1
00:00:13,910 --> 00:00:02,899
big introduction so I'll just say Dean

2
00:00:18,109 --> 00:00:13,920
Radin thank you okay expanding the scope

3
00:00:21,140 --> 00:00:18,119
of my matter interaction experiments are

4
00:00:23,509 --> 00:00:21,150
I'm in charge of a project at ions or

5
00:00:25,340 --> 00:00:23,519
Institute of noetic Sciences that we

6
00:00:28,009 --> 00:00:25,350
call ions X and the idea of it is to

7
00:00:31,370 --> 00:00:28,019
have the man think like that and then

8
00:00:33,910 --> 00:00:31,380
have something happen like that so it's

9
00:00:36,260 --> 00:00:33,920
the equivalent of a psychic switch

10
00:00:38,959 --> 00:00:36,270
probably not to create a psychic arise

11
00:00:41,869 --> 00:00:38,969
door opener but something like that and

12
00:00:43,490 --> 00:00:41,879
it's it's a useful application where we

13
00:00:44,779 --> 00:00:43,500

don't know if we can actually do that or

14
00:00:46,430 --> 00:00:44,789
not but along the way we're going to

15
00:00:48,400 --> 00:00:46,440
have to learn a lot to pull together

16
00:00:51,170 --> 00:00:48,410
everything that we already know about

17
00:00:55,369 --> 00:00:51,180
psychokinetic effects so this is sort of

18
00:00:57,229 --> 00:00:55,379
a PKA Concilium we use the acronym atom

19
00:01:00,799 --> 00:00:57,239
which makes sense given that whereas

20
00:01:05,240 --> 00:01:00,809
ions and atom stands for analyses

21
00:01:09,219 --> 00:01:05,250
targets operators and moderators so on

22
00:01:11,660 --> 00:01:09,229
the analysis side we're talking about

23
00:01:13,340 --> 00:01:11,670
besides things simple things like shift

24
00:01:15,800 --> 00:01:13,350
of the mean and shift of variance and so

25
00:01:17,539 --> 00:01:15,810
on we're looking at analytical methods

26
00:01:19,580 --> 00:01:17,549
like fractal dimensions chaotic

27
00:01:24,020 --> 00:01:19,590
attractors machine learning causal

28
00:01:25,730 --> 00:01:24,030
analysis and so on for targets which is

29
00:01:28,870 --> 00:01:25,740
what I'll primarily be talking about

30
00:01:31,780 --> 00:01:28,880
we're talking about photon interference

31
00:01:34,789 --> 00:01:31,790
polarization scattering or absorption

32
00:01:38,200 --> 00:01:34,799
photon entanglement photoelectric high

33
00:01:41,929 --> 00:01:38,210
voltage plasma and a few other things

34
00:01:44,410 --> 00:01:41,939
for operators we're talking about the

35
00:01:47,810 --> 00:01:44,420
obvious things like personality belief

36
00:01:50,389 --> 00:01:47,820
talent motivation and most recently

37
00:01:52,670 --> 00:01:50,399
genetics so to say a little bit more

38
00:01:55,219 --> 00:01:52,680

about genetics so we have a program that

39
00:01:56,630 --> 00:01:55,229
we call SCI genes and if you remember

40
00:01:58,819 --> 00:01:56,640
this book this is written by the

41
00:02:01,280 --> 00:01:58,829
journalist Andy Jacobson came out I

42
00:02:03,319 --> 00:02:01,290
think two years ago this talks about the

43
00:02:04,670 --> 00:02:03,329
secret history of the US government's

44
00:02:07,429 --> 00:02:04,680
investigation into extrasensory

45
00:02:08,660 --> 00:02:07,439
perception and psychokinesis so for

46
00:02:09,830 --> 00:02:08,670
people who have been involved in this

47
00:02:13,670 --> 00:02:09,840
program

48
00:02:16,610 --> 00:02:13,680
that this is somewhat limited and in

49
00:02:18,860 --> 00:02:16,620
some cases distorted history so those of

50
00:02:20,510 --> 00:02:18,870
us in the program realized that she did

51
00:02:22,550 --> 00:02:20,520
as good as the journalist probably can

52
00:02:25,400 --> 00:02:22,560
do but didn't get some of it right and

53
00:02:26,809 --> 00:02:25,410
some of its not quite right so the

54
00:02:28,400 --> 00:02:26,819
interesting thing though is at the end

55
00:02:30,290 --> 00:02:28,410
of that book

56
00:02:32,509 --> 00:02:30,300
she's asking some of the people involved

57
00:02:34,580 --> 00:02:32,519
in other peripheral people well what's

58
00:02:38,660 --> 00:02:34,590
next and one of the things that she's

59
00:02:41,500 --> 00:02:38,670
talking about is about a an anomaly

60
00:02:44,090 --> 00:02:41,510
found in the brain of people who have

61
00:02:47,000 --> 00:02:44,100
extraordinary experiences including

62
00:02:49,250 --> 00:02:47,010
highly talented remote viewers so what

63
00:02:52,699 --> 00:02:49,260

you're looking at here is a picture of a

64
00:02:54,860 --> 00:02:52,709
more or less normal MRI where the the

65
00:02:59,240 --> 00:02:54,870
slices horizontally through the head

66
00:03:01,100 --> 00:02:59,250
right in the middle and so if this part

67
00:03:03,740 --> 00:03:01,110
of the brain is called a caudate this

68
00:03:06,830 --> 00:03:03,750
part is through potema n-- in between

69
00:03:09,500 --> 00:03:06,840
that spot something strange was noticed

70
00:03:12,770 --> 00:03:09,510
for people who report alien abductions

71
00:03:14,720 --> 00:03:12,780
seeing telepathic speaking orbs having

72
00:03:19,310 --> 00:03:14,730
extremely good remote viewing ability

73
00:03:21,229 --> 00:03:19,320
and so on the this portion of the brain

74
00:03:23,330 --> 00:03:21,239
which sits upon the basal ganglia it's

75
00:03:25,039 --> 00:03:23,340
an old part of the brain it can be

76
00:03:26,960 --> 00:03:25,049
thought of as an intuitive processing

77
00:03:28,759 --> 00:03:26,970
center in the sense that when you have

78
00:03:31,069 --> 00:03:28,769
all of the sensory input coming into

79
00:03:33,170 --> 00:03:31,079
your body a very limited amount of that

80
00:03:35,150 --> 00:03:33,180
a small fraction makes it to conscious

81
00:03:37,250 --> 00:03:35,160
awareness and the portion of the brain

82
00:03:39,229 --> 00:03:37,260
that in a sense is making the decisions

83
00:03:42,349 --> 00:03:39,239
about what gets sent to the frontal

