

Neural Correlates of Blinded Mediumship

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**SOCIETY
FOR
SCIENTIFIC
EXPLORATION**

1
00:00:08,629 --> 00:00:06,070

[Music]

2
00:00:10,629 --> 00:00:08,639

and so this is uh some of you have might

3
00:00:12,390 --> 00:00:10,639

have seen some of these before so we did

4
00:00:14,070 --> 00:00:12,400

a series of experiments

5
00:00:16,870 --> 00:00:14,080

uh through the years

6
00:00:19,590 --> 00:00:16,880

on the mediumship so this is a recap of

7
00:00:21,750 --> 00:00:19,600

everything we've done and the latest on

8
00:00:22,550 --> 00:00:21,760

uh what we've done of the the latest is

9
00:00:24,870 --> 00:00:22,560

still

10
00:00:26,870 --> 00:00:24,880

about one year old

11
00:00:28,630 --> 00:00:26,880

and so

12
00:00:31,349 --> 00:00:28,640

we have mental experiences throughout

13
00:00:33,750 --> 00:00:31,359

the day and so one might wonder

14

00:00:35,430 --> 00:00:33,760

where do these experience come from do

15

00:00:37,350 --> 00:00:35,440

they all come from the brain or can they

16

00:00:40,229 --> 00:00:37,360

come from somewhere else

17

00:00:42,229 --> 00:00:40,239

and we conducted a survey

18

00:00:45,190 --> 00:00:42,239

on about 200 people they were all

19

00:00:47,590 --> 00:00:45,200

meditators and we ask them what you

20

00:00:50,150 --> 00:00:47,600

experience during your meditation and

21

00:00:51,670 --> 00:00:50,160

about half of them here you see in

22

00:00:53,110 --> 00:00:51,680

highlighted red

23

00:00:54,790 --> 00:00:53,120

said um

24

00:00:56,709 --> 00:00:54,800

well i experienced grave variance of

25

00:00:59,270 --> 00:00:56,719

telepathy a connection with teacher and

26

00:01:01,029 --> 00:00:59,280

guru etc

27

00:01:01,910 --> 00:01:01,039

so it doesn't mean these experiences are

28

00:01:04,310 --> 00:01:01,920

real

29

00:01:06,630 --> 00:01:04,320

but these half of the people said i had

30

00:01:10,870 --> 00:01:06,640

this at least once

31

00:01:14,070 --> 00:01:12,870

and so why study mediumship and

32

00:01:17,190 --> 00:01:14,080

channeling

33

00:01:18,550 --> 00:01:17,200

from a past psychology perspective

34

00:01:20,789 --> 00:01:18,560

and from

35

00:01:23,190 --> 00:01:20,799

my perspective i started studying that

36

00:01:24,070 --> 00:01:23,200

because it seems like the low-hanging

37

00:01:26,550 --> 00:01:24,080

fruit

38

00:01:28,630 --> 00:01:26,560

in a sense that uh

39

00:01:30,390 --> 00:01:28,640

it's easy to find mediums they're

40

00:01:32,149 --> 00:01:30,400

everywhere you go to a small city you're

41

00:01:33,350 --> 00:01:32,159

gonna have people who claim to be

42

00:01:38,550 --> 00:01:33,360

mediums

43

00:01:40,390 --> 00:01:38,560

psychics because they try to convince

44

00:01:42,469 --> 00:01:40,400

you you're very in contact with your

45

00:01:44,310 --> 00:01:42,479

disease relative

46

00:01:46,389 --> 00:01:44,320

with psychics they give you prediction

47

00:01:48,550 --> 00:01:46,399

about the future that you influence your

48

00:01:50,950 --> 00:01:48,560

behavior and you then it's hard to check

49

00:01:52,789 --> 00:01:50,960

etc with mediums it's easy

50

00:01:55,590 --> 00:01:52,799

you just ask them what do you see and

51
00:01:57,910 --> 00:01:55,600
they try to convince you and also the

52
00:02:00,469 --> 00:01:57,920
experiments can be

53
00:02:01,590 --> 00:02:00,479
done blinded also these involve extreme

54
00:02:04,389 --> 00:02:01,600
emotion

55
00:02:07,910 --> 00:02:04,399
usually associated with death and

56
00:02:09,190 --> 00:02:07,920
if you look at anecdotal reports

57
00:02:10,790 --> 00:02:09,200
this usually

58
00:02:12,710 --> 00:02:10,800
association with there for extreme

59
00:02:15,030 --> 00:02:12,720
emotion is when people

60
00:02:17,830 --> 00:02:15,040
report uh upon normal experience at

61
00:02:19,350 --> 00:02:17,840
least that's um

62
00:02:22,070 --> 00:02:19,360
one of the main case where they do

63
00:02:24,790 --> 00:02:22,080

report this experience also before we

64

00:02:27,350 --> 00:02:24,800

started about 10 years ago we also there

65

00:02:29,910 --> 00:02:27,360

was two reputable studies

66

00:02:32,229 --> 00:02:29,920

already published on the subject

67

00:02:33,830 --> 00:02:32,239

which you probably heard about from gary

68

00:02:35,190 --> 00:02:33,840

schwartz and

69

00:02:37,830 --> 00:02:35,200

and

70

00:02:40,229 --> 00:02:37,840

at kelly at uva

71

00:02:41,430 --> 00:02:40,239

and here the hypothesis is relatively

72

00:02:44,070 --> 00:02:41,440

simple

73

00:02:46,309 --> 00:02:44,080

it's not so much do spirits exist you

74

00:02:49,589 --> 00:02:46,319

survive after body death

75

00:02:51,110 --> 00:02:49,599

is it's more is very abnormal

76

00:02:53,430 --> 00:02:51,120

phenomena

77

00:02:57,750 --> 00:02:53,440

and we can discuss at length whether

78

00:03:00,390 --> 00:02:57,760

this is just super psy or some form of

79

00:03:01,990 --> 00:03:00,400

telepathy or whether

80

00:03:04,869 --> 00:03:02,000

this is

81

00:03:07,509 --> 00:03:04,879

survival of consciousness at ions we

82

00:03:11,270 --> 00:03:09,990

complex channeling research program

83

00:03:13,910 --> 00:03:11,280

where

84

00:03:15,670 --> 00:03:13,920

we investigate channeling and mediumship

85

00:03:18,550 --> 00:03:15,680

from different

86

00:03:20,710 --> 00:03:18,560

perspective like is the content useful

87

00:03:21,750 --> 00:03:20,720

uh what's literature review what do we

88

00:03:22,630 --> 00:03:21,760

know

89

00:03:24,470 --> 00:03:22,640

uh

90

00:03:26,149 --> 00:03:24,480

what's are the characteristics of

91

00:03:27,670 --> 00:03:26,159

channeling what do people experience

92

00:03:30,470 --> 00:03:27,680

when they do channing

93

00:03:33,030 --> 00:03:30,480

how does it work

94

00:03:36,229 --> 00:03:33,040

what makes the channel a channel and can

95

00:03:37,910 --> 00:03:36,239

we verify the information so here it's

96

00:03:40,149 --> 00:03:37,920

we're really going to look at this

97

00:03:41,190 --> 00:03:40,159

specific uh um

98

00:03:43,509 --> 00:03:41,200

cell

99

00:03:46,149 --> 00:03:43,519

but we do actually study all of them and

100

00:03:50,229 --> 00:03:46,159

we have paper in all these areas so if

101
00:03:53,910 --> 00:03:51,670
and so i'm going to show you three

102
00:03:56,550 --> 00:03:53,920
experiments we've been throughout

103
00:03:58,149 --> 00:03:56,560
the years this one is already about

104
00:04:00,309 --> 00:03:58,159
seven year old

105
00:04:02,710 --> 00:04:00,319
this we did in collaboration with jury

106
00:04:04,789 --> 00:04:02,720
by shaw from the windbridge institute we

107
00:04:08,149 --> 00:04:04,799
just asked medium to come to the lab and

108
00:04:09,270 --> 00:04:08,159
we asked them uh 25 questions

109
00:04:11,270 --> 00:04:09,280
so we

110
00:04:13,589 --> 00:04:11,280
so it was double-blinded

111
00:04:15,910 --> 00:04:13,599
in a sense that the person was asking

112
00:04:18,150 --> 00:04:15,920
the question didn't even know

113
00:04:19,830 --> 00:04:18,160

that this is relative and the only thing

114

00:04:21,990 --> 00:04:19,840

they told the medium

115

00:04:23,909 --> 00:04:22,000

was can you can you tell me something

116

00:04:25,590 --> 00:04:23,919

about john

117

00:04:27,510 --> 00:04:25,600

and then there was somebody that wanted

118

00:04:30,390 --> 00:04:27,520

the reading about john

119

00:04:32,790 --> 00:04:30,400

and so it started about the meditation

120

00:04:35,270 --> 00:04:32,800

and then they connect with the this is

121

00:04:36,870 --> 00:04:35,280

individual and then we ask them

122

00:04:42,150 --> 00:04:36,880

questions

123

00:04:46,710 --> 00:04:42,160

it's about their hair color your habits

124

00:04:49,749 --> 00:04:49,030

and then what we also did is

125

00:04:51,430 --> 00:04:49,759

we

126

00:04:53,830 --> 00:04:51,440

for each of the people that wanted a

127

00:04:55,670 --> 00:04:53,840

reading so we sent them the reading that

128

00:04:57,990 --> 00:04:55,680

was meant for them and then we sent them

129

00:04:59,510 --> 00:04:58,000

