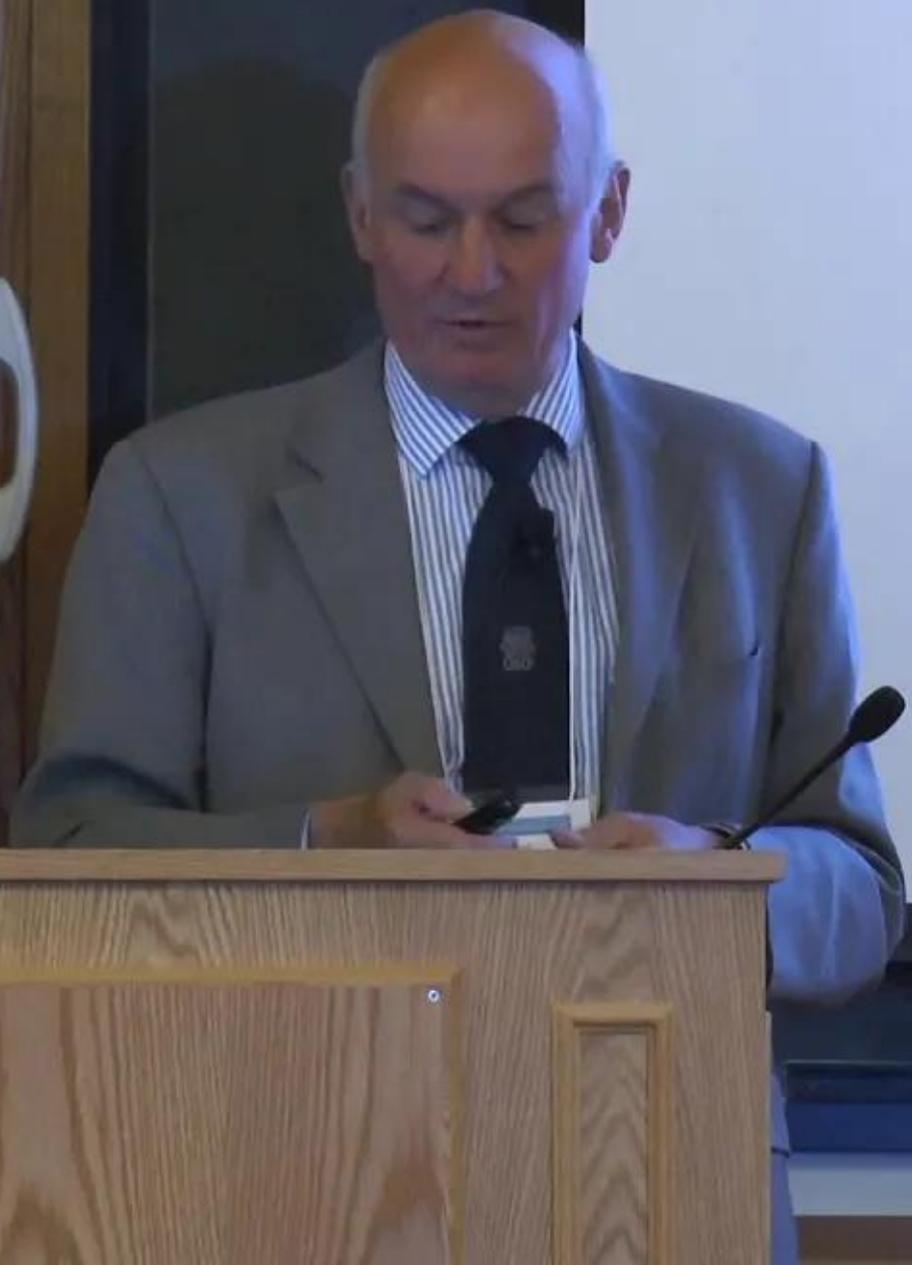1
00:00:06,680 --> 00:00:04,070
thank you for having me here the bad

