DONALD
HOFFMAN
JOHN
VERVAEKE
IS
CONSCIOUSNESS
FUNDAMENTAL?
ROUND 1

1
00:00:08,030 --> 00:00:04,190
so the bigger question for me is if I am

2
00:00:11,089 --> 00:00:08,040
and you are this unlimited intelligence

3
00:00:13,629 --> 00:00:11,099
that transcends Concepts why does that

4
00:00:16,790 --> 00:00:13,639
unlimited intelligence

5
00:00:17,930 --> 00:00:16,800
engage in using concepts for me that's

6
00:00:21,170 --> 00:00:17,940
the big question

7
00:00:22,730 --> 00:00:21,180
this this is the well first of all

8
00:00:25,070 --> 00:00:22,740
um you're in good company this is an

9
00:00:27,849 --> 00:00:25,080
ancient level this is why this is why

10
00:00:29,990 --> 00:00:27,859
does the one become Mini

11
00:00:31,970 --> 00:00:30,000
if you're intrigued by the nature of

12
00:00:34,250 --> 00:00:31,980
Consciousness its Origins and how it may

13
00:00:36,110 --> 00:00:34,260

relate to physics meaning and purpose

14
00:00:37,790 --> 00:00:36,120
then this conversation is a dream team

15
00:00:39,830 --> 00:00:37,800
John verviki is an award-winning

16
00:00:41,510 --> 00:00:39,840
lecturer at the University of Toronto

17
00:00:43,610 --> 00:00:41,520
and a professor of cognitive science

18
00:00:45,470 --> 00:00:43,620
Buddhism and psychology with

19
00:00:47,270 --> 00:00:45,480
wide-reaching research advancing an

20
00:00:49,010 --> 00:00:47,280
argument that explains the mindfulness

21
00:00:51,350 --> 00:00:49,020
Revolution as well as the current

22
00:00:53,630 --> 00:00:51,360
meaning crisis his lecture series the

23
00:00:56,029 --> 00:00:53,640
meaning crisis is on YouTube and is

24
00:00:58,130 --> 00:00:56,039
exquisite I highly recommend it if you'd

25
00:01:00,350 --> 00:00:58,140
like to see one of the Brilliant Minds

26
00:01:02,510 --> 00:01:00,360
of Our Generation sharing his process of

27
00:01:04,549 --> 00:01:02,520
universal interpretation links as usual

28
00:01:06,350 --> 00:01:04,559
to every reference in this podcast or in

29
00:01:07,910 --> 00:01:06,360
the description Donald Hoffman is a

30
00:01:09,890 --> 00:01:07,920
professor of cognitive science at UC

31
00:01:12,170 --> 00:01:09,900
Irvine and is the author of the case

32
00:01:14,870 --> 00:01:12,180
against reality Dawn argues that reality

33
00:01:17,030 --> 00:01:14,880
is not what you see instead it's an

34
00:01:19,250 --> 00:01:17,040
interface of icons Hoffman has appeared

35
00:01:21,469 --> 00:01:19,260
on Ted co-authored over 100 scientific

36
00:01:23,690 --> 00:01:21,479
articles and is back along with John

37
00:01:25,130 --> 00:01:23,700
vervaki Don's previous appearance on

38
00:01:26,749 --> 00:01:25,140

theories of everything this podcast

39
00:01:29,210 --> 00:01:26,759
where we go over the mathematical

40
00:01:30,649 --> 00:01:29,220
details of his conscious agent theory is

41
00:01:33,050 --> 00:01:30,659
in the description as well as the other

42
00:01:35,090 --> 00:01:33,060
podcasts with him with Don Hoffman and

43
00:01:37,069 --> 00:01:35,100
yoshibak and also John vervaki has

44
00:01:38,749 --> 00:01:37,079
appeared with yoshibak Jon has also

45
00:01:40,609 --> 00:01:38,759
appeared with Bernardo Castro as well as

46
00:01:42,649 --> 00:01:40,619
solo every episode is linked in the

47
00:01:45,109 --> 00:01:42,659
description note that around the 30 35

48
00:01:47,690 --> 00:01:45,119
minute Mark you'll hear two sponsors

49
00:01:49,730 --> 00:01:47,700
Shopify and Masterworks they're brief

50
00:01:52,190 --> 00:01:49,740
and I request that you don't skip as

51
00:01:53,630 --> 00:01:52,200
watching them directly contributes to

52
00:01:56,749 --> 00:01:53,640
this Channel having more quality

53
00:01:58,910 --> 00:01:56,759
in-depth technical podcasts and we

54
00:02:00,770 --> 00:01:58,920
select sponsors that we believe in and

55
00:02:02,630 --> 00:02:00,780
right now there's a 60 second message

56
00:02:04,010 --> 00:02:02,640
from our first sponsor brilliant if

57
00:02:05,630 --> 00:02:04,020
you're familiar with toe you're familiar

58
00:02:07,550 --> 00:02:05,640
with brilliant but for those who don't

59
00:02:09,650 --> 00:02:07,560
know Brilliance is a place where you go

60
00:02:11,570 --> 00:02:09,660
to learn math science and engineering

61
00:02:13,670 --> 00:02:11,580
through these bite-sized Interactive

62
00:02:15,290 --> 00:02:13,680
Learning experiences for example and I

63
00:02:16,850 --> 00:02:15,300

keep saying this I would like to do a

64
00:02:19,430 --> 00:02:16,860
podcast on information Theory

65
00:02:21,770 --> 00:02:19,440
particularly Chiara marleto which is

66
00:02:23,330 --> 00:02:21,780
David Deutsch's student has a theory of

67
00:02:25,250 --> 00:02:23,340
everything that she puts forward called

68
00:02:27,229 --> 00:02:25,260
Constructor Theory which is heavily

69
00:02:29,210 --> 00:02:27,239
contingent on information Theory so I

70
00:02:30,890 --> 00:02:29,220
took their a course on random variable

71
00:02:32,990 --> 00:02:30,900
distributions and knowledge and

72
00:02:34,910 --> 00:02:33,000
uncertainty in order to learn a bit more

73
00:02:36,710 --> 00:02:34,920
about entropy now there's this formula

74
00:02:38,750 --> 00:02:36,720
for entropy essentially hammered into

75
00:02:40,610 --> 00:02:38,760
you as an undergraduate which seems to

76
00:02:42,290 --> 00:02:40,620
have fallen from the sky however when

77
00:02:43,910 --> 00:02:42,300
you take Brilliance course it was the

78
00:02:46,610 --> 00:02:43,920
first time that I could see that it's an

79
00:02:48,890 --> 00:02:46,620
extremely clear and intuitive formula

80
00:02:50,630 --> 00:02:48,900
that is to say that it would be

81
00:02:53,630 --> 00:02:50,640
unnatural to Define it in any other

82
00:02:55,850 --> 00:02:53,640
manner visit brilliant.org toe that is

83
00:02:57,650 --> 00:02:55,860
t-o-e to get 20 off the annual

84
00:03:00,290 --> 00:02:57,660
subscription and I recommend that you

85
00:03:01,970 --> 00:03:00,300
don't stop before four lessons I think

86
00:03:03,589 --> 00:03:01,980
you'll be greatly surprised that the

87
00:03:05,750 --> 00:03:03,599
ease at which you can now comprehend

88
00:03:07,729 --> 00:03:05,760

subjects you previously had a difficult

89
00:03:08,930 --> 00:03:07,739
time grocking at some point I'll also go

90
00:03:10,550 --> 00:03:08,940
through the courses and give a

91
00:03:12,589 --> 00:03:10,560
recommendation in order enjoy today's

92
00:03:14,089 --> 00:03:12,599
theologusion with John vervaki and

93
00:03:15,949 --> 00:03:14,099
Donald Hoffman we'll start off with

94
00:03:17,990 --> 00:03:15,959
something new something new that you've

95
00:03:19,910 --> 00:03:18,000
both learned in the past couple weeks

96
00:03:21,710 --> 00:03:19,920
and the criteria is something that has

97
00:03:23,390 --> 00:03:21,720
to be interesting to you clearly and

98
00:03:24,470 --> 00:03:23,400
then it also should be relevant to the

99
00:03:27,229 --> 00:03:24,480
conversation

100
00:03:28,729 --> 00:03:27,239
so John why don't you start off

101
00:03:30,589 --> 00:03:28,739
um what have I learned I've been reading

102
00:03:31,610 --> 00:03:30,599
uh I've learned a lot I'm trying to

103
00:03:32,570 --> 00:03:31,620
think of something that might be

104
00:03:34,149 --> 00:03:32,580
relevant I don't know how this

105
00:03:36,350 --> 00:03:34,159
conversation is going to go so

106
00:03:39,710 --> 00:03:36,360
preemptive judgments of relevance are

107
00:03:40,630 --> 00:03:39,720
extremely uh tricky If someone knows

108
00:03:44,509 --> 00:03:40,640
relevance it's you

109
00:03:45,949 --> 00:03:44,519
[Laughter]

