

1
00:00:00,030 --> 00:00:05,520
could you could you briefly summarize

2
00:00:01,919 --> 00:00:07,679
what's your research all about I'm doing

3
00:00:05,519 --> 00:00:11,669
research on two main things at the

4
00:00:07,679 --> 00:00:14,489
moment one is telepathy through social

5
00:00:11,669 --> 00:00:16,378
media through mobile phones and I'm

6
00:00:14,490 --> 00:00:18,480
developing a range of automated

7
00:00:16,379 --> 00:00:21,929
telepathy tests so that people can do

8
00:00:18,480 --> 00:00:23,339
these anywhere using modern media the

9
00:00:21,929 --> 00:00:27,989
other researchers on morpheic resonance

10
00:00:23,339 --> 00:00:29,759
and I have some experiments in the

11
00:00:27,989 --> 00:00:33,988
planning stages at the moment in

12
00:00:29,760 --> 00:00:36,630
psychology cell biology and chemistry so

13
00:00:33,988 --> 00:00:40,890
what could you summarize your latest

14
00:00:36,630 --> 00:00:44,429
research results the most recent

15
00:00:40,890 --> 00:00:46,558
research I've done on telepathy is on

16
00:00:44,429 --> 00:00:49,289
telepathy in connection with telephone

17
00:00:46,558 --> 00:00:51,959
calls many people have the experience of

18
00:00:49,289 --> 00:00:53,399
thinking of someone who then rings they

19
00:00:51,960 --> 00:00:57,000
say it's funny I was just thinking about

20
00:00:53,399 --> 00:00:58,009
you is it just coincidence or is there

21
00:00:57,000 --> 00:01:01,530
more to it than that

22
00:00:58,009 --> 00:01:04,588
I've now done many experiments on this

23
00:01:01,530 --> 00:01:07,140
subject and we found that people are

24
00:01:04,588 --> 00:01:09,269
guessing who's calling them way above

25
00:01:07,140 --> 00:01:10,618
the level of chance coincidence there

26
00:01:09,269 --> 00:01:13,019
really seems to be a telepathic

27
00:01:10,618 --> 00:01:15,000
connection when someone forms the

28
00:01:13,019 --> 00:01:15,478
intention to call another person on the

29

00:01:15,000 --> 00:01:18,420
phone

30
00:01:15,478 --> 00:01:20,579
the person they're going to call often

31
00:01:18,420 --> 00:01:23,849
feels that intention even before the

32
00:01:20,579 --> 00:01:27,228
telephone call comes so I think this is

33
00:01:23,849 --> 00:01:30,839
an example of telepathy in everyday life

34
00:01:27,228 --> 00:01:33,950
antibiotic telepathy itself is basically

35
00:01:30,840 --> 00:01:37,770
just an aspect of your more general

36
00:01:33,950 --> 00:01:39,780
hypothesis right telepathy is something

37
00:01:37,769 --> 00:01:42,539
that happens between bonded members of

38
00:01:39,780 --> 00:01:44,060
social groups and it fits with my idea

39
00:01:42,540 --> 00:01:46,618
of morphic fields and morphic resonance

40
00:01:44,060 --> 00:01:50,189
which is why I got interested in

41
00:01:46,618 --> 00:01:52,530
telepathy in the first place in the

42
00:01:50,188 --> 00:01:55,769
theories I'm putting forward to let it

43
00:01:52,530 --> 00:01:58,019

it seems natural normal way that the

44

00:01:55,769 --> 00:02:01,170
world works not paranormal not

45

00:01:58,019 --> 00:02:03,929
supernatural and indeed it does seem to

46

00:02:01,170 --> 00:02:06,329
be normal and very common what would be

47

00:02:03,930 --> 00:02:08,849
the benefit for society as a whole if

48

00:02:06,328 --> 00:02:10,939
they would you know know about your

49

00:02:08,848 --> 00:02:13,709
research and the results you've gained

50

00:02:10,939 --> 00:02:16,050
my research all points towards a mode

51

00:02:13,710 --> 00:02:18,420
more holistic view of nature members of

52

00:02:16,050 --> 00:02:20,700
social groups are interconnected where

53

00:02:18,419 --> 00:02:23,099
link to our each other and to our

54

00:02:20,699 --> 00:02:27,239
environment the whole universe is

55

00:02:23,099 --> 00:02:29,039
holistic rather than mechanistic we are

56

00:02:27,240 --> 00:02:29,820
connected with the natural world we're

57

00:02:29,039 --> 00:02:32,819
part of it

58
00:02:29,819 --> 00:02:35,819
so the the general message of all this

59
00:02:32,819 --> 00:02:38,819
research is about interconnection and a

60
00:02:35,819 --> 00:02:40,560
more holistic approach and I think this

61
00:02:38,819 --> 00:02:43,259
is what something we need because we

62
00:02:40,560 --> 00:02:46,710
live in a very separated mechanistic

63
00:02:43,259 --> 00:02:48,209
kind of world which professional groups

64
00:02:46,710 --> 00:02:52,890
do you think would benefit most from

65
00:02:48,210 --> 00:02:54,930
your research my research is relevant to

66
00:02:52,889 --> 00:02:56,729
medicine because it points towards a

67
00:02:54,930 --> 00:02:59,700
more holistic understanding of the body

68
00:02:56,729 --> 00:03:02,399
and of healing to psychology because it

69
00:02:59,699 --> 00:03:06,689
points to a wider understanding of the

70
00:03:02,400 --> 00:03:09,719
mind for ecology and our relationships

71
00:03:06,689 --> 00:03:11,969
with the natural world and for biology

72
00:03:09,719 --> 00:03:15,659
and chemistry because I think both of

73
00:03:11,969 --> 00:03:17,849
them are evolutionary sciences and

74
00:03:15,659 --> 00:03:20,579
physics even which because I think the

75
00:03:17,849 --> 00:03:22,650
whole cosmos is evolutionary and I think

76
00:03:20,580 --> 00:03:25,140
there's a basic memory in nature which

77
00:03:22,650 --> 00:03:28,250
affects physics chemistry and biology so

78
00:03:25,139 --> 00:03:32,579
they're very far-reaching implications

79
00:03:28,250 --> 00:03:35,460
so you just said cosmos what how do you

80
00:03:32,580 --> 00:03:38,910
understand cosmos what's cosmos for you

81
00:03:35,460 --> 00:03:42,060
well cosmos is the totality of all it is

82
00:03:38,909 --> 00:03:45,750
it's the it's the universe and the Greek

83
00:03:42,060 --> 00:03:48,689
word cosmos means order and the universe

84
00:03:45,750 --> 00:03:52,379
reveals all sorts of order regularities

85
00:03:48,689 --> 00:03:54,960
patterns which I think of as habits and

86

00:03:52,379 --> 00:03:57,240
our modern understanding of the cosmos

87
00:03:54,960 --> 00:03:59,760
is that it's like an evolving organism

88
00:03:57,240 --> 00:04:01,409
it's not a machine running out of steam

89
00:03:59,759 --> 00:04:04,469
as people thought in the 19th century

90
00:04:01,409 --> 00:04:08,400
it's a developing evolving creative

91
00:04:04,469 --> 00:04:10,500
organism why would I tend to believe

92
00:04:08,400 --> 00:04:14,189
that it's not a machine I mean there are

93
00:04:10,500 --> 00:04:16,379
planets surrounding the stars you know

94
00:04:14,189 --> 00:04:18,298
it's all in an orderly fashion as you

95
00:04:16,379 --> 00:04:21,120
said it works like in a clockwork

96
00:04:18,298 --> 00:04:22,829
doesn't it now the universe doesn't

97
00:04:21,120 --> 00:04:25,410
really work like clockwork first of all

98
00:04:22,829 --> 00:04:26,609
in Newtonian physics people thought that

99
00:04:25,410 --> 00:04:29,849
it worked like

100
00:04:26,610 --> 00:04:31,379

but even in Newtonian physics no one has

101

00:04:29,848 --> 00:04:33,839

been able to solve the three-body

102

00:04:31,379 --> 00:04:36,000

problem which is it Newtonian physics

103

00:04:33,839 --> 00:04:38,098

works well if you have two things

104

00:04:36,000 --> 00:04:40,379

interacting as soon as you have three or

105

00:04:38,098 --> 00:04:42,899

more the interactions become much too

106

00:04:40,379 --> 00:04:45,210

complex and actually even the solar

107

00:04:42,899 --> 00:04:47,370

system turns out to be chaotic in the

108

00:04:45,209 --> 00:04:51,060

sense of chaotic dynamics it's not

109

00:04:47,370 --> 00:04:54,090

predictable in the long term so the old

110

00:04:51,060 --> 00:04:56,699

illusion of mechanistic certainty and

111

00:04:54,089 --> 00:05:02,848

predictability turns out it is an

112

00:04:56,699 --> 00:05:04,800

illusion so I think the the solar system

113

00:05:02,848 --> 00:05:07,019

itself is evolving the whole universe

114

00:05:04,800 --> 00:05:10,978

has evolved at the universe of the clock

115
00:05:07,019 --> 00:05:13,228
a clock presupposes a clock maker who

116
00:05:10,978 --> 00:05:16,500
creates the machinery but the universe

117
00:05:13,228 --> 00:05:18,658
was not created in one as one working

118
00:05:16,500 --> 00:05:21,000
machine the universe has developed from

119
00:05:18,658 --> 00:05:22,500
the Big Bang which was very small less

120
00:05:21,000 --> 00:05:24,509
than the size of a head of a pin

121
00:05:22,500 --> 00:05:26,189
the universe has grown and developed

122
00:05:24,509 --> 00:05:28,710
it's much more like a developing

123
00:05:26,189 --> 00:05:31,740
organism than like a machine and yet

124
00:05:28,709 --> 00:05:37,079
there seems to be a blueprint behind it

125
00:05:31,740 --> 00:05:40,889
some some order superior principle that

126
00:05:37,079 --> 00:05:43,318
seems to form matter and all and that's

127
00:05:40,889 --> 00:05:46,528
what your hypothesis is all about the

128
00:05:43,319 --> 00:05:48,930
more for genetic fields right

129
00:05:46,528 --> 00:05:51,149
I don't think more for genetic fields

130
00:05:48,930 --> 00:05:53,579
are pre-existing blueprints before the

131
00:05:51,149 --> 00:05:54,989
universe I'm not a platanus place

132
00:05:53,579 --> 00:05:56,728
Ernest's think that there's a kind of

133
00:05:54,990 --> 00:05:59,310
eternal archetype for everything that

134
00:05:56,728 --> 00:06:01,889
happens my theory is radically

135
00:05:59,310 --> 00:06:04,348
evolutionary and I think that the order

136
00:06:01,889 --> 00:06:06,658
the patterns in nature are habits I

137
00:06:04,348 --> 00:06:09,088
don't think they've all been there in

138
00:06:06,658 --> 00:06:11,189
some kind of transcendent design or

139
00:06:09,088 --> 00:06:13,168
blueprint I think they're habits that

140
00:06:11,189 --> 00:06:16,019
have grown up in the course of cosmic

141
00:06:13,168 --> 00:06:19,079
evolution so what is a more for genetic

142
00:06:16,019 --> 00:06:21,299
field what does it contain a morphogen

143

00:06:19,079 --> 00:06:25,918
etic field is an organizing structure a

144
00:06:21,300 --> 00:06:30,360
region of influence fields of every kind

145
00:06:25,918 --> 00:06:31,918
