:40,110 --> 00:10:38,830
response and no response so we were

235
00:10:41,580 --> 00:10:40,120
scratching our heads and we said well

236
00:10:43,740 --> 00:10:41,590
let's at least go back to the initial

237
00:10:46,140 --> 00:10:43,750
conditions and repeat it so we had

238
00:10:48,060 --> 00:10:46,150

exactly the same hardware exactly the

239

00:10:50,150 --> 00:10:48,070

same software exactly the same

240

00:10:56,090 --> 00:10:50,160

configuration we ran it again

241

00:10:58,890 --> 00:10:56,100

nothing the effect is gone total zero so

242

00:11:04,320 --> 00:10:58,900

what what what do we do here what do we

243

00:11:07,060 --> 00:11:04,330

do so the initial run's were strong the

244

00:11:09,460 --> 00:11:07,070

conditions change the effect disappeared

245

00:11:11,770 --> 00:11:09,470

occasions the effect is gone what do we

246

00:11:15,640 --> 00:11:11,780

have we have the notorious decline

247

00:11:18,730 --> 00:11:15,650

effect and so this happens all over the

248

00:11:20,710 --> 00:11:18,740

place now we've seen it was there some

249

00:11:22,960 --> 00:11:20,720

sort of a change in the attitude of the

250

00:11:24,430 --> 00:11:22,970

operator or the experimenter quite

251
00:11:26,230 --> 00:11:24,440
possibly I mean we were extremely

252
00:11:29,170 --> 00:11:26,240
enthusiastic to begin with

253
00:11:30,730 --> 00:11:29,180
that must have waned a little bit I was

254
00:11:33,760 --> 00:11:30,740
looking for a machine machine

255
00:11:36,400 --> 00:11:33,770
interaction and we failed consciousness

256
00:11:38,380 --> 00:11:36,410
has reared its ugly head we now see that

257
00:11:41,050 --> 00:11:38,390
there can't you Minh consciousness is

258
00:11:44,200 --> 00:11:41,060
involved somehow or else there's some

259
00:11:45,910 --> 00:11:44,210
other uncontrolled parameter so this

260
00:11:48,370 --> 00:11:45,920
reminds me of that wonderful little

261
00:11:51,100 --> 00:11:48,380
story that Bob John tells when the Dalai

262
00:11:52,450 --> 00:11:51,110
Lama was visiting the pear program and

263
00:11:55,510 --> 00:11:52,460

on the way out

264

00:11:57,970 --> 00:11:55,520

Bob asked the Dalai Lama if a random

265

00:12:00,010 --> 00:11:57,980

event generator has consciousness the

266

00:12:02,620 --> 00:12:00,020

Dalai Lama thought for a minute and then

267

00:12:04,480 --> 00:12:02,630

said if we regard them as conscious and

268

00:12:09,130 --> 00:12:04,490

they're conscious is that what's

269

00:12:12,240 --> 00:12:09,140

happening here so one other question is

270

00:12:15,690 --> 00:12:12,250

whether really we're seeing any sort of

271

00:12:19,090 --> 00:12:15,700

retroactive effect it appears that the

272

00:12:21,580 --> 00:12:19,100

nose dive occurs before the subject

273

00:12:23,410 --> 00:12:21,590

random event generator is shut off but

274

00:12:26,800 --> 00:12:23,420

maybe there's another explanation and

275

00:12:29,110 --> 00:12:26,810

that is perhaps the subject perhaps

276

00:12:30,850 --> 00:12:29,120

there's a superposition of states as

277

00:12:33,880 --> 00:12:30,860

sort of a shorteners cat sort of

278

00:12:35,920 --> 00:12:33,890

situation an indeterminate state so even

279

00:12:38,380 --> 00:12:35,930

though we've taken the data and we've

280

00:12:42,220 --> 00:12:38,390

put it into the computer files maybe it

281

00:12:44,710 --> 00:12:42,230

just doesn't become fixed until we

282

00:12:46,630 --> 00:12:44,720

actually display it and look at it so

283

00:12:47,560 --> 00:12:46,640

it's a lot like a wavefunction collapse

284

00:12:49,150 --> 00:12:47,570

I'm not going to say it is a

285

00:12:50,920 --> 00:12:49,160

wavefunction collapse because we don't

286

00:12:53,400 --> 00:12:50,930