110
00:03:47,570 --> 00:03:45,959
it's like I love wisdom that doesn't

111
00:03:48,830 --> 00:03:47,580
mean I'm wise

112
00:03:51,890 --> 00:03:48,840
um

113
00:03:53,869 --> 00:03:51,900

I've been reading uh an essay well first

114
00:03:56,990 --> 00:03:53,879
an essay on nishit as they're saying

115
00:03:58,369 --> 00:03:57,000
then nashida's essay on intelligibility

116
00:04:00,350 --> 00:03:58,379
um and it's been very interesting to me

117
00:04:03,530 --> 00:04:00,360
because I'm seeing a rather profound

118
00:04:05,149 --> 00:04:03,540
convergence uh between Zen philosophical

119
00:04:08,690 --> 00:04:05,159
Notions of intelligibility and the

120
00:04:10,070 --> 00:04:08,700
neoplatonic ones and I'm finding that

121
00:04:12,830 --> 00:04:10,080
um

122
00:04:14,809 --> 00:04:12,840
I'm finding that a very powerful uh

123
00:04:16,490 --> 00:04:14,819
because that kind of convergence says

124
00:04:17,830 --> 00:04:16,500
something across cultures and time

125
00:04:20,449 --> 00:04:17,840
you're getting that kind of convergence

126
00:04:22,790 --> 00:04:20,459
lends plausibility to this examination

127
00:04:23,990 --> 00:04:22,800
of intelligibility and as you know I do

128
00:04:25,129 --> 00:04:24,000
a lot of work around what is

129
00:04:27,830 --> 00:04:25,139
intelligibility

130
00:04:30,409 --> 00:04:27,840
ETC so I think that will turn out to be

131
00:04:32,749 --> 00:04:30,419
relevant uh to our discussion but I'm

132
00:04:34,610 --> 00:04:32,759
I'm I I'm also really happy to see where

133
00:04:36,230 --> 00:04:34,620
this discussion is is going to go I'm

134
00:04:38,330 --> 00:04:36,240
really sort of excited to be here

135
00:04:40,310 --> 00:04:38,340
talking with Donald and I I know he has

136
00:04:43,730 --> 00:04:40,320
an extremely flexible mind so I'm I'm

137
00:04:46,610 --> 00:04:43,740
just uh but I think intelligibility uh

138
00:04:48,710 --> 00:04:46,620

might come up as a relevant topic great

139
00:04:50,330 --> 00:04:48,720
I want to make a note for later you said

140
00:04:51,710 --> 00:04:50,340
that you love wisdom but you're not sure

141
00:04:53,210 --> 00:04:51,720
if you're wise I don't know does the

142
00:04:54,110 --> 00:04:53,220
love of wisdom imply that you're wise

143
00:04:56,330 --> 00:04:54,120
though

144
00:04:58,790 --> 00:04:56,340
in the same way that loving what's good

145
00:05:00,950 --> 00:04:58,800
implies that you're good no no that's

146
00:05:02,990 --> 00:05:00,960
was exactly that was exactly my point my

147
00:05:05,210 --> 00:05:03,000
the fact that I study relevance and I

148
00:05:07,010 --> 00:05:05,220
love it doesn't mean I'm necessarily an

149
00:05:08,810 --> 00:05:07,020
expert at enacting it

150
00:05:11,570 --> 00:05:08,820
um in fact uh people often go into

151
00:05:14,090 --> 00:05:11,580
psychology to study what they most lack

152
00:05:16,610 --> 00:05:14,100
um and so I may actually be somebody

153
00:05:19,129 --> 00:05:16,620
who's initially very I know within

154
00:05:21,710 --> 00:05:19,139
social circumstances I've generally been

155
00:05:23,029 --> 00:05:21,720
poor at picking up what's relevant uh

156
00:05:24,890 --> 00:05:23,039
it's been something that I've been

157
00:05:28,310 --> 00:05:24,900
learning over time very slowly

158
00:05:31,909 --> 00:05:28,320
such as the curse of academics okay Don

159
00:05:33,710 --> 00:05:31,919
well I've been um working on a paper on

160
00:05:35,330 --> 00:05:33,720
relationship of Consciousness to physics

161
00:05:37,310 --> 00:05:35,340
and so I've been thinking a lot about

162
00:05:39,290 --> 00:05:37,320
that we're about to submit it uh this

163
00:05:41,629 --> 00:05:39,300

week and

164
00:05:43,490 --> 00:05:41,639
trying to show how we boot up space-time

165
00:05:45,529 --> 00:05:43,500
and particle physics from a theory of

166
00:05:47,390 --> 00:05:45,539
Consciousness and so one thing just as I

167
00:05:48,050 --> 00:05:47,400
was driving yesterday

168
00:05:50,029 --> 00:05:48,060
um

169
00:05:52,189 --> 00:05:50,039
that I learned just by putting some

170
00:05:53,570 --> 00:05:52,199
pieces together the physicists have this

171
00:05:55,969 --> 00:05:53,580
notion about

172
00:05:57,230 --> 00:05:55,979
um the vacuum and relationship to a

173
00:06:00,350 --> 00:05:57,240
certain mathematical structure is called

174
00:06:02,749 --> 00:06:00,360
permutations and they they relate them

175
00:06:06,230 --> 00:06:02,759
the vacuum to the trivial permutation

176
00:06:07,850 --> 00:06:06,240
and then particle interactions to these

177
00:06:09,710 --> 00:06:07,860
non-trivial permutations called

178
00:06:11,749 --> 00:06:09,720
decorative permutation and and I

179
00:06:13,670 --> 00:06:11,759
realized in our friend yesterday so what

180
00:06:14,870 --> 00:06:13,680
I learned was as I was reviewing the

181
00:06:16,969 --> 00:06:14,880
mathematics of our mathematical

182
00:06:19,370 --> 00:06:16,979
framework of Consciousness I realized

183
00:06:21,290 --> 00:06:19,380
the dynamical aspect of conscious agents

184
00:06:23,450 --> 00:06:21,300
that corresponds to the vacuum and it

185
00:06:25,189 --> 00:06:23,460
corresponds to agents

186
00:06:28,490 --> 00:06:25,199
um whose Dynamics

187
00:06:29,990 --> 00:06:28,500
um is completely transient it they don't

188
00:06:31,610 --> 00:06:30,000

talk to anybody else and they don't even

189
00:06:32,930 --> 00:06:31,620
talk to themselves so they're they're

190
00:06:34,790 --> 00:06:32,940
markovian Dynamics is completely

191
00:06:36,350 --> 00:06:34,800
transient and that that was what

192
00:06:39,469 --> 00:06:36,360
corresponds to what the physicists

193
00:06:40,969 --> 00:06:39,479
called the vacuum state and so but all

194
00:06:42,650 --> 00:06:40,979
of a sudden when I realized that it the

195
00:06:45,469 --> 00:06:42,660
whole thing begins to make sense and so

196
00:06:48,230 --> 00:06:45,479
so for me what was a big aha yesterday

197
00:06:50,150 --> 00:06:48,240
was okay I I'm getting starting with

198
00:06:52,430 --> 00:06:50,160
Consciousness trying to understand

199
00:06:55,129 --> 00:06:52,440
particle scattering in physics as a

200
00:06:56,689 --> 00:06:55,139
result of Consciousness and I understand

201
00:06:57,950 --> 00:06:56,699
what the vacuum means that it actually

202
00:07:00,650 --> 00:06:57,960
makes sense in the mathematical

203
00:07:02,210 --> 00:07:00,660
framework we're dealing with so so I

204
00:07:03,469 --> 00:07:02,220
guess it's relevant because if we end up

205
00:07:05,170 --> 00:07:03,479
talking about Consciousness and

206
00:07:07,249 --> 00:07:05,180
space-time and physics and physicalism

207
00:07:09,590 --> 00:07:07,259
these kinds of Concepts will be very

208
00:07:11,510 --> 00:07:09,600
very relevant

209
00:07:16,189 --> 00:07:11,520
are you trying to study scattering

210
00:07:20,749 --> 00:07:18,290
partly and I'm trying to study

211
00:07:22,670 --> 00:07:20,759
scattering because ultimately

212
00:07:24,350 --> 00:07:22,680
if we want to have a mathematically

213
00:07:26,270 --> 00:07:24,360

precise scientific theory of

214
00:07:29,089 --> 00:07:26,280
Consciousness that's going to be taken

215
00:07:30,409 --> 00:07:29,099
seriously by the scientific World you've

216
00:07:31,490 --> 00:07:30,419
got to make predictions that are

217
00:07:32,870 --> 00:07:31,500
testable

218
00:07:35,150 --> 00:07:32,880
and

219
00:07:36,710 --> 00:07:35,160
a lot of my colleagues are thinking we

220
00:07:38,330 --> 00:07:36,720
need to make predictions at the

221
00:07:41,390 --> 00:07:38,340
Neuroscience level and of course we

222
00:07:44,210 --> 00:07:41,400
eventually do but but but brains are

223
00:07:47,510 --> 00:07:44,220
really complicated and uh particles are

224
00:07:50,029 --> 00:07:47,520
very simple so my my goal is to make

225
00:07:52,850 --> 00:07:50,039
predictions about two gluons in four

226
00:07:54,710 --> 00:07:52,860
gluon out scattering first because not

227
00:07:56,809 --> 00:07:54,720
because that's harder because it's

228
00:07:58,249 --> 00:07:56,819
easier than neuroscience and the

229
00:08:01,309 --> 00:07:58,259
physicists have already given us a way

230
00:08:03,350 --> 00:08:01,319
into that so they they've said if you

231
00:08:04,370 --> 00:08:03,360
want to do particle scattering

232
00:08:05,990 --> 00:08:04,380
um

233
00:08:08,330 --> 00:08:06,000
there are these structures beyond space

234
00:08:09,830 --> 00:08:08,340
time like the amplitohedron and then the

235
00:08:11,809 --> 00:08:09,840
deeper structures the decorated

236
00:08:14,089 --> 00:08:11,819
permutations and so they say if you can

237
00:08:16,730 --> 00:08:14,099
give us a decorative permutation we can

238
00:08:18,529 --> 00:08:16,740

give you a scattering amplitude for some

239
00:08:20,809 --> 00:08:18,539
kind of particle Dynamics and so what

240
00:08:22,309 --> 00:08:20,819
I've been working on is is that starting

241
00:08:23,930 --> 00:08:22,319
with the theory of Consciousness this

242
00:08:26,510 --> 00:08:23,940
dynamical show how the decorative

243
00:08:28,430 --> 00:08:26,520
permutations come out and from then I

244
00:08:30,050 --> 00:08:28,440
can just then use all the wonderful work

245
00:08:31,850 --> 00:08:30,060
by the physicists like Nema and his

246
00:08:33,290 --> 00:08:31,860
collaborators that start with these

247
00:08:36,050 --> 00:08:33,300
decorated permutations and give you

248
00:08:37,670 --> 00:08:36,060
scattering amplitudes the big goal is to

249
00:08:39,769 --> 00:08:37,680
start with Consciousness and make

250
00:08:41,870 --> 00:08:39,779
predictions at colliders that are

251
00:08:43,370 --> 00:08:41,880
testable and hopefully new predictions

252
00:08:45,410 --> 00:08:43,380
that their current models can't make

253
00:08:47,150 --> 00:08:45,420
right I would like to for example

254
00:08:49,790 --> 00:08:47,160
explain why supersymmetry doesn't work

255
00:08:51,590 --> 00:08:49,800
uh based on this dynamics of conscious

256
00:08:53,509 --> 00:08:51,600
agents so so not just

257
00:08:54,710 --> 00:08:53,519
of course we need to get all the stuff

258
00:08:56,449 --> 00:08:54,720
that they've already done and we need to

259
00:08:57,829 --> 00:08:56,459
be able to you know capture their

260
00:08:59,570 --> 00:08:57,839
predictions that they've already tested

261
00:09:01,070 --> 00:08:59,580
but we need to make new predictions as

262
00:09:04,670 --> 00:09:01,080
well so that's why I was really working

263
00:09:07,610 --> 00:09:04,680

on the scattering amplitudes because

264
00:09:09,650 --> 00:09:07,620
one they're a way to empirically test

265
00:09:12,470 --> 00:09:09,660
the theory number two we know this

266
00:09:14,750 --> 00:09:12,480
really well we have the data we know

267
00:09:17,449 --> 00:09:14,760
what the right answers are and we know

268
00:09:19,550 --> 00:09:17,459
what the outstanding problems are and um

269
00:09:21,350 --> 00:09:19,560
and and and then the fourth thing is I

270
00:09:23,829 --> 00:09:21,360
would rather start there than

271
00:09:25,910 --> 00:09:23,839
Neuroscience because it may seem

272
00:09:27,350 --> 00:09:25,920
counterintuitive but but the scattering

273
00:09:28,730 --> 00:09:27,360
is going to be much much easier than

274
00:09:30,710 --> 00:09:28,740
making connections with Neuroscience

275
00:09:32,750 --> 00:09:30,720
that are that are absolutely rigorous

276
00:09:34,190 --> 00:09:32,760
and testable to you know 10 decibel

277
00:09:36,650 --> 00:09:34,200
places or something like that

278
00:09:38,329 --> 00:09:36,660
okay so the last broad question and then

279
00:09:40,970 --> 00:09:38,339
I'm going to leave the floor open to you

280
00:09:42,410 --> 00:09:40,980
both to riff off of one another is what

281
00:09:43,850 --> 00:09:42,420
is it that you find impactful about one

282
00:09:46,670 --> 00:09:43,860
another's work and we'll start Dawn with

283
00:09:48,410 --> 00:09:46,680
you toward John and then John you'll

284
00:09:49,610 --> 00:09:48,420
respond and then I'll interject fairly

285
00:09:51,889 --> 00:09:49,620
seldomly

286
00:09:53,810 --> 00:09:51,899
oh okay yeah well with John what's

287
00:09:56,630 --> 00:09:53,820
what's beautiful is he's a one of those

288
00:09:58,730 --> 00:09:56,640

rare truly Renaissance individuals who

289
00:10:01,310 --> 00:09:58,740
who knows ancient philosophy and modern

290
00:10:05,150 --> 00:10:01,320
philosophy you know modern Neuroscience

291
00:10:07,610 --> 00:10:05,160
uh he knows evolutionary psychology he

292
00:10:08,990 --> 00:10:07,620
knows um the scientific method backwards

293
00:10:11,630 --> 00:10:09,000
and forwards but he also knows mystical

294
00:10:13,130 --> 00:10:11,640
traditions and he knows how to pick and

295
00:10:15,889 --> 00:10:13,140
choose from all of these in an

296
00:10:18,769 --> 00:10:15,899
intelligent way to get a synthesis that

297
00:10:20,329 --> 00:10:18,779
is then I think uh potentially

298
00:10:21,710 --> 00:10:20,339
life-changing for many many people to

299
00:10:24,290 --> 00:10:21,720
get meaning in our lives to understand

300
00:10:26,030 --> 00:10:24,300
our current political situation and and

301
00:10:30,050 --> 00:10:26,040
so he's one of those rare individuals

302
00:10:32,329 --> 00:10:30,060
who who really knows this broad variety

303
00:10:33,769 --> 00:10:32,339
of topics he knows how to integrate them

304
00:10:36,110 --> 00:10:33,779
he's not just a dilettante but he

305
00:10:38,570 --> 00:10:36,120
actually knows how to integrate them in

306
00:10:40,070 --> 00:10:38,580
a transformative light and the other

307
00:10:43,130 --> 00:10:40,080
thing I love is is

308
00:10:45,350 --> 00:10:43,140
um his absolute demand for clean precise

309
00:10:47,150 --> 00:10:45,360
logical thinking when you're thinking

310
00:10:49,370 --> 00:10:47,160
but then he's welding in spiritual

311
00:10:51,050 --> 00:10:49,380
Traditions to go into silence as well so

312
00:10:53,690 --> 00:10:51,060
and I think both are absolutely

313
00:10:57,829 --> 00:10:53,700

essential for the full human being and

314
00:11:04,550 --> 00:11:00,949
thank you Donald that was um

315
00:11:06,829 --> 00:11:04,560
very kind and um

316
00:11:10,730 --> 00:11:06,839
I um

317
00:11:14,329 --> 00:11:10,740
that speaks to what I like about you

318
00:11:16,009 --> 00:11:14,339
um right um I think you

319
00:11:17,449 --> 00:11:16,019
I think you and I belong to the school

320
00:11:20,150 --> 00:11:17,459
of what I like to call Big Picture

321
00:11:21,650 --> 00:11:20,160
cognitive science which is not this or

322
00:11:23,750 --> 00:11:21,660
that I mean you do specialist work and I

323
00:11:26,930 --> 00:11:23,760
do specialist work but we we don't think

324
00:11:28,790 --> 00:11:26,940
that's the core of good science that

325
00:11:32,329 --> 00:11:28,800
integrating into a broad framework is

326
00:11:36,230 --> 00:11:32,339
important and Frameworks like you that

327
00:11:38,990 --> 00:11:36,240
try to bridge between uh like you do

328
00:11:40,670 --> 00:11:39,000
like I do as well try to bridge you know

329
00:11:42,590 --> 00:11:40,680
between a lot of the things that have

330
00:11:44,449 --> 00:11:42,600
been vivisected off each from each other

331
00:11:46,250 --> 00:11:44,459
in our society in our current scientific

332
00:11:48,889 --> 00:11:46,260
worldview

333
00:11:53,750 --> 00:11:48,899
um I think you asked big questions I

334
00:11:55,130 --> 00:11:53,760
think you uh you I somebody who talks

335
00:11:58,490 --> 00:11:55,140
about

336
00:12:00,290 --> 00:11:58,500
Consciousness and Ultimate Reality and

337
00:12:02,329 --> 00:12:00,300
yet wants to talk about it in a

338
00:12:05,449 --> 00:12:02,339

scientifically rigorous even

339
00:12:07,550 --> 00:12:05,459
mathematical formalized mathematical way

340
00:12:09,050 --> 00:12:07,560
um you can see why I deeply resonate

341
00:12:11,269 --> 00:12:09,060
with that I may not agree with all of

342
00:12:13,190 --> 00:12:11,279
your particular conclusions uh and

343
00:12:16,009 --> 00:12:13,200
that's to be said I mean do any two

344
00:12:19,009 --> 00:12:16,019
academics uh but the point is

345
00:12:20,569 --> 00:12:19,019
um uh I think if I can put it this way

346
00:12:22,970 --> 00:12:20,579
in many important ways we're on the same

347
00:12:24,650 --> 00:12:22,980
side of the tracks we think we should be

348
00:12:29,030 --> 00:12:24,660
doing these Broad

349
00:12:32,690 --> 00:12:29,040
uh Integrations that are not facile but

350
00:12:34,850 --> 00:12:32,700
are pertinent precise well-arged for

351
00:12:38,170 --> 00:12:34,860
well-evidenced

352
00:12:40,850 --> 00:12:38,180
um and that they have important

353
00:12:43,310 --> 00:12:40,860
existential sapiential and therefore

354
00:12:46,310 --> 00:12:43,320
spiritual in that sense consequences

355
00:12:48,230 --> 00:12:46,320
that should be respected uh we should

356
00:12:50,930 --> 00:12:48,240
not limit

357
00:12:52,370 --> 00:12:50,940
um the pool from which we're drawing our

358
00:12:54,889 --> 00:12:52,380
analyzes to just sort of current

359
00:12:58,069 --> 00:12:54,899
philosophy or current science but much

360
00:13:00,590 --> 00:12:58,079
more broad cross-cultural across

361
00:13:04,490 --> 00:13:00,600
historical cross-disciplinary

362
00:13:08,750 --> 00:13:06,290
like I say

363
00:13:12,650 --> 00:13:08,760

I'm sure we'll get into disagreement but

364
00:13:14,690 --> 00:13:12,660
I I want to say this up front which is

365
00:13:16,190 --> 00:13:14,700
the ma I often say this and I mean it

366
00:13:17,810 --> 00:13:16,200
and people can see that I mean it and

367
00:13:19,730 --> 00:13:17,820
how I uh how I

368
00:13:21,290 --> 00:13:19,740
how I carry myself in discussions the

369
00:13:24,170 --> 00:13:21,300
manner in which you're doing these

370
00:13:26,150 --> 00:13:24,180
things I think is really really right in

371
00:13:28,970 --> 00:13:26,160
a profound and important way

372
00:13:31,310 --> 00:13:28,980
um and I think you you present it in a

373
00:13:34,730 --> 00:13:31,320
way that's often

374
00:13:37,550 --> 00:13:34,740
um very challenging to people who have

375
00:13:39,590 --> 00:13:37,560
have a much more

376
00:13:40,970 --> 00:13:39,600
I want to be kind here much more

377
00:13:42,949 --> 00:13:40,980
specialized I was going to say blinker

378
00:13:45,170 --> 00:13:42,959
but a much more specialized

379
00:13:48,250 --> 00:13:45,180
um epistemology and I think that is

380
00:13:50,990 --> 00:13:48,260
really needed now I think all

381
00:13:52,910 --> 00:13:51,000
I'll speak for psychology we both are in

382
00:13:54,530 --> 00:13:52,920
Psychology at least we both have a point

383
00:13:56,150 --> 00:13:54,540
I have one in Psychology and cognitive

384
00:13:57,590 --> 00:13:56,160
science you have one in Psychology and

385
00:14:00,650 --> 00:13:57,600
other things too

386
00:14:02,690 --> 00:14:00,660
um philosophy cognitive science but one

387
00:14:05,870 --> 00:14:02,700
of the things that bothers me about

388
00:14:07,850 --> 00:14:05,880

psychology is this emphasis on

389
00:14:09,590 --> 00:14:07,860
innovation

390
00:14:10,730 --> 00:14:09,600
um as opposed to integration I would

391
00:14:13,490 --> 00:14:10,740
argue that's one of the things driving

392
00:14:17,269 --> 00:14:13,500
the replication crisis and I think the

393
00:14:19,730 --> 00:14:17,279
resistance to right creating

394
00:14:21,590 --> 00:14:19,740
broad philosophically astute Frameworks

395
00:14:23,509 --> 00:14:21,600
within psychology is something that

396
00:14:24,829 --> 00:14:23,519
needs to be challenged and I see that

397
00:14:26,930 --> 00:14:24,839
you and I are both doing that and I

398
00:14:28,550 --> 00:14:26,940
think that's very very important you

399
00:14:30,050 --> 00:14:28,560
know what let me ask a question so I'll

400
00:14:32,269 --> 00:14:30,060
start this off with the perhaps the most

401
00:14:33,710 --> 00:14:32,279
basic question we say that conscious or

402
00:14:35,569 --> 00:14:33,720
some people say that Consciousness is

403
00:14:36,650 --> 00:14:35,579
fundamental and then there's various

404
00:14:38,810 --> 00:14:36,660
questions like well what is

405
00:14:40,670 --> 00:14:38,820
consciousness so here's another question

406
00:14:42,650 --> 00:14:40,680
what is fundamental so what's

407
00:14:44,629 --> 00:14:42,660
fundamental if one doesn't assume

408
00:14:46,670 --> 00:14:44,639
reductionism and if one does have to

409
00:14:49,250 --> 00:14:46,680
assume reductionism for something to be

410
00:14:51,230 --> 00:14:49,260
fundamental then does that mean that

411
00:14:52,790 --> 00:14:51,240
conceptually reductionism is more

412
00:14:55,009 --> 00:14:52,800
fundamental than the x that you're

413
00:14:56,090 --> 00:14:55,019

saying is fundamental so anyway what is

414
00:14:59,870 --> 00:14:56,100
fundamental

415
00:15:00,949 --> 00:14:59,880
I'll be happy to start sure sure so I

416
00:15:02,990 --> 00:15:00,959
think that

417
00:15:05,870 --> 00:15:03,000
there's two important and different

418
00:15:07,550 --> 00:15:05,880
concepts going on here one is

419
00:15:08,810 --> 00:15:07,560
um reductionism which has to do with an

420
00:15:10,370 --> 00:15:08,820
assumption about space-time being

421
00:15:13,250 --> 00:15:10,380
fundamental

422
00:15:15,170 --> 00:15:13,260
and with reductionism the idea is that

423
00:15:16,850 --> 00:15:15,180
as you go to smaller and smaller scales

424
00:15:18,650 --> 00:15:16,860
in space-time

425
00:15:20,210 --> 00:15:18,660
you get to more and more fundamental

426
00:15:21,410 --> 00:15:20,220
objects and more and more fundamental

427
00:15:25,550 --> 00:15:21,420
laws

428
00:15:29,030 --> 00:15:25,560
so that's a particular idea and by the

429
00:15:30,949 --> 00:15:29,040
way reductionism is assuming uh um that

430
00:15:33,170 --> 00:15:30,959
space-time itself is fundamental I mean

431
00:15:35,329 --> 00:15:33,180
because it's taking smaller scales of

432
00:15:37,610 --> 00:15:35,339
space as being associated with more and

433
00:15:40,310 --> 00:15:37,620
more fundamental objects and laws

434
00:15:43,389 --> 00:15:40,320
but fundamental for me is a much broader

435
00:15:45,650 --> 00:15:43,399
concept than than say space time

436
00:15:48,829 --> 00:15:45,660
fundamental is a property of scientific

437
00:15:50,269 --> 00:15:48,839
theories so every scientific theory

438
00:15:53,569 --> 00:15:50,279

um has assumptions

439
00:15:56,030 --> 00:15:53,579
no theory in science is free of any

440
00:15:59,030 --> 00:15:56,040
assumptions these assumptions are the

441
00:16:03,290 --> 00:15:59,040
foundation of that scientific theory and

442
00:16:05,930 --> 00:16:03,300
so what's fundamental is Vis it is is

443
00:16:08,090 --> 00:16:05,940
with respect to a particular Theory what

444
00:16:11,030 --> 00:16:08,100
what does that take as the fundamental

445
00:16:13,970 --> 00:16:11,040
uh concepts for building that theory so

446
00:16:15,290 --> 00:16:13,980
I I I think the notion of fundamental is

447
00:16:19,189 --> 00:16:15,300
a theory

448
00:16:21,949 --> 00:16:19,199
relative concept you should ask

449
00:16:24,170 --> 00:16:21,959
um what's fundamental in this particular

450
00:16:27,710 --> 00:16:24,180
scientific theory in Einstein's theory

451
00:16:29,210 --> 00:16:27,720
of gravity space time is fundamental in

452
00:16:31,250 --> 00:16:29,220
uh you know Evolution Financial

453
00:16:33,470 --> 00:16:31,260
selection we have the notion of physical

454
00:16:36,110 --> 00:16:33,480
objects in space-time and things like

455
00:16:39,410 --> 00:16:36,120
genes and competition and replication

456
00:16:42,949 --> 00:16:39,420
those are those are fundamental concepts

457
00:16:44,930 --> 00:16:42,959
in in that theory but you can have uh

458
00:16:47,329 --> 00:16:44,940
different scientific theories with with

459
00:16:50,210 --> 00:16:47,339
different fundamental concepts most of

460
00:16:53,210 --> 00:16:50,220
modern science does take

461
00:16:54,829 --> 00:16:53,220
space-time as fundamental but then

462
00:16:57,350 --> 00:16:54,839
they'll also add other

463
00:16:59,110 --> 00:16:57,360

other Concepts as well to be fundamental

464
00:17:01,910 --> 00:16:59,120
like in evolution you'll also add

465
00:17:04,850 --> 00:17:01,920
organisms and DNA and replication and

466
00:17:06,829 --> 00:17:04,860
and so forth so but and so most

467
00:17:09,650 --> 00:17:06,839
scientific theories also inherit the

468
00:17:13,250 --> 00:17:09,660
assumption that reductionism is is a

469
00:17:15,650 --> 00:17:13,260
good method most of them do um

470
00:17:17,270 --> 00:17:15,660
I'll just I'll turn it over to John but

471
00:17:18,289 --> 00:17:17,280
I'll just say that physicists now are

472
00:17:20,689 --> 00:17:18,299
saying that space-time is not

473
00:17:23,990 --> 00:17:20,699
fundamental like Neymar economed and

474
00:17:26,449 --> 00:17:24,000
others and that therefore reductionism

475
00:17:28,789 --> 00:17:26,459
um is is doomed not just space-time but

476
00:17:32,169 --> 00:17:28,799
reductionism is is doomed

477
00:17:34,970 --> 00:17:32,179
um but I'll stop there

478
00:17:36,710 --> 00:17:34,980
so I agree with I think I'm agreeing

479
00:17:38,930 --> 00:17:36,720
with Donald that

480
00:17:40,549 --> 00:17:38,940
um I would want to distinguish uh

481
00:17:42,110 --> 00:17:40,559
reductionism from claims of

482
00:17:44,510 --> 00:17:42,120
fundamentality

483
00:17:45,789 --> 00:17:44,520
um I think productionism is very

484
00:17:49,190 --> 00:17:45,799
problematic

485
00:17:50,690 --> 00:17:49,200
uh it has uh it gets you into certain

486
00:17:52,010 --> 00:17:50,700
performative contradictions if you try

487
00:17:54,169 --> 00:17:52,020
to make an absolute complete

488
00:17:55,669 --> 00:17:54,179

reductionism because it gets you into

489
00:17:57,470 --> 00:17:55,679
saying things like only the bottom level

490
00:17:59,930 --> 00:17:57,480
is real and I know that from this level

491
00:18:01,430 --> 00:17:59,940
up here which isn't real you get all

492
00:18:03,230 --> 00:18:01,440
kinds of performative contradictions

493
00:18:05,330 --> 00:18:03,240
going on there you have measurement

494
00:18:08,210 --> 00:18:05,340
problems uh Wolfgang Smith has brought

495
00:18:10,070 --> 00:18:08,220
this out you know the the ruler can't be

496
00:18:12,289 --> 00:18:10,080
a Quantum thing to measure the Quantum

497
00:18:14,029 --> 00:18:12,299
of things or you get into and I I won't

498
00:18:16,669 --> 00:18:14,039
review that there's a host of problems

499
00:18:19,190 --> 00:18:16,679
where I think reductionism and and a

500
00:18:21,409 --> 00:18:19,200
completely flat ontology aren't uh

501
00:18:22,850 --> 00:18:21,419
justifiable briefly why do you say

502
00:18:24,770 --> 00:18:22,860
performative contradiction and not

503
00:18:27,049 --> 00:18:24,780
contradiction performative contradiction

504
00:18:28,490 --> 00:18:27,059
means that there isn't a contradiction

505
00:18:30,830 --> 00:18:28,500
between propositions there's

506
00:18:32,390 --> 00:18:30,840
contradictions between the activity and

507
00:18:35,510 --> 00:18:32,400
the proposition stated performance

508
00:18:37,430 --> 00:18:35,520
here's one I'm asleep right now

509
00:18:38,870 --> 00:18:37,440
okay that doesn't make any sense or to

510
00:18:39,789 --> 00:18:38,880
perform a contradiction because the

511
00:18:42,350 --> 00:18:39,799
action

512
00:18:44,690 --> 00:18:42,360
requires the the falsity of the

513
00:18:46,310 --> 00:18:44,700

proposition right so can you explain why

514
00:18:48,590 --> 00:18:46,320
suggesting that there's some ground

515
00:18:50,450 --> 00:18:48,600
that's more real than a higher level is

516
00:18:51,730 --> 00:18:50,460
a performative contradiction

517
00:18:54,470 --> 00:18:51,740
ah

518
00:18:56,270 --> 00:18:54,480
what I was saying is if you if you say

519
00:18:58,669 --> 00:18:56,280
that the bottom level is the only level

520
00:19:00,470 --> 00:18:58,679
that's at re with real that is clearly

521
00:19:02,090 --> 00:19:00,480
not the level at which the science is

522
00:19:04,430 --> 00:19:02,100
being done the science is being done by

523
00:19:06,049 --> 00:19:04,440
scientists using gauges and writing

524
00:19:07,789 --> 00:19:06,059
things down and using computers and

525
00:19:09,950 --> 00:19:07,799
using language and making theories and

526
00:19:12,350 --> 00:19:09,960
going to conferences and if all of that

527
00:19:14,990 --> 00:19:12,360
is not real because it's somehow

528
00:19:17,690 --> 00:19:15,000
epiphenomenal or illusory then how is it

529
00:19:21,710 --> 00:19:17,700
that that level is giving you epistemic

530
00:19:23,150 --> 00:19:21,720
access to the real bottom level you're

531
00:19:25,010 --> 00:19:23,160
saying like it's be like saying I'm in

532
00:19:27,409 --> 00:19:25,020
the middle of a dream and in that dream

533
00:19:29,390 --> 00:19:27,419
I I dreamed that Santa Claus was real

534
00:19:30,890 --> 00:19:29,400
therefore Santa Claus is real like if if

535
00:19:33,049 --> 00:19:30,900
you if the level at which you're doing

536
00:19:34,730 --> 00:19:33,059
this science is illusory it undermines

537
00:19:36,710 --> 00:19:34,740
all the claims you're making from that

538
00:19:38,990 --> 00:19:36,720

level you have to be able to give it on

539
00:19:40,970 --> 00:19:39,000
tall on ontological reality to science

540
00:19:43,570 --> 00:19:40,980
if any of its conclusions are going to

541
00:19:47,810 --> 00:19:43,580
be taken to be real that's beautiful

542
00:19:49,669 --> 00:19:47,820
thank you so that's I and there's a host

543
00:19:52,310 --> 00:19:49,679
of other arguments and I I want to put

544
00:19:54,110 --> 00:19:52,320
reductionism aside for that now

545
00:19:56,990 --> 00:19:54,120
fundamental and I agree with Donald

546
00:19:59,390 --> 00:19:57,000
completely fundamental is a theoretic

547
00:20:02,330 --> 00:19:59,400
um but one thing you can be connoting

548
00:20:05,090 --> 00:20:02,340
not denoting is what you think is the

549
00:20:06,710 --> 00:20:05,100
the ontological referent uh which is

550
00:20:08,510 --> 00:20:06,720
what some people sometimes mean by

551
00:20:10,430 --> 00:20:08,520
fundamental and I I think instead of

552
00:20:12,169 --> 00:20:10,440
using fundamental which is a theoretic

553
00:20:14,630 --> 00:20:12,179
property we might want to use an

554
00:20:16,310 --> 00:20:14,640
ontological property like real and then

555
00:20:17,810 --> 00:20:16,320
you might be asking what is it to say

556
00:20:20,150 --> 00:20:17,820
that something is real or to say that

557
00:20:23,450 --> 00:20:20,160
one thing is more real than another and

558
00:20:25,070 --> 00:20:23,460
I think that is an important question

559
00:20:27,529 --> 00:20:25,080
and I think that question can't be

560
00:20:29,450 --> 00:20:27,539
decided by just looking within any

561
00:20:32,090 --> 00:20:29,460
particular theory for its particular

562
00:20:34,010 --> 00:20:32,100
fundamentals because what we're asking I

563
00:20:35,630 --> 00:20:34,020

think I would argue when we're asking

564
00:20:38,029 --> 00:20:35,640
questions about reality is what what

565
00:20:40,010 --> 00:20:38,039
makes possible any and all such

566
00:20:41,750 --> 00:20:40,020
intelligibility what makes possible any

567
00:20:43,909 --> 00:20:41,760
possible theory that might turn out to

568
00:20:48,289 --> 00:20:43,919
be true there has to be some aspect

569
00:20:52,190 --> 00:20:48,299
because we take it I think that reality

570
00:20:54,770 --> 00:20:52,200
in some sense corresponds to

571
00:20:57,590 --> 00:20:54,780
our ability to make our claim to find

572
00:21:00,830 --> 00:20:57,600
our claims true or our skills apply

573
00:21:04,070 --> 00:21:00,840
applying or a perspectives present

574
00:21:06,049 --> 00:21:04,080
Etc so I I'm waving over with that with

575
00:21:08,570 --> 00:21:06,059
my hand because that's a big thorny knot

576
00:21:10,190 --> 00:21:08,580
but I'm trying to pull apart I think

577
00:21:12,110 --> 00:21:10,200
there's reductionism which we put aside

578
00:21:13,310 --> 00:21:12,120
there's fundamentality and I will I

579
00:21:15,230 --> 00:21:13,320
agree with Donald what he just said

580
00:21:16,909 --> 00:21:15,240
about that and but I think we have an

581
00:21:18,350 --> 00:21:16,919
extra theoretic notion which is the