2
00:00:08,900 --> 00:00:06,690
news is I'm not Ana Flores she's not

3
00:00:12,680 --> 00:00:08,910
here she's my PhD student the good news

4
00:00:15,770 --> 00:00:12,690
is I'm giving the talk so I will be

5
00:00:18,740 --> 00:00:15,780
presenting work in progress doing that

6
00:00:20,840 --> 00:00:18,750
in two stages some theoretical thoughts

7
00:00:24,080 --> 00:00:20,850
which I can keep short and some data

8
00:00:26,839 --> 00:00:24,090
most of which are quite new so here we

9
00:00:29,029 --> 00:00:26,849
go we've already heard quite a few

10
00:00:31,820 --> 00:00:29,039
things about the current world view and

11
00:00:34,900 --> 00:00:31,830
the fact that it's actually predicated

12
00:00:37,520 --> 00:00:34,910
on some presuppositions which Collinwood

13
00:00:40,520 --> 00:00:37,530

who was actually the source for Thomas

14
00:00:44,740 --> 00:00:40,530
Kuhn just as an aside called

15
00:00:46,970 --> 00:00:44,750
absolute presuppositions meaning they

16
00:00:50,650 --> 00:00:46,980
determine what we think about and how we

17
00:00:53,600 --> 00:00:50,660
look at the world and most of them are

18
00:00:56,060 --> 00:00:53,610
looking at things in terms of local

19
00:00:59,029 --> 00:00:56,070
causes like mechanical causes of what we

20
00:01:02,930 --> 00:00:59,039
just heard up in key principle which

21
00:01:06,380 --> 00:01:02,940
means we are looking at things only in

22
00:01:10,789 --> 00:01:06,390
ways that we can analyze it causally

23
00:01:13,160 --> 00:01:10,799
mm-hmm also we go for analysis before

24
00:01:16,160 --> 00:01:13,170
synthesis and mostly we go for matter

25
00:01:19,100 --> 00:01:16,170
before consciousness which is something

26
00:01:21,560 --> 00:01:19,110
problematic I find and also individuals

27
00:01:23,539 --> 00:01:21,570
of particulars before holes so what I'm

28
00:01:25,880 --> 00:01:23,549
presenting to you is what I would call

29
00:01:27,830 --> 00:01:25,890
relative individuality or relative

30
00:01:31,929 --> 00:01:27,840
vorticity because I'm going to speak

31
00:01:34,520 --> 00:01:31,939
about more like holes that develop into

32
00:01:38,569 --> 00:01:34,530
individuals and out of individuals into

33
00:01:40,550 --> 00:01:38,579
holes again so mm-hmm I was always a

34
00:01:44,330 --> 00:01:40,560
little bit frustrated with that because

35
00:01:46,280 --> 00:01:44,340
I think when you look at the experience

36
00:01:48,530 --> 00:01:46,290
from parapsychology or complimentary

37
00:01:52,130 --> 00:01:48,540
medicine what I've been doing most of my

38
00:01:53,960 --> 00:01:52,140

career you see that you implicitly have

39
00:01:58,010 --> 00:01:53,970
to have another paradigm which is more

40
00:02:00,230 --> 00:01:58,020
holistic which is not causal in the

41
00:02:02,280 --> 00:02:00,240
strict sense but may be correlational II

42
00:02:07,650 --> 00:02:02,290
caused the former causality in

43
00:02:09,960 --> 00:02:07,660
in the sense of Aristotle and maybe more

44
00:02:12,710 --> 00:02:09,970
internal relations in instead of

45
00:02:15,990 --> 00:02:12,720
external relations we heard about those

46
00:02:17,910 --> 00:02:16,000
meaning fields that is something which

47
00:02:19,560 --> 00:02:17,920
in philosophical terms is more internal

48
00:02:22,320 --> 00:02:19,570
relations leiden it's had a model like

49
00:02:24,420 --> 00:02:22,330
that and that has been lost along the

50
00:02:26,730 --> 00:02:24,430
way of the history of philosophy and I

51
00:02:29,850 --> 00:02:26,740
think we should turn back to that that

52
00:02:32,850 --> 00:02:29,860
is therefore we were looking into

53
00:02:34,560 --> 00:02:32,860
developing a new paradigm and I did that

54
00:02:36,420 --> 00:02:34,570
a while ago together with physics

55
00:02:38,430 --> 00:02:36,430
colleagues from Freiburg and we

56
00:02:43,350 --> 00:02:38,440
published that as generalized quantum

57
00:02:45,870 --> 00:02:43,360
theory or E as a model that is

58
00:02:49,860 --> 00:02:45,880
generalizing quantum theory into a

59
00:02:52,590 --> 00:02:49,870
systemic area as it were so it's not

60
00:02:56,010 --> 00:02:52,600
physics it's using a physical theory to

61
00:02:58,380 --> 00:02:56,020
understand systems it is the form of

62
00:03:02,370 --> 00:02:58,390
theoretical framework of algebra quantum

63
00:03:04,260 --> 00:03:02,380

theory which is basically in its core

64
00:03:06,810 --> 00:03:04,270
designed to deal with incompatible

65
00:03:09,540 --> 00:03:06,820
operations that is the call everything

66
00:03:11,400 --> 00:03:09,550
else is physical addition which you need

67
00:03:13,320 --> 00:03:11,410
to calculate and that sort of thing

68
00:03:16,680 --> 00:03:13,330
we leave that out and look at the core