are extended in space and time and bring

146
00:06:30,360 --> 00:06:34,740
about order or structure the

147
00:06:31,918 --> 00:06:36,629
gravitational field is what keeps the

148
00:06:34,740 --> 00:06:39,220
planets and their orbit around the Sun

149
00:06:36,629 --> 00:06:42,129
and also it makes us

150
00:06:39,220 --> 00:06:46,020
stars and planets round or more or less

151
00:06:42,129 --> 00:06:50,409
round the electromagnetic field

152
00:06:46,019 --> 00:06:52,810
underlies light and radio waves and

153
00:06:50,410 --> 00:06:57,460
x-rays and gives structure and order to

154
00:06:52,810 --> 00:06:59,829
atoms and atomic processes the quantum

155
00:06:57,459 --> 00:07:02,560
fields give order and pattern to quantum

156
00:06:59,829 --> 00:07:05,949
processes and I think morphic fields

157
00:07:02,560 --> 00:07:08,230

give shape or form to organize systems

158

00:07:05,949 --> 00:07:11,589

at all levels of complexity cells

159

00:07:08,230 --> 00:07:14,560

tissues organs organisms societies of

160

00:07:11,589 --> 00:07:16,839

organisms like flocks of birds so their

161

00:07:14,560 --> 00:07:20,259

ordering principles that give structure

162

00:07:16,839 --> 00:07:22,269

and form they're a bit like plans or

163

00:07:20,259 --> 00:07:26,379

like the architectural plan of a

164

00:07:22,269 --> 00:07:29,529

building gives it structure and form the

165

00:07:26,379 --> 00:07:32,199

building contains bricks and cement and

166

00:07:29,529 --> 00:07:34,629

building materials it takes energy to

167

00:07:32,199 --> 00:07:37,180

build it but without a plan or a form

168

00:07:34,629 --> 00:07:39,730

you just have a chaotic pile of building

169

00:07:37,180 --> 00:07:42,160

materials and so I think the more for

170

00:07:39,730 --> 00:07:47,169

genetic fields of animals and plants

171

00:07:42,160 --> 00:07:50,080

shape the growing bodies the fields that

172
00:07:47,168 --> 00:07:52,599
organize animal behavior shape instincts

173
00:07:50,079 --> 00:07:55,359
and learning and behavior and all these

174
00:07:52,600 --> 00:07:57,390
formative fields are called morphic

175
00:07:55,360 --> 00:08:00,490
fields that's the generic name and

176
00:07:57,389 --> 00:08:02,740
morphic fields include Morpho genetic

177
00:08:00,490 --> 00:08:04,900
fields to do with morphogenesis the

178
00:08:02,740 --> 00:08:07,629
development of form in embryos and

179
00:08:04,899 --> 00:08:10,239
plants behavioral fields that organize

180
00:08:07,629 --> 00:08:12,639
behavior in animals mental fields that

181
00:08:10,240 --> 00:08:14,740
organize mental activity and social

182
00:08:12,639 --> 00:08:19,779
fields that organize social groups like

183
00:08:14,740 --> 00:08:22,150
flocks of birds now if if I were a

184
00:08:19,779 --> 00:08:23,679
geneticist I could imagine I would I

185
00:08:22,149 --> 00:08:26,799
would say something like hey you're

186
00:08:23,680 --> 00:08:29,050
trying to steal my my field of work it's

187
00:08:26,800 --> 00:08:31,750
the genes that that everything that

188
00:08:29,050 --> 00:08:34,509
contain everything right well

189
00:08:31,750 --> 00:08:36,460
geneticists do often imagine the genes

190
00:08:34,509 --> 00:08:37,538
contain everything but actually I think

191
00:08:36,460 --> 00:08:39,788
that's a fantasy

192
00:08:37,538 --> 00:08:43,449
I mean genetics is important and it's

193
00:08:39,788 --> 00:08:46,360
told us very important things but what

194
00:08:43,450 --> 00:08:48,459
genes actually do we know what they do

195
00:08:46,360 --> 00:08:52,169
they code for the sequence of amino

196
00:08:48,458 --> 00:08:54,328
acids in proteins genes are about in

197
00:08:52,169 --> 00:08:57,028
actions for building a sequence of amino

198
00:08:54,328 --> 00:09:00,509
acids in a protein they give a thread

199
00:08:57,028 --> 00:09:02,458
the thread of the protein the proteins

200

00:09:00,509 --> 00:09:04,319
then fold up to give complicated

201
00:09:02,458 --> 00:09:06,179
three-dimensional structures the genes

202
00:09:04,320 --> 00:09:08,550
don't code for that they only code for

203
00:09:06,179 --> 00:09:11,189
the primary structure the thread of

204
00:09:08,549 --> 00:09:13,439
amino acids and proteins and some genes

205
00:09:11,190 --> 00:09:15,810
are involved in the control of the

206
00:09:13,440 --> 00:09:17,070
activity of other genes which affect

207
00:09:15,809 --> 00:09:20,869
protein synthesis

208
00:09:17,070 --> 00:09:23,720
that's what genes do that's what we know

209
00:09:20,870 --> 00:09:27,360
they give organisms the right proteins

210
00:09:23,720 --> 00:09:30,000
but that's all and how those proteins

211
00:09:27,360 --> 00:09:32,430
assemble into cells how cells build into

212
00:09:30,000 --> 00:09:35,940
tissues how organisms like ourselves

213
00:09:32,429 --> 00:09:38,429
develop is not explained by genetics my

214
00:09:35,940 --> 00:09:40,320

arm and my leg contain exactly the same

215

00:09:38,429 --> 00:09:42,659

proteins they can they're chemically

216

00:09:40,320 --> 00:09:43,230

identical and yet they have different

217

00:09:42,659 --> 00:09:45,828

shapes

218

00:09:43,230 --> 00:09:48,899

now the genes don't explain those shapes

219

00:09:45,828 --> 00:09:51,689

that's what morph genetic fields explain

220

00:09:48,899 --> 00:09:53,610

so are you saying that genes are just

221

00:09:51,690 --> 00:09:56,790

yet another expression of more for

222

00:09:53,610 --> 00:09:59,159

genetic fields not really I'm saying

223

00:09:56,789 --> 00:10:01,349

that genes are a form of chemical

224

00:09:59,159 --> 00:10:07,620

inheritance that enables organisms to

225

00:10:01,350 --> 00:10:10,528

make chemicals proteins that the the

226

00:10:07,620 --> 00:10:13,078

genes themselves as molecules have

227

00:10:10,528 --> 00:10:17,039

morphic fields the proteins have morphic

228

00:10:13,078 --> 00:10:19,139

fields but i don't think they have the

229
00:10:17,039 --> 00:10:21,120
the role that most geneticists assume

230
00:10:19,139 --> 00:10:23,278
most people assume they're a program

231
00:10:21,120 --> 00:10:25,259
that codes for every detail of an

232
00:10:23,278 --> 00:10:27,299
organism I don't think they do

233
00:10:25,259 --> 00:10:30,179
I think genes are grossly overrated

234
00:10:27,299 --> 00:10:32,819
because people have tried to squeeze all

235
00:10:30,179 --> 00:10:35,939
of heredity into the genes whereas the

236
00:10:32,820 --> 00:10:38,010
genes are any part of heredity it's like

237
00:10:35,940 --> 00:10:40,470
saying that you can understand the

238
00:10:38,009 --> 00:10:42,360
German economy by understanding the way

239
00:10:40,470 --> 00:10:45,379
that banks work and the way banknotes

240
00:10:42,360 --> 00:10:48,360
are printed and the way euros are

241
00:10:45,379 --> 00:10:50,338
circulated I mean that's true and that's

242
00:10:48,360 --> 00:10:52,620
important for the economy but it leaves

243
00:10:50,339 --> 00:10:55,470
almost everything else out the shape of

244
00:10:52,620 --> 00:10:59,370
buildings creative ideas what people's

245
00:10:55,470 --> 00:11:01,860
actual activities so I think it does in

246
00:10:59,370 --> 00:11:04,679
the same way genetics gives us only a

247
00:11:01,860 --> 00:11:08,129
partial understanding of inherited

248
00:11:04,679 --> 00:11:11,579
would you say that the morphogen etc

249
00:11:08,129 --> 00:11:15,370
field is some kind of collective memory

250
00:11:11,580 --> 00:11:19,060
that we all share yes

251
00:11:15,370 --> 00:11:22,060
morpho genetic fields are shaped by

252
00:11:19,059 --> 00:11:23,619
memories the the form of an organism

253
00:11:22,059 --> 00:11:26,469
depends on the form of previous

254
00:11:23,620 --> 00:11:29,799
organisms of the species the instincts

255
00:11:26,470 --> 00:11:31,509
of a spider or of a mouse depend on the

256
00:11:29,799 --> 00:11:35,889
behavior of previous spiders and

257

00:11:31,509 --> 00:11:38,049
previous mice and human minds are shaped

258
00:11:35,889 --> 00:11:40,299
by a kind of collective memory from

259
00:11:38,049 --> 00:11:42,159
people in the past this is rather like

260
00:11:40,299 --> 00:11:43,959
Jung's idea of the collective

261
00:11:42,159 --> 00:11:47,860
unconscious which he thought of as a

262
00:11:43,960 --> 00:11:50,019
kind of collective memory so our bodies

263
00:11:47,860 --> 00:11:54,279
are shaped by a kind of collective human

264
00:11:50,019 --> 00:11:56,289
memory of form our instincts and and our

265
00:11:54,279 --> 00:11:58,750
animal nature is shaped by a collective

266
00:11:56,289 --> 00:12:02,709
memory not just of people but of mammals

267
00:11:58,750 --> 00:12:05,700
and ancestral species going back for

268
00:12:02,710 --> 00:12:09,040
many many hundreds of millions of years

269
00:12:05,700 --> 00:12:13,690
so all of us are products of memory and

270
00:12:09,039 --> 00:12:16,539
of habit but does always some measure of

271
00:12:13,690 --> 00:12:19,480

freedom as well and of course this

272

00:12:16,539 --> 00:12:21,669
theory of habit Moke through morphic

273

00:12:19,480 --> 00:12:24,250
resonance explains our forms are

274

00:12:21,669 --> 00:12:27,279
repeated it doesn't explain how new ones

275

00:12:24,250 --> 00:12:29,679
appear in the first place so evolution

276

00:12:27,279 --> 00:12:34,149
has to involve a kind of interplay of

277

00:12:29,679 --> 00:12:36,459
habit and creativity you came up with a

278

00:12:34,149 --> 00:12:39,220
very interesting term which is the

279

00:12:36,460 --> 00:12:43,389
morphic resonance what is morphic

280

00:12:39,220 --> 00:12:46,170
resonance morphic resonance is the idea

281

00:12:43,389 --> 00:12:49,860
that similar patterns of activity

282

00:12:46,169 --> 00:12:53,469
resonate across space and time on the

283

00:12:49,860 --> 00:12:54,970
basis of similarity that there's a code

284

00:12:53,470 --> 00:12:57,129
but they work from the past to the

285

00:12:54,970 --> 00:12:59,470
present so there's it's not symmetrical

286
00:12:57,129 --> 00:13:04,870
from the future to the present it's a

287
00:12:59,470 --> 00:13:06,040
memory it's not an anticipation so what

288
00:13:04,870 --> 00:13:08,289
I'm saying really is that the

289