582
00:21:20,690 --> 00:21:18,360
notion of realness which is something

583
00:21:23,150 --> 00:21:20,700
like that which can make you know

584
00:21:25,370 --> 00:21:23,160
various theories true how do they do it

585
00:21:27,289 --> 00:21:25,380
and then the question might be are you a

586
00:21:28,430 --> 00:21:27,299
pluralist or modest about that for

587
00:21:30,070 --> 00:21:28,440
example that might be a starting point

588
00:21:33,169 --> 00:21:30,080

do you think there are many different

589
00:21:35,090 --> 00:21:33,179
realities that make theories too you

590
00:21:37,789 --> 00:21:35,100
could be some kind of relief to this in

591
00:21:39,950 --> 00:21:37,799
that way or do you think that there is a

592
00:21:43,909 --> 00:21:39,960
Ultimate Reality in some important

593
00:21:45,350 --> 00:21:43,919
unified fashion Etc so there there's

594
00:21:47,450 --> 00:21:45,360
three different questions we could be

595
00:21:49,490 --> 00:21:47,460
asking reductionism which I I'd largely

596
00:21:52,850 --> 00:21:49,500
put aside what's the fundamental of any

597
00:21:55,070 --> 00:21:52,860
Theory but you might ask what's reality

598
00:21:56,690 --> 00:21:55,080
and you might ask it in saying what is

599
00:21:58,730 --> 00:21:56,700
it that could possibly integrate

600
00:22:00,590 --> 00:21:58,740
non-reductively all these fundamentals

601
00:22:03,049 --> 00:22:00,600
together so that we would have an over

602
00:22:05,029 --> 00:22:03,059
our integrated coherent account

603
00:22:07,070 --> 00:22:05,039
that's those those are the kinds of

604
00:22:09,310 --> 00:22:07,080
moves you can make

605
00:22:11,870 --> 00:22:09,320
did that make sense

606
00:22:13,549 --> 00:22:11,880
sure so don

607
00:22:15,110 --> 00:22:13,559
do you have anything to say in response

608
00:22:18,169 --> 00:22:15,120
I think that

609
00:22:20,029 --> 00:22:18,179
you know the notion of reality is an

610
00:22:23,289 --> 00:22:20,039
extra notion Beyond just what's

611
00:22:26,149 --> 00:22:23,299
fundamental to a particular Theory

612
00:22:29,090 --> 00:22:26,159
the the and this whole area is very very

613
00:22:31,010 --> 00:22:29,100

tricky you know for the very kinds of

614
00:22:34,010 --> 00:22:31,020
performative contradiction reasons that

615
00:22:36,770 --> 00:22:34,020
John just mentioned yeah very very easy

616
00:22:40,130 --> 00:22:36,780
to step on landmines everywhere here but

617
00:22:42,470 --> 00:22:40,140
it seems to me that that

618
00:22:46,070 --> 00:22:42,480
girdles in completeness theorem

619
00:22:48,110 --> 00:22:46,080
tells us that in some sense there is no

620
00:22:51,110 --> 00:22:48,120
Theory of Everything

621
00:22:55,010 --> 00:22:51,120
right any formal system that is Rich

622
00:22:59,330 --> 00:22:55,020
enough to model the axiom's arithmetic

623
00:23:00,830 --> 00:22:59,340
is is either inconsistent or incomplete

624
00:23:02,570 --> 00:23:00,840
and we call it girdles in completeness

625
00:23:05,270 --> 00:23:02,580
theorem because we don't take the

626
00:23:08,090 --> 00:23:05,280
inconsistency thing too seriously so

627
00:23:11,630 --> 00:23:08,100
that means no matter what

628
00:23:14,330 --> 00:23:11,640
scientific theory we have

629
00:23:16,190 --> 00:23:14,340
it's not the final word there'll always

630
00:23:18,350 --> 00:23:16,200
be if the if the theory is Rich enough

631
00:23:20,149 --> 00:23:18,360
to do arithmetic and most scientific

632
00:23:21,649 --> 00:23:20,159
theories are they wouldn't be taken

633
00:23:23,029 --> 00:23:21,659
seriously so they're rich enough to do

634
00:23:26,210 --> 00:23:23,039
arithmetic so they're rich enough to

635
00:23:29,149 --> 00:23:26,220
have a girdle statement that uh that is

636
00:23:31,250 --> 00:23:29,159
outside their scope and yet is true

637
00:23:34,250 --> 00:23:31,260
um but not provable within that theory

638
00:23:35,870 --> 00:23:34,260

and and no matter how much you add those

639
00:23:37,789 --> 00:23:35,880
new statements to your your scientific

640
00:23:40,669 --> 00:23:37,799
theory they'll always be new statements

641
00:23:42,350 --> 00:23:40,679
that that so that that means that are

642
00:23:43,669 --> 00:23:42,360
there there is no scientific theory of

643
00:23:47,570 --> 00:23:43,679
everything

644
00:23:49,370 --> 00:23:47,580
and the notion of Truth and and and I

645
00:23:51,049 --> 00:23:49,380
think the related notion of reality and

646
00:23:52,909 --> 00:23:51,059
that's why I'm bringing this up the

647
00:23:55,250 --> 00:23:52,919
notion of Truth and and the notion of

648
00:23:57,710 --> 00:23:55,260
reality in some sense I think will

649
00:24:00,830 --> 00:23:57,720
forever transcend

650
00:24:02,570 --> 00:24:00,840
scientific theory and of course I'm a

651
00:24:05,330 --> 00:24:02,580
scientist so I'm not saying oh throw up

652
00:24:07,070 --> 00:24:05,340
our hands and yeah there's something

653
00:24:08,750 --> 00:24:07,080
very deep going on here that that that

654
00:24:11,630 --> 00:24:08,760
that that

655
00:24:14,570 --> 00:24:11,640
theories turn out to be empirically

656
00:24:16,070 --> 00:24:14,580
quite valuable right we were I'm alive

657
00:24:17,750 --> 00:24:16,080
today because of scientific theories

658
00:24:19,970 --> 00:24:17,760
that that led to medicine that have

659
00:24:21,950 --> 00:24:19,980
saved my life so so the you know the

660
00:24:24,110 --> 00:24:21,960
stuff works even though girl tells me

661
00:24:25,850 --> 00:24:24,120
that it that it's um the theory is

662
00:24:29,810 --> 00:24:25,860
Trivial compared to the truths that the

663
00:24:32,450 --> 00:24:29,820

theories uh can't prove right so so

664
00:24:34,250 --> 00:24:32,460
there so the fact that you can't have a

665
00:24:36,230 --> 00:24:34,260
theory of everything

666
00:24:39,230 --> 00:24:36,240
um and you can't ultimately

667
00:24:41,029 --> 00:24:39,240
know that the truth with a capital T and

668
00:24:42,770 --> 00:24:41,039
therefore and this is where John may

669
00:24:45,350 --> 00:24:42,780
want to disagree I don't know therefore

670
00:24:48,950 --> 00:24:45,360
we can't know what what's reality with a

671
00:24:51,049 --> 00:24:48,960
capital R we can only say these are the

672
00:24:54,049 --> 00:24:51,059
best theories we have so far but we need

673
00:24:56,750 --> 00:24:54,059
to modestly and humbly say um that's our

674
00:24:59,270 --> 00:24:56,760
Theory that's not the truth and I would

675
00:25:01,070 --> 00:24:59,280
be fooled to say that that's the reality

676
00:25:03,529 --> 00:25:01,080
um so I would but I should probably stop

677
00:25:05,870 --> 00:25:03,539
and let John react I just want to thank

678
00:25:07,669 --> 00:25:05,880
Donald for being I hope I I follow his

679
00:25:10,850 --> 00:25:07,679
example and continually make space for

680
00:25:12,409 --> 00:25:10,860
him as well yeah okay great great so

681
00:25:15,470 --> 00:25:12,419
apologies for me not making space here

682
00:25:18,470 --> 00:25:15,480
for taking some space so with girdles in

683
00:25:20,570 --> 00:25:18,480
completeness theorem he said that we may

684
00:25:22,070 --> 00:25:20,580
never know truth with the capital T and

685
00:25:24,289 --> 00:25:22,080
then you said that a toad may not exist

686
00:25:27,289 --> 00:25:24,299
however there's the difference between a

687
00:25:28,850 --> 00:25:27,299
toe existing and US knowing the toe and

688
00:25:30,529 --> 00:25:28,860

when you said that we don't know truth

689
00:25:32,090 --> 00:25:30,539
with the capital T to me that truth with

690
00:25:33,529 --> 00:25:32,100
a capital t is the same as the toe

691
00:25:35,690 --> 00:25:33,539
that's a statement then I'll get you to

692
00:25:37,250 --> 00:25:35,700
respond to that and then second is that

693
00:25:40,549 --> 00:25:37,260
there are certain assumptions in

694
00:25:42,409 --> 00:25:40,559
girdle's theorem so for instance that

695
00:25:44,269 --> 00:25:42,419
the laws would have to be based in first

696
00:25:45,769 --> 00:25:44,279
order logic or that the laws are

697
00:25:47,870 --> 00:25:45,779
consistent because consistency is

698
00:25:49,310 --> 00:25:47,880
actually an implicit requirement and

699
00:25:50,810 --> 00:25:49,320
it'd be strange to say that the world is

700
00:25:52,549 --> 00:25:50,820
inconsistent though there are some

701
00:25:54,710 --> 00:25:52,559
people who I'm sure on the more Mystic

702
00:25:56,149 --> 00:25:54,720
end who may say that reality is a

703
00:25:57,769 --> 00:25:56,159
contradiction paradoxes are at the

704
00:25:59,810 --> 00:25:57,779
bottom and the top and there's no bottom

705
00:26:01,310 --> 00:25:59,820
and top but there is

706
00:26:04,130 --> 00:26:01,320
well those are some ways of getting

707
00:26:06,289 --> 00:26:04,140
around it and that's why when I hear

708
00:26:08,149 --> 00:26:06,299
people like myself maybe even two years

709
00:26:11,330 --> 00:26:08,159
ago would say girdles incompleteness

710
00:26:13,610 --> 00:26:11,340
theorem says there is no toe uh that's a

711
00:26:15,049 --> 00:26:13,620
bit dubious to me so I want to hear what

712
00:26:17,269 --> 00:26:15,059
are your responses to that and then John

713
00:26:19,070 --> 00:26:17,279

so please then comment

714
00:26:20,570 --> 00:26:19,080
I like I'd like to hear Donald's

715
00:26:24,350 --> 00:26:20,580
response to that first

716
00:26:26,570 --> 00:26:24,360
right well so I I would say your point

717
00:26:28,370 --> 00:26:26,580
is about taking Kurt the way I would

718
00:26:31,130 --> 00:26:28,380
think about it is to say

719
00:26:32,810 --> 00:26:31,140
the fact that we can't have a theory of

720
00:26:34,490 --> 00:26:32,820
everything doesn't mean that there isn't

721
00:26:38,750 --> 00:26:34,500
a truth out there

722
00:26:41,990 --> 00:26:38,760
a a real a real true reality

723
00:26:44,210 --> 00:26:42,000
and from spiritual traditions we learned

724
00:26:46,490 --> 00:26:44,220
that that perhaps um that's what you are

725
00:26:48,950 --> 00:26:46,500
you're not divorced from that reality

726
00:26:50,990 --> 00:26:48,960
you are that reality and and you can't

727
00:26:53,930 --> 00:26:51,000
know that reality through intellectual

728
00:26:56,269 --> 00:26:53,940
and conceptual knowing but you can know

729
00:26:59,149 --> 00:26:56,279
it firsthand by being that reality and

730
00:27:00,710 --> 00:26:59,159
so and so so there could be this notion

731
00:27:02,870 --> 00:27:00,720
of truth and reality

732
00:27:05,090 --> 00:27:02,880
uh that transcends the notion of a

733
00:27:07,130 --> 00:27:05,100
theory of everything see a theory of

734
00:27:10,370 --> 00:27:07,140
everything starts off with a finite set

735
00:27:13,130 --> 00:27:10,380
of Concepts and and says here's how far

736
00:27:16,730 --> 00:27:13,140
I can go with this set of Concepts

737
00:27:18,830 --> 00:27:16,740
um and so my my argument would be you

738
00:27:20,990 --> 00:27:18,840

know along the lines of girdles kind of

739
00:27:23,269 --> 00:27:21,000
argument that if you start with any

740
00:27:25,730 --> 00:27:23,279
finite axiomatization or any finite set

741
00:27:27,529 --> 00:27:25,740
of Concepts you can come up with an

742
00:27:28,610 --> 00:27:27,539
infinite number of theorems absolutely

743
00:27:30,409 --> 00:27:28,620
you can come up with an infinite number

744
00:27:32,570 --> 00:27:30,419
of theorems but there will be

745
00:27:35,990 --> 00:27:32,580
probability zero compared to all the

746
00:27:37,130 --> 00:27:36,000
truths that that that that that are out

747
00:27:39,590 --> 00:27:37,140
there

748
00:27:41,390 --> 00:27:39,600
um and so that's why I would I mean but

749
00:27:43,250 --> 00:27:41,400
again there's this meta notion that John

750
00:27:47,390 --> 00:27:43,260
was bringing up so I'm I'm here I am

751
00:27:49,130 --> 00:27:47,400
talking about Truth uh using words

752
00:27:51,289 --> 00:27:49,140
um and but but saying the concepts

753
00:27:52,730 --> 00:27:51,299
themselves have very limited meaning the

754
00:27:55,430 --> 00:27:52,740
the only

755
00:27:57,230 --> 00:27:55,440
Escape out of it is for me is is this

756
00:27:58,730 --> 00:27:57,240
issue that

757
00:28:01,070 --> 00:27:58,740
um the spiritual Traditions bring up

758
00:28:02,750 --> 00:28:01,080
which is um

759
00:28:06,590 --> 00:28:02,760
you can't talk about the truth but you

760
00:28:08,210 --> 00:28:06,600
are it your very being is it and and so

761
00:28:10,789 --> 00:28:08,220
when you when you speak that being

762
00:28:12,950 --> 00:28:10,799
itself is projecting down into a finite

763
00:28:14,990 --> 00:28:12,960

set of Concepts to talk with with other

764
00:28:17,090 --> 00:28:15,000
avatars of the being

765
00:28:19,190 --> 00:28:17,100
um but and and so I think that there's a

766
00:28:20,990 --> 00:28:19,200
way not to be self-refuting

767
00:28:24,289 --> 00:28:21,000
um in that but I again I would love to

768
00:28:26,269 --> 00:28:24,299
have John contradict me I I don't know

769
00:28:28,070 --> 00:28:26,279
if I'm going to contradict you or not

770
00:28:31,130 --> 00:28:28,080
um

771
00:28:33,289 --> 00:28:31,140
yeah I I

772
00:28:37,010 --> 00:28:33,299
think the go to argument still has value

773
00:28:38,269 --> 00:28:37,020
with respect to formal systems

774
00:28:39,710 --> 00:28:38,279
um whether or not theories are formal

775
00:28:42,289 --> 00:28:39,720
systems I think it's a genuine

776
00:28:44,330 --> 00:28:42,299
philosophical question

777
00:28:47,269 --> 00:28:44,340
um I think you know we clearly had

778
00:28:48,950 --> 00:28:47,279
theories before there was math and their

779
00:28:50,990 --> 00:28:48,960
bona fide theories Plato has a theory of

780
00:28:52,850 --> 00:28:51,000
the psyche and whether or not you could

781
00:28:55,490 --> 00:28:52,860
call that a formal system

782
00:28:57,230 --> 00:28:55,500
um I think is is questionable

783
00:28:59,870 --> 00:28:57,240
um and yet there was a lot of I would

784
00:29:01,370 --> 00:28:59,880
say there's a lot of Truth in Plato's uh

785
00:29:03,610 --> 00:29:01,380
Theory it turned out to be you know it's

786
00:29:07,070 --> 00:29:03,620
been got quite a bit of empirical

787
00:29:09,010 --> 00:29:07,080
confirmation uh recently so

788
00:29:12,950 --> 00:29:09,020

um so I'm a little bit hesitant about

789
00:29:15,649 --> 00:29:12,960
that but I take your point to be correct

790
00:29:17,390 --> 00:29:15,659
uh Donald in fact I take it very deeply

791
00:29:19,430 --> 00:29:17,400
and I actually think this is a platonic

792
00:29:22,190 --> 00:29:19,440
point and this is something that comes

793
00:29:24,950 --> 00:29:22,200
out in plania's work as well I take one

794
00:29:27,049 --> 00:29:24,960
of the ways in which we determine that

795
00:29:29,570 --> 00:29:27,059
something's real is precisely it it's

796
00:29:32,149 --> 00:29:29,580
inexhaustibleness

797
00:29:33,710 --> 00:29:32,159
um it's but it's not cacophonous and

798
00:29:35,330 --> 00:29:33,720
exhaustibility and this is the thing

799
00:29:38,029 --> 00:29:35,340
this is what I think Plato meant by the

800
00:29:39,830 --> 00:29:38,039
good we get it's in it everything is an

801
00:29:42,350 --> 00:29:39,840
inexhaustible fount of intelligibility

802
00:29:44,269 --> 00:29:42,360
we can learn more and more so I do not

803
00:29:47,570 --> 00:29:44,279
think there is a limited number of

804
00:29:49,730 --> 00:29:47,580
truths about anything I think the number

805
00:29:52,669 --> 00:29:49,740
of true even the number of true

806
00:29:54,110 --> 00:29:52,679
descriptions of this very plain Stone

807
00:29:55,669 --> 00:29:54,120
um is indefinitely large it's

808
00:29:57,370 --> 00:29:55,679
inexhaustible

809
00:29:59,690 --> 00:29:57,380
um Etc and this is what I talk about

810
00:30:03,769 --> 00:29:59,700
multi-spectuality and things like that

811
00:30:05,210 --> 00:30:03,779
so I don't think of

812
00:30:07,370 --> 00:30:05,220
um I don't think I'm disagreeing with

813
00:30:08,990 --> 00:30:07,380

you because I think that being an

814
00:30:11,570 --> 00:30:09,000
inexhaustible fount of intelligibility

815
00:30:16,490 --> 00:30:11,580
is precisely one of the ways in which we

816
00:30:18,470 --> 00:30:16,500
determine that something is real uh and

817
00:30:21,889 --> 00:30:18,480
um and I think that for phenomenological

818
00:30:23,450 --> 00:30:21,899
reasons and for uh for cognitive reasons

819
00:30:24,950 --> 00:30:23,460
I also think

820
00:30:29,029 --> 00:30:24,960
that

821
00:30:32,389 --> 00:30:29,039
um truth is a retrospective notion

822
00:30:34,370 --> 00:30:32,399
um like real it's a comparative notion

823
00:30:35,750 --> 00:30:34,380
um so when I say something's real or

824
00:30:37,850 --> 00:30:35,760
something's an illusion I'm always

825
00:30:40,130 --> 00:30:37,860
making a comparison when I say this is

826
00:30:41,810 --> 00:30:40,140
true what I'm really saying

827
00:30:43,850 --> 00:30:41,820
um is this is more true than that

828
00:30:46,850 --> 00:30:43,860
because here's the limitations that that

829
00:30:49,430 --> 00:30:46,860
have that I can see from here but I'm I

830
00:30:51,049 --> 00:30:49,440
I I I right I'm a fallibalist that

831
00:30:55,190 --> 00:30:51,059
doesn't mean that I then conclude oh

832
00:30:56,750 --> 00:30:55,200
this Theory I can stop here because no

833
00:30:59,810 --> 00:30:56,760
theory has ever done that and there's no

834
00:31:01,730 --> 00:30:59,820
good reason to believe so right I'll

835
00:31:04,250 --> 00:31:01,740
come to I'll have another transformative

836
00:31:06,049 --> 00:31:04,260
moment where I'll say oh but that theory

837
00:31:08,870 --> 00:31:06,059
turns out to be limited because of this

838
00:31:10,970 --> 00:31:08,880

and to what do I point to that the

839
00:31:12,710 --> 00:31:10,980
entire history of science the entire

840
00:31:15,710 --> 00:31:12,720
history of science shows that to be the

841
00:31:17,389 --> 00:31:15,720
case again and again and again and I

842
00:31:19,490 --> 00:31:17,399
think that's the notion I think the

843
00:31:22,789 --> 00:31:19,500
notion of Truth we're using is a

844
00:31:24,889 --> 00:31:22,799
retrospective comparative notion

845
00:31:27,649 --> 00:31:24,899
um I don't think that that means it's an

846
00:31:30,350 --> 00:31:27,659
illusion I think we should give up the

847
00:31:33,649 --> 00:31:30,360
Cartesian notion that truth points to

848
00:31:35,690 --> 00:31:33,659
some complete absolute formalized grasp

849
00:31:37,850 --> 00:31:35,700
of something and that the Criterion of

850
00:31:40,190 --> 00:31:37,860
knowledge is certainty uh and because

851
00:31:42,950 --> 00:31:40,200
we've tried that and it collapses it

852
00:31:44,930 --> 00:31:42,960
certainly doesn't underwrite science uh

853
00:31:46,850 --> 00:31:44,940
because you know it's it's very

854
00:31:48,710 --> 00:31:46,860
plausibly the case that many of our

855
00:31:51,710 --> 00:31:48,720
current best theories will turn out to

856
00:31:53,750 --> 00:31:51,720
be rejected in the future right this is

857
00:31:55,850 --> 00:31:53,760
Lawton's uh you know pessimistic

858
00:31:57,590 --> 00:31:55,860
argument I think it has to be taken very

859
00:32:00,049 --> 00:31:57,600
seriously now the last thing that Donald

860
00:32:01,549 --> 00:32:00,059
said and what I think with him is

861
00:32:03,470 --> 00:32:01,559
convergent with everything I just said

862
00:32:05,210 --> 00:32:03,480
send Shivers up my spine because you

863
00:32:07,430 --> 00:32:05,220

know I've been I've been arguing that

864
00:32:08,990 --> 00:32:07,440
there are kinds of knowing other than

865
00:32:10,789 --> 00:32:09,000
propositional inferential there's

866
00:32:12,649 --> 00:32:10,799
procedural there's perspectival and

867
00:32:15,230 --> 00:32:12,659
there's participatory which is knowing

868
00:32:18,049 --> 00:32:15,240
by being and I agree that many of these

869
00:32:20,149 --> 00:32:18,059
mystical Traditions say you know the the

870
00:32:21,529 --> 00:32:20,159
way to come in most contact with reality

871
00:32:23,630 --> 00:32:21,539
is not through your conceptual

872
00:32:25,490 --> 00:32:23,640
propositional knowing but it's through

873
00:32:27,769 --> 00:32:25,500
your perspectival and all ultimately

874
00:32:29,769 --> 00:32:27,779
your participatory knowing and I agree

875
00:32:34,130 --> 00:32:29,779
that that that

876
00:32:35,630 --> 00:32:34,140
is always the case give me a moment here

877
00:32:38,149 --> 00:32:35,640
what I mean by that is something like

878
00:32:40,070 --> 00:32:38,159
what Marla Ponte or or 40 Cox I would

879
00:32:42,230 --> 00:32:40,080
say right is

880
00:32:44,990 --> 00:32:42,240
even my propositional things are

881
00:32:46,730 --> 00:32:45,000
ultimately dependent on skills my skills

882
00:32:48,669 --> 00:32:46,740
are dependent on perspectives my

883
00:32:51,830 --> 00:32:48,679
perspectives are always dependent on

884
00:32:53,990 --> 00:32:51,840
participatory identity and so the

885
00:32:55,610 --> 00:32:54,000
spiritual Traditions are not they're

886
00:32:58,070 --> 00:32:55,620
just explicating something that is

887
00:33:00,169 --> 00:32:58,080
always the case they're not proposing

888
00:33:03,350 --> 00:33:00,179

something that's over there that only

889
00:33:05,690 --> 00:33:03,360
only the great gifted ones can realize

890
00:33:08,029 --> 00:33:05,700
um I mean that's part of I think what's

891
00:33:09,169 --> 00:33:08,039
a little bit wrong with the way some of

892
00:33:12,529 --> 00:33:09,179
these spiritual Traditions have been

893
00:33:15,590 --> 00:33:12,539
taken up right but I think what the

894
00:33:18,710 --> 00:33:15,600
spiritual Traditions are pointing to is

895
00:33:20,210 --> 00:33:18,720
exactly that fact that that there's a

896
00:33:22,549 --> 00:33:20,220
there's an asymmetric dependence

897
00:33:24,169 --> 00:33:22,559
relation the propositional is dependent

898
00:33:26,090 --> 00:33:24,179
on the procedural the procedural is

899
00:33:27,529 --> 00:33:26,100
dependent on the perspectival and the

900
00:33:31,190 --> 00:33:27,539
perspectival is dependent on the

901
00:33:35,269 --> 00:33:31,200
participatory and so for me I try to

902
00:33:38,389 --> 00:33:35,279
understand realness in terms of what

903
00:33:41,330 --> 00:33:38,399
best integrates those four together

904
00:33:42,950 --> 00:33:41,340
um when we're making claims of about how

905
00:33:45,230 --> 00:33:42,960
things are

906
00:33:47,330 --> 00:33:45,240
well very good very very good

907
00:33:49,310 --> 00:33:47,340
now just a brief note from two sponsors

908
00:33:51,289 --> 00:33:49,320
many of you are more than passive

909
00:33:53,509 --> 00:33:51,299
listeners with variegated interests from

910
00:33:55,310 --> 00:33:53,519
science to engineering to video games to

911
00:33:57,409 --> 00:33:55,320
virtual reality you may even have your

912
00:33:59,090 --> 00:33:57,419
own business or wish to start one well

913
00:34:01,009 --> 00:33:59,100

it's the 21st century where you can

914
00:34:02,330 --> 00:34:01,019
create a website in under an hour and

915
00:34:04,250 --> 00:34:02,340
start selling products to virtually

916
00:34:06,470 --> 00:34:04,260
every country on the planet businesses

917
00:34:09,050 --> 00:34:06,480
like Shopify make that process intuitive

918
00:34:11,869 --> 00:34:09,060
simple and comprehensive with libraries

919
00:34:13,190 --> 00:34:11,879
of tutorials 24 7 support and to be

920
00:34:14,690 --> 00:34:13,200
frank it's one of the most pleasing to

921
00:34:16,550 --> 00:34:14,700
the eye eCommerce sites out there

922
00:34:18,470 --> 00:34:16,560
whether you're into making ebooks or

923
00:34:19,909 --> 00:34:18,480
earrings Shopify has made hundreds of

924
00:34:21,770 --> 00:34:19,919
millions of dollars for entrepreneurs

925
00:34:23,570 --> 00:34:21,780
around the globe starting a business is

926
00:34:25,369 --> 00:34:23,580
a considerably challenging Adventure

927
00:34:27,770 --> 00:34:25,379
that takes you through growth life

928
00:34:29,510 --> 00:34:27,780
lessons and can potentially pay off in a

929
00:34:31,310 --> 00:34:29,520
life-changing manner the emergence of

930
00:34:33,470 --> 00:34:31,320
Shopify as a major player in the

931
00:34:35,210 --> 00:34:33,480
e-commerce space has been remarkable I

932
00:34:37,669 --> 00:34:35,220
invite you to explore Shopify and

933
00:34:41,030 --> 00:34:37,679
welcome them as a sponsor of toe sign up

934
00:34:43,450 --> 00:34:41,040
for a free trial at shopify.com theories

935
00:34:45,589 --> 00:34:43,460
that's all lowercase go to shopify.com

936
00:34:48,950 --> 00:34:45,599
theories to start selling online line

937
00:34:51,109 --> 00:34:48,960
today that's shopify.com theories

938
00:34:52,730 --> 00:34:51,119

as the tow project rolls we get plenty

939
00:34:54,169 --> 00:34:52,740
of sponsors coming and I thought you

940
00:34:56,510 --> 00:34:54,179
know this one is a fascinating company

941
00:34:58,430 --> 00:34:56,520
our new sponsor is Masterworks

942
00:35:00,230 --> 00:34:58,440
Masterworks is the only platform that

943
00:35:03,170 --> 00:35:00,240
allows you to invest in multi-million

944
00:35:04,849 --> 00:35:03,180
dollar works of art by Picasso bansky

945
00:35:06,770 --> 00:35:04,859
and more Masterworks is giving you

946
00:35:07,970 --> 00:35:06,780
access to invest in Fine Art which is

947
00:35:09,950 --> 00:35:07,980
usually only accessible to

948
00:35:12,109 --> 00:35:09,960
multi-millionaires or billionaires the

949
00:35:14,030 --> 00:35:12,119
art that you see hanging in museums can

950
00:35:15,470 --> 00:35:14,040
now be partially owned by you the

951
00:35:17,150 --> 00:35:15,480
inventive part is that you don't need to

952
00:35:18,650 --> 00:35:17,160
know the details of art or investing

953
00:35:20,569 --> 00:35:18,660
Masterworks makes the whole process

954
00:35:22,730 --> 00:35:20,579
straightforward with a clean interface

955
00:35:24,230 --> 00:35:22,740
and exceptional customer service they

956
00:35:25,849 --> 00:35:24,240
are innovating as more traditional

957
00:35:28,430 --> 00:35:25,859
Investments suffer last month we

958
00:35:30,290 --> 00:35:28,440
verified a cell which had a 21.5 percent

959
00:35:31,370 --> 00:35:30,300
return so for instance if you were to

960
00:35:32,870 --> 00:35:31,380
put ten thousand dollars in you would

961
00:35:34,250 --> 00:35:32,880
now have twelve thousand Welcome to our

962
00:35:35,750 --> 00:35:34,260
new sponsor Masterworks and the link to

963
00:35:37,670 --> 00:35:35,760

them is in the description just so you

964
00:35:39,829 --> 00:35:37,680
know there's in fact a wait list to join

965
00:35:41,630 --> 00:35:39,839
their platform right now however total

966
00:35:43,490 --> 00:35:41,640
listeners can skip the wait list by

967
00:35:45,710 --> 00:35:43,500
visiting the link in the description as

968
00:35:47,690 --> 00:35:45,720
well as by using the promo code theories

969
00:35:48,890 --> 00:35:47,700
of everything again the link is in the

970
00:35:50,630 --> 00:35:48,900
description you can see important

971
00:35:53,569 --> 00:35:50,640
regulation A disclosures at

972
00:35:55,490 --> 00:35:53,579
masterworks.com CD

973
00:35:57,109 --> 00:35:55,500
I agree I like the idea that the truth

974
00:36:00,349 --> 00:35:57,119
is related to some kind of inexhaustible

975
00:36:04,130 --> 00:36:00,359
uh Arena that where you can keep

976
00:36:08,030 --> 00:36:06,050
I also in the case of scientific

977
00:36:10,069 --> 00:36:08,040
theories and the relationship to that

978
00:36:11,930 --> 00:36:10,079
notion of Truth

979
00:36:14,210 --> 00:36:11,940
for me what's impressive about a

980
00:36:17,150 --> 00:36:14,220
scientific theory is when it predicts

981
00:36:19,089 --> 00:36:17,160
its own demise uh yes sorry for

982
00:36:22,609 --> 00:36:19,099
interrupting sorry yeah

983
00:36:25,730 --> 00:36:22,619
that that's for for me A scientific

984
00:36:28,190 --> 00:36:25,740
theory is one that that when you really

985
00:36:29,930 --> 00:36:28,200
understand the theory it tells you the

986
00:36:32,990 --> 00:36:29,940
limits of its Concepts and it tells you

987
00:36:36,109 --> 00:36:33,000
where it stops and it tells you that at

988
00:36:39,290 --> 00:36:36,119

this point you will need uh not just a

989
00:36:41,089 --> 00:36:39,300
tweak you will need a new framework

990
00:36:42,710 --> 00:36:41,099
yeah you will need a new set of

991
00:36:45,410 --> 00:36:42,720
foundational Concepts

992
00:36:47,990 --> 00:36:45,420
and but the the nice thing about science

993
00:36:50,630 --> 00:36:48,000
in this regard is that the constraint is

994
00:36:52,250 --> 00:36:50,640
whatever new framework that you if this

995
00:36:54,710 --> 00:36:52,260
current theory is is one that we take

996
00:36:56,690 --> 00:36:54,720
seriously like like Einstein's theory of

997
00:36:59,030 --> 00:36:56,700
gravity or Quantum filtering right and

998
00:37:00,530 --> 00:36:59,040
it tells you its limits or evolution by

999
00:37:03,410 --> 00:37:00,540
natural selection and this theory that

1000
00:37:05,870 --> 00:37:03,420
we say okay right now this is one of the

1001
00:37:08,329 --> 00:37:05,880
best theories Humanity has ever had

1002
00:37:11,270 --> 00:37:08,339
and and we look for its limits

1003
00:37:12,170 --> 00:37:11,280
when we get the new deeper Theory with

1004
00:37:14,329 --> 00:37:12,180
new

1005
00:37:17,270 --> 00:37:14,339
conceptual framework perhaps

1006
00:37:19,609 --> 00:37:17,280
we don't just pick that willy-nilly and

1007
00:37:22,490 --> 00:37:19,619
however we want there is a constraint

1008
00:37:24,349 --> 00:37:22,500
our old theories can't tell us what's

1009
00:37:25,609 --> 00:37:24,359
beyond they can tell us that there's

1010
00:37:28,490 --> 00:37:25,619
something Beyond but they can't tell us

1011
00:37:31,550 --> 00:37:28,500
what is beyond but they can veto our bad

1012
00:37:34,190 --> 00:37:31,560
ideas so what we have to do is build our

1013
00:37:35,569 --> 00:37:34,200

new framework with new Concepts and then

1014
00:37:38,270 --> 00:37:35,579
we need to show

1015
00:37:41,450 --> 00:37:38,280
that there is some kind of projection a

1016
00:37:43,550 --> 00:37:41,460
simplified sub-model of our new more

1017
00:37:44,870 --> 00:37:43,560
General model gives us back evolution by

1018
00:37:46,490 --> 00:37:44,880
natural selection or it gives us back

1019
00:37:48,410 --> 00:37:46,500
Quantum field Theory and space time

1020
00:37:50,930 --> 00:37:48,420
that's that's the constraint if we can't

1021
00:37:52,490 --> 00:37:50,940
do that or when we project it back we

1022
00:37:54,410 --> 00:37:52,500
get something that includes Evolution

1023
00:37:55,609 --> 00:37:54,420
and a little bit more for example it

1024
00:37:57,349 --> 00:37:55,619
could be an augmented theory of

1025
00:37:58,970 --> 00:37:57,359
evolution it doesn't be exactly but it

1026
00:38:01,130 --> 00:37:58,980
better not lose anything that we know

1027
00:38:04,550 --> 00:38:01,140
and love from evolutionary theory or

1028
00:38:06,230 --> 00:38:04,560
better tell us in convincing ways why we

1029
00:38:09,650 --> 00:38:06,240
were mistaken about that aspect of it

1030
00:38:13,069 --> 00:38:09,660
right so so that's the constraint so so

1031
00:38:17,329 --> 00:38:13,079
I I see truth in in

1032
00:38:20,089 --> 00:38:17,339
and the real as uh you know

1033
00:38:22,430 --> 00:38:20,099
you know these absolute things that

1034
00:38:23,930 --> 00:38:22,440
there are Concepts will never they will

1035
00:38:25,490 --> 00:38:23,940
scratch the surface but they will never

1036
00:38:28,370 --> 00:38:25,500
probe the depths

1037
00:38:29,930 --> 00:38:28,380
and what science is and and of course

1038
00:38:31,990 --> 00:38:29,940

even you know

1039
00:38:34,849 --> 00:38:32,000
uh pre-scientific theories like like

1040
00:38:37,010 --> 00:38:34,859
Plato's for example as you mentioned

1041
00:38:41,810 --> 00:38:37,020
what these theories are doing is using

1042
00:38:44,210 --> 00:38:41,820
Concepts to to explore yes truth and and

1043
00:38:45,609 --> 00:38:44,220
there with with science what we get

1044
00:38:47,589 --> 00:38:45,619
that's new

1045
00:38:52,790 --> 00:38:47,599
is

1046
00:38:53,490 --> 00:38:52,800
of the limit of the theory and and what

1047
00:38:54,770 --> 00:38:53,500
a wonderful

1048
00:38:57,589 --> 00:38:54,780
[Music]