84
00:03:46,520 --> 00:03:42,359
lobes is happening in this region so

85
00:03:48,920 --> 00:03:46,530
this is a normal brain and this is the

86
00:03:52,000 --> 00:03:48,930
brain of people like highly talented

87
00:03:54,199 --> 00:03:52,010
remote viewers so natural remote viewers

88
00:03:55,550 --> 00:03:54,209

oftentimes coming from families where

89
00:03:59,030 --> 00:03:55,560
there other people have extraordinary

90
00:04:01,430 --> 00:03:59,040
ability which immediately suggests that

91
00:04:03,349 --> 00:04:01,440
there's probably a genetic component to

92
00:04:06,259 --> 00:04:03,359
it so what you're seeing here on the

93
00:04:08,539 --> 00:04:06,269
left is not a lesion for one thing it's

94
00:04:10,160 --> 00:04:08,549
bilateral or the other thing is that

95
00:04:12,170 --> 00:04:10,170
they're about a hundred and fifty known

96
00:04:14,150 --> 00:04:12,180
cases that have this structure in the

97
00:04:15,289 --> 00:04:14,160
brain so what you're seeing here that

98
00:04:17,649 --> 00:04:15,299
looks a little bit like a venetian blind

99
00:04:21,050 --> 00:04:17,659
is actually very high-density

100
00:04:22,170 --> 00:04:21,060
fibers tracts so there's a connection

101
00:04:26,790 --> 00:04:22,180
here that in a normal

102
00:04:28,379 --> 00:04:26,800
person just doesn't exist so if you want

103
00:04:30,570 --> 00:04:28,389
to find out more about this go to

104
00:04:33,810 --> 00:04:30,580
youtube look up the DNA of the strange

105
00:04:35,730 --> 00:04:33,820
and dr. Gary Nolan is a genetics

106
00:04:38,070 --> 00:04:35,740
professor at Stanford who's the one who

107
00:04:40,140 --> 00:04:38,080
is looking into this there are several

108
00:04:43,230 --> 00:04:40,150
others as well so I'm part of that

109
00:04:45,719 --> 00:04:43,240
program and so what we're doing is a

110
00:04:48,330 --> 00:04:45,729
program we call SCI genes and we're

111
00:04:50,430 --> 00:04:48,340
looking for the genetics of psychic

112
00:04:52,409 --> 00:04:50,440
people who come from psychic families

113
00:04:55,170 --> 00:04:52,419

because there's a lot of lore about this

114
00:04:57,870 --> 00:04:55,180
sort of thing so we we surveyed 3,500

115
00:05:00,659 --> 00:04:57,880
candidates around the world we kept

116
00:05:02,120 --> 00:05:00,669
sifting down to make sure that just

117
00:05:05,129 --> 00:05:02,130
because they said they were psychic

118
00:05:07,200 --> 00:05:05,139
maybe they were psychotic so we had to

119
00:05:08,490 --> 00:05:07,210
we had to sift through many many hurdles

120
00:05:10,650 --> 00:05:08,500
here to make sure that they're really

121
00:05:12,689 --> 00:05:10,660
psychic they're well grounded they

122
00:05:14,850 --> 00:05:12,699
actually have ability that come from

123
00:05:19,409 --> 00:05:14,860
families with other psychics and so on

124
00:05:21,060 --> 00:05:19,419
so we ended up with 13 finalists so part

125
00:05:22,529 --> 00:05:21,070
of the reason for getting the difficulty

126
00:05:24,240 --> 00:05:22,539
of this is because we told people that

127
00:05:26,850 --> 00:05:24,250
eventually we're going to get your DNA

128
00:05:28,260 --> 00:05:26,860
and sequence your full genome so we're

129
00:05:29,850 --> 00:05:28,270
going to know a lot about you at the

130
00:05:31,439 --> 00:05:29,860
genetic level and so a lot of people

131
00:05:34,320 --> 00:05:31,449
said I don't think I want you to know

132
00:05:37,110 --> 00:05:34,330
that so we ended up with 13 finalists to

133
00:05:40,740 --> 00:05:37,120
get their full genomes and we found one

134
00:05:43,980 --> 00:05:40,750
gene on chromosome 7 which is associated

135
00:05:48,480 --> 00:05:43,990
with brain function but it is an unknown

136
00:05:50,490 --> 00:05:48,490
variant so we're talking about x-men so

137
00:05:52,050 --> 00:05:50,500
an unknown variant on a gene means that

138
00:05:53,820 --> 00:05:52,060

we don't know the function of that

139
00:05:55,860 --> 00:05:53,830
particular form of the gene we don't

140
00:05:58,080 --> 00:05:55,870
know what it what the epigenetics of it

141
00:06:00,540 --> 00:05:58,090
is we don't know what expresses we do

142
00:06:02,580 --> 00:06:00,550
know given this particular gene that it

143
00:06:05,129 --> 00:06:02,590
is directly involved in brain function

144
00:06:06,839 --> 00:06:05,139
and also in the epigenetic expression of

145
00:06:07,409 --> 00:06:06,849
lots of other aspects of how the brain

146
00:06:10,050 --> 00:06:07,419
works

147
00:06:11,550 --> 00:06:10,060
so with this might be the gene that is

148
00:06:13,200 --> 00:06:11,560
associated with that structure in the

149
00:06:17,580 --> 00:06:13,210
brain we don't know yet so this is an

150
00:06:18,870 --> 00:06:17,590
ongoing project so our moderators we're

151
00:06:21,060 --> 00:06:18,880
looking at things like set and setting

152
00:06:23,070 --> 00:06:21,070
lunar cycles solar cycle and so on all

153
00:06:25,170 --> 00:06:23,080
of those so the goal on this is to put

154
00:06:29,550 --> 00:06:25,180
them all together and figure out the

155
00:06:31,260 --> 00:06:29,560
optimal way of making piqué happen so

156
00:06:32,490 --> 00:06:31,270
I'm going to talk more about the targets

157
00:06:34,019 --> 00:06:32,500
that we've been looking at if you look

158
00:06:34,470 --> 00:06:34,029
in the literature you find that the vast

159
00:06:37,170 --> 00:06:34,480
majority

160
00:06:39,900 --> 00:06:37,180
studies looking at PK is on the throwing

161
00:06:42,390 --> 00:06:39,910
of dice roughly 50 years of that and

162
00:06:44,520 --> 00:06:42,400
random number generators also about 50

163
00:06:49,800 --> 00:06:44,530

years worth of experiments in both cases

164
00:06:51,690 --> 00:06:49,810
hundreds of published experiments of

165
00:06:53,760 --> 00:06:51,700
course many many other things have been