what we call a decoy reading

130

00:05:00,710 --> 00:04:59,520

in which the reading was meant for

131

00:05:04,150 --> 00:05:00,720

someone else

132

00:05:06,469 --> 00:05:04,160

and we looked at the difference between

133

00:05:07,510 --> 00:05:06,479

their rating of the target versus the

134

00:05:09,670 --> 00:05:07,520

decoy

135

00:05:11,830 --> 00:05:09,680

for example you might have

136

00:05:14,550 --> 00:05:11,840

someone who is

137

00:05:16,710 --> 00:05:14,560

very gullible and they are going to say

138

00:05:18,790 --> 00:05:16,720

oh yeah this is i'm in contact with my

139

00:05:21,830 --> 00:05:18,800

disease relative so the advantage of

140

00:05:24,310 --> 00:05:21,840

using of comparing people's response on

141

00:05:27,430 --> 00:05:24,320

the target and decoy is that is very

142

00:05:29,189 --> 00:05:27,440

very is very very um

143

00:05:30,950 --> 00:05:29,199

positive about the experience they're

144

00:05:32,629 --> 00:05:30,960

going to be positive throughout for both

145

00:05:35,189 --> 00:05:32,639

the target and the decoys so we can just

146

00:05:36,710 --> 00:05:35,199

subtract the two and what we saw is that

147

00:05:39,909 --> 00:05:36,720

all the mediums

148

00:05:42,150 --> 00:05:39,919

scored higher for the target than uh for

149

00:05:43,510 --> 00:05:42,160

the decoy when raided by the people who

150

00:05:45,029 --> 00:05:43,520

wanted the reading

151
00:05:48,310 --> 00:05:45,039
now what's interesting is that we also

152
00:05:49,670 --> 00:05:48,320
recorded their brain waves

153
00:05:51,749 --> 00:05:49,680
and so

154
00:05:53,990 --> 00:05:51,759
this is how brainwave looked like and

155
00:05:55,909 --> 00:05:54,000
then we look at different frequencies

156
00:05:58,390 --> 00:05:55,919
so for example

157
00:06:00,070 --> 00:05:58,400
this is how we represent brain waves and

158
00:06:02,950 --> 00:06:00,080
the amplitude here are different the

159
00:06:05,350 --> 00:06:02,960
dots represent scalp channels

160
00:06:07,749 --> 00:06:05,360
and so this is like an elevation map and

161
00:06:10,150 --> 00:06:07,759
when we look at it from the top this is

162
00:06:11,830 --> 00:06:10,160
why it looks like and this is for every

163
00:06:13,990 --> 00:06:11,840

single frequency

164

00:06:16,390 --> 00:06:14,000

and so here for example it's for that

165

00:06:17,990 --> 00:06:16,400

oscillation that's it's alpha and so

166

00:06:19,830 --> 00:06:18,000

when it's blue it means the low

167

00:06:21,430 --> 00:06:19,840

amplitude when it's red means high

168

00:06:23,590 --> 00:06:21,440

amplitude and when it's green in the

169

00:06:25,909 --> 00:06:23,600

middle is medium amplitude and this is

170

00:06:28,070 --> 00:06:25,919

the way we present our eg data

171

00:06:37,350 --> 00:06:28,080

then we can also project it on the

172

00:06:41,590 --> 00:06:39,670

and so what we found interesting is that

173

00:06:43,350 --> 00:06:41,600

we took all the questions and then we

174

00:06:45,430 --> 00:06:43,360

looked at the brain activity of the

175

00:06:46,629 --> 00:06:45,440

medium before right before we answered

176

00:06:49,670 --> 00:06:46,639

the question

177

00:06:51,110 --> 00:06:49,680

and we divided their brain activity into

178

00:06:53,110 --> 00:06:51,120

two classes

179

00:06:54,790 --> 00:06:53,120

the question on which they they were

180

00:06:56,710 --> 00:06:54,800

correct and the question on which were

181

00:06:58,710 --> 00:06:56,720

not correct so high performance twisters

182

00:07:01,430 --> 00:06:58,720

low performance and we found a

183

00:07:03,990 --> 00:07:01,440

difference this is for one of the medium

184

00:07:07,110 --> 00:07:04,000

in a region here which is called which

185

00:07:11,189 --> 00:07:07,120

we call frontal midline theta

186

00:07:13,029 --> 00:07:11,199

we also uh this is a 3d representation

187

00:07:15,589 --> 00:07:13,039

so this is a significant difference here

188

00:07:16,550 --> 00:07:15,599

so this is the frontal midline theta

189

00:07:18,870 --> 00:07:16,560

region

190

00:07:21,589 --> 00:07:18,880

and this is linked with memory

191

00:07:23,510 --> 00:07:21,599

activation so our interpretation of this

192

00:07:25,990 --> 00:07:23,520

data is that the mediums were shutting

193

00:07:27,909 --> 00:07:26,000

down their working memory

194

00:07:29,670 --> 00:07:27,919

and so maybe they are more receptive to

195

00:07:32,790 --> 00:07:29,680

the outside

196

00:07:34,070 --> 00:07:32,800

and this is just a 3d representation

197

00:07:36,150 --> 00:07:34,080

showing

198

00:07:39,110 --> 00:07:36,160

this is the same scale topography except

199

00:07:41,189 --> 00:07:39,120

in 3d what we also did is that instead

200

00:07:42,390 --> 00:07:41,199

of just using lower performance high

201
00:07:45,350 --> 00:07:42,400
performance

202
00:07:47,909 --> 00:07:45,360
we try to see does it still work with

203
00:07:49,670 --> 00:07:47,919
low performance medium performance and

204
00:07:51,510 --> 00:07:49,680
high performance

205
00:07:52,629 --> 00:07:51,520
and we seem to we seem to have a

206
00:07:53,670 --> 00:07:52,639
gradient

207
00:07:54,710 --> 00:07:53,680
uh

208
00:07:56,550 --> 00:07:54,720
in

209
00:07:59,350 --> 00:07:56,560
the correspondence between spectral

210
00:08:00,309 --> 00:07:59,360
power so the activity in this area

211
00:08:02,629 --> 00:08:00,319
and

212
00:08:04,550 --> 00:08:02,639
the accuracy of the response even when

213
00:08:07,029 --> 00:08:04,560

we divide it in free and we couldn't

214

00:08:10,869 --> 00:08:07,039

really divide further because we only

215

00:08:14,710 --> 00:08:12,629

in this first experiment we also

216

00:08:17,430 --> 00:08:14,720

compared free mental states so we asked

217

00:08:20,629 --> 00:08:17,440

mediums please connect with this is

218

00:08:23,830 --> 00:08:20,639

relative so that's the mediumship case

219

00:08:27,430 --> 00:08:23,840

or please do uh recall so just remember

220

00:08:29,110 --> 00:08:27,440

somebody you know or do perception in

221

00:08:31,110 --> 00:08:29,120

the sense that you're just listening to

222

00:08:33,269 --> 00:08:31,120

a story somebody's reading

223

00:08:35,269 --> 00:08:33,279

or you do fabrication you just make up

224

00:08:37,509 --> 00:08:35,279

somebody so there are four different

225

00:08:39,509 --> 00:08:37,519

mental states and we ask them to

226

00:08:40,469 --> 00:08:39,519

alternate for one minute each so first

227

00:08:43,029 --> 00:08:40,479

medium

228

00:08:44,790 --> 00:08:43,039

here the order is random

229

00:08:46,710 --> 00:08:44,800

but the first this started with block of

230

00:08:48,310 --> 00:08:46,720

mediumship then the block of recall for

231

00:08:50,230 --> 00:08:48,320

one minute then perception for one

232

00:08:51,750 --> 00:08:50,240

minute fabrication and then we repeat

233

00:08:53,990 --> 00:08:51,760

that three times

234

00:08:55,910 --> 00:08:54,000

and what we found i'm going to go real

235

00:08:58,949 --> 00:08:55,920

quick on these ones because it's a

236

00:09:01,110 --> 00:08:58,959

complex slide to

237

00:09:03,110 --> 00:09:01,120

explain it's explained in the paper but

238

00:09:05,110 --> 00:09:03,120

what we found basically is that we found

239

00:09:06,710 --> 00:09:05,120

some differences between these different

240

00:09:09,190 --> 00:09:06,720

mental states

241

00:09:12,230 --> 00:09:09,200

and the interpretation is that

242

00:09:14,870 --> 00:09:12,240

these are indeed different mental states

243

00:09:16,949 --> 00:09:14,880

uh most people who believe that these

244

00:09:18,710 --> 00:09:16,959

states are not real would say oh they're

245

00:09:20,790 --> 00:09:18,720

just making up something so here we

246

00:09:22,790 --> 00:09:20,800

showed well the brain activation when

247

00:09:24,949 --> 00:09:22,800

you make up something is different than

248

00:09:27,190 --> 00:09:24,959

the brain activation when you're in

249

00:09:28,420 --> 00:09:27,200

mediumship so this is likely to be a

250

00:09:30,630 --> 00:09:28,430

different mental state

251

00:09:33,030 --> 00:09:30,640

[Music]