1049
00:38:59,990 --> 00:38:57,599
um cure for dogmatism because when your

1050
00:39:01,310 --> 00:39:00,000
own Theory tells you its limits if you

1051
00:39:03,230 --> 00:39:01,320
buy the theory you have to buy the

1052
00:39:04,609 --> 00:39:03,240
limits and so you have to buy that you

1053
00:39:07,730 --> 00:39:04,619
don't have the final answer and that's

1054
00:39:11,630 --> 00:39:07,740
that's really uh so that's the cure for

1055
00:39:14,089 --> 00:39:11,640
dogmatism so so theories that I love a

1056
00:39:17,569 --> 00:39:14,099
theory where the theory itself is humble

1057
00:39:20,089 --> 00:39:17,579
enough to tell you where it stops and

1058
00:39:22,550 --> 00:39:20,099
but but also smart enough to be able to

1059
00:39:25,069 --> 00:39:22,560
veto any bad ideas you have for what's

1060
00:39:31,490 --> 00:39:27,710
on that note where do you both see your

1061
00:39:32,870 --> 00:39:31,500
own theories indicating their limits

1062
00:39:35,270 --> 00:39:32,880
well first of all I want to reply to

1063
00:39:36,890 --> 00:39:35,280

what Donald said because I think he just

1064
00:39:38,510 --> 00:39:36,900
put his finger on something that I've

1065
00:39:40,190 --> 00:39:38,520
been arguing and I think there's a point

1066
00:39:42,170 --> 00:39:40,200
of convergence here

1067
00:39:45,349 --> 00:39:42,180
we put a lot of emphasis on coherence

1068
00:39:47,630 --> 00:39:45,359
and other features for our understanding

1069
00:39:50,510 --> 00:39:47,640
of rationality but I think this capacity

1070
00:39:53,410 --> 00:39:50,520
to do what Donald has just argued which

1071
00:39:55,730 --> 00:39:53,420
is a genuine capacity to afford

1072
00:39:58,310 --> 00:39:55,740
principled self-correction vetoing

1073
00:39:59,990 --> 00:39:58,320
things out and then pointing Beyond

1074
00:40:02,270 --> 00:40:00,000
um I think this is a Hallmark of

1075
00:40:04,849 --> 00:40:02,280
rationality that is not emphasized

1076
00:40:07,250 --> 00:40:04,859
enough and this is but I often tell my

1077
00:40:08,810 --> 00:40:07,260
students even at a heuristic level

1078
00:40:10,310 --> 00:40:08,820
if you want to assess somebody's

1079
00:40:12,109 --> 00:40:10,320
rationality look how much they are

1080
00:40:13,490 --> 00:40:12,119
willing to criticize their own work at

1081
00:40:16,490 --> 00:40:13,500
some point or correct their previous

1082
00:40:17,690 --> 00:40:16,500
work I don't expect it in like in in the

1083
00:40:19,730 --> 00:40:17,700
moment they're talking because that's

1084
00:40:21,530 --> 00:40:19,740
but like can they because can they look

1085
00:40:23,329 --> 00:40:21,540
at something they did a year or two ago

1086
00:40:25,130 --> 00:40:23,339
and go oh here's all the mistakes in

1087
00:40:27,349 --> 00:40:25,140
there right

1088
00:40:29,810 --> 00:40:27,359

um and that I think is really really

1089
00:40:31,310 --> 00:40:29,820
important now

1090
00:40:33,109 --> 00:40:31,320
um

1091
00:40:36,050 --> 00:40:33,119
I I think

1092
00:40:41,150 --> 00:40:38,690
I think what I would say is that and

1093
00:40:43,069 --> 00:40:41,160
then I'll I'll ask you to re-ask your

1094
00:40:45,890 --> 00:40:43,079
question Kurt if if you want to change

1095
00:40:47,510 --> 00:40:45,900
it modify but for me therefore

1096
00:40:50,569 --> 00:40:47,520
um truth is like Notions like

1097
00:40:52,370 --> 00:40:50,579
orientation and navigation

1098
00:40:53,870 --> 00:40:52,380
um you're properly oriented and the

1099
00:40:55,010 --> 00:40:53,880
orientation rules a lot of things out

1100
00:40:56,450 --> 00:40:55,020
we're not going that way we're not going

1101
00:40:58,250 --> 00:40:56,460
that way we're not going that and then

1102
00:41:01,069 --> 00:40:58,260
navigation is constantly telling you how

1103
00:41:02,870 --> 00:41:01,079
you have to adjust and reformulate how

1104
00:41:04,910 --> 00:41:02,880
you're doing and you might find from the

1105
00:41:06,589 --> 00:41:04,920
navigation that you need to reorient

1106
00:41:08,450 --> 00:41:06,599
right that's a pro and that's always a

1107
00:41:10,910 --> 00:41:08,460
possibility but that's not the same as

1108
00:41:12,589 --> 00:41:10,920
wandering around willy-nilly right

1109
00:41:14,329 --> 00:41:12,599
there's a there's a very big difference

1110
00:41:16,310 --> 00:41:14,339
and so that's what I meant when I think

1111
00:41:18,170 --> 00:41:16,320
truth is always retrospective you can

1112
00:41:20,870 --> 00:41:18,180
always look back and say hey look at how

1113
00:41:22,550 --> 00:41:20,880

far we have rely we are closer we we may

1114
00:41:25,130 --> 00:41:22,560
have to change our Direction but we've

1115
00:41:27,230 --> 00:41:25,140
made genuine on you know I'm using the

1116
00:41:30,589 --> 00:41:27,240
spatial metaphor here progress and so

1117
00:41:32,030 --> 00:41:30,599
that's what I think is really crucial

1118
00:41:35,569 --> 00:41:32,040
um I

1119
00:41:36,530 --> 00:41:35,579
this may sound like I I I I'm splitting

1120
00:41:39,349 --> 00:41:36,540
a hair

1121
00:41:42,770 --> 00:41:39,359
but I want to argue that I'm not because

1122
00:41:46,190 --> 00:41:42,780
this notion of Truth as orientational

1123
00:41:49,310 --> 00:41:46,200
and navigational rather than as a

1124
00:41:51,290 --> 00:41:49,320
completed grasp of something I think is

1125
00:41:54,650 --> 00:41:51,300
really really important right now and I

1126
00:41:57,349 --> 00:41:54,660
think we really have to pause and and

1127
00:41:58,970 --> 00:41:57,359
and and for example let me just say one

1128
00:42:01,190 --> 00:41:58,980
thing and then I'll shut up unless you

1129
00:42:03,170 --> 00:42:01,200
let you re-ask your your question but I

1130
00:42:04,609 --> 00:42:03,180
just wanted to pick up on this point

1131
00:42:06,710 --> 00:42:04,619
because Donald was saying something

1132
00:42:07,970 --> 00:42:06,720
about theories and I think it directly

1133
00:42:09,950 --> 00:42:07,980
also corresponds to how we should

1134
00:42:13,310 --> 00:42:09,960
understand rationality

1135
00:42:16,609 --> 00:42:13,320
um and and so

1136
00:42:19,010 --> 00:42:16,619
if what he said is true and I agree it

1137
00:42:20,870 --> 00:42:19,020
is and what I'm saying is true that

1138
00:42:22,670 --> 00:42:20,880

means that there are a lot of and this

1139
00:42:24,770 --> 00:42:22,680
is ties back again to what the spiritual

1140
00:42:26,210 --> 00:42:24,780
Traditions can hold out for us there are

1141
00:42:28,010 --> 00:42:26,220
a lot of truths that are not accessible

1142
00:42:31,670 --> 00:42:28,020
to US unless we're willing to undergo

1143
00:42:35,450 --> 00:42:33,950
right once you give up oh no I can just

1144
00:42:37,849 --> 00:42:35,460
grasp this thing with this Universal

1145
00:42:40,130 --> 00:42:37,859
method leibniz's calculus once you give

1146
00:42:41,770 --> 00:42:40,140
that up and you say no no no there's

1147
00:42:44,950 --> 00:42:41,780
going to be this constantly going on

1148
00:42:46,849 --> 00:42:44,960
that the demand like the the

1149
00:42:49,849 --> 00:42:46,859
presupposition that you can sort of

1150
00:42:52,310 --> 00:42:49,859
Remain epistemically the grammar of your

1151
00:42:54,230 --> 00:42:52,320
uh of your epistemic Machinery can

1152
00:42:58,010 --> 00:42:54,240
remain unaltered in order to get access

1153
00:43:00,349 --> 00:42:58,020
to truth I think that is uh deeply

1154
00:43:02,270 --> 00:43:00,359
challenged if not outright falsified but

1155
00:43:04,250 --> 00:43:02,280
that presupposition of a universal

1156
00:43:06,650 --> 00:43:04,260
method is that does not require personal

1157
00:43:09,349 --> 00:43:06,660
transformation is fundamental to the

1158
00:43:10,730 --> 00:43:09,359
whole Cartesian framework and see I

1159
00:43:13,250 --> 00:43:10,740
think the spiritual Traditions are there

1160
00:43:14,990 --> 00:43:13,260
reminding us that no no no your methods

1161
00:43:16,849 --> 00:43:15,000
can do a lot but there's a lot of truths

1162
00:43:20,030 --> 00:43:16,859
that are only disclosable to you after

1163
00:43:22,130 --> 00:43:20,040

you go through profound self-correction

1164
00:43:24,290 --> 00:43:22,140
which is profound self-transcendence

1165
00:43:25,670 --> 00:43:24,300
which is profound transformation I just

1166
00:43:28,430 --> 00:43:25,680
wanted to make that point very clear

1167
00:43:30,050 --> 00:43:28,440
well I I like your question that's

1168
00:43:31,609 --> 00:43:30,060
pending so we'll I want to get to it

1169
00:43:34,370 --> 00:43:31,619
about the limits of our own theories but

1170
00:43:36,230 --> 00:43:34,380
please but it is transformative so yes

1171
00:43:38,510 --> 00:43:36,240
it's not you can't just be a brainer

1172
00:43:43,550 --> 00:43:38,520
Nevada is the whole person that's that's

1173
00:43:49,370 --> 00:43:46,910
for example letting go of physicalism

1174
00:43:51,950 --> 00:43:49,380
the idea that space-time is doomed for

1175
00:43:54,170 --> 00:43:51,960
example so this is just in the last 20

1176
00:43:56,150 --> 00:43:54,180
30 years physicists are saying space

1177
00:43:57,950 --> 00:43:56,160
time is doomed and that's not a trivial

1178
00:44:01,190 --> 00:43:57,960
thing to say when you say space time is

1179
00:44:04,030 --> 00:44:01,200
doomed what what goes along with that is

1180
00:44:06,710 --> 00:44:04,040
amazing both mathematically

1181
00:44:10,670 --> 00:44:06,720
scientifically but also personally

1182
00:44:15,349 --> 00:44:10,680
and and it hurts because

1183
00:44:19,010 --> 00:44:15,359
most of of us as physicalists then think

1184
00:44:22,069 --> 00:44:19,020
of ourselves as our bodies I am my body

1185
00:44:24,050 --> 00:44:22,079
that's that is what I am and my

1186
00:44:25,970 --> 00:44:24,060
conscious experiences just are for

1187
00:44:27,410 --> 00:44:25,980
example what my brain produces and

1188
00:44:30,530 --> 00:44:27,420

that's what I am

1189
00:44:32,750 --> 00:44:30,540
and that's part of that whole I mean

1190
00:44:34,609 --> 00:44:32,760
that's an implica a clean implication of

1191
00:44:37,370 --> 00:44:34,619
the physicalist framework you are your

1192
00:44:39,109 --> 00:44:37,380
body and when your your brain dissolves

1193
00:44:40,790 --> 00:44:39,119
um whatever Consciousness you may have

1194
00:44:42,890 --> 00:44:40,800
you may think Consciousness is an

1195
00:44:44,809 --> 00:44:42,900
illusion I'm good friends of mine uh for

1196
00:44:47,390 --> 00:44:44,819
example Keith Frankish thinks that the

1197
00:44:50,290 --> 00:44:47,400
Consciousness in delusion or Dan

1198
00:44:52,490 --> 00:44:50,300
so so

1199
00:44:55,970 --> 00:44:52,500
that Consciousness whether it's real or

1200
00:44:58,849 --> 00:44:55,980
illusory is gone when your body dies

1201
00:45:01,670 --> 00:44:58,859
that's a but if you let go of

1202
00:45:04,970 --> 00:45:01,680
physicalism it's not just uh okay I just

1203
00:45:08,750 --> 00:45:04,980
changed a few assumptions no no who I am

1204
00:45:09,770 --> 00:45:08,760
is now up for grabs I was just a body in

1205
00:45:17,089 --> 00:45:09,780
space-time

1206
00:45:20,150 --> 00:45:17,099
what am I so now it's not just this

1207
00:45:22,190 --> 00:45:20,160
intellectual dispassionate it's who I am

1208
00:45:25,190 --> 00:45:22,200
as an individual that's up for grabs and

1209
00:45:27,530 --> 00:45:25,200
so that becomes very emotional too you

1210
00:45:28,790 --> 00:45:27,540
you have people get afraid sometimes

1211
00:45:30,710 --> 00:45:28,800
when I talk about

1212
00:45:33,290 --> 00:45:30,720
we don't see reality as it is and and

1213
00:45:36,829 --> 00:45:33,300

space-time isn't fundamental people

1214
00:45:38,329 --> 00:45:36,839
throw out a a few key counter points and

1215
00:45:41,150 --> 00:45:38,339
when I answer them all of a sudden I see

1216
00:45:42,410 --> 00:45:41,160
fear and and that's this personal aspect

1217
00:45:44,630 --> 00:45:42,420
of this thing this is not just an

1218
00:45:47,150 --> 00:45:44,640
intellectual brain in the math thing it

1219
00:45:50,089 --> 00:45:47,160
becomes very personal and so your whole

1220
00:45:52,550 --> 00:45:50,099
not only intellectual but emotional

1221
00:45:53,510 --> 00:45:52,560
assessment of who I am and all that that

1222
00:45:55,430 --> 00:45:53,520
means

1223
00:45:56,690 --> 00:45:55,440
he is also at stake here so I agree with

1224
00:45:59,270 --> 00:45:56,700
John that that's it's very

1225
00:46:01,550 --> 00:45:59,280
transformative it's not just writing

1226
00:46:03,290 --> 00:46:01,560
theories down and dispassionately

1227
00:46:04,790 --> 00:46:03,300
looking at them

1228
00:46:06,589 --> 00:46:04,800
okay well let's speak about a mental

1229
00:46:09,130 --> 00:46:06,599
health aspect here because when we're

1230
00:46:12,650 --> 00:46:09,140
referring to changing one's identity

1231
00:46:14,690 --> 00:46:12,660
then it sounds like that's all

1232
00:46:16,430 --> 00:46:14,700
some process of Enlightenment and

1233
00:46:18,589 --> 00:46:16,440
salutary if you wrote only to push

1234
00:46:20,990 --> 00:46:18,599
through the fear but then there's also

1235
00:46:23,510 --> 00:46:21,000
psychosis and derealization and

1236
00:46:25,550 --> 00:46:23,520
depersonalization and generally in these

1237
00:46:28,250 --> 00:46:25,560
more spiritual discussions I don't hear

1238
00:46:30,050 --> 00:46:28,260

much about the negative aspects of these

1239
00:46:32,329 --> 00:46:30,060
transformative experiences or of

1240
00:46:34,490 --> 00:46:32,339
contending with ideas I know for myself

1241
00:46:35,870 --> 00:46:34,500
I haven't looked this up but people told

1242
00:46:38,750 --> 00:46:35,880
me it was like a dark night of the Soul

1243
00:46:40,910 --> 00:46:38,760
so I still have to look that up and the

1244
00:46:43,309 --> 00:46:40,920
reason I haven't looked it up is because

1245
00:46:45,170 --> 00:46:43,319
at the time it was too close to me I

1246
00:46:47,630 --> 00:46:45,180
couldn't even look up I was afraid that

1247
00:46:48,950 --> 00:46:47,640
I had every mental illness like I

1248
00:46:50,329 --> 00:46:48,960
thought do I have schizophrenia to have

1249
00:46:51,410 --> 00:46:50,339
I don't even know what that is I still

1250
00:46:53,270 --> 00:46:51,420
don't know what that is so I have to

1251
00:46:55,010 --> 00:46:53,280
talk to psychiatrists and therapists and

1252
00:46:57,170 --> 00:46:55,020
find out and they said no you have

1253
00:46:59,329 --> 00:46:57,180
anxiety like you have extreme anxiety

1254
00:47:01,730 --> 00:46:59,339
you gotta quiet down and also then they

1255
00:47:03,230 --> 00:47:01,740
said hey Kurt in these comments like I

1256
00:47:04,970 --> 00:47:03,240
read the comments and people say that

1257
00:47:06,710 --> 00:47:04,980
what you had was an Awakening experience

1258
00:47:08,510 --> 00:47:06,720
where I felt like everything was in my

1259
00:47:11,270 --> 00:47:08,520
head it was like solipsism and

1260
00:47:13,250 --> 00:47:11,280
frequently my grasp of reality was so

1261
00:47:15,710 --> 00:47:13,260
tenuous and my identification with my

1262
00:47:18,290 --> 00:47:15,720
body was so loose and

1263
00:47:19,790 --> 00:47:18,300

it wasn't pleasant in the least but then

1264
00:47:21,349 --> 00:47:19,800
in the comment section I hear people

1265
00:47:22,609 --> 00:47:21,359
saying and I imagine that they're well

1266
00:47:24,710 --> 00:47:22,619
intentioned they would say like you need

1267
00:47:26,329 --> 00:47:24,720
to push through that the hero encounters

1268
00:47:28,010 --> 00:47:26,339
and the hero doesn't run away and then

1269
00:47:30,290 --> 00:47:28,020
it's making me feel like a coward like

1270
00:47:32,569 --> 00:47:30,300
I'm this person that this Requiem Craven

1271
00:47:34,490 --> 00:47:32,579
gutless and invertebrate so I was

1272
00:47:37,130 --> 00:47:34,500
speaking to a therapist and she said you

1273
00:47:38,450 --> 00:47:37,140
know firstly this idea of the hero that

1274
00:47:40,069 --> 00:47:38,460
encounters that's a bit dangerous

1275
00:47:42,109 --> 00:47:40,079
because it can give you this hero

1276
00:47:44,150 --> 00:47:42,119
complex and secondly you are

1277
00:47:45,950 --> 00:47:44,160
encountering it by coming by voluntarily

1278
00:47:47,930 --> 00:47:45,960
coming to therapy and doing exposure

1279
00:47:50,210 --> 00:47:47,940
therapy so she's like hey read those

1280
00:47:52,069 --> 00:47:50,220
comments read them realize that they're

1281
00:47:54,290 --> 00:47:52,079
just words on a page go closer to them

1282
00:47:56,450 --> 00:47:54,300
like various exercises so I do that and

1283
00:47:58,130 --> 00:47:56,460
like geez Louise like looking at my

1284
00:48:00,890 --> 00:47:58,140
fingers and feeling like I have fingers

1285
00:48:02,690 --> 00:48:00,900
that's salutary for myself for some

1286
00:48:04,370 --> 00:48:02,700
other people they could say that well

1287
00:48:07,370 --> 00:48:04,380
suffering comes from an identification

1288
00:48:09,050 --> 00:48:07,380

with the ego or the body for me all my

1289
00:48:12,230 --> 00:48:09,060
pleasure like every

1290
00:48:14,569 --> 00:48:12,240
the beautifulness of life is finally

1291
00:48:16,910 --> 00:48:14,579
back and it's like back at a more deep

1292
00:48:18,829 --> 00:48:16,920
rich level than it ever was it reminds

1293
00:48:20,270 --> 00:48:18,839
me of this quote about T.S Eliot like

1294
00:48:22,069 --> 00:48:20,280
you come back to the place and you know

1295
00:48:23,809 --> 00:48:22,079
it for the first time I don't feel as if

1296
00:48:25,670 --> 00:48:23,819
I've completely transformed like a note

1297
00:48:26,930 --> 00:48:25,680
for the first time I certainly am seeing

1298
00:48:28,130 --> 00:48:26,940
it differently and experiencing it

1299
00:48:31,370 --> 00:48:28,140
differently maybe that's what he meant

1300
00:48:33,589 --> 00:48:31,380
anyway so the more nefarious aspects of

1301
00:48:35,270 --> 00:48:33,599
the meditation or whatever we think of

1302
00:48:37,130 --> 00:48:35,280
as meditation in the west so our

1303
00:48:38,809 --> 00:48:37,140
misinterpretations of Eastern or just

1304
00:48:41,210 --> 00:48:38,819
adoptions of certain practices without

1305
00:48:43,730 --> 00:48:41,220
the whole Community around it and these

1306
00:48:46,370 --> 00:48:43,740
lessons of Enlightenment and so on they

1307
00:48:48,950 --> 00:48:46,380
can be extremely propitious for many

1308
00:48:50,510 --> 00:48:48,960
people but then also dire for many

1309
00:48:52,010 --> 00:48:50,520
others and I don't hear much of that

1310
00:48:53,510 --> 00:48:52,020
negative aspect and then recently it

1311
00:48:55,730 --> 00:48:53,520
happened upon the work of Anna Let

1312
00:48:57,170 --> 00:48:55,740
kajtis so forgive me Anna if I'm

1313
00:49:00,890 --> 00:48:57,180

mispronouncing your name

1314
00:49:02,390 --> 00:49:00,900
she's a PhD candidate from Sydney and

1315
00:49:04,370 --> 00:49:02,400
her work was brought to me by Shoshanna

1316
00:49:06,530 --> 00:49:04,380
Jones Square who's a professor at the

1317
00:49:09,349 --> 00:49:06,540
University of Bishop if I'm not mistaken

1318
00:49:12,109 --> 00:49:09,359
anyway Anna studies the Dark Side of

1319
00:49:13,490 --> 00:49:12,119
Dharma and so I want to interview her I

1320
00:49:15,829 --> 00:49:13,500
guess an overarching question is what

1321
00:49:19,910 --> 00:49:15,839
terrifies you about your work

1322
00:49:20,990 --> 00:49:19,920
I want to answer that right

1323
00:49:22,370 --> 00:49:21,000
um

1324
00:49:24,770 --> 00:49:22,380
first of all if you look in these

1325
00:49:27,109 --> 00:49:24,780
traditions and when I teach meditation I

1326
00:49:29,630 --> 00:49:27,119
do the same thing they warn about all

1327
00:49:31,609 --> 00:49:29,640
kinds of things that can happen to you

1328
00:49:34,309 --> 00:49:31,619
the it's only when the you get the

1329
00:49:36,530 --> 00:49:34,319
Western importation of these

1330
00:49:38,329 --> 00:49:36,540
um and the and and the commodification

1331
00:49:40,370 --> 00:49:38,339
that says there's a Panacea practice

1332
00:49:43,430 --> 00:49:40,380
there's a single practice you can do

1333
00:49:46,849 --> 00:49:43,440
that will bring you Bliss or something

1334
00:49:48,890 --> 00:49:46,859
and I think this is pernicious

1335
00:49:50,270 --> 00:49:48,900
um I do not think you know from my

1336
00:49:53,329 --> 00:49:50,280
understanding of how cognition works

1337
00:49:55,309 --> 00:49:53,339
that there is anything like a Panacea

1338
00:49:57,470 --> 00:49:55,319

practice and I've had enough Traditions

1339
00:49:59,569 --> 00:49:57,480
with many kinds uh sorry enough

1340
00:50:02,270 --> 00:49:59,579
experience with many Traditions that

1341
00:50:04,550 --> 00:50:02,280
there are stuff that goes really like

1342
00:50:06,530 --> 00:50:04,560
really challenges you in in ways you

1343
00:50:07,970 --> 00:50:06,540
said you can and by the way it's from St

1344
00:50:09,230 --> 00:50:07,980
John of the Cross Dark Knight of the

1345
00:50:10,309 --> 00:50:09,240
Soul

1346
00:50:12,349 --> 00:50:10,319
um right

1347
00:50:15,470 --> 00:50:12,359
um and he wrote it for good reason

1348
00:50:17,450 --> 00:50:15,480
um I think

1349
00:50:19,490 --> 00:50:17,460
what you need

1350
00:50:20,750 --> 00:50:19,500
and I've argued for this elsewhere Kurt

1351
00:50:23,390 --> 00:50:20,760
so I won't repeat all the arguments but

1352
00:50:26,630 --> 00:50:23,400
you need an Ecology of practices that

1353
00:50:30,650 --> 00:50:26,640
sits within a community of people

1354
00:50:33,109 --> 00:50:30,660
so that when the dark happens you

1355
00:50:35,329 --> 00:50:33,119
have people there with you you have

1356
00:50:37,190 --> 00:50:35,339
other practices that can prevent you

1357
00:50:39,430 --> 00:50:37,200
from spinning off that's why you went to

1358
00:50:41,930 --> 00:50:39,440
therapy therapy was a a

1359
00:50:43,609 --> 00:50:41,940
compensatory practice that brought you

1360
00:50:44,990 --> 00:50:43,619
into realignment with the anomalous

1361
00:50:48,770 --> 00:50:45,000
experiences so you were able to

1362
00:50:50,750 --> 00:50:48,780
integrate it so I think uh

1363
00:50:52,309 --> 00:50:50,760

I think we have to be really careful I I

1364
00:50:53,450 --> 00:50:52,319
take the criticism well and by the way

1365
00:50:55,670 --> 00:50:53,460
people have been doing this for a while

1366
00:50:57,410 --> 00:50:55,680
look at the work of Willow Barton she's

1367
00:50:58,970 --> 00:50:57,420
done work on some of the the dark stuff

1368
00:51:01,430 --> 00:50:58,980
that comes out in mindfulness practices

1369
00:51:03,470 --> 00:51:01,440
and one of the things that and and this

1370
00:51:05,809 --> 00:51:03,480
is telling

1371
00:51:07,370 --> 00:51:05,819
so I I was at a conference and she was

1372
00:51:08,809 --> 00:51:07,380
doing this and I hope this does not come

1373
00:51:10,250 --> 00:51:08,819
off as self-promotional because that's

1374
00:51:11,630 --> 00:51:10,260
not the intent

1375
00:51:13,250 --> 00:51:11,640
she was saying this and I put up my hand

1376
00:51:14,690 --> 00:51:13,260
and I say but I always warn my students

1377
00:51:16,430 --> 00:51:14,700
that they're going to get these weird

1378
00:51:17,930 --> 00:51:16,440
things when they're meditating they're

1379
00:51:19,190 --> 00:51:17,940
going to get really cold or really hot

1380
00:51:21,170 --> 00:51:19,200
they're going to feel that they're

1381
00:51:23,390 --> 00:51:21,180
floating or Sinking and they might feel

1382
00:51:25,069 --> 00:51:23,400
disconnect like I warn them about all of

1383
00:51:27,470 --> 00:51:25,079
that and you know and how to incorporate

1384
00:51:29,089 --> 00:51:27,480
it in and then and then she sort of

1385
00:51:32,390 --> 00:51:29,099
looked at me strangely and I said look

1386
00:51:34,970 --> 00:51:32,400
don't most instructors in the west warn

1387
00:51:35,870 --> 00:51:34,980
people about all of this she said no

1388
00:51:37,069 --> 00:51:35,880

they don't

1389
00:51:39,170 --> 00:51:37,079
right

1390
00:51:42,170 --> 00:51:39,180
now that to me is the most empirically

1391
00:51:43,430 --> 00:51:42,180
relevant fact not the Traditions is that

1392
00:51:46,250 --> 00:51:43,440
there's something going on in Western

1393
00:51:49,490 --> 00:51:46,260
culture with its commodification and its

1394
00:51:52,010 --> 00:51:49,500
Comfort zoning that precludes people

1395
00:51:53,870 --> 00:51:52,020
doing this on a regular reliable basis

1396
00:51:56,329 --> 00:51:53,880
when we have clear historical evidence

1397
00:51:59,270 --> 00:51:56,339
that in situ these traditions did this

1398
00:52:01,490 --> 00:51:59,280
on a regular and reliable basis and so

1399
00:52:04,069 --> 00:52:01,500
I'm not saying that there aren't Dark

1400
00:52:06,349 --> 00:52:04,079
Knights of the soul but you don't have

1401
00:52:08,750 --> 00:52:06,359
to be isolated alone feel that you're

1402
00:52:10,849 --> 00:52:08,760
going insane like you you could have an

1403
00:52:14,510 --> 00:52:10,859
Ecology of practices and a community and

1404
00:52:16,970 --> 00:52:14,520
a tradition that allows you to properly

1405
00:52:18,890 --> 00:52:16,980
and I don't say push through because for

1406
00:52:21,230 --> 00:52:18,900
every hero myth there's a hubris myth

1407
00:52:23,049 --> 00:52:21,240
you don't push through this you have to

1408
00:52:26,270 --> 00:52:23,059
you have to listen to other people

1409
00:52:28,309 --> 00:52:26,280
really deeply at that point you had to

1410
00:52:30,109 --> 00:52:28,319
listen to your therapist right that's

1411
00:52:32,450 --> 00:52:30,119
what it's really indicating but this

1412
00:52:34,010 --> 00:52:32,460
individualistic commodified comfort zone

1413
00:52:36,890 --> 00:52:34,020

way in which we've appropriated

1414
00:52:39,710 --> 00:52:36,900
spirituality I think that is where I

1415
00:52:41,990 --> 00:52:39,720
would point the critical finger we like

1416
00:52:43,790 --> 00:52:42,000
by like this is one of the I think this

1417
00:52:45,650 --> 00:52:43,800
is one of the symptoms of the The Mating

1418
00:52:49,010 --> 00:52:45,660
crisis you know 40 of the population

1419
00:52:51,349 --> 00:52:49,020
have these anomalous Visionary mystical

1420
00:52:53,030 --> 00:52:51,359
experiences and they have no they have

1421
00:52:55,130 --> 00:52:53,040
nothing right that allows them to

1422
00:52:58,010 --> 00:52:55,140
incorporate it into their lives

1423
00:52:59,690 --> 00:52:58,020
but that's that's not a generalized

1424
00:53:02,870 --> 00:52:59,700
feature of all human civilization or

1425
00:53:04,250 --> 00:53:02,880
culture that is specific to ours in a

1426
00:53:07,010 --> 00:53:04,260
way I think that really reflects the

1427
00:53:08,750 --> 00:53:07,020
meaning crisis so I think we speak to it

1428
00:53:11,030 --> 00:53:08,760
but I think we speak to it while making

1429
00:53:12,430 --> 00:53:11,040
this criticism that I just made

1430
00:53:16,790 --> 00:53:12,440
yeah

1431
00:53:18,109 --> 00:53:16,800
I I agree and and I uh would just add

1432
00:53:19,970 --> 00:53:18,119
that

1433
00:53:23,690 --> 00:53:19,980
in meditation but you're what you're

1434
00:53:24,470 --> 00:53:23,700
doing is we all have a model of Who We

1435
00:53:27,049 --> 00:53:24,480
Are

1436
00:53:30,049 --> 00:53:27,059
I have my beliefs about what I am

1437
00:53:33,530 --> 00:53:30,059
and most of those beliefs are false

1438
00:53:35,089 --> 00:53:33,540

right so I am my body I I am

1439
00:53:37,190 --> 00:53:35,099
um what's what makes me important is I

1440
00:53:39,829 --> 00:53:37,200
am a professor or I'm an artist or or

1441
00:53:41,329 --> 00:53:39,839
and what my significance comes from how

1442
00:53:43,670 --> 00:53:41,339
many people have seen my work or what

1443
00:53:48,770 --> 00:53:43,680
people are saying about my work so we I

1444
00:53:52,250 --> 00:53:48,780
I identify Who I Am with some

1445
00:53:55,250 --> 00:53:52,260
thing some body some piece of work some

1446
00:53:58,790 --> 00:53:55,260
reputation and so forth and and the

1447
00:54:01,210 --> 00:53:58,800
spiritual practice is I think

1448
00:54:04,130 --> 00:54:01,220
a practice of

1449
00:54:07,730 --> 00:54:04,140
letting you know no that's not what you

1450
00:54:09,890 --> 00:54:07,740
are now that is going to be extremely

1451
00:54:11,690 --> 00:54:09,900
painful because

1452
00:54:14,930 --> 00:54:11,700
effectively

1453
00:54:17,809 --> 00:54:14,940
if I am that thing and I'm having to let

1454
00:54:19,790 --> 00:54:17,819
that go I'm dying and I am I am

1455
00:54:23,870 --> 00:54:19,800
experiencing a death because I thought I

1456
00:54:26,270 --> 00:54:23,880
was that and the spiritual birth comes

1457
00:54:28,010 --> 00:54:26,280
at the price of the death of the old

1458
00:54:30,230 --> 00:54:28,020
thing I thought I was

1459
00:54:32,150 --> 00:54:30,240
and I I believed it very very deeply so

1460
00:54:34,250 --> 00:54:32,160
I'm emotionally attached to that view of

1461
00:54:35,630 --> 00:54:34,260
myself I'm emotionally attached to the

1462
00:54:38,690 --> 00:54:35,640
idea that it's important for me to be

1463
00:54:40,430 --> 00:54:38,700

famous or to be the best musician or to

1464
00:54:43,130 --> 00:54:40,440
whatever my whatever my thing might be

1465
00:54:45,589 --> 00:54:43,140
I'm attached to all those things and the

1466
00:54:47,450 --> 00:54:45,599
fear that I that you experience

1467
00:54:50,569 --> 00:54:47,460
and for me

1468
00:54:54,049 --> 00:54:50,579
um I just expect this on a daily basis I

1469
00:54:58,309 --> 00:54:54,059
expect to experience fear because I'm in

1470
00:55:00,410 --> 00:54:58,319
the process of letting go of deeply held

1471
00:55:02,150 --> 00:55:00,420
um false identifications of who I am

1472
00:55:04,250 --> 00:55:02,160
that have you know and I don't blame

1473
00:55:07,190 --> 00:55:04,260
myself we're born with them and I I was

1474
00:55:09,410 --> 00:55:07,200
trained in them and now it's time to to

1475
00:55:12,829 --> 00:55:09,420
grow up and let them go and so I just

1476
00:55:14,450 --> 00:55:12,839
expect on a daily basis to um to face

1477
00:55:16,970 --> 00:55:14,460
pain and in fact it's when the pain

1478
00:55:18,589 --> 00:55:16,980
comes up that I go okay ah here's here's

1479
00:55:21,410 --> 00:55:18,599
my chance to really grow so I look at

1480
00:55:23,450 --> 00:55:21,420
the pain okay what identification with

1481
00:55:26,030 --> 00:55:23,460
some false belief about who I am do I

1482
00:55:28,069 --> 00:55:26,040
need to face now oh oh I really believe

1483
00:55:30,349 --> 00:55:28,079
that it's really important so someone

1484
00:55:33,109 --> 00:55:30,359
cuts me off on the road I'm driving why

1485
00:55:34,910 --> 00:55:33,119
do I get upset okay so there's all the

1486
00:55:36,829 --> 00:55:34,920
whole okay I believe I'm a separate

1487
00:55:38,930 --> 00:55:36,839
person from that other person

1488
00:55:40,849 --> 00:55:38,940

for example that's one of my first

1489
00:55:42,530 --> 00:55:40,859
beliefs is that true

1490
00:55:43,849 --> 00:55:42,540
or is it true that there's only one of

1491
00:55:45,829 --> 00:55:43,859
us

1492
00:55:48,589 --> 00:55:45,839
so there's all sorts of beliefs that I

1493
00:55:51,049 --> 00:55:48,599
have to to to to to face and in the

1494
00:55:53,030 --> 00:55:51,059
Christian tradition I mean it's you know

1495
00:55:54,470 --> 00:55:53,040
mostly you see this in the East where

1496
00:55:56,270 --> 00:55:54,480
you're doing this kind of thing but but

1497
00:55:58,130 --> 00:55:56,280
I think even Jesus spoke to this when

1498
00:55:59,569 --> 00:55:58,140
when he said if anyone will come after

1499
00:56:00,589 --> 00:55:59,579
me they have to take up their cross

1500
00:56:03,970 --> 00:56:00,599
daily

1501
00:56:06,710 --> 00:56:03,980
um you know and die basically you know

1502
00:56:09,349 --> 00:56:06,720
every day so if and that's what the way

1503
00:56:10,309 --> 00:56:09,359
I view it I'm dying to my old model of

1504
00:56:12,170 --> 00:56:10,319
myself

1505
00:56:14,150 --> 00:56:12,180
and it hurts because I really believed

1506
00:56:16,370 --> 00:56:14,160
it and I'm having to let go of all these

1507
00:56:19,790 --> 00:56:16,380
old beliefs that I that I have had for

1508
00:56:21,410 --> 00:56:19,800
for decades perhaps and so it's they're

1509
00:56:23,750 --> 00:56:21,420
not just intellectual they're limbic

1510
00:56:25,730 --> 00:56:23,760
there's emotions attached to them and so

1511
00:56:28,250 --> 00:56:25,740
it's a very visceral kind of thing and

1512
00:56:30,410 --> 00:56:28,260
so anxiety comes up out of it and so as

1513
00:56:32,809 --> 00:56:30,420

I face them and and really

1514
00:56:35,329 --> 00:56:32,819
face them and and Curt you know being in

1515
00:56:37,730 --> 00:56:35,339
your body is important because that's

1516
00:56:40,670 --> 00:56:37,740
where you so I I get in my body and

1517
00:56:44,030 --> 00:56:40,680
really really feel it don't turn away

1518
00:56:45,349 --> 00:56:44,040
from it and and then often

1519
00:56:47,210 --> 00:56:45,359
um you know

1520
00:56:49,849 --> 00:56:47,220
it doesn't need to be intellectual but

1521
00:56:52,849 --> 00:56:49,859
it just needs to be present but

1522
00:56:55,490 --> 00:56:52,859
eventually I will often see aha there

1523
00:56:57,049 --> 00:56:55,500
was that same old belief and Okay the

1524
00:56:59,210 --> 00:56:57,059
reason I'm in pain is because I believe

1525
00:57:00,890 --> 00:56:59,220
I'm that and that's false and I don't

1526
00:57:03,770 --> 00:57:00,900
want to let go of it it hurts to let go

1527
00:57:05,750 --> 00:57:03,780
of that and it's it's scary because I'm

1528
00:57:07,609 --> 00:57:05,760
going from what I thought I knew into

1529
00:57:09,829 --> 00:57:07,619
something that I don't know so it's also

1530
00:57:11,630 --> 00:57:09,839
the it's the fear of death and the fear

1531
00:57:13,370 --> 00:57:11,640
of the unknown wrapped up into one

1532
00:57:16,190 --> 00:57:13,380
wonderful ball and that's what we have

1533
00:57:20,630 --> 00:57:16,200
to do is to face the fear of the death

1534
00:57:22,069 --> 00:57:20,640
of what we know and the move into the

1535
00:57:24,109 --> 00:57:22,079
unknown

1536
00:57:26,569 --> 00:57:24,119
that we don't know and so there's two

1537
00:57:30,230 --> 00:57:26,579
fears and it's and it really is

1538
00:57:32,210 --> 00:57:30,240

um so I my feeling is that that's not a

1539
00:57:35,089 --> 00:57:32,220
side that's part of the whole practice

1540
00:57:37,309 --> 00:57:35,099
and and you should be told up front that

1541
00:57:39,170 --> 00:57:37,319
that's what it is to grow spiritually

1542
00:57:42,650 --> 00:57:39,180
it's to face that fear of those two

1543
00:57:44,930 --> 00:57:42,660
fears and to face them head on and to

1544
00:57:47,630 --> 00:57:44,940
get help when it's too too painful right

1545
00:57:49,609 --> 00:57:47,640
for most of us it's really helpful to

1546
00:57:52,130 --> 00:57:49,619
have someone else who's maybe let go of

1547
00:57:53,690 --> 00:57:52,140
that particular fear and gone into that

1548
00:57:55,010 --> 00:57:53,700
particular part of the unknown that can

1549
00:57:56,450 --> 00:57:55,020
sort of help us and take us by the hand

1550
00:57:58,609 --> 00:57:56,460
and move us along

1551
00:58:00,829 --> 00:57:58,619
foreign

1552
00:58:02,510 --> 00:58:00,839
it's at this point that I recommend you

1553
00:58:04,970 --> 00:58:02,520
watch the toe podcast with Lily and

1554
00:58:06,829 --> 00:58:04,980
dindo and Carl friston part two for more

1555
00:58:09,349 --> 00:58:06,839
help with dealing with derealization and

1556
00:58:10,970 --> 00:58:09,359
depersonalization that is for help when

1557
00:58:13,010 --> 00:58:10,980
subsumed by the dark side of the

1558
00:58:14,450 --> 00:58:13,020
spiritual journey links in the

1559
00:58:17,569 --> 00:58:14,460
description

1560
00:58:19,309 --> 00:58:17,579
I just also thank you Donald I don't

1561
00:58:21,890 --> 00:58:19,319
have any disagreement with that

1562
00:58:27,790 --> 00:58:21,900
um I uh I just wanted now to go back to

1563
00:58:32,750 --> 00:58:30,650

I'll point to I mean if you go in my

1564
00:58:35,270 --> 00:58:32,760
series I criticized earlier models of

1565
00:58:37,190 --> 00:58:35,280
wisdom that I had published uh if people

1566
00:58:40,549 --> 00:58:37,200
want to see me doing that

1567
00:58:43,309 --> 00:58:40,559
um I recently came when in the summer to

1568
00:58:45,289 --> 00:58:43,319
out of interacting I was at um Maple

1569
00:58:47,990 --> 00:58:45,299
with the respond Retreat and there was

1570
00:58:51,170 --> 00:58:48,000
uh interacting with the Buddhist monks

1571
00:58:52,089 --> 00:58:51,180
there and um and I came to sort of an

1572
00:58:55,490 --> 00:58:52,099
Insight

1573
00:58:57,910 --> 00:58:55,500
uh that made me realize that that there

1574
00:59:00,890 --> 00:58:57,920
was something that was an important

1575
00:59:03,170 --> 00:59:00,900
dimension of my thinking that had been

1576
00:59:04,670 --> 00:59:03,180
wrong or at least incomplete and there's

1577
00:59:07,250 --> 00:59:04,680
Godel again

1578
00:59:09,470 --> 00:59:07,260
um so as you know I'll assume people

1579
00:59:10,609 --> 00:59:09,480
know because they've been here and I

1580
00:59:12,410 --> 00:59:10,619
have this idea about relevance

1581
00:59:15,109 --> 00:59:12,420
realization as a central feature of

1582
00:59:16,250 --> 00:59:15,119
cognition and intelligence and even uh

1583
00:59:17,750 --> 00:59:16,260
Consciousness

1584
00:59:24,770 --> 00:59:17,760
um

1585
00:59:27,530 --> 00:59:24,780
there was a sense in which it was always

1586
00:59:30,770 --> 00:59:27,540
always being presupposed

1587
00:59:33,109 --> 00:59:30,780
uh but I realized

1588
00:59:34,849 --> 00:59:33,119

and

1589
00:59:37,250 --> 00:59:34,859
that

1590
00:59:40,190 --> 00:59:37,260
relevance realization can come to a

1591
00:59:42,230 --> 00:59:40,200
state if that's even the right word at

1592
00:59:44,569 --> 00:59:42,240
least where it realizes its own

1593
00:59:46,609 --> 00:59:44,579
irrelevance

1594
00:59:48,890 --> 00:59:46,619
and we we have to take it that relevance

1595
00:59:50,329 --> 00:59:48,900
realization has some recursive ability

1596
00:59:52,490 --> 00:59:50,339
because that's what we see in an Insight

1597
00:59:54,370 --> 00:59:52,500
we realize that a previous pattern of

1598
00:59:56,930 --> 00:59:54,380
relevance realization is actually wrong

1599
00:59:59,089 --> 00:59:56,940
irrelevant so the recursivity is built

1600
01:00:00,950 --> 00:59:59,099
into relevance realization but it can

1601
01:00:03,230 --> 01:00:00,960
come to realize that that not just this

1602
01:00:05,630 --> 01:00:03,240
or that but that it itself is irrelevant

1603
01:00:09,170 --> 01:00:05,640
and that would be when it is no longer

1604
01:00:11,990 --> 01:00:09,180
trying to work with beings but with

1605
01:00:13,609 --> 01:00:12,000
being itself capital B because then

1606
01:00:15,950 --> 01:00:13,619
relevance realization is actually

1607
01:00:18,530 --> 01:00:15,960
irrelevant because it makes it it right

1608
01:00:20,930 --> 01:00:18,540
because all you do is start to do this

1609
01:00:22,430 --> 01:00:20,940
is like the Dao right you start to

1610
01:00:24,170 --> 01:00:22,440
parse it out and then you get the

1611
01:00:26,210 --> 01:00:24,180
combinatorial explosion that relevance

1612
01:00:28,190 --> 01:00:26,220
realization has to deal with but

1613
01:00:29,930 --> 01:00:28,200

relevance realization can come to a

1614
01:00:33,410 --> 01:00:29,940
moment where it realizes that it's

1615
01:00:35,630 --> 01:00:33,420
irrelevant and fall away and that is

1616
01:00:39,710 --> 01:00:35,640
when you are trying to enter ratio

1617
01:00:42,289 --> 01:00:39,720
religio right relationship with being uh

1618
01:00:44,109 --> 01:00:42,299
with the ground of being per se and I

1619
01:00:47,390 --> 01:00:44,119
and for me

1620
01:00:49,970 --> 01:00:47,400
that was a way

1621
01:00:51,829 --> 01:00:49,980
of taking something that I had been

1622
01:00:53,210 --> 01:00:51,839
experiencing and talking a lot about

1623
01:00:55,250 --> 01:00:53,220
within

1624
01:00:57,650 --> 01:00:55,260
the mindfulness practices which is

1625
01:00:58,730 --> 01:00:57,660
experiences of non-duality and the work

1626
01:01:01,789 --> 01:00:58,740
I've always done on relevance

1627
01:01:04,609 --> 01:01:01,799
realization I couldn't put them together

1628
01:01:07,730 --> 01:01:04,619
um and so I and what I had to do was I

1629
01:01:09,470 --> 01:01:07,740
had to like run like like like uh that

1630
01:01:12,770 --> 01:01:09,480
Donald's just saying is I had to give up

1631
01:01:15,470 --> 01:01:12,780
right a kind of it's always relevance

1632
01:01:18,410 --> 01:01:15,480
realization kind of idea but that

1633
01:01:21,049 --> 01:01:18,420
actually there's a possibility for it to

1634
01:01:24,289 --> 01:01:21,059
functionally find itself irrelevant and

1635
01:01:27,470 --> 01:01:24,299
then opening us up phenomenologically to

1636
01:01:28,789 --> 01:01:27,480
no set of beings but to being or the

1637
01:01:31,430 --> 01:01:28,799
ground to being depending on your

1638
01:01:33,710 --> 01:01:31,440

ontology per se and then the point there

1639
01:01:37,130 --> 01:01:33,720
isn't any cognitive grasp but to be as

1640
01:01:41,030 --> 01:01:37,140
connected with it as you possibly can so

1641
01:01:43,670 --> 01:01:41,040
that's just an example of an important I

1642
01:01:45,109 --> 01:01:43,680
considered that an important correction

1643
01:01:47,569 --> 01:01:45,119
um Terror

1644
01:01:49,190 --> 01:01:47,579
I'm afraid that my work especially the

1645
01:01:50,510 --> 01:01:49,200
stuff I've recently just published a few

1646
01:01:52,789 --> 01:01:50,520
months ago integrating relevance

1647
01:01:57,650 --> 01:01:52,799
realization and predictive processing is

1648
01:02:00,349 --> 01:01:57,660
going to make AI like autonomous AI more

1649
01:02:02,990 --> 01:02:00,359
really more possible

1650
01:02:06,589 --> 01:02:03,000
um and that

1651
01:02:09,890 --> 01:02:06,599
terrifies me uh um

1652
01:02:13,789 --> 01:02:09,900
and and not just sort of egocentric

1653
01:02:17,390 --> 01:02:13,799
Terror like moral Terror like a a a

1654
01:02:18,890 --> 01:02:17,400
sense of of moral responsibility are

1655
01:02:20,750 --> 01:02:18,900
those ever the same

1656
01:02:22,730 --> 01:02:20,760
some people would say that anytime we

1657
01:02:24,770 --> 01:02:22,740
think of morality it comes from a sense

1658
01:02:26,569 --> 01:02:24,780
of ego and that as soon as you dissolve

1659
01:02:29,870 --> 01:02:26,579
the ego you dissolve morality there is

1660
01:02:33,650 --> 01:02:29,880
no good there is no bad so when you say

1661
01:02:37,549 --> 01:02:33,660
that it's not an egocentric manner but a

1662
01:02:40,549 --> 01:02:37,559
moral manner that that I I I I am very

1663
01:02:43,069 --> 01:02:40,559

hesitant to uh say that morality is

1664
01:02:46,309 --> 01:02:43,079
egocentric in in too core are there

1665
01:02:48,170 --> 01:02:46,319
theories of morality that are uh yes but

1666
01:02:51,109 --> 01:02:48,180
uh I think there are theories that are

1667
01:02:52,370 --> 01:02:51,119
antocentric rather than egocentric

1668
01:02:54,770 --> 01:02:52,380
um

1669
01:02:56,750 --> 01:02:54,780
but can we do that later can we because

1670
01:02:59,870 --> 01:02:56,760
I first want to finish this point which

1671
01:03:02,809 --> 01:02:59,880
is which is right

1672
01:03:07,910 --> 01:03:05,150
I'm wrestling with this and the way I'm

1673
01:03:09,109 --> 01:03:07,920
wrestling with it is

1674
01:03:12,589 --> 01:03:09,119
um

1675
01:03:16,549 --> 01:03:12,599
first of all I I

1676
01:03:19,549 --> 01:03:16,559
I'm hoping that the work I'm doing

1677
01:03:21,650 --> 01:03:19,559
especially with a lot of other people to

1678
01:03:25,069 --> 01:03:21,660
integrate these kinds of theoretical

1679
01:03:26,510 --> 01:03:25,079
discoveries with ideas about the Deep

1680
01:03:28,430 --> 01:03:26,520
connections between predictive

1681
01:03:32,030 --> 01:03:28,440
processing relevance realization meaning

1682
01:03:33,890 --> 01:03:32,040
in life wisdom overcoming self-deception

1683
01:03:35,690 --> 01:03:33,900
all the sapiential stuff we've been

1684
01:03:39,289 --> 01:03:35,700
talking about

1685
01:03:41,569 --> 01:03:39,299
I'm hoping that because I've been

1686
01:03:44,569 --> 01:03:41,579
arguing for the connection that those

1687
01:03:47,690 --> 01:03:44,579
two things will stay wedded together

1688
01:03:51,109 --> 01:03:48,770

um

1689
01:03:55,069 --> 01:03:51,119
I don't know if I'm right about that

1690
01:03:58,370 --> 01:03:55,079
I I I I I like sometimes I get like uh

1691
01:04:00,410 --> 01:03:58,380
right I don't know if I'm right about it

1692
01:04:02,450 --> 01:04:00,420
um but right now I can't see I can't go

1693
01:04:05,210 --> 01:04:02,460
back

1694
01:04:06,710 --> 01:04:05,220
um and also I think there's so many

1695
01:04:09,589 --> 01:04:06,720
there was so much value I mean we

1696
01:04:12,410 --> 01:04:09,599
published the paper and we gave what we

1697
01:04:16,130 --> 01:04:12,420
thought was the first explanation of the

1698
01:04:18,890 --> 01:04:16,140
autism psychosis Continuum rather than

1699
01:04:21,770 --> 01:04:18,900
just description to think of the the the

1700
01:04:23,569 --> 01:04:21,780
the the the the the you know the the

1701
01:04:26,870 --> 01:04:23,579
psychotherapeutic and pedagogical

1702
01:04:30,890 --> 01:04:26,880
benefits that could have right so like

1703
01:04:33,049 --> 01:04:31,609
um

1704
01:04:39,470 --> 01:04:33,059
I

1705
01:04:42,470 --> 01:04:39,480
or not my attempts to keep the science

1706
01:04:45,349 --> 01:04:42,480
and the spirituality wedded together

1707
01:04:47,089 --> 01:04:45,359
um uh you know there's no teleology to

1708
01:04:49,370 --> 01:04:47,099
for that to me I could

1709
01:04:50,809 --> 01:04:49,380
me and this whole Community with Sevilla

1710
01:04:52,789 --> 01:04:50,819
Kings calls this little corner of the

1711
01:04:56,329 --> 01:04:52,799
internet we're trying to do that we

1712
01:04:59,089 --> 01:04:56,339
could fail and I think that scares me

1713
01:05:01,430 --> 01:04:59,099

okay so don just to repeat

1714
01:05:04,789 --> 01:05:01,440
the question was about the limitations

1715
01:05:06,410 --> 01:05:04,799
of One's Own theories and then also I

1716
01:05:08,030 --> 01:05:06,420
saw your eyes light up on the mention of

1717
01:05:10,190 --> 01:05:08,040
morality and ego so you can comment on

1718
01:05:13,970 --> 01:05:10,200
that as I decide after it

1719
01:05:17,329 --> 01:05:15,829
I'll talk about my theory in just a

1720
01:05:19,370 --> 01:05:17,339
second but I'll just I'll just mention a

1721
01:05:21,170 --> 01:05:19,380
a classic case which is Einstein's

1722
01:05:23,450 --> 01:05:21,180
general relativity to deal with Quantum

1723
01:05:25,190 --> 01:05:23,460
field Theory right those theories assume

1724
01:05:27,530 --> 01:05:25,200
space time is fundamental in in their

1725
01:05:29,450 --> 01:05:27,540
fundamental concepts right Quantum

1726
01:05:31,430 --> 01:05:29,460
fields are defined over space time

1727
01:05:32,870 --> 01:05:31,440
Einstein's theory of gravity is is the

1728
01:05:34,490 --> 01:05:32,880
theory in which space-time is

1729
01:05:37,730 --> 01:05:34,500
fundamental and its curves are what we

1730
01:05:39,170 --> 01:05:37,740
experience as gravity so so space is the

1731
01:05:41,569 --> 01:05:39,180
fundamental concept that's going on

1732
01:05:45,170 --> 01:05:41,579
there so you might say well how can that

1733
01:05:46,370 --> 01:05:45,180
theory then say or entail that

1734
01:05:49,370 --> 01:05:46,380
space-time is doomed without

1735
01:05:51,049 --> 01:05:49,380
contradicting itself right I mean how do

1736
01:05:53,990 --> 01:05:51,059
we avoid shooting ourselves in the foot

1737
01:05:55,789 --> 01:05:54,000
well that's the glory of science because

1738
01:05:59,210 --> 01:05:55,799

when you put those theories together

1739
01:06:01,549 --> 01:05:59,220
they tell you precisely they say at 10

1740
01:06:04,190 --> 01:06:01,559
to the minus 33 centimeters

1741
01:06:06,650 --> 01:06:04,200
and 10 to the minus 43 seconds this

1742
01:06:09,230 --> 01:06:06,660
Theory stops it no longer makes sense

1743
01:06:12,170 --> 01:06:09,240
there are no operational meanings for

1744
01:06:14,630 --> 01:06:12,180
space and time at those levels so so

1745
01:06:17,089 --> 01:06:14,640
that's the beauty of those theories even

1746
01:06:18,109 --> 01:06:17,099
though Einstein didn't expect that to

1747
01:06:19,789 --> 01:06:18,119
come out

1748
01:06:21,470 --> 01:06:19,799
he didn't even expect black holes to

1749
01:06:23,750 --> 01:06:21,480
come out I mean it's the shortfield

1750
01:06:25,970 --> 01:06:23,760
found that solution to his equations so

1751
01:06:28,010 --> 01:06:25,980
when you take your ideas

1752
01:06:30,410 --> 01:06:28,020
even if you're a genius like Einstein

1753
01:06:32,210 --> 01:06:30,420
and you put them in mathematics you're

1754
01:06:34,069 --> 01:06:32,220
going to have your own Theory come back

1755
01:06:36,049 --> 01:06:34,079
and slap you in the face and tell you

1756
01:06:38,690 --> 01:06:36,059
things that you that you might not like

1757
01:06:40,370 --> 01:06:38,700
Einstein did not like black holes and I

1758
01:06:42,589 --> 01:06:40,380
think that he was unhappy with the idea

1759
01:06:44,150 --> 01:06:42,599
that that space-time ceased to have

1760
01:06:47,029 --> 01:06:44,160
operational meaning at 10 to the minus

1761
01:06:50,029 --> 01:06:47,039
33 centimeters my view is

1762
01:06:52,670 --> 01:06:50,039
that's what we want from a theory I love

1763
01:06:55,250 --> 01:06:52,680

a theory that tells you precisely at

1764
01:06:57,289 --> 01:06:55,260
like a 10 to the minus 33 centimeters I

1765
01:06:59,630 --> 01:06:57,299
stop and you need something new you need

1766
01:07:01,250 --> 01:06:59,640
a new tool so in our theory of conscious

1767
01:07:02,990 --> 01:07:01,260
agents so we have a theory of

1768
01:07:04,609 --> 01:07:03,000
Consciousness it's a mathematically

1769
01:07:07,010 --> 01:07:04,619
precise Theory and those who are

1770
01:07:08,510 --> 01:07:07,020
interested if you just Google objects of

1771
01:07:10,250 --> 01:07:08,520
Consciousness that's the title of our

1772
01:07:11,750 --> 01:07:10,260
paper and my name objects of

1773
01:07:14,150 --> 01:07:11,760
Consciousness in Hoffman you'll find the

1774
01:07:17,809 --> 01:07:14,160
paper it's it's uh it's

1775
01:07:19,430 --> 01:07:17,819
free online so no problem together so

1776
01:07:22,010 --> 01:07:19,440
that's a mathematical Theory Of

1777
01:07:23,450 --> 01:07:22,020
Consciousness it's just an I don't view

1778
01:07:25,730 --> 01:07:23,460
it as the final Theory of Everything as

1779
01:07:27,650 --> 01:07:25,740
I said it's just a next baby step in

1780
01:07:29,510 --> 01:07:27,660
science that's my view of the theory so

1781
01:07:30,950 --> 01:07:29,520
here's our next baby step but it's

1782
01:07:33,289 --> 01:07:30,960
mathematically precise and so the

1783
01:07:35,990 --> 01:07:33,299
question is does it tell me is precise

1784
01:07:37,970 --> 01:07:36,000
limits and it does and that's what one

1785
01:07:40,970 --> 01:07:37,980
thing that I love about the theory so

1786
01:07:43,069 --> 01:07:40,980
one theorem of the theory in this

1787
01:07:44,170 --> 01:07:43,079
current formulation is that anytime you

1788
01:07:46,849 --> 01:07:44,180

have

1789
01:07:49,730 --> 01:07:46,859
multiple agents multiple conscious

1790
01:07:51,829 --> 01:07:49,740
agents that that collection even if

1791
01:07:53,809 --> 01:07:51,839
they're not interacting that collection

1792
01:07:55,970 --> 01:07:53,819
satisfies the definition of a conscious

1793
01:07:57,950 --> 01:07:55,980
agent so it's a conscious agent

1794
01:07:59,630 --> 01:07:57,960
that's just a theorem

1795
01:08:01,670 --> 01:07:59,640
and what that theorem entails ultimately

1796
01:08:03,109 --> 01:08:01,680
is that there is one conscious agent

1797
01:08:05,150 --> 01:08:03,119
because all of the agents that you could

1798
01:08:07,069 --> 01:08:05,160
possibly have or combine and they create

1799
01:08:09,650 --> 01:08:07,079
a single new agent so there is

1800
01:08:10,789 --> 01:08:09,660
ultimately one one agent

1801
01:08:12,890 --> 01:08:10,799
but

1802
01:08:14,029 --> 01:08:12,900
here's the problem here's the limit of

1803
01:08:15,950 --> 01:08:14,039
our Theory

1804
01:08:18,590 --> 01:08:15,960
suppose I start with a countable

1805
01:08:20,269 --> 01:08:18,600
Infinity of conscious agents so agent

1806
01:08:21,590 --> 01:08:20,279
one two three four all the way up to

1807
01:08:24,050 --> 01:08:21,600
Infinity

1808
01:08:26,390 --> 01:08:24,060
well so I have this this countable

1809
01:08:28,010 --> 01:08:26,400
Infinity of Agents a left zero the

1810
01:08:31,309 --> 01:08:28,020
infinity

1811
01:08:34,010 --> 01:08:31,319
but now our theorem says that every

1812
01:08:35,749 --> 01:08:34,020
possible combination of Agents so agent

1813
01:08:37,910 --> 01:08:35,759

one and two one plus two that's an H of

1814
01:08:41,510 --> 01:08:37,920
one plus so it's the power set so

1815
01:08:43,510 --> 01:08:41,520
there's a a power set of new agents

1816
01:08:46,130 --> 01:08:43,520
well we know that the power set has

1817
01:08:46,970 --> 01:08:46,140
cardinality alf1 it's a new bigger

1818
01:08:48,829 --> 01:08:46,980
infinity

1819
01:08:50,749 --> 01:08:48,839
so now let's look at those agents and we

1820
01:08:52,910 --> 01:08:50,759
take all their combinations well that's

1821
01:08:55,669 --> 01:08:52,920
a new power set that's a lift 2.