166
00:06:55,740 --> 00:06:53,770
tried at the pair lab in particular you

167
00:06:57,510 --> 00:06:55,750
find the bouncing plastic balls and the

168
00:06:59,820 --> 00:06:57,520
water turbulence and so on lots of

169
00:07:03,900 --> 00:06:59,830
different target systems have been

170
00:07:06,030 --> 00:07:03,910
studied for a PK also in living systems

171
00:07:07,650 --> 00:07:06,040
almost every living system you can think

172
00:07:11,610 --> 00:07:07,660
of has been at one time or another a

173
00:07:14,130 --> 00:07:11,620
target of psychokinetic influence so the

174
00:07:16,770 --> 00:07:14,140
interesting thing is that virtually all

175
00:07:18,930 --> 00:07:16,780
of these show some effect the effects

176
00:07:21,960 --> 00:07:18,940
are usually statistically significant

177
00:07:25,110 --> 00:07:21,970
like right at the cusp of 0.05 sometimes

178
00:07:27,990 --> 00:07:25,120
stronger and it which makes you start to

179
00:07:29,730 --> 00:07:28,000
wonder well what is actually going on or

180
00:07:31,320 --> 00:07:29,740
all of these systems basically random

181
00:07:33,750 --> 00:07:31,330
number generators and we're somehow

182
00:07:37,680 --> 00:07:33,760
manipulating it in some way or oh we

183
00:07:41,820 --> 00:07:37,690
don't know so we're looking at new

184
00:07:44,130 --> 00:07:41,830
sensors that haven't been tested before

185
00:07:45,300 --> 00:07:44,140
some of them we have been tested but

186
00:07:47,580 --> 00:07:45,310
we're using slightly different

187
00:07:49,740 --> 00:07:47,590
variations on it so I've been focusing

188
00:07:53,240 --> 00:07:49,750

primarily in the last 10 years or so on

189
00:07:55,200 --> 00:07:53,250
photons mainly with wave interference

190
00:07:58,860 --> 00:07:55,210
polarization absorption or scattering

191
00:08:03,600 --> 00:07:58,870
and entanglement and also photoelectric

192
00:08:05,310 --> 00:08:03,610
plasma also we have a new form of random

193
00:08:07,410 --> 00:08:05,320
number generator where we're recording

194
00:08:09,600 --> 00:08:07,420
the quantum noise directly rather than

195
00:08:11,940 --> 00:08:09,610
turning it into bits to see if the noise

196
00:08:13,200 --> 00:08:11,950
is being modulated short-story is yes

197
00:08:17,520 --> 00:08:13,210
but I'm not going to talk about that

198
00:08:19,490 --> 00:08:17,530
today so the photon wave interference is

199
00:08:24,480 --> 00:08:19,500
all is based on the the observer effect

200
00:08:26,760 --> 00:08:24,490
if you are looking at a photon you in a

201
00:08:28,860 --> 00:08:26,770
sense localize it in space-time becomes

202
00:08:32,420 --> 00:08:28,870
like a particle if you're not looking it

203
00:08:34,920 --> 00:08:32,430
seems to be spread out in space-time so

204
00:08:36,900 --> 00:08:34,930
I've been using double slit systems to

205
00:08:41,159 --> 00:08:36,910
look at this because it's convenient so

206
00:08:43,320 --> 00:08:41,169
here comes a laser beam laser beam goes

207
00:08:45,380 --> 00:08:43,330
through the the two slits and if the two

208
00:08:48,620 --> 00:08:45,390
slits are such a

209
00:08:51,260 --> 00:08:48,630
and the the the beam is set up in the

210
00:08:55,190 --> 00:08:51,270
right way the light coming out in phase

211
00:08:57,320 --> 00:08:55,200
will together combine and create a light

212
00:08:59,150 --> 00:08:57,330
spot so the reason why you get light and

213
00:09:00,650 --> 00:08:59,160

dark bands here is because sometimes the

214
00:09:03,080 --> 00:09:00,660
beams are in phase and sometimes they're

215
00:09:05,870 --> 00:09:03,090
out of phase so there's the in phase

216
00:09:08,480 --> 00:09:05,880
here's a very very slight phase shift

217
00:09:10,820 --> 00:09:08,490
and you will get a dark spot so what we

218
00:09:12,710 --> 00:09:10,830
do in our experiment is put as use a

219
00:09:15,140 --> 00:09:12,720
double slit system but then put a single

220
00:09:18,080 --> 00:09:15,150
slit at the very end of that to choose a

221
00:09:21,200 --> 00:09:18,090
dark spot and so the task now is if you

222
00:09:23,330 --> 00:09:21,210
can introduce a small phase shift to the

223
00:09:26,000 --> 00:09:23,340
beam that you would turn it into a light

224
00:09:29,870 --> 00:09:26,010
spot so the task is very simple make

225
00:09:31,910 --> 00:09:29,880
more light happen so that's where we're

226
00:09:35,570 --> 00:09:31,920
looking at that dark spot so there I am

227
00:09:37,550 --> 00:09:35,580
looking down the tube and this is it

228
00:09:39,740 --> 00:09:37,560
from the side and this is the camera we

229
00:09:41,720 --> 00:09:39,750
just take a camera looking at what

230
00:09:44,720 --> 00:09:41,730
amounts to a dark spot on the

231
00:09:46,130 --> 00:09:44,730
interference pattern this thing all

232
00:09:48,560 --> 00:09:46,140
together well the equipment and stuff

233
00:09:50,000 --> 00:09:48,570
cost maybe ten thousand dollars and

234
00:09:52,370 --> 00:09:50,010
would and the reason I mentioned that

235
00:09:55,970 --> 00:09:52,380
I'll mention later why the the cost of

236
00:09:58,970 --> 00:09:55,980
this is an issue so the other thing

237
00:10:00,110 --> 00:09:58,980
there this is now the 19th experiment

238
00:10:03,140 --> 00:10:00,120

that we've done using a double slit

239
00:10:05,000 --> 00:10:03,150
system one of the issues about any use

240
00:10:06,950 --> 00:10:05,010
of a random system is that maybe we're

241
00:10:09,200 --> 00:10:06,960
taking advantage of random fluctuations

242
00:10:10,760 --> 00:10:09,210
like a random walk and we just happen to

243
00:10:12,770 --> 00:10:10,770
do the experiment at a time when it's

244
00:10:14,870 --> 00:10:12,780
walking in the direction that we want so

245
00:10:17,540 --> 00:10:14,880
what I'm interested in here is is this

246
00:10:19,610 --> 00:10:17,550