252

00:09:35,350 --> 00:09:33,040

and we published a scientific report in

253

00:09:40,550 --> 00:09:35,360

the frontier of psychology which got a

254

00:09:43,670 --> 00:09:40,560

lot of attention uh here it was in the

255

00:09:46,389 --> 00:09:43,680

the second percentile of uh all the

256

00:09:49,030 --> 00:09:46,399

article uh certain five percent most

257

00:09:53,509 --> 00:09:49,040

viewed article on this journal frontier

258

00:09:57,509 --> 00:09:55,590

so this was the first one and this

259

00:10:00,310 --> 00:09:57,519

experience was hard to do the first one

260

00:10:02,550 --> 00:10:00,320

because we only had 25 questions

261

00:10:04,949 --> 00:10:02,560

and for eeg you need a lot of data so

262

00:10:07,910 --> 00:10:04,959

you need a lot of data points

263

00:10:10,150 --> 00:10:07,920

so in this second one we thought well

264

00:10:12,310 --> 00:10:10,160

we can just show them pictures and then

265

00:10:13,829 --> 00:10:12,320

ask them a simple question and we're

266

00:10:15,030 --> 00:10:13,839

just not going to show them like a

267

00:10:17,110 --> 00:10:15,040

couple of pictures we're going to show

268

00:10:18,949 --> 00:10:17,120

them hundreds of pictures

269

00:10:20,949 --> 00:10:18,959

and so that's

270

00:10:22,550 --> 00:10:20,959

what we did so we had 12 professional

271

00:10:25,670 --> 00:10:22,560

mediums they came to the lab they saw

272

00:10:27,590 --> 00:10:25,680

400 pictures each and each picture were

273

00:10:29,509 --> 00:10:27,600

either showing somebody that was

274

00:10:30,870 --> 00:10:29,519

deceased or somebody that was still

275

00:10:34,470 --> 00:10:30,880

alive

276

00:10:36,069 --> 00:10:34,480

and we collected the brainwaves

277

00:10:37,110 --> 00:10:36,079

we also uh

278

00:10:39,750 --> 00:10:37,120

we also

279

00:10:42,310 --> 00:10:39,760

spent considerable effort to

280

00:10:44,630 --> 00:10:42,320

normalize the image in which we centered

281

00:10:46,949 --> 00:10:44,640

them so we had the software where we

282

00:10:48,470 --> 00:10:46,959

selected data points the ears the top of

283

00:10:50,150 --> 00:10:48,480

the head and the chin

284

00:10:51,670 --> 00:10:50,160

then we reframed the picture converted

285

00:10:53,269 --> 00:10:51,680

to black and white and then we had the

286

00:10:56,310 --> 00:10:53,279

different software

287

00:10:57,829 --> 00:10:56,320

where we indicated whether this person

288

00:11:01,190 --> 00:10:57,839

was smiling or not

289

00:11:03,430 --> 00:11:01,200

and then we had three judges uh we would

290

00:11:06,630 --> 00:11:03,440

write whether the person was smiling the

291

00:11:09,030 --> 00:11:06,640

person was not smiling and eventually so

292

00:11:09,990 --> 00:11:09,040

here's just one 100 photo but this 200

293

00:11:12,230 --> 00:11:10,000

of each

294

00:11:14,389 --> 00:11:12,240

really we had the database of people

295

00:11:16,389 --> 00:11:14,399

people were live and people were

296

00:11:17,430 --> 00:11:16,399

uh deceased

297

00:11:20,310 --> 00:11:17,440

um

298

00:11:23,110 --> 00:11:20,320

and in this database there were as many

299

00:11:25,590 --> 00:11:23,120

people smiling in the alive category as

300

00:11:29,910 --> 00:11:25,600

people smiling in the disease category

301
00:11:36,550 --> 00:11:30,710
so

302
00:11:42,949 --> 00:11:38,949
this is a demo of the version

303
00:11:44,790 --> 00:11:42,959
running which asks you for information

304
00:11:47,590 --> 00:11:44,800
so the first step with this was online

305
00:11:49,350 --> 00:11:47,600
then we try with 12 mediums

306
00:11:51,350 --> 00:11:49,360
and um

307
00:11:52,870 --> 00:11:51,360
you have to indicate whether your medium

308
00:11:57,110 --> 00:11:52,880
or not then it's going to load the

309
00:12:01,990 --> 00:11:59,190
and then you're going to have to answer

310
00:12:07,430 --> 00:12:02,000
whether you think the person shown is

311
00:12:11,910 --> 00:12:09,670
so this is the person this is a movie a

312
00:12:13,910 --> 00:12:11,920
person doing the video

313
00:12:15,829 --> 00:12:13,920

so you see it can go pretty fast here

314

00:12:17,829 --> 00:12:15,839

they have 200 pictures so we used 200

315

00:12:19,190 --> 00:12:17,839

pictures online and 400 pictures in the

316

00:12:20,790 --> 00:12:19,200

lab

317

00:12:22,790 --> 00:12:20,800

some pictures were relatively low

318

00:12:24,790 --> 00:12:22,800

resolution but we again we made sure

319

00:12:26,870 --> 00:12:24,800

that the picture was the same

320

00:12:28,069 --> 00:12:26,880

resolution in the alive or this is

321

00:12:31,590 --> 00:12:28,079

category

322

00:12:35,430 --> 00:12:31,600

so after you get to 200 pictures you

323

00:12:37,829 --> 00:12:35,440

you're ready to finish 198 199

324

00:12:40,870 --> 00:12:37,839

200 and then you get some feedback about

325

00:12:47,670 --> 00:12:42,790

and it tells you if you're able to

326

00:12:52,389 --> 00:12:51,190

this is a result in the lab on the 100

327

00:12:55,030 --> 00:12:52,399

participants

328

00:12:57,590 --> 00:12:55,040

and so we found an effect that was above

329

00:13:00,069 --> 00:12:57,600

chance expectation significant but

330

00:13:03,030 --> 00:13:00,079

rarely about barely above chance you see

331

00:13:05,590 --> 00:13:03,040

chances 50 we're at 51

332

00:13:07,030 --> 00:13:05,600

we also had a robot that was randomly

333

00:13:09,590 --> 00:13:07,040

clicking

334

00:13:11,829 --> 00:13:09,600

uh it wasn't a real robot obviously it

335

00:13:13,910 --> 00:13:11,839

was just a software that was making

336

00:13:16,949 --> 00:13:13,920

random choices on the website

337

00:13:19,190 --> 00:13:16,959

and this one was a chance expectation so

338

00:13:21,750 --> 00:13:19,200

this was promising and this is the

339

00:13:23,990 --> 00:13:21,760

result in the lab with the 12 mediums

340

00:13:25,910 --> 00:13:24,000

and you can see that all of them were

341

00:13:29,590 --> 00:13:25,920

evolved

342

00:13:34,069 --> 00:13:29,600

chance level except two s1 and s s11 and

343

00:13:35,829 --> 00:13:34,079

s12 were about 49 out of 50. so the

344

00:13:38,629 --> 00:13:35,839

likelihood they would all be above

345

00:13:41,509 --> 00:13:38,639

chance expectation is is relatively low

346

00:13:46,790 --> 00:13:43,910

then we studied their brainwaves and we

347

00:13:48,310 --> 00:13:46,800

found um early brain waves so about 100

348

00:13:51,269 --> 00:13:48,320

milliseconds after presentation so

349

00:13:53,509 --> 00:13:51,279

that's about one tenth of a second

350

00:13:56,870 --> 00:13:53,519

uh and the difference between correct

351
00:13:59,670 --> 00:13:56,880
and incorrect response for the deceased

352
00:14:01,189 --> 00:13:59,680
uh individual and we localize that in

353
00:14:02,949 --> 00:14:01,199
this uh

354
00:14:04,150 --> 00:14:02,959
parental

355
00:14:06,150 --> 00:14:04,160
area

356
00:14:07,990 --> 00:14:06,160
and i'm not going to enter the detail of

357
00:14:10,230 --> 00:14:08,000
the interpretation

358
00:14:13,590 --> 00:14:10,240
we were expecting this difference much

359
00:14:15,350 --> 00:14:13,600