1822
01:08:57,890 --> 01:08:55,679
so we're gonna have to go to get to a

1823
01:09:00,169 --> 01:08:57,900
description of the one

1824
01:09:01,669 --> 01:09:00,179
ultimate conscious agent that's the and

1825
01:09:03,410 --> 01:09:01,679
it's a theorem of our theory that there

1826
01:09:05,209 --> 01:09:03,420
is one conscious agent

1827
01:09:06,709 --> 01:09:05,219
we're gonna but to get to it to actually

1828
01:09:08,689 --> 01:09:06,719
describe it we're gonna have to climb up

1829
01:09:10,610 --> 01:09:08,699
all of cantor's hierarchy now there's an

1830
01:09:13,189 --> 01:09:10,620
infinite number of steps in Cantrell's

1831
01:09:13,970 --> 01:09:13,199
hierarchy which means we cannot get

1832
01:09:16,490 --> 01:09:13,980
there

1833
01:09:18,289 --> 01:09:16,500
so in 20 000 years if we're still using

1834
01:09:20,809 --> 01:09:18,299
this framework and we've gotten to level

1835
01:09:22,309 --> 01:09:20,819
five billion of cantor's hierarchy it's

1836
01:09:25,189 --> 01:09:22,319
time to break out the champagne we just

1837
01:09:26,809 --> 01:09:25,199
we went through 500 billion levels uh

1838
01:09:28,490 --> 01:09:26,819

you know we're at a lift 500 billion and

1839
01:09:29,209 --> 01:09:28,500
we learned a lot at every level so we

1840
01:09:30,950 --> 01:09:29,219
learned something new about

1841
01:09:32,450 --> 01:09:30,960
Consciousness every time we transcended

1842
01:09:34,610 --> 01:09:32,460
and went to a new level time to break

1843
01:09:36,950 --> 01:09:34,620
out the champagne how much further do we

1844
01:09:40,010 --> 01:09:36,960
have to go Infinity you're not even

1845
01:09:42,349 --> 01:09:40,020
you're not it literally you're not any

1846
01:09:44,749 --> 01:09:42,359
closer than when you started and yet you

1847
01:09:46,970 --> 01:09:44,759
learned a lot and so what I love about

1848
01:09:50,329 --> 01:09:46,980
this theory is it says there is the one

1849
01:09:52,729 --> 01:09:50,339
conscious agent and number two using

1850
01:09:54,770 --> 01:09:52,739
this Theory you'll never be able to

1851
01:09:56,689 --> 01:09:54,780
describe it but number three you'll know

1852
01:09:58,729 --> 01:09:56,699
precisely how far you've gotten and

1853
01:10:00,470 --> 01:09:58,739
precisely how infinitely far you have to

1854
01:10:03,709 --> 01:10:00,480
go at every step of the theory so the

1855
01:10:06,590 --> 01:10:03,719
theory itself predicts its own failure

1856
01:10:09,229 --> 01:10:06,600
to to actually describe an entity that

1857
01:10:11,930 --> 01:10:09,239
it's a theorem exists from the theory so

1858
01:10:13,910 --> 01:10:11,940
that for me that's one thing I love

1859
01:10:16,070 --> 01:10:13,920
about the theory is that it tells me

1860
01:10:18,229 --> 01:10:16,080
immediately how far I've gotten and

1861
01:10:20,030 --> 01:10:18,239
right now we're just at a left zero we

1862
01:10:22,729 --> 01:10:20,040
haven't even gone to lf1 yet

1863
01:10:25,729 --> 01:10:22,739

so we have a long way to go

1864
01:10:27,290 --> 01:10:25,739
John do you have any comments quickly

1865
01:10:29,090 --> 01:10:27,300
yeah

1866
01:10:31,189 --> 01:10:29,100
um

1867
01:10:33,770 --> 01:10:31,199
I wanna I wanna know more about what is

1868
01:10:35,390 --> 01:10:33,780
meant by conscious agents and what is

1869
01:10:39,110 --> 01:10:35,400
meant by

1870
01:10:40,910 --> 01:10:39,120
um the rejection of of space-time uh but

1871
01:10:42,169 --> 01:10:40,920
before I do that

1872
01:10:47,209 --> 01:10:42,179
um

1873
01:10:48,590 --> 01:10:47,219
but they converge I mean these are very

1874
01:10:52,250 --> 01:10:48,600
in that sense convergent with

1875
01:10:54,430 --> 01:10:52,260
neoplatonic arguments that the one lies

1876
01:11:00,470 --> 01:10:54,440
beyond all possible

1877
01:11:01,070 --> 01:11:00,480
conceptualization uh and uh because

1878
01:11:02,750 --> 01:11:01,080
um

1879
01:11:06,350 --> 01:11:02,760
if

1880
01:11:09,709 --> 01:11:06,360
you have to understand it in terms of

1881
01:11:12,470 --> 01:11:09,719
its structure or its cause and therefore

1882
01:11:15,530 --> 01:11:12,480
you haven't actually achieved

1883
01:11:17,750 --> 01:11:15,540
um the the the the the the one because

1884
01:11:19,610 --> 01:11:17,760
you still would then have to get some

1885
01:11:20,930 --> 01:11:19,620
system of intelligibility that explains

1886
01:11:23,330 --> 01:11:20,940
the relationship between the structures

1887
01:11:27,229 --> 01:11:23,340
and the and so you're always you always

1888
01:11:30,590 --> 01:11:27,239

are pointing towards an Ultimate Reality

1889
01:11:33,470 --> 01:11:30,600
um that uh can't

1890
01:11:35,390 --> 01:11:33,480
ever be grasped the source of

1891
01:11:36,649 --> 01:11:35,400
intelligibility the arguments go like

1892
01:11:38,570 --> 01:11:36,659
the source of intelligibility can't

1893
01:11:40,850 --> 01:11:38,580
itself be intelligible

1894
01:11:42,350 --> 01:11:40,860
um and what was interesting is it

1895
01:11:43,550 --> 01:11:42,360
sounded to me Donald and maybe I'm

1896
01:11:44,990 --> 01:11:43,560
getting it wrong it sounded to me like

1897
01:11:48,169 --> 01:11:45,000
you got this sort of fractal wanting

1898
01:11:50,689 --> 01:11:48,179
going all the way up uh which means even

1899
01:11:52,669 --> 01:11:50,699
your notion of the one is in some sense

1900
01:11:54,530 --> 01:11:52,679
inadequate and it points Beyond itself

1901
01:11:56,930 --> 01:11:54,540
and then the whole trajectory of all

1902
01:11:58,970 --> 01:11:56,940
these ones points towards a one that is

1903
01:12:01,070 --> 01:11:58,980
never that is never graspable that's

1904
01:12:03,890 --> 01:12:01,080
what I heard you saying and that that

1905
01:12:04,910 --> 01:12:03,900
sounds like neoplatonism uh through to

1906
01:12:06,770 --> 01:12:04,920
me

1907
01:12:08,090 --> 01:12:06,780
um profoundly the part about the

1908
01:12:10,550 --> 01:12:08,100
conscious agents I want to talk to you

1909
01:12:13,370 --> 01:12:10,560
more about but the structure of sort of

1910
01:12:14,930 --> 01:12:13,380
you know I should do it this way the

1911
01:12:16,370 --> 01:12:14,940
fractal of winning like this or

1912
01:12:17,630 --> 01:12:16,380
something I don't know what what gesture

1913
01:12:20,750 --> 01:12:17,640

to make with my hands which is quite

1914
01:12:25,130 --> 01:12:20,760
adequate but that that is something

1915
01:12:27,410 --> 01:12:25,140
disclosed when you reflect deeply upon

1916
01:12:30,110 --> 01:12:27,420
intelligibility

1917
01:12:31,370 --> 01:12:30,120
um it sounds and by the way Donald I

1918
01:12:32,930 --> 01:12:31,380
hope you know that I mean this is a

1919
01:12:35,810 --> 01:12:32,940
compliment not an insult I consider

1920
01:12:37,910 --> 01:12:35,820
myself a post nominalist neoplatonist so

1921
01:12:40,669 --> 01:12:37,920
hearing what sounds like a very new

1922
01:12:43,130 --> 01:12:40,679
platonic structure to reality

1923
01:12:44,990 --> 01:12:43,140
that really resonated with me now I

1924
01:12:46,490 --> 01:12:45,000
wonder what you would say though

1925
01:12:48,709 --> 01:12:46,500
and maybe this goes to what you mean by

1926
01:12:51,350 --> 01:12:48,719
Consciousness so platinus argues that

1927
01:12:53,149 --> 01:12:51,360
the top thing right Consciousness is he

1928
01:12:55,070 --> 01:12:53,159
takes intentionality to be a feature of

1929
01:12:56,990 --> 01:12:55,080
Consciousness and that therefore

1930
01:12:59,930 --> 01:12:57,000
Consciousness always implies a duality

1931
01:13:02,390 --> 01:12:59,940
and that you need a one beyond that

1932
01:13:05,090 --> 01:13:02,400
Duality to explain

1933
01:13:07,790 --> 01:13:05,100
explain the Duality and that therefore

1934
01:13:09,050 --> 01:13:07,800
you pass beyond Consciousness and

1935
01:13:11,390 --> 01:13:09,060
thought you pass both the

1936
01:13:13,550 --> 01:13:11,400
unconsciousness and and intelligence

1937
01:13:16,610 --> 01:13:13,560
when you get to the when you get to the

1938
01:13:18,410 --> 01:13:16,620

want below it he has you know you

1939
01:13:20,930 --> 01:13:18,420
probably know this the new The Noose

1940
01:13:22,250 --> 01:13:20,940
which is like all of these ones all

1941
01:13:24,350 --> 01:13:22,260
those reforms that and they're they're

1942
01:13:26,570 --> 01:13:24,360
like this they're infinitely mirroring

1943
01:13:28,070 --> 01:13:26,580
each other like indra's net

1944
01:13:29,870 --> 01:13:28,080
um

1945
01:13:32,450 --> 01:13:29,880
so I want to I wonder what you think

1946
01:13:34,130 --> 01:13:32,460
about that kind of argument but I know

1947
01:13:36,950 --> 01:13:34,140
that's an unfair question to just ask

1948
01:13:38,570 --> 01:13:36,960
first because it depends on you know

1949
01:13:40,810 --> 01:13:38,580
what you're meaning by conscious and

1950
01:13:42,950 --> 01:13:40,820
what you're meaning by agent

1951
01:13:45,050 --> 01:13:42,960
right so

1952
01:13:46,130 --> 01:13:45,060
um and by the way I'll describe it but

1953
01:13:47,930 --> 01:13:46,140
of course the paper objects of

1954
01:13:49,990 --> 01:13:47,940
Consciousness has the math all laid out

1955
01:13:52,430 --> 01:13:50,000
in a shirt but

1956
01:13:54,410 --> 01:13:52,440
intuitively right when you're trying to

1957
01:13:57,050 --> 01:13:54,420
boot up a theory you want the the

1958
01:13:59,090 --> 01:13:57,060
smallest set of assumptions that you can

1959
01:14:01,310 --> 01:13:59,100
possibly use that would boot up a

1960
01:14:02,390 --> 01:14:01,320
general theory and there's dozens and

1961
01:14:04,310 --> 01:14:02,400
dozens of things you could think about

1962
01:14:06,649 --> 01:14:04,320
it you want a theory of Consciousness to

1963
01:14:08,390 --> 01:14:06,659

deal with you know the self is there a

1964
01:14:10,729 --> 01:14:08,400
self yeah learning memory problem

1965
01:14:13,370 --> 01:14:10,739
solving intelligence and there's a bunch

1966
01:14:15,290 --> 01:14:13,380
of things equalia possibility of free

1967
01:14:16,850 --> 01:14:15,300
will there's tons and tons of things so

1968
01:14:19,610 --> 01:14:16,860
but we can't throw in the kitchen sink

1969
01:14:22,490 --> 01:14:19,620
so what we do is we try to find the

1970
01:14:25,370 --> 01:14:22,500
minimal aspects of Consciousness that we

1971
01:14:27,050 --> 01:14:25,380
will take as the Miracles as the as the

1972
01:14:29,090 --> 01:14:27,060
fundamental assumptions of our Theory so

1973
01:14:31,490 --> 01:14:29,100
we took two we took that there are

1974
01:14:33,470 --> 01:14:31,500
conscious experiences

1975
01:14:35,630 --> 01:14:33,480
and the conscious experience has

1976
01:14:37,790 --> 01:14:35,640
probabilistically affect the other

1977
01:14:40,610 --> 01:14:37,800
conscious experiences occurring those

1978
01:14:42,110 --> 01:14:40,620
are the and I I just read in the last

1979
01:14:43,910 --> 01:14:42,120
few weeks of looking at the mode of

1980
01:14:46,070 --> 01:14:43,920
allergy it turns out leibniz says the

1981
01:14:47,810 --> 01:14:46,080
same thing he beat us by 300 years by

1982
01:14:48,709 --> 01:14:47,820
saying that those were the two if he was

1983
01:14:49,970 --> 01:14:48,719
going to boot up a theory of

1984
01:14:52,490 --> 01:14:49,980
Consciousness he would use those two

1985
01:14:55,130 --> 01:14:52,500
things the experiences and probabilistic

1986
01:14:58,070 --> 01:14:55,140
relationships among them so so what we

1987
01:15:00,530 --> 01:14:58,080
do is we we take that idea that liveness

1988
01:15:02,149 --> 01:15:00,540

beat me out uh 300 years ago and we

1989
01:15:04,430 --> 01:15:02,159
turned it into mathematics I say a

1990
01:15:06,530 --> 01:15:04,440
conscious agent basically is a

1991
01:15:08,209 --> 01:15:06,540
probability space of possible

1992
01:15:11,209 --> 01:15:08,219
experiences

1993
01:15:12,649 --> 01:15:11,219
so these this it could be an infinite

1994
01:15:14,090 --> 01:15:12,659
probability space so these are all the

1995
01:15:15,649 --> 01:15:14,100
possible experiences of this conscious

1996
01:15:18,350 --> 01:15:15,659
agent so write down the probability

1997
01:15:20,330 --> 01:15:18,360
space and and then I use markovian

1998
01:15:22,729 --> 01:15:20,340
kernels which is a very very general

1999
01:15:26,390 --> 01:15:22,739
formulation of some probabilistic

2000
01:15:28,370 --> 01:15:26,400
relationships so basically we have what

2001
01:15:29,630 --> 01:15:28,380
we call perception decision and action

2002
01:15:31,130 --> 01:15:29,640
kernels but they're all markovian

2003
01:15:32,390 --> 01:15:31,140
kernels and you can take their

2004
01:15:34,010 --> 01:15:32,400
composition and just have one more

2005
01:15:36,950 --> 01:15:34,020
clothing kernel if you want but we have

2006
01:15:39,410 --> 01:15:36,960
then basically a social network of these

2007
01:15:40,970 --> 01:15:39,420
probability spaces so related by

2008
01:15:43,729 --> 01:15:40,980
markovian kernels

2009
01:15:46,790 --> 01:15:43,739
so it's a big Social Network and and

2010
01:15:49,189 --> 01:15:46,800
it's a markovian Dynamics and and so

2011
01:15:50,689 --> 01:15:49,199
when you look at that Dynamics

2012
01:15:52,550 --> 01:15:50,699
um It's You Know It

2013
01:15:54,830 --> 01:15:52,560

that's what we mean by conscious agent

2014
01:15:57,169 --> 01:15:54,840
and it is a theorem of of that that when

2015
01:15:58,729 --> 01:15:57,179
you have two conscious agents

2016
01:15:59,930 --> 01:15:58,739
um you can take just their tensor

2017
01:16:01,970 --> 01:15:59,940
product and you will get a tensor

2018
01:16:03,950 --> 01:16:01,980
product of spaces and kernels and so

2019
01:16:05,750 --> 01:16:03,960
forth and and you get it it satisfies

2020
01:16:07,430 --> 01:16:05,760
the definition of a conscious agent but

2021
01:16:09,709 --> 01:16:07,440
but in terms of

2022
01:16:13,850 --> 01:16:09,719
Consciousness and some a deep thing

2023
01:16:16,070 --> 01:16:13,860
about Consciousness and and experience

2024
01:16:18,830 --> 01:16:16,080
I realized after we wrote it down that I

2025
01:16:22,310 --> 01:16:18,840
was forced by the mathematics to write

2026
01:16:24,169 --> 01:16:22,320
down a probability space on which the

2027
01:16:26,630 --> 01:16:24,179
experiences took place

2028
01:16:28,610 --> 01:16:26,640
so it's just sitting there it's like a

2029
01:16:32,270 --> 01:16:28,620
platonic structure just sitting there

2030
01:16:33,470 --> 01:16:32,280
what does that so I once later looked

2031
01:16:35,450 --> 01:16:33,480
back and said okay well what does that

2032
01:16:38,330 --> 01:16:35,460
mean about Consciousness well that's

2033
01:16:39,830 --> 01:16:38,340
clearly Consciousness prior to

2034
01:16:42,470 --> 01:16:39,840
experience

2035
01:16:44,330 --> 01:16:42,480
so that is that's we're forced to write

2036
01:16:46,669 --> 01:16:44,340
down in our mathematics a structure that

2037
01:16:48,110 --> 01:16:46,679
corresponds to a being without any

2038
01:16:50,990 --> 01:16:48,120

particular experience that is happening

2039
01:16:54,410 --> 01:16:51,000
so there is but then the markovian

2040
01:16:56,570 --> 01:16:54,420
Dynamics is really modeling the play of

2041
01:16:58,910 --> 01:16:56,580
forms of experiences that pop up and

2042
01:17:01,850 --> 01:16:58,920
down on this fundamental

2043
01:17:04,250 --> 01:17:01,860
um being that is timeless and uh

2044
01:17:06,470 --> 01:17:04,260
requires no experience it is the

2045
01:17:09,350 --> 01:17:06,480
field of potential for all experiences

2046
01:17:12,709 --> 01:17:09,360
so I realized later on that that

2047
01:17:14,990 --> 01:17:12,719
mathematics nicely intertwines with

2048
01:17:17,330 --> 01:17:15,000
interpretations that we see from various

2049
01:17:19,669 --> 01:17:17,340
spiritual Traditions but I was I I

2050
01:17:21,229 --> 01:17:19,679
didn't try to to you know model these

2051
01:17:22,790 --> 01:17:21,239
spiritual Traditions I was forced by

2052
01:17:23,990 --> 01:17:22,800
mathematics you can't talk about

2053
01:17:25,669 --> 01:17:24,000
probability until you write down the

2054
01:17:28,669 --> 01:17:25,679
probability space you just can't do it

2055
01:17:31,310 --> 01:17:28,679
and so so you're forced to do this and I

2056
01:17:33,830 --> 01:17:31,320
realized well the natural interpretation

2057
01:17:36,709 --> 01:17:33,840
of that is being prior to experience and

2058
01:17:40,610 --> 01:17:36,719
then markovian Dynamics is the full set

2059
01:17:42,530 --> 01:17:40,620
of experiences and now in the the issue

2060
01:17:44,950 --> 01:17:42,540
about mapping the space-time and space

2061
01:17:48,110 --> 01:17:44,960
time is doomed

2062
01:17:49,610 --> 01:17:48,120
what's going on there

2063
01:17:51,709 --> 01:17:49,620

um now I'm just going to tell you what

2064
01:17:53,990 --> 01:17:51,719
the physicists are saying they will say

2065
01:17:57,110 --> 01:17:54,000
the reason why space time is doomed is

2066
01:17:59,090 --> 01:17:57,120
this if you try to make

2067
01:18:01,250 --> 01:17:59,100
more and more precise measurements it's

2068
01:18:02,689 --> 01:18:01,260
smaller and smaller scales of space like

2069
01:18:04,310 --> 01:18:02,699
the position of this electron or

2070
01:18:07,070 --> 01:18:04,320
whatever it might be

2071
01:18:09,530 --> 01:18:07,080
you need to use radiation say light with

2072
01:18:12,050 --> 01:18:09,540
smaller and smaller wavelengths

2073
01:18:13,729 --> 01:18:12,060
that's fine quantum theory says that as

2074
01:18:14,750 --> 01:18:13,739
you use smaller and smaller wavelengths

2075
01:18:16,250 --> 01:18:14,760
you're going to have more and more

2076
01:18:17,930 --> 01:18:16,260
you're using more and more energy you're

2077
01:18:20,270 --> 01:18:17,940
concentrating energy into a smaller and

2078
01:18:22,970 --> 01:18:20,280
smaller space E equals H Nu is there is

2079
01:18:24,649 --> 01:18:22,980
the formula and that's and in a world

2080
01:18:25,970 --> 01:18:24,659
without gravity that's fine as long as

2081
01:18:27,530 --> 01:18:25,980
you can get more and more energy even

2082
01:18:29,870 --> 01:18:27,540
bigger and bigger Power Station you can

2083
01:18:32,209 --> 01:18:29,880
resolve smaller and smaller and smaller

2084
01:18:33,590 --> 01:18:32,219
things no problem so space space and

2085
01:18:37,070 --> 01:18:33,600
time are fine

2086
01:18:39,350 --> 01:18:37,080
gravity messes everything I was it's the

2087
01:18:41,270 --> 01:18:39,360
you know it crashes the party because

2088
01:18:43,370 --> 01:18:41,280

what happens is Einstein tells us that

2089
01:18:45,110 --> 01:18:43,380
energy and mass are the same thing so

2090
01:18:46,310 --> 01:18:45,120
effectively as you're making finer and

2091
01:18:48,530 --> 01:18:46,320
finer measurements you're you're

2092
01:18:50,030 --> 01:18:48,540
concentrating more and more mass into a

2093
01:18:51,470 --> 01:18:50,040
smaller region so you're getting higher

2094
01:18:53,510 --> 01:18:51,480
mass density

2095
01:18:55,729 --> 01:18:53,520
and then gravity says at some point when

2096
01:18:57,890 --> 01:18:55,739
you get when the mass density reaches a

2097
01:18:59,810 --> 01:18:57,900
certain threshold space-time collapses

2098
01:19:02,450 --> 01:18:59,820
into a black hole and the Very object

2099
01:19:04,790 --> 01:19:02,460
that you're trying to measure disappears

2100
01:19:07,610 --> 01:19:04,800
and that happens at 10 to the minus 33

2101
01:19:09,050 --> 01:19:07,620
centimeters and been 10 to the minus 43

2102
01:19:10,490 --> 01:19:09,060
seconds which is the amount of time it

2103
01:19:13,510 --> 01:19:10,500
takes to move 10 to the minus 33

2104
01:19:15,890 --> 01:19:13,520
centimeters and so so what happened and

2105
01:19:18,290 --> 01:19:15,900
so it and it's not like that there are

2106
01:19:20,450 --> 01:19:18,300
pixels of space time so a wrong concept

2107
01:19:21,830 --> 01:19:20,460
is always say oh well space time is

2108
01:19:24,350 --> 01:19:21,840
still fundamental but there are pixels

2109
01:19:27,169 --> 01:19:24,360
at that that level no no it means that

2110
01:19:29,630 --> 01:19:27,179
space time ceases to be coherent it has

2111
01:19:32,870 --> 01:19:29,640
no operational meaning at that level so

2112
01:19:35,510 --> 01:19:32,880
it just it's gone it's it's doomed

2113
01:19:37,370 --> 01:19:35,520

and another argument that the physicists

2114
01:19:38,810 --> 01:19:37,380
will give that's even deeper than the

2115
01:19:40,729 --> 01:19:38,820
one I just gave is to say that in

2116
01:19:43,310 --> 01:19:40,739
quantum theory the measuring device

2117
01:19:45,290 --> 01:19:43,320
itself is a physical device therefore

2118
01:19:47,090 --> 01:19:45,300
it's subject to Quantum uncertainty yeah

2119
01:19:48,530 --> 01:19:47,100
yes yes to get more and more precise

2120
01:19:49,790 --> 01:19:48,540
measurements you need to add more and

2121
01:19:51,709 --> 01:19:49,800
more degrees of freedom to the device

2122
01:19:53,990 --> 01:19:51,719
which means it's getting more and more

2123
01:19:55,430 --> 01:19:54,000
massive yeah if you're in the lab it's

2124
01:19:57,050 --> 01:19:55,440
you know you've got this device in your

2125
01:19:58,310 --> 01:19:57,060
lab at some point it's going to be you

2126
01:20:00,410 --> 01:19:58,320
know as you get more and more precise

2127
01:20:01,910 --> 01:20:00,420
the whole the mass is going to be so

2128
01:20:04,189 --> 01:20:01,920
great that the whole Lab collapses into

2129
01:20:07,010 --> 01:20:04,199
a black hole and again you destroy the

2130
01:20:09,950 --> 01:20:07,020
experiment so so there's no operational

2131
01:20:13,310 --> 01:20:09,960
meaning to space time and when the

2132
01:20:16,790 --> 01:20:14,990
space time has been good it's been

2133
01:20:18,470 --> 01:20:16,800
really a great framework for centuries

2134
01:20:20,270 --> 01:20:18,480
or you know space end time and then in

2135
01:20:22,310 --> 01:20:20,280
the last century space time but it's

2136
01:20:23,870 --> 01:20:22,320
time to find something new and there the

2137
01:20:25,729 --> 01:20:23,880
young physicists are moving beyond and

2138
01:20:28,669 --> 01:20:25,739

they found these new structures the

2139
01:20:31,250 --> 01:20:28,679
amplitohedron and then also the uh

2140
01:20:32,990 --> 01:20:31,260
decorated permutations

2141
01:20:34,610 --> 01:20:33,000
and these structures

2142
01:20:36,169 --> 01:20:34,620
um are Beyond space-time and they're

2143
01:20:37,490 --> 01:20:36,179
beyond quantum theory

2144
01:20:39,890 --> 01:20:37,500
and when I say they're beyond quantum

2145
01:20:41,030 --> 01:20:39,900
theory the amplitohedron has no Hilbert

2146
01:20:43,610 --> 01:20:41,040
spaces

2147
01:20:46,729 --> 01:20:43,620
but it's phase structure

2148
01:20:48,350 --> 01:20:46,739
encodes both locality and unitarity the

2149
01:20:50,630 --> 01:20:48,360
properties of space-time and quantum

2150
01:20:52,550 --> 01:20:50,640
theory so so this is a structure that

2151
01:20:55,610 --> 01:20:52,560
could have trillions or more Dimensions

2152
01:20:57,890 --> 01:20:55,620
Not Just 4 or 11 it has trillions of

2153
01:21:00,110 --> 01:20:57,900
dimensions and it doesn't care about

2154
01:21:01,430 --> 01:21:00,120
space it doesn't care about time it

2155
01:21:03,229 --> 01:21:01,440
doesn't care about Quantum Theory it

2156
01:21:07,550 --> 01:21:03,239
couldn't care less about them

2157
01:21:09,530 --> 01:21:07,560
but its volumes actually are

2158
01:21:11,870 --> 01:21:09,540
the scattering amplitudes if you want

2159
01:21:13,490 --> 01:21:11,880
the two blue ones in four gluons out the

2160
01:21:15,830 --> 01:21:13,500
the amplitude Heaton Associated to it

2161
01:21:19,250 --> 01:21:15,840
its volume is the scattering amplitude

2162
01:21:21,169 --> 01:21:19,260
and a space structure encodes locality

2163
01:21:22,729 --> 01:21:21,179

and unitarity

2164
01:21:24,890 --> 01:21:22,739
and so

2165
01:21:26,870 --> 01:21:24,900
so this is this is a structure Beyond

2166
01:21:28,729 --> 01:21:26,880
space-time and and here's the beautiful

2167
01:21:30,950 --> 01:21:28,739
thing

2168
01:21:32,810 --> 01:21:30,960
when you try to compute these scattering

2169
01:21:34,370 --> 01:21:32,820
amplitudes like two glons hitting each

2170
01:21:36,350 --> 01:21:34,380
other four glue ones go spring out if

2171
01:21:38,570 --> 01:21:36,360
you do it in space time

2172
01:21:41,870 --> 01:21:38,580
um well to do it in space time you have

2173
01:21:43,790 --> 01:21:41,880
to enforce things the properties of

2174
01:21:46,189 --> 01:21:43,800
space and time things you know have

2175
01:21:47,870 --> 01:21:46,199
locality and unitarity and so we have to

2176
01:21:49,250 --> 01:21:47,880
you know use what are called Feynman

2177
01:21:51,770 --> 01:21:49,260
diagrams to talk about all these virtual

2178
01:21:54,410 --> 01:21:51,780
particles that that we need in in

2179
01:21:56,330 --> 01:21:54,420
space-time to actually do this math it

2180
01:21:59,810 --> 01:21:56,340
turns out two gluons to four gluons

2181
01:22:02,330 --> 01:21:59,820
hundreds of pages of algebra hundreds of

2182
01:22:05,270 --> 01:22:02,340
thousands maybe millions of terms

2183
01:22:06,830 --> 01:22:05,280
to do one event just one event when you

2184
01:22:08,330 --> 01:22:06,840
go outside of space-time with the

2185
01:22:11,390 --> 01:22:08,340
amplitudehedron

2186
01:22:13,729 --> 01:22:11,400
that computation reduces to

2187
01:22:15,770 --> 01:22:13,739
three terms that you can compute by hand

2188
01:22:17,570 --> 01:22:15,780

so hundreds of pages reduced to three

2189
01:22:19,910 --> 01:22:17,580
terms so

2190
01:22:22,189 --> 01:22:19,920
and then all of a sudden the physicists

2191
01:22:23,810 --> 01:22:22,199
say by the way we also when we let go of

2192
01:22:25,850 --> 01:22:23,820
space-time we see these new symmetries

2193
01:22:27,830 --> 01:22:25,860
like something called the infinite

2194
01:22:29,570 --> 01:22:27,840
yanging and Symmetry and the infinite

2195
01:22:31,490 --> 01:22:29,580
yangian symmetry is true of the

2196
01:22:35,090 --> 01:22:31,500
scattering data and you cannot see it in

2197
01:22:37,189 --> 01:22:35,100
space time so space time is doomed

2198
01:22:39,310 --> 01:22:37,199
space-time forces you to do all this

2199
01:22:41,510 --> 01:22:39,320
nasty nasty computation that's that's

2200
01:22:43,910 --> 01:22:41,520
unnecessary the computations are

2201
01:22:45,410 --> 01:22:43,920
actually simple and it hides the

2202
01:22:47,570 --> 01:22:45,420
symmetries that are really true of the

2203
01:22:50,810 --> 01:22:47,580
data so so space time has three strikes

2204
01:22:53,870 --> 01:22:50,820
against it it proves its own uh

2205
01:22:56,209 --> 01:22:53,880
you know limits it it makes the math

2206
01:22:58,070 --> 01:22:56,219
unnecessarily complicated and it hides

2207
01:22:59,209 --> 01:22:58,080
the genuine symmetries that are there so

2208
01:23:00,770 --> 01:22:59,219
that's why

2209
01:23:02,510 --> 01:23:00,780
um the physicists are moving with both

2210
01:23:04,250 --> 01:23:02,520
feet Beyond space-time and they're

2211
01:23:07,130 --> 01:23:04,260
finding this wonderful stuff and and

2212
01:23:08,930 --> 01:23:07,140
that's why I as a as a you know a

2213
01:23:10,130 --> 01:23:08,940

theorist trying to get a theory of

2214
01:23:12,890 --> 01:23:10,140
consciousness

2215
01:23:14,270 --> 01:23:12,900
that can lead to testable results which

2216
01:23:16,010 --> 01:23:14,280
are only in space time right the only

2217
01:23:18,169 --> 01:23:16,020
place where we can get measurable

2218
01:23:20,930 --> 01:23:18,179
experiments is in space-time that's

2219
01:23:23,709 --> 01:23:20,940
where we get our measurements so

2220
01:23:26,090 --> 01:23:23,719
it's no longer

2221
01:23:28,010 --> 01:23:26,100
that I want a theory of Consciousness

2222
01:23:29,870 --> 01:23:28,020
that somehow you know emerging from

2223
01:23:31,610 --> 01:23:29,880
things in space-time like brains and so

2224
01:23:33,410 --> 01:23:31,620
forth that I mean space time is doomed

2225
01:23:35,390 --> 01:23:33,420
so that whole

2226
01:23:37,130 --> 01:23:35,400
that can't work so booting up

2227
01:23:39,350 --> 01:23:37,140
Consciousness from stuff inside

2228
01:23:40,910 --> 01:23:39,360
space-time the physicists are telling us

2229
01:23:42,770 --> 01:23:40,920
that will not work so I'm not going to

2230
01:23:46,250 --> 01:23:42,780
try to do that Consciousness is beyond

2231
01:23:48,530 --> 01:23:46,260
space time and they've given us this

2232
01:23:50,330 --> 01:23:48,540
the interface that we have to plug into

2233
01:23:52,550 --> 01:23:50,340
they've said we've gone beyond

2234
01:23:55,850 --> 01:23:52,560
space-time and the deepest thing we

2235
01:23:58,310 --> 01:23:55,860
found is a decorated permutation and so

2236
01:24:00,110 --> 01:23:58,320
a few months ago I was sitting there and

2237
01:24:01,550 --> 01:24:00,120
saying okay that's what the physicists

2238
01:24:03,950 --> 01:24:01,560

want they want to decorate a permutation

2239
01:24:05,510 --> 01:24:03,960
if I give them a decorated permutation

2240
01:24:07,250 --> 01:24:05,520
they can actually take me all the way

2241
01:24:08,990 --> 01:24:07,260
into space-time and give me a scattering

2242
01:24:10,430 --> 01:24:09,000
amplitude something I can test something

2243
01:24:13,370 --> 01:24:10,440
that you see at the Large Hadron

2244
01:24:15,169 --> 01:24:13,380
Collider so can I get from my markovian

2245
01:24:17,030 --> 01:24:15,179
dynamics of conscious agents to a

2246
01:24:18,950 --> 01:24:17,040
decorated permutation

2247
01:24:21,410 --> 01:24:18,960
and I looked online just to say well

2248
01:24:24,169 --> 01:24:21,420
surely the mathematicians have done this

2249
01:24:26,750 --> 01:24:24,179
you know for any markovian kernel what's

2250
01:24:29,270 --> 01:24:26,760
the decorated permutation now look and

2251
01:24:32,030 --> 01:24:29,280
there there's there wasn't anything

2252
01:24:34,910 --> 01:24:32,040
and so I work with my my mathematician

2253
