

1  
00:00:00,000 --> 00:00:06,778  
I was wondering how many people have

2  
00:00:03,359 --> 00:00:12,119  
heard of the green flash alright good

3  
00:00:06,778 --> 00:00:14,339  
it's an atmospheric phenomenon we're

4  
00:00:12,119 --> 00:00:17,100  
just at certain places at certain times

5  
00:00:14,339 --> 00:00:19,559  
certain atmospheric conditions just at

6  
00:00:17,100 --> 00:00:20,880  
the moment when the Sun is just about

7  
00:00:19,559 --> 00:00:23,879  
doesn't disappear over the horizon

8  
00:00:20,879 --> 00:00:26,099  
there's this brilliant green flash it's

9  
00:00:23,879 --> 00:00:30,329  
it's not a visual effect it's actually

10  
00:00:26,099 --> 00:00:32,820  
physical and so that phenomenon reminded

11  
00:00:30,329 --> 00:00:37,109  
me of what I'm going to talk about today

12  
00:00:32,820 --> 00:00:39,420  
which I call the brain flash which I

13  
00:00:37,109 --> 00:00:43,159  
learned about at the Tucson conference

14  
00:00:39,420 --> 00:00:52,469  
of the consciousness studies group in

15  
00:00:43,159 --> 00:00:56,419  
Arizona in April of 2014 so I'm going to

16  
00:00:52,469 --> 00:00:59,550  
approach this by using a model of

17  
00:00:56,420 --> 00:01:01,890  
scientific discovery based on the work

18  
00:00:59,549 --> 00:01:05,280  
of Michael Polanyi and it's it's

19  
00:01:01,890 --> 00:01:10,799  
actually fairly obvious you start with

20  
00:01:05,280 --> 00:01:13,228  
observations use the intuitive heuristic

21  
00:01:10,799 --> 00:01:17,759  
part of you begins to sense that there's

22  
00:01:13,228 --> 00:01:18,989  
a pattern there and you you then get a

23  
00:01:17,759 --> 00:01:21,478  
feeling that there's actually some

24  
00:01:18,989 --> 00:01:24,000  
potential there some depth some

25  
00:01:21,478 --> 00:01:26,219  
juiciness you know the feeling and so

26  
00:01:24,000 --> 00:01:31,129  
then then you're hooked and you have to

27  
00:01:26,219 --> 00:01:34,349  
pursue it so you develop a hypothesis

28  
00:01:31,129 --> 00:01:37,769  
and once you get your hypothesis you

29

00:01:34,349 --> 00:01:40,019  
begin to explore the logical extensions

30  
00:01:37,769 --> 00:01:43,158  
of that hypothesis and if they're

31  
00:01:40,019 --> 00:01:46,649  
plausible you then think about the the

32  
00:01:43,159 --> 00:01:48,630  
implications of the hypothesis to the

33  
00:01:46,649 --> 00:01:51,750  
paradigm to the dominant paradigm and

34  
00:01:48,629 --> 00:01:54,298  
then hopefully in that process you're

35  
00:01:51,750 --> 00:01:57,569  
beginning your validation through

36  
00:01:54,299 --> 00:01:59,759  
empirical memes or whatever so I wanted

37  
00:01:57,569 --> 00:02:02,699  
to imply apply that just to give you

38  
00:01:59,759 --> 00:02:05,188  
examples of that in in the case of

39  
00:02:02,700 --> 00:02:08,610  
Galileo his hypothesis was a

40  
00:02:05,188 --> 00:02:11,669  
heliocentric cosmos the logical

41  
00:02:08,610 --> 00:02:13,910  
extension the stars are other Suns big

42  
00:02:11,669 --> 00:02:17,079  
big big step

43  
00:02:13,909 --> 00:02:21,079

not justified by empirical data but but

44

00:02:17,080 --> 00:02:22,910

you know later was and the implication

45

00:02:21,080 --> 00:02:26,570

for the paradigm which obviously almost

46

00:02:22,909 --> 00:02:27,289

got him burnt at the stake the cosmos is

47

00:02:26,569 --> 00:02:30,199

vast

48

00:02:27,289 --> 00:02:33,079

we are not central to it and Genesis is

49

00:02:30,199 --> 00:02:38,319

not scientifically exhaustive it's good

50

00:02:33,080 --> 00:02:43,100

but not exhaustive same same sort of a

51

00:02:38,319 --> 00:02:46,459

theory with Darwin hypothesis rather

52

00:02:43,099 --> 00:02:49,819

basic species evolved a random mutation

53

00:02:46,460 --> 00:02:52,700

natural selection the logical extension

54

00:02:49,819 --> 00:02:56,169

of that that life has evolved from

55

00:02:52,699 --> 00:02:58,789

simple forms to human species again a

56

00:02:56,169 --> 00:03:01,789

logical extension rather than something

57

00:02:58,789 --> 00:03:03,319

forced by the data and the implications

58

00:03:01,789 --> 00:03:07,159  
for the paradigm which we're still

59

00:03:03,319 --> 00:03:09,859  
absorbing that all life is related that

60

00:03:07,159 --> 00:03:16,269  
evolution accounts for all behavior that

61

00:03:09,860 --> 00:03:20,000  
that that's a an insurgent part of the

62

00:03:16,270 --> 00:03:23,900  
regnant paradigm and finally as an

63

00:03:20,000 --> 00:03:26,629  
example Einstein the hypothesis is that

64

00:03:23,900 --> 00:03:29,930  
the only universal constant is the ratio

65

00:03:26,629 --> 00:03:33,769  
between space and time which is  $C$  the

66

