



1
00:00:28,389 --> 00:00:16,080

[Music]

2
00:00:30,970 --> 00:00:28,399

okay well thanks Garrett and thanks Dean

3
00:00:33,340 --> 00:00:30,980

Radin for sponsoring me in thanks for

4
00:00:35,560 --> 00:00:33,350

the program committee for inviting me

5
00:00:36,310 --> 00:00:35,570

and thanks to all of you were in

6
00:00:44,069 --> 00:00:36,320

attendance

7
00:00:47,970 --> 00:00:44,079

I am revisiting a topic that I did in

8
00:00:50,160 --> 00:00:47,980

2012 for this body which was called the

9
00:00:52,900 --> 00:00:50,170

consciousness and the quantum paradigm

10
00:00:56,530 --> 00:00:52,910

and I thought to myself I wonder if this

11
00:00:58,210 --> 00:00:56,540

folds in with quantum field theory and I

12
00:01:02,970 --> 00:00:58,220

worked out a few things that I'd like to

13
00:01:05,889 --> 00:01:02,980

share with you as many of you know

14

00:01:07,450 --> 00:01:05,899

trying to explain consciousness with

15

00:01:11,529 --> 00:01:07,460

quantum mechanics is a dangerous

16

00:01:13,450 --> 00:01:11,539

minefield for the researcher especially

17

00:01:16,059 --> 00:01:13,460

with the physicists like me when we get

18

00:01:21,840 --> 00:01:16,069

up here so put on your skeptical armor

19

00:01:26,319 --> 00:01:21,850

and let's go and I would like to

20

00:01:30,459 --> 00:01:26,329

introduce you to my pet cat his name is

21

00:01:32,679 --> 00:01:30,469

Schrodinger and he has never been the

22

00:01:34,700 --> 00:01:32,689

same since that nasty superposition

23

00:01:37,469 --> 00:01:34,710

incident

24

00:01:42,779 --> 00:01:37,479

but he follows me around a lot and tries

25

00:01:48,569 --> 00:01:42,789

to keep me in perspective and reminds me

26

00:01:52,590 --> 00:01:48,579

not to take this stuff too seriously so

27

00:01:54,169 --> 00:01:52,600

and in the new paradigm I introduced

28

00:02:02,520 --> 00:01:54,179

five ideas

29

00:02:06,359 --> 00:02:02,530

first of all objects and particles are

30

00:02:09,229 --> 00:02:06,369

illusory and the reality is in events

31

00:02:11,850 --> 00:02:09,239

whenever you see two particles

32

00:02:17,910 --> 00:02:11,860

interacting that's an event and that's

33

00:02:20,970 --> 00:02:17,920

real secondly I will revisit the retro

34

00:02:23,490 --> 00:02:20,980

causality the reversal of cause and

35

00:02:26,819 --> 00:02:23,500

effect in time and show that it is

36

00:02:30,960 --> 00:02:26,829

consistent suggest that it is consistent

37

00:02:33,030 --> 00:02:30,970

with with the second law of

38

00:02:35,099 --> 00:02:33,040

thermodynamics which is forward causal

39

00:02:37,759 --> 00:02:35,109

and if I have time I will discuss a

40

00:02:43,470 --> 00:02:37,769

little bit over the cosmological

41

00:02:46,759 --> 00:02:43,480

implications of retro causality quantum

42

00:02:51,710 --> 00:02:46,769

coherence and indistinguishability I

43

00:02:52,860 --> 00:02:51,720

suggested leads to a an emergent

44

00:02:57,509 --> 00:02:52,870

self-identity

45

00:03:01,620 --> 00:02:57,519

in the coherence of the electromagnetic

46

00:03:04,559 --> 00:03:01,630

field and finally I will remind you

47

00:03:07,140 --> 00:03:04,569

about conscious observational causality

48

00:03:09,960 --> 00:03:07,150

but I have nothing new particularly to

49

00:03:13,849 --> 00:03:09,970

add to that or to the fact that entropy

50

00:03:19,199 --> 00:03:13,859

decreases as a result of the action of

51
00:03:21,569 --> 00:03:19,209
conscious observational causality we're

52
00:03:24,390 --> 00:03:21,579
talking about quantum fields a field is

53
00:03:26,370 --> 00:03:24,400
this a set of state vectors and the

54
00:03:30,270 --> 00:03:26,380