00:13:06,039 --> 00:13:11,379
regularities of nature depend on this

290
00:13:08,289 --> 00:13:13,360
memory and they're based on habits the

291
00:13:11,379 --> 00:13:16,149
conventional view in science is that

292
00:13:13,360 --> 00:13:18,509
nature is governed by the laws of nature

293
00:13:16,149 --> 00:13:21,189
which are

294
00:13:18,509 --> 00:13:23,200
usually assumed to be beyond space and

295
00:13:21,190 --> 00:13:26,589
time like platonic mathematical

296
00:13:23,200 --> 00:13:29,950
principles they exist independently of

297
00:13:26,589 --> 00:13:33,250
space and time outside space and time so

298
00:13:29,950 --> 00:13:35,520
does as it were a kind of cosmic mind at

299
00:13:33,250 --> 00:13:39,129
least implicitly containing these laws

300
00:13:35,519 --> 00:13:40,750
instead of a timeless laws that are

301
00:13:39,129 --> 00:13:43,120
outside space and time I think their

302
00:13:40,750 --> 00:13:46,059
habits inside space and time that evolve

303
00:13:43,120 --> 00:13:47,789
along with the cosmos so that's in a

304
00:13:46,059 --> 00:13:50,559
general sense what I'm saying and

305
00:13:47,789 --> 00:13:54,099
morphic resonance is my hypothesis of

306
00:13:50,559 --> 00:13:57,159
how the habits of nature work so the

307
00:13:54,100 --> 00:14:03,580
hypothesis is that let's say as a

308
00:13:57,159 --> 00:14:05,319
certain species learn something and then

309
00:14:03,580 --> 00:14:08,740
another species that is similar to that

310
00:14:05,320 --> 00:14:11,560
species can learn it too and quicker

311
00:14:08,740 --> 00:14:14,379
well it is mainly within a species so

312
00:14:11,559 --> 00:14:16,719
the hypothesis says that if a rat learns

313
00:14:14,379 --> 00:14:18,820
a new trick and if hundreds of rats

314

00:14:16,720 --> 00:14:23,110
learn a new trick for example in Berlin

315
00:14:18,820 --> 00:14:25,180
then rats of that same kind or the same

316
00:14:23,110 --> 00:14:28,360
breed all around the world will learn

317
00:14:25,179 --> 00:14:30,939
the same trick quicker is that true yes

318
00:14:28,360 --> 00:14:35,230
those are evidence from experiments with

319
00:14:30,940 --> 00:14:37,750
rats that this actually happens and the

320
00:14:35,230 --> 00:14:40,539
same prediction to apply to people if

321
00:14:37,750 --> 00:14:42,909
lots of people learn a new skill like

322
00:14:40,539 --> 00:14:44,919
surfing or snowboarding or something

323
00:14:42,909 --> 00:14:50,230
like that then it should get easier for

324
00:14:44,919 --> 00:14:52,169
other people to learn now the human

325
00:14:50,230 --> 00:14:54,039
skills do seem to get easier to learn

326
00:14:52,169 --> 00:14:55,838
the could have caused be other

327
00:14:54,039 --> 00:14:59,769
explanations as well as morphic

328
00:14:55,839 --> 00:15:01,690

resonance so to get good evidence for it

329

00:14:59,769 --> 00:15:04,179

you have to look at skills where the

330

00:15:01,690 --> 00:15:07,360

tests have remained the same over many

331

00:15:04,179 --> 00:15:09,039

years one example of intelligence tests

332

00:15:07,360 --> 00:15:12,789

which had been done in a very similar

333

00:15:09,039 --> 00:15:15,309

way for 70 or 80 years and all over the

334

00:15:12,789 --> 00:15:19,088

world average scores on intelligence

335

00:15:15,309 --> 00:15:20,469

tests have gone up by about 30% because

336

00:15:19,089 --> 00:15:22,570

I think this could be a morphic

337

00:15:20,470 --> 00:15:23,950

resonance effect there's no evidence

338

00:15:22,570 --> 00:15:26,200

that people are actually getting more

339

00:15:23,950 --> 00:15:28,240

intelligent they're just getting better

340

00:15:26,200 --> 00:15:29,440

at doing intelligence tests and I think

341

00:15:28,240 --> 00:15:31,070

that's because so many people have

342

00:15:29,440 --> 00:15:33,880

already done the same

343
00:15:31,070 --> 00:15:36,140
could you please elaborate on the

344
00:15:33,879 --> 00:15:39,139
experience with the rats and laboratory

345
00:15:36,139 --> 00:15:41,360
that's really interesting the rat

346
00:15:39,139 --> 00:15:42,769
experiments were done not to test this

347
00:15:41,360 --> 00:15:45,769
theory they were done to test a

348
00:15:42,769 --> 00:15:49,850
different theory in the 1920s they

349
00:15:45,769 --> 00:15:51,829
started in the 1920s there was a big

350
00:15:49,850 --> 00:15:56,180
dispute about the nature of inheritance

351
00:15:51,830 --> 00:15:58,700
did organisms inherit only genes or

352
00:15:56,179 --> 00:16:03,859
could they also inherit the experience

353
00:15:58,700 --> 00:16:06,050
of their ancestors the genetic theory

354
00:16:03,860 --> 00:16:08,990
said it's only genes and genes can only

355
00:16:06,049 --> 00:16:11,359
change by random mutation the other

356
00:16:08,990 --> 00:16:13,120
theory the Lamarckian theory said that

357
00:16:11,360 --> 00:16:16,909
organisms can actually inherit

358
00:16:13,120 --> 00:16:18,980
experience of the ancestors so the

359
00:16:16,909 --> 00:16:23,259
experiment was set up with rats learning

360
00:16:18,980 --> 00:16:26,149
to escape from the water maze and

361
00:16:23,259 --> 00:16:28,340
subsequent generations of rats whose

362
00:16:26,149 --> 00:16:29,809
parents had been trained to escape from

363
00:16:28,340 --> 00:16:32,480
the mayor's land it quicker and quicker

364
00:16:29,809 --> 00:16:34,639
after 20 generations they were learning

365
00:16:32,480 --> 00:16:38,450
10 times faster it was a very big effect

366
00:16:34,639 --> 00:16:40,039
and so at first people thought this

367
00:16:38,450 --> 00:16:43,040
showed that there was Lamarckian

368
00:16:40,039 --> 00:16:45,980
inheritance which nowadays would be

369
00:16:43,039 --> 00:16:50,779
called epigenetic inheritance the

370
00:16:45,980 --> 00:16:53,810
inheritance of experience this work was

371

00:16:50,779 --> 00:16:57,259
then repeated in Edinburgh and in

372
00:16:53,809 --> 00:17:00,409
Australia at Melbourne and the rats

373
00:16:57,259 --> 00:17:03,169
there learned very quickly to start with

374
00:17:00,409 --> 00:17:06,409
they started more or less where the

375
00:17:03,169 --> 00:17:08,539
Harvard rats left off but the most

376
00:17:06,410 --> 00:17:10,430
interesting data were from Melbourne

377
00:17:08,539 --> 00:17:13,309
because they found that the rats went on

378
00:17:10,430 --> 00:17:15,289
learning quicker and quicker but this

379
00:17:13,309 --> 00:17:17,599
increased rate of learning was not only

380
00:17:15,289 --> 00:17:19,789
in the rats whose parents had been

381
00:17:17,599 --> 00:17:21,349
trained but in all the rats of that

382
00:17:19,789 --> 00:17:22,699
breed even if there none of their

383
00:17:21,349 --> 00:17:25,068
parents had been trained

384
00:17:22,699 --> 00:17:26,720
they were all getting better now if it

385
00:17:25,068 --> 00:17:29,210

was only in the ones whose parents had

386

00:17:26,720 --> 00:17:32,769

been trained it could be through a

387

00:17:29,210 --> 00:17:35,750

llamar Keon or an epigenetic effect a

388

00:17:32,769 --> 00:17:38,000

modification of the genes or a

389

00:17:35,750 --> 00:17:40,130

modification of gene expression which is

390

00:17:38,000 --> 00:17:42,529

what epigenetics is about

391

00:17:40,130 --> 00:17:46,160

but the fact that it occurred in all the

392

00:17:42,529 --> 00:17:48,500

routes of that breed can't be explained

393

00:17:46,160 --> 00:17:50,600

in terms of jeans or epigenetics and

394

00:17:48,500 --> 00:17:54,259

that's the kind of effect that morphic

395

00:17:50,599 --> 00:17:59,418

resonance would predict so would that

396

00:17:54,259 --> 00:18:02,269

also work among let's say different

397

00:17:59,419 --> 00:18:04,759

breeds or work ways that that it only

398

00:18:02,269 --> 00:18:07,129

works within one well it depends on

399

00:18:04,759 --> 00:18:10,190

similarity morphic resonance is based on

400
00:18:07,130 --> 00:18:12,440
similarities so the most effect will be

401
00:18:10,190 --> 00:18:15,529
between organisms that are most similar

402
00:18:12,440 --> 00:18:17,179
that would be rats of the same breed now

403
00:18:15,529 --> 00:18:19,788
it might work with rats of different

404
00:18:17,179 --> 00:18:22,009
breeds but not as well and the same

405
00:18:19,788 --> 00:18:24,200
principle applies to humans morphic

406
00:18:22,009 --> 00:18:26,419
resonance should work should work most

407
00:18:24,200 --> 00:18:28,460
between people are most similar and the

408
00:18:26,419 --> 00:18:30,770
people are most similar are identical

409
00:18:28,460 --> 00:18:33,590
twins and there's a lot of research that

410
00:18:30,769 --> 00:18:36,079
shows that identical twins even if

411
00:18:33,589 --> 00:18:37,819
they're separated soon after birth have

412
00:18:36,079 --> 00:18:38,769
extraordinary similarities in their

413
00:18:37,819 --> 00:18:41,569
lives

414
00:18:38,769 --> 00:18:44,690
usually this is interpreted to mean it's

415
00:18:41,569 --> 00:18:47,720
all genetically programmed but many of

416
00:18:44,690 --> 00:18:50,298
these similarities are so extreme that

417
00:18:47,720 --> 00:18:52,850
even geneticists don't think they can be

418
00:18:50,298 --> 00:18:54,859
genetically programmed for example some

419
00:18:52,849 --> 00:18:57,230
separated twins call their children by

420
00:18:54,859 --> 00:18:59,149
the same names now no one would expect

421
00:18:57,230 --> 00:19:00,490
the names of children to be genetically

422
00:18:59,150 --> 00:19:02,929
programmed

423
00:19:00,490 --> 00:19:04,849
but morphic resonance would explain

424
00:19:02,929 --> 00:19:07,610
these data very well and I think the

425
00:19:04,849 --> 00:19:11,689
identical twin studies are not in fact

426
00:19:07,609 --> 00:19:14,119
evidence for strong genetic determinism

427
00:19:11,690 --> 00:19:16,820
I think that they provide very good

428

00:19:14,119 --> 00:19:18,829
evidence for morphic resonance hmm are

429
00:19:16,819 --> 00:19:22,668
there any any other examples for a

430
00:19:18,829 --> 00:19:24,500
morphic resonance evidential oh there

431
00:19:22,669 --> 00:19:27,520
are many examples so morphic resonance

432
00:19:24,500 --> 00:19:30,579
applies in developmental biology

433