69
00:03:18,990 --> 00:03:16,690
and we discover if you do that the model

70
00:03:20,940 --> 00:03:19,000
predicts non-local correlations and

71
00:03:23,300 --> 00:03:20,950
shampoodles Kiros and like correlations

72
00:03:26,670 --> 00:03:23,310
but not physical one but systemic ones

73
00:03:29,039 --> 00:03:26,680
and meaning that is in all types of

74
00:03:31,470 --> 00:03:29,049
systems no matter what they are made of

75
00:03:33,840 --> 00:03:31,480
they may be made out of chocolate but if

76
00:03:36,810 --> 00:03:33,850
they are in in in the in in the right

77
00:03:39,990 --> 00:03:36,820
frame you would see such correlations

78
00:03:44,870 --> 00:03:40,000
and that is what it would look like so

79
00:03:48,509 --> 00:03:44,880
if you if you think about a system that

80
00:03:51,300 --> 00:03:48,519
comprises some elements and you have

81
00:03:54,509 --> 00:03:51,310
descriptions that are incompatible

82
00:03:56,640 --> 00:03:54,519
between the whole of the system and the

83
00:03:58,560 --> 00:03:56,650
individuals the model would predict

84
00:04:02,820 --> 00:03:58,570
non-local correlations between these

85
00:04:09,720 --> 00:04:02,830
elements and the very basic idea is we

86
00:04:12,349 --> 00:04:09,730
always have holes connectedness let's

87
00:04:15,920 --> 00:04:12,359
say and we have individuals or

88
00:04:18,699 --> 00:04:15,930

separateness those are the most abstract

89
00:04:23,170 --> 00:04:18,709
concepts you can conceive of and

90
00:04:25,850 --> 00:04:23,180
connectedness and separateness are

91
00:04:27,800 --> 00:04:25,860
concepts are that are incompatible and

92
00:04:29,870 --> 00:04:27,810
if you have them United in one system

93
00:04:31,790 --> 00:04:29,880
then the prediction is that would be

94
00:04:33,650 --> 00:04:31,800
non-local correlations that's the basic

95
00:04:37,760 --> 00:04:33,660
theoretical framework from which we

96
00:04:40,700 --> 00:04:37,770
start now the idea is or the other

97
00:04:44,540 --> 00:04:40,710
problem is can you actually test that

98
00:04:48,800 --> 00:04:44,550
and the problem is correlations of that

99
00:04:51,230 --> 00:04:48,810
quantum type they cannot be used for EM

100
00:04:54,200 --> 00:04:51,240
for signal transmission that is why we

101
00:04:56,240 --> 00:04:54,210
have introduced the theorem in our model

102
00:04:59,330 --> 00:04:56,250
which we call the no signal transfer

103
00:05:02,020 --> 00:04:59,340
theorem and it actually states you

104
00:05:04,760 --> 00:05:02,030
cannot use those correlations to

105
00:05:07,100 --> 00:05:04,770
transmit causal signals you can use them

106
00:05:08,630 --> 00:05:07,110
but not causal sickness because if you

107
00:05:11,270 --> 00:05:08,640
do that you see that there's different

108
00:05:12,830 --> 00:05:11,280
types of things that bill has seen you

109
00:05:14,900 --> 00:05:12,840
have mice that are healed although they

110
00:05:16,550 --> 00:05:14,910
are not the target of the healing or you

111
00:05:18,650 --> 00:05:16,560
have the wrong mice healed while the

112
00:05:20,180 --> 00:05:18,660
other ones are not healed that type of

113
00:05:23,020 --> 00:05:20,190

thing and that's relevant for all

114
00:05:25,460 --> 00:05:23,030
replication now in quantum theory proper

115
00:05:27,170 --> 00:05:25,470
entanglement correlations are not tested

116
00:05:31,010 --> 00:05:27,180
by experiments they are tested by

117
00:05:32,860 --> 00:05:31,020
observations whose result you test

118
00:05:35,480 --> 00:05:32,870
against the theoretical prediction in

119
00:05:37,250 --> 00:05:35,490
parapsychology and in healing and other

120
00:05:38,750 --> 00:05:37,260
things we don't have that theoretical

121
00:05:41,060 --> 00:05:38,760
prediction we have to construct

122
00:05:44,720 --> 00:05:41,070
experiments and that is actually a way

123
00:05:46,850 --> 00:05:44,730
of coding signal so we used a new

124
00:05:49,010 --> 00:05:46,860
experiment we call it the matrix

125
00:05:50,690 --> 00:05:49,020
experiment that was developed by writer

126
00:05:54,200 --> 00:05:50,700
for looker too many years ago and we

127
00:05:58,100 --> 00:05:54,210
hope that this does not make signal

128
00:06:00,470 --> 00:05:58,110
coding possible so there were a couple

129
00:06:02,570 --> 00:06:00,480
of positive replications previously so

130
00:06:05,270 --> 00:06:02,580
we used that we nearly designed the

131
00:06:09,110 --> 00:06:05,280
experiment we newly rep constructed all

132
00:06:11,030 --> 00:06:09,120
the hardware and new protocol and the

133
00:06:13,910 --> 00:06:11,040
principal setup is that of a micro PA

134
00:06:17,090 --> 00:06:13,920
experiment a micro PK experiment where

135
00:06:18,800 --> 00:06:17,100