state vectors are just sets of numbers

55
00:03:34,619 --> 00:03:30,280
which describe the possible states of a

56
00:03:38,430 --> 00:03:34,629
physical field for electrons for example

57
00:03:41,159 --> 00:03:38,440
the states may consists of things like

58
00:03:43,770 --> 00:03:41,169
position momentum spin mass charge and

59
00:03:45,320 --> 00:03:43,780
so forth and more recently perhaps the

60
00:03:50,830 --> 00:03:45,330
conscious will

61
00:03:58,430 --> 00:03:55,670
operators and the operators cause events

62
00:04:04,010 --> 00:03:58,440
the events are real the state vectors

63
00:04:08,420 --> 00:04:04,020

are virtual the state the events and the

64

00:04:11,150 --> 00:04:08,430

operators are governed by physical law

65

00:04:19,990 --> 00:04:11,160

and the physical law is defined by

66

00:04:32,930 --> 00:04:25,460

conservation thinking conservation is

67

00:04:36,530 --> 00:04:32,940

one of the laws the event field where am

68

00:04:41,720 --> 00:04:36,540

I here yeah in 2012 I scrapped wave

69

00:04:46,270 --> 00:04:41,730

particle duality and the events governed

70

00:04:49,100 --> 00:04:46,280

by the wave faction action are real the

71

00:04:55,130 --> 00:04:49,110

wave function is a force field which

72

00:04:57,980 --> 00:04:55,140

defines the causal influence for causing

73

00:05:00,440 --> 00:04:57,990

events to happen the amplitude is a

74

00:05:02,450 --> 00:05:00,450

measure of the strength an example of a

75

00:05:07,220 --> 00:05:02,460

force field is the electromagnetic force

76

00:05:10,640 --> 00:05:07,230

field the field aspect the operators two

77

00:05:14,300 --> 00:05:10,650

of the principal ones are raising and

78

00:05:17,840 --> 00:05:14,310

lowering operators the raising operators

79

00:05:19,820 --> 00:05:17,850

will add quanta to the field which

80

00:05:23,210 --> 00:05:19,830

increases the strength of the field and

81

00:05:27,550 --> 00:05:23,220

the lowering operators will subtract

82

00:05:35,890 --> 00:05:27,560

quanta the raising and lowering of field

83

00:05:47,420 --> 00:05:43,370

events are the spin operators the e_1 and

84

00:05:49,370 --> 00:05:47,430

the e_2 are what I call the binary

85

00:05:51,140 --> 00:05:49,380

exchange operators these are not two

86

00:05:53,779 --> 00:05:51,150

spin operators these are binary exchange

87

00:05:59,749 --> 00:05:53,789

so called because they swap the elements

88

00:06:04,770 --> 00:05:59,759

of the virtual eigen eigen vectors

89

00:06:13,610 --> 00:06:04,780

the 0 1 and 1 0 those elements are

90

00:06:17,520 --> 00:06:13,620

swapped the when properly sequenced

91

00:06:21,240 --> 00:06:17,530

those binary spin those binary event

92

00:06:24,689 --> 00:06:21,250

operators will form the four basic

93

00:06:28,710 --> 00:06:24,699

elements of the direct vector the Sigma

94

00:06:33,020 --> 00:06:28,720

the Sigma's down below these direct

95

00:06:36,390 --> 00:06:33,030

vectors describe the electron field and

96

00:06:38,939 --> 00:06:36,400

they also form a basis for space-time

97

00:06:44,310 --> 00:06:38,949

which is important and they form a basis

98

00:06:46,890 --> 00:06:44,320

for for momentum ok let's take a closer

99

00:06:50,580 --> 00:06:46,900

look at these two binary exchange

100

00:06:53,159 --> 00:06:50,590

operators as I said they are called

101
00:06:57,499 --> 00:06:53,169
binary exchange because they swap the

102
00:07:03,899 --> 00:06:57,509
elements of the half spinner vectors

103
00:07:06,960 --> 00:07:03,909
which are which are virtual the 2 by 2

104
00:07:14,839 --> 00:07:06,970
matrices themselves represent real event

105
00:07:20,159 --> 00:07:14,849