00:19:27,519 --> 00:19:33,829
organisms that develop in an unusual way

434
00:19:30,579 --> 00:19:36,759
because of a changed environment should

435
00:19:33,829 --> 00:19:40,939
develop more easily in the same way if

436
00:19:36,759 --> 00:19:42,650
the same treatment is repeated there's

437
00:19:40,940 --> 00:19:45,830
already evidence from experiments with

438
00:19:42,650 --> 00:19:46,600
fruit flies that this is the case and in

439
00:19:45,829 --> 00:19:49,009
chemistry

440
00:19:46,599 --> 00:19:51,058
morphic resonance predicts that if you

441
00:19:49,009 --> 00:19:53,158
crystallize a new compound

442
00:19:51,058 --> 00:19:55,829

the more often you crystallize it the

443

00:19:53,159 --> 00:19:57,870

easier it will be to crystallize because

444

00:19:55,829 --> 00:19:59,849

a habit builds up and this is a

445

00:19:57,869 --> 00:20:01,558

well-known fact chemists that new

446

00:19:59,849 --> 00:20:05,099

compounds generally get easier to

447

00:20:01,558 --> 00:20:08,190

crystallize the theory also predicts in

448

00:20:05,099 --> 00:20:10,138

chemistry that new compounds should form

449

00:20:08,190 --> 00:20:12,600

more stable crystals as the habit

450

00:20:10,138 --> 00:20:16,048

becomes established so the melting point

451

00:20:12,599 --> 00:20:18,449

should go up if the habit of forming and

452

00:20:16,048 --> 00:20:20,908

maintaining the crystal form is stronger

453

00:20:18,450 --> 00:20:22,499

it'll be harder to break it down which

454

00:20:20,909 --> 00:20:24,480

means you'll need a higher temperature

455

00:20:22,499 --> 00:20:28,470

to destroy it that's the melting point

456

00:20:24,480 --> 00:20:31,110

so and surprisingly there's already

457
00:20:28,470 --> 00:20:34,230
evidence for increasing melting points

458
00:20:31,109 --> 00:20:36,240
in new compounds that have been made by

459
00:20:34,230 --> 00:20:38,490
people in the last hundred years the

460
00:20:36,240 --> 00:20:41,298
melting points are going up in some

461
00:20:38,490 --> 00:20:45,990
cases by ten or twenty degrees Celsius

462
00:20:41,298 --> 00:20:49,220
so this is a very surprising prediction

463
00:20:45,990 --> 00:20:52,138
of the theory and shocking in some ways

464
00:20:49,220 --> 00:20:54,240
but it does seem to be happening I

465
00:20:52,138 --> 00:20:57,240
recently got some data from the

466
00:20:54,240 --> 00:20:59,128
laboratory in America where with a quite

467
00:20:57,240 --> 00:21:00,929
new compound that wasn't made until a

468
00:20:59,128 --> 00:21:03,689
few years ago the melting points already

469
00:21:00,929 --> 00:21:05,129
gone up by about seven degrees and these

470
00:21:03,690 --> 00:21:06,929
chemists are very puzzled by this

471
00:21:05,128 --> 00:21:08,519
phenomenon and they've now got

472
00:21:06,929 --> 00:21:09,629
interested in morphic resonance because

473
00:21:08,519 --> 00:21:14,159
they can't think of any other

474
00:21:09,628 --> 00:21:17,368
explanation hmm and sometimes when I

475
00:21:14,159 --> 00:21:19,889
discussed this with chemists they put

476
00:21:17,368 --> 00:21:23,970
forward a reasonable normal explanation

477
00:21:19,888 --> 00:21:26,219
for this which is that impurities lower

478
00:21:23,970 --> 00:21:28,259
the melting point as time goes on it may

479
00:21:26,220 --> 00:21:30,269
be that the chemists get better at

480
00:21:28,259 --> 00:21:32,669
making the compound so they have para

481
00:21:30,269 --> 00:21:35,220
samples that may explain some of this

482
00:21:32,669 --> 00:21:36,690
effect but the data I've just got from

483
00:21:35,220 --> 00:21:41,210
America they're pretty sure that's not

484
00:21:36,690 --> 00:21:43,558
the case and of course this requires

485

00:21:41,210 --> 00:21:45,778
specially designed experiments before

486
00:21:43,558 --> 00:21:47,788
one can be sure but the evidence so far

487
00:21:45,778 --> 00:21:49,499
does suggest something like morphic

488
00:21:47,788 --> 00:21:52,408
resonance may be going on even in

489
00:21:49,499 --> 00:21:54,629
chemistry so them so that would be a

490
00:21:52,409 --> 00:21:57,509
morphic resonance that is actually based

491
00:21:54,628 --> 00:21:59,778
on the on the fact that the experiments

492
00:21:57,509 --> 00:22:02,819
have been repeated over and over again

493
00:21:59,778 --> 00:22:04,569
yes the resonance is based on the fact

494
00:22:02,819 --> 00:22:06,069
that people who made these chemicals

495
00:22:04,569 --> 00:22:09,398
over and over again and crystallized

496
00:22:06,069 --> 00:22:10,990
them over and over again so the theory

497
00:22:09,398 --> 00:22:13,089
says the more they make them the more

498
00:22:10,990 --> 00:22:14,200
they're crystallized the more effect

499
00:22:13,089 --> 00:22:17,589

there should be from morphic resonance

500

00:22:14,200 --> 00:22:21,308

now there are also some other surprising

501

00:22:17,589 --> 00:22:24,668

astounding facts concerning pets and

502

00:22:21,308 --> 00:22:28,000

their owners well I've been doing

503

00:22:24,669 --> 00:22:30,778

research on the morphic fields that

504

00:22:28,000 --> 00:22:34,089

connect members of social groups

505

00:22:30,778 --> 00:22:35,919

according to this theory members of

506

00:22:34,089 --> 00:22:40,298

social groups for example members of

507

00:22:35,919 --> 00:22:44,830

families or flocks of birds or packs of

508

00:22:40,298 --> 00:22:46,898

wolves or schools of fish form bonds

509

00:22:44,829 --> 00:22:49,449

with each other and if they interact

510

00:22:46,898 --> 00:22:51,928

frequently they have a kind of resonant

511

00:22:49,450 --> 00:22:55,179

connection even when they're separated

512

00:22:51,929 --> 00:22:58,419

and I think that this is what underlies

513

00:22:55,179 --> 00:23:00,370

telepathy that which i think is a normal

514
00:22:58,419 --> 00:23:05,169
means of communication between members

515
00:23:00,369 --> 00:23:07,508
of animal groups that's why I got

516
00:23:05,169 --> 00:23:10,600
interested in research in telepathy

517
00:23:07,509 --> 00:23:14,470
I'm not primarily a parapsychologist and

518
00:23:10,599 --> 00:23:16,869
I my interests are not primarily in the

519
00:23:14,470 --> 00:23:20,679
our cult or mysterious phenomena I'm a

520
00:23:16,869 --> 00:23:22,538
biologist but when I got interested in

521
00:23:20,679 --> 00:23:25,538
this I realized that this theory

522
00:23:22,538 --> 00:23:27,099
predicted that animals should remain in

523
00:23:25,538 --> 00:23:30,398
connection with each other even when

524
00:23:27,099 --> 00:23:32,558
they're separated so I started looking

525
00:23:30,398 --> 00:23:36,428
at the animals we know best dogs and

526
00:23:32,558 --> 00:23:39,190
cats and other domestic animals they

527
00:23:36,429 --> 00:23:41,409
form strong bonds with their owners so I

528
00:23:39,190 --> 00:23:43,600
wanted to find out if pets have a

529
00:23:41,409 --> 00:23:45,909
telepathic link with their owners as

530
00:23:43,599 --> 00:23:48,398
soon as I started asking people who keep

531
00:23:45,909 --> 00:23:51,309
dogs and cats and people who train dogs

532
00:23:48,398 --> 00:23:53,229
and cats I found that there are hundreds

533
00:23:51,308 --> 00:23:55,898
of stories thousands of stories about

534
00:23:53,230 --> 00:23:58,120
this I started by looking at the natural

535
00:23:55,898 --> 00:24:00,939
history I collected people's stories I

536
00:23:58,119 --> 00:24:03,788
have more than 5,000 on my computerized

537
00:24:00,940 --> 00:24:07,419
database and these stories fall into

538
00:24:03,788 --> 00:24:10,298
quite distinct categories and of course

539
00:24:07,419 --> 00:24:12,309
skeptics would say these people are just

540
00:24:10,298 --> 00:24:15,038
making the stories up they don't really

541
00:24:12,308 --> 00:24:17,480
happen or it's all imagination but at

542

00:24:15,038 --> 00:24:18,890
the very least these stories show now

543
00:24:17,480 --> 00:24:21,500
history of what people believe about

544
00:24:18,890 --> 00:24:24,590
their pets so the next question is are

545
00:24:21,500 --> 00:24:26,660
these believes true or not first I want

546
00:24:24,589 --> 00:24:30,529
to find out what the beliefs are then I

547
00:24:26,660 --> 00:24:32,509
test them and I've now tested some of

548
00:24:30,529 --> 00:24:33,798
these beliefs and it turns out that they

549
00:24:32,509 --> 00:24:37,279
are true

550
00:24:33,798 --> 00:24:39,109
many people believe their dogs know when

551
00:24:37,279 --> 00:24:41,660
they're coming home the dog goes and

552
00:24:39,109 --> 00:24:43,519
waits at a door or a window sometimes 10

553
00:24:41,660 --> 00:24:47,090
minutes or more before the person comes

554
00:24:43,519 --> 00:24:49,490
home the skeptics say well that's just

555
00:24:47,089 --> 00:24:52,159
routine or it's just hearing the sound

556
00:24:49,490 --> 00:24:54,429

of a car coming or some or it's just

557

00:24:52,160 --> 00:24:57,500

people at home giving the animal clues

558

00:24:54,429 --> 00:24:59,809

so in our experiments to test that we

559

00:24:57,500 --> 00:25:01,910

have people come at random times unusual

560

00:24:59,808 --> 00:25:04,220

times they don't know in advance when

561

00:25:01,910 --> 00:25:07,009

they'll come home we pick a random time

562

00:25:04,220 --> 00:25:10,789

and we tell them by telephone went to go

563

00:25:07,009 --> 00:25:12,769

mobile phone went to go home to avoid

564

00:25:10,789 --> 00:25:14,690

familiar car sounds they come in

565

00:25:12,769 --> 00:25:18,740

unfamiliar vehicles or traveled by

566

00:25:14,690 --> 00:25:20,509

public transport or taxis and to avoid

567

00:25:18,740 --> 00:25:22,880

people at home giving the animal any

568

00:25:20,509 --> 00:25:24,890

clues we either do the experiments when

569

00:25:22,880 --> 00:25:26,720

there is no one at home or when the

570

00:25:24,890 --> 00:25:30,080

people at home don't know when the

571
00:25:26,720 --> 00:25:32,960
persons coming we film the place the dog

572
00:25:30,079 --> 00:25:34,609
waits so we've got a complete record of

573
00:25:32,960 --> 00:25:37,250
the dog's movements all the time the

574
00:25:34,609 --> 00:25:39,199
passengers away and what we find is over

