

1
00:00:00,000 --> 00:00:04,230
experience and in many thousands of

2
00:00:01,919 --> 00:00:07,019
published reports and I could talk to

3
00:00:04,230 --> 00:00:09,300
you for seven or eight hours on the

4
00:00:07,019 --> 00:00:11,369
phenomenon alone but I've picked two

5
00:00:09,300 --> 00:00:13,500
reports that illustrate one principle

6
00:00:11,369 --> 00:00:15,660
that's really critical to what I have to

7
00:00:13,500 --> 00:00:17,750
tell you at the end of the talk these

8
00:00:15,660 --> 00:00:20,789
are reports in the operating room of

9
00:00:17,750 --> 00:00:23,039
people who died on the table and were

10
00:00:20,789 --> 00:00:25,500
resuscitated and then told their stories

11
00:00:23,039 --> 00:00:28,320
later on and the first person says as

12
00:00:25,500 --> 00:00:31,890
they that is the doctors and nurses came

13
00:00:28,320 --> 00:00:33,480
by they wouldn't seem to notice me they

14
00:00:31,890 --> 00:00:35,549
would just keep walking with their eyes

15
00:00:33,479 --> 00:00:37,109
straight ahead and this is the person

16
00:00:35,549 --> 00:00:39,209
who's dissociated from his or her body

17
00:00:37,109 --> 00:00:42,058
and observing what's going on in the

18
00:00:39,210 --> 00:00:44,009
operating room as they came real close I

19
00:00:42,058 --> 00:00:45,750
would try to turn around to get out of

20
00:00:44,009 --> 00:00:50,789
their way but they would just walk

21
00:00:45,750 --> 00:00:52,280
through me hmm okay you're entitled to

22
00:00:50,789 --> 00:00:55,230
say ok these people are psychotic

23
00:00:52,280 --> 00:00:58,260
however I spent my entire master's

24
00:00:55,229 --> 00:00:59,608
thesis showing that they weren't so I'll

25
00:00:58,259 --> 00:01:02,968
mail it to you if you need to read in

26
00:00:59,609 --> 00:01:05,338
the second account I'm trying to stop

27
00:01:02,969 --> 00:01:07,710
them the doctors I really did try to

28
00:01:05,338 --> 00:01:10,260
grab ahold of them and stop them because

29

00:01:07,709 --> 00:01:14,879
I really felt happy where I was which is

30
00:01:10,260 --> 00:01:16,680
dead I actually remember grabbing the

31
00:01:14,879 --> 00:01:19,109
doctor the interviewer asked what

32
00:01:16,680 --> 00:01:21,509
happened the the experimenter says

33
00:01:19,109 --> 00:01:28,530
nothing absolutely nothing it was almost

34
00:01:21,509 --> 00:01:30,509
like he wasn't there well he was there

35
00:01:28,530 --> 00:01:32,310
and so was the experimenter but they were

36
00:01:30,509 --> 00:01:34,439
different somehow aren't they and in

37
00:01:32,310 --> 00:01:36,000
fact there's a superposition of the

38
00:01:34,438 --> 00:01:39,298
experience there over physical bodies

39
00:01:36,000 --> 00:01:41,159
with no interaction so I'm going to have

40
00:01:39,299 --> 00:01:43,950
to accelerate myself way beyond my

41
00:01:41,159 --> 00:01:46,219
normal range consider Einstein's famous

42
00:01:43,950 --> 00:01:48,990
equation with a whole bunch of changes e

43
00:01:46,219 --> 00:01:53,399

equals s sub I seats of the I where I is

44

00:01:48,989 --> 00:01:55,560

an integer zero to whatever s0 would be

45

00:01:53,399 --> 00:01:58,200

energy itself since these are the 0 is 1

46

00:01:55,560 --> 00:02:00,750

s 1 would be what I'm calling essence

47

00:01:58,200 --> 00:02:03,060

the non materials thinking substance s 2

48

00:02:00,750 --> 00:02:05,368

would be matter this is just for

49

00:02:03,060 --> 00:02:08,219

illustration purposes you can think of a

50

00:02:05,368 --> 00:02:10,439

way to construct a substance from energy

51

00:02:08,219 --> 00:02:13,460

that is not mattered simply by

52

00:02:10,439 --> 00:02:17,189

considering such a simple relationship

53

00:02:13,460 --> 00:02:19,560

so the essence that I call the non