operators so these are self referential

106
00:07:23,370 --> 00:07:20,169
within the within the spinners in much

107
00:07:29,360 --> 00:07:23,380
the same way that consciousness is self

108
00:07:37,930 --> 00:07:29,370
referential within the within the within

109
00:07:45,940 --> 00:07:43,780
let's go on to the next one Oh Harry's

110
00:07:49,780 --> 00:07:45,950
he's reminding me to try to lighten it

111
00:07:52,390 --> 00:07:49,790
up and get a little faster in funnier I

112
00:07:53,740 --> 00:07:52,400
don't know if I can do that this next

113
00:08:00,780 --> 00:07:53,750

one is still pretty heavy though

114

00:08:07,620 --> 00:08:04,450

is appears to violate the second law but

115

00:08:11,340 --> 00:08:07,630

the second law is a thermodynamic

116

00:08:13,990 --> 00:08:11,350

principle it's a maximum probability

117

00:08:17,320 --> 00:08:14,000

principle having to do with large

118

00:08:20,440 --> 00:08:17,330

quantities of events and is heavy with

119

00:08:23,020 --> 00:08:20,450

forward causality retrocausality

120

00:08:24,880 --> 00:08:23,030

on on the other hand is a quantum

121

00:08:29,190 --> 00:08:24,890

symmetry principle which applies to

122

00:08:31,330 --> 00:08:29,200

single events I'm maintaining that the

123

00:08:35,279 --> 00:08:31,340

thermodynamic principle and the

124

00:08:38,500 --> 00:08:35,289

retrocausality principle can co-exist

125

00:08:43,000 --> 00:08:38,510

retrocausality can explain entanglement

126

00:08:45,640 --> 00:08:43,010

I have demonstrated this in 212 2012 by

127

00:08:51,430 --> 00:08:45,650

using Occam's razor where I showed that

128

00:08:53,470 --> 00:08:51,440

retrocausality was probably the simplest

129

00:08:54,630 --> 00:08:53,480

explanation for entanglement and

130

00:08:56,200 --> 00:08:54,640

therefore the most probable

131

00:08:58,360 --> 00:08:56,210

retrocausality

132

00:09:01,120 --> 00:08:58,370

is needed to support the event

133

00:09:06,030 --> 00:09:01,130

hypothesis which involves raising

134

00:09:10,960 --> 00:09:06,040

operators which are forward causal and

135

00:09:16,720 --> 00:09:10,970

involve waves and the lowering

136

00:09:20,650 --> 00:09:16,730

operators are retro causal and in

137

00:09:22,900 --> 00:09:20,660

involved advanced waves retrocausality

138

00:09:26,560 --> 00:09:22,910

is also needed to support the wheeler

139

00:09:28,050 --> 00:09:26,570

Fineman absorber theory in cosmology and

140

00:09:33,510 --> 00:09:28,060

I'll take a quick quick look at that

141

00:09:42,780 --> 00:09:36,850

classical photon emission the causal

142

00:09:46,510 --> 00:09:42,790

story for that there is no mechanism for

143

00:09:49,150 --> 00:09:46,520

radiative damping forces to cause an

144

00:09:51,369 --> 00:09:49,160

electron emitter to accelerate which

145

00:09:55,710 --> 00:09:51,379

it's needs to do if it's going to

146

00:09:58,839 --> 00:09:55,720

radiates now the wheeler flagmen theory

147

00:10:03,609 --> 00:09:58,849

provides both and advanced

148

00:10:09,249 --> 00:10:03,619

waves in a mixture and the advanced

149

00:10:13,419 --> 00:10:09,259

waves will provide force field for the

150

00:10:17,589 --> 00:10:13,429

emitter to accelerate the emitting

151

00:10:23,259 --> 00:10:17,599

electron and the waves provide

152

00:10:25,210 --> 00:10:23,269

a force field for the absorber so every

153

00:10:28,319 --> 00:10:25,220

emitter in this every emitter in the

154

00:10:31,269 --> 00:10:28,329

universe must have an absorber and the

155

00:10:36,989 --> 00:10:31,279

problem cosmologically is that there are

156

00:10:40,179 --> 00:10:36,999

not enough absorbers in our BIGBANG

157