later which would be meaning

360
00:14:17,670 --> 00:14:15,360
which would indicate that the person has

361
00:14:19,750 --> 00:14:17,680
consciously perceived the pictures and

362
00:14:21,350 --> 00:14:19,760
made a meaningful choice

363
00:14:24,870 --> 00:14:21,360

here this difference

364

00:14:26,389 --> 00:14:24,880

if it is reproducible

365

00:14:29,590 --> 00:14:26,399

represents very

366

00:14:31,269 --> 00:14:29,600

early visual processing

367

00:14:35,509 --> 00:14:31,279

about 100 milliseconds so totally

368

00:14:39,990 --> 00:14:37,189

and uh

369

00:14:42,150 --> 00:14:40,000

we published this paper and they were

370

00:14:45,189 --> 00:14:42,160

resistance in the field in the sense

371

00:14:47,910 --> 00:14:45,199

that even after it was published

372

00:14:50,150 --> 00:14:47,920

uh it was retracted

373

00:14:54,069 --> 00:14:50,160

for no apparent reason

374

00:14:55,670 --> 00:14:54,079

uh so we we we fought hard to know why

375

00:14:58,710 --> 00:14:55,680

they would retract it

376

00:15:01,030 --> 00:14:58,720

and you know that they give us a reason

377

00:15:03,030 --> 00:15:01,040

uh we were even um

378

00:15:05,030 --> 00:15:03,040

planning on taking legal action because

379

00:15:07,030 --> 00:15:05,040

we paid to get it published uh

380

00:15:09,189 --> 00:15:07,040

eventually they reimbursed us everything

381

00:15:12,949 --> 00:15:09,199

uh but it was still retracted

382

00:15:15,590 --> 00:15:12,959

uh so we republished it a second time in

383

00:15:19,110 --> 00:15:15,600

explore in the second one we also added

384

00:15:24,069 --> 00:15:21,590

machine learning

385

00:15:26,389 --> 00:15:24,079

analysis showing that

386

00:15:27,990 --> 00:15:26,399

machine learning couldn't figure out the

387

00:15:31,990 --> 00:15:28,000

the right

388

00:15:35,590 --> 00:15:33,350

so um

389

00:15:37,829 --> 00:15:35,600

one problem with the previous experiment

390

00:15:40,629 --> 00:15:37,839

was also that um

391

00:15:42,470 --> 00:15:40,639

it's very hard to figure out to to

392

00:15:44,150 --> 00:15:42,480

maintain this database because

393

00:15:45,749 --> 00:15:44,160

unfortunately people

394

00:15:48,710 --> 00:15:45,759

die all the time

395

00:15:49,990 --> 00:15:48,720

so you have to update the database

396

00:15:52,230 --> 00:15:50,000

and the people who choose to include

397

00:15:54,470 --> 00:15:52,240

where tv also have to be alive half

398

00:15:56,790 --> 00:15:54,480

would be deceased and also we can never

399

00:15:59,670 --> 00:15:56,800

be sure hundred percent that the people

400

00:16:01,829 --> 00:15:59,680

are deceased so we changed the database

401

00:16:04,470 --> 00:16:01,839

and here we asked the medium

402

00:16:06,870 --> 00:16:04,480

can you figure out the cause of death

403

00:16:08,790 --> 00:16:06,880

did this person had a heart attack was

404

00:16:10,150 --> 00:16:08,800

there very car accident and was their

405

00:16:11,829 --> 00:16:10,160

shot was

406

00:16:15,189 --> 00:16:11,839

where they're shot

407

00:16:19,350 --> 00:16:15,199

and the reason we did this it is uh

408

00:16:21,590 --> 00:16:19,360

when we had medium in in the lab

409

00:16:23,910 --> 00:16:21,600

some of them said oh some clients they

410

00:16:26,310 --> 00:16:23,920

come with us with pictures from the war

411

00:16:28,790 --> 00:16:26,320

and then we can experience how each you

412

00:16:31,189 --> 00:16:28,800

know what happened with each person

413

00:16:33,670 --> 00:16:31,199

so uh this is one reason why you did

414

00:16:35,269 --> 00:16:33,680

this experiment and i'm just going i'm

415

00:16:37,509 --> 00:16:35,279

going to do it with you here real quick

416

00:16:39,749 --> 00:16:37,519

there's going to be six images and so

417

00:16:42,550 --> 00:16:39,759

you can try to guess

418

00:16:45,910 --> 00:16:42,560

if this person died of a heart attack

419

00:16:48,310 --> 00:16:45,920

a car accident or was shot

420

00:16:50,389 --> 00:16:48,320

usually when we do that on zoom

421

00:16:52,710 --> 00:16:50,399

we allow people to vote there's a voting

422

00:16:55,030 --> 00:16:52,720

mechanism on zoom and then we report the

423

00:16:57,590 --> 00:16:55,040

result but here we didn't plan it so

424

00:17:00,470 --> 00:16:57,600

we're not going to do that

425

00:17:05,110 --> 00:17:00,480

so first person

426
00:17:11,429 --> 00:17:05,120
car accident heart attack or shot

427
00:17:11,439 --> 00:17:17,189
third person

428
00:17:17,199 --> 00:17:22,949
fourth person

429
00:17:22,959 --> 00:17:27,110
fifth person

430
00:17:37,350 --> 00:17:28,870
and

431
00:17:44,310 --> 00:17:39,669
you know

432
00:17:49,750 --> 00:17:48,549
so this was this this was the result

433
00:17:55,510 --> 00:17:49,760
so

434
00:17:57,270 --> 00:17:55,520
that people

435
00:17:58,310 --> 00:17:57,280
in the heart attack category were not

436
00:18:00,230 --> 00:17:58,320
obese

437
00:18:02,549 --> 00:18:00,240
we obviously had many more of these

438
00:18:05,110 --> 00:18:02,559

people in the heart attack category than

439

00:18:07,190 --> 00:18:05,120

in the auto crashing homicide but we

440

00:18:09,110 --> 00:18:07,200

made sure to balance the category in the

441

00:18:11,510 --> 00:18:09,120

sense there was no more obese people in

442

00:18:14,230 --> 00:18:11,520

the heart attack versus auto crash and

443

00:18:16,710 --> 00:18:14,240

homicide

444

00:18:19,750 --> 00:18:16,720

so this is mediumship free and here we

445

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

had 12 mediums and 12 controls

446

00:18:24,710 --> 00:18:22,559

because one criticism of our previous

447

00:18:26,390 --> 00:18:24,720

experiment is that

448

00:18:28,310 --> 00:18:26,400

people say well you haven't demonstrated

449

00:18:30,549 --> 00:18:28,320

that mediums are doing better than

450

00:18:32,310 --> 00:18:30,559

controls so we wanted to include

451
00:18:34,230 --> 00:18:32,320
controls as well

452
00:18:35,750 --> 00:18:34,240
and the controls we recruited on

453
00:18:36,630 --> 00:18:35,760
craigslist

454
00:18:38,470 --> 00:18:36,640
uh

455
00:18:40,549 --> 00:18:38,480
asking people if they had any experience

456
00:18:43,110 --> 00:18:40,559
in mediumship and they said no and the

457
00:18:45,190 --> 00:18:43,120
mediums were they were professional

458
00:18:46,150 --> 00:18:45,200
uh mediums from the san francisco bay

459
00:18:48,470 --> 00:18:46,160
area

460
00:18:50,710 --> 00:18:48,480
and they saw 200 about 200 pictures from

461
00:18:53,190 --> 00:18:50,720
free tech categories and we also

462
00:18:55,029 --> 00:18:53,200
connected their brainwave

463
00:18:58,390 --> 00:18:55,039

with an upgraded

464

00:19:00,470 --> 00:18:58,400

system that's shown here

465

00:19:01,590 --> 00:19:00,480

and these are the results

466

00:19:04,310 --> 00:19:01,600

uh

467

00:19:06,390 --> 00:19:04,320

where chance here is because

468

00:19:08,630 --> 00:19:06,400

there's three categories of image so

469

00:19:11,830 --> 00:19:08,640

it's about 70 percent

470

00:19:14,310 --> 00:19:11,840

and so you see actually the non-mediums

471