54

00:02:17,189 --> 00:02:21,539

material substance would be constructed

55

00:02:19,560 --> 00:02:22,979

completely differently from energy it

56

00:02:21,539 --> 00:02:25,109

would still be constructed from energy

57

00:02:22,979 --> 00:02:27,359

but differently so differently that it

58
00:02:25,110 --> 00:02:28,770
could overlap with matter and not even

59
00:02:27,360 --> 00:02:31,680
interact with with it except under

60
00:02:28,770 --> 00:02:34,890
certain circumstances Einstein has

61
00:02:31,680 --> 00:02:36,599
helped us understand with his e equals

62
00:02:34,889 --> 00:02:38,879
MC squared equation that there could be

63
00:02:36,599 --> 00:02:40,859
other forms of substance but he hasn't

64
00:02:38,879 --> 00:02:45,000
given us any kind of structural advice

65
00:02:40,860 --> 00:02:47,460
so let's turn to Brian Greene and as you

66
00:02:45,000 --> 00:02:49,770
see here string theory comes directly

67
00:02:47,460 --> 00:02:51,000
from Newtonian mechanics because in the

68
00:02:49,770 --> 00:02:53,850
upper left-hand corner we have Newton's

69
00:02:51,000 --> 00:02:55,379
apple and Newton didn't know it at the

70
00:02:53,849 --> 00:02:59,250
time because Apple was composed of many

71
00:02:55,379 --> 00:03:00,389
Apple atoms and each apple Adam has what

72
00:02:59,250 --> 00:03:02,120
we're at once called elementary

73
00:03:00,389 --> 00:03:04,829
particles electrons protons neutrons

74
00:03:02,120 --> 00:03:07,980
those have been shown to consist of

75
00:03:04,830 --> 00:03:09,540
quarks string theory has told us that

76
00:03:07,979 --> 00:03:12,149
the quarks themselves are composed of

77
00:03:09,539 --> 00:03:14,639
strings strings are supposed to be the

78
00:03:12,150 --> 00:03:16,020
fundamental unit of everything and so

79
00:03:14,639 --> 00:03:18,529
string theory is a grand unification

80
00:03:16,020 --> 00:03:21,330
theory in the sense that Einstein wanted

81
00:03:18,530 --> 00:03:22,890
however this is an artist misconception

82
00:03:21,330 --> 00:03:24,780
because material particles are

83
00:03:22,889 --> 00:03:27,329
open-ended strings and what he's shown

84
00:03:24,780 --> 00:03:30,060
here is a closed-ended string so this is

85
00:03:27,330 --> 00:03:32,969
not drawn quite right however we're

86

00:03:30,060 --> 00:03:36,599
going to go ahead what are things in

87
00:03:32,969 --> 00:03:38,849
terms of strings closed loop strings are

88
00:03:36,599 --> 00:03:41,489
one type these are free-floating tiny

89
00:03:38,849 --> 00:03:42,959
vibrating circular strands of energy the

90
00:03:41,489 --> 00:03:44,969
open-ended strings are the other type

91
00:03:42,959 --> 00:03:48,090
these are bound to our sport additional

92
00:03:44,969 --> 00:03:49,590
space-time three physical spatial

93
00:03:48,090 --> 00:03:52,890
dimensions one time to mention a

94
00:03:49,590 --> 00:03:55,650
teach-in so the opening of strings are

95
00:03:52,889 --> 00:03:59,219
actually part of our universe what

96
00:03:55,650 --> 00:04:00,629
string theory claims is that different

97
00:03:59,219 --> 00:04:01,949
amounts of energy are represented by

98
00:04:00,629 --> 00:04:04,079
different vibrational modes of the

99
00:04:01,949 --> 00:04:07,259
strings translating to different masses

100
00:04:04,080 --> 00:04:10,080

of particles gravitons predicted by

101

00:04:07,259 --> 00:04:13,289

relativity are in string theory closed

102

00:04:10,080 --> 00:04:17,489

loop strings that only temporarily stay

103

00:04:13,289 --> 00:04:20,969

in this universe and then leave it so

104

00:04:17,488 --> 00:04:23,489

string theory is meant to account for

105

00:04:20,970 --> 00:04:25,710

the weakness of gravity by saying that

106

00:04:23,490 --> 00:04:26,949