00:03:29,930 --> 00:03:38,689  
logical extension is energy and matter

67

00:03:33,770 --> 00:03:41,150  
their relationship and finally the

68

00:03:38,689 --> 00:03:44,329  
implication for the paradigm there's no

69

00:03:41,150 --> 00:03:44,870  
absolute space in time and everything is

70

00:03:44,330 --> 00:03:48,320  
relative

71

00:03:44,870 --> 00:03:49,909  
which then which then leaks out from the

72  
00:03:48,319 --> 00:03:54,229  
scientific paradigm into the other

73  
00:03:49,909 --> 00:03:57,169  
paradigms and it creates relativism not

74  
00:03:54,229 --> 00:04:02,479  
blaming Einstein but so so there's that

75  
00:03:57,169 --> 00:04:07,909  
three-part approach now I'd like to

76  
00:04:02,479 --> 00:04:10,509  
apply that to observations done at the

77  
00:04:07,909 --> 00:04:14,719  
University of Michigan by a team and

78  
00:04:10,509 --> 00:04:17,829  
what they discovered I they discovered a

79  
00:04:14,719 --> 00:04:21,529  
surge of coherent and comprehensive

80  
00:04:17,829 --> 00:04:23,810  
brain activity right after cardiac

81  
00:04:21,529 --> 00:04:26,899  
arrest about 30 seconds into cardiac

82  
00:04:23,810 --> 00:04:30,918  
arrest when there was no heartbeat no

83  
00:04:26,899 --> 00:04:35,000  
respiration and immediately preceding

84  
00:04:30,918 --> 00:04:38,299  
flatline brain death there was intense

85  
00:04:35,000 --> 00:04:41,978  
activity in the theta area where REM

86

00:04:38,300 --> 00:04:46,129  
takes place and then bursting into

87  
00:04:41,978 --> 00:04:49,788  
surging into gamma hyperactivity in both

88  
00:04:46,129 --> 00:04:53,500  
rat and human models and so the question

89  
00:04:49,788 --> 00:04:57,379  
was we've got these we've got that data

90  
00:04:53,500 --> 00:05:06,439  
we see a pattern what what could it

91  
00:04:57,379 --> 00:05:09,199  
possibly mean the the key phrase here is

92  
00:05:06,439 --> 00:05:11,870  
coherence in other words it's not like

93  
00:05:09,199 --> 00:05:13,699  
the brain suddenly gets a signal that

94  
00:05:11,870 --> 00:05:17,418  
it's going to die and it goes crazy

95  
00:05:13,699 --> 00:05:21,650  
alright just it's collapsing or etc it's

96  
00:05:17,418 --> 00:05:25,728  
just the opposite it reaches a state of

97  
00:05:21,649 --> 00:05:29,359  
coherence and comprehension equal to or

98  
00:05:25,728 --> 00:05:33,079  
superior to what is experienced in

99  
00:05:29,360 --> 00:05:37,038  
normal consciousness the the team was

100  
00:05:33,079 --> 00:05:42,948

led by hemo Jorge Nina and George my

101

00:05:37,038 --> 00:05:46,908

sure the it was reported in the I think

102

00:05:42,949 --> 00:05:53,389

the August issue of Proceedings of the

103

00:05:46,908 --> 00:05:56,779

National Academy of Science in fact at

104

00:05:53,389 --> 00:05:59,030

near death according to the authors of

105

00:05:56,779 --> 00:06:01,339

the study many known electrical

106

00:05:59,029 --> 00:06:03,969

signatures of consciousness exceeded

107

00:06:01,339 --> 00:06:06,728

levels found in the waking state

108

00:06:03,970 --> 00:06:09,470

suggesting that the brain is capable of

109

00:06:06,728 --> 00:06:11,658

well-organized electrical activity

110

00:06:09,470 --> 00:06:14,780

during the early stage of clinical death

111

00:06:11,658 --> 00:06:18,379

here's how they discovered that they

112

00:06:14,779 --> 00:06:21,019

were doing experiments on rats they had

113

00:06:18,379 --> 00:06:26,319

two dozen rats in cages they had them

114

00:06:21,019 --> 00:06:28,848

wired up all the time to EEG EKGs and

115  
00:06:26,319 --> 00:06:30,709  
you know it's like the bad dream in a

116  
00:06:28,848 --> 00:06:34,430  
pet shop one morning they came in and

117  
00:06:30,709 --> 00:06:37,219  
nine of the rats had died

118  
00:06:34,430 --> 00:06:41,930  
and so that was a setback for the

119  
00:06:37,220 --> 00:06:45,080  
research and so one of them one of the

120  
00:06:41,930 --> 00:06:48,590  
researchers was just looking over the

121  
00:06:45,079 --> 00:06:50,719  
you know EKG and EEG to try to determine

122  
00:06:48,589 --> 00:06:54,019  
what might have happened and lo and

123  
00:06:50,720 --> 00:06:57,410  
behold there was the there were these

124  
00:06:54,019 --> 00:07:02,479  
surges in the EEG we were completely

125  
00:06:57,410 --> 00:07:04,600  
counterintuitive and so so they then I'm

126  
00:07:02,480 --> 00:07:08,770  
sorry to say they replicated the study

127  
00:07:04,600 --> 00:07:12,260  
but by using s fixin rather than

128  
00:07:08,769 --> 00:07:15,409  
inducing cardiac arrest and and there it

129  
00:07:12,259 --> 00:07:19,849  
was there it was then not not 20% but

130  
00:07:15,410 --> 00:07:23,570  