575
00:25:37,250 --> 00:25:41,750
and over again these dogs go and wait at

576
00:25:39,200 --> 00:25:43,940
the door when the person is coming home

577
00:25:41,750 --> 00:25:45,769
with the most sensitive dogs is when

578
00:25:43,940 --> 00:25:47,509
they form the intention to come home

579
00:25:45,769 --> 00:25:50,839
they start waiting even before they've

580
00:25:47,509 --> 00:25:53,269
got into the taxi so we have a lot of

581
00:25:50,839 --> 00:25:55,629
filmed evidence for this I've published

582
00:25:53,269 --> 00:25:58,069
papers on this in scientific journals

583
00:25:55,630 --> 00:26:00,470
and it seems to be a very common

584
00:25:58,069 --> 00:26:03,859
phenomenon and it happens not only with

585
00:26:00,470 --> 00:26:05,539
dogs but with cats and parents some

586
00:26:03,859 --> 00:26:09,048
horses know when their owners are coming

587
00:26:05,539 --> 00:26:13,720
to visit them with quite a wide range of

588
00:26:09,048 --> 00:26:16,220
species he said that telepathy is

589
00:26:13,720 --> 00:26:18,730
probably the preferred method of

590
00:26:16,220 --> 00:26:21,140
communication among animals right

591
00:26:18,730 --> 00:26:23,690
telepathy literally means distant

592
00:26:21,140 --> 00:26:25,790
feeling tele distant as in television

593
00:26:23,690 --> 00:26:30,320
paths a feeling as in sympathy or

594
00:26:25,789 --> 00:26:30,740
empathy and I think it's a common method

595
00:26:30,319 --> 00:26:33,109
of commune

596
00:26:30,740 --> 00:26:35,349
among animals normal not paranormal

597
00:26:33,109 --> 00:26:40,039
natural not supernatural

598
00:26:35,349 --> 00:26:41,750
and I think it's when happens when

599

00:26:40,039 --> 00:26:44,869
animals are separated from each other

600
00:26:41,750 --> 00:26:47,660
for example when wolves are hunting they

601
00:26:44,869 --> 00:26:49,879
leave the young wolves in the den and

602
00:26:47,660 --> 00:26:51,860
they travel hundreds of kilometres

603
00:26:49,880 --> 00:26:54,440
sometimes when they're hunting but I

604
00:26:51,859 --> 00:26:58,039
think they remain in connection by

605
00:26:54,440 --> 00:27:00,470
telepathy now when they're together then

606
00:26:58,039 --> 00:27:03,799
they're communicating by the normal

607
00:27:00,470 --> 00:27:06,230
senses through signs sounds and so on

608
00:27:03,799 --> 00:27:09,440
I think telepathy is part of that as

609
00:27:06,230 --> 00:27:11,240
well but you can't separate our effects

610
00:27:09,440 --> 00:27:13,070
of telepathy from normal sensory

611
00:27:11,240 --> 00:27:15,500
communication when the animals are close

612
00:27:13,069 --> 00:27:17,480
together when they're far apart the

613
00:27:15,500 --> 00:27:19,940

normal senses can't work and then you

614

00:27:17,480 --> 00:27:23,000

can see purely telepathic communication

615

00:27:19,940 --> 00:27:25,640

but I'm sure it's obviously not the only

616

00:27:23,000 --> 00:27:27,859

kind of communication like we're talking

617

00:27:25,640 --> 00:27:30,410

now and talking is the main form of

618

00:27:27,859 --> 00:27:34,399

communication here largely language as

619

00:27:30,410 --> 00:27:38,769

well so but telepathy may also be

620

00:27:34,400 --> 00:27:41,690

playing a fairly minor part but under

621

00:27:38,769 --> 00:27:43,639

when people who are bonded to each other

622

00:27:41,690 --> 00:27:47,029

or animals that are bonded to people are

623

00:27:43,640 --> 00:27:49,100

separated then it's telepathy that can

624

00:27:47,029 --> 00:27:51,889

work at a distance it doesn't work all

625

00:27:49,099 --> 00:27:53,928

the time but if there's a need it works

626

00:27:51,890 --> 00:27:56,000

especially when someone wants to call

627

00:27:53,929 --> 00:27:58,660

another person which is why it happens

628
00:27:56,000 --> 00:28:02,240
in connection with telephone calls or

629
00:27:58,660 --> 00:28:04,790
when someone has a need often mothers

630
00:28:02,240 --> 00:28:06,710
for example know when their baby needs

631
00:28:04,789 --> 00:28:10,700
them or if their child has had an

632
00:28:06,710 --> 00:28:13,250
accident or people often feel when

633
00:28:10,700 --> 00:28:15,650
someone they know has died or is in

634
00:28:13,250 --> 00:28:18,019
serious distress so it's to do with

635
00:28:15,650 --> 00:28:20,240
calling people when there's a need

636
00:28:18,019 --> 00:28:25,639
that's his primary function among

637
00:28:20,240 --> 00:28:29,210
separated animals hmm what about what

638
00:28:25,640 --> 00:28:33,040
about swarm intelligence I mean if I see

639
00:28:29,210 --> 00:28:36,410
a swarm of birds in in the sky they move

640
00:28:33,039 --> 00:28:39,649
homogeneously like one single being yes

641
00:28:36,410 --> 00:28:40,548
or a swarm of fish yes how do they do

642
00:28:39,650 --> 00:28:42,528
that

643
00:28:40,548 --> 00:28:46,009
well I think that the behavior of flocks

644
00:28:42,528 --> 00:28:50,058
of birds and schools of fish and swarms

645
00:28:46,009 --> 00:28:51,919
of insects are examples of morphic

646
00:28:50,058 --> 00:28:53,598
fields of the social group I think the

647
00:28:51,919 --> 00:28:56,450
whole group has a field that includes

648
00:28:53,598 --> 00:28:59,178
the individual members it's a little bit

649
00:28:56,450 --> 00:29:01,669
like a magnetic field around a magnet

650
00:28:59,179 --> 00:29:04,759
the magnetic field emerges from

651
00:29:01,669 --> 00:29:06,440
individual magnetic domains inside the

652
00:29:04,759 --> 00:29:08,808
magnet there are small magnets within

653
00:29:06,440 --> 00:29:11,269
the magnets which are called magnetic

654
00:29:08,808 --> 00:29:12,858
domains if they're lined up in the same

655
00:29:11,269 --> 00:29:15,259
direction the whole magnet has a

656

00:29:12,858 --> 00:29:17,358
magnetic field and that field in turn

657
00:29:15,259 --> 00:29:22,338
works back on the individual domains

658
00:29:17,358 --> 00:29:25,278
within it I think a flock of birds it is

659
00:29:22,338 --> 00:29:27,319
where where a whole field emerges from

660
00:29:25,278 --> 00:29:29,358
the individual birds they come together

661
00:29:27,319 --> 00:29:31,548
create a field of the whole group and

662
00:29:29,358 --> 00:29:33,888
then they respond to the field of the

663
00:29:31,548 --> 00:29:38,479
whole group so it's like a swarm mind a

664
00:29:33,888 --> 00:29:40,308
kind of collective mind it's like a

665
00:29:38,479 --> 00:29:42,859
magnetic field when you have iron

666
00:29:40,308 --> 00:29:45,200
filings and you move the magnet all the

667
00:29:42,858 --> 00:29:47,868
filings move they're responding to the

668
00:29:45,200 --> 00:29:49,788
field of which they're part and so I

669
00:29:47,868 --> 00:29:54,168
think the behavior of these birds or

670
00:29:49,788 --> 00:30:00,888

fish or insects is controlled by this

671

00:29:54,169 --> 00:30:03,109

overall field so this I think provides a

672

00:30:00,888 --> 00:30:04,908

much better way of understanding it than

673

00:30:03,108 --> 00:30:06,528

trying to understand it just in terms of

674

00:30:04,909 --> 00:30:09,019

individual behavior and direct

675

00:30:06,528 --> 00:30:11,808

interactions with neighbors and in fact

676

00:30:09,019 --> 00:30:16,149

the best computer models of flocks of

677

00:30:11,808 --> 00:30:22,638

birds treat them as field phenomenon and

678

00:30:16,148 --> 00:30:26,118

so what if mankind were also to be part

679

00:30:22,638 --> 00:30:30,888

of such a collective mind or collective

680

00:30:26,118 --> 00:30:34,908

intelligence I think that humans have

681

00:30:30,888 --> 00:30:36,769

morphic fields of social groups we have

682

00:30:34,909 --> 00:30:38,869

the most immediate ones of course are

683

00:30:36,769 --> 00:30:42,200

the groups that we live in our families

684

00:30:38,868 --> 00:30:45,228

and then football teams have morphic

685
00:30:42,200 --> 00:30:48,798
fields and societies and schools and

686
00:30:45,229 --> 00:30:51,440
colleges and groups within armies and

687
00:30:48,798 --> 00:30:52,999
there are many social groups all of

688
00:30:51,440 --> 00:30:54,080
which I think have their own morphic

689
00:30:52,999 --> 00:30:57,350
fields with their end

690
00:30:54,079 --> 00:30:59,960
habits and all of us exist within

691
00:30:57,349 --> 00:31:02,148
different social groups we have family

692
00:30:59,960 --> 00:31:04,788
groups we have groups of friends we have

693
00:31:02,148 --> 00:31:07,009
we belong to society's associations

694
00:31:04,788 --> 00:31:11,509
institutions all of these have their own

695
00:31:07,009 --> 00:31:13,970
morphic fields one could say that

696
00:31:11,509 --> 00:31:16,339
there's a larger morphic fields for you

697
00:31:13,970 --> 00:31:20,419
know different cultures different

698
00:31:16,339 --> 00:31:22,788
nations and ultimately a morphic field

699
00:31:20,419 --> 00:31:24,830
for all of humanity but most of us are

700
00:31:22,788 --> 00:31:27,859
more immersed in the local fields our

701
00:31:24,829 --> 00:31:30,939
local social groups rather than in the

702
00:31:27,859 --> 00:31:35,178
rather nebulous field of all humanity

703
00:31:30,940 --> 00:31:37,298
hmm now how come that all those

704
00:31:35,179 --> 00:31:41,210
interesting facts are virtually

705
00:31:37,298 --> 00:31:43,759
non-existent in in in in the mass media

706
00:31:41,210 --> 00:31:47,259
or in let's say in mainstream science

707
00:31:43,759 --> 00:31:50,480
how come that they don't deal with it

708
00:31:47,259 --> 00:31:53,990
well mainstream science is strongly

709
00:31:50,480 --> 00:31:56,778
based on the materialist worldview since

710
00:31:53,990 --> 00:31:58,519
the late 19th century that's been the

711
00:31:56,778 --> 00:32:03,888
dominant paradigm or model of reality

712
00:31:58,519 --> 00:32:06,740
within mainstream science and that says

713

00:32:03,888 --> 00:32:10,069
that matter is unconscious nature's made

714
00:32:06,740 --> 00:32:12,888
up of mechanical interactions between

715
00:32:10,069 --> 00:32:15,859
unconscious particles of matter atoms

716
00:32:12,888 --> 00:32:19,069
molecules and so on and the attempt is

717
00:32:15,859 --> 00:32:20,689
to explain life in terms of molecules so