most gravitons never exert any force on

107

00:04:25,709 --> 00:04:29,199

a physical object they leave the

108

00:04:26,949 --> 00:04:31,539

verse first and that's one of the

109

00:04:29,199 --> 00:04:33,550

strengths of string theory but how do we

110

00:04:31,540 --> 00:04:35,710

test it no one's been able to test it I

111

00:04:33,550 --> 00:04:37,480

suggest to you that the near-death

112

00:04:35,709 --> 00:04:40,209

experience represents the test of this

113

00:04:37,480 --> 00:04:42,879

theory that the what I call the essence

114

00:04:40,209 --> 00:04:45,039

The Associated non-material mind is in

115
00:04:42,879 --> 00:04:47,379
fact a closed loop string or maybe more

116
00:04:45,040 --> 00:04:50,170
than one closed loop string that allows

117
00:04:47,379 --> 00:04:51,610
its overlap with matter because the

118
00:04:50,170 --> 00:04:55,300
closed loop string is not attached to

119
00:04:51,610 --> 00:04:59,379
space-time and secondly to be even more

120
00:04:55,300 --> 00:05:01,420
outrageous consciousness is in the

121
00:04:59,379 --> 00:05:03,159
closed loop string although not

122
00:05:01,420 --> 00:05:05,100
necessarily originating from it and

123
00:05:03,160 --> 00:05:08,020
maybe vice versa I suspect and the

124
00:05:05,100 --> 00:05:09,939
closed loop string that is the essence

125
00:05:08,019 --> 00:05:13,449
as i call it the human mind is capable

126
00:05:09,939 --> 00:05:18,509
of leaving the universe and if that's

127
00:05:13,449 --> 00:05:22,000
not renegade enough for you my apologies

128
00:05:18,509 --> 00:05:24,370
therefore i believe that the old ideas

129
00:05:22,000 --> 00:05:26,949
of rene descartes about substance have

130
00:05:24,370 --> 00:05:28,959
been given a new life a new way of

131
00:05:26,949 --> 00:05:30,909
thinking about them at the very least

132
00:05:28,959 --> 00:05:34,089
and a new way of gathering information

133
00:05:30,910 --> 00:05:36,700
by using human experience subjective

134
00:05:34,089 --> 00:05:38,709
experience as scientific data in the

135
00:05:36,699 --> 00:05:40,659
area of consciousness I really don't see

136
00:05:38,709 --> 00:05:43,419
how we can divorce first-person

137
00:05:40,660 --> 00:05:45,430
experience from consciousness and study

138
00:05:43,420 --> 00:05:49,290
consciousness from solely a third person

139
00:05:45,430 --> 00:05:59,740
account so I believe that we have

140
00:05:49,290 --> 00:06:01,540
evidence to think that way thank you we

141
00:05:59,740 --> 00:06:04,689
have a few minutes for questions and

142
00:06:01,540 --> 00:06:08,010
comments and I will exert chairs

143

00:06:04,689 --> 00:06:10,449
privilege just for just a comment that

144
00:06:08,009 --> 00:06:12,399
relying on string theory to give us an

145
00:06:10,449 --> 00:06:14,349
idea of the true nature of physics is

146
00:06:12,399 --> 00:06:16,560
seems to be getting increasingly dodgy

147
00:06:14,350 --> 00:06:19,360
these days to spend despite the best

148
00:06:16,560 --> 00:06:23,280
propaganda efforts of folks like Brian

149
00:06:19,360 --> 00:06:25,780
Greene could let me add one idea to that

150
00:06:23,279 --> 00:06:28,289
Brian Greene taught me indirectly

151
00:06:25,779 --> 00:06:33,250
through television that m-theory

152
00:06:28,290 --> 00:06:35,439
summarizes the five subservient variants

153
00:06:33,250 --> 00:06:37,720
of string theory unifies them and

154
00:06:35,439 --> 00:06:40,360
predicts a fourth spatial dimension so I

155
00:06:37,720 --> 00:06:42,580
believe that my ideas are evidence of

156
00:06:40,360 --> 00:06:47,110
his theory but he was not interested in

157
00:06:42,579 --> 00:06:49,529

that kind of evidence ah i see a

158

00:06:47,110 --> 00:06:49,530
question

159

00:06:52,600 --> 00:06:58,030