everybody so there are the lead

131  
00:07:19,850 --> 00:07:27,700  
researchers mature and Bohr Hina poor

132  
00:07:23,569 --> 00:07:27,699  
hey ghen a you can see one of the rats

133  
00:07:30,819 --> 00:07:39,829  
so this indicate this is the the actual

134  
00:07:36,949 --> 00:07:42,409  
abstract I'm not going to read it but

135  
00:07:39,829 --> 00:07:45,319  
I'll just read the conclusion these data

136  
00:07:42,410 --> 00:07:49,550  
demonstrate that the mammalian brain can

137  
00:07:45,319 --> 00:07:51,550  
albeit paradoxically generate neural

138  
00:07:49,550 --> 00:07:58,280  
correlates of heightened consciousness

139  
00:07:51,550 --> 00:08:01,400  
preceding processing at near death what

140  
00:07:58,279 --> 00:08:03,169  
to make of this high-frequency neuro

141  
00:08:01,399 --> 00:08:06,919  
physiological activity in the near-death

142  
00:08:03,170 --> 00:08:08,420  
state was highly organized and exceeded

143

00:08:06,920 --> 00:08:11,120  
that found during wakefulness

144  
00:08:08,420 --> 00:08:13,900  
wakefulness these data provide a

145  
00:08:11,120 --> 00:08:17,000  
neuroscientific framework for explaining

146  
00:08:13,899 --> 00:08:19,759  
heightened conscious experience after

147  
00:08:17,000 --> 00:08:21,800  
cardiac and respiratory arrest so you

148  
00:08:19,759 --> 00:08:27,920  
see that now they've made a logical step

149  
00:08:21,800 --> 00:08:34,279  
away from just the data right now a

150  
00:08:27,920 --> 00:08:38,720  
different team four years earlier three

151  
00:08:34,279 --> 00:08:41,929  
years earlier from GW Medical Center had

152  
00:08:38,720 --> 00:08:46,060  
was doing similar work on human beings

153  
00:08:41,929 --> 00:08:48,399  
and again in cardiac arrest

154  
00:08:46,059 --> 00:08:53,589  
had people wired to EEG which is unusual

155  
00:08:48,399 --> 00:08:54,909  
and they found the same surge so when

156  
00:08:53,590 --> 00:08:57,370  
they read this report about the rats

157  
00:08:54,909 --> 00:09:00,389

they immediately wrote and said hey what

158

00:08:57,370 --> 00:09:03,700

about us we're observing the same thing

159

00:09:00,389 --> 00:09:06,278

so now we have a continuum we have rats

160

00:09:03,700 --> 00:09:08,410

two humans and there's a logical

161

00:09:06,278 --> 00:09:10,720

extension that probably we could fill in

162

00:09:08,409 --> 00:09:12,639

the gaps that we would probably find it

163

00:09:10,720 --> 00:09:15,009

all along the line we don't know how far

164

00:09:12,639 --> 00:09:20,649

back it goes but we know it goes all the

165

00:09:15,009 --> 00:09:23,610

way up what to make of it so this is

166

00:09:20,649 --> 00:09:28,209

just a quick review of your brainwave

167

00:09:23,610 --> 00:09:31,620

info where we have Delta at the bottom

168

00:09:28,210 --> 00:09:37,860

which is deep unconscious consciousness

169

00:09:31,620 --> 00:09:42,730

theta which is dream states ESP

170

00:09:37,860 --> 00:09:45,580

imaginative imaginative and so on alphas

171

00:09:42,730 --> 00:09:49,990

relaxed beta is your kind of normal

172  
00:09:45,580 --> 00:09:52,690  
everyday get things done and gamma is oh

173  
00:09:49,990 --> 00:09:55,659  
my god you know it's like the your

174  
00:09:52,690 --> 00:09:58,930  
Eureka moments etc so what we're talking

175  
00:09:55,659 --> 00:10:04,929  
about here is activity in two

176  
00:09:58,929 --> 00:10:07,838  
disconnected bands theta imaginative etc

177  
00:10:04,929 --> 00:10:12,069  
and gamma and you'll see that in the

178  
00:10:07,839 --> 00:10:16,930  
next here's a picture of the actual scan

179  
00:10:12,070 --> 00:10:19,390  
and it's it's you know not intuitive to

180  
00:10:16,929 --> 00:10:20,979  
read it so I'll just point out basically

181  
00:10:19,389 --> 00:10:25,330  
what's happening here this is time and

182  
00:10:20,980 --> 00:10:27,670  
this is brain brain waves brain

183  
00:10:25,330 --> 00:10:31,750  
amplitude amplitude down here at the

184  
00:10:27,669 --> 00:10:36,519  
theta level right here we at the black

185  
00:10:31,750 --> 00:10:39,909  
line is cardiac arrest begins shortly

186  
00:10:36,519 --> 00:10:43,480  
thereafter unexpected paradoxical

187  
00:10:39,909 --> 00:10:47,579  
activity in the theta range very shortly

188  
00:10:43,480 --> 00:10:49,720  
thereafter extreme activity and

189  
00:10:47,580 --> 00:10:53,850  
comprehensive meaning the entire brain

190  
00:10:49,720 --> 00:10:58,410  
and coherent in the in the gamma range

191  
00:10:53,850 --> 00:11:01,860  
and those those continue for

192  
00:10:58,409 --> 00:11:04,318  
a period of it it really kicked this the

193  
00:11:01,860 --> 00:11:06,560  
dotted line is 30 seconds in so you can