actually causal as little as looking at

247
00:10:21,080 --> 00:10:19,620
the system making something happen in it

248
00:10:23,210 --> 00:10:21,090
and it's an extremely important question

249
00:10:25,340 --> 00:10:23,220
especially when it comes to something

250
00:10:27,590 --> 00:10:25,350
like healing because if Healing turns

251
00:10:29,810 --> 00:10:27,600
out to be fortuitous guessing of the

252
00:10:31,310 --> 00:10:29,820
time to try to heal somebody then

253
00:10:33,830 --> 00:10:31,320
nothing's happening in the person

254
00:10:35,510 --> 00:10:33,840
whereas if you're trying to do something

255
00:10:37,880 --> 00:10:35,520
and they actually change that has to be

256
00:10:39,740 --> 00:10:37,890
causal so is this it's a double set

257
00:10:41,630 --> 00:10:39,750
system of causal method it's the

258
00:10:44,720 --> 00:10:41,640
illumination modulated according to the

259
00:10:46,730 --> 00:10:44,730
assigned instructions so here's the

260
00:10:49,250 --> 00:10:46,740
typical protocol we use concentrate

261
00:10:50,990 --> 00:10:49,260
relaxed concentrate relax between these

262
00:10:53,780 --> 00:10:51,000
two epochs we usually have a little

263
00:10:55,820 --> 00:10:53,790

random time between typically one and

264
00:10:58,790 --> 00:10:55,830
five seconds so we don't want to

265
00:11:01,519 --> 00:10:58,800
accidentally run into a 30 second 30

266
00:11:02,389 --> 00:11:01,529
second cycle and we split it up by

267
00:11:05,150 --> 00:11:02,399
having a little bit of randomness

268
00:11:07,310 --> 00:11:05,160
between and now we're looking at

269
00:11:09,590 --> 00:11:07,320
illumination and if the illumination

270
00:11:11,150 --> 00:11:09,600
follows the instructions more light when

271
00:11:12,800 --> 00:11:11,160
you're concentrating less light when

272
00:11:15,740 --> 00:11:12,810
you're not concentrating and that

273
00:11:17,840 --> 00:11:15,750
persists that's a way of thinking well

274
00:11:18,759 --> 00:11:17,850
it looks like it's causal it wasn't just

275
00:11:21,410 --> 00:11:18,769
an accident

276
00:11:24,139 --> 00:11:21,420
so we do a very simple thing we look at

277
00:11:25,990 --> 00:11:24,149
each epic pair and we simply say is

278
00:11:29,420 --> 00:11:26,000
there more light in the concentrate

279
00:11:31,670 --> 00:11:29,430
period than in the relax period so we

280
00:11:35,120 --> 00:11:31,680
end up a whole bunch of these pairs that

281
00:11:37,490 --> 00:11:35,130
we look at and so this is the result of

282
00:11:39,590 --> 00:11:37,500
of an experiment using this new double

283
00:11:42,230 --> 00:11:39,600
set system this is now taking the

284
00:11:44,660 --> 00:11:42,240
proportion of pairs in the correct

285
00:11:47,600 --> 00:11:44,670
direction by chance it would be 50% in

286
00:11:49,610 --> 00:11:47,610
one direction and 50% in the other zero

287
00:11:53,090 --> 00:11:49,620
on this point is where the instruction

288
00:11:58,160 --> 00:11:53,100

happens so as you see here there's

289
00:12:01,759 --> 00:11:58,170
there's the instruction we had 495 epoch

290
00:12:03,530 --> 00:12:01,769
pairs in this experiment it involved 15

291
00:12:05,960 --> 00:12:03,540
different people doing many repeated

292
00:12:07,610 --> 00:12:05,970
trials and then the control is running

293
00:12:09,920 --> 00:12:07,620
the same thing all by itself in this

294
00:12:12,829 --> 00:12:09,930
case we ran it for 15,000 Epoque pairs

295
00:12:14,960 --> 00:12:12,839
so you can see at a glance that sure

296
00:12:18,230 --> 00:12:14,970
enough there is an increase that's just

297
00:12:19,760 --> 00:12:18,240
on the cusp of a significant increase at

298
00:12:23,180 --> 00:12:19,770
the time when the instruction is given

299
00:12:25,550 --> 00:12:23,190
so kind of looks like yeah it's heading

300
00:12:28,340 --> 00:12:25,560
in the direction of a causal effect it's

301
00:12:29,930 --> 00:12:28,350
pretty small but nevertheless it's it's

302
00:12:32,210 --> 00:12:29,940
in that direction

303
00:12:34,519 --> 00:12:32,220
what is the reason why we have lag we

304
00:12:36,590 --> 00:12:34,529
have a minus and positive lag here

305
00:12:39,019 --> 00:12:36,600
because they want to see how the effect

306
00:12:40,850 --> 00:12:39,029
of the light is changing before the

307
00:12:42,650 --> 00:12:40,860
instruction and after the instruction to

308
00:12:46,189 --> 00:12:42,660
give a like a temporal snapshot of

309
00:12:47,389 --> 00:12:46,199
what's happening so it looks like it

310
00:12:49,730 --> 00:12:47,399
might maybe this wave interference

311
00:12:51,050 --> 00:12:49,740
effect is causal so that's good

312
00:12:54,139 --> 00:12:51,060
especially for healers

313
00:12:56,930 --> 00:12:54,149

okay so polarized photons so there's

314
00:12:59,509 --> 00:12:56,940
this thing called the Faraday effect you

315
00:13:02,269 --> 00:12:59,519
know we all know that electromagnetic

316
00:13:03,740 --> 00:13:02,279
signals has the word magnetic in it and

317
00:13:05,329 --> 00:13:03,750
we all know that if you take two magnets

318
00:13:07,639 --> 00:13:05,339
they'll either attract each other or

319
00:13:09,470 --> 00:13:07,649
repel so if you took an electromagnetic

320
00:13:11,210 --> 00:13:09,480
thing like a piece of light and you put

321
00:13:12,350 --> 00:13:11,220
a magnet next to it you would expect it

322
00:13:14,030 --> 00:13:12,360
to do something

323
00:13:15,500 --> 00:13:14,040
well it turns out that you can it does

324
00:13:17,509 --> 00:13:15,510
do something it's called the Faraday

325
00:13:19,540 --> 00:13:17,519
effect so the way you'd look at this in

326
00:13:22,160 --> 00:13:19,550
the lab is you you measure the

327
00:13:23,540 --> 00:13:22,170
polarization of the electric field you

328
00:13:25,009 --> 00:13:23,550