know if quantum mechanics is operational

287

00:12:56,230 --> 00:12:53,410

here or is is the dominant effect here

288

00:12:57,760 --> 00:12:56,240

this checker effect that that I'm

289

00:13:00,250 --> 00:12:57,770

talking about is something that's been

290

00:13:03,280 --> 00:13:00,260

observed for about 50 years in science

291

00:13:07,330 --> 00:13:03,290

Perriman so it's not something new

292

00:13:11,200 --> 00:13:07,340

so our retroactive effect is either due

293

00:13:13,030 --> 00:13:11,210

to checking or it's due to the the

294

00:13:15,730 --> 00:13:13,040

random event generator shutting off

295

00:13:17,030 --> 00:13:15,740

personally I actually still think it's

296

00:13:19,070 --> 00:13:17,040

due to the random event

297

00:13:20,900 --> 00:13:19,080

shutting off and the reason the main

298

00:13:23,570 --> 00:13:20,910

reason I think that is if you take a

299

00:13:26,030 --> 00:13:23,580

look at for instance Larry Darcy's book

300

00:13:27,620 --> 00:13:26,040

on premonitions you'll see that there

301
00:13:29,870 --> 00:13:27,630
are many many experiments in which

302
00:13:31,430 --> 00:13:29,880
people have genuine premonitions of

303
00:13:33,950 --> 00:13:31,440
things that are about to happen and they

304
00:13:39,130 --> 00:13:33,960
can intervene before it happens so it's

305
00:13:43,130 --> 00:13:39,140
it's there there is genuine precognition

306
00:13:46,520 --> 00:13:43,140
so let's conclude what did we see we saw

307
00:13:49,160 --> 00:13:46,530
large retroactive influence the z-score

308
00:13:51,410 --> 00:13:49,170
was outrageously large odds against

309
00:13:53,390 --> 00:13:51,420
chance well over a million to one one

310
00:13:56,510 --> 00:13:53,400
bit in every 40 in the last second

311
00:13:59,060 --> 00:13:56,520
changed but when we tried to replicate

312
00:14:01,490 --> 00:13:59,070
it after 20 days the replication failed

313
00:14:03,550 --> 00:14:01,500

so is this due to the human

314

00:14:06,530 --> 00:14:03,560

consciousness interaction I don't know

315

00:14:09,080 --> 00:14:06,540

now one thing that this leads to is the

316

00:14:14,270 --> 00:14:09,090

conclusion that any sort of psy

317

00:14:17,000 --> 00:14:14,280

experiment anything you do if you only

318

00:14:19,310 --> 00:14:17,010

do it a few times it could very well be

319

00:14:20,870 --> 00:14:19,320

due to experimenter expectation it may

320

00:14:22,520 --> 00:14:20,880

not be the variable that you think

321

00:14:24,620 --> 00:14:22,530

you're studying but it's simply your

322

00:14:26,960 --> 00:14:24,630

expectation and you've got to be able to

323

00:14:29,500 --> 00:14:26,970

replicate this day in and day out for a

324

00:14:32,450 --> 00:14:29,510

long period of time and if you can't

325

00:14:34,810 --> 00:14:32,460

then I'm not sure what it is you're

326

00:14:37,700 --> 00:14:34,820

testing other than your own expectation

327

00:14:40,010 --> 00:14:37,710

so we saw a retroactive influence and

328

00:14:41,690 --> 00:14:40,020

either it was a retroactive influence to

329

00:14:43,940 --> 00:14:41,700

the shut off event which would be about

330

00:14:46,780 --> 00:14:43,950

a one-second retroactive influence or

331

00:14:49,280 --> 00:14:46,790

would was a retroactive influence to our

332

00:14:54,460 --> 00:14:49,290

observation of the data several hours

333

00:14:54,470 --> 00:15:12,910

a few questions

334

00:15:19,280 --> 00:15:15,320

recently there's a book called the Black

335

00:15:22,220 --> 00:15:19,290

Swan statistics not the dance movie

336

00:15:26,720 --> 00:15:22,230

right that raises a lot of questions in

337

00:15:28,280 --> 00:15:26,730

this kind of realm and it also releases

338