194  
00:11:04,318 --> 00:11:10,578  
see it's like a minute or so and then

195  
00:11:06,559 --> 00:11:10,578  
that's that's the end of the ball game

196  
00:11:11,419 --> 00:11:15,599  
so that that's just sort of a

197  
00:11:13,679 --> 00:11:18,508  
representation a functional

198  
00:11:15,600 --> 00:11:22,170  
representation of what they did not

199  
00:11:18,509 --> 00:11:26,009  
expect to find and that don't know what

200

00:11:22,169 --> 00:11:29,159  
to do about so what's going on here

201  
00:11:26,009 --> 00:11:32,669  
what's sort of a an explanation can we

202  
00:11:29,159 --> 00:11:36,120  
make out of this so again we have our

203  
00:11:32,669 --> 00:11:38,789  
hypothesis our logical extensions our

204  
00:11:36,120 --> 00:11:41,610  
paradigmatic implications and then

205  
00:11:38,789 --> 00:11:48,838  
obviously the process of validation one

206  
00:11:41,610 --> 00:11:51,419  
way or the other okay so here is the

207  
00:11:48,839 --> 00:11:54,389  
hypothesis of the team from Michigan

208  
00:11:51,419 --> 00:11:57,299  
we're going from data now to hypothesis

209  
00:11:54,389 --> 00:11:58,110  
we reasoned that if near-death

210  
00:11:57,299 --> 00:12:01,588  
experience

211  
00:11:58,110 --> 00:12:04,829  
aah-ha stems from brain activity if it

212  
00:12:01,589 --> 00:12:06,930  
does not correlate civ consciousness

213  
00:12:04,828 --> 00:12:09,929  
should be identifiable in humans or

214  
00:12:06,929 --> 00:12:13,859

animals even after this cessation of

215

00:12:09,929 --> 00:12:19,318

cerebral blood flow okay so now we have

216

00:12:13,860 --> 00:12:24,089

a neural basis for NDE within the frame

217

00:12:19,318 --> 00:12:27,708

of biological life what's the logical

218

00:12:24,089 --> 00:12:30,480

extension of that NDEs are pre-mortem

219

00:12:27,708 --> 00:12:35,508

and let's not say delusion so that's

220

00:12:30,480 --> 00:12:39,120

impolite let's say imaginative events

221

00:12:35,509 --> 00:12:42,329

therefore we can put in DES within the

222

00:12:39,120 --> 00:12:44,610

physical paradigm yeah we can now we can

223

00:12:42,328 --> 00:12:51,149

acknowledge them you know now that we

224

00:12:44,610 --> 00:12:54,149

have a way to do that okay so what are

225

00:12:51,149 --> 00:12:56,458

the implications for the paradigm there

226

00:12:54,149 --> 00:13:00,318

aren't any actually we've actually just

227

00:12:56,458 --> 00:13:02,818

confirmed the regnant paradigm and any

228

00:13:00,318 --> 00:13:05,278

animal ease is consistent with

229  
00:13:02,818 --> 00:13:09,078  
post-mortem survival can be accounted

230  
00:13:05,278 --> 00:13:09,078  
for within that paradigm

231  
00:13:10,000 --> 00:13:16,028  
okay so there was a than a

232  
00:13:13,480 --> 00:13:19,089  
correspondence the most important part

233  
00:13:16,028 --> 00:13:22,240  
of which was from Bruce Grayson from

234  
00:13:19,089 --> 00:13:25,300  
Dobbs at UVA and Ross dunseith who was

235  
00:13:22,240 --> 00:13:28,299  
here yesterday you may recall and they

236  
00:13:25,299 --> 00:13:32,349  
pointed out seven things that refuted

237  
00:13:28,299 --> 00:13:34,899  
that hypothesis the most important of

238  
00:13:32,350 --> 00:13:38,379  
which was the energy level was

239  
00:13:34,899 --> 00:13:41,980  
insufficient for actual consciousness at

240  
00:13:38,379 --> 00:13:45,970  
during during that point so so therefore

241  
00:13:41,980 --> 00:13:48,129  
the implications of that is either NDE

242  
00:13:45,970 --> 00:13:50,410  
is happening outside the physical

243  
00:13:48,129 --> 00:13:52,560  
paradigm or it's not happening at all

244  
00:13:50,409 --> 00:13:55,448  
and we know it's happening so therefore

245  
00:13:52,559 --> 00:13:58,078  
you can see you can see why they needed

246  
00:13:55,448 --> 00:14:02,229  
to respond quite a way right away

247  
00:13:58,078 --> 00:14:03,969  
so the Michigan team then responded they

248  
00:14:02,230 --> 00:14:10,449  
said no you're wrong

249  
00:14:03,970 --> 00:14:12,160  
we have inter-cranial EEG so etc etc I

250  
00:14:10,448 --> 00:14:16,088  
won't go into all the details but they

251  
00:14:12,159 --> 00:14:17,740  
felt that they had refuted it however

252  
00:14:16,089 --> 00:14:20,920  
what they did not refute the point they

253  
00:14:17,740 --> 00:14:24,549  
did not refute was the basic hypothesis

254  
00:14:20,919 --> 00:14:28,438  
which is okay so this is where humans

255  
00:14:24,549 --> 00:14:31,539  
are having NDEs what about the rats

256  
00:14:28,438 --> 00:14:35,438  
what kind of Indies are they having you

257

00:14:31,539 --> 00:14:39,308  
know and why would there be in DES and I

258  
00:14:35,438 --> 00:14:43,629  