hi Bernie Bernie Williams first I want

160

00:06:55,959 --> 00:07:00,310
to agree with York and then I want agree

161

00:06:58,029 --> 00:07:03,399
with you and then I want to note that a

162

00:07:00,310 --> 00:07:05,879
lot of the inner subjective turn that

163

00:07:03,399 --> 00:07:08,969
we're taking has to do with reviving

164

00:07:05,879 --> 00:07:11,889
ancient traditions like Maria does and

165

00:07:08,970 --> 00:07:15,820
to note that I don't think it's ironic

166

00:07:11,889 --> 00:07:19,360
that we have one and only one remaining

167

00:07:15,819 --> 00:07:21,730
fragment from Lou cheapest now for those

168

00:07:19,360 --> 00:07:25,000
of you who aren't antique Greeks the

169

00:07:21,730 --> 00:07:29,680
cheapest was democritus's teacher the

170

00:07:25,000 --> 00:07:32,230
proposer of atoms all right what is the

171

00:07:29,680 --> 00:07:38,160
one remaining fragment a description of

172
00:07:32,230 --> 00:07:38,160
particles of Norse particles of mind I

173
00:07:40,649 --> 00:07:47,769
am assuming I don't have to answer that

174
00:07:44,699 --> 00:07:50,370
comments would be welcome however I'm

175
00:07:47,769 --> 00:07:53,259
not sure I know how to comment on that

176
00:07:50,370 --> 00:07:55,689
why not Costa I'm a neurophysiologist

177
00:07:53,259 --> 00:07:58,180
that does consciousness studies now and

178
00:07:55,689 --> 00:08:02,110
I like exploring altered states and

179
00:07:58,180 --> 00:08:06,900
recording them on the EEG so try this

180
00:08:02,110 --> 00:08:09,490
one on the brain is a quantum mechanical

181
00:08:06,899 --> 00:08:13,810
electrochemical meat machine that

182
00:08:09,490 --> 00:08:17,350
collapses the wave function and then if

183
00:08:13,810 --> 00:08:19,000
you want to get even more confused what

184
00:08:17,350 --> 00:08:20,800
we're all doing here is our brains are

185
00:08:19,000 --> 00:08:22,959
studying our brains and our brains are

186
00:08:20,800 --> 00:08:25,689
studying our consciousness so you can

187
00:08:22,959 --> 00:08:32,649
never get out of the problem of the

188
00:08:25,689 --> 00:08:34,570
brain is part of the the mix I started

189
00:08:32,649 --> 00:08:36,279
going to the consciousness the science

190
00:08:34,570 --> 00:08:39,729
of conscience conferences years ago and

191
00:08:36,279 --> 00:08:43,179
all these debates happened every day and

192
00:08:39,729 --> 00:08:46,480
then different camps were formed the

193
00:08:43,179 --> 00:08:49,750
neuro phenomenologist the nerve net

194
00:08:46,480 --> 00:08:52,060
people the modelers the subjective

195
00:08:49,750 --> 00:08:55,929
experience people you have to look at

196
00:08:52,059 --> 00:08:57,729
the whole gamut so I encourage people to

197
00:08:55,929 --> 00:09:00,399
explore altered states of consciousness

198
00:08:57,730 --> 00:09:02,070
where you can have these experiences of

199
00:09:00,399 --> 00:09:06,870
out-of-body you can

200

00:09:02,070 --> 00:09:09,700
these experiences of your consciousness

201
00:09:06,870 --> 00:09:12,129
moves to different locations you can

202
00:09:09,700 --> 00:09:15,670
have telepathic you will know some of

203
00:09:12,129 --> 00:09:24,149
this thank you for a beautiful

204
00:09:15,669 --> 00:09:24,149
presentation thank you other questions

205
00:09:36,980 --> 00:09:43,110
Unicron I wonder if you know that in co

206
00:09:41,309 --> 00:09:45,829
ballistic science there was already

207
00:09:43,110 --> 00:09:49,950
superstring theory in which science

208
00:09:45,830 --> 00:09:54,509
Kabbalistic science no you know you can

209
00:09:49,950 --> 00:09:56,820
read it in red in the book of dr. pol

210
00:09:54,509 --> 00:10:01,100
ondori published in nineteen twenty five

211
00:09:56,820 --> 00:10:01,100
it says that all