you have a sinner Dyer driving a display

136
00:06:21,150 --> 00:06:18,810
and someone sitting in front of it

137
00:06:23,920 --> 00:06:21,160
instructed to

138
00:06:26,380 --> 00:06:23,930

intentionally intentionally influencer

139
00:06:28,690 --> 00:06:26,390
display the important thing about that

140
00:06:31,600 --> 00:06:28,700
experiment according to my turf and

141
00:06:34,660 --> 00:06:31,610
Lookadoo is that the random events are

142
00:06:37,470 --> 00:06:34,670
sampled by Aman Markov chain and not a

143
00:06:40,720 --> 00:06:37,480
normal X or a because that gives the

144
00:06:42,580 --> 00:06:40,730
appearance of the system of more natural

145
00:06:45,880 --> 00:06:42,590
appearance it's a slower process of

146
00:06:48,190 --> 00:06:45,890
development and this is the display

147
00:06:51,040 --> 00:06:48,200
which we use a simple fractal and here

148
00:06:53,590 --> 00:06:51,050
you see for instance that little thing

149
00:06:55,390 --> 00:06:53,600
here which would instruct the

150
00:06:57,940 --> 00:06:55,400
participant to keep it stable so this

151
00:07:00,790 --> 00:06:57,950
would grow out of out or it would shrink

152
00:07:03,190 --> 00:07:00,800
and the experimental instruction would

153
00:07:05,350 --> 00:07:03,200
be keep it stable or point to the left

154
00:07:08,830 --> 00:07:05,360
trinket or to the right grow it those

155
00:07:11,050 --> 00:07:08,840
were the conditions and the standard if

156
00:07:13,660 --> 00:07:11,060
the difference to standard experiment is

157
00:07:15,550 --> 00:07:13,670
we are not targeting the random

158
00:07:17,680 --> 00:07:15,560
deviation directly that's the big

159
00:07:20,160 --> 00:07:17,690
difference but we extract variables

160
00:07:22,600 --> 00:07:20,170
actually five physical ones and five

161
00:07:26,590 --> 00:07:22,610
psychological ones we have three runs

162
00:07:28,960 --> 00:07:26,600
per instruction deviate right left

163
00:07:31,660 --> 00:07:28,970

keep centered and we repeat that so we

164
00:07:34,000 --> 00:07:31,670
have nine runs forming a matrix of nine

165
00:07:36,580 --> 00:07:34,010
times five physical and nine times

166
00:07:39,460 --> 00:07:36,590
psychological variables which sets up a

167
00:07:41,800 --> 00:07:39,470
huge matrix of 45 physical and 45

168
00:07:44,250 --> 00:07:41,810
psychological variables which gives us a

169
00:07:47,110 --> 00:07:44,260
pot of potential matrix of potentially

170
00:07:49,270 --> 00:07:47,120
2025 correlations okay that's the

171
00:07:52,600 --> 00:07:49,280
difference to a standard PK experiment

172
00:07:54,490 --> 00:07:52,610
we are not targeting the deviation from

173
00:07:56,410 --> 00:07:54,500
randomness we are targeting the

174
00:07:58,660 --> 00:07:56,420
correlation matrix between those

175
00:08:01,810 --> 00:07:58,670
variables and these are the variables so

176
00:08:04,540 --> 00:08:01,820
they're actually quite simple we use the

177
00:08:06,160 --> 00:08:04,550
this deviation from randomness as one

178
00:08:08,860 --> 00:08:06,170
variable but then we also have the

179
00:08:10,900 --> 00:08:08,870
maximum deviation of deviation of the

180
00:08:12,460 --> 00:08:10,910
process from the Markov chain behavior

181
00:08:14,080 --> 00:08:12,470
and then the average voltage and the

182
00:08:16,060 --> 00:08:14,090
variance of the voltage at the RIC

183
00:08:18,490 --> 00:08:16,070
output number seven in that case we have

184
00:08:20,800 --> 00:08:18,500
certain outputs and that psychological

185
00:08:23,380 --> 00:08:20,810
variables we use the number of key

186
00:08:25,690 --> 00:08:23,390
presses because the the participant has

187
00:08:27,820 --> 00:08:25,700
to progress the experiment by pressing

188
00:08:29,230 --> 00:08:27,830

Shift keys and he or she can use either

189
00:08:31,870 --> 00:08:29,240
left shift right

190
00:08:34,029 --> 00:08:31,880
okay left shift key or both when both

191
00:08:36,969 --> 00:08:34,039
oppressed experiment progresses and

192
00:08:38,589 --> 00:08:36,979
every press of the shift key progresses

193
00:08:40,719 --> 00:08:38,599
the experiment so this is also a measure

194
00:08:42,399 --> 00:08:40,729
of the speed of the experiment okay and

195
00:08:44,320 --> 00:08:42,409
so we have the number of these key

196
00:08:46,180 --> 00:08:44,330
presses and the average time between the

197
00:08:47,860 --> 00:08:46,190
key presses and the variance the

198
00:08:50,050 --> 00:08:47,870
steadiness of the experiment those are

199
00:08:53,139 --> 00:08:50,060
the psychological variables which we use

200
00:08:55,030 --> 00:08:53,149
and then we target a number of

201
00:08:57,880 --> 00:08:55,040
significant correlations between those