I asked I'm sometimes I get it excited

259  
00:14:39,308 --> 00:14:46,269  
and forget the PowerPoint my question

260  
00:14:43,629 --> 00:14:50,649  
was what is the plausible plausible

261  
00:14:46,269 --> 00:14:54,639  
function of this okay we have an answer

262  
00:14:50,649 --> 00:15:00,759  
for Indies which is the plausible

263  
00:14:54,639 --> 00:15:02,558  
function is that that maybe somebody is

264  
00:15:00,759 --> 00:15:04,959  
being revived and then they go back to

265  
00:15:02,558 --> 00:15:07,088  
the tribe and the tribe feels better

266  
00:15:04,958 --> 00:15:08,179  
about death so they can fight harder and

267  
00:15:07,089 --> 00:15:11,370  
war you know

268  
00:15:08,179 --> 00:15:15,419  
adaptive in a group sense but again

269  
00:15:11,370 --> 00:15:17,310  
that's no answer for the rats and we

270  
00:15:15,419 --> 00:15:20,939  
have the principle of evolutionary

271  
00:15:17,309 --> 00:15:24,208

parsimony which which is that things

272

00:15:20,940 --> 00:15:29,220

that are not adaptive in strong ways

273

00:15:24,208 --> 00:15:31,669

tend to get eliminated in the process of

274

00:15:29,220 --> 00:15:34,920

evolution but this hasn't been a

275

00:15:31,669 --> 00:15:37,649

eliminated and it's as strong as ever

276

00:15:34,919 --> 00:15:39,838

so so therefore it must have a function

277

00:15:37,649 --> 00:15:43,589

it it's not epic phenomenal in other

278

00:15:39,839 --> 00:15:45,660

words that's what that implies so if

279

00:15:43,589 --> 00:15:49,259

this is an adaptive trait and not an

280

00:15:45,659 --> 00:15:51,269

epiphenomena how is it inherited if it's

281

00:15:49,259 --> 00:15:58,050

happening at the moment of death how do

282

00:15:51,269 --> 00:16:01,110

you pass it on right so a rat or a human

283

00:15:58,049 --> 00:16:04,109

may reproduce prior to the brain flash

284

00:16:01,110 --> 00:16:06,690

but how can it be adaptive at the moment

285

00:16:04,110 --> 00:16:10,350

of death if it's not even relevant in

286  
00:16:06,690 --> 00:16:15,899  
group evolution so that leads us to back

287  
00:16:10,350 --> 00:16:21,629  
to our plan here and here's an alternate

288  
00:16:15,899 --> 00:16:24,839  
hypothesis the NDE explanation is set

289  
00:16:21,629 --> 00:16:27,750  
aside since it only applies to one of

290  
00:16:24,839 --> 00:16:30,750  
the species evidencing this brain

291  
00:16:27,750 --> 00:16:33,688  
Fleshman on that what I mean is not that

292  
00:16:30,750 --> 00:16:36,720  
NDE is set aside but rather that this

293  
00:16:33,688 --> 00:16:41,578  
use of NDE it's happening within this

294  
00:16:36,720 --> 00:16:42,930  
brief period that's set aside the brain

295  
00:16:41,578 --> 00:16:45,088  
flash has something to do with

296  
00:16:42,929 --> 00:16:48,149  
processing information we know that

297  
00:16:45,089 --> 00:16:50,160  
because that's what the brain does it's

298  
00:16:48,149 --> 00:16:52,110  
not chaotic it occurs at the last

299  
00:16:50,159 --> 00:16:57,899  
possible moment of living experience

300  
00:16:52,110 --> 00:17:01,470  
it's coherent and comprehensive so the

301  
00:16:57,899 --> 00:17:03,809  
hypothesis is that's consistent with all

302  
00:17:01,470 --> 00:17:06,659  
those factors that the brain flesh

303  
00:17:03,809 --> 00:17:09,088  
creates an impression of the state of

304  
00:17:06,659 --> 00:17:12,030  
the information in the brain at the last

305  
00:17:09,088 --> 00:17:17,328  
possible moment what would be the

306  
00:17:12,029 --> 00:17:20,158  
function the logical extension

307  
00:17:17,328 --> 00:17:21,480  
although the brain flesh is not adaptive

308  
00:17:20,159 --> 00:17:24,270  
for the dying

309  
00:17:21,480 --> 00:17:27,120  
animal or human it's adaptive for a

310  
00:17:24,269 --> 00:17:30,210  
subsequent animal or human and therefore

311  
00:17:27,119 --> 00:17:32,489  
the group it's known that the brain

312  
00:17:30,210 --> 00:17:37,289  
encodes and decodes information of many

313  
00:17:32,490 --> 00:17:40,230  
kinds it could then possibly encode the

314

00:17:37,289 --> 00:17:43,319  
final brain state to be transferred to

315  
00:17:40,230 --> 00:17:46,679  
an unborn or newly born individual or to

316  
00:17:43,319 --> 00:17:49,349  
a collective unconscious the brain flash

317  
00:17:46,679 --> 00:17:53,870  
is another way by which information is

318  
00:17:49,349 --> 00:17:56,099  
passed from one generation to the next

319  
00:17:53,869 --> 00:17:59,879  
what are the implications for the

320  
00:17:56,099 --> 00:18:04,469  
paradigm number one the brain flash is a

321  
00:17:59,880 --> 00:18:06,210  
snapshot of cumulative impressions

322  
00:18:04,470 --> 00:18:12,179  