718
00:32:19,069 --> 00:32:24,038
that's why there's a huge emphasis on

719
00:32:20,690 --> 00:32:30,470
genetics the genome project proteomics

720
00:32:24,038 --> 00:32:32,569
proteins and so on so these are this is

721
00:32:30,470 --> 00:32:35,269
the strongly reductionist tendency

722
00:32:32,569 --> 00:32:39,349
present in science which is working out

723
00:32:35,269 --> 00:32:41,750
this mechanistic agenda and that's why I

724
00:32:39,349 --> 00:32:43,699
think that we need to shift the whole

725
00:32:41,750 --> 00:32:45,919
paradigm within science from a

726
00:32:43,700 --> 00:32:48,950
materialist worldview to a much more

727
00:32:45,919 --> 00:32:52,370

holistic well view but isn't it like a

728

00:32:48,950 --> 00:32:55,038

like a mechanism I mean we have laws of

729

00:32:52,369 --> 00:32:57,619

nature constants in nature which never

730

00:32:55,038 --> 00:32:59,509

change right well that's the usual

731

00:32:57,619 --> 00:33:02,058

assumption but what I'm saying is the

732

00:32:59,509 --> 00:33:03,558

laws of nature evolve in an evolving

733

00:33:02,058 --> 00:33:07,298

universe in fact they're more like

734

00:33:03,558 --> 00:33:09,408

habits and even the constants may change

735

00:33:07,298 --> 00:33:12,470

you have an example can you give an

736

00:33:09,409 --> 00:33:14,330

example well yes the if you look at the

737

00:33:12,470 --> 00:33:17,860

actual measurements of constants they

738

00:33:14,329 --> 00:33:20,960

certainly do change between 1928 and

739

00:33:17,859 --> 00:33:22,638

1945 the speed of light dropped all

740

00:33:20,960 --> 00:33:25,999

around the world by about 20 kilometres

741

00:33:22,638 --> 00:33:27,408

per second before that it was like this

742
00:33:25,999 --> 00:33:29,960
and then it dropped down like that and

743
00:33:27,409 --> 00:33:31,778
they're quite small errors in the

744
00:33:29,960 --> 00:33:34,759
measurements and then it went up again

745
00:33:31,778 --> 00:33:37,490
this is a big change the speed of light

746
00:33:34,759 --> 00:33:40,700
is now given to four places of decimals

747
00:33:37,490 --> 00:33:44,960
so a drop of 20 kilometers per second is

748
00:33:40,700 --> 00:33:48,319
a huge change now what's going on there

749
00:33:44,960 --> 00:33:50,389
did the speed of light really drop well

750
00:33:48,319 --> 00:33:52,759
if you talk to physicists they'll say no

751
00:33:50,388 --> 00:33:57,079
it couldn't really drop because it's a

752
00:33:52,759 --> 00:33:58,548
constant so then why did all right these

753
00:33:57,079 --> 00:34:00,168
scientists all around the world get

754
00:33:58,548 --> 00:34:03,019
these lower measurements of the speed of

755
00:34:00,169 --> 00:34:05,028
light and they said well no that was

756
00:34:03,019 --> 00:34:07,220
just a kind of fashion they they

757
00:34:05,028 --> 00:34:09,918
expected that kind of result so they

758
00:34:07,220 --> 00:34:12,199
corrected their data to get the expected

759
00:34:09,918 --> 00:34:15,348
result so basically they're saying we

760
00:34:12,199 --> 00:34:17,779
can't trust the data so here you have a

761
00:34:15,349 --> 00:34:22,280
conflict between experimental evidence

762
00:34:17,780 --> 00:34:23,899
and dogma and dogma wins many scientists

763
00:34:22,280 --> 00:34:25,069
say it's just a matter of facts we're

764
00:34:23,898 --> 00:34:26,960
interested in facts

765
00:34:25,068 --> 00:34:28,730
well when the facts don't agree with the

766
00:34:26,960 --> 00:34:30,318
dogma people aren't very interested in

767
00:34:28,730 --> 00:34:33,260
the facts they just say oh that was an

768
00:34:30,318 --> 00:34:35,779
error we now know the correct value in

769
00:34:33,260 --> 00:34:39,679
fact the speed of light was defined by

770

00:34:35,780 --> 00:34:42,200
an International Committee in 1972 so

771
00:34:39,679 --> 00:34:45,889
the present value is fixed by definition

772
00:34:42,199 --> 00:34:48,230
and you would never notice if it really

773
00:34:45,889 --> 00:34:49,818
changes because the metre has now been

774
00:34:48,230 --> 00:34:52,668
defined in terms of the speed of light

775
00:34:49,818 --> 00:34:55,730
so the unit's will change with the speed

776
00:34:52,668 --> 00:34:57,559
of light the gravitational constant has

777
00:34:55,730 --> 00:34:59,539
been varying quite a lot even in the

778
00:34:57,559 --> 00:35:01,838
last few years it's varied by more than

779
00:34:59,539 --> 00:35:04,699
one percent which is quite a big error

780
00:35:01,838 --> 00:35:10,159
when people assume it should be given to

781
00:35:04,699 --> 00:35:12,230
many places of decimals and I think that

782
00:35:10,159 --> 00:35:13,710
the measurements in different

783
00:35:12,230 --> 00:35:16,630
laboratories

784
00:35:13,710 --> 00:35:18,639

which give different values may actually

785

00:35:16,630 --> 00:35:20,440

be correlated I think that sometimes

786

00:35:18,639 --> 00:35:22,659

they may all be higher to another time

787

00:35:20,440 --> 00:35:25,450

they may or below there may be actual

788

00:35:22,659 --> 00:35:28,440

fluctuations in G the gravitational

789

00:35:25,449 --> 00:35:31,269

constant as its measured here on earth

790

00:35:28,440 --> 00:35:32,829

it may not mean that it's varying

791

00:35:31,269 --> 00:35:34,780

throughout the universe it may mean that

792

00:35:32,829 --> 00:35:36,789

hence the earth moves through the solar

793

00:35:34,780 --> 00:35:38,560

system and the solar system moves

794

00:35:36,789 --> 00:35:40,480

through the galaxy there may be

795

00:35:38,559 --> 00:35:43,989

environmental changes that affect

796

00:35:40,480 --> 00:35:47,679

measurements of G so what I'm proposing

797

00:35:43,989 --> 00:35:50,109

is that different Institute's in

798

00:35:47,679 --> 00:35:53,079

different countries put their values of

799

00:35:50,110 --> 00:35:54,880

G at different dates online and then

800

00:35:53,079 --> 00:35:56,739

anyone who's interested could look to

801

00:35:54,880 --> 00:35:58,360

see if there are correlations are they

802

00:35:56,739 --> 00:36:00,309

all high at one time and lower to

803

00:35:58,360 --> 00:36:02,590

another time or are they random errors

804

00:36:00,309 --> 00:36:04,000

but no-one's done that yet and they

805

00:36:02,590 --> 00:36:04,480

don't do it because they is not worth

806

00:36:04,000 --> 00:36:07,900

doing

807

00:36:04,480 --> 00:36:10,420

why not because G is a constant so we

808

00:36:07,900 --> 00:36:12,760

won't find any variations that are that

809

00:36:10,420 --> 00:36:14,139

mean anything they're just errors you

810

00:36:12,760 --> 00:36:16,470

see I think they may be wrong and I

811

00:36:14,139 --> 00:36:19,539

think this dogmatic thinking actually

812

00:36:16,469 --> 00:36:21,159

restricts what we can do in science this

813
00:36:19,539 --> 00:36:24,519
is one of the themes of my book the

814
00:36:21,159 --> 00:36:26,529
science delusion where I argue that many

815
00:36:24,519 --> 00:36:29,829
aspects of research are being held back

816
00:36:26,530 --> 00:36:34,480
by a dogmatic assumption that we already

817
00:36:29,829 --> 00:36:38,619
know the answers in principle hmm so so

818
00:36:34,480 --> 00:36:43,659
with all those morphic resonance effects

819
00:36:38,619 --> 00:36:47,199
and morphic field experiments that that

820
00:36:43,659 --> 00:36:49,559
to me kind of suggests that there is an

821
00:36:47,199 --> 00:36:52,960
interface between consciousness and

822
00:36:49,559 --> 00:36:55,150
matter or that we would have to think

823
00:36:52,960 --> 00:36:58,240
about what consciousness is and what

824
00:36:55,150 --> 00:37:01,119
matter is after all do you have an

825
00:36:58,239 --> 00:37:03,429
answer to that one well one of the

826
00:37:01,119 --> 00:37:05,589
dogmas of materialistic science is that

827

00:37:03,429 --> 00:37:07,359
matter is unconscious and that the

828
00:37:05,590 --> 00:37:09,460
universe is made of unconscious matter

829
00:37:07,360 --> 00:37:14,980
that's just one of the ten dogmas of

830
00:37:09,460 --> 00:37:17,050
science it's simply an assumption if you

831
00:37:14,980 --> 00:37:21,699
look at the history of this in the 17th

832
00:37:17,050 --> 00:37:24,340
century Rene Descartes defined matter as

833
00:37:21,699 --> 00:37:25,960
unconscious and human consciousness he

834
00:37:24,340 --> 00:37:26,980
said is separate from matter it's

835
00:37:25,960 --> 00:37:28,900
immaterial

836
00:37:26,980 --> 00:37:30,909
and the only forms of consciousness and

837
00:37:28,900 --> 00:37:33,250
the universe are humans angels and God

838
00:37:30,909 --> 00:37:35,920
but everything else including the human

839
00:37:33,250 --> 00:37:38,500
body is totally unconscious this is of

840
00:37:35,920 --> 00:37:42,340
course the familiar philosophy of

841
00:37:38,500 --> 00:37:44,108

Cartesian dualism he made a sharp

842

00:37:42,340 --> 00:37:45,850

separation between consciousness and

843

00:37:44,108 --> 00:37:49,210

matter in matters unconscious by

844

00:37:45,849 --> 00:37:51,608

definition so modern science has

845

00:37:49,210 --> 00:37:54,300

inherited this philosophy from the 17th

846

00:37:51,608 --> 00:37:56,559

century but Descartes was a dualist

847

00:37:54,300 --> 00:37:59,980

materialists who've dominated science

848

00:37:56,559 --> 00:38:04,210

for the last hundred years reject the

849

00:37:59,980 --> 00:38:06,880

idea that an immaterial spirit so at

850

00:38:04,210 --> 00:38:09,190

once stroke they get rid of angels and

851

00:38:06,880 --> 00:38:12,608

God so they create a thoroughly

852

00:38:09,190 --> 00:38:13,720

atheistic philosophy and but that leaves

853

00:38:12,608 --> 00:38:16,000

them with the problem of human

854

00:38:13,719 --> 00:38:18,250

consciousness humans ought not to be

855

00:38:16,000 --> 00:38:20,730

conscious if matters unconscious we're

856
00:38:18,250 --> 00:38:23,949
just matter if we're just machines

857
00:38:20,730 --> 00:38:26,320
lumbering robots as Richard Dawkins puts

858
00:38:23,949 --> 00:38:29,049
it then we shouldn't be conscious at all

859
00:38:26,320 --> 00:38:31,840
and indeed in the english-speaking world

860