00:19:17,029 --> 00:19:14,320

are not doing as well as the uh are

472

00:19:19,590 --> 00:19:17,039

doing better than the medium when we

473

00:19:21,990 --> 00:19:19,600

take everybody together

474

00:19:24,710 --> 00:19:22,000

to all the mediums and non-mediums we

475

00:19:28,549 --> 00:19:24,720

have observations in one of 41s which

476

00:19:30,230 --> 00:19:28,559

give a p-value of 0.02 to tail

477

00:19:32,150 --> 00:19:30,240

and it's more significant when we just

478

00:19:34,230 --> 00:19:32,160

take non-mediums and but it's not

479

00:19:36,230 --> 00:19:34,240

significant when we just take the

480

00:19:37,270 --> 00:19:36,240

mediums

481

00:19:39,110 --> 00:19:37,280

and

482

00:19:41,110 --> 00:19:39,120

there's many interpretation

483

00:19:42,789 --> 00:19:41,120

why this might be the case

484

00:19:45,190 --> 00:19:42,799

um

485

00:19:46,390 --> 00:19:45,200

uh one of them was that we thought

486

00:19:49,430 --> 00:19:46,400

mediums were

487

00:19:50,950 --> 00:19:49,440

you know maybe having um performance

488

00:19:52,950 --> 00:19:50,960

anxiety

489

00:19:53,669 --> 00:19:52,960

or you know you could argue maybe this

490

00:19:57,990 --> 00:19:53,679

is

491

00:19:59,510 --> 00:19:58,000

uh oddities and it might not reproduce

492

00:20:01,029 --> 00:19:59,520

or reproduce

493

00:20:02,950 --> 00:20:01,039

um

494

00:20:05,590 --> 00:20:02,960

we also look at the brainwaves and we

495

00:20:08,070 --> 00:20:05,600

saw interesting difference so we didn't

496

00:20:10,789 --> 00:20:08,080

see any difference between so we looked

497

00:20:12,390 --> 00:20:10,799

at two main peaks one early one which

498

00:20:14,950 --> 00:20:12,400

was similar to the one we did in the

499

00:20:18,870 --> 00:20:14,960

previous experiment and one later one

500

00:20:20,310 --> 00:20:18,880

between two and 400 milliseconds

501
00:20:21,590 --> 00:20:20,320
we had different categories so we

502
00:20:25,350 --> 00:20:21,600
couldn't really

503
00:20:27,750 --> 00:20:25,360
try to exactly reproduce uh the peak we

504
00:20:29,909 --> 00:20:27,760
observed in the previous experiment

505
00:20:32,070 --> 00:20:29,919
but uh at this latency which is the

506
00:20:33,990 --> 00:20:32,080
latency at which we observed the peak in

507
00:20:35,830 --> 00:20:34,000
the previous experiment we saw no

508
00:20:37,909 --> 00:20:35,840
significant difference

509
00:20:40,630 --> 00:20:37,919
we saw a strong difference in the brain

510
00:20:43,029 --> 00:20:40,640
of controls versus mediums

511
00:20:45,110 --> 00:20:43,039
also mediums were taking much longer to

512
00:20:46,710 --> 00:20:45,120
respond so maybe they were overthinking

513
00:20:48,870 --> 00:20:46,720

the response they were taking about one

514

00:20:51,909 --> 00:20:48,880

second longer

515

00:20:55,909 --> 00:20:54,149

so we published these results in uh

516

00:20:58,390 --> 00:20:55,919

journal brain

517

00:20:59,510 --> 00:20:58,400

and cognition and it has already gotten

518

00:21:01,669 --> 00:20:59,520

some

519

00:21:02,630 --> 00:21:01,679

attention so this is the summary of our

520

00:21:04,149 --> 00:21:02,640

effort

521

00:21:05,990 --> 00:21:04,159

on medium shim

522

00:21:09,190 --> 00:21:06,000

accuracy

523

00:21:11,669 --> 00:21:09,200

at ions and um

524

00:21:13,909 --> 00:21:11,679

yeah that's the that's the

525

00:21:18,070 --> 00:21:13,919

that's the gist of it and the end of my

526
00:21:22,470 --> 00:21:20,470
thank you rno

527
00:21:24,070 --> 00:21:22,480
so i'll take a look at the questions now

528
00:21:27,510 --> 00:21:24,080
so and if anybody has any other

529
00:21:30,390 --> 00:21:27,520
questions please put them in the chat

530
00:21:32,470 --> 00:21:30,400
let me go back up here

531
00:21:34,070 --> 00:21:32,480
and see all right so

532
00:21:36,310 --> 00:21:34,080
one question came in and i guess when

533
00:21:38,630 --> 00:21:36,320
the meetings were making a choice

534
00:21:40,950 --> 00:21:38,640
did they have only eight seconds that's

535
00:21:43,350 --> 00:21:40,960
compared to like it's the online

536
00:21:46,070 --> 00:21:43,360
version

537
00:21:47,110 --> 00:21:46,080
yeah so uh so the time they had to

538
00:21:48,630 --> 00:21:47,120

answer

539

00:21:52,070 --> 00:21:48,640

uh

540

00:21:54,230 --> 00:21:52,080

so in in some pilots we only gave them

541

00:21:57,590 --> 00:21:54,240

five seconds and it wasn't enough

542

00:21:59,590 --> 00:21:57,600

and then we increased it to 10 seconds

543

00:22:01,510 --> 00:21:59,600

and then it was moving on to the next

544

00:22:03,270 --> 00:22:01,520

picture if the people was a

545

00:22:05,270 --> 00:22:03,280

person who was imitating too much i

546

00:22:06,870 --> 00:22:05,280

don't know if it was 10 or 15 seconds

547

00:22:09,510 --> 00:22:06,880

but we made it much longer because

548

00:22:11,990 --> 00:22:09,520

medium complaint

549

00:22:13,909 --> 00:22:12,000

was is too short

550

00:22:15,750 --> 00:22:13,919

obviously we it was just during the

551
00:22:16,950 --> 00:22:15,760
pilot during the experiment everybody

552
00:22:19,029 --> 00:22:16,960
had the same

553
00:22:21,750 --> 00:22:19,039
uh experience

554
00:22:24,630 --> 00:22:21,760
so yeah there is the question how long

555
00:22:27,270 --> 00:22:24,640
you know is good enough at the

556
00:22:29,029 --> 00:22:27,280
our main concern here is that if we show

557
00:22:31,430 --> 00:22:29,039
the image too long

558
00:22:33,350 --> 00:22:31,440
uh we won't be able to show as many

559
00:22:35,909 --> 00:22:33,360
images and we really

560
00:22:37,510 --> 00:22:35,919
the main reason we did it with images is

561
00:22:39,830 --> 00:22:37,520
uh

562
00:22:42,390 --> 00:22:39,840
we wanted the statistical power so we

563
00:22:45,110 --> 00:22:42,400

wanted to use a lot of images

564

00:22:48,230 --> 00:22:45,120

this way we could run some some powerful

565

00:22:50,789 --> 00:22:48,240

statistics like if you have five images

566

00:22:53,270 --> 00:22:50,799

with low numbers there's always a chance

567

00:22:54,390 --> 00:22:53,280

that people will guess all five

568

00:22:56,230 --> 00:22:54,400

correctly

569

00:22:58,549 --> 00:22:56,240

but if you have

570

00:23:01,510 --> 00:22:58,559

400 images it's very unlikely they're

571

00:23:02,710 --> 00:23:01,520

going to guess the 400

572

00:23:04,310 --> 00:23:02,720

perfectly

573

00:23:05,990 --> 00:23:04,320

so

574

00:23:07,510 --> 00:23:06,000

do the mediums

575

00:23:09,990 --> 00:23:07,520

say anything about

576

00:23:11,590 --> 00:23:10,000

the photographic test versus

577

00:23:13,029 --> 00:23:11,600

actually trying to connect with them so

578

00:23:15,430 --> 00:23:13,039

in other words

579

00:23:17,350 --> 00:23:15,440

i've known mediums who could not tell

580

00:23:18,630 --> 00:23:17,360

from a photograph necessarily unless

581

00:23:21,750 --> 00:23:18,640

they spend a little time trying to

582

00:23:24,549 --> 00:23:21,760

connect with that person

583

00:23:26,470 --> 00:23:24,559

yeah we tried to connect medium to

584

00:23:28,630 --> 00:23:26,480

collect data from medium we said they

585