retained in the brain up to the last

323  
00:18:06,210 --> 00:18:13,650  
moment pre-mortem number two this

324  
00:18:12,179 --> 00:18:16,140  
hypothesis does not validate

325  
00:18:13,650 --> 00:18:18,840  
reincarnation after life or other

326  
00:18:16,140 --> 00:18:20,730  
post-mortem survival concepts it doesn't

327  
00:18:18,839 --> 00:18:23,849  
say anything about them but it does

328  
00:18:20,730 --> 00:18:28,819

imply intergenerational transmission of

329

00:18:23,849 --> 00:18:28,819

information by unspecified local means

330

00:18:30,079 --> 00:18:35,699

next that individuals are part of a

331

00:18:33,660 --> 00:18:39,570

larger matrix of information and

332

00:18:35,700 --> 00:18:47,640

experience that can transcend physical

333

00:18:39,569 --> 00:18:49,019

limitations non-local so this is a list

334

00:18:47,640 --> 00:18:51,840

of all the different ways that

335

00:18:49,019 --> 00:18:57,589

information is passed from generation to

336

00:18:51,839 --> 00:18:57,589

generation including the Kurzweil theory

337

00:18:59,808 --> 00:19:08,940

okay I did that oh the the final the

338

00:19:05,759 --> 00:19:13,019

fourth and final parody implication for

339

00:19:08,940 --> 00:19:19,420

the paradigm is nothingness

340

00:19:13,019 --> 00:19:22,289

yes it doesn't happen that way that

341

00:19:19,420 --> 00:19:25,350

evolution operates in the entire

342

00:19:22,289 --> 00:19:28,329

intergenerational matrix in other words

343  
00:19:25,349 --> 00:19:31,240  
evolution is not just physical evolution

344  
00:19:28,329 --> 00:19:35,619  
is not just individuals and groups and

345  
00:19:31,240 --> 00:19:37,960  
species that it that if this evolved as

346  
00:19:35,619 --> 00:19:40,689  
a way of transmitting information in a

347  
00:19:37,960 --> 00:19:43,150  
way that's adaptive then evolution must

348  
00:19:40,690 --> 00:19:47,470  
involve more than just the physical

349  
00:19:43,150 --> 00:19:52,420  
they must extend into a non-physical

350  
00:19:47,470 --> 00:19:56,610  
area a non adaptive trait can be

351  
00:19:52,420 --> 00:19:56,610  
adaptive for the succeeding generation

352  
00:19:58,019 --> 00:20:09,029  
okay so I just wanted to show you this

353  
00:20:04,269 --> 00:20:09,029  
little graphic here can you make it out

354  
00:20:09,779 --> 00:20:15,930  
okay good alright thank you very much

355  
00:20:21,079 --> 00:20:29,789  
thank you thank you James Steve hi I got

356  
00:20:28,140 --> 00:20:34,050  
a teddy I have so many problems of this

357  
00:20:29,789 --> 00:20:35,639  
I hardly know where to begin let's just

358  
00:20:34,049 --> 00:20:38,129  
forget about the idea for the moment

359  
00:20:35,640 --> 00:20:39,809  
that the brain encodes and decodes

360  
00:20:38,130 --> 00:20:42,570  
information I think that's completely

361  
00:20:39,808 --> 00:20:44,519  
wrong but that's another topic I'm

362  
00:20:42,569 --> 00:20:47,039  
puzzled by the way you talk about Indies

363  
00:20:44,519 --> 00:20:48,750  
because among other things you leave out

364  
00:20:47,039 --> 00:20:50,909  
the vertical aspects of the area what

365  
00:20:48,750 --> 00:20:52,349  
you leave out the vertical aspects of

366  
00:20:50,910 --> 00:20:53,730  
the experience and I don't see how

367  
00:20:52,349 --> 00:20:57,449  
you've addressed that at all

368  
00:20:53,730 --> 00:21:00,539  
I don't I don't make any judgment about

369  
00:20:57,450 --> 00:21:03,480  
any ease all I say is that it's it's

370  
00:21:00,539 --> 00:21:07,829  
implausible that the NDE is happening in

371

00:21:03,480 --> 00:21:10,799  
that period after cardiac arrest and

372  
00:21:07,829 --> 00:21:13,289  
before death but the whole thing about

373  
00:21:10,799 --> 00:21:15,299  
the evolutionary matrix I mean what's

374  
00:21:13,289 --> 00:21:18,928  
the function of the vertical aspect of

375  
00:21:15,299 --> 00:21:21,899  
an NDE well again I'm not saying

376  
00:21:18,929 --> 00:21:24,360  
anything about any that's I'm not saying

377  
00:21:21,900 --> 00:21:28,470  
anything about Indies I'm eliminating

378  
00:21:24,359 --> 00:21:32,129  
NDE from the conversation in other words

379  
00:21:28,470 --> 00:21:35,220  
you can say there are n des and they

380  
00:21:32,130 --> 00:21:37,890  
don't happen in the physical you know

381  
00:21:35,220 --> 00:21:39,539  
the physical frame then you can make an

382  
00:21:37,890 --> 00:21:41,460  
extension they must be happening outside

383  
00:21:39,539 --> 00:21:42,990  
the physical frame but I'm not making

384  
00:21:41,460 --> 00:21:47,400  
that because it's not really relevant to

385  
00:21:42,990 --> 00:21:48,720

my talk we'll have to pursue this later

386