put it make it go through a strong

329
00:13:27,319 --> 00:13:25,019
magnetic field and sure enough you can

330
00:13:29,269 --> 00:13:27,329
create a twist so that's changing the

331
00:13:31,130 --> 00:13:29,279
polarization as a result of a magnetic

332
00:13:33,769 --> 00:13:31,140
field so we're going to do the

333
00:13:36,019 --> 00:13:33,779
equivalent now by making the mind the

334
00:13:39,560 --> 00:13:36,029
like a magnetic field and see if we can

335
00:13:41,930 --> 00:13:39,570
twist the polarization so here's the

336
00:13:44,240 --> 00:13:41,940
apparatus that we use so we have a laser

337
00:13:47,269 --> 00:13:44,250
shoot through a half-silvered mirror and

338
00:13:49,370 --> 00:13:47,279

go directly into a camera the bounce

339
00:13:51,560 --> 00:13:49,380
goes to a mirror which goes first

340
00:13:54,230 --> 00:13:51,570
through a vertical polarizer and then to

341
00:13:56,569 --> 00:13:54,240
a horizontal polarizer then that's

342
00:13:57,980 --> 00:13:56,579
bounced and that also goes to the camera

343
00:14:00,019 --> 00:13:57,990
so we have three signals that were

344
00:14:02,540 --> 00:14:00,029
measuring here one is straight through

345
00:14:04,850 --> 00:14:02,550
that we used as a standard measure of

346
00:14:06,500 --> 00:14:04,860
the power output of the laser the one

347
00:14:08,660 --> 00:14:06,510
going through the cross polarisers

348
00:14:10,400 --> 00:14:08,670
because they're crossed should end up

349
00:14:11,990 --> 00:14:10,410
with nothing when you get through the

350
00:14:13,730 --> 00:14:12,000
second polarizer and the one in the

351
00:14:15,440 --> 00:14:13,740
middle is seeing what kind of light

352
00:14:18,800 --> 00:14:15,450
there is before it goes through the

353
00:14:19,850 --> 00:14:18,810
second polarizer so the question is well

354
00:14:22,310 --> 00:14:19,860
what's happening here

355
00:14:25,160 --> 00:14:22,320
so we predict in advance that there if

356
00:14:27,590 --> 00:14:25,170
you could mentally twist if this is the

357
00:14:29,870 --> 00:14:27,600
target and you can twist it and the task

358
00:14:32,389 --> 00:14:29,880
actually is to grab on to this beam with

359
00:14:33,920 --> 00:14:32,399
your mind and twist it a little bit

360
00:14:36,740 --> 00:14:33,930
in which case more light would come out

361
00:14:38,810 --> 00:14:36,750
that was the idea so we did this with

362
00:14:41,509 --> 00:14:38,820
two different apparatus that we did that

363
00:14:42,949 --> 00:14:41,519

one and then a more sophisticated one

364
00:14:45,740 --> 00:14:42,959
where we had a temperature controller

365
00:14:47,420 --> 00:14:45,750
inside the box because anybody working

366
00:14:48,980 --> 00:14:47,430
with optical systems knows that they're

367
00:14:51,290 --> 00:14:48,990
extremely sensitive to temperature and

368
00:14:54,920 --> 00:14:51,300
so we wanted to make sure that it was as

369
00:14:56,240 --> 00:14:54,930
stable as we could possibly get so

370
00:15:00,860 --> 00:14:56,250
here's what the apparatus looks like

371
00:15:03,680 --> 00:15:00,870
there's the beam so we have a standard

372
00:15:06,590 --> 00:15:03,690
being measuring the power polarized beam

373
00:15:08,829 --> 00:15:06,600
and what we call the bounce beam so

374
00:15:11,389 --> 00:15:08,839
they're my offices we twist the beam

375
00:15:13,370 --> 00:15:11,399
between the cross polarisers and that

376
00:15:16,490 --> 00:15:13,380
should increase the output of the second

377
00:15:18,530 --> 00:15:16,500
protocol is very similar as we saw

378
00:15:22,579 --> 00:15:18,540
before you twist the beam relax twist

379
00:15:25,230 --> 00:15:22,589
relax and so on each case was twenty

380
00:15:29,740 --> 00:15:25,240
seconds and this is the result

381
00:15:32,259 --> 00:15:29,750
so we we see a decline a significant

382
00:15:35,230 --> 00:15:32,269
decline in the illumination level in

383
00:15:38,139 --> 00:15:35,240
both the bounced beam and the polarized

384
00:15:39,970 --> 00:15:38,149
beam this is not what we predicted so

385
00:15:43,569 --> 00:15:39,980
the second experiment we got exam the

386
00:15:46,990 --> 00:15:43,579
same result so we the photons went away

387
00:15:49,059 --> 00:15:47,000
as a result of the experiment so we had

388
00:15:50,170 --> 00:15:49,069

to do another experiment where we're

389
00:15:53,170 --> 00:15:50,180
asking where what happened to the

390
00:15:57,280 --> 00:15:53,180
photons so this is the missing photons

391
00:15:59,740 --> 00:15:57,290
experiment in this case here's Lauren

392
00:16:02,230 --> 00:15:59,750
carpenter building the apparatus here's

393
00:16:04,150 --> 00:16:02,240
another shot of it and the way it works

394
00:16:07,780 --> 00:16:04,160
is this so we have a laser at the bottom

395
00:16:11,829 --> 00:16:07,790
it gets shot straight up through a metal

396
00:16:13,360 --> 00:16:11,839
sphere and then up to a camera and when

397
00:16:14,949 --> 00:16:13,370
somebody's asked to concentrate they're

398
00:16:18,249 --> 00:16:14,959
asked to put their mind inside the

399
00:16:19,540 --> 00:16:18,259
sphere and to block the beam so in the

400
00:16:21,639 --> 00:16:19,550
sphere it's painted with a highly

401
00:16:23,769 --> 00:16:21,649
reflective surface so that if the beam

402
00:16:25,749 --> 00:16:23,779
is in fact scattered it will bounce

403
00:16:29,050 --> 00:16:25,759
around inside the sphere and end up at

404
00:16:30,340 --> 00:16:29,060
this detector on the side and then when

405
00:16:31,750 --> 00:16:30,350
they don't when they relaxed it would

406
00:16:35,920 --> 00:16:31,760
presumably be allowed to go straight

407
00:16:38,379 --> 00:16:35,930
through again so the prediction is a

408
00:16:39,699 --> 00:16:38,389
negative correlation a decrease and the

409
00:16:41,379 --> 00:16:39,709
straight through illumination and