00:23:30,390 --> 00:23:28,640

could do that based on photographs and

586

00:23:32,710 --> 00:23:30,400

most of them reported connecting with

587

00:23:33,830 --> 00:23:32,720

the person and afterwards

588

00:23:37,510 --> 00:23:33,840

reporting

589

00:23:39,750 --> 00:23:37,520

the problem that might be uh in in the

590

00:23:42,149 --> 00:23:39,760

later experiments so in the first you

591

00:23:45,830 --> 00:23:42,159

know where we asked the cause of

592

00:23:47,750 --> 00:23:45,840

of uh of death they they said oh i feel

593

00:23:51,430 --> 00:23:47,760

you know i feel something

594

00:23:54,310 --> 00:23:51,440

in in my chest you know well you know

595

00:23:57,190 --> 00:23:54,320

could be heart attack could be a gunshot

596

00:23:59,350 --> 00:23:57,200

could be a car accident right right

597

00:24:01,990 --> 00:23:59,360

so yeah so

598

00:24:04,789 --> 00:24:02,000

so maybe you know the categories with

599

00:24:07,350 --> 00:24:04,799

shoes were not ideal

600

00:24:08,950 --> 00:24:07,360

in that sense but also

601
00:24:11,430 --> 00:24:08,960
we do what we could

602
00:24:13,430 --> 00:24:11,440
we had a very good

603
00:24:16,230 --> 00:24:13,440
database

604
00:24:20,149 --> 00:24:17,190
you know

605
00:24:21,750 --> 00:24:20,159
public servant policeman who served and

606
00:24:24,310 --> 00:24:21,760
and uh

607
00:24:26,950 --> 00:24:24,320
died in the written service

608
00:24:28,390 --> 00:24:26,960
and so they set up a database and of

609
00:24:30,630 --> 00:24:28,400
course we haven't released any of this

610
00:24:33,029 --> 00:24:30,640
publicly so i mean we completely respect

611
00:24:34,390 --> 00:24:33,039
you know his his officers

612
00:24:36,070 --> 00:24:34,400
and um

613
00:24:37,830 --> 00:24:36,080

but it's very detailed you know

614

00:24:40,549 --> 00:24:37,840

everything that happened

615

00:24:43,190 --> 00:24:40,559

um unfortunately

616

00:24:44,950 --> 00:24:43,200

very very few or you know fortunately

617

00:24:47,350 --> 00:24:44,960

for the officers there are very few

618

00:24:49,029 --> 00:24:47,360

death outside of these three categories

619

00:24:50,149 --> 00:24:49,039

there's a few people that died of

620

00:24:51,830 --> 00:24:50,159

drowning

621

00:24:52,630 --> 00:24:51,840

or but

622

00:24:54,230 --> 00:24:52,640

yeah

623

00:24:56,710 --> 00:24:54,240

other than that it's

624

00:24:58,470 --> 00:24:56,720

there was just a few people in each

625

00:25:00,789 --> 00:24:58,480

category so these were the only one

626

00:25:01,669 --> 00:25:00,799

where we could get image even though we

627

00:25:04,549 --> 00:25:01,679

had

628

00:25:08,070 --> 00:25:04,559

uh

629

00:25:10,549 --> 00:25:08,080

20 000 officers in the database

630

00:25:12,549 --> 00:25:10,559

we could only get you know once we did

631

00:25:14,950 --> 00:25:12,559

our stringent

632

00:25:16,950 --> 00:25:14,960

image selection like we don't want any

633

00:25:19,190 --> 00:25:16,960

hat we didn't want any of

634

00:25:20,549 --> 00:25:19,200

these things we wanted to balance

635

00:25:28,470 --> 00:25:20,559

the

636

00:25:30,149 --> 00:25:28,480

learning something i didn't show here

637

00:25:32,710 --> 00:25:30,159

and um

638

00:25:35,110 --> 00:25:32,720

on all the characteristics we collected

639

00:25:37,590 --> 00:25:35,120

and and this system this artificial

640

00:25:39,430 --> 00:25:37,600

intelligence system was not able to

641

00:25:41,510 --> 00:25:39,440

tell between the different

642

00:25:45,110 --> 00:25:41,520

categories

643

00:25:47,029 --> 00:25:45,120

so yeah we we did what we could

644

00:25:49,190 --> 00:25:47,039

all right so here's a question actually

645

00:25:51,669 --> 00:25:49,200

two-part question uh why is the chance

646

00:25:54,789 --> 00:25:51,679

rate hit chance hit rate two out of

647

00:25:56,950 --> 00:25:54,799

three rather than one out of three

648

00:25:58,710 --> 00:25:56,960

yeah it depends how you look at it

649

00:26:00,789 --> 00:25:58,720

i mean you know it's it's two out of

650

00:26:03,269 --> 00:26:00,799

three of making a mistake or one out of

651
00:26:05,029 --> 00:26:03,279
three of being correct so yeah it's it's

652
00:26:06,470 --> 00:26:05,039
the same

653
00:26:08,789 --> 00:26:06,480
okay and the second part is if you can

654
00:26:10,310 --> 00:26:08,799
define a chance hit rate why don't you

655
00:26:12,870 --> 00:26:10,320
capitalize on the difference between the

656
00:26:15,830 --> 00:26:12,880
hit rate and chance rather than the

657
00:26:17,990 --> 00:26:15,840
difference between mediums and controls

658
00:26:19,590 --> 00:26:18,000
yeah we did both so we looked at

659
00:26:22,870 --> 00:26:19,600
everybody together

660
00:26:25,350 --> 00:26:22,880
you know rv above chance expectation

661
00:26:28,149 --> 00:26:25,360
or we look also at

662
00:26:30,630 --> 00:26:28,159
medium versus control or we look our

663
00:26:33,190 --> 00:26:30,640

mediums above chance expectation or

664

00:26:34,549 --> 00:26:33,200

control both chances expectation so we

665

00:26:36,830 --> 00:26:34,559

did all of these

666

00:26:39,430 --> 00:26:36,840

possible

667

00:26:41,750 --> 00:26:39,440

analysis and the take-home message is

668

00:26:44,070 --> 00:26:41,760

that when we take all the

669

00:26:45,750 --> 00:26:44,080

all the people we tested that we group

670

00:26:48,789 --> 00:26:45,760

them together

671

00:26:51,269 --> 00:26:48,799

uh we do find significant results

672

00:26:54,390 --> 00:26:51,279

although i mean it's only your p equals

673

00:26:57,430 --> 00:26:54,400

0.02 but for psychology this is still

674

00:27:00,149 --> 00:26:57,440

very relevant when we take the medium

675

00:27:02,549 --> 00:27:00,159

only it's not significant

676
00:27:06,070 --> 00:27:02,559
but and but when we take there's a small

677
00:27:09,110 --> 00:27:06,080
triangle when we take the

678
00:27:11,350 --> 00:27:09,120
control already it's very significant

679
00:27:13,510 --> 00:27:11,360
so this is a comment on that if the

680
00:27:16,070 --> 00:27:13,520
non-mediums the control people were

681
00:27:18,710 --> 00:27:16,080
psychic they might have had just as good

682
00:27:20,630 --> 00:27:18,720
or better scores in the mediums

683
00:27:22,070 --> 00:27:20,640
yeah and that's always you know how can

684
00:27:24,149 --> 00:27:22,080
you find

685
00:27:26,870 --> 00:27:24,159
uh you know people were

686
00:27:28,710 --> 00:27:26,880
uh not psychic actually we have

687
00:27:30,789 --> 00:27:28,720
encountered this problem not in this

688
00:27:34,789 --> 00:27:30,799

specifically in this experiment in other

689

00:27:36,149 --> 00:27:34,799

experiments where we were

690

00:27:38,710 --> 00:27:36,159

recruiting

691

00:27:41,190 --> 00:27:38,720

uh people we never had experiment and we

692

00:27:42,310 --> 00:27:41,200

had such a hard time because everybody

693

00:27:45,190 --> 00:27:42,320

has had

694

00:27:46,710 --> 00:27:45,200

you know at least once uh these these

695

00:27:49,190 --> 00:27:46,720

experiments so

696

00:27:53,350 --> 00:27:49,200

it's very hard to find people who never

697