202
00:09:01,120 --> 00:08:57,890
when we set the significance level at

203
00:09:03,070 --> 00:09:01,130
Point a 1 this is purely arbitrary we

204
00:09:05,949 --> 00:09:03,080
could use any levels of the previous

205
00:09:07,560 --> 00:09:05,959
experiments at Panda and we use the

206
00:09:12,220 --> 00:09:07,570
other significance levels for

207
00:09:14,079 --> 00:09:12,230
sensitivity sensitivity analysis so

208
00:09:16,090 --> 00:09:14,089
there are two types of controls one is

209
00:09:18,210 --> 00:09:16,100
John's expectation because if you run so

210
00:09:20,680 --> 00:09:18,220
many correlations you will expect

211
00:09:23,680 --> 00:09:20,690
correlations by chance right so this is

212
00:09:25,990 --> 00:09:23,690
one control and then we have control

213
00:09:28,060 --> 00:09:26,000

experiment where after each real

214
00:09:29,829 --> 00:09:28,070
experiment we have an empty run by the

215
00:09:31,930 --> 00:09:29,839
system nobody is sitting in front of it

216
00:09:35,519 --> 00:09:31,940
it's just started and the operator goes

217
00:09:37,780 --> 00:09:35,529
away and we use the previous

218
00:09:40,269 --> 00:09:37,790
psychological variables and match it

219
00:09:42,699 --> 00:09:40,279
with that all right and then we have a

220
00:09:47,019 --> 00:09:42,709
couple of other safeguards just to make

221
00:09:48,490 --> 00:09:47,029
the experiment work well so this is a

222
00:09:50,440 --> 00:09:48,500
summary of what the experiment looks

223
00:09:52,449 --> 00:09:50,450
like you have a participant sitting

224
00:09:55,720 --> 00:09:52,459
before the reg you have that displayed

225
00:09:58,660 --> 00:09:55,730
with the instructions and then you have

226
00:10:00,790 --> 00:09:58,670
these variables the experimenter press

227
00:10:03,220 --> 00:10:00,800
oppresses to keep the participant

228
00:10:06,220 --> 00:10:03,230
presses the shift keys and that

229
00:10:08,170 --> 00:10:06,230
progresses the experiment yields of

230
00:10:11,440 --> 00:10:08,180
psychological variables and then we get

231
00:10:13,720 --> 00:10:11,450
the correlations the first study which

232
00:10:17,319 --> 00:10:13,730
was done by Majella around myself and

233
00:10:20,290 --> 00:10:17,329
Vitaphone Lookadoo was an experiment

234
00:10:24,069 --> 00:10:20,300
with 503 single experiments contributed

235
00:10:26,730 --> 00:10:24,079
by 243 participants mostly conferences

236
00:10:29,740 --> 00:10:26,740
and seminars and stuff like that and

237
00:10:32,110 --> 00:10:29,750
then we have two replication studies and

238
00:10:34,780 --> 00:10:32,120

these are Una's data they are very fresh

239
00:10:37,810 --> 00:10:34,790
and they are only partially evaluated so

240
00:10:41,900 --> 00:10:37,820
far in Edinburgh with friends and

241
00:10:44,750 --> 00:10:41,910
colleagues the statistical evaluation is

242
00:10:47,300 --> 00:10:44,760
a matter of debate we use originally the

243
00:10:49,520 --> 00:10:47,310
old evaluation which was constructed by

244
00:10:52,450 --> 00:10:49,530
writer from Lucca to after input from a

245
00:10:56,030 --> 00:10:52,460
referee and this is actually a standard

246
00:10:58,340 --> 00:10:56,040
standard statistics where you have the

247
00:11:01,160 --> 00:10:58,350
deviation between those number of

248
00:11:04,390 --> 00:11:01,170
significant correlations in experimental

249
00:11:08,470 --> 00:11:04,400
condition - the in the control condition

250
00:11:10,550 --> 00:11:08,480
standardized and should theoretically

251
00:11:12,890 --> 00:11:10,560
theoretically give you a set score but

252
00:11:16,190 --> 00:11:12,900
only if you have independent data and

253
00:11:18,650 --> 00:11:16,200
that we don't have that's the problem

254
00:11:20,930 --> 00:11:18,660
so we are trying to solve that problem

255
00:11:23,120 --> 00:11:20,940
by a new evaluation which we cooked up

256
00:11:26,600 --> 00:11:23,130
after a consensus conference last

257
00:11:28,760 --> 00:11:26,610
October in Capri where we said we would

258
00:11:32,900 --> 00:11:28,770
probably have to use a Monte Carlo

259
00:11:34,960 --> 00:11:32,910
analysis with 10000 randomly populated

260
00:11:36,950 --> 00:11:34,970
matrices and find our own district

261
00:11:39,620 --> 00:11:36,960
distribution we are in the process of

262
00:11:41,240 --> 00:11:39,630
evaluating those data now the results of

263
00:11:43,880 --> 00:11:41,250

the study one which is our original

264
00:11:45,770 --> 00:11:43,890
study this is what it looks like so this

265
00:11:49,040 --> 00:11:45,780
is the the correlation matrix so you

266
00:11:51,170 --> 00:11:49,050
have always five variables down here and

267
00:11:53,300 --> 00:11:51,180
then again and again and again and you