00:10:43,419 --> 00:10:40,189

ever-expanding universe to accommodate

158

00:10:44,469 --> 00:10:43,429

all of the densely packed emitters in

159

00:10:48,609 --> 00:10:44,479

the Big Bang

160

00:10:51,699 --> 00:10:48,619

so I've proposed a model of future

161

00:10:56,829 --> 00:10:51,709

virtual absorbers to augment the real

162

00:11:00,939 --> 00:10:56,839

absorbers and these as the as the

163

00:11:01,960 --> 00:11:00,949

photons expand due to redshift expansion

164

00:11:06,659 --> 00:11:01,970

of the universe they've become

165

00:11:10,299 --> 00:11:06,669

susceptible to absorbed by virtual

166

00:11:13,960 --> 00:11:10,309

electron positron pairs which pop up out

167

00:11:15,969 --> 00:11:13,970

of the space-time continuum and these

168

00:11:20,409 --> 00:11:15,979

absorbs and events will send back

169

00:11:24,849 --> 00:11:20,419

waves to the to the emitters

170

00:11:27,460 --> 00:11:24,859

thus completing the cycle so well he's

171

00:11:29,259 --> 00:11:27,470

climbing the walls and so am I so and

172

00:11:35,559 --> 00:11:29,269

we've still got a ways to go so hang in

173

00:11:40,229 --> 00:11:35,569

there okay well identical particles are

174

00:11:42,939 --> 00:11:40,239

not just identical in substance they are

175

00:11:46,599 --> 00:11:42,949

intrinsically the same particle they

176

00:11:52,379 --> 00:11:46,609

occupy the same state and they form a

177

00:11:58,029 --> 00:11:52,389

coherent group of undifferentiated

178

00:12:02,499 --> 00:11:58,039

substance which can I propose go here to

179

00:12:04,269 --> 00:12:02,509

form a living conscious identity this

180

00:12:08,170 --> 00:12:04,279

gives rise to and

181

00:12:16,150 --> 00:12:08,180

created self-identity laser-light is a

182

00:12:20,249 --> 00:12:16,160

good example of coherent coherent wave

183

00:12:23,379 --> 00:12:20,259

function the waves of individual photons

184

00:12:25,780 --> 00:12:23,389

have the same peaks and the same troughs

185

00:12:30,309 --> 00:12:25,790

in the same frequency they all group

186

00:12:32,710 --> 00:12:30,319

together to form a coherent structure we

187

00:12:36,819 --> 00:12:32,720

observe electromagnetic coherence in

188

00:12:40,809 --> 00:12:36,829

many living systems and the neural and

189

00:12:52,809 --> 00:12:40,819

motor networks and sometimes between

190

00:12:54,730 --> 00:12:52,819

systems the the equations are going to

191

00:12:57,549 --> 00:12:54,740

be a little bit unfamiliar to most of

192

00:13:07,150 --> 00:12:57,559

you but I like to use them as as talking

193

00:13:10,689 --> 00:13:07,160

points if I can get to them the Dirac

194

00:13:14,889 --> 00:13:10,699

field for electrons is where the

195

00:13:20,519 --> 00:13:14,899

consciousness operators first emerge the

196

00:13:24,759 --> 00:13:20,529

electron field is not coherent but the

197

00:13:28,470 --> 00:13:24,769

direct field and the Maxwell field for

198

00:13:31,710 --> 00:13:28,480

electromagnetism and the photons are

199

00:13:35,559 --> 00:13:31,720

formally and mathematically the same and

200

00:13:39,699 --> 00:13:35,569

the Maxwell field is a coherent field

201
00:13:44,549 --> 00:13:39,709
which can give rise to consciousness and

202
00:13:52,660 --> 00:13:44,559
conscious entities so I've worked out

203
00:13:56,860 --> 00:13:52,670
that the gamma vector no if I can

204
00:14:04,030 --> 00:13:56,870
identify that but over on the right hand

205
00:14:06,699 --> 00:14:04,040
side the gamma vector is the direct

206
00:14:10,860 --> 00:14:06,709
that's the set of direct vectors which

207
00:14:13,879 --> 00:14:10,870
acts as a finite difference operator and

208
00:14:16,759 --> 00:14:13,889