00:27:55,350 --> 00:27:53,360

had this experiment this experience

698

00:27:57,830 --> 00:27:55,360

all right uh were there any differences

699

00:27:59,750 --> 00:27:57,840

in the dmn between

700

00:28:03,909 --> 00:27:59,760

mediums and controls

701
00:28:07,750 --> 00:28:06,470
so the dmn is more

702
00:28:09,990 --> 00:28:07,760
linked and

703
00:28:12,470 --> 00:28:10,000
so

704
00:28:16,070 --> 00:28:12,480
we didn't look at the dmn

705
00:28:17,590 --> 00:28:16,080
i'm not sure it was it would be relevant

706
00:28:20,389 --> 00:28:17,600
here

707
00:28:22,630 --> 00:28:20,399
it's for congress versus non-congregant

708
00:28:24,389 --> 00:28:22,640
i hear everything is congruent

709
00:28:26,149 --> 00:28:24,399
in the sense we just ask them a question

710
00:28:29,510 --> 00:28:26,159
it's just a simple

711
00:28:32,870 --> 00:28:29,520
categorization categorization task

712
00:28:34,630 --> 00:28:32,880
so yeah i don't think that um

713
00:28:35,669 --> 00:28:34,640

yeah this i don't think this was

714

00:28:37,990 --> 00:28:35,679
relevant

715

00:28:39,350 --> 00:28:38,000
to this uh specific

716

00:28:40,870 --> 00:28:39,360
experiment

717

00:28:43,669 --> 00:28:40,880
okay

718

00:28:46,549 --> 00:28:43,679
on the alive yeah what i wanted to say

719

00:28:48,710 --> 00:28:46,559
as well is that we did look

720

00:28:51,269 --> 00:28:48,720
uh you know so we had

721

00:28:53,430 --> 00:28:51,279
so we had overall it was it was

722

00:28:56,630 --> 00:28:53,440
significant and so we did look well is

723

00:28:57,430 --> 00:28:56,640
it more the image of car accident is it

724

00:29:00,310 --> 00:28:57,440
more

725

00:29:02,230 --> 00:29:00,320
the image of um

726

00:29:03,909 --> 00:29:02,240

of

727

00:29:05,909 --> 00:29:03,919

gunshots

728

00:29:08,630 --> 00:29:05,919

so and we didn't find any difference

729

00:29:10,870 --> 00:29:08,640

between the category of images

730

00:29:13,110 --> 00:29:10,880

which from our perspective is good

731

00:29:15,750 --> 00:29:13,120

because it means that

732

00:29:18,230 --> 00:29:15,760

there was not a strong bias for example

733

00:29:19,990 --> 00:29:18,240

if we had a strong bias for a heart

734

00:29:21,510 --> 00:29:20,000

attack

735

00:29:24,389 --> 00:29:21,520

then it could have been an indication

736

00:29:27,590 --> 00:29:24,399

well we didn't do our randomization well

737

00:29:29,029 --> 00:29:27,600

enough preparation of image so we had

738

00:29:31,990 --> 00:29:29,039

people could tell

739

00:29:33,990 --> 00:29:32,000

from the facial characteristics that you

740

00:29:36,630 --> 00:29:34,000

know these people were more likely to

741

00:29:39,029 --> 00:29:36,640

have a heart attack in the future

742

00:29:41,510 --> 00:29:39,039

which has been shown the literature

743

00:29:44,310 --> 00:29:41,520

by the way you can if you

744

00:29:46,389 --> 00:29:44,320

if you see pictures of of people you can

745

00:29:47,350 --> 00:29:46,399

say well above chance if you're a smoker

746

00:29:49,029 --> 00:29:47,360

or not

747

00:29:51,430 --> 00:29:49,039

and also

748

00:29:54,310 --> 00:29:51,440

you know if they could die of a heart

749

00:29:56,470 --> 00:29:54,320

attack or not so we did a good job it

750

00:29:59,110 --> 00:29:56,480

doesn't mean that

751
00:30:02,070 --> 00:29:59,120
mediums and controls couldn't look at

752
00:30:04,870 --> 00:30:02,080
the image and try to

753
00:30:06,230 --> 00:30:04,880
use the facial characteristics to guess

754
00:30:07,909 --> 00:30:06,240
you know for example you could say well

755
00:30:09,750 --> 00:30:07,919
the people who died of gunshots were

756
00:30:12,310 --> 00:30:09,760
more impulsive so maybe there's facial

757
00:30:14,230 --> 00:30:12,320
characteristics of impulsiveness and we

758
00:30:16,870 --> 00:30:14,240
can't possibly control with that so we

759
00:30:17,750 --> 00:30:16,880
can't remove any the classical

760
00:30:19,029 --> 00:30:17,760
uh

761
00:30:20,549 --> 00:30:19,039
interpretation

762
00:30:23,510 --> 00:30:20,559
we can just say it's more likely that

763
00:30:25,750 --> 00:30:23,520

this is like this or this is uh this way

764

00:30:28,710 --> 00:30:25,760

same for our previous experiment with

765

00:30:30,710 --> 00:30:28,720

live and deceased uh individual there

766

00:30:33,029 --> 00:30:30,720

might be fish or characteristics that

767

00:30:34,549 --> 00:30:33,039

indicate that you would die younger so

768

00:30:36,630 --> 00:30:34,559

even though all the pictures we took

769

00:30:38,630 --> 00:30:36,640

were from the 1960s

770

00:30:39,669 --> 00:30:38,640

so where people were at the end of high

771

00:30:41,430 --> 00:30:39,679

school

772

00:30:44,470 --> 00:30:41,440

um

773

00:30:46,630 --> 00:30:44,480

and then it was uh 50 years later so

774

00:30:48,070 --> 00:30:46,640

half about half of them were deceased

775

00:30:50,710 --> 00:30:48,080

already

776
00:30:52,630 --> 00:30:50,720
it could be that when you're 20 you have

777
00:30:55,110 --> 00:30:52,640
facial characteristics

778
00:30:58,230 --> 00:30:55,120
that would be predictive of you dying

779
00:30:59,110 --> 00:30:58,240
younger than older

780
00:31:01,029 --> 00:30:59,120
okay

781
00:31:03,430 --> 00:31:01,039
well kind of on the alive and dead test

782
00:31:05,110 --> 00:31:03,440
as compared to the cause of death test

783
00:31:07,990 --> 00:31:05,120
what's your reaction to the thesis that

784
00:31:09,509 --> 00:31:08,000
mediumship inherently sensitizes someone

785
00:31:11,509 --> 00:31:09,519
to the deceased

786
00:31:15,110 --> 00:31:11,519
more so than the cause of death for

787
00:31:16,630 --> 00:31:15,120
someone known to be deceased

788
00:31:19,750 --> 00:31:16,640

yes so the

789

00:31:22,549 --> 00:31:19,760
of of course in our experiment

790

00:31:23,909 --> 00:31:22,559
it was hard to replicate the real

791

00:31:26,149 --> 00:31:23,919
reading

792

00:31:27,750 --> 00:31:26,159
and so you know the human connection

793

00:31:29,269 --> 00:31:27,760
between the medium

794

00:31:31,350 --> 00:31:29,279
and the the

795

00:31:33,029 --> 00:31:31,360
the person who is receiving

796

00:31:35,669 --> 00:31:33,039
the reading it was completely double

797

00:31:37,590 --> 00:31:35,679
blind and we had in the first experiment

798

00:31:40,149 --> 00:31:37,600
we had someone on the other side on the

799

00:31:41,029 --> 00:31:40,159
other side that wanted the reading about

800

00:31:43,909 --> 00:31:41,039
john

801
00:31:44,950 --> 00:31:43,919
but in the second and third experiment

802
00:31:46,870 --> 00:31:44,960
we had

803
00:31:49,669 --> 00:31:46,880
basically no one these were people we

804
00:31:51,909 --> 00:31:49,679
didn't know we were

805
00:31:52,870 --> 00:31:51,919
former police officers

806
00:31:58,950 --> 00:31:52,880
and

807
00:32:01,750 --> 00:31:58,960
this design so i mean even if we had

808
00:32:03,990 --> 00:32:01,760
found no effect whatsoever i don't think

809
00:32:04,870 --> 00:32:04,000
we necessarily invalidate

810
00:32:10,630 --> 00:32:04,880
um

811
00:32:12,549 --> 00:32:10,640
that you know it can't be any effect

812
00:32:14,070 --> 00:32:12,559