01:24:38,450 --> 01:24:34,920
Penelope chaitan and uh didn't take us

2254
01:24:40,669 --> 01:24:38,460
very long we we so it's a new piece of

2255
01:24:43,189 --> 01:24:40,679
mathematics we now have a canonical way

2256
01:24:45,410 --> 01:24:43,199
of assigning every markovian kernel a

2257
01:24:47,270 --> 01:24:45,420
decorated permutation also any arbitrary

2258
01:24:48,890 --> 01:24:47,280
graph we can assign arbitrary graphs

2259
01:24:51,110 --> 01:24:48,900
decorated permutations

2260
01:24:52,610 --> 01:24:51,120
and what this does is it now the

2261
01:24:54,169 --> 01:24:52,620
physicists have pushed Beyond space-time

2262
01:24:56,270 --> 01:24:54,179
to decorative permutations but it's just

2263
01:24:59,090 --> 01:24:56,280

a platonic solid sitting there it's it's

2264
01:25:01,970 --> 01:24:59,100
motionless it's just sitting there

2265
01:25:04,430 --> 01:25:01,980
we now offer a Dynamics a markovian

2266
01:25:07,130 --> 01:25:04,440
dynamics that projects

2267
01:25:10,370 --> 01:25:07,140
so the Dynamics is much more complicated

2268
01:25:14,510 --> 01:25:10,380
so if we have for example

2269
01:25:18,590 --> 01:25:17,090
the structure that we get the markovian

2270
01:25:22,070 --> 01:25:18,600
structure we get is a Markov polytope

2271
01:25:23,870 --> 01:25:22,080
with 50 to the 50th power

2272
01:25:26,090 --> 01:25:23,880
uh there's probably more than the number

2273
01:25:28,250 --> 01:25:26,100
of atoms in the universe that's the

2274
01:25:31,010 --> 01:25:28,260
number of vertices in this polytope

2275
01:25:32,990 --> 01:25:31,020
that's describing just 50 conscious

2276
01:25:35,149 --> 01:25:33,000
agents interacting so this is an

2277
01:25:37,130 --> 01:25:35,159
incredibly complicated structure very

2278
01:25:39,130 --> 01:25:37,140
very rich dynamical structure

2279
01:25:41,990 --> 01:25:39,140
that projects down that that that

2280
01:25:45,850 --> 01:25:42,000
structure which has you know more

2281
01:25:47,870 --> 01:25:45,860
vertices than all the atoms in the the

2282
01:25:50,570 --> 01:25:47,880
measurable universe

2283
01:25:54,229 --> 01:25:50,580
projects down into a decorated

2284
01:25:56,390 --> 01:25:54,239
permutation which is only 50 numbers

2285
01:25:57,890 --> 01:25:56,400
and that then gives rise to the

2286
01:25:59,750 --> 01:25:57,900
scattering so you can see that the the

2287
01:26:02,090 --> 01:25:59,760
conscious thing is really complicated

2288
01:26:03,950 --> 01:26:02,100

it's a really complicated Dynamics we're

2289
01:26:06,169 --> 01:26:03,960
collapsing it down to something trivial

2290
01:26:07,970 --> 01:26:06,179
when we get to decorated permutations

2291
01:26:09,350 --> 01:26:07,980
and then even more trivial when we get

2292
01:26:11,810 --> 01:26:09,360
into space-time

2293
01:26:13,070 --> 01:26:11,820
so so Consciousness is fundamental but

2294
01:26:15,050 --> 01:26:13,080
we have this map all the way from

2295
01:26:17,810 --> 01:26:15,060
Consciousness into space-time and so now

2296
01:26:19,669 --> 01:26:17,820
so we're submitting a paper this week so

2297
01:26:21,709 --> 01:26:19,679
the we finished writing the paper on

2298
01:26:24,229 --> 01:26:21,719
this which is why I'm pretty excited

2299
01:26:26,629 --> 01:26:24,239
about it we'll submit it um probably by

2300
01:26:30,590 --> 01:26:26,639
you know just before Thanksgiving um you

2301
01:26:32,090 --> 01:26:30,600
know Wednesday but we're now we have

2302
01:26:33,890 --> 01:26:32,100
this pontoon Bridge from Consciousness

2303
01:26:35,750 --> 01:26:33,900
into space-time and now what we're doing

2304
01:26:37,610 --> 01:26:35,760
is trying to do you know move all the

2305
01:26:40,450 --> 01:26:37,620
heavy equipment across so what what is

2306
01:26:43,129 --> 01:26:40,460
you know what

2307
01:26:46,250 --> 01:26:43,139
what aspect of consultation Dynamics

2308
01:26:48,950 --> 01:26:46,260
corresponds to energy and momentum or to

2309
01:26:51,709 --> 01:26:48,960
wavelengths or to spin or to helicity

2310
01:26:53,030 --> 01:26:51,719
and and so forth we we in our paper we

2311
01:26:54,830 --> 01:26:53,040
start to propose

2312
01:26:57,050 --> 01:26:54,840
specific

2313
01:26:59,030 --> 01:26:57,060

um correspondences between features of

2314
01:27:00,950 --> 01:26:59,040
Consciousness and its Dynamics in in our

2315
01:27:02,390 --> 01:27:00,960
in our model and specific things that

2316
01:27:04,490 --> 01:27:02,400
you can measure in space-time because my

2317
01:27:05,870 --> 01:27:04,500
goal is to show that you know the space

2318
01:27:07,610 --> 01:27:05,880
time is doomed yes

2319
01:27:09,770 --> 01:27:07,620
um but there's this dynamics of

2320
01:27:11,990 --> 01:27:09,780
Consciousness Beyond space-time and we

2321
01:27:14,149 --> 01:27:12,000
can actually predict specific scattering

2322
01:27:16,669 --> 01:27:14,159
amplitudes and actually show you where

2323
01:27:20,209 --> 01:27:16,679
spin momentum that helicity and all

2324
01:27:22,669 --> 01:27:20,219
these variables come from and and

2325
01:27:24,950 --> 01:27:22,679
I think we can even explain why

2326
01:27:26,570 --> 01:27:24,960
supersymmetry is false I think that in

2327
01:27:27,590 --> 01:27:26,580
our dynamical model we can actually show

2328
01:27:30,229 --> 01:27:27,600
why

2329
01:27:31,010 --> 01:27:30,239
um you know for certain models you

2330
01:27:32,590 --> 01:27:31,020
um

2331
01:27:34,550 --> 01:27:32,600
something called n equals four

2332
01:27:36,110 --> 01:27:34,560
supersymmetric theories

2333
01:27:38,390 --> 01:27:36,120
um the

2334
01:27:40,910 --> 01:27:38,400
decorated permutation gives you

2335
01:27:42,770 --> 01:27:40,920
everything there is to say about the

2336
01:27:44,570 --> 01:27:42,780
scattering amplitude everything

2337
01:27:47,030 --> 01:27:44,580
but if you don't have supersymmetry you

2338
01:27:49,370 --> 01:27:47,040

have to bring in spin and mass for

2339
01:27:51,470 --> 01:27:49,380
example and we can explain from our

2340
01:27:52,970 --> 01:27:51,480
dynamics of conscious agents why that is

2341
01:27:54,649 --> 01:27:52,980
the case that it turns out that the

2342
01:27:56,750 --> 01:27:54,659
different versions of spin are

2343
01:27:58,550 --> 01:27:56,760
asymmetric and you can't see it using

2344
01:27:59,870 --> 01:27:58,560
the standard physics models but when you

2345
01:28:02,330 --> 01:27:59,880
go through the markovian model you

2346
01:28:05,090 --> 01:28:02,340
actually see that spin the various kinds

2347
01:28:06,890 --> 01:28:05,100
of spins have subtle differences so that

2348
01:28:09,169 --> 01:28:06,900
they're not perfectly symmetric and that

2349
01:28:11,090 --> 01:28:09,179
then blows out supersymmetry so so we're

2350
01:28:13,430 --> 01:28:11,100
hoping not just to

2351
01:28:15,950 --> 01:28:13,440
um model what the physicists already

2352
01:28:19,189 --> 01:28:15,960
know but but to have the model actually

2353
01:28:22,070 --> 01:28:19,199
ex you know go go well beyond right

2354
01:28:24,590 --> 01:28:22,080
these these Markov polytopes have a

2355
01:28:26,629 --> 01:28:24,600
richness of structure and in our paper

2356
01:28:30,350 --> 01:28:26,639
we're only going to go after M3 the

2357
01:28:32,629 --> 01:28:30,360
three agent interaction which has 27 so

2358
01:28:35,450 --> 01:28:32,639
it's and it turned out my my colleague

2359
01:28:37,910 --> 01:28:35,460
caitan who's the mathematician

2360
01:28:39,229 --> 01:28:37,920
um worked very very hard as a beautiful

2361
01:28:40,910 --> 01:28:39,239
beautiful structure very very

2362
01:28:42,850 --> 01:28:40,920
complicated for just three agents

2363
01:28:45,470 --> 01:28:42,860

interacting and it grows exponential

2364
01:28:47,270 --> 01:28:45,480
with five agents there's three thousand

2365
01:28:48,830 --> 01:28:47,280
nodes three thousand more than three

2366
01:28:50,990 --> 01:28:48,840
thousand vertices it just grows

2367
01:28:53,390 --> 01:28:51,000
exponentially and the and the Dynamics

2368
01:28:54,950 --> 01:28:53,400
is very very rich so so that's a little

2369
01:28:56,570 --> 01:28:54,960
bit about why space time is doomed and

2370
01:28:58,729 --> 01:28:56,580
why I think Consciousness is is more

2371
01:29:00,770 --> 01:28:58,739
fundamental and why I'm sort of excited

2372
01:29:02,570 --> 01:29:00,780
about it

2373
01:29:05,270 --> 01:29:02,580
I have some thoughts I'd like to respond

2374
01:29:07,250 --> 01:29:05,280
to some of the technical aspects quickly

2375
01:29:09,050 --> 01:29:07,260
if you don't mind so you mentioned that

2376
01:29:11,450 --> 01:29:09,060
the amplitude hedron doesn't live in a

2377
01:29:12,890 --> 01:29:11,460
Hilbert space but it's unitary and it

2378
01:29:14,870 --> 01:29:12,900
doesn't presume space-time but it's

2379
01:29:17,149 --> 01:29:14,880
local so how the heck do you have

2380
01:29:19,729 --> 01:29:17,159
unitarity without a Hilbert space

2381
01:29:21,649 --> 01:29:19,739
uh well so so it's the structure itself

2382
01:29:24,530 --> 01:29:21,659
is not unitary and local it's just it's

2383
01:29:26,689 --> 01:29:24,540
just a um a geometric structure like a

2384
01:29:29,750 --> 01:29:26,699
polyte but not exactly a polytube but it

2385
01:29:32,090 --> 01:29:29,760
turns out that you can read off from the

2386
01:29:34,850 --> 01:29:32,100
the sort of like the lattice of like

2387
01:29:38,270 --> 01:29:34,860
facets and edges and faces and and

2388
01:29:39,649 --> 01:29:38,280

advertices from from that Arrangement it

2389
01:29:41,990 --> 01:29:39,659
turns out the physicists can actually

2390
01:29:43,850 --> 01:29:42,000
show that that corresponds to what looks

2391
01:29:45,229 --> 01:29:43,860
in space-time like unitarity and

2392
01:29:47,209 --> 01:29:45,239
locality

2393
01:29:48,110 --> 01:29:47,219
have you heard of the Coleman medulla

2394
01:29:50,689 --> 01:29:48,120
theorem

2395
01:29:53,030 --> 01:29:50,699
uh maybe but not I don't remember the

2396
01:29:55,430 --> 01:29:53,040
name so sure so it's a no-go theorem

2397
01:29:57,229 --> 01:29:55,440
about internal symmetries colloquially

2398
01:29:59,030 --> 01:29:57,239
they can't be combined in anything but a

2399
01:30:00,649 --> 01:29:59,040
trivial manner so if you have a point

2400
01:30:02,810 --> 01:30:00,659
array group the internal symmetries have

2401
01:30:04,430 --> 01:30:02,820
to be a direct product of them plus the

2402
01:30:06,350 --> 01:30:04,440
point array group for whatever reason

2403
01:30:08,930 --> 01:30:06,360
this is one of the reasons why

2404
01:30:11,810 --> 01:30:08,940
supersymmetry either must exist or

2405
01:30:13,189 --> 01:30:11,820
conformal symmetry must exist or you

2406
01:30:15,229 --> 01:30:13,199
need to be in a lower dimensional space

2407
01:30:17,450 --> 01:30:15,239
and so

2408
01:30:19,430 --> 01:30:17,460
I'm not a fan of supersymmetry but I'm

2409
01:30:20,810 --> 01:30:19,440
not a fan of any particular Theory so

2410
01:30:22,610 --> 01:30:20,820
I'm agnostic when it comes to many of

2411
01:30:24,470 --> 01:30:22,620
these physical theories which is why I

2412
01:30:28,370 --> 01:30:24,480
have a small bone to pick when you say

2413
01:30:30,530 --> 01:30:28,380

the physicists sure I want a decorated

2414
01:30:32,209 --> 01:30:30,540
permutation I want to say the physicists

2415
01:30:34,010 --> 01:30:32,219
I would say some physicists so anyway

2416
01:30:35,870 --> 01:30:34,020
then I would be curious like well how do

2417
01:30:37,370 --> 01:30:35,880
you overcome the Coleman medulla theorem

2418
01:30:38,810 --> 01:30:37,380
if you're doing away with supersymmetry

2419
01:30:40,250 --> 01:30:38,820
but you can look into that at some point

2420
01:30:41,990 --> 01:30:40,260
and then I'll also I'd like to take a

2421
01:30:43,850 --> 01:30:42,000
look at that article if you can send it

2422
01:30:45,830 --> 01:30:43,860
to me prior I can send you both of our

2423
01:30:46,790 --> 01:30:45,840
graph which is almost completed yeah

2424
01:30:48,590 --> 01:30:46,800
yeah

2425
01:30:50,750 --> 01:30:48,600
I'll look at the Coleman medulla Theory

2426
01:30:52,550 --> 01:30:50,760
does that theorem apply only to point

2427
01:30:54,649 --> 01:30:52,560
query spaces or a general theory about

2428
01:30:57,350 --> 01:30:54,659
geometric objects in general it's any

2429
01:30:58,430 --> 01:30:57,360
theory that has an S Matrix see if it

2430
01:30:59,990 --> 01:30:58,440
only place to point Craig group then

2431
01:31:02,149 --> 01:31:00,000
it's not a problem right

2432
01:31:03,830 --> 01:31:02,159
it is so because we're not we're not

2433
01:31:05,209 --> 01:31:03,840
stuck in space time we're not what we

2434
01:31:07,189 --> 01:31:05,219
have to do is show that deploying create

2435
01:31:09,290 --> 01:31:07,199
group comes out as a trivial projection

2436
01:31:11,629 --> 01:31:09,300
of a much deeper and richer structure I

2437
01:31:14,209 --> 01:31:11,639
mean our amplitude with with um you know

2438
01:31:17,270 --> 01:31:14,219

say a thousand agents

2439
01:31:18,470 --> 01:31:17,280
um is going to be a a polytope with a

2440
01:31:19,850 --> 01:31:18,480
thousand to the thousandth power

2441
01:31:22,430 --> 01:31:19,860
vertices

2442
01:31:23,770 --> 01:31:22,440
this is this is a this is this is not

2443
01:31:26,750 --> 01:31:23,780
the point great group this is something

2444
01:31:29,270 --> 01:31:26,760
truly mind-boggling this is a a very

2445
01:31:31,370 --> 01:31:29,280
very interesting polytopal structure it

2446
01:31:32,450 --> 01:31:31,380
includes by the way the berkoff polytope

2447
01:31:35,689 --> 01:31:32,460
is a sub

2448
01:31:36,890 --> 01:31:35,699
polytook within it so within the so the

2449
01:31:38,570 --> 01:31:36,900
berkeoff college was a very famous

2450
01:31:40,030 --> 01:31:38,580
polytrip of all the

2451
01:31:42,530 --> 01:31:40,040
um

2452
01:31:43,629 --> 01:31:42,540
all of its vertices are permutation

2453
01:31:49,129 --> 01:31:43,639
matrices

2454
01:31:53,270 --> 01:31:49,139
and and it's very very but that that is

2455
01:31:55,189 --> 01:31:53,280
a a subpolito of this Markov polytope I

2456
01:31:56,629 --> 01:31:55,199
have to stop you because Don mean you

2457
01:31:58,430 --> 01:31:56,639
have to have a solo podcast about this

2458
01:32:00,050 --> 01:31:58,440
as a part two to our previous one about

2459
01:32:02,870 --> 01:32:00,060
the details because right now I know

2460
01:32:04,610 --> 01:32:02,880
John is is your eyes may be glazing over

2461
01:32:06,350 --> 01:32:04,620
so you were championing at the bit

2462
01:32:10,370 --> 01:32:06,360
continue please

2463
01:32:12,169 --> 01:32:10,380

me yes yes yes yeah uh like

2464
01:32:14,750 --> 01:32:12,179
um

2465
01:32:16,669 --> 01:32:14,760
I think I followed a large part of that

2466
01:32:20,570 --> 01:32:16,679
although I don't know if I have the

2467
01:32:22,189 --> 01:32:20,580
physics background to uh say I grasped

2468
01:32:23,330 --> 01:32:22,199
all of it adequately

2469
01:32:26,570 --> 01:32:23,340
um I and I don't want to say anything

2470
01:32:28,310 --> 01:32:26,580
out of ignorance so I'll try and first

2471
01:32:30,890 --> 01:32:28,320
of all just ask some questions are the

2472
01:32:33,530 --> 01:32:30,900
are the are some of the physicists

2473
01:32:34,870 --> 01:32:33,540
Kurt's Point are they concluding that

2474
01:32:38,689 --> 01:32:34,880
space time

2475
01:32:41,990 --> 01:32:38,699
is not real or that it's emergent from

2476
01:32:44,930 --> 01:32:42,000
this more fundamental ontology like

2477
01:32:46,910 --> 01:32:44,940
those are two different claims

2478
01:32:49,070 --> 01:32:46,920
um right to claim that everything above

2479
01:32:50,570 --> 01:32:49,080
a fundamental level is not real is a

2480
01:32:53,510 --> 01:32:50,580
kind of reductionism that I've already

2481
01:32:55,669 --> 01:32:53,520
argued is I find very problematic

2482
01:32:57,590 --> 01:32:55,679
um I could but I wasn't clear which one

2483
01:32:59,510 --> 01:32:57,600
you're saying space time is doomed as a

2484
01:33:01,970 --> 01:32:59,520
fundamental or space-time is doomed as

2485
01:33:05,030 --> 01:33:01,980
an as an entity those are those aren't

2486
01:33:07,250 --> 01:33:05,040
the same claims uh so uh what are what

2487
01:33:09,770 --> 01:33:07,260
what are they saying yeah my take on it

2488
01:33:11,870 --> 01:33:09,780

is that um

2489
01:33:13,129 --> 01:33:11,880
I think that you know we could talk to

2490
01:33:14,870 --> 01:33:13,139
the physicists like Neymar Connie

2491
01:33:16,430 --> 01:33:14,880
Hibbett and so forth but my take is that

2492
01:33:18,350 --> 01:33:16,440
when he says space-time was doomed he's

2493
01:33:22,490 --> 01:33:18,360
saying that it's not fundamental

2494
01:33:25,070 --> 01:33:22,500
um right I I I I he may not want to

2495
01:33:27,709 --> 01:33:25,080
worry about deeper existential Notions

2496
01:33:29,390 --> 01:33:27,719
he's saying if you're a physicist and

2497
01:33:31,129 --> 01:33:29,400
you and and that was the framework in

2498
01:33:32,870 --> 01:33:31,139
which you're doing all your work that's

2499
01:33:34,669 --> 01:33:32,880
no longer the framework you've got to go

2500
01:33:36,649 --> 01:33:34,679
you have to show that there's a deeper

2501
01:33:39,110 --> 01:33:36,659
framework and that the um that space

2502
01:33:41,629 --> 01:33:39,120
time comes out as a projection of a much

2503
01:33:43,070 --> 01:33:41,639
richer and deeper framework now whether

2504
01:33:45,890 --> 01:33:43,080
he says that that means the space-time

2505
01:33:47,149 --> 01:33:45,900
is not real I I he I don't know if you'd

2506
01:33:50,090 --> 01:33:47,159
even be interested in that question I'm

2507
01:33:52,669 --> 01:33:50,100
not I'm just not sure um right uh

2508
01:33:55,729 --> 01:33:52,679
because for me I mean the idea that

2509
01:33:58,490 --> 01:33:55,739
space-time might be projected uh from

2510
01:34:02,149 --> 01:33:58,500
something that is not space-timey I mean

2511
01:34:04,189 --> 01:34:02,159
that's well you know and this is not

2512
01:34:05,629 --> 01:34:04,199
dismissive that's a perennial idea I

2513
01:34:08,390 --> 01:34:05,639

mean it's when you mentioned it it's a

2514
01:34:09,770 --> 01:34:08,400
it's a classic platonic idea uh that and

2515
01:34:11,649 --> 01:34:09,780
that you know that even to make

2516
01:34:13,850 --> 01:34:11,659
inferences that generalize we need

2517
01:34:15,709 --> 01:34:13,860
non-spatial temporal relations we need

2518
01:34:17,570 --> 01:34:15,719
Eternal relations I mean Berman makes

2519
01:34:22,129 --> 01:34:17,580
this argument this is why nominalism is

2520
01:34:23,450 --> 01:34:22,139
doomed and so and pardon me because it

2521
01:34:25,689 --> 01:34:23,460
sounds like these things you're

2522
01:34:29,090 --> 01:34:25,699
describing them geometrically

2523
01:34:31,370 --> 01:34:29,100
so given that given that geometry

2524
01:34:33,830 --> 01:34:31,380
figures are spatial

2525
01:34:35,990 --> 01:34:33,840
um does that mean that there's some

2526
01:34:37,910 --> 01:34:36,000
sense in which the language is

2527
01:34:40,910 --> 01:34:37,920
ultimately conceived as being imaginal

2528
01:34:42,830 --> 01:34:40,920
or metaphorical about this because you

2529
01:34:45,850 --> 01:34:42,840
know you're talking about faces and

2530
01:34:48,229 --> 01:34:45,860
you're using space-time language and and

2531
01:34:50,689 --> 01:34:48,239
Don I'm not trying to like pin you down

2532
01:34:52,610 --> 01:34:50,699
like a jiu jitsu but I wanted to get

2533
01:34:56,209 --> 01:34:52,620
people's attitude here what given that

2534
01:34:57,410 --> 01:34:56,219
they're using you know geometry uh as a

2535
01:34:58,070 --> 01:34:57,420
fundamental thing

2536
01:35:00,169 --> 01:34:58,080
um

2537
01:35:02,270 --> 01:35:00,179
like you know and Plato ran into a

2538
01:35:04,729 --> 01:35:02,280

similar kind of thing uh that's why I'm

2539
01:35:08,030 --> 01:35:04,739
asking this question uh what is it that

2540
01:35:10,610 --> 01:35:08,040
what what do they take their theoretical

2541
01:35:13,010 --> 01:35:10,620
representations to be

2542
01:35:14,629 --> 01:35:13,020
right so space time itself is just

2543
01:35:17,030 --> 01:35:14,639
another piece of geometry right it's

2544
01:35:18,890 --> 01:35:17,040
it's yeah so so you have the the

2545
01:35:21,830 --> 01:35:18,900
mathematics of polytopes or or

2546
01:35:24,470 --> 01:35:21,840
geometries more more generally and and

2547
01:35:25,790 --> 01:35:24,480
space-time and the point grade group you

2548
01:35:28,430 --> 01:35:25,800
know symmetries on space time and so

2549
01:35:30,490 --> 01:35:28,440
forth is is just one out of countless

2550
01:35:32,990 --> 01:35:30,500
different kinds of geometries most of us

2551
01:35:34,850 --> 01:35:33,000
our imaginations are so tied to

2552
01:35:37,189 --> 01:35:34,860
space-time it's hard for us to think out

2553
01:35:39,649 --> 01:35:37,199
outside of it but the you know the

2554
01:35:41,629 --> 01:35:39,659
amplitude for example itself it could

2555
01:35:44,090 --> 01:35:41,639
have trillions of Dimensions

2556
01:35:46,669 --> 01:35:44,100
um so it's it's it's so these are

2557
01:35:48,410 --> 01:35:46,679
geometric objects they're not objects in

2558
01:35:52,129 --> 01:35:48,420
a physical sense of some object in

2559
01:35:54,350 --> 01:35:52,139
space-time their mathematical objects

2560
01:35:56,390 --> 01:35:54,360
um and in the same sense that physicists

2561
01:35:58,370 --> 01:35:56,400
view space-time itself as being

2562
01:36:00,169 --> 01:35:58,380
described by a mathematical objects say

2563
01:36:03,050 --> 01:36:00,179

you know symmetry is the point grade

2564
01:36:05,149 --> 01:36:03,060
group and so forth so so it's that sense

2565
01:36:06,649 --> 01:36:05,159
that these are geometric objects but

2566
01:36:08,689 --> 01:36:06,659
I've had this question before because

2567
01:36:10,970 --> 01:36:08,699
people have asked me you know I gave a

2568
01:36:12,709 --> 01:36:10,980
talk at Stanford a few weeks ago on this

2569
01:36:14,750 --> 01:36:12,719
and someone said well so where are these

2570
01:36:16,250 --> 01:36:14,760
objects are they like at the plank scale

2571
01:36:18,350 --> 01:36:16,260
or are they stuck inside space-time

2572
01:36:20,450 --> 01:36:18,360
somewhere where where are they because

2573
01:36:22,250 --> 01:36:20,460
we all we if there's a geometric object

2574
01:36:25,129 --> 01:36:22,260
we think it has to be somewhere in space

2575
01:36:29,090 --> 01:36:25,139
and and this is the leap you have to

2576
01:36:31,790 --> 01:36:29,100
make no no space time itself is just one

2577
01:36:35,209 --> 01:36:31,800
fairly trivial geometric object

2578
01:36:37,010 --> 01:36:35,219
um and these objects are you know beyond

2579
01:36:39,590 --> 01:36:37,020
the transcend space time

2580
01:36:41,330 --> 01:36:39,600
um and they project it to space-time my

2581
01:36:43,250 --> 01:36:41,340
own view is that you know space time

2582
01:36:46,070 --> 01:36:43,260
from an evolutionary point of view on a

2583
01:36:48,229 --> 01:36:46,080
yeah I'd love to have a chance to talk

2584
01:36:50,270 --> 01:36:48,239
about Evolution with with John for in a

2585
01:36:52,250 --> 01:36:50,280
minute but from an evolutionary view I

2586
01:36:54,169 --> 01:36:52,260
think that that's that space-time is

2587
01:36:56,330 --> 01:36:54,179
just a virtual reality headset that

2588
01:36:59,330 --> 01:36:56,340

we've evolved and it's not a very good

2589
01:37:01,790 --> 01:36:59,340
one we we we have a cheap model it only

2590
01:37:03,830 --> 01:37:01,800
has four maybe 11 dimensions on this and

2591
01:37:05,750 --> 01:37:03,840
it it stops at 10 to the minus 33

2592
01:37:07,550 --> 01:37:05,760
centimeters it's very shallow it goes 10

2593
01:37:08,870 --> 01:37:07,560
to the minus 33 trillion centimeters I

2594
01:37:11,270 --> 01:37:08,880
might be impressed but 10 to the minus

2595
01:37:13,490 --> 01:37:11,280
33. so I feel like we got cheated we got

2596
01:37:16,490 --> 01:37:13,500
a really cheap um user interface and

2597
01:37:18,530 --> 01:37:16,500
it's shallow and uh and and I can't even

2598
01:37:20,629 --> 01:37:18,540
imagine uh you know a five-dimensional

2599
01:37:22,250 --> 01:37:20,639
object and for a lot of work I want to

2600
01:37:24,110 --> 01:37:22,260
do I would be very very helpful to

2601
01:37:25,669 --> 01:37:24,120
imagine a five-dimensional object and my

2602
01:37:27,169 --> 01:37:25,679
my little interface doesn't let me do

2603
01:37:30,430 --> 01:37:27,179
that so I have to actually then

2604
01:37:33,050 --> 01:37:30,440
painfully scratch down mathematics and

2605
01:37:35,149 --> 01:37:33,060
shaytan to do this little thing he spent

2606
01:37:37,550 --> 01:37:35,159
weeks and weeks you know because just

2607
01:37:40,430 --> 01:37:37,560
because we can't visualize you know this

2608
01:37:42,290 --> 01:37:40,440
this Markov polytope of three agents we

2609
01:37:45,709 --> 01:37:42,300
can't visualize we can't see a structure

2610
01:37:47,030 --> 01:37:45,719
we have to then painfully like filling

2611
01:37:48,770 --> 01:37:47,040
the different parts of the elephant you

2612
01:37:50,990 --> 01:37:48,780
know here's the tail here's the leg and

2613
01:37:54,110 --> 01:37:51,000

put together what this polytope is and

2614
01:37:55,790 --> 01:37:54,120
prove what it is so so you know

2615
01:37:58,669 --> 01:37:55,800
the space and time isn't a fundamental

2616
01:38:00,410 --> 01:37:58,679
reality it's a it's a a fairly low level

2617
01:38:02,810 --> 01:38:00,420
and cheap and shallow interface that

2618
01:38:04,570 --> 01:38:02,820
we're stuck with yeah I hope to

2619
01:38:07,430 --> 01:38:04,580
transcend it

2620
01:38:09,709 --> 01:38:07,440
so so what what is it you think about us

2621
01:38:12,530 --> 01:38:09,719
that gives us access

2622
01:38:17,149 --> 01:38:12,540
epistemic access to a

2623
01:38:19,610 --> 01:38:17,159
non-phenomenological reality I mean like

2624
01:38:21,470 --> 01:38:19,620
right and this then gets to the question

2625
01:38:23,810 --> 01:38:21,480
about evolution of natural selection too

2626
01:38:25,370 --> 01:38:23,820
and and so forth so

2627
01:38:27,770 --> 01:38:25,380
um

2628
01:38:30,110 --> 01:38:27,780
because I've argued on on evolutionary

2629
01:38:31,850 --> 01:38:30,120
grounds that we've been shaped not just

2630
01:38:34,490 --> 01:38:31,860
that you know our perceptions of space

2631
01:38:36,770 --> 01:38:34,500
and time are are fundamentally

2632
01:38:39,050 --> 01:38:36,780
um not correct right that there is is

2633
01:38:41,330 --> 01:38:39,060
not the truth it's just a user interface

2634
01:38:42,709 --> 01:38:41,340
and and that's what the physicists at

2635
01:38:44,030 --> 01:38:42,719
least these physicists are now saying as

2636
01:38:45,350 --> 01:38:44,040
well space and time is not the the

2637
01:38:46,850 --> 01:38:45,360
fundamental reality it's there's

2638
01:38:49,610 --> 01:38:46,860

something much deeper

2639
01:38:52,070 --> 01:38:49,620
so so argue for that

2640
01:38:53,810 --> 01:38:52,080
um in the following way Evolution but

2641
01:38:55,490 --> 01:38:53,820
natural selection is a it's a precise

2642
01:38:57,050 --> 01:38:55,500
mathematical Theory we have evolutionary

2643
01:38:59,030 --> 01:38:57,060
Game Theory evolutionary graph Theory

2644
01:39:01,250 --> 01:38:59,040
and so forth so it's a mathematical

2645
01:39:02,930 --> 01:39:01,260
model and we can ask clean technical

2646
01:39:04,669 --> 01:39:02,940
questions with that theory we can ask

2647
01:39:06,830 --> 01:39:04,679
the question for example

2648
01:39:08,810 --> 01:39:06,840
um what is the probability assuming

2649
01:39:10,669 --> 01:39:08,820
evolution by natural selection assuming

2650
01:39:12,590 --> 01:39:10,679
evolutionary game three what is the

2651
01:39:15,530 --> 01:39:12,600
probability that any sensory system

2652
01:39:19,070 --> 01:39:15,540
would be shaped by natural selection to

2653
01:39:21,050 --> 01:39:19,080
perceive any true structures of

2654
01:39:22,729 --> 01:39:21,060
objective reality

2655
01:39:24,830 --> 01:39:22,739
turns out that's a clean technical

2656
01:39:26,209 --> 01:39:24,840
question not a hand wave you can

2657
01:39:28,129 --> 01:39:26,219
actually ask that question using

2658
01:39:30,110 --> 01:39:28,139
evolutionary Game Theory and when you

2659
01:39:32,330 --> 01:39:30,120
ask that question it turns out it's a

2660
01:39:34,129 --> 01:39:32,340
theorem of the theory and in in the

2661
01:39:35,870 --> 01:39:34,139
paper that we have on this is called

2662
01:39:37,310 --> 01:39:35,880
fact fiction and fitness

2663
01:39:38,810 --> 01:39:37,320

um it was published a couple years ago

2664
01:39:40,610 --> 01:39:38,820
so if you just Google my name in fact

2665
01:39:42,950 --> 01:39:40,620
fiction and fitness the paper is free

2666
01:39:44,290 --> 01:39:42,960
you can you can read the proof the the

2667
01:39:46,490 --> 01:39:44,300
the the the the the the

2668
01:39:47,870 --> 01:39:46,500
probability is precisely zero and we

2669
01:39:49,430 --> 01:39:47,880
prove it for three or four specific

2670
01:39:52,010 --> 01:39:49,440
structures but when you look at it you

2671
01:39:53,930 --> 01:39:52,020
see the reason why and it's going to be

2672
01:39:56,990 --> 01:39:53,940
true for any structure the probability

2673
01:39:58,729 --> 01:39:57,000
is zero that any structure that you

2674
01:40:00,950 --> 01:39:58,739
might say the world the objective

2675
01:40:02,510 --> 01:40:00,960
reality might have the probability of

2676
01:40:04,910 --> 01:40:02,520
zero that any Fitness payoff function

2677
01:40:06,709 --> 01:40:04,920
will actually Preserve

2678
01:40:08,810 --> 01:40:06,719
the information of that structure will

2679
01:40:11,750 --> 01:40:08,820
be a homomorphism of that structure

2680
01:40:14,450 --> 01:40:11,760
so the probability that that the

2681
01:40:16,310 --> 01:40:14,460
payoff function that is shaping the

2682