410
00:16:43,629 --> 00:16:41,389
increase in the scattered illumination

411
00:16:44,860 --> 00:16:43,639
when they're concentrating and when

412
00:16:47,079 --> 00:16:44,870
they're not concentrating and no

413
00:16:49,210 --> 00:16:47,089

correlation so this is the result

414
00:16:51,160 --> 00:16:49,220
negative correlation is predicted quite

415
00:16:53,829 --> 00:16:51,170
a strong result you're very happy with

416
00:16:57,220 --> 00:16:53,839
that when they're relaxing no

417
00:17:00,540 --> 00:16:57,230
correlation so that was good and then

418
00:17:02,530 --> 00:17:00,550
under control conditions no effect

419
00:17:04,199 --> 00:17:02,540
unfortunately the illumination levels

420
00:17:05,799 --> 00:17:04,209
were opposite to what we predicted

421
00:17:08,409 --> 00:17:05,809
during this straight through

422
00:17:11,530 --> 00:17:08,419
illumination they went up and the

423
00:17:13,780 --> 00:17:11,540
scattered went down so we don't know

424
00:17:16,079 --> 00:17:13,790
what's going on so that brings us to

425
00:17:19,480 --> 00:17:16,089
that

426
00:17:22,419 --> 00:17:19,490
so this is actually quite good because

427
00:17:24,220 --> 00:17:22,429
it means that we're getting interesting

428
00:17:26,199 --> 00:17:24,230
results which are not according to our

429
00:17:28,120 --> 00:17:26,209
expectation and part of the the

430
00:17:29,649 --> 00:17:28,130
difficulty in all of these experiments

431
00:17:30,009 --> 00:17:29,659
is sometimes you just get whatever you

432
00:17:32,889 --> 00:17:30,019
want

433
00:17:34,539 --> 00:17:32,899
well we didn't in several cases now so

434
00:17:37,570 --> 00:17:34,549
it's telling us clues that could be

435
00:17:39,070 --> 00:17:37,580
important for our future work we have

436
00:17:42,759 --> 00:17:39,080
also done experiments with entangled

437
00:17:44,799 --> 00:17:42,769
photons so this apparatus I don't think

438
00:17:47,980 --> 00:17:44,809

I can do this in two minutes there's

439
00:17:49,990 --> 00:17:47,990
more than two minutes here okay so this

440
00:17:51,340 --> 00:17:50,000
is an apparatus that creates entangled

441
00:17:53,320 --> 00:17:51,350
photons it's about a thousand two

442
00:17:54,850 --> 00:17:53,330
entangled photons per second I don't

443
00:17:56,680 --> 00:17:54,860
have time to go through the details of

444
00:17:58,750 --> 00:17:56,690
how it works but it's using for those of

445
00:18:02,799 --> 00:17:58,760
you who know about the claws or hold

446
00:18:05,529 --> 00:18:02,809
Simoni and know the claws or CH SH

447
00:18:08,139 --> 00:18:05,539
method yeah so there's the the apparatus

448
00:18:09,490 --> 00:18:08,149
that costs forty thousand dollars but by

449
00:18:11,049 --> 00:18:09,500
the time you get everything together and

450
00:18:13,419 --> 00:18:11,059
we did a four experiments to see whether

451
00:18:16,090 --> 00:18:13,429
the mind can manipulate entanglement

452
00:18:17,620 --> 00:18:16,100
strength because an entangled photon get

453
00:18:19,419 --> 00:18:17,630
has different strengths to it so it

454
00:18:22,240 --> 00:18:19,429
turns out that the answer is yes we can

455
00:18:24,310 --> 00:18:22,250
mentally modulate entanglement to have

456
00:18:25,960 --> 00:18:24,320
stronger correlation than not and other

457
00:18:30,639 --> 00:18:25,970
control conditions you don't see that

458
00:18:32,289 --> 00:18:30,649
so the fourth version of this oh so

459
00:18:34,480 --> 00:18:32,299
there we have priestess entanglement

460
00:18:35,889 --> 00:18:34,490
strength we've done lots more on that

461
00:18:38,519 --> 00:18:35,899
experiment but again it's kind of

462
00:18:41,889 --> 00:18:38,529
complicated to describe so we're using

463
00:18:43,629 --> 00:18:41,899

photoelectric plasma here we're using a

464
00:18:47,950 --> 00:18:43,639
plasma ball everybody knows about these

465
00:18:50,070 --> 00:18:47,960
things it costs $40 so there's a plasma

466
00:18:53,590 --> 00:18:50,080
ball sitting in our our shielded room

467
00:18:55,269 --> 00:18:53,600
sitting in front of it is a webcam as

468
00:18:57,519 --> 00:18:55,279
you can see there on the left and on the

469
00:19:00,820 --> 00:18:57,529
right when we seal the whole thing into

470
00:19:02,470 --> 00:19:00,830
the shielded room and it's dark it's all

471
00:19:05,560 --> 00:19:02,480
the only thing that the camera sees is

472
00:19:07,659 --> 00:19:05,570
though is the plasma ball and then what

473
00:19:11,169 --> 00:19:07,669
the webcam is seeing is shown on a graph

474
00:19:13,360 --> 00:19:11,179
on the PC so in this experiment we have

475
00:19:15,129 --> 00:19:13,370
somebody use the ball in front of the PC

476
00:19:17,980 --> 00:19:15,139
as an effigy almost like a voodoo

477
00:19:19,990 --> 00:19:17,990
experiment where you do something to the

478
00:19:21,730 --> 00:19:20,000
effigy ball with the idea that it would

479
00:19:24,159 --> 00:19:21,740
create a similar effect in the ball on

480
00:19:26,830 --> 00:19:24,169
the inside so like we asked you to touch

481
00:19:28,360 --> 00:19:26,840
the ball on the right side which would

482
00:19:32,080 --> 00:19:28,370
pull the streamers to the

483
00:19:34,240 --> 00:19:32,090
I and likewise we hope that that will

484
00:19:35,740 --> 00:19:34,250
cause a mimic on the ball on the inside

485
00:19:39,400 --> 00:19:35,750
and cause the streamers to move to the

486
00:19:41,560 --> 00:19:39,410
right so this is the result of the last

487
00:19:43,720 --> 00:19:41,570
experiment we did aiming right versus

488
00:19:46,330 --> 00:19:43,730

not aiming at all the balls inside the

489
00:19:49,060 --> 00:19:46,340
sealed chamber it's 12 feet away 13

490
00:19:51,250 --> 00:19:49,070
subjects were involved 30 sessions with

491
00:19:55,120 --> 00:19:51,260
a matched control where nobody's trying