okay one last question so if anybody

813
00:32:15,350 --> 00:32:14,080

else has any questions please uh put

814

00:32:17,830 --> 00:32:15,360

them in the chat

815

00:32:20,470 --> 00:32:17,840

uh was just was the displacement effect

816

00:32:23,509 --> 00:32:20,480

considered in the experiment

817

00:32:24,389 --> 00:32:23,519

what's the displacement effect

818

00:32:26,230 --> 00:32:24,399

where

819

00:32:28,070 --> 00:32:26,240

someone when they make a guess it

820

00:32:31,350 --> 00:32:28,080

actually refers to the next target

821

00:32:33,750 --> 00:32:31,360

that's coming up or the previous target

822

00:32:36,230 --> 00:32:33,760

so we haven't tested that

823

00:32:38,230 --> 00:32:36,240

we didn't test that specifically

824

00:32:41,269 --> 00:32:38,240

we've released uh

825

00:32:43,110 --> 00:32:41,279

at least the data from experiment three

826
00:32:45,029 --> 00:32:43,120
on the internet so people can just

827
00:32:46,230 --> 00:32:45,039
download the data

828
00:32:48,149 --> 00:32:46,240
check

829
00:32:49,750 --> 00:32:48,159
for themselves you know whether this

830
00:32:51,110 --> 00:32:49,760
happened or not

831
00:32:55,269 --> 00:32:51,120
yeah it's totally

832
00:32:56,710 --> 00:32:55,279
possible there's effect we we missed

833
00:32:57,750 --> 00:32:56,720
all right does anyone else have a

834
00:33:01,110 --> 00:32:57,760
question

835
00:33:06,950 --> 00:33:03,990
so what's your next step

836
00:33:10,149 --> 00:33:06,960
our next step where right now we're

837
00:33:12,710 --> 00:33:10,159
taking a pause but our next step is much

838
00:33:13,909 --> 00:33:12,720

on puzzle mediumship so

839

00:33:17,110 --> 00:33:13,919

but

840

00:33:20,389 --> 00:33:17,120

one next step is to do massive

841

00:33:22,950 --> 00:33:20,399

online experiment to find tenants

842

00:33:26,470 --> 00:33:22,960

uh instead of focusing on the general

843

00:33:28,710 --> 00:33:26,480

population we want to test talents

844

00:33:31,430 --> 00:33:28,720

and this has been done before

845

00:33:34,230 --> 00:33:31,440

we're just giving it another shot so we

846

00:33:35,830 --> 00:33:34,240

have we have the chance of having this

847

00:33:37,909 --> 00:33:35,840

website

848

00:33:40,070 --> 00:33:37,919

which we inherited from the integral

849

00:33:43,350 --> 00:33:40,080

institute that's for god's eye

850

00:33:46,389 --> 00:33:43,360

that dean has talked about so 300

851

00:33:48,549 --> 00:33:46,399

i think this 300 000 people were on

852

00:33:49,669 --> 00:33:48,559

their website and contributed

853

00:33:52,950 --> 00:33:49,679

uh

854

00:33:54,870 --> 00:33:52,960

you know 250 000 people contribute 300

855

00:33:56,789 --> 00:33:54,880

million trials

856

00:33:58,630 --> 00:33:56,799

so we have this uh

857

00:34:01,190 --> 00:33:58,640

so we're redoing that and we're trying

858

00:34:02,789 --> 00:34:01,200

to find talent in that pool

859

00:34:04,870 --> 00:34:02,799

uh of of

860

00:34:07,269 --> 00:34:04,880

of people so that's that's the goal

861

00:34:08,389 --> 00:34:07,279

right now and one of the tests on the

862

00:34:12,790 --> 00:34:08,399

tenant

863

00:34:15,430 --> 00:34:12,800

uh might be one of uh mediumship

864

00:34:16,629 --> 00:34:15,440

that's great sounds like a great idea

865

00:34:19,589 --> 00:34:16,639

all right if

866

00:34:21,750 --> 00:34:19,599

no one else has any questions

867

00:34:23,589 --> 00:34:21,760

um we can give people back a couple

868

00:34:25,669 --> 00:34:23,599

extra minutes give you back about five

869

00:34:27,430 --> 00:34:25,679

extra minutes here or no

870

00:34:29,510 --> 00:34:27,440

and you have anything else you want to

871

00:34:31,829 --> 00:34:29,520

say brad

872

00:34:34,149 --> 00:34:31,839

um

873

00:34:35,990 --> 00:34:34,159

i mean do we we contacted people you

874

00:34:38,629 --> 00:34:36,000

know if you want to reproduce the

875

00:34:40,629 --> 00:34:38,639

experiments we're totally open with

876

00:34:44,470 --> 00:34:40,639

sharing the pictures

877

00:34:46,149 --> 00:34:44,480

we try to run it online and we ask the

878

00:34:47,909 --> 00:34:46,159

um

879

00:34:50,230 --> 00:34:47,919

the people who are handling the police

880

00:34:51,589 --> 00:34:50,240

databases that would be okay with them

881

00:34:53,190 --> 00:34:51,599

and they said no

882

00:34:55,270 --> 00:34:53,200

so we backed off

883

00:34:57,750 --> 00:34:55,280

but it's fine to

884

00:35:00,710 --> 00:34:57,760

share the pictures for research purposes

885

00:35:03,589 --> 00:35:00,720

so i think if any of you is interested

886

00:35:05,030 --> 00:35:03,599

in running this experiment we can share

887

00:35:06,790 --> 00:35:05,040

our

888

00:35:09,109 --> 00:35:06,800

presentation script

889

00:35:10,230 --> 00:35:09,119

and the image we use so you can run it

890

00:35:13,270 --> 00:35:10,240

in the lab

891

00:35:15,829 --> 00:35:13,280

in your labs and i know that um

892

00:35:18,310 --> 00:35:15,839

chris rowe was interested

893

00:35:20,069 --> 00:35:18,320

yeah i think was interested in in doing

894

00:35:21,349 --> 00:35:20,079

that in the uk

895

00:35:23,430 --> 00:35:21,359

at some point

896

00:35:24,950 --> 00:35:23,440

so if you're interested in that just

897

00:35:26,630 --> 00:35:24,960

let us know and then you don't need the

898

00:35:28,230 --> 00:35:26,640

eeg you can just run it as a

899

00:35:30,230 --> 00:35:28,240

psychophysics

900

00:35:31,990 --> 00:35:30,240

tax you don't have to record the eeg in

901
00:35:33,349 --> 00:35:32,000
this turn

902
00:35:35,589 --> 00:35:33,359
all right we actually just got another

903
00:35:37,910 --> 00:35:35,599
question so were any of the analyses

904
00:35:41,349 --> 00:35:37,920
pre-planned

905
00:35:42,710 --> 00:35:41,359
so they were uh we didn't if what you

906
00:35:45,829 --> 00:35:42,720
mean within

907
00:35:51,750 --> 00:35:49,109
but you know these were bl proposal

908
00:35:55,030 --> 00:35:51,760
so we did in our br proposal we did

909
00:35:56,710 --> 00:35:55,040
indicate how we would process

910
00:35:59,910 --> 00:35:56,720
the data

911
00:36:03,030 --> 00:35:59,920
i think what was left most to open was

912
00:36:04,550 --> 00:36:03,040
the brain the signal analysis

913
00:36:07,190 --> 00:36:04,560

because um

914

00:36:09,190 --> 00:36:07,200

it really depends on the task

915

00:36:11,190 --> 00:36:09,200

in terms of the behavior

916

00:36:13,190 --> 00:36:11,200

is very straightforward or available of

917

00:36:15,349 --> 00:36:13,200

chains or not are they both chains for

918

00:36:18,069 --> 00:36:15,359

each category or medium different

919

00:36:19,430 --> 00:36:18,079

from controls so this was pretty much

920

00:36:22,470 --> 00:36:19,440

pre-planned

921

00:36:25,190 --> 00:36:22,480

the brain analysis was a little bit more

922

00:36:28,310 --> 00:36:25,200

exploratory based on the tools which

923

00:36:30,310 --> 00:36:28,320

were available at the time for running

924

00:36:33,589 --> 00:36:30,320

statistical analysis

925

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

so no this wasn't pre-registered