268
00:11:55,610 --> 00:11:53,310
have here the physical variables and

269
00:11:57,290 --> 00:11:55,620
here the psychological variables and the

270
00:11:59,210 --> 00:11:57,300
false color coding gives you the

271
00:12:01,970 --> 00:11:59,220
significance level which is out here

272
00:12:05,630 --> 00:12:01,980
right so this is your mental matrix and

273
00:12:06,560 --> 00:12:05,640
this is the control matrix let's just

274
00:12:09,500 --> 00:12:06,570
switch back again

275
00:12:11,920 --> 00:12:09,510
experimental matrix control matrix I

276
00:12:14,120 --> 00:12:11,930
think you can see quite clearly that the

277
00:12:16,900 --> 00:12:14,130
experimental matrix has many more

278
00:12:19,460 --> 00:12:16,910
significant correlations in it than the

279
00:12:21,800 --> 00:12:19,470
control matrix and if you do the

280
00:12:24,500 --> 00:12:21,810
standard analysis you'll also see that

281
00:12:25,760 --> 00:12:24,510
there is quite a difference all right so

282
00:12:28,100 --> 00:12:25,770
here you have the number of the

283
00:12:30,050 --> 00:12:28,110
experimental correlations the expected

284
00:12:32,240 --> 00:12:30,060
correlation is the green one and the

285
00:12:34,430 --> 00:12:32,250
control once they confirm comparatively

286
00:12:37,640 --> 00:12:34,440
well and no matter what significant

287
00:12:39,590 --> 00:12:37,650
threshold you use it looks the same and

288
00:12:42,280 --> 00:12:39,600

if you do the standard analysis what you

289
00:12:45,260 --> 00:12:42,290
see you get about five Sigma difference

290
00:12:47,660 --> 00:12:45,270
between those correlation matrices it

291
00:12:49,880 --> 00:12:47,670
and it doesn't matter whether you use

292
00:12:51,800 --> 00:12:49,890
this or this or this significance level

293
00:12:54,660 --> 00:12:51,810
as a threshold

294
00:12:56,790 --> 00:12:54,670
now the Monte Carlo analysis using that

295
00:13:02,930 --> 00:12:56,800
formula gives a more conservative

296
00:13:05,850 --> 00:13:02,940
estimate which is a but you can see here

297
00:13:10,400 --> 00:13:05,860
so this is the significant threshold up

298
00:13:14,189 --> 00:13:10,410
here this is the standard set score and

299
00:13:16,470 --> 00:13:14,199
this is the simulated one this is the

300
00:13:21,030 --> 00:13:16,480
the p-value and the simulated p-value

301
00:13:22,650 --> 00:13:21,040
and you can see it's significant up to

302
00:13:24,420 --> 00:13:22,660
this point the yellow ones are all

303
00:13:27,360 --> 00:13:24,430
significant the red ones are not

304
00:13:30,329 --> 00:13:27,370
significant and this down here is the

305
00:13:32,460 --> 00:13:30,339
forward-looking correlation for a part

306
00:13:34,530 --> 00:13:32,470
of the correlation matrix and depending

307
00:13:37,439 --> 00:13:34,540
on what type of correlation matrices you

308
00:13:39,749 --> 00:13:37,449
use this is the full matrix this is only

309
00:13:41,879 --> 00:13:39,759
partial matrix which simulates previous

310
00:13:44,220 --> 00:13:41,889
experiments and this as well you get

311
00:13:47,970 --> 00:13:44,230
different type of significance but

312
00:13:51,389 --> 00:13:47,980
actually it's more conservative but it

313
00:13:54,629 --> 00:13:51,399

is still significant now this is the

314
00:13:56,910 --> 00:13:54,639
census sensitivity analysis this results

315
00:13:59,550 --> 00:13:56,920
a comparatively stable and they are also

316
00:14:02,370 --> 00:13:59,560
significant with the new analysis but a

317
00:14:04,350 --> 00:14:02,380
little bit more conservative now this is

318
00:14:08,400 --> 00:14:04,360
the replication study two and number

319
00:14:13,829 --> 00:14:08,410
three by Anna this is a summary result

320
00:14:17,519 --> 00:14:13,839
only using the standard analysis of the

321
00:14:22,829 --> 00:14:17,529
set score difference here is the P of

322
00:14:25,199 --> 00:14:22,839
the 0.1 correlation 0 0.5 significance

323
00:14:29,579 --> 00:14:25,209
and so forth and this is the set score

324
00:14:33,420 --> 00:14:29,589
right so she could she called very very

325
00:14:35,280 --> 00:14:33,430
thick set scores this is the first

326
00:14:36,710 --> 00:14:35,290
experiment and this is the second

327
00:14:40,139 --> 00:14:36,720
experiment

328
00:14:42,900 --> 00:14:40,149
these are comparatively large and what

329
00:14:45,929 --> 00:14:42,910
you see here is only partial matrix

330
00:14:47,939 --> 00:14:45,939
that's the the upper diagonal that codes

331
00:14:49,980 --> 00:14:47,949
for the forward-looking so that in the

332
00:14:52,019 --> 00:14:49,990
future correlations which should be

333
00:14:54,590 --> 00:14:52,029
completely free of any causal

334
00:14:57,749 --> 00:14:54,600