when it operates on the

209
00:14:21,499 --> 00:14:16,769
momentum eigenvectors represented by this

210
00:14:24,889 --> 00:14:21,509
I filled it becomes a differential

211
00:14:27,069 --> 00:14:24,899
operator over space-time and that is the

212
00:14:30,349 --> 00:14:27,079
same as the momentum operator

213
00:14:33,199 --> 00:14:30,359

represented by P now the upside-down

214

00:14:36,229 --> 00:14:33,209

triangle is the divergence operator and

215

00:14:38,749 --> 00:14:36,239

that that Dirac equation and the direct

216

00:14:42,049 --> 00:14:38,759

equation then tells us that the

217

00:14:49,400 --> 00:14:42,059

divergence or the divergence of the

218

00:14:52,579 --> 00:14:49,410

momentum field comes from the mass

219

00:14:55,519 --> 00:14:52,589

density space-time mass density MC

220

00:14:57,530 --> 00:14:55,529

squared in space-time so what we're

221

00:15:02,329 --> 00:14:57,540

saying is that the momentum the motion

222

00:15:04,579 --> 00:15:02,339

field comes from the mass density and I

223

00:15:07,699 --> 00:15:04,589

with a little vector algebra I can show

224

00:15:13,309 --> 00:15:07,709

that the Dirac equation is equivalent to

225

00:15:15,710 --> 00:15:13,319

the Maxwell equation down below the the

226

00:15:17,419 --> 00:15:15,720

expression in the inner brackets is

227

00:15:20,539 --> 00:15:17,429

equal to the electromagnetic field

228

00:15:25,159 --> 00:15:20,549

tensor and the a vector is the

229

00:15:30,909 --> 00:15:25,169

electromagnetic potential vector and the

230

00:15:35,960 --> 00:15:30,919

a vector is equivalent to the momentum

231

00:15:38,629 --> 00:15:35,970

potential vector P up above so there is

232

00:15:43,609 --> 00:15:38,639

an equivalence which is not necessarily

233

00:15:47,359 --> 00:15:43,619

physical but it's mathematical the MC

234

00:15:49,819 --> 00:15:47,369

squared mass density becomes a four

235

00:15:55,329 --> 00:15:49,829

vector which is equivalent to the J in

236

00:15:59,569 --> 00:15:55,339

the lower equation which is the

237

00:16:02,689 --> 00:15:59,579

electromagnetic current vector so once

238

00:16:05,259 --> 00:16:02,699

again this is not necessarily a physical

239

00:16:10,609 --> 00:16:05,269

equivalence but it is a good

240

00:16:12,789 --> 00:16:10,619

mathematical equivalence oh boy I got

241

00:16:15,499 --> 00:16:12,799

the hare and his ears standing on end

242

00:16:16,609 --> 00:16:15,509

and it's been pretty scary but I think

243

00:16:22,669 --> 00:16:16,619

we're over the worst of it

244

00:16:27,030 --> 00:16:22,679

now I'll revisit the conscious

245

00:16:29,759 --> 00:16:27,040

observational causality that I did in 22

246

00:16:33,860 --> 00:16:29,769

the thing is that consciousness is a

247

00:16:37,850 --> 00:16:33,870

quantum mechanical measurement device

248

00:16:45,120 --> 00:16:37,860

consider for example the electron spin

249

00:16:46,949 --> 00:16:45,130

which is the has a value of $1/2$ you

250

00:16:49,079 --> 00:16:46,959

can't measure its components you can

251

00:16:51,990 --> 00:16:49,089

only measure it in one direction and

252

00:16:53,550 --> 00:16:52,000

that direction turns out to have the

253

00:16:55,710 --> 00:16:53,560

same direction that you point your

254

00:16:57,120 --> 00:16:55,720

measuring instrument that you orient

255

00:17:00,569 --> 00:16:57,130

your measuring instrument in the

256

00:17:04,260 --> 00:17:00,579

laboratory in the same way you can

257

00:17:07,079 --> 00:17:04,270

orient consciousness to cover a subspace

258

00:17:10,890 --> 00:17:07,089

of state vectors and that is where

259

00:17:17,370 --> 00:17:10,900