00:15:29,960 --> 00:15:28,290

you know are we dealing with a normal

339

00:15:32,030 --> 00:15:29,970

distribution there's things when you

340

00:15:35,090 --> 00:15:32,040

talk about z-scores there's assumptions

341

00:15:40,070 --> 00:15:35,100

behind all this do you think some of

342

00:15:42,680 --> 00:15:40,080

that plays a role here I don't because

343

00:15:44,720 --> 00:15:42,690

of experience with other experiments you

344

00:15:47,720 --> 00:15:44,730

know I teach a class on SCI phenomena

345

00:15:50,180 --> 00:15:47,730

and as part of the class these

346

00:15:51,770 --> 00:15:50,190

undergraduates need to carry out a major

347

00:15:55,280 --> 00:15:51,780

research project some of them have been

348

00:15:57,650 --> 00:15:55,290

published here and as Brenda Dunn will

349

00:15:59,480 --> 00:15:57,660

tell you as well typically students do

350

00:16:01,670 --> 00:15:59,490

very well because they're excited and

351

00:16:03,800 --> 00:16:01,680

they get positive results from the

352

00:16:06,320 --> 00:16:03,810

beginning these are real results it

353

00:16:08,180 --> 00:16:06,330

happens over and over and over again but

354

00:16:10,430 --> 00:16:08,190

then if I had them for a second semester

355

00:16:12,620 --> 00:16:10,440

I bet you wouldn't get the same sort of

356

00:16:14,810 --> 00:16:12,630

results there seems to be something that

357

00:16:17,450 --> 00:16:14,820

happens early in the early stages and

358

00:16:20,450 --> 00:16:17,460

then it goes away I just have a very

359

00:16:24,740 --> 00:16:20,460

brief question I'm assuming you did all

360

00:16:25,820 --> 00:16:24,750

this with AC power plugs yes and I'm

361

00:16:27,230 --> 00:16:25,830

assuming you're in the electrical

362

00:16:29,920 --> 00:16:27,240

engineering building which should be

363

00:16:31,970 --> 00:16:29,930

very filtered and there's no funny

364

00:16:33,980 --> 00:16:31,980

resonance you've got your filters on

365

00:16:35,540 --> 00:16:33,990

there and all that good stuff there also

366

00:16:39,350 --> 00:16:35,550

because you can have a power surge or

367

00:16:42,830 --> 00:16:39,360

something backwash and how would the

368

00:16:47,090 --> 00:16:42,840

power surge affect something a second

369

00:16:49,360 --> 00:16:47,100

before it happened you know in any case

370

00:16:51,590 --> 00:16:49,370

we also did all sorts of checks we

371

00:16:53,420 --> 00:16:51,600

electromagnetically radiated the random

372

00:16:55,490 --> 00:16:53,430

event generators we put them on top of

373

00:16:57,500 --> 00:16:55,500

each other we put them far apart we

374

00:17:03,200 --> 00:16:57,510

could not get anything to affect them

375

00:17:04,520 --> 00:17:03,210

except for this my field is robotics I'm

376

00:17:07,010 --> 00:17:04,530

a roboticist and I've worked with

377

00:17:08,420 --> 00:17:07,020

students in robots for 20 years we've

378

00:17:11,180 --> 00:17:08,430

never seen any evidence of any

379

00:17:13,220 --> 00:17:11,190

consciousness in a robot and I'm curious

380

00:17:14,300 --> 00:17:13,230

about what led you to this hypothesis in

381

00:17:20,090 --> 00:17:14,310

the first place

382

00:17:21,940 --> 00:17:20,100

noise so we know that there is wisdom in

383

00:17:24,340 --> 00:17:21,950

randomness

384

00:17:26,440 --> 00:17:24,350

and on sand somehow we need to be

385

00:17:28,690 --> 00:17:26,450

playing with the uncertainty with a

386

00:17:35,620 --> 00:17:28,700

random event generator if we had a

387

00:17:38,830 --> 00:17:35,630

purely what's the word the opposite of

388

00:17:41,650 --> 00:17:38,840

random deterministic system we wouldn't

389

00:17:43,810 --> 00:17:41,660

see this and most electronics which is