correlations and also here she gets

335
00:15:00,269 --> 00:14:57,759
comparatively strong in the indications

336
00:15:01,449 --> 00:15:00,279
for significant results we do not have

337
00:15:03,879 --> 00:15:01,459
Monte Carlo si

338
00:15:05,379 --> 00:15:03,889

related statistical analysis for those

339
00:15:08,859 --> 00:15:05,389
data yet because that's still in the

340
00:15:10,809 --> 00:15:08,869
making and this is the what the second

341
00:15:12,900 --> 00:15:10,819
experiment looks like the first I don't

342
00:15:15,759 --> 00:15:12,910
have that's the second experiment

343
00:15:20,829 --> 00:15:15,769
experimental data and this is the

344
00:15:24,759 --> 00:15:20,839
control data for mental data control

345
00:15:26,710 --> 00:15:24,769
data so it looks as if that thing is

346
00:15:30,340 --> 00:15:26,720
actually replicable I'm quite surprised

347
00:15:32,169 --> 00:15:30,350
myself I'm not sure whether the Monte

348
00:15:34,059 --> 00:15:32,179
Carlo analysis will be stable but I

349
00:15:37,150 --> 00:15:34,069
think it will because the set scores are

350
00:15:40,259 --> 00:15:37,160
comparatively high so the summary is I

351
00:15:44,049 --> 00:15:40,269
hope that we have found a robust

352
00:15:45,790 --> 00:15:44,059
experimental paradigm where we get more

353
00:15:48,100 --> 00:15:45,800
significant correlations under the

354
00:15:52,109 --> 00:15:48,110
experimental condition compared to the

355
00:15:54,879 --> 00:15:52,119
control condition we will have to use

356
00:15:57,840 --> 00:15:54,889
more conservative analysis which we are

357
00:16:01,210 --> 00:15:57,850
still in the process of working out and

358
00:16:02,949 --> 00:16:01,220
there is a few other data by heart would

359
00:16:05,410 --> 00:16:02,959
grow to who is here and just published

360
00:16:07,629 --> 00:16:05,420
that and I want to point that out there

361
00:16:10,539 --> 00:16:07,639
is a post hoc analysis form and this is

362
00:16:12,009 --> 00:16:10,549
a Monte Carlo simulation right if I'm if

363
00:16:14,919 --> 00:16:12,019

I understand that correctly what you

364
00:16:17,230 --> 00:16:14,929
have here is experimental and the

365
00:16:18,699 --> 00:16:17,240
control data and you have something

366
00:16:22,499 --> 00:16:18,709
sticking out here which is quite

367
00:16:27,759 --> 00:16:22,509
interesting and the difference

368
00:16:29,379 --> 00:16:27,769
calculated post hoc is 0.01 and the

369
00:16:31,470 --> 00:16:29,389
interesting thing about that experiment

370
00:16:34,499 --> 00:16:31,480
I find is that he used different

371
00:16:36,369 --> 00:16:34,509
psychological variables so these are

372
00:16:40,030 --> 00:16:36,379
psychological variables of the

373
00:16:42,069 --> 00:16:40,040
participants coming from scales which we

374
00:16:45,100 --> 00:16:42,079
didn't use and so there is an

375
00:16:48,400 --> 00:16:45,110
interesting future unfinished there is

376
00:16:52,629 --> 00:16:48,410
an interesting future perspective of

377
00:16:54,039 --> 00:16:52,639
using different variables so we are in

378
00:16:56,799 --> 00:16:54,049
the process of setting up a large

379
00:16:58,840 --> 00:16:56,809
consortium replication and whoever wants

380
00:16:59,170 --> 00:16:58,850
to join us as welcome to do that we will

381
00:17:01,290 --> 00:16:59,180
have

382
00:17:02,410 --> 00:17:01,300
to find independent funding for that yet

383
00:17:06,250 --> 00:17:02,420
mmm-hmm

384
00:17:07,600 --> 00:17:06,260
and I think a pinch of skepticism is

385
00:17:09,610 --> 00:17:07,610
warranted we don't know whether that

386
00:17:13,300 --> 00:17:09,620
really holds water because we need more

387
00:17:16,530 --> 00:17:13,310
applications on that and it may be

388
00:17:18,820 --> 00:17:16,540

necessary to actually build some some

389
00:17:20,740 --> 00:17:18,830
insecurity or some freedom of movement

390
00:17:23,760 --> 00:17:20,750
into the system in order to make it

391
00:17:26,320 --> 00:17:23,770
happen but that might be possible so

392
00:17:29,200 --> 00:17:26,330
funded by the Beale foundation by the by

393
00:17:31,060 --> 00:17:29,210
the way and if you want more information

394
00:17:40,570 --> 00:17:31,070
write me an email thank you for your

395
00:17:43,210 --> 00:17:40,580
attention I think we are a slight

396
00:17:45,310 --> 00:17:43,220
weakness I see in the arguments here and

397
00:17:47,230 --> 00:17:45,320
this is partly because I have never

398
00:17:51,490 --> 00:17:47,240
believed Vaughn Lucca who's non

399
00:17:57,010 --> 00:17:51,500
signalling theorem is that the the

400
00:18:02,170 --> 00:17:57,020
experiment you have set up will produce

401
00:18:04,120 --> 00:18:02,180
results whether there is conventionally