492
00:19:56,920 --> 00:19:55,130
to do anything and you get that so the

493
00:19:58,840 --> 00:19:56,930
color here is showing you the

494
00:20:01,810 --> 00:19:58,850
illumination level and you can turn this

495
00:20:04,120 --> 00:20:01,820
now into a statistical evaluation which

496
00:20:05,500 --> 00:20:04,130
is shown on this one so each one of

497
00:20:07,360 --> 00:20:05,510
those little yellow bars is a

498
00:20:09,520 --> 00:20:07,370
statistically significant difference as

499
00:20:11,530 --> 00:20:09,530
compared to the not trying to do

500
00:20:13,419 --> 00:20:11,540
anything to the ball so you can see the

501
00:20:15,100 --> 00:20:13,429
glance first of all two things one

502
00:20:15,520 --> 00:20:15,110
you're trying to get it to move to the

503
00:20:17,350 --> 00:20:15,530
right

504
00:20:19,960 --> 00:20:17,360
Chernov there's a lot more light to the

505
00:20:21,610 --> 00:20:19,970
right especially as compared to the

506
00:20:25,000 --> 00:20:21,620
control condition where nobody's doing

507
00:20:28,180 --> 00:20:25,010
anything in addition there's way more of

508
00:20:30,820 --> 00:20:28,190
the cells in the in the experimental

509
00:20:33,790 --> 00:20:30,830
condition that we're significant so you

510
00:20:35,350 --> 00:20:33,800
can you can I won't bother to go through

511
00:20:37,120 --> 00:20:35,360
the details there other than say that

512
00:20:38,919 --> 00:20:37,130
when you you have lots and lots of

513
00:20:42,730 --> 00:20:38,929

statistical tests like this you have to

514
00:20:45,630 --> 00:20:42,740
adjust it for for multiple tests and

515
00:20:50,410 --> 00:20:45,640
this the one on the left you still get

516
00:20:52,360 --> 00:20:50,420
59 remaining significant cells even

517
00:20:54,190 --> 00:20:52,370
after adjusting for the fact that you

518
00:20:56,049 --> 00:20:54,200
have lots and lots of repetition going

519
00:20:58,660 --> 00:20:56,059
on here another control condition you

520
00:21:01,540 --> 00:20:58,670
get none of them so there's definitely a

521
00:21:03,430 --> 00:21:01,550
something happening there and so the

522
00:21:06,990 --> 00:21:03,440
total experiment our expense here is

523
00:21:11,830 --> 00:21:07,000
about $100 fairly simple to do and

524
00:21:15,370 --> 00:21:11,840
yesterday someone showed me the where

525
00:21:17,710 --> 00:21:15,380
where are you the the yes so he created

526
00:21:20,470 --> 00:21:17,720
an iPhone app that will do this will do

527
00:21:22,210 --> 00:21:20,480
all of the the visual part of it so you

528
00:21:25,060 --> 00:21:22,220
don't even need a webcam it just set up

529
00:21:26,980 --> 00:21:25,070
an iPhone in front of it and that will

530
00:21:29,740 --> 00:21:26,990
do the experiment so I'll work with you

531
00:21:31,299 --> 00:21:29,750
to get to statistics and so on so then

532
00:21:34,519 --> 00:21:31,309
basically a hundred dollars plus two

533
00:21:39,560 --> 00:21:37,169
so these are the this is what we're

534
00:21:41,430 --> 00:21:39,570
doing I think at this point the

535
00:21:44,279 --> 00:21:41,440
serendipitous finding that there's a

536
00:21:47,129 --> 00:21:44,289
genetic component here that to me is the

537
00:21:48,690 --> 00:21:47,139
most exciting thing so there's a number

538
00:21:50,039 --> 00:21:48,700

of pieces of jigsaw that are coming

539
00:21:51,810 --> 00:21:50,049
together now suggesting that there

540
00:21:55,139 --> 00:21:51,820
really is something related to the brain

541
00:21:57,690 --> 00:21:55,149
which enables people to be more talented

542
00:21:59,490 --> 00:21:57,700
at this than others that of course you

543
00:22:02,610 --> 00:21:59,500
can spin out into the possibility of

544
00:22:07,409 --> 00:22:02,620
genetic manipulation and so on to make

545
00:22:10,440 --> 00:22:07,419
people highly psychic so sometimes

546
00:22:11,850 --> 00:22:10,450
people say Oh first of all I have to

547
00:22:14,399 --> 00:22:11,860
acknowledge that none of this would

548
00:22:17,009 --> 00:22:14,409
happen without many people giving us

549
00:22:19,110 --> 00:22:17,019
funding the Biot foundation the Emerald

550
00:22:20,669 --> 00:22:19,120
Gate Charitable Trust the Hitmen Family

551
00:22:22,799 --> 00:22:20,679
Foundation and John B Huntington

552
00:22:25,049 --> 00:22:22,809
foundation Steve Curtis with elevation

553
00:22:27,659 --> 00:22:25,059
capital clear winner with quantum

554
00:22:29,279 --> 00:22:27,669
gravity and dick and Connie Adams many

555
00:22:30,600 --> 00:22:29,289
of you are out there who are the funders

556
00:22:35,879 --> 00:22:30,610
of this stuff thank you

557
00:22:38,549 --> 00:22:35,889
so people say nope people say Dean why

558
00:22:40,139 --> 00:22:38,559
are you interested in in psychokinesis

559
00:22:42,090 --> 00:22:40,149
and telekinesis and these sorts of

560
00:22:44,610 --> 00:22:42,100
things well the answer is part of the

561
00:22:47,100 --> 00:22:44,620
answer anyway is that I have nieces who

562
00:22:49,350 --> 00:22:47,110
are identical twins and so I've had the

563
00:22:50,789 --> 00:22:49,360

enjoyment over many years to watch them

564
00:22:53,340 --> 00:22:50,799
grow up and of course there's all this

565
00:22:55,669 --> 00:22:53,350
lore about indentical twins and so that

566
00:22:59,730 --> 00:22:55,679
was part of the sparking of the interest

567
00:23:05,019 --> 00:22:59,740
so because of my nieces of course

568
00:23:12,399 --> 00:23:10,419
but most of my family members are female

569
00:23:30,659 --> 00:23:12,409
and so I haven't had the chance to look

570
00:23:36,699 --> 00:23:34,179
thank you very much short question did

571
00:23:41,589 --> 00:23:36,709
you find any correlation with people

572
00:23:43,479 --> 00:23:41,599
with high levels of Neanderthal genes we

573
00:23:45,159 --> 00:23:43,489