events will emerge so consciousness acts

260

00:17:19,770 --> 00:17:17,380

as a a selection device and a

261

00:17:22,520 --> 00:17:19,780

measurement device when you put enough

262

00:17:25,199 --> 00:17:22,530

of these when you put many of these

263

00:17:26,699 --> 00:17:25,209

quantum events together these conscious

264

00:17:31,799 --> 00:17:26,709

events you get higher orders of

265

00:17:34,950 --> 00:17:31,809

consciousness coherent obsequious of

266

00:17:39,360 --> 00:17:34,960

elementary events and this is this has

267

00:17:43,250 --> 00:17:39,370

the character of psychophysical law now

268

00:17:46,010 --> 00:17:43,260

any good hypothesis in order to be a

269

00:17:49,890 --> 00:17:46,020

candidate for theory should be testable

270

00:17:53,240 --> 00:17:49,900

a consciousness hypothesis has been

271

00:17:55,860 --> 00:17:53,250

tested many times in paranormal effects

272

00:17:58,049 --> 00:17:55,870

these are not well accepted in

273

00:18:01,560 --> 00:17:58,059

mainstream science so I've looked for

274

00:18:05,010 --> 00:18:01,570

other tests one good test is the

275

00:18:09,149 --> 00:18:05,020

resonance models of will if we can find

276

00:18:12,149 --> 00:18:09,159

correlations between mental intention

277

00:18:14,789 --> 00:18:12,159

and conscious feelings and the

278

00:18:17,549 --> 00:18:14,799

resonances in neural networks and motor

279

00:18:20,340 --> 00:18:17,559

networks we have a test Dean Radin works

280

00:18:23,270 --> 00:18:20,350

in this area another test is the

281

00:18:25,950 --> 00:18:23,280

quantization of space-time which is a

282

00:18:29,850 --> 00:18:25,960

high-energy physics type of problem and

283

00:18:32,430 --> 00:18:29,860

is somewhat beyond the scope of our

284

00:18:35,820 --> 00:18:32,440

technology at this point but based on

285

00:18:38,399 --> 00:18:35,830

the direct vectors which are quanta of

286

00:18:41,039 --> 00:18:38,409

space-time this is a possible test of

287

00:18:43,830 --> 00:18:41,049

the future second law violations are

288

00:18:49,799 --> 00:18:43,840

been tested as George Williams observed

289

00:18:52,529 --> 00:18:49,809

and as you will see in a later paper in

290

00:18:57,499 --> 00:18:52,539

this conference given by Daniel Sheehan

291

00:19:01,080 --> 00:18:57,509

of the University of San Diego Sheehan

292

00:19:04,139 --> 00:19:01,090

has done experiments which appear to

293

00:19:06,710 --> 00:19:04,149

violate the second law and is attempting

294

00:19:09,239 --> 00:19:06,720

to harvest energy out of the heat sink

295

00:19:11,430 --> 00:19:09,249

finally there may be tests of virtual

296

00:19:13,259 --> 00:19:11,440

absorption if we can find ultra low

297

00:19:15,210 --> 00:19:13,269

frequency cut-offs in the microwave

298

00:19:18,149 --> 00:19:15,220

background due to virtual absorption

299

00:19:25,590 --> 00:19:18,159

which are predictable that'll be another

300

00:19:30,629 --> 00:19:25,600

test very good so in summary I talked

301
00:19:35,789 --> 00:19:30,639
about the application of quantum fields

302
00:19:39,090 --> 00:19:35,799
and raising and lowering operations the

303
00:19:42,169 --> 00:19:39,100
operators are conscious events the field

304
00:19:43,739 --> 00:19:42,179
itself is virtual I've discussed

305
00:19:46,379 --> 00:19:43,749
retrocausality

306
00:19:49,099 --> 00:19:46,389
and how it is consistent with the second

307
00:19:52,710 --> 00:19:49,109
law and certain cosmological problems

308
00:19:56,700 --> 00:19:52,720
try to make that clear consciousness

309
00:19:59,700 --> 00:19:56,710
operators support electromagnetic wave

310
00:20:03,779 --> 00:19:59,710
coherence which is where the actual