402
00:18:07,330 --> 00:18:04,130
interpreted sigh that could be used for

403
00:18:12,460 --> 00:18:07,340
signaling or if on lucca news Don

404
00:18:15,100 --> 00:18:12,470
signaling sie is available it is the

405
00:18:17,650 --> 00:18:15,110
only form available so the fact that

406
00:18:20,200 --> 00:18:17,660
you're getting positive results is quite

407
00:18:23,230 --> 00:18:20,210
encouraging and we can hope that it will

408
00:18:27,210 --> 00:18:23,240
prove to be replicable but at the moment

409
00:18:30,730 --> 00:18:27,220
it does not seem to make a very strong

410
00:18:32,620 --> 00:18:30,740
justification of the idea that a a no

411
00:18:41,140 --> 00:18:32,630
signalling theorem applies to sign

412
00:18:43,540 --> 00:18:41,150
phenomena well because of various

413
00:18:46,270 --> 00:18:43,550

reasons I think we have enough data in

414
00:18:49,420 --> 00:18:46,280
the parapsychology database and we have

415
00:18:51,460 --> 00:18:49,430
enough data in various complementary

416
00:18:53,440 --> 00:18:51,470
medicine databases to see that it's

417
00:18:56,410 --> 00:18:53,450
actually happening all the time that if

418
00:18:59,200 --> 00:18:56,420
you replicate things they go away they

419
00:19:01,360 --> 00:18:59,210
change channels you see buildings and

420
00:19:05,470 --> 00:19:01,370
smiles they do these they have these

421
00:19:07,450 --> 00:19:05,480
strange habit of shifting effects of the

422
00:19:08,320 --> 00:19:07,460
control group that is a strong argument

423
00:19:10,149 --> 00:19:08,330
and I think

424
00:19:13,480 --> 00:19:10,159
you look into the correlational data

425
00:19:16,330 --> 00:19:13,490
what you would expect if cyber a signal

426
00:19:19,779 --> 00:19:16,340
you would expect the certain cells to be

427
00:19:21,669 --> 00:19:19,789
always populated in the same way and

428
00:19:23,889 --> 00:19:21,679
that is exactly what you not see you see

429
00:19:25,930 --> 00:19:23,899
the effect switching channels to

430
00:19:27,730 --> 00:19:25,940
different correlational patterns and

431
00:19:31,509 --> 00:19:27,740
that is exactly what that experiment was

432
00:19:33,549 --> 00:19:31,519
designed to capture when those in the

433
00:19:37,000 --> 00:19:33,559
experimental group sat at the computer

434
00:19:45,940 --> 00:19:37,010
what were they doing exactly they were

435
00:19:48,669 --> 00:19:45,950
trying to influence this fractal which

436
00:19:51,039 --> 00:19:48,679
you have to imagine as being dynamic it

437
00:19:52,810 --> 00:19:51,049
comes out of out of the thing and grows

438
00:19:54,820 --> 00:19:52,820

and it shrinks and it grows and it

439
00:19:56,350 --> 00:19:54,830
shrinks dependent on the sampling of the

440
00:20:03,330 --> 00:19:56,360
random process and they got an

441
00:20:06,490 --> 00:20:03,340
instruction with that little thing here

442
00:20:08,500 --> 00:20:06,500
if that was an arrow pointing right the

443
00:20:10,659 --> 00:20:08,510
instruction was grow it when the

444
00:20:12,430 --> 00:20:10,669
instruction was pointing left the

445
00:20:14,440 --> 00:20:12,440
instruction was shrinking and if it was

446
00:20:17,830 --> 00:20:14,450
like that it was keep it stable so it

447
00:20:20,080 --> 00:20:17,840
was an intentional instruction to act on

448
00:20:22,149 --> 00:20:20,090
the behavior of that fractal driven

449
00:20:25,480 --> 00:20:22,159
driven by a random number process which

450
00:20:26,680 --> 00:20:25,490
is in fact classically impossible maybe

451
00:20:28,060 --> 00:20:26,690
I missed it but is there something

452
00:20:30,340 --> 00:20:28,070
special about the imagery that you were

453
00:20:32,350 --> 00:20:30,350
using was that oh we're just we were

454
00:20:34,299 --> 00:20:32,360
just using the original one which wieder

455
00:20:35,980 --> 00:20:34,309
used for his previous experiments we

456
00:20:37,690 --> 00:20:35,990
were just using the very same display

457
00:20:40,600 --> 00:20:37,700
and the fact that it was colorful and

458
00:20:42,370 --> 00:20:40,610
yeah just well the fact it's colorful

459
00:20:44,970 --> 00:20:42,380
and it's playful is something that gets

460
00:20:47,490 --> 00:20:44,980
people involved and the idea about the

461
00:20:50,409 --> 00:20:47,500
theoretical model is you have to close

462
00:20:51,639 --> 00:20:50,419
the system somehow and you do that by

463
00:20:53,139 --> 00:20:51,649

getting people involved in the

464
00:20:55,570 --> 00:20:53,149
experiment and by the experimental

465
00:20:57,100 --> 00:20:55,580
instructions and that helps to get

466
00:21:03,070 --> 00:20:57,110
people involved because it looks nice

467
00:21:03,900 --> 00:21:03,080
yeah okay thank you let's thank our