00:38:29,050 --> 00:38:34,269
for the last 50 years most philosophers

861
00:38:31,840 --> 00:38:36,070
of mind have spent their efforts trying

862
00:38:34,269 --> 00:38:38,259
to prove that we're not conscious that

863
00:38:36,070 --> 00:38:42,880
consciousness is just an illusion and

864
00:38:38,260 --> 00:38:45,490
we're just machines now they're not very

865
00:38:42,880 --> 00:38:47,019
successful because most people of course

866
00:38:45,489 --> 00:38:49,149
persist in believing that they are

867
00:38:47,019 --> 00:38:51,099
conscious because they have a conscious

868
00:38:49,150 --> 00:38:53,200
experience how dare they commit even

869
00:38:51,099 --> 00:38:55,150
even the materialists philosophers are

870
00:38:53,199 --> 00:38:58,149
conscious so they have to say it's an

871
00:38:55,150 --> 00:39:00,730
illusion but that doesn't explain it of

872
00:38:58,150 --> 00:39:03,730
course because illusion is itself a form

873
00:39:00,730 --> 00:39:05,920
of consciousness they presuppose it so

874
00:39:03,730 --> 00:39:08,079
there's this futile debate been going on

875
00:39:05,920 --> 00:39:12,340
among philosophers of mind for decades

876
00:39:08,079 --> 00:39:14,340
never resolved and irresolvable which

877
00:39:12,340 --> 00:39:17,350
simply can't explain consciousness and

878
00:39:14,340 --> 00:39:19,059
in the 20th century in the

879
00:39:17,349 --> 00:39:21,460
english-speaking world the dominant

880
00:39:19,059 --> 00:39:24,639
school of psychology in universities was

881
00:39:21,460 --> 00:39:25,869
behaviorism behaviorism said that the

882
00:39:24,639 --> 00:39:27,549
only thing that you can study

883
00:39:25,869 --> 00:39:29,769
scientifically is measurable behavior

884

00:39:27,550 --> 00:39:31,750
that consciousness is a meaningless

885
00:39:29,769 --> 00:39:34,300
concept that should be expelled from

886
00:39:31,750 --> 00:39:36,309
science science is about objective facts

887
00:39:34,300 --> 00:39:38,289
consciousness is subjective and

888
00:39:36,309 --> 00:39:39,409
therefore unscientific and should be

889
00:39:38,289 --> 00:39:40,969
ruled out complete

890
00:39:39,409 --> 00:39:43,578
from any rigorous scientific

891
00:39:40,969 --> 00:39:45,679
understanding of nature consciousness is

892
00:39:43,579 --> 00:39:48,920
subjective unreliable and in fact

893
00:39:45,679 --> 00:39:51,409
illusory so it's an extraordinary

894
00:39:48,920 --> 00:39:53,858
position that they've put themselves in

895
00:39:51,409 --> 00:39:56,629
and it's a remarkable thing that

896
00:39:53,858 --> 00:39:59,869
intelligent educated people for

897
00:39:56,630 --> 00:40:01,670
generations now have taken this to be

898
00:39:59,869 --> 00:40:04,759

the truth about the world when it so

899

00:40:01,670 --> 00:40:07,009

denies their own consciousness and the

900

00:40:04,759 --> 00:40:08,480

reality of their consciousness and even

901

00:40:07,009 --> 00:40:10,159

the freedom of their own decisions

902

00:40:08,480 --> 00:40:13,730

because there's no free will from this

903

00:40:10,159 --> 00:40:16,518

point of view so there's a serious

904

00:40:13,730 --> 00:40:19,309

problem about consciousness within the

905

00:40:16,518 --> 00:40:21,258

materialist framework and in fact among

906

00:40:19,309 --> 00:40:23,839

philosophers of mind it's called the

907

00:40:21,259 --> 00:40:25,789

hard problem because there's no known

908

00:40:23,838 --> 00:40:28,068

solution to the existence of

909

00:40:25,789 --> 00:40:31,400

consciousness from a materialist point

910

00:40:28,068 --> 00:40:35,389

of view why would it be so important for

911

00:40:31,400 --> 00:40:38,630

society to know that a stone has

912

00:40:35,389 --> 00:40:40,460

consciousness well I personally I don't

913
00:40:38,630 --> 00:40:42,890
think of stone as such does have

914
00:40:40,460 --> 00:40:45,139
consciousness I think that the atoms and

915
00:40:42,889 --> 00:40:46,969
crystals within it have a kind of mental

916
00:40:45,139 --> 00:40:48,980
life but I think it's largely

917
00:40:46,969 --> 00:40:50,868
unconscious you know the mind is not

918
00:40:48,980 --> 00:40:53,389
just conscious a large part of our own

919
00:40:50,869 --> 00:40:55,940
mind is unconscious everything that's to

920
00:40:53,389 --> 00:40:58,818
do with habit is unconscious really and

921
00:40:55,940 --> 00:41:01,460
I think most of nature has habits so

922
00:40:58,818 --> 00:41:04,909
habits are in a sense mental but not

923
00:41:01,460 --> 00:41:08,509
conscious 95 percent of our own mental

924
00:41:04,909 --> 00:41:10,460
activity maybe more is unconscious so we

925
00:41:08,509 --> 00:41:12,199
don't have to suppose that electrons or

926
00:41:10,460 --> 00:41:17,588
atoms are more conscious than we are

927

00:41:12,199 --> 00:41:22,098
they're largely habitual a stone is is

928

00:41:17,588 --> 00:41:23,630
in fact not self-organizing unity I

929

00:41:22,099 --> 00:41:27,230
think there's a kind of mental activity

930

00:41:23,630 --> 00:41:30,710
or morphic field in all self-organizing

931

00:41:27,230 --> 00:41:34,960
systems that means atoms molecules and

932

00:41:30,710 --> 00:41:37,190
crystals but a rock is actually not

933

00:41:34,960 --> 00:41:39,380
self-organizing in the sense that a rock

934

00:41:37,190 --> 00:41:42,380
is chipped off a mountain by a glacier

935

00:41:39,380 --> 00:41:45,019
or a landslide but then it changes its

936

00:41:42,380 --> 00:41:47,079
form throughout the centuries the

937

00:41:45,018 --> 00:41:49,250
changes form not through

938

00:41:47,079 --> 00:41:51,440
self-organization but through if it's in

939

00:41:49,250 --> 00:41:52,500
a river it gets rounded by external

940

00:41:51,440 --> 00:41:55,470
forces

941

00:41:52,500 --> 00:41:57,750
so there's a distinction between systems

942
00:41:55,469 --> 00:41:59,819
that organize themselves plants and

943
00:41:57,750 --> 00:42:03,599
animals for example or molecules and

944
00:41:59,820 --> 00:42:06,690
crystals or snowflakes and organ systems

945
00:42:03,599 --> 00:42:10,200
which are composites which are shaped by

946
00:42:06,690 --> 00:42:12,570
external forces only and the shape of

947
00:42:10,199 --> 00:42:14,789
mountains is shaped by glaciers and

948
00:42:12,570 --> 00:42:17,640
pushing up from under the earth and so

949
00:42:14,789 --> 00:42:19,858
on so the mountains I don't think have

950
00:42:17,639 --> 00:42:21,509
the same kind of self-organizing

951
00:42:19,858 --> 00:42:24,358
properties and order rocks

952
00:42:21,510 --> 00:42:27,210
nor do tables or chairs or man-made

953
00:42:24,358 --> 00:42:29,670
machines they're all formed by external

954
00:42:27,210 --> 00:42:31,740
forces it's like the difference we all

955
00:42:29,670 --> 00:42:33,240

learned at school in chemistry the

956

00:42:31,739 --> 00:42:37,108

difference between a mixture and a

957

00:42:33,239 --> 00:42:41,129

compound a compound in chemistry like

958

00:42:37,108 --> 00:42:44,159

methane or benzene is something where

959

00:42:41,130 --> 00:42:45,990

you have hydrogen and carbon joined

960

00:42:44,159 --> 00:42:49,139

together in a particular pattern in a

961

00:42:45,989 --> 00:42:53,250

self-organizing form a mixture like

962

00:42:49,139 --> 00:42:55,559

mixing carbon with hydrogen gas or

963

00:42:53,250 --> 00:42:59,159

something is just a mixture or a mixing

964

00:42:55,559 --> 00:43:01,469

sand with with iron or you've just got a

965

00:42:59,159 --> 00:43:03,329

mixture because that's put together by

966

00:43:01,469 --> 00:43:06,209

external forces whereas a compound

967

00:43:03,329 --> 00:43:08,369

organizes itself so I think that morphic

968

00:43:06,210 --> 00:43:10,710

fields apply to compounds things that

969

00:43:08,369 --> 00:43:12,660

have a self-organizing property not two

970
00:43:10,710 --> 00:43:18,030
mixtures which are aggregated by

971
00:43:12,659 --> 00:43:21,149
external forces and so if so if morphic

972
00:43:18,030 --> 00:43:27,599
fields are like the decisive factor for

973
00:43:21,150 --> 00:43:29,490
for the causation of form then there

974
00:43:27,599 --> 00:43:31,410
seems to be a purpose behind it right

975
00:43:29,489 --> 00:43:35,879
but wouldn't that mean that the whole

976
00:43:31,409 --> 00:43:38,009
cosmos has a purpose well um morphic

977
00:43:35,880 --> 00:43:40,710
fields have within them what are called

978
00:43:38,010 --> 00:43:43,430
attractors within modern dynamical

979
00:43:40,710 --> 00:43:47,639
theory in mathematics and in physics

980
00:43:43,429 --> 00:43:49,049
there's a way of explaining things not

981
00:43:47,639 --> 00:43:51,210
in terms of how they're pushed from

982
00:43:49,050 --> 00:43:55,250
behind but how they're pulled from in

983
00:43:51,210 --> 00:43:58,920
front and the concept of an attractor is

984
00:43:55,250 --> 00:44:01,588
the concept of something which pulls a

985
00:43:58,920 --> 00:44:03,838
system towards it the basic model the

986
00:44:01,588 --> 00:44:05,909
metaphor of an attractor is you have a

987
00:44:03,838 --> 00:44:08,549
basin like a bowl

988
00:44:05,909 --> 00:44:11,399
and you throw little balls into it and

989
00:44:08,550 --> 00:44:13,710
these balls roll around it and they all

990
00:44:11,400 --> 00:44:15,360
end up at the bottom of the bowl so the

991
00:44:13,710 --> 00:44:17,369
bottom of the bowl is an attractor

992
00:44:15,360 --> 00:44:19,860
wherever the balls come from whatever

993
00:44:17,369 --> 00:44:22,469
speed they come in at whatever angle if

994
00:44:19,860 --> 00:44:24,360
they're in that bowl they'll end up at

995
00:44:22,469 --> 00:44:26,129
the bottom so you can model it by saying

996
00:44:24,360 --> 00:44:28,410
they're pulled towards this attractor

997
00:44:26,130 --> 00:44:30,680
the other way of doing the mathematics

998

00:44:28,409 --> 00:44:32,969
is measuring the pushing force and

999
00:44:30,679 --> 00:44:35,129
measuring for each ball the exact

1000
00:44:32,969 --> 00:44:36,899
details is but it's simpler to say let's

1001
00:44:35,130 --> 00:44:38,880
it doesn't matter about those details

1002
00:44:36,900 --> 00:44:40,860
they'll be pulled towards an attractor

1003
00:44:38,880 --> 00:44:44,880