have that we have their DNA so we can

574
00:23:49,959 --> 00:23:45,169
find out but I don't have an answer to

575
00:23:52,059 --> 00:23:49,969
that yet okay thanks so my comment to

576
00:23:54,969 --> 00:23:52,069
sort of equip but I actually mean it

577
00:23:56,969 --> 00:23:54,979
seriously and that is you had said that

578
00:24:00,039 --> 00:23:56,979
your results were not according to

579
00:24:01,389 --> 00:24:00,049
expectation and that was good so that

580
00:24:03,399 --> 00:24:01,399
means actually your results were

581
00:24:09,039 --> 00:24:03,409
according to desire because you said it

582
00:24:13,149 --> 00:24:09,049
was good and so the larger the larger

583
00:24:15,819 --> 00:24:13,159
point here is that really we just get

584
00:24:18,669 --> 00:24:15,829
whatever it is we want and to attribute

585
00:24:20,409 --> 00:24:18,679
a mechanism to it is so difficult I mean

586
00:24:22,749 --> 00:24:20,419
I I'll be talking about that in a few

587
00:24:24,669 --> 00:24:22,759
talks but do you have any insights as to

588
00:24:26,649 --> 00:24:24,679

how how do you get the mechanism out

589
00:24:29,409 --> 00:24:26,659
when everything just goes according to

590
00:24:31,389 --> 00:24:29,419
what you want right and it depends on

591
00:24:33,729 --> 00:24:31,399
what you want consciously versus

592
00:24:35,319 --> 00:24:33,739
unconsciously right definition we don't

593
00:24:37,749 --> 00:24:35,329
know what we want unconsciousness right

594
00:24:39,759 --> 00:24:37,759
i I think consciously I would prefer to

595
00:24:42,039 --> 00:24:39,769
think that I'm actually on track and I'm

596
00:24:43,539 --> 00:24:42,049
learning something in which case I make

597
00:24:45,549 --> 00:24:43,549
a prediction I would like to see that

598
00:24:47,099 --> 00:24:45,559
prediction because otherwise I have to

599
00:24:49,509 --> 00:24:47,109
keep publishing in this case

600
00:24:51,819 --> 00:24:49,519
experimental results I have no idea

601
00:24:54,909 --> 00:24:51,829
what's going on so that that makes me

602
00:24:57,350 --> 00:24:54,919
look stupid so maybe unconsciously

603
00:25:00,320 --> 00:24:57,360
that's what I want but I think

604
00:25:02,030 --> 00:25:00,330
I don't think so I would rather think

605
00:25:03,560 --> 00:25:02,040
that it's like the I'm asking the

606
00:25:05,780 --> 00:25:03,570
universal question and the universe

607
00:25:07,520 --> 00:25:05,790
gives me the correct answer and by

608
00:25:10,220 --> 00:25:07,530
getting a something opposite to what I

609
00:25:10,910 --> 00:25:10,230
was predicting because who knows what's

610
00:25:13,280 --> 00:25:10,920
going on

611
00:25:15,560 --> 00:25:13,290
I'll take that as oh okay well there's

612
00:25:20,530 --> 00:25:15,570
an interesting clue and I have to figure

613
00:25:26,320 --> 00:25:23,390

just a couple of quick questions about

614
00:25:29,690 --> 00:25:26,330
small technical details on the

615
00:25:32,810 --> 00:25:29,700
interference experiment was the

616
00:25:34,910 --> 00:25:32,820
instruction to the operators to make a

617
00:25:37,220 --> 00:25:34,920
phase shift in one beam or was it simply

618
00:25:41,180 --> 00:25:37,230
to get more light to get more light and

619
00:25:44,330 --> 00:25:41,190
on the two plasma ball experiment is the

620
00:25:46,970 --> 00:25:44,340
effigy ball that the operator is working

621
00:25:53,600 --> 00:25:46,980
with is is that active or is it turned

622
00:25:56,720 --> 00:25:53,610
off I love experiments where you don't

623
00:26:00,920 --> 00:25:56,730
get what you think you plan and when

624
00:26:04,610 --> 00:26:00,930
that happens it's because the

625
00:26:07,670 --> 00:26:04,620
experimenters are different so I use

626
00:26:11,240 --> 00:26:07,680
large numbers of experimenters and pull

627
00:26:13,750 --> 00:26:11,250
all the data I find that different

628
00:26:18,200 --> 00:26:13,760
experimenters give different results so

629
00:26:20,060 --> 00:26:18,210
perhaps something to think about that

630
00:26:22,130 --> 00:26:20,070
that if you use it you know are you

631
00:26:23,810 --> 00:26:22,140
using pique people like if you use chi

632
00:26:25,100 --> 00:26:23,820
gong master would you get the same kind

633
00:26:27,740 --> 00:26:25,110
of effect that kind of question yeah

634
00:26:29,870 --> 00:26:27,750
yeah so I one thing I didn't mention in

635
00:26:32,060 --> 00:26:29,880
this is that I'm fortunate now in that I

636
00:26:33,950 --> 00:26:32,070
can design and analyze experiments but I

637
00:26:36,260 --> 00:26:33,960
don't need to run them so we have

638
00:26:37,820 --> 00:26:36,270

research assistants who actually are

639
00:26:40,070 --> 00:26:37,830
dealing with the humans involved in

640
00:26:42,590 --> 00:26:40,080
running the experiments so I can have

641
00:26:44,630 --> 00:26:42,600
many things happening at once and don't

642
00:26:47,240 --> 00:26:44,640
have to actually take the time to deal

643
00:26:49,400 --> 00:26:47,250
with the human so I'm decoupled from the

644
00:26:51,050 --> 00:26:49,410
experiment at least a little bit because

645
00:26:53,240 --> 00:26:51,060
in the past I used to have to do

646
00:26:55,310 --> 00:26:53,250
everything I was involved in every

647
00:26:57,440 --> 00:26:55,320
single stage so if I am involved in the

648
00:27:00,230 --> 00:26:57,450
experiment which unavoidably I'm

649
00:27:01,610 --> 00:27:00,240
entangled with it then presumably I'd be

650
00:27:03,350 --> 00:27:01,620
able to push it even more in the

651
00:27:05,270 --> 00:27:03,360
direction that they want so since I'm

652
00:27:07,460 --> 00:27:05,280
not at that entangled in these

653
00:27:09,440 --> 00:27:07,470
experiments anymore maybe that's why I'm

654
00:27:10,030 --> 00:27:09,450
getting results that looks strange don't

655
00:27:12,920 --> 00:27:10,040
know