390

00:17:46,450 --> 00:17:43,820

what I work with day in and day out are

391

00:17:48,310 --> 00:17:46,460

designed to try to avoid any sort of

392

00:17:51,250 --> 00:17:48,320

random effects and to have deterministic

393

00:17:53,680 --> 00:17:51,260

effects if you do that chances are

394

00:17:55,030 --> 00:17:53,690

you're gonna be squelching what you

395

00:18:00,640 --> 00:17:55,040

might see if you allowed the noise to

396

00:18:02,050 --> 00:18:00,650

come through a couple of things occurred

397

00:18:04,030 --> 00:18:02,060

to me one is that there's some other

398

00:18:07,420 --> 00:18:04,040

variables here that you know about that

399

00:18:09,220 --> 00:18:07,430

weren't really considered maybe the

400

00:18:11,580 --> 00:18:09,230

geomagnetic field changed a little bit

401
00:18:15,940 --> 00:18:11,590
maybe it's different local sidereal time

402
00:18:17,940 --> 00:18:15,950
maybe that or something so there might

403
00:18:23,770 --> 00:18:17,950
be mundane reasons that it changed

404
00:18:25,600 --> 00:18:23,780
secondly like I said once before if

405
00:18:27,400 --> 00:18:25,610
there's some sort of an experiment or

406
00:18:31,570 --> 00:18:27,410
effects it's really not just your

407
00:18:32,830 --> 00:18:31,580
attitude or your beliefs it has to do

408
00:18:35,410 --> 00:18:32,840
with whatever is connected to the

409
00:18:37,810 --> 00:18:35,420
outputs of that experiment and if if you

410
00:18:39,250 --> 00:18:37,820
get great success and you open a bottle

411
00:18:41,440 --> 00:18:39,260
of champagne that's different than if

412
00:18:43,840 --> 00:18:41,450
you don't get any success and you just

413
00:18:44,890 --> 00:18:43,850

go home so it's funny you mentioned

414

00:18:47,200 --> 00:18:44,900

something today

415

00:18:48,790 --> 00:18:47,210

I think you may well be right what one

416

00:18:51,010 --> 00:18:48,800

of the things that happened after we got

417

00:18:58,000 --> 00:18:51,020

that first set of data which gave us the

418

00:19:01,270 --> 00:18:58,010

- 6.5 Z I gave a lecture to the my

419

00:19:03,340 --> 00:19:01,280

college on sigh phenomena so these were

420

00:19:05,800 --> 00:19:03,350

grad students and faculty and I included

421

00:19:07,750 --> 00:19:05,810

that data yes and showed it to them and

422

00:19:10,570 --> 00:19:07,760

there were certainly skeptics there

423

00:19:12,330 --> 00:19:10,580

among along with proponents it was that

424

00:19:14,770 --> 00:19:12,340

the thing that changed it I don't know

425

00:19:16,480 --> 00:19:14,780

it may be whatever you did in the world

426

00:19:21,010 --> 00:19:16,490

it manifests your feelings about it

427

00:19:23,080 --> 00:19:21,020

anyway third quick comment is that you

428

00:19:26,560 --> 00:19:23,090

seem to be thinking about this in a

429

00:19:28,750 --> 00:19:26,570

causal way what caused this cause and

430

00:19:30,070 --> 00:19:28,760

effect and and perhaps cause an effect

431

00:19:30,890 --> 00:19:30,080

in a backwards direction but

432

00:19:33,230 --> 00:19:30,900

nevertheless

433

00:19:34,520 --> 00:19:33,240

unidirectional at one at a time and I

434

00:19:37,550 --> 00:19:34,530

just think a better way to think about

435

00:19:39,050 --> 00:19:37,560

it is relational that is is always a

436

00:19:42,980 --> 00:19:39,060

dance between one and the other

437

00:19:45,860 --> 00:19:42,990

they both effect and in a sense create

438

00:19:47,750 --> 00:19:45,870

each other and so it's better to think

439

00:19:53,690 --> 00:19:47,760

about that in with more symmetry of

440

00:19:55,280 --> 00:19:53,700

accepted alright thank you so much I

441

00:19:56,740 --> 00:19:55,290

guess give our speaker if they can't run