which is the end towards which they're

1004
00:44:40,860 --> 00:44:48,210
moving now mathematical models of Morpho

1005
00:44:44,880 --> 00:44:51,570
genetic fields are based on the tractors

1006
00:44:48,210 --> 00:44:55,590
a system is pulled towards an end or a

1007
00:44:51,570 --> 00:44:58,170
goal so if you germinate a plant seed

1008
00:44:55,590 --> 00:45:00,360
and oak seed then Elk seedling is

1009
00:44:58,170 --> 00:45:02,340
attracted towards the mature form of the

1010
00:45:00,360 --> 00:45:04,950
oak tree if you cut bits off the

1011
00:45:02,340 --> 00:45:07,860
seedling then it will grow new shoots so

1012
00:45:04,949 --> 00:45:10,409

it can get back to being an oak tree so

1013

00:45:07,860 --> 00:45:13,019

it's as if the final form of the mature

1014

00:45:10,409 --> 00:45:16,889

form attracts it the same is true of

1015

00:45:13,019 --> 00:45:20,489

animal embryos they're attracted towards

1016

00:45:16,889 --> 00:45:22,319

the final form of the organism and even

1017

00:45:20,489 --> 00:45:24,779

after damage to the embryo they can

1018

00:45:22,320 --> 00:45:26,760

often develop into normal organisms it's

1019

00:45:24,780 --> 00:45:29,780

always and yet there seems to be an

1020

00:45:26,760 --> 00:45:34,170

interaction between conscious minds of

1021

00:45:29,780 --> 00:45:37,160

humans and the morphic fields or let's

1022

00:45:34,170 --> 00:45:39,389

say the conscious mind of a rat and

1023

00:45:37,159 --> 00:45:43,230

trying to find its way out of the

1024

00:45:39,389 --> 00:45:45,629

labyrinth and another morphic field which

1025

00:45:43,230 --> 00:45:47,760

then causes the other members of the

1026

00:45:45,630 --> 00:45:51,539

same breed to find its way out of the

1027
00:45:47,760 --> 00:45:53,640
labyrinth quicker than well morphic

1028
00:45:51,539 --> 00:45:55,769
fields are goal directed and they

1029
00:45:53,639 --> 00:45:58,529
organize system's towards ends or goals

1030
00:45:55,769 --> 00:46:00,780
but these don't have to be conscious you

1031
00:45:58,530 --> 00:46:02,670
see the gravitational attraction that

1032
00:46:00,780 --> 00:46:04,470
pulls balls to the bottom of bowl

1033
00:46:02,670 --> 00:46:07,829
doesn't have to be a conscious how do

1034
00:46:04,469 --> 00:46:09,599
you vote well it may be conscious it may

1035
00:46:07,829 --> 00:46:11,369
not and the reason I think they don't

1036
00:46:09,599 --> 00:46:12,710
have to be is that most of our own

1037
00:46:11,369 --> 00:46:15,289
habits

1038
00:46:12,710 --> 00:46:19,309
are not conscious they have ends or

1039
00:46:15,289 --> 00:46:23,659
goals and those may or may not become

1040
00:46:19,309 --> 00:46:27,170
conscious but most of our physiological

1041
00:46:23,659 --> 00:46:29,569
activity is purposive - you and I are

1042
00:46:27,170 --> 00:46:32,840
breathing now we're not aware of it it

1043
00:46:29,570 --> 00:46:35,120
happens unconsciously if we stop

1044
00:46:32,840 --> 00:46:37,160
breathing if we're held underwater we've

1045
00:46:35,119 --> 00:46:39,380
come very aware of the fact that we need

1046
00:46:37,159 --> 00:46:41,659
to breathe and we start struggling to

1047
00:46:39,380 --> 00:46:44,090
get into the air because we become

1048
00:46:41,659 --> 00:46:46,579
conscious of the goal of breathing of

1049
00:46:44,090 --> 00:46:48,860
taking the next breath normally it's

1050
00:46:46,579 --> 00:46:52,099
unconscious so the reason I think that

1051
00:46:48,860 --> 00:46:54,079
most habits most attracters most girls

1052
00:46:52,099 --> 00:46:56,779
are unconscious because we know that

1053
00:46:54,079 --> 00:47:00,190
from our own experience that most of our

1054
00:46:56,780 --> 00:47:03,140
own goals are unconscious and very often

1055

00:47:00,190 --> 00:47:05,389
people's behavior is motivated by

1056
00:47:03,139 --> 00:47:07,519
unconscious goals I mean people have

1057
00:47:05,389 --> 00:47:10,250
habits of behavior that they usually not

1058
00:47:07,519 --> 00:47:13,219
aware of and in personal relationships

1059
00:47:10,250 --> 00:47:15,019
it's often very annoying for members of

1060
00:47:13,219 --> 00:47:16,579
their family or girlfriends or

1061
00:47:15,019 --> 00:47:20,719
boyfriends to find people have

1062
00:47:16,579 --> 00:47:23,239
unconscious habits and in relationships

1063
00:47:20,719 --> 00:47:25,809
people delight in pointing out the

1064
00:47:23,239 --> 00:47:29,209
habits that we're not ourselves aware of

1065
00:47:25,809 --> 00:47:32,480
so we all of us are creatures of habit

1066
00:47:29,210 --> 00:47:34,280
and so again I don't think we need to

1067
00:47:32,480 --> 00:47:35,929
assume that the rest of nature is more

1068
00:47:34,280 --> 00:47:39,050
conscious than we are we're conscious

1069
00:47:35,929 --> 00:47:41,269

part of the time and consciousness has a

1070

00:47:39,050 --> 00:47:43,250
role to play it its main role is to

1071

00:47:41,269 --> 00:47:45,650
choose between possible courses of

1072

00:47:43,250 --> 00:47:47,510
action but most of the things which a

1073

00:47:45,650 --> 00:47:50,059
habitual function completely

1074

00:47:47,510 --> 00:47:53,630
unconsciously even though their goal

1075

00:47:50,059 --> 00:47:56,719
directed and purposive how do you think

1076

00:47:53,630 --> 00:48:02,030
society would change if they would take

1077

00:47:56,719 --> 00:48:05,209
into account your research results well

1078

00:48:02,030 --> 00:48:07,100
I think that the the split we have at

1079

00:48:05,210 --> 00:48:09,110
the moment will be caused by the

1080

00:48:07,099 --> 00:48:12,049
materialist and mechanistic worldviews

1081

00:48:09,110 --> 00:48:14,269
in extremely unhealthy one it tells us

1082

00:48:12,050 --> 00:48:17,090
that our minds are nothing but the

1083

00:48:14,269 --> 00:48:21,280
activity of our brains and that we have

1084
00:48:17,090 --> 00:48:24,019
no real free choice now that's an absurd

1085
00:48:21,280 --> 00:48:26,480
hypothesis I mean even materialists

1086
00:48:24,019 --> 00:48:29,570
think that they have freely chosen to

1087
00:48:26,480 --> 00:48:31,400
adopt the materialist philosophy they

1088
00:48:29,570 --> 00:48:34,730
don't say I'm a materialist because my

1089
00:48:31,400 --> 00:48:36,440
brain makes me believe this and they say

1090
00:48:34,730 --> 00:48:40,730
I'm a materialist because I believe in

1091
00:48:36,440 --> 00:48:42,800
science reason and evidence but the very

1092
00:48:40,730 --> 00:48:44,659
act of choosing to be a materialist on

1093
00:48:42,800 --> 00:48:47,470
basis of size and science reason and

1094
00:48:44,659 --> 00:48:50,599
evidence itself refutes materialism

1095
00:48:47,469 --> 00:48:52,639
so it's an absurd and self contradictory

1096
00:48:50,599 --> 00:48:54,799
philosophy that even its most dedicated

1097
00:48:52,639 --> 00:48:59,619
believers don't really believe at least

1098
00:48:54,800 --> 00:49:02,840
when they're outside the seminar room so

1099
00:48:59,619 --> 00:49:06,009
it creates a terrible split between mind

1100
00:49:02,840 --> 00:49:08,450
and body it creates completely

1101
00:49:06,010 --> 00:49:11,150
disastrous split when it comes to

1102
00:49:08,449 --> 00:49:13,399
medicine and healing because the idea is

1103
00:49:11,150 --> 00:49:16,519
I'm my mind my mind is just the activity

1104
00:49:13,400 --> 00:49:18,230
my brain my body is just a machine if

1105
00:49:16,519 --> 00:49:20,570
it's if there's something wrong with it

1106
00:49:18,230 --> 00:49:24,699
I go to a doctor and get it fixed with

1107
00:49:20,570 --> 00:49:27,380
drugs or surgery but we know that

1108
00:49:24,699 --> 00:49:29,509
people's minds play a huge part in

1109
00:49:27,380 --> 00:49:31,160
healing even Orthodox medicine has to

1110
00:49:29,510 --> 00:49:34,280
acknowledge this through through the

1111
00:49:31,159 --> 00:49:36,469
placebo effect the placebo effect used

1112

00:49:34,280 --> 00:49:38,840
to be regarded as a mere nuisance for

1113
00:49:36,469 --> 00:49:40,309
drug trials because people who think

1114
00:49:38,840 --> 00:49:42,829
they're getting a powerful new drug

1115
00:49:40,309 --> 00:49:45,230
often get better even though they're

1116
00:49:42,829 --> 00:49:48,019
only getting a blank pill this is now

1117
00:49:45,230 --> 00:49:50,690
universally accepted and what it shows

1118
00:49:48,019 --> 00:49:52,849
is the power of belief what we believe

1119
00:49:50,690 --> 00:49:56,360
in what we expect affects what actually

1120
00:49:52,849 --> 00:49:58,339
happens in our own bodies and it might

1121
00:49:56,360 --> 00:50:02,150
not only affect what happens inside our

1122
00:49:58,340 --> 00:50:05,780
bodies but since it has a repercussions

1123
00:50:02,150 --> 00:50:08,150
on the morphic field it also it also

1124
00:50:05,780 --> 00:50:09,650
changed I mean it also has an effect on

1125
00:50:08,150 --> 00:50:11,180
other people while also connected to

1126
00:50:09,650 --> 00:50:13,039

that right oh yes

1127

00:50:11,179 --> 00:50:14,869

I mean our intentions and our thoughts

1128

00:50:13,039 --> 00:50:17,539

can affect other people as well as our

1129

00:50:14,869 --> 00:50:19,369

own bodies I mean telepathy is one

1130

00:50:17,539 --> 00:50:21,559

measure of that but of course everybody

1131

00:50:19,369 --> 00:50:23,480

agrees that our thoughts and intentions

1132

00:50:21,559 --> 00:50:26,329

affect others if I walk into a room

1133

00:50:23,480 --> 00:50:28,159

feeling extremely hostile and angry it

1134

00:50:26,329 --> 00:50:30,769

changes the atmosphere of the whole room

1135

00:50:28,159 --> 00:50:33,349

and body language alone can communicate

1136

00:50:30,769 --> 00:50:34,940

that so we already know that we affect

1137

00:50:33,349 --> 00:50:37,069

others through our attitudes and

1138

00:50:34,940 --> 00:50:38,579

thoughts even through conventional means

1139

00:50:37,070 --> 00:50:43,320

but also through

1140

00:50:38,579 --> 00:50:45,420

I think telepathic and other means thank

1141

00:50:43,320 --> 00:50:47,039

you very much dr. Shel Drake for this

1142

00:50:45,420 --> 00:50:50,900

interview and good luck with your

1143

00:50:47,039 --> 00:50:50,900

upcoming work thank you