311
00:20:06,779 --> 00:20:03,789
consciousness in living systems appears

312
00:20:08,729 --> 00:20:06,789
and finally review we reviewed second

313
00:20:13,979 --> 00:20:08,739

law violation and observational

314

00:20:15,989 --> 00:20:13,989

causality so my reply to the skeptics at

315

00:20:21,509 --> 00:20:15,999

the end of the day never mind it doesn't

316

00:20:27,649 --> 00:20:21,519

matter and with that I think I'm ready

317

00:20:40,940 --> 00:20:34,379

okay York let's hear from New York well

318

00:20:52,259 --> 00:20:46,820

have far too much to say to fit into a

319

00:20:55,320 --> 00:20:52,269

politely long question so I would simply

320

00:20:58,730 --> 00:20:55,330

like to comment from from the word go

321

00:21:01,499 --> 00:20:58,740

and also from your last slide the

322

00:21:04,200 --> 00:21:01,509

raising and lowering operators for

323

00:21:06,769 --> 00:21:04,210

example are just symbols that describe

324

00:21:09,240 --> 00:21:06,779

mathematical relationships saying that

325

00:21:11,399 --> 00:21:09,250

raising and lowering operators are

326

00:21:15,480 --> 00:21:11,409

conscious events is a category error

327

00:21:18,360 --> 00:21:15,490

along the lines of saying that a a blob

328

00:21:27,119 --> 00:21:18,370

of blue ink on a map is the water in San

329

00:21:29,549 --> 00:21:27,129

Francisco Bay yeah and reply I don't pay

330

00:21:36,200 --> 00:21:29,559

too much attention to category errors

331

00:21:40,430 --> 00:21:36,210

and my intent was to equate or

332

00:21:44,519 --> 00:21:40,440

coordinate the mathematical process of

333

00:21:48,029 --> 00:21:44,529

raising and lowering as a field operator

334

00:21:52,740 --> 00:21:48,039

with a conscious event which is made up

335

00:21:54,210 --> 00:21:52,750

and formed by the two basic binary event

336

00:21:55,860 --> 00:21:54,220

operations which I call the

337

00:21:58,430 --> 00:21:55,870

consciousness operators thank you for

338

00:22:01,499 --> 00:21:58,440

the comments a good comment

339

00:22:06,149 --> 00:22:01,509

yeah I've been talking to Henry Stapp

340

00:22:09,149 --> 00:22:06,159

recently and he suggests another test

341

00:22:15,139 --> 00:22:09,159

that you can add to your list of tests

342

00:22:18,149 --> 00:22:15,149

of quantum mechanics and that is to do a

343

00:22:21,950 --> 00:22:18,159

small modification of the retro

344

00:22:26,879 --> 00:22:21,960

causality experiments of Biermann and

345

00:22:29,570 --> 00:22:26,889

BEM which is when the random number

346

00:22:33,590 --> 00:22:29,580

generator which is in the future chooses

347

00:22:36,190 --> 00:22:33,600

which side to have a group of observers

348

00:22:39,310 --> 00:22:36,200

looking at the random number

349

00:22:43,389 --> 00:22:39,320

generator and he claims that the

350

00:22:47,409 --> 00:22:43,399

retrocausality should vanish so that's a

351
00:22:49,600 --> 00:22:47,419
very feasible test of these connections

352
00:22:52,060 --> 00:22:49,610
between consciousness and quantum

353
00:22:54,789 --> 00:22:52,070
mechanics that should be added to our

354
00:22:58,149 --> 00:22:54,799
various lists I'm just curious what you

355
00:23:03,070 --> 00:22:58,159
think of that okay when you say it

356
00:23:08,259 --> 00:23:03,080
should vanish I interpret that as

357
00:23:27,040 --> 00:23:08,269
meaning that it will be in the nature of

358
00:23:34,910 --> 00:23:29,480
okay I don't think I agree with that but

359
00:23:38,900 --> 00:23:34,920
I would be happy to I'd like to explore

360
00:23:40,920 --> 00:23:38,910
that further thanks for the car man

361
00:23:43,500 --> 00:23:40,930
thank you very much