00:21:47,400 --> 00:21:50,820

I don't get that okay

387

00:21:48,720 --> 00:21:52,980

as far as encoding information the

388

00:21:50,819 --> 00:21:54,659

corpus callosum does nothing but encode

389

00:21:52,980 --> 00:21:59,839

and decode information that's the

390

00:21:54,660 --> 00:21:59,840

receive you I reject that entirely John

391

00:21:59,929 --> 00:22:05,850

I'm a past president of international

392

00:22:03,119 --> 00:22:08,909

association for near-death studies for

393

00:22:05,849 --> 00:22:12,869

what I'm a past president of lions oh

394

00:22:08,910 --> 00:22:15,660

great yeah as such one of the liars

395

00:22:12,869 --> 00:22:18,149

answer or lots of letters and the point

396

00:22:15,660 --> 00:22:21,779

was I got many many letters that said I

397

00:22:18,150 --> 00:22:24,080

wasn't close to death but and they would

398

00:22:21,779 --> 00:22:28,009

describe the experiences

399

00:22:24,079 --> 00:22:29,628

like NDEs so I'm not convinced that

400  
00:22:28,009 --> 00:22:31,878  
unless there's something here this

401  
00:22:29,628 --> 00:22:35,269  
unique that says this is close to death

402  
00:22:31,878 --> 00:22:38,209  
experience also you're familiar with

403  
00:22:35,269 --> 00:22:41,388  
Evan Alexander I'm sorry this sound is

404  
00:22:38,210 --> 00:22:46,460  
so bad I'm just gonna do it I can't hear

405  
00:22:41,388 --> 00:22:48,949  
either it's a case with Evan Alexander

406  
00:22:46,460 --> 00:22:51,019  
oh sure sure point there is that of

407  
00:22:48,950 --> 00:22:54,139  
course he was in you know for like a

408  
00:22:51,019 --> 00:22:56,659  
week and and call my own experiencing

409  
00:22:54,138 --> 00:22:59,628  
these things going on we talk about

410  
00:22:56,659 --> 00:23:02,360  
something it's a unique well art and

411  
00:22:59,628 --> 00:23:02,990  
they can't explain it okay that's a

412  
00:23:02,359 --> 00:23:07,219  
valid point

413  
00:23:02,990 --> 00:23:08,480  
that's a point kind of kind of refer

414  
00:23:07,220 --> 00:23:10,940  
back to a similar comment I made

415  
00:23:08,480 --> 00:23:13,759  
yesterday about the brain activity as

416  
00:23:10,940 --> 00:23:16,879  
being measured by EEG if it's really a

417  
00:23:13,759 --> 00:23:18,950  
product of neuronal activity or if it's

418  
00:23:16,878 --> 00:23:20,359  
a product of a bio energetic field and

419  
00:23:18,950 --> 00:23:24,499  
I'll come back to how that's relevant

420  
00:23:20,359 --> 00:23:26,388  
but one possible way is that this is

421  
00:23:24,499 --> 00:23:28,639  
something that's very specific to the

422  
00:23:26,388 --> 00:23:32,658  
death process and therefore would be

423  
00:23:28,638 --> 00:23:35,118  
unique to NDE experience right but what

424  
00:23:32,659 --> 00:23:38,539  
about if it's perhaps something that's

425  
00:23:35,118 --> 00:23:40,128  
specific to the separation of the you

426  
00:23:38,538 --> 00:23:41,868  
could say astral body psycho soma

427  
00:23:40,128 --> 00:23:44,480  
whatever you want to call it that dis

428

00:23:41,868 --> 00:23:46,128  
coincidence of the bodies and then they

429  
00:23:44,480 --> 00:23:48,470  
and the loosening of the energetic body

430  
00:23:46,128 --> 00:23:50,959  
during that process which is therefore

431  
00:23:48,470 --> 00:23:54,129  
read off by the EEG so I'm wondering if

432  
00:23:50,960 --> 00:23:57,980  
that if that hypothesis was true if this

433  
00:23:54,128 --> 00:24:00,259  
technique could be applied to looking at

434  
00:23:57,980 --> 00:24:03,019  
the neural signatures of the take off

435  
00:24:00,259 --> 00:24:05,360  
the lucid take off from an out-of-body

436  
00:24:03,019 --> 00:24:06,829  
experience so this makes sense so the

437  
00:24:05,359 --> 00:24:08,778  
problem with studying it will be ease

438  
00:24:06,829 --> 00:24:10,460  
and with neuro scientific methods is

439  
00:24:08,778 --> 00:24:11,720  
that the the temporal signature there's

440  
00:24:10,460 --> 00:24:12,649  
no way to say well whether they project

441  
00:24:11,720 --> 00:24:15,440  
it or not because there's no

442  
00:24:12,648 --> 00:24:17,959

physiological way to detect that we know

443

00:24:15,440 --> 00:24:20,360

of whether the consciousness is local or

444

00:24:17,960 --> 00:24:21,679

non-local to the body right you know I'm

445

00:24:20,359 --> 00:24:23,359

talking about just not non-pathological

446

00:24:21,679 --> 00:24:24,950

an D condition I mean just an

447

00:24:23,359 --> 00:24:27,168

out-of-body experience its provoked by

448

00:24:24,950 --> 00:24:29,749

by will but if we could find some kind

449

00:24:27,169 --> 00:24:31,220

of clear energetic signature as read out

450

00:24:29,749 --> 00:24:31,759