01:40:18,050 --> 01:40:16,320
evolution of a sensory system actually

2683
01:40:20,390 --> 01:40:18,060
has any information about the structure

2684
01:40:21,950 --> 01:40:20,400
of the world is precisely zero so that

2685
01:40:24,229 --> 01:40:21,960
that payoff function couldn't couldn't

2686
01:40:26,149 --> 01:40:24,239
shape the sensory system to see that

2687
01:40:27,830 --> 01:40:26,159
structure in the world now so that's

2688
01:40:30,709 --> 01:40:27,840

just a theorem of evolution by natural

2689
01:40:32,090 --> 01:40:30,719
selection now do I believe evolution by

2690
01:40:34,010 --> 01:40:32,100
natural selection

2691
01:40:35,450 --> 01:40:34,020
I don't believe any Theory

2692
01:40:37,189 --> 01:40:35,460
I don't believe my own thirds I think

2693
01:40:39,649 --> 01:40:37,199
belief is the wrong attitude to have

2694
01:40:40,550 --> 01:40:39,659
towards scientific theories this so I

2695
01:40:43,729 --> 01:40:40,560
don't believe Evolution but natural

2696
01:40:45,410 --> 01:40:43,739
selection what I do believe is it's the

2697
01:40:47,330 --> 01:40:45,420
best story we have so far

2698
01:40:49,910 --> 01:40:47,340
and so that's why I took it seriously

2699
01:40:51,830 --> 01:40:49,920
with my team and we proved this theorem

2700
01:40:54,410 --> 01:40:51,840
but I'm happy to now

2701
01:40:56,870 --> 01:40:54,420
find a deeper Theory and then show that

2702
01:40:58,790 --> 01:40:56,880
evolution by natural selection uh arises

2703
01:41:00,530 --> 01:40:58,800
as a trivial projection and so and it

2704
01:41:03,410 --> 01:41:00,540
turns out I think we might be able to do

2705
01:41:06,530 --> 01:41:03,420
that so the theory of Markov chains that

2706
01:41:09,169 --> 01:41:06,540
we're using for conscious agents

2707
01:41:11,209 --> 01:41:09,179
that Dynamics does not need to have

2708
01:41:12,830 --> 01:41:11,219
increasing entropy

2709
01:41:15,050 --> 01:41:12,840
you can write down this easy write down

2710
01:41:16,370 --> 01:41:15,060
dynamics of conscious agents in which

2711
01:41:18,350 --> 01:41:16,380
the entropy doesn't increase and

2712
01:41:19,610 --> 01:41:18,360
therefore there's no entropic Arrow of

2713
01:41:22,010 --> 01:41:19,620

time

2714
01:41:23,990 --> 01:41:22,020
but it's a trivial theorem that if you

2715
01:41:25,070 --> 01:41:24,000
take this Dynamics which has no Arrow of

2716
01:41:28,570 --> 01:41:25,080
time

2717
01:41:31,250 --> 01:41:28,580
and projected onto a Dynamics

2718
01:41:33,649 --> 01:41:31,260
you know projection Dynamics via say

2719
01:41:36,290 --> 01:41:33,659
conditional probability it's a theorem

2720
01:41:39,890 --> 01:41:36,300
that when you do that the projected

2721
01:41:42,350 --> 01:41:39,900
Dynamics will have increasing entropy

2722
01:41:44,090 --> 01:41:42,360
it will have an arrow of time

2723
01:41:46,910 --> 01:41:44,100
so all of a sudden

2724
01:41:49,490 --> 01:41:46,920
and by the way that Arrow of time is not

2725
01:41:53,750 --> 01:41:49,500
an insight about the original Dynamics

2726
01:41:56,090 --> 01:41:53,760
it's not an Insight it's an artifact

2727
01:41:57,709 --> 01:41:56,100
of the information loss due to

2728
01:42:01,669 --> 01:41:57,719
projection

2729
01:42:04,930 --> 01:42:01,679
so what I would like to show is that

2730
01:42:08,209 --> 01:42:04,940
um evolution of a natural selection

2731
01:42:10,370 --> 01:42:08,219
all the limited resources time is the

2732
01:42:13,010 --> 01:42:10,380
fundamental limited resource

2733
01:42:15,169 --> 01:42:13,020
that is just an artifact of projection I

2734
01:42:17,510 --> 01:42:15,179
want to show that all of the appearance

2735
01:42:18,470 --> 01:42:17,520
of limited resources is an artifact of

2736
01:42:22,370 --> 01:42:18,480
projection

2737
01:42:24,350 --> 01:42:22,380
the appearance of competition

2738
01:42:26,390 --> 01:42:24,360

fighting for limited resources nature

2739
01:42:28,850 --> 01:42:26,400
red and truth and Claw and truth and

2740
01:42:30,410 --> 01:42:28,860
Claw is perhaps an artifact of a

2741
01:42:32,149 --> 01:42:30,420
projection of a deeper dynamics of

2742
01:42:34,370 --> 01:42:32,159
Consciousness in which there is no

2743
01:42:36,830 --> 01:42:34,380
competition there are no limited

2744
01:42:39,530 --> 01:42:36,840
resources and there is no Arrow of time

2745
01:42:41,090 --> 01:42:39,540
if we can prove that then this is how

2746
01:42:42,830 --> 01:42:41,100
science moves we would then take the

2747
01:42:44,870 --> 01:42:42,840
next baby Step Beyond Evolution but

2748
01:42:48,770 --> 01:42:44,880
natural selection so so here's the logic

2749
01:42:50,570 --> 01:42:48,780
I use because we are where we are I have

2750
01:42:52,970 --> 01:42:50,580
to use the tools of evolution with

2751
01:42:55,490 --> 01:42:52,980
natural selection to see its limits so I

2752
01:42:56,870 --> 01:42:55,500
use them and I find out it says to me

2753
01:42:59,510 --> 01:42:56,880
very very clearly

2754
01:43:01,490 --> 01:42:59,520
space and time and physical objects are

2755
01:43:03,890 --> 01:43:01,500
not the truth I cannot tell you what the

2756
01:43:06,169 --> 01:43:03,900
truth is but I can tell you this space

2757
01:43:08,330 --> 01:43:06,179
and time and objects are not the truth

2758
01:43:11,510 --> 01:43:08,340
that's a theorem of that theory

2759
01:43:12,890 --> 01:43:11,520
now I'm making the next leap I'm saying

2760
01:43:16,010 --> 01:43:12,900
okay I'm gonna propose the theory of

2761
01:43:19,189 --> 01:43:16,020
Consciousness beyond space and time and

2762
01:43:21,109 --> 01:43:19,199
in which there is no Arrow of time

2763
01:43:22,790 --> 01:43:21,119

but now I want to show is that when I

2764
01:43:25,790 --> 01:43:22,800
project that by conditional probability

2765
01:43:27,530 --> 01:43:25,800
I in special cases I get evolution by

2766
01:43:30,050 --> 01:43:27,540
natural selection as a trivial

2767
01:43:33,470 --> 01:43:30,060
projection of that and that's how

2768
01:43:35,450 --> 01:43:33,480
science progresses so that's how I can

2769
01:43:38,050 --> 01:43:35,460
use the tools of evolution of natural

2770
01:43:42,470 --> 01:43:38,060
selection to say that things like genes

2771
01:43:44,330 --> 01:43:42,480
and organisms and DNA are not

2772
01:43:46,910 --> 01:43:44,340
fundamental without contradicting myself

2773
01:43:49,850 --> 01:43:46,920
right that that's the logic that allows

2774
01:43:52,189 --> 01:43:49,860
me to use the theory to point to its own

2775
01:43:53,870 --> 01:43:52,199
limits and then transcend the theory

2776
01:43:55,669 --> 01:43:53,880
right to have a theory that in which

2777
01:43:59,030 --> 01:43:55,679
there is no error of time whose

2778
01:44:01,070 --> 01:43:59,040
projection leads to uh Evolution natural

2779
01:44:03,590 --> 01:44:01,080
selection or a generalization of it so

2780
01:44:07,090 --> 01:44:03,600
so that's that that logic that allows me

2781
01:44:09,410 --> 01:44:07,100
to look like I'm contradicting myself

2782
01:44:10,850 --> 01:44:09,420
I'm using Evolution to prove Evolution

2783
01:44:13,490 --> 01:44:10,860
doesn't work you're shooting yourself in

2784
01:44:15,530 --> 01:44:13,500
the foot no that's the way science pulls

2785
01:44:17,450 --> 01:44:15,540
itself up by the bootstraps each Theory

2786
01:44:19,310 --> 01:44:17,460
shows you its limits

2787
01:44:20,750 --> 01:44:19,320
if it's a good theory if it's not a good

2788
01:44:21,950 --> 01:44:20,760

theory it doesn't show you its limits if

2789
01:44:24,050 --> 01:44:21,960
it's a good theory it shows you its

2790
01:44:25,910 --> 01:44:24,060
limits you transcend the limits and then

2791
01:44:28,729 --> 01:44:25,920
you get your new Theory to project down

2792
01:44:30,950 --> 01:44:28,739
but now your question John which is how

2793
01:44:34,729 --> 01:44:30,960
what what what allows me to do all of

2794
01:44:38,570 --> 01:44:34,739
this what what what is the deeper

2795
01:44:41,209 --> 01:44:39,890
that

2796
01:44:43,070 --> 01:44:41,219
I

2797
01:44:48,470 --> 01:44:43,080
the the

2798
01:44:52,430 --> 01:44:50,990
he is not a physical object it's not a

2799
01:44:55,370 --> 01:44:52,440
brain it's not neurons

2800
01:44:56,629 --> 01:44:55,380
it is this unlimited intelligence

2801
01:45:00,169 --> 01:44:56,639
there is

2802
01:45:04,310 --> 01:45:00,179
so I am not an object in space and time

2803
01:45:06,109 --> 01:45:04,320
I am not neurons I am not any of that I

2804
01:45:07,850 --> 01:45:06,119
am that which comes up with theories

2805
01:45:10,070 --> 01:45:07,860
about space and time which comes up with

2806
01:45:12,050 --> 01:45:10,080
theories about neurons I am that which

2807
01:45:13,609 --> 01:45:12,060
can evaluate those theories and find

2808
01:45:15,649 --> 01:45:13,619
their limits and then transcend them and

2809
01:45:18,229 --> 01:45:15,659
get a new Theory that's what I am

2810
01:45:20,570 --> 01:45:18,239
I am that unlimited intelligence

2811
01:45:23,030 --> 01:45:20,580
and that unlimited intelligence does

2812
01:45:26,270 --> 01:45:23,040
transcend any Theory so that's the

2813
01:45:27,649 --> 01:45:26,280

framework in which I'm thinking about it

2814
01:45:29,149 --> 01:45:27,659
okay

2815
01:45:31,790 --> 01:45:29,159
um so let me ask you a couple questions

2816
01:45:34,970 --> 01:45:31,800
and then that was very helpful

2817
01:45:40,850 --> 01:45:38,090
so given that you agree that

2818
01:45:43,370 --> 01:45:40,860
all formal systems are are either

2819
01:45:46,790 --> 01:45:43,380
inconsistent or incomplete you can't

2820
01:45:48,229 --> 01:45:46,800
place an ultimate uh

2821
01:45:51,350 --> 01:45:48,239
I don't know what to call it faith in

2822
01:45:54,169 --> 01:45:51,360
even a mathematical model uh because the

2823
01:45:55,550 --> 01:45:54,179
read to which it has to limit and be

2824
01:45:57,530 --> 01:45:55,560
incomplete in order to avoid

2825
01:45:59,450 --> 01:45:57,540
computational interactability and all

2826
01:46:01,010 --> 01:45:59,460
kinds of other issues

2827
01:46:03,050 --> 01:46:01,020
um is through to which it's falling prey

2828
01:46:05,870 --> 01:46:03,060
to the very arguments you're making is

2829
01:46:07,550 --> 01:46:05,880
that not the case that's right so that's

2830
01:46:10,970 --> 01:46:07,560
why there's no Theory of Everything

2831
01:46:13,790 --> 01:46:10,980
exactly but what I'm asking is why why

2832
01:46:15,649 --> 01:46:13,800
the Prof the special privileging

2833
01:46:17,870 --> 01:46:15,659
and I'm asking this question honestly

2834
01:46:19,850 --> 01:46:17,880
because I do the same thing right so I'm

2835
01:46:21,830 --> 01:46:19,860
asking it of myself as well why the

2836
01:46:23,390 --> 01:46:21,840
special you know this is the question

2837
01:46:25,850 --> 01:46:23,400
posed to con right why the special

2838
01:46:28,990 --> 01:46:25,860

privileging of mathematical reasoning as

2839
01:46:31,850 --> 01:46:29,000
that which gives you access to reality

2840
01:46:33,709 --> 01:46:31,860
very very good I'll answer to two two

2841
01:46:36,169 --> 01:46:33,719
levels one is that the evolutionary

2842
01:46:37,910 --> 01:46:36,179
theorem level so because people have

2843
01:46:40,129 --> 01:46:37,920
said well if you use Evolution to show

2844
01:46:43,450 --> 01:46:40,139
that we don't know the truth then you've

2845
01:46:45,350 --> 01:46:43,460
you've you've shown that uh reason is is

2846
01:46:46,970 --> 01:46:45,360
nonsense and therefore you've shut

2847
01:46:48,290 --> 01:46:46,980
yourself on the foot yeah Alvin

2848
01:46:49,729 --> 01:46:48,300
plantinga for example a Christian

2849
01:46:51,410 --> 01:46:49,739
philosopher has tried to take that

2850
01:46:53,689 --> 01:46:51,420
argument to say that Evolution shows

2851
01:46:56,689 --> 01:46:53,699
that all of our cognitive capacities

2852
01:46:58,370 --> 01:46:56,699
um are are not reliable and therefore

2853
01:46:59,450 --> 01:46:58,380
our Theory building capacity is not

2854
01:47:01,910 --> 01:46:59,460
reliable and therefore the theory of

2855
01:47:03,530 --> 01:47:01,920
evolution is not reliable that's I was

2856
01:47:04,850 --> 01:47:03,540
thinking of playing tinga and I was

2857
01:47:07,010 --> 01:47:04,860
thinking of voter's response because

2858
01:47:09,290 --> 01:47:07,020
planting is in this really weird place

2859
01:47:11,750 --> 01:47:09,300
that he has to say most of our beliefs

2860
01:47:13,189 --> 01:47:11,760
are false yet there's some property of

2861
01:47:15,770 --> 01:47:13,199
the false beliefs that makes them

2862
01:47:18,169 --> 01:47:15,780
adaptive or makes them functional and

2863
01:47:20,390 --> 01:47:18,179

what would be that other than truth you

2864
01:47:23,209 --> 01:47:20,400
need you need to propose something other

2865
01:47:25,189 --> 01:47:23,219
than truth to say it's false but highly

2866
01:47:27,770 --> 01:47:25,199
functional and that's the that's the

2867
01:47:29,750 --> 01:47:27,780
missing property P of the propositions

2868
01:47:31,970 --> 01:47:29,760
that photo basically launches against

2869
01:47:34,189 --> 01:47:31,980
plantinga he says well tell me what it

2870
01:47:35,750 --> 01:47:34,199
is that the false beliefs have because

2871
01:47:38,149 --> 01:47:35,760
many of my false beliefs will kill me

2872
01:47:39,470 --> 01:47:38,159
readily right so it can't right there

2873
01:47:41,330 --> 01:47:39,480
has to be some property that

2874
01:47:43,010 --> 01:47:41,340
distinguishes false beliefs that are

2875
01:47:45,350 --> 01:47:43,020
non-adaptive from false beliefs that are

2876
01:47:46,669 --> 01:47:45,360
adaptive and what is that property

2877
01:47:48,530 --> 01:47:46,679
um that's that's the kind of question

2878
01:47:51,950 --> 01:47:48,540
I'm trying to get at

2879
01:47:53,810 --> 01:47:51,960
right right so I'll give two answers on

2880
01:47:55,129 --> 01:47:53,820
one I think if if I were planting of

2881
01:47:56,149 --> 01:47:55,139
what I would try to say is look I I

2882
01:47:58,250 --> 01:47:56,159
never believed in the theory of

2883
01:47:59,930 --> 01:47:58,260
evolution to begin with

2884
01:48:01,910 --> 01:47:59,940
I'm just trying to use the tools of

2885
01:48:04,070 --> 01:48:01,920
evolution to show that it's nonsense so

2886
01:48:05,510 --> 01:48:04,080
so I'm not subject to that kind of so if

2887
01:48:08,030 --> 01:48:05,520
I were planting I would make that move

2888
01:48:10,189 --> 01:48:08,040

right I I I never said that the

2889
01:48:11,870 --> 01:48:10,199
evolution is true and and I just wanted

2890
01:48:14,570 --> 01:48:11,880
to use it to show that it shoots itself

2891
01:48:15,709 --> 01:48:14,580
from the foot so so that's that's how I

2892
01:48:19,970 --> 01:48:15,719
I would

2893
01:48:23,870 --> 01:48:21,890
beyond that

2894
01:48:25,990 --> 01:48:23,880
again I don't think that

2895
01:48:29,270 --> 01:48:26,000
we can ever

2896
01:48:31,250 --> 01:48:29,280
any language so so there are limits of

2897
01:48:32,270 --> 01:48:31,260
mathematics I will say within the theory

2898
01:48:34,669 --> 01:48:32,280
of evolution so I'm going to just go

2899
01:48:37,209 --> 01:48:34,679
back to the theory of evolution itself

2900
01:48:41,330 --> 01:48:37,219
our theorem that says that Evolution

2901
01:48:43,250 --> 01:48:41,340
entails that none of our percepts are

2902
01:48:45,250 --> 01:48:43,260
vertical

2903
01:48:48,669 --> 01:48:45,260
it turns out that that theorem is only

2904
01:48:52,010 --> 01:48:48,679
for percepts for you know it's not for

2905
01:48:53,270 --> 01:48:52,020
logic and reason right and on

2906
01:48:56,030 --> 01:48:53,280
evolutionary grounds you could actually

2907
01:48:58,010 --> 01:48:56,040
have against planting Canal

2908
01:49:00,229 --> 01:48:58,020
um Arguments for why you should have

2909
01:49:03,410 --> 01:49:00,239
some facility with logic and reason for

2910
01:49:05,030 --> 01:49:03,420
example an organism that can notice that

2911
01:49:07,189 --> 01:49:05,040
two bites of an apple give you more

2912
01:49:08,209 --> 01:49:07,199
Fitness payoffs than one by Van apple is

2913
01:49:10,430 --> 01:49:08,219

better off

2914
01:49:13,010 --> 01:49:10,440
no that's about not about truth

2915
01:49:15,770 --> 01:49:13,020
about objectives about Fitness payoffs

2916
01:49:18,050 --> 01:49:15,780
something that's you know not about the

2917
01:49:20,030 --> 01:49:18,060
nature of objective reality so so there

2918
01:49:22,490 --> 01:49:20,040
would be some selection pressures You

2919
01:49:24,229 --> 01:49:22,500
could argue for some modest facility

2920
01:49:26,629 --> 01:49:24,239
with mathematics because you need to

2921
01:49:27,950 --> 01:49:26,639
reason about Fitness payoffs and every

2922
01:49:29,450 --> 01:49:27,960
once in a while the genes will come

2923
01:49:31,189 --> 01:49:29,460
together and you'll get a David Hilbert

2924
01:49:33,590 --> 01:49:31,199
or a Von Neumann and you get a

2925
01:49:36,470 --> 01:49:33,600
mathematical genius now so so you could

2926
01:49:38,209 --> 01:49:36,480
use that kind of logic against planting

2927
01:49:39,770 --> 01:49:38,219
but but you can see that I don't I don't

2928
01:49:42,830 --> 01:49:39,780
even want to go there because I'm saying

2929
01:49:45,229 --> 01:49:42,840
that evolution by itself I I also just

2930
01:49:47,270 --> 01:49:45,239
use the tools of evolution because it's

2931
01:49:49,010 --> 01:49:47,280
the our current best theory but I want

2932
01:49:50,570 --> 01:49:49,020
to completely transcend the theory with

2933
01:49:54,410 --> 01:49:50,580
something else that that projects down

2934
01:49:57,109 --> 01:49:54,420
to Evolution but but ultimately

2935
01:49:58,790 --> 01:49:57,119
any word or concept that we use and

2936
01:50:01,310 --> 01:49:58,800
including the most precise ones in

2937
01:50:02,870 --> 01:50:01,320
mathematics but I think that is it's not

2938
01:50:05,870 --> 01:50:02,880

just mathematics it's any concept that

2939
01:50:07,970 --> 01:50:05,880
we use I think will always as the

2940
01:50:09,830 --> 01:50:07,980
spiritual Traditions say always just be

2941
01:50:11,330 --> 01:50:09,840
a pointer and not the thing the the

2942
01:50:13,129 --> 01:50:11,340
finger that loses say the finger the

2943
01:50:14,689 --> 01:50:13,139
pointing to the Moon is not the moon and

2944
01:50:17,450 --> 01:50:14,699
that will be true of mathematics it'll

2945
01:50:18,709 --> 01:50:17,460
be true of of non non-mathematical

2946
01:50:22,250 --> 01:50:18,719
Concepts

2947
01:50:26,090 --> 01:50:22,260
so the bigger question for me is if I am

2948
01:50:29,390 --> 01:50:26,100
and you are this unlimited intelligence

2949
01:50:32,149 --> 01:50:29,400
that transcends Concepts why does that

2950
01:50:35,030 --> 01:50:32,159
unlimited intelligence

2951
01:50:36,109 --> 01:50:35,040
engage in using concepts for me that's

2952
01:50:39,350 --> 01:50:36,119
the big question

2953
01:50:40,850 --> 01:50:39,360
this this is the well first of all

2954
01:50:43,250 --> 01:50:40,860
um you're in good company this is an

2955
01:50:44,750 --> 01:50:43,260
ancient problem this is why this is why

2956
01:50:47,270 --> 01:50:44,760
does the one become Mini

2957
01:50:48,770 --> 01:50:47,280
yes right right this is this is why does

2958
01:50:51,770 --> 01:50:48,780
the one become mini and how could the

2959
01:50:54,709 --> 01:50:51,780
one become mini if the one is one right

2960
01:50:56,689 --> 01:50:54,719
and you're in that in that deep problem

2961
01:50:58,310 --> 01:50:56,699
so I don't want to I don't want to

2962
01:51:00,410 --> 01:50:58,320
saddle you with that and say you have to

2963
01:51:01,430 --> 01:51:00,420

solve that because right right because

2964
01:51:03,350 --> 01:51:01,440
that's unfair

2965
01:51:04,669 --> 01:51:03,360
um but what I'm trying to get at is

2966
01:51:06,910 --> 01:51:04,679
really I'm trying to get clear of your

2967
01:51:10,609 --> 01:51:06,920
model so we have some epistemic access

2968
01:51:11,930 --> 01:51:10,619
uh fallible as it is but that's not

2969
01:51:13,310 --> 01:51:11,940
that's not I'm not claiming

2970
01:51:15,169 --> 01:51:13,320
infallibility I'm hearing though that

2971
01:51:17,570 --> 01:51:15,179
there's still preferential the

2972
01:51:18,830 --> 01:51:17,580
conceptual access gives us prefer our

2973
01:51:21,470 --> 01:51:18,840
conceptual abilities give us

2974
01:51:22,970 --> 01:51:21,480
preferential access to reality over our

2975
01:51:25,010 --> 01:51:22,980
perceptual abilities I thought I heard

2976
01:51:26,990 --> 01:51:25,020
you say something like that so if I have

2977
01:51:28,430 --> 01:51:27,000
to choose between a percept and a

2978
01:51:31,010 --> 01:51:28,440
conceptual analysis I should give

2979
01:51:33,770 --> 01:51:31,020
priority to the conceptual analysis or

2980
01:51:37,370 --> 01:51:33,780
did I mishear you oh

2981
01:51:39,290 --> 01:51:37,380
well it's close what I said is within

2982
01:51:41,750 --> 01:51:39,300
the logical framework of evolutionary

2983
01:51:42,950 --> 01:51:41,760
theory that's the case right I'm not

2984
01:51:45,050 --> 01:51:42,960
saying that I believe I'm just saying

2985
01:51:47,030 --> 01:51:45,060
that using so when planting says let's

2986
01:51:48,350 --> 01:51:47,040
assume for sake of argument evolution of

2987
01:51:49,970 --> 01:51:48,360
natural selection

2988
01:51:52,070 --> 01:51:49,980

then you get that all cognitive

2989
01:51:54,410 --> 01:51:52,080
capacities are not reliable and I'm just

2990
01:51:56,270 --> 01:51:54,420
saying no no you don't you get the

2991
01:51:57,709 --> 01:51:56,280
perceptual capacities are not reliable

2992
01:51:58,609 --> 01:51:57,719
but you do not get that mathematical

2993
01:52:00,109 --> 01:51:58,619
account

2994
01:52:03,590 --> 01:52:00,119
so I'm just that's just an argument

2995
01:52:05,030 --> 01:52:03,600
about the specifics of evolution but but

2996
01:52:07,970 --> 01:52:05,040
I think I take your question as a

2997
01:52:10,310 --> 01:52:07,980
broader one than that yes

2998
01:52:12,109 --> 01:52:10,320
right so so so I want to distinguish my

2999
01:52:14,689 --> 01:52:12,119
argument on Evolution from the broader

3000
01:52:17,930 --> 01:52:14,699
question Evolution if you just take if

3001
01:52:19,370 --> 01:52:17,940
you ask what evolution says it says it

3002
01:52:21,830 --> 01:52:19,380
says clearly our perceptions are not

3003
01:52:23,750 --> 01:52:21,840
true it it it is doesn't say clearly

3004
01:52:25,790 --> 01:52:23,760
that our logic and math are not true it

3005
01:52:31,310 --> 01:52:25,800
doesn't say that clearly at all okay

3006
01:52:36,709 --> 01:52:33,169
from this broader point of view

3007
01:52:39,109 --> 01:52:36,719
evolution by natural selection aside

3008
01:52:42,050 --> 01:52:39,119
um and now going Beyond any you know

3009
01:52:45,350 --> 01:52:42,060
even my own conscious agent mathematics

3010
01:52:48,350 --> 01:52:45,360
framework my own view is that

3011
01:52:49,490 --> 01:52:48,360
here I am talking using Concepts and I

3012
01:52:50,870 --> 01:52:49,500
know that every concept that I'm

3013
01:52:53,390 --> 01:52:50,880

speaking right now and every every

3014
01:52:57,050 --> 01:52:53,400
mathematical thought that I'm having is

3015
01:52:59,270 --> 01:52:57,060
not it and it's not even scratching the

3016
01:53:01,910 --> 01:52:59,280
surface of of the reality

3017
01:53:05,390 --> 01:53:01,920
all I can do is point to that fact and

3018
01:53:07,609 --> 01:53:05,400
and yet I do find myself because I'm

3019
01:53:10,010 --> 01:53:07,619
talking with you

3020
01:53:12,890 --> 01:53:10,020
and also talking to myself and trying to

3021
01:53:15,530 --> 01:53:12,900
understand things sort of forced to take

3022
01:53:18,950 --> 01:53:15,540
this unlimited intelligence

3023
01:53:20,870 --> 01:53:18,960
and compress it down to this almost zero

3024
01:53:23,689 --> 01:53:20,880
bandwidth thing that we call thought and

3025
01:53:26,629 --> 01:53:23,699
logic and Concepts

3026
01:53:28,490 --> 01:53:26,639
um and which the points to again this

3027
01:53:30,950 --> 01:53:28,500
this infinite so it's an infinite to one

3028
01:53:32,510 --> 01:53:30,960
or infinite to small thing and back out

3029
01:53:34,010 --> 01:53:32,520
to the infinite

3030
01:53:36,050 --> 01:53:34,020
and

3031
01:53:37,430 --> 01:53:36,060
so the question you know it comes down

3032
01:53:39,470 --> 01:53:37,440
to you why is there something rather

3033
01:53:42,890 --> 01:53:39,480
than just

3034
01:53:48,109 --> 01:53:42,900
presence without any content why why is

3035
01:53:53,570 --> 01:53:51,649
um that goes back to a question about

3036
01:53:55,910 --> 01:53:53,580
um what experience means in your model

3037
01:53:57,470 --> 01:53:55,920
right right because what does experience

3038
01:54:00,229 --> 01:53:57,480

mean

3039
01:54:00,830 --> 01:54:00,239
um given what the way you're talking

3040
01:54:03,530 --> 01:54:00,840
um

3041
01:54:06,470 --> 01:54:03,540
but I wanna I wanna I wanna slow down

3042
01:54:09,530 --> 01:54:06,480
and and zero in on this

3043
01:54:15,770 --> 01:54:11,629
so

3044
01:54:17,570 --> 01:54:15,780
I I worry and I I I I I I I'm pretty

3045
01:54:19,370 --> 01:54:17,580
sure I must be wrong I worry that

3046
01:54:20,810 --> 01:54:19,380
there's an implicit thing that unless

3047
01:54:22,129 --> 01:54:20,820
you have all knowledge you have no

3048
01:54:25,189 --> 01:54:22,139
knowledge or unless you have all truth

3049
01:54:27,109 --> 01:54:25,199
you have no truth here the the idea like

3050
01:54:28,850 --> 01:54:27,119
I agree with you like and I've made this

3051
01:54:30,830 --> 01:54:28,860
argument multiple times I made it to you

3052
01:54:32,810 --> 01:54:30,840
know to hurt that you know the vast

3053
01:54:34,729 --> 01:54:32,820
amount of information we have to subtend

3054
01:54:36,890 --> 01:54:34,739
it we that's what relevance realization

3055
01:54:38,450 --> 01:54:36,900
is ETC I couldn't solve any of my

3056
01:54:40,010 --> 01:54:38,460
problems if I had to try and Trace out

3057
01:54:41,330 --> 01:54:40,020
all the probabilistic relationships to

3058
01:54:43,310 --> 01:54:41,340
all the other entities in the universe

3059
01:54:45,890 --> 01:54:43,320
blah blah blah I won't repeat all those

3060
01:54:47,510 --> 01:54:45,900
arguments I agree with that but I mean I

3061
01:54:49,729 --> 01:54:47,520
worry about things like mino's Paradox

3062
01:54:52,850 --> 01:54:49,739
and so righty's argument right which

3063
01:54:55,010 --> 01:54:52,860

says no no there has to be partial

3064
01:54:57,410 --> 01:54:55,020
knowledge that nevertheless grasp the

3065
01:54:59,570 --> 01:54:57,420
truth so why couldn't somebody say to

3066
01:55:02,090 --> 01:54:59,580
you yeah my perceptual knowledge is very

3067
01:55:05,090 --> 01:55:02,100
partial but that doesn't equate

3068
01:55:07,310 --> 01:55:05,100
logically with it being false it's just

3069
01:55:09,470 --> 01:55:07,320
partial because partial truth has to be

3070
01:55:11,270 --> 01:55:09,480
a thing or you're caught immunos Paradox

3071
01:55:12,709 --> 01:55:11,280
your cotton so write these arguments and

3072
01:55:13,970 --> 01:55:12,719
then you end up with absolute skepticism

3073
01:55:15,229 --> 01:55:13,980
and I can tell you're not an absolute

3074
01:55:16,910 --> 01:55:15,239
skeptic so I'm not going to voice that

3075
01:55:19,550 --> 01:55:16,920
on you but you see the point I'm making

3076
01:55:21,470 --> 01:55:19,560
partial knowledge doesn't mean false

3077
01:55:24,050 --> 01:55:21,480
just because it's partial that that

3078
01:55:26,810 --> 01:55:24,060
there has to be something more did that

3079
01:55:28,910 --> 01:55:26,820
make sense as a point oh absolutely and

3080
01:55:32,570 --> 01:55:28,920
I I think that partial knowledge is is a

3081
01:55:35,030 --> 01:55:32,580
perfectly good concept the the the but

3082
01:55:37,490 --> 01:55:35,040
but that knowledge is a

3083
01:55:40,990 --> 01:55:37,500
it deals with Concepts or math or both

3084
01:55:43,430 --> 01:55:41,000
yeah and and so the the

3085
01:55:45,350 --> 01:55:43,440
question is why would the one plunge

3086
01:55:48,350 --> 01:55:45,360
itself into partial knowledge so so

3087
01:55:50,330 --> 01:55:48,360
here's one view of what we are there is

3088
01:55:52,910 --> 01:55:50,340

the one Consciousness and it's putting

3089
01:55:55,970 --> 01:55:52,920
on is putting itself into different VR

3090
01:55:57,830 --> 01:55:55,980
avatars there's a John vervecki Avatar

3091
01:55:59,810 --> 01:55:57,840
there's a Don Hoffman but and there's

3092
01:56:01,790 --> 01:55:59,820
also a courage and so forth these are

3093
01:56:03,910 --> 01:56:01,800
all just avatars really

3094
01:56:06,530 --> 01:56:03,920
there's only one of us and it's the one

3095
01:56:08,209 --> 01:56:06,540
looking at itself through different

3096
01:56:10,669 --> 01:56:08,219
headsets

3097
01:56:11,990 --> 01:56:10,679
and and as I said I think this is a

3098
01:56:14,209 --> 01:56:12,000
cheap headset that is using this is only

3099
01:56:16,669 --> 01:56:14,219
four-dimensional it poops out at 10 to

3100
01:56:18,229 --> 01:56:16,679
the minus 33 is so this is the one

3101
01:56:20,689 --> 01:56:18,239
looking at itself through a fairly cheap

3102
01:56:22,490 --> 01:56:20,699
low grade headset I'm sure it uses much

3103
01:56:23,990 --> 01:56:22,500
higher ones as well right there are

3104
01:56:26,450 --> 01:56:24,000
countless other headsets that it uses

3105
01:56:28,310 --> 01:56:26,460
presumably to to look at itself and

3106
01:56:30,050 --> 01:56:28,320
explore so so

3107
01:56:32,450 --> 01:56:30,060
somehow

3108
01:56:34,370 --> 01:56:32,460
the one

3109
01:56:36,410 --> 01:56:34,380
is

3110
01:56:38,390 --> 01:56:36,420
and the way we experience it by the way

3111
01:56:39,350 --> 01:56:38,400
is I mean most of us don't think of

3112
01:56:41,870 --> 01:56:39,360
ourselves as the one we think of

3113
01:56:43,970 --> 01:56:41,880

ourselves as as this we identify with

3114