by EEG this could be something that

451

00:24:31,220 --> 00:24:34,100

could

452

00:24:31,759 --> 00:24:35,839

then be used as a timestamp so that

453

00:24:34,099 --> 00:24:37,759

using other neuroscience methods even

454

00:24:35,839 --> 00:24:39,529

including fMRI we can start to look at

455

00:24:37,759 --> 00:24:41,930

like what's happening in the brain while

456

00:24:39,529 --> 00:24:43,910

the consciousness is you know non-local

457  
00:24:41,930 --> 00:24:45,950  
essentially yeah that's interesting

458  
00:24:43,910 --> 00:24:49,880  
hypothesis I guess my only question

459  
00:24:45,950 --> 00:24:53,720  
would be why does it require this

460  
00:24:49,880 --> 00:24:56,750  
incredible coherent comprehensive surge

461  
00:24:53,720 --> 00:25:00,500  
you know what's what's happening there

462  
00:24:56,750 --> 00:25:04,390  
right so just you know mind we're just a

463  
00:25:00,500 --> 00:25:07,640  
ton of you know examining this is

464  
00:25:04,390 --> 00:25:09,770  
completely theoretical but during the

465  
00:25:07,640 --> 00:25:12,080  
separation process there's a dis

466  
00:25:09,769 --> 00:25:13,250  
alignment of the bodies yeah you know if

467  
00:25:12,079 --> 00:25:15,019  
you're assuming that there is some

468  
00:25:13,250 --> 00:25:16,609  
energetic body that we are projected in

469  
00:25:15,019 --> 00:25:19,579  
during the NDE experience which is

470  
00:25:16,609 --> 00:25:21,559  
corroborated right what are the

471  
00:25:19,579 --> 00:25:23,539  
characteristics of that body it's not

472  
00:25:21,559 --> 00:25:26,929  
being mediated through a physical medium

473  
00:25:23,539 --> 00:25:29,930  
right and so equipment that's very

474  
00:25:26,930 --> 00:25:32,240  
sensitive to electrical signals like EEG

475  
00:25:29,930 --> 00:25:33,680  
might be able to pick up more of that

476  
00:25:32,240 --> 00:25:35,480  
energy because it's not filtered through

477  
00:25:33,680 --> 00:25:37,340  
this dense physical medium so in that

478  
00:25:35,480 --> 00:25:39,200  
separation of consciousness period where

479  
00:25:37,339 --> 00:25:41,000  
that lucid take off is actually

480  
00:25:39,200 --> 00:25:43,730  
occurring may not be something specific

481  
00:25:41,000 --> 00:25:45,859  
to death but specific to the

482  
00:25:43,730 --> 00:25:48,079  
malalignment or disalignment of the

483  
00:25:45,859 --> 00:25:49,579  
bodies right so in that case we don't

484  
00:25:48,079 --> 00:25:51,259  
have to look at just any easy experience

485

00:25:49,579 --> 00:25:53,389  
we could look at like the more healthy

486  
00:25:51,259 --> 00:25:55,579  
lucid projection experience and see if

487  
00:25:53,390 --> 00:25:57,320  
that's a time signature interesting

488  
00:25:55,579 --> 00:25:58,669  
thank you Mark if you could keep it

489  
00:25:57,319 --> 00:26:01,009  
short we'll have your question last

490  
00:25:58,670 --> 00:26:03,470  
we're running late I'll try to keep it

491  
00:26:01,009 --> 00:26:05,509  
short here I just want to correct them

492  
00:26:03,470 --> 00:26:08,779  
sort of a misperception in terms of

493  
00:26:05,509 --> 00:26:10,190  
evolution in other words the every

494  
00:26:08,779 --> 00:26:13,910  
behavior is not necessarily

495  
00:26:10,190 --> 00:26:15,740  
evolutionarily optimal and the fact that

496  
00:26:13,910 --> 00:26:19,040  
these things occur doesn't mean that

497  
00:26:15,740 --> 00:26:20,599  
they have reproducible benefit this just

498  
00:26:19,039 --> 00:26:23,240  
could be a side effect of some of the

499  
00:26:20,599 --> 00:26:26,209

other things that evolved as a part of

500

00:26:23,240 --> 00:26:29,240

other natural evolution processes so the

501

00:26:26,210 --> 00:26:31,069

idea that this every behavior every

502

00:26:29,240 --> 00:26:32,509

function I mean you talk to any

503

00:26:31,069 --> 00:26:35,319

orthopedic they'll tell you our knees

504

00:26:32,509 --> 00:26:37,369

are not optimally designed as an example

505

00:26:35,319 --> 00:26:39,059

you're sort of saying it could be a

506

00:26:37,369 --> 00:26:50,250

phenomenal

507

00:26:39,059 --> 00:26:52,349

No well that's how I meant by

508

00:26:50,250 --> 00:26:54,210

epiphenomena let's functionalists in a

509

00:26:52,349 --> 00:26:57,059

way what you're saying yeah that seems

510

00:26:54,210 --> 00:26:59,100

implausible to me but it's possible I I

511

00:26:57,059 --> 00:27:02,490

do think the fact that it replicates

512

00:26:59,099 --> 00:27:06,480

from species to species suggests that it

513

00:27:02,490 --> 00:27:07,569

has an important function possible thank

514

00:27:06,480 --> 00:27:12,220

you James

515

00:27:07,569 --> 00:27:12,220

[Applause]