01:56:46,550 --> 01:56:43,980
the Avatar in the in the VR I am the

3115
01:56:49,970 --> 01:56:46,560
Avatar that's what I am and it's a very

3116
01:56:52,310 --> 01:56:49,980
painful process of waking up and

3117
01:56:54,050 --> 01:56:52,320
realizing oh no I'm not the Avatar I'm

3118
01:56:56,930 --> 01:56:54,060
the Consciousness in which the Avatar

3119
01:56:59,030 --> 01:56:56,940
exists I create the Avatar I thought I

3120
01:57:01,910 --> 01:56:59,040
was the Avatar I I am something deeper

3121
01:57:03,470 --> 01:57:01,920
that creates that Avatar and it's you

3122
01:57:04,970 --> 01:57:03,480
know so if that's what Consciousness is

3123
01:57:06,470 --> 01:57:04,980
doing the issue is why does

3124
01:57:08,510 --> 01:57:06,480
Consciousness plunge itself into the

3125
01:57:11,649 --> 01:57:08,520
ignorance why does it take a perspective

3126
01:57:15,470 --> 01:57:11,659
put on a headset

3127
01:57:17,330 --> 01:57:15,480
I asked a friend of mine

3128
01:57:19,550 --> 01:57:17,340
Perry pasaro of this question he said

3129
01:57:21,589 --> 01:57:19,560
you know maybe it has to do with love

3130
01:57:24,470 --> 01:57:21,599
right how can you love if there's only

3131
01:57:27,109 --> 01:57:24,480
one of you so what you do is you you put

3132
01:57:28,970 --> 01:57:27,119
on you you disunify yourself you put on

3133
01:57:31,430 --> 01:57:28,980
a bunch of headsets and now I can learn

3134
01:57:33,169 --> 01:57:31,440
how to to love John and Kurt and so

3135
01:57:35,149 --> 01:57:33,179
forth so I can learn how to be courteous

3136
01:57:37,550 --> 01:57:35,159
and and treat them properly and so forth

3137
01:57:41,209 --> 01:57:37,560
and in so doing that's what so in other

3138
01:57:43,070 --> 01:57:41,219

words if the one is love it it's in some

3139
01:57:47,270 --> 01:57:43,080
sense in the meaning of love to

3140
01:57:49,790 --> 01:57:47,280
diversify to to have the chance to learn

3141
01:57:51,530 --> 01:57:49,800
to love in practice I'm not saying that

3142
01:57:53,330 --> 01:57:51,540
that's right but it's the kind of deep

3143
01:57:56,149 --> 01:57:53,340
kind of question that you have to ask

3144
01:57:57,770 --> 01:57:56,159
and and kind of deep conceptual answer

3145
01:58:00,050 --> 01:57:57,780
you have to try to give to to answer

3146
01:58:02,510 --> 01:58:00,060
this kind of question

3147
01:58:04,729 --> 01:58:02,520
it sounds very similar to vedanta and

3148
01:58:06,950 --> 01:58:04,739
and Neil platonism So back when you

3149
01:58:08,750 --> 01:58:06,960
introduce love and love love both

3150
01:58:10,370 --> 01:58:08,760
differentiates and integrates so you get

3151
01:58:12,649 --> 01:58:10,380
the procession and the return and you

3152
01:58:14,930 --> 01:58:12,659
get to hold neoplatonic drama and then

3153
01:58:16,850 --> 01:58:14,940
you see cognition working fundamentally

3154
01:58:19,129 --> 01:58:16,860
that way right

3155
01:58:20,209 --> 01:58:19,139
um but here's where I here's I guess

3156
01:58:21,950 --> 01:58:20,219
where maybe and I'll speak

3157
01:58:23,870 --> 01:58:21,960
neoplatonically because I can't really

3158
01:58:25,970 --> 01:58:23,880
play in your physicist mathematics

3159
01:58:27,350 --> 01:58:25,980
framework because you you have me at a

3160
01:58:29,270 --> 01:58:27,360
tremendous disadvantage I'm trying my

3161
01:58:30,890 --> 01:58:29,280
best from where I'm at

3162
01:58:32,629 --> 01:58:30,900
um and I'm trying to be respectful of

3163
01:58:34,790 --> 01:58:32,639

the fact that I'm ignorant about some of

3164
01:58:36,410 --> 01:58:34,800
this but most neoplatonists would say

3165
01:58:38,390 --> 01:58:36,420
you ultimately have to say that the

3166
01:58:41,629 --> 01:58:38,400
emanation and the return are as real as

3167
01:58:44,209 --> 01:58:41,639
the one or you get into a really deep

3168
01:58:45,470 --> 01:58:44,219
profound uh kind of Duality which

3169
01:58:47,990 --> 01:58:45,480
undermines this fundamental

3170
01:58:50,870 --> 01:58:48,000
presupposition of the whole system so

3171
01:58:53,510 --> 01:58:50,880
that you know the the thing to use your

3172
01:58:55,550 --> 01:58:53,520
language the projection uh right and

3173
01:58:57,410 --> 01:58:55,560
what it projects are as real as what is

3174
01:58:59,689 --> 01:58:57,420
projected from because if there is

3175
01:59:01,970 --> 01:58:59,699
nothing projected then what it is

3176
01:59:03,709 --> 01:59:01,980
projected from wouldn't be intelligible

3177
01:59:08,030 --> 01:59:03,719
to us wouldn't we wouldn't have access

3178
01:59:10,070 --> 01:59:08,040
to it right because like let's even like

3179
01:59:11,689 --> 01:59:10,080
surely some of my precepts have to be

3180
01:59:13,669 --> 01:59:11,699
possible because I have to be right

3181
01:59:16,310 --> 01:59:13,679
because I'm reading the gauges on the

3182
01:59:18,169 --> 01:59:16,320
machines when I'm finding all of what

3183
01:59:19,729 --> 01:59:18,179
the physicists are finding and I'm

3184
01:59:21,290 --> 01:59:19,739
taking measurements and I'm correctly

3185
01:59:23,570 --> 01:59:21,300
hearing somebody when they're saying to

3186
01:59:26,390 --> 01:59:23,580
me no no look the implication of this is

3187
01:59:28,490 --> 01:59:26,400
right that's what I mean about you don't

3188
01:59:30,410 --> 01:59:28,500

want to get it into saying all of these

3189
01:59:33,709 --> 01:59:30,420
things that are going on within science

3190
01:59:35,930 --> 01:59:33,719
are somehow not real but you you didn't

3191
01:59:36,950 --> 01:59:35,940
hold a reductionism so if what I'm

3192
01:59:39,050 --> 01:59:36,960
saying is if you don't hold the

3193
01:59:42,530 --> 01:59:39,060
reductionism which you're nodding to and

3194
01:59:45,709 --> 01:59:42,540
and you know why not why not say that

3195
01:59:48,470 --> 01:59:45,719
the the procession and the return are as

3196
01:59:50,570 --> 01:59:48,480
real as the one I mean this is where

3197
01:59:51,890 --> 01:59:50,580
many neoplatonists ended up like aragina

3198
01:59:57,410 --> 01:59:51,900
right

3199
01:59:59,689 --> 01:59:57,420
would love to see it work out in in the

3200
02:00:02,629 --> 01:59:59,699
mathematics of of our Theory actually to

3201
02:00:04,970 --> 02:00:02,639
sure as we start to look with bigger and

3202
02:00:06,830 --> 02:00:04,980
bigger systems and and look at the at

3203
02:00:08,330 --> 02:00:06,840
the one system and we look at this

3204
02:00:11,990 --> 02:00:08,340
Dynamics we may find that even though

3205
02:00:13,970 --> 02:00:12,000
these agents are one in fact when you

3206
02:00:16,370 --> 02:00:13,980
look at the net the one isn't just

3207
02:00:18,910 --> 02:00:16,380
static it's a dynamical system yeah and

3208
02:00:21,470 --> 02:00:18,920
when you look you'll find that it it

3209
02:00:23,450 --> 02:00:21,480
automatically has quote unquote these

3210
02:00:25,189 --> 02:00:23,460
parts these projections that are looking

3211
02:00:28,550 --> 02:00:25,199
at it from from different perspectives

3212
02:00:30,350 --> 02:00:28,560
and so it may end up being just um and

3213
02:00:32,270 --> 02:00:30,360

it may also be a consequence of again

3214
02:00:35,450 --> 02:00:32,280
girdles incompleteness theorem that says

3215
02:00:38,390 --> 02:00:35,460
that that there the end the exploration

3216
02:00:43,070 --> 02:00:38,400
of mathematical structure is completely

3217
02:00:46,010 --> 02:00:43,080
unbounded yes and that may also Force

3218
02:00:48,050 --> 02:00:46,020
the the one to always only be seeing

3219
02:00:50,870 --> 02:00:48,060
itself through perspectives because any

3220
02:00:52,970 --> 02:00:50,880
there may be some something very very

3221
02:00:55,209 --> 02:00:52,980
deep there that forces this as well the

3222
02:00:57,109 --> 02:00:55,219
fact that mathematics is

3223
02:00:59,870 --> 02:00:57,119
unbounded

3224
02:01:02,330 --> 02:00:59,880
so but but I feel like now I'm way over

3225
02:01:05,870 --> 02:01:02,340
my pay grade on this though we both are

3226
02:01:07,970 --> 02:01:05,880
but yeah that's fine where I mean first

3227
02:01:10,430 --> 02:01:07,980
of all I want to say something

3228
02:01:13,189 --> 02:01:10,440
um your view is much more sophisticated

3229
02:01:14,570 --> 02:01:13,199
that I've read it and been presented uh

3230
02:01:15,830 --> 02:01:14,580
I haven't read any of the papers but

3231
02:01:17,570 --> 02:01:15,840
I've read people presenting and I've

3232
02:01:19,310 --> 02:01:17,580
seen it and I think I may have

3233
02:01:22,129 --> 02:01:19,320
criticized you unfairly for example when

3234
02:01:24,410 --> 02:01:22,139
I was on Lex Friedman uh your view is

3235
02:01:27,050 --> 02:01:24,420
way more philosophically uh

3236
02:01:28,790 --> 02:01:27,060
sophisticated than I was getting uh to

3237
02:01:31,010 --> 02:01:28,800
be fair to me many people were

3238
02:01:32,689 --> 02:01:31,020

presenting your ideas and I and I was

3239
02:01:34,669 --> 02:01:32,699
like what I don't understand

3240
02:01:36,709 --> 02:01:34,679
um so first of all I owe you an apology

3241
02:01:39,229 --> 02:01:36,719
for that and I want to make that apology

3242
02:01:41,390 --> 02:01:39,239
right now publicly well well thank you

3243
02:01:43,550 --> 02:01:41,400
very much no problem

3244
02:01:48,649 --> 02:01:43,560
um so

3245
02:01:52,910 --> 02:01:51,109
I got like you I'm a follow-bus but I

3246
02:01:54,589 --> 02:01:52,920
I've come to the conclusion and I don't

3247
02:01:56,209 --> 02:01:54,599
I don't use certainty I use plausibility

3248
02:01:58,430 --> 02:01:56,219
and I have a formal model of what

3249
02:02:00,530 --> 02:01:58,440
plausibility means and I've articulated

3250
02:02:02,390 --> 02:02:00,540
that I think the idea that the

3251
02:02:04,189 --> 02:02:02,400
fundamental grammar of intelligibility

3252
02:02:08,689 --> 02:02:04,199
and the fundamental grammar of reality

3253
02:02:11,390 --> 02:02:08,699
have to be in some sense the same or you

3254
02:02:13,490 --> 02:02:11,400
cannot you you will be driven into kind

3255
02:02:15,530 --> 02:02:13,500
of an absolute solipsism and absolute

3256
02:02:17,149 --> 02:02:15,540
skepticism and it sounds to me like

3257
02:02:19,669 --> 02:02:17,159
you're saying something similar like

3258
02:02:22,010 --> 02:02:19,679
that like you're pushing the Machinery

3259
02:02:24,770 --> 02:02:22,020
of intelligibility to its fundamental

3260
02:02:26,990 --> 02:02:24,780
grammar sort of in the math and the

3261
02:02:29,030 --> 02:02:27,000
logic and then you're saying this is

3262
02:02:31,970 --> 02:02:29,040
somehow disclosing the fundamental

3263
02:02:34,129 --> 02:02:31,980

structure of reality if I can use that

3264
02:02:37,010 --> 02:02:34,139
term now is that a fair thing to say

3265
02:02:40,270 --> 02:02:37,020
about how you're proceeding yeah yeah I

3266
02:02:43,970 --> 02:02:40,280
would I I would say so with this very

3267
02:02:46,010 --> 02:02:43,980
humbling Proviso and that is that yeah

3268
02:02:47,629 --> 02:02:46,020
it is saying something about reality and

3269
02:02:49,370 --> 02:02:47,639
what it's saying is it may be measure

3270
02:02:51,109 --> 02:02:49,380
zero about the real reality right

3271
02:02:52,910 --> 02:02:51,119
probably in other words it's a it's a

3272
02:02:56,810 --> 02:02:52,920
probability zero subset of the whole

3273
02:02:57,770 --> 02:02:56,820
reality and that that we will in other

3274
02:03:01,750 --> 02:02:57,780
words

3275
02:03:05,410 --> 02:03:01,760
there's infinite job security in science

3276
02:03:08,050 --> 02:03:05,420
or at least in philosophy yeah

3277
02:03:11,570 --> 02:03:08,060
that's right it's infinite job security

3278
02:03:13,129 --> 02:03:11,580
because we will always have only just

3279
02:03:15,830 --> 02:03:13,139
begun

3280
02:03:19,990 --> 02:03:15,840
um it will always add we'll have

3281
02:03:22,850 --> 02:03:20,000
essentially a measure zero

3282
02:03:25,070 --> 02:03:22,860
grasp of the hole but that measure drill

3283
02:03:27,290 --> 02:03:25,080
may be real I mean it may be genuine but

3284
02:03:29,450 --> 02:03:27,300
it'll be measure zero right

3285
02:03:31,129 --> 02:03:29,460
I I I don't think I'm objecting to that

3286
02:03:32,689 --> 02:03:31,139
but I also want to I want there to be

3287
02:03:34,490 --> 02:03:32,699
some important continuity between

3288
02:03:36,649 --> 02:03:34,500

whatever judgments I'm making about

3289
02:03:39,050 --> 02:03:36,659
Ultimate Reality and judgments when I

3290
02:03:41,030 --> 02:03:39,060
say this is more real to me than the

3291
02:03:43,729 --> 02:03:41,040
dream I had last night I don't want

3292
02:03:45,350 --> 02:03:43,739
there to be uh like because if you do

3293
02:03:47,450 --> 02:03:45,360
that you're you're sneaking in a magic

3294
02:03:50,510 --> 02:03:47,460
epistemic engine somewhere right right

3295
02:03:52,790 --> 02:03:50,520
and that that I think we we have we have

3296
02:03:55,250 --> 02:03:52,800
to we have to we can't allow it's like

3297
02:03:56,570 --> 02:03:55,260
no no I'm using I'm using the same

3298
02:03:58,850 --> 02:03:56,580
epistemic engine there has to be

3299
02:04:01,070 --> 02:03:58,860
important continuity uh between when I

3300
02:04:02,629 --> 02:04:01,080
make those judgments about you know this

3301
02:04:04,970 --> 02:04:02,639
is more real than the dream I had last

3302
02:04:06,530 --> 02:04:04,980
night I'm using that same thing in some

3303
02:04:08,689 --> 02:04:06,540
way when I'm making the judgments about

3304
02:04:12,530 --> 02:04:08,699
that that you're making about the one

3305
02:04:15,830 --> 02:04:12,540
and and I I agree okay I agree and maybe

3306
02:04:18,290 --> 02:04:15,840
part of that coherence is the

3307
02:04:20,510 --> 02:04:18,300
recognition explicitly

3308
02:04:23,930 --> 02:04:20,520
that everything that I deal with

3309
02:04:25,910 --> 02:04:23,940
conceptually is a limited thing that may

3310
02:04:28,609 --> 02:04:25,920
be one of the key things to make that

3311
02:04:31,010 --> 02:04:28,619
coherence yes is the explicit

3312
02:04:33,490 --> 02:04:31,020
recognition of the limit of any

3313
02:04:37,070 --> 02:04:33,500

statement or any Theory

3314
02:04:38,689 --> 02:04:37,080
your your epistemic humility

3315
02:04:40,609 --> 02:04:38,699
um

3316
02:04:43,010 --> 02:04:40,619
I just want to acknowledge it

3317
02:04:44,450 --> 02:04:43,020
um that's I mean don't misunderstand me

3318
02:04:48,649 --> 02:04:44,460
Donald I mean the content of what you're

3319
02:04:51,470 --> 02:04:48,659
saying um is is Rich and you know

3320
02:04:53,510 --> 02:04:51,480
rigorous and I I but I think your

3321
02:04:55,189 --> 02:04:53,520
epistemic humility was something I had

3322
02:04:57,530 --> 02:04:55,199
not got

3323
02:04:59,330 --> 02:04:57,540
um uh right before but I'm seeing it in

3324
02:05:01,370 --> 02:04:59,340
our conversation here

3325
02:05:03,589 --> 02:05:01,380
um I yeah you and I resonate I think

3326
02:05:05,450 --> 02:05:03,599
very deeply at that level I sort of in

3327
02:05:06,530 --> 02:05:05,460
an implicit way asked Donald the

3328
02:05:07,609 --> 02:05:06,540
question and I don't want to try and

3329
02:05:09,050 --> 02:05:07,619
answer it now because I think it would

3330
02:05:11,330 --> 02:05:09,060
take us into more but I'd be happy to

3331
02:05:14,689 --> 02:05:11,340
talk to him again about this use of the

3332
02:05:16,189 --> 02:05:14,699
word experience and and and and and I'm

3333
02:05:19,490 --> 02:05:16,199
also what's the relationship between

3334
02:05:21,589 --> 02:05:19,500
experience and conceptuality or

3335
02:05:24,109 --> 02:05:21,599
intelligibility how are they right and

3336
02:05:25,490 --> 02:05:24,119
right there's a lot there I think uh

3337
02:05:30,649 --> 02:05:25,500
that can be

3338
02:05:32,209 --> 02:05:30,659

um unpacked but um absolutely and I'm

3339
02:05:34,490 --> 02:05:32,219
I'm enjoying talking to you Donald

3340
02:05:35,750 --> 02:05:34,500
because like you're very open I hope

3341
02:05:37,910 --> 02:05:35,760
you're finding the same with me you're

3342
02:05:39,410 --> 02:05:37,920
very absolutely very responding you know

3343
02:05:40,790 --> 02:05:39,420
that you the arguments are going back

3344
02:05:43,550 --> 02:05:40,800
and forth

3345
02:05:45,770 --> 02:05:43,560
um but uh so I'd like to I'd like you uh

3346
02:05:47,689 --> 02:05:45,780
explore that um aspect of your thinking

3347
02:05:49,129 --> 02:05:47,699
with you if possible I would love to do

3348
02:05:51,169 --> 02:05:49,139
that I'd love to get back together all

3349
02:05:52,609 --> 02:05:51,179
three of us and and and jump into that

3350
02:05:55,129 --> 02:05:52,619
with both feet that'd be a lot of fun

3351
02:05:57,950 --> 02:05:55,139
absolutely and I really appreciate uh

3352
02:06:00,470 --> 02:05:57,960
John ankert the the open-mindedness and

3353
02:06:02,750 --> 02:06:00,480
I mean Dogma Justin kills things but

3354
02:06:04,310 --> 02:06:02,760
open mindedness really a rigorous

3355
02:06:07,490 --> 02:06:04,320
open-mindedness right where your heart

3356
02:06:09,530 --> 02:06:07,500
knows no no second rate logic you want

3357
02:06:10,850 --> 02:06:09,540
everything to be clean that's that's how

3358
02:06:13,430 --> 02:06:10,860
we make progress and I really appreciate

3359
02:06:15,350 --> 02:06:13,440
that spirit thank you excellent by the

3360
02:06:16,490 --> 02:06:15,360
way do you know somalian's theorem that

3361
02:06:18,250 --> 02:06:16,500
we're all either arrogant or

3362
02:06:21,729 --> 02:06:18,260
inconsistent

3363
02:06:24,470 --> 02:06:21,739

[Laughter]

3364
02:06:26,570 --> 02:06:24,480
it's actually extremely simple your

3365
02:06:28,430 --> 02:06:26,580
brain is finite we can agree on that and

3366
02:06:29,810 --> 02:06:28,440
even this this works even if it's

3367
02:06:31,310 --> 02:06:29,820
infinite but it makes it much more

3368
02:06:34,129 --> 02:06:31,320
simple so you believe in proposition a

3369
02:06:36,890 --> 02:06:34,139
you believe in proposition ba

3370
02:06:38,570 --> 02:06:36,900
down to proposition n not n as in the

3371
02:06:40,189 --> 02:06:38,580
14th letter but you understand so you

3372
02:06:41,629 --> 02:06:40,199
either then believe that every one of

3373
02:06:43,129 --> 02:06:41,639
your beliefs is true in which case

3374
02:06:44,570 --> 02:06:43,139
you're arrogant or you believe that one

3375
02:06:46,310 --> 02:06:44,580
of these propositions is incorrect you

3376
02:06:47,990 --> 02:06:46,320
just don't know which one which means

3377
02:06:49,310 --> 02:06:48,000
that somewhere you have a belief that

3378
02:06:50,450 --> 02:06:49,320
you believe it to be true and you

3379
02:06:52,310 --> 02:06:50,460
believe it to be false which means

3380
02:06:54,169 --> 02:06:52,320
you're inconsistent so you either are

3381
02:06:56,089 --> 02:06:54,179
arrogant or you're inconsistent well I

3382
02:06:58,550 --> 02:06:56,099
don't know how old this theorem is but

3383
02:07:02,149 --> 02:06:58,560
in the 80s in minimum rationality he

3384
02:07:04,669 --> 02:07:02,159
argued uh you can't even given uh the

3385
02:07:06,410 --> 02:07:04,679
the time it is to move one valence shell

3386
02:07:08,629 --> 02:07:06,420
than the rest of the history Universe

3387
02:07:10,189 --> 02:07:08,639
you can't even calculate of 138

3388
02:07:11,990 --> 02:07:10,199

propositions are logically consistent

3389
02:07:14,030 --> 02:07:12,000
with each other

3390
02:07:16,129 --> 02:07:14,040
um because of all possible implications

3391
02:07:19,609 --> 02:07:16,139
blah blah blah it just right so the

3392
02:07:21,109 --> 02:07:19,619
finitary predicament I think is one of

3393
02:07:22,310 --> 02:07:21,119
the things I like about the platonic

3394
02:07:25,669 --> 02:07:22,320
framework

3395
02:07:28,129 --> 02:07:25,679
is it is this continual profound not

3396
02:07:30,830 --> 02:07:28,139
just talking but profound realization

3397
02:07:32,810 --> 02:07:30,840
that we are simultaneously fitting to we

3398
02:07:35,390 --> 02:07:32,820
are simultaneously finite infinitive but

3399
02:07:38,270 --> 02:07:35,400
capable of transcendence

3400
02:07:41,270 --> 02:07:38,280
um and if we if we lose the first we can

3401
02:07:42,830 --> 02:07:41,280
give into hubris and if we lose the

3402
02:07:44,810 --> 02:07:42,840
Transcendence we will give in to Despair

3403
02:07:46,970 --> 02:07:44,820
and servitude and trying to keep the two

3404
02:07:50,330 --> 02:07:46,980
together at all times

3405
02:07:52,129 --> 02:07:50,340
um so I look for people that are that

3406
02:07:54,890 --> 02:07:52,139
in addition to what they're saying there

3407
02:07:57,109 --> 02:07:54,900
is how they're saying it and

3408
02:07:59,810 --> 02:07:57,119
and I mean this is a compliment Donald I

3409
02:08:01,430 --> 02:07:59,820
was I I was surprised don't take this as

3410
02:08:03,290 --> 02:08:01,440
the wrong way I was surprised to get

3411
02:08:05,629 --> 02:08:03,300
that sense from you I get I kept hearing

3412
02:08:08,270 --> 02:08:05,639
you going between you know this is how

3413
02:08:10,729 --> 02:08:08,280

we can transcend our experience and then

3414
02:08:13,070 --> 02:08:10,739
back to where finite we're fallible and

3415
02:08:15,169 --> 02:08:13,080
you kept toggling back between them

3416
02:08:17,089 --> 02:08:15,179
every time you were giving an answer and

3417
02:08:20,390 --> 02:08:17,099
you were trying to do it and as you said

3418
02:08:21,709 --> 02:08:20,400
not sloppily or right but but you were

3419
02:08:23,330 --> 02:08:21,719
trying to do it very carefully and I

3420
02:08:24,109 --> 02:08:23,340
appreciated that

3421
02:08:29,390 --> 02:08:24,119
um

3422
02:08:31,910 --> 02:08:29,400
was really I really enjoyed this

3423
02:08:33,410 --> 02:08:31,920
a lot of fun and I I love this

3424
02:08:35,990 --> 02:08:33,420
discussion I'd love to have it continue

3425
02:08:37,729 --> 02:08:36,000
absolutely

3426
02:08:39,470 --> 02:08:37,739
thank you all thank you all for coming I

3427
02:08:41,390 --> 02:08:39,480
appreciate it and we'll do it again next

3428
02:08:44,089 --> 02:08:41,400
time excellent

3429
02:08:45,589 --> 02:08:44,099
what a pleasure thank you what follows

3430
02:08:47,149 --> 02:08:45,599
is an excerpt of a conversation between

3431
02:08:49,250 --> 02:08:47,159
John and myself that was partially

3432
02:08:51,709 --> 02:08:49,260
recorded regarding truth Framing and

3433
02:08:53,570 --> 02:08:51,719
what salutary that is truth isn't an

3434
02:08:55,669 --> 02:08:53,580
object to be picked but it's also the

3435
02:08:57,229 --> 02:08:55,679
act of picking these arguments from

3436
02:08:58,970 --> 02:08:57,239
Oneness actually are left brain

3437
02:09:00,830 --> 02:08:58,980
phenomenon that we tend to think of that

3438
02:09:03,350 --> 02:09:00,840

it is spiritual and creative but it's

3439
02:09:05,570 --> 02:09:03,360
more from Ian mcgilchrist Ian

3440
02:09:06,770 --> 02:09:05,580
mcgilchrist would say that that our left

3441
02:09:09,649 --> 02:09:06,780
brain likes to categorize and see

3442
02:09:11,390 --> 02:09:09,659
sameness and that the right brain likes

3443
02:09:13,550 --> 02:09:11,400
to see distinctness and uniqueness

3444
02:09:16,189 --> 02:09:13,560
because I have this huge solipsistic

3445
02:09:18,229 --> 02:09:16,199
moment and and it was extremely

3446
02:09:20,330 --> 02:09:18,239
frightening and terrifying to me I'm

3447
02:09:22,010 --> 02:09:20,340
still recovering from that I'm like the

3448
02:09:23,930 --> 02:09:22,020
best I've been Ian told me something

3449
02:09:25,850 --> 02:09:23,940
helpful which is that hey you share an

3450
02:09:27,410 --> 02:09:25,860
element with God and you share an

3451
02:09:29,570 --> 02:09:27,420
element with other people and that that

3452
02:09:30,830 --> 02:09:29,580
doesn't mean you are and the fact that

3453
02:09:31,910 --> 02:09:30,840
you share implies you're different

3454
02:09:33,709 --> 02:09:31,920
because you can't share with yourself

3455
02:09:34,850 --> 02:09:33,719
well that's what I want I want to talk

3456
02:09:37,250 --> 02:09:34,860
to Donald about what he means by

3457
02:09:38,450 --> 02:09:37,260
experience and like leibniz had the

3458
02:09:40,430 --> 02:09:38,460
problem that the monads are

3459
02:09:43,669 --> 02:09:40,440
self-enclosed but yet somehow they have

3460
02:09:46,609 --> 02:09:43,679
Windows which is trying to make this

3461
02:09:49,070 --> 02:09:46,619
work but he was very I mean like he said

3462
02:09:51,530 --> 02:09:49,080
no you know but the procession and the

3463
02:09:53,149 --> 02:09:51,540

return are just as real as the one and I

3464
02:09:55,490 --> 02:09:53,159
think that's right that's an important

3465
02:09:57,350 --> 02:09:55,500
thing to him for him to acknowledge yeah

3466
02:09:59,570 --> 02:09:57,360
yeah and I also get that when people say

3467
02:10:01,609 --> 02:09:59,580
that so-and-so is an illusion yeah but

3468
02:10:04,850 --> 02:10:01,619
in another sense it's it's real but but

3469
02:10:06,350 --> 02:10:04,860
he admitted that too when like yeah when

3470
02:10:08,870 --> 02:10:06,360
all the all the scientific observations

3471
02:10:11,510 --> 02:10:08,880
have to be real and partial knowledge is

3472
02:10:14,750 --> 02:10:11,520
real like like his his notion of it

3473
02:10:16,910 --> 02:10:14,760
being illusion is is not that notion

3474
02:10:19,609 --> 02:10:16,920
it's not the solar systemic notion

3475
02:10:22,370 --> 02:10:19,619
um yeah well like I said hear very

3476
02:10:24,470 --> 02:10:22,380
deeply the conclusion that Donald Act

3477
02:10:26,089 --> 02:10:24,480
was in agreement with which is the

3478
02:10:27,830 --> 02:10:26,099
procession and the return are just as

3479
02:10:31,669 --> 02:10:27,840
real as the one

3480
02:10:34,790 --> 02:10:31,679
right uh right and and so the idea that

3481
02:10:37,490 --> 02:10:34,800
this is all an illusion behind or in

3482
02:10:40,669 --> 02:10:37,500
front of the world that's not this is as

3483
02:10:44,390 --> 02:10:40,679
much the one as the one is the one right

3484
02:10:47,649 --> 02:10:44,400
or it's not the one right and so it it's

3485
02:10:50,390 --> 02:10:47,659
it's it any I would challenge you

3486
02:10:51,950 --> 02:10:50,400
whenever that idea is giving you a

3487
02:10:54,169 --> 02:10:51,960
profound sense of separation or

3488
02:10:55,790 --> 02:10:54,179

disconnect you have misframed the idea

3489
02:10:59,030 --> 02:10:55,800
or people have missed right to you

3490
02:11:01,129 --> 02:10:59,040
misframed it to you what's salutary and

3491
02:11:03,169 --> 02:11:01,139
what's nourishing what's true isn't

3492
02:11:05,870 --> 02:11:03,179
always just the the static proposition

3493
02:11:08,149 --> 02:11:05,880
to be grasped and that somehow this this

3494
02:11:10,370 --> 02:11:08,159
Compass of either trying to direct

3495
02:11:12,530 --> 02:11:10,380
yourself someplace or even caring that

3496
02:11:14,330 --> 02:11:12,540
you're directed properly that there's a

3497
02:11:16,550 --> 02:11:14,340
truth in the process

3498
02:11:18,290 --> 02:11:16,560
and so when people say hey if you find a

3499
02:11:20,629 --> 02:11:18,300
toll won't you be bored well maybe the

3500
02:11:22,910 --> 02:11:20,639
toe the true toe is like something like

3501
02:11:25,430 --> 02:11:22,920
live like live in a certain manner oh it

3502
02:11:27,530 --> 02:11:25,440
has more love if you think that there's

3503
02:11:29,629 --> 02:11:27,540
non-propositional knowing which I think

3504
02:11:32,149 --> 02:11:29,639
deeply there is and it's more primordial

3505
02:11:34,070 --> 02:11:32,159
and important to your cognitive agency

3506
02:11:37,669 --> 02:11:34,080
than propositional knowing you're not

3507
02:11:40,370 --> 02:11:37,679
going to capture it if you by Theory you

3508
02:11:42,709 --> 02:11:40,380
mean you know your set of propositions I

3509
02:11:45,530 --> 02:11:42,719
did say I don't think of theories just

3510
02:11:47,149 --> 02:11:45,540
as formal systems uh that doesn't make

3511
02:11:50,330 --> 02:11:47,159
any sense to me I think their theories

3512
02:11:53,510 --> 02:11:50,340
are better understood as interpretations

3513
02:11:55,790 --> 02:11:53,520

and bridges of our formal propositions

3514
02:11:58,490 --> 02:11:55,800
into the other kind of knowings that's

3515
02:12:00,830 --> 02:11:58,500
what I think theories actually do for us

3516
02:12:02,510 --> 02:12:00,840
the podcast is now concluded thank you

3517
02:12:04,370 --> 02:12:02,520
for watching if you haven't subscribed

3518
02:12:06,410 --> 02:12:04,380
or clicked on that like button now would

3519
02:12:09,169 --> 02:12:06,420
be a great time to do so as each

3520
02:12:11,209 --> 02:12:09,179
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3521
02:12:12,950 --> 02:12:11,219
this content to more people also I

3522
02:12:15,410 --> 02:12:12,960
recently found out that external links

3523
02:12:17,870 --> 02:12:15,420
count plenty toward the algorithm which

3524
02:12:19,129 --> 02:12:17,880
means that when you share on Twitter on

3525
02:12:21,350 --> 02:12:19,139
Facebook on Reddit

3526
02:12:23,149 --> 02:12:21,360
Etc it shows YouTube that people are

3527
02:12:25,250 --> 02:12:23,159
talking about this outside of YouTube

3528
02:12:27,109 --> 02:12:25,260
which in turn greatly AIDS the

3529
02:12:28,729 --> 02:12:27,119
Distribution on YouTube as well if you'd

3530
02:12:31,089 --> 02:12:28,739
like to support more conversations like

3531
02:12:33,109 --> 02:12:31,099
this then do consider visiting

3532
02:12:35,390 --> 02:12:33,119
theoriesofeverything.org again it's

3533
02:12:37,790 --> 02:12:35,400
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3534
02:12:39,470 --> 02:12:37,800
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3535
02:12:41,570 --> 02:12:39,480
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3536
02:12:43,669 --> 02:12:41,580
episodes there as well every dollar

3537
02:12:45,709 --> 02:12:43,679
helps far more than you may think either