



1
00:00:21,150 --> 00:00:16,080

[Music]

2
00:00:25,960 --> 00:00:24,310
be back at this conference and see so

3
00:00:30,580 --> 00:00:25,970
many wonderful friends and colleagues

4
00:00:32,280 --> 00:00:30,590
for many years so first I'd like to

5
00:00:34,780 --> 00:00:32,290
define biophotons

6
00:00:37,270 --> 00:00:34,790
we're really talking about the ultra

7
00:00:39,880 --> 00:00:37,280
weak visible light between 400 and 700

8
00:00:41,980 --> 00:00:39,890
nanometers that is emitted by all living

9
00:00:43,780 --> 00:00:41,990
organisms to be distinguished from the

10
00:00:46,630 --> 00:00:43,790
infrared light which of course were

11
00:00:48,850 --> 00:00:46,640
emitting about a hundred watts of this

12
00:00:51,850 --> 00:00:48,860
is extremely low level light on the

13
00:00:54,190 --> 00:00:51,860

order of you know somewhere between zero

14

00:00:57,720 --> 00:00:54,200

and about a hundred photons per second

15

00:01:00,790 --> 00:00:57,730

per square centimeter of tissue and

16

00:01:02,590 --> 00:01:00,800

there are two views on this light the

17

00:01:05,380 --> 00:01:02,600

dominant world view holds that this

18

00:01:07,749 --> 00:01:05,390

light is nothing more than a waste it's

19

00:01:09,340 --> 00:01:07,759

a byproduct of the free radical

20

00:01:13,599 --> 00:01:09,350

chemistry within the body and doesn't

21

00:01:16,270 --> 00:01:13,609

have any significance except to be

22

00:01:19,270 --> 00:01:16,280

emitted as waste energy but there is an

23

00:01:21,669 --> 00:01:19,280

emerging worldview in which a growing

24

00:01:24,969 --> 00:01:21,679

number are seeing and they do call them

25

00:01:27,789 --> 00:01:24,979

bio photons in this case this energy as

26
00:01:30,160 --> 00:01:27,799
bio informational perhaps involved in

27
00:01:33,190 --> 00:01:30,170
bio regulation of the organism and even

28
00:01:36,010 --> 00:01:33,200
bio communication between organisms many

29
00:01:37,989 --> 00:01:36,020
years ago unofficially I did an

30
00:01:39,340 --> 00:01:37,999
experiment that convinced me there might

31
00:01:42,099 --> 00:01:39,350
be something here and I'll just tell you

32
00:01:45,309 --> 00:01:42,109
briefly what it is I was working with

33
00:01:48,219 --> 00:01:45,319
Drosophila fruit flies and I put fifty

34
00:01:51,279 --> 00:01:48,229
male fruit flies in one vial 50 female

35
00:01:53,709 --> 00:01:51,289
fruit flies in another vial and 25 male

36
00:01:56,949 --> 00:01:53,719
and 25 female fruit flies in a third

37
00:02:00,219 --> 00:01:56,959
vial and I measured the light and I

38
00:02:02,949 --> 00:02:00,229

found much more light emanating from the

39

00:02:05,289 --> 00:02:02,959

vial of male and females so I don't

40

00:02:06,609 --> 00:02:05,299

believe that it's just metabolic waste

41

00:02:09,880 --> 00:02:06,619

it might be involved in bio

42

00:02:10,690 --> 00:02:09,890

communication it suggests that and today

43

00:02:13,570 --> 00:02:10,700

we're talking about different

44

00:02:17,259 --> 00:02:13,580

experiments both Harry and I spent some

45

00:02:19,080 --> 00:02:17,269

time working with dr. Fitz pop in

46

00:02:20,350 --> 00:02:19,090

Germany who coined the word

47

00:02:23,170 --> 00:02:20,360

electromagnetic

48

00:02:26,440 --> 00:02:23,180

I owe information meaning that the

49

00:02:28,060 --> 00:02:26,450

synergy is is the is possibly bio

50

00:02:31,810 --> 00:02:28,070

informational coming from living things

51
00:02:34,090 --> 00:02:31,820
and Fritz pioneered the idea that the

52
00:02:37,270 --> 00:02:34,100
light went coherent now the light is

53
00:02:39,850 --> 00:02:37,280
low-level but he found that the kinetics

54
00:02:41,920 --> 00:02:39,860
of the light emitted if it fell at a

55
00:02:44,740 --> 00:02:41,930
poor Sounion distribution they were

56
00:02:46,420 --> 00:02:44,750
random individual events that would be a

57
00:02:49,270 --> 00:02:46,430
sign of the coherence of the light

58
00:02:51,790 --> 00:02:49,280
whereas of the the decay pattern was

59
00:02:54,190 --> 00:02:51,800
exponential that would be a sign that it

60
00:02:57,580 --> 00:02:54,200
was the chemiluminescence according to

61
00:02:59,740 --> 00:02:57,590
the biomedical worldview and for the

62
00:03:01,960 --> 00:02:59,750
most part his lab found coherent light

63
00:03:04,570 --> 00:03:01,970

and I spent some time there and we also

64

00:03:06,970 --> 00:03:04,580

could distinguish organic alfalfa

65

00:03:09,400 --> 00:03:06,980

sprouts from commercial ones solely by

66

00:03:11,110 --> 00:03:09,410

this factor which was interesting and

67

00:03:14,320 --> 00:03:11,120

and so I think there would be many

68

00:03:16,750 --> 00:03:14,330

applications both diagnostic as well as

69

00:03:18,479 --> 00:03:16,760

possibly therapeutic which haven't

70

00:03:21,610 --> 00:03:18,489

really been born yet as far as I know

71

00:03:24,820 --> 00:03:21,620

these the studies creep forward only

72

00:03:27,130 --> 00:03:24,830

because funding is there's quite a lack

73

00:03:29,620 --> 00:03:27,140

of funding the previous studies on

74

00:03:32,610 --> 00:03:29,630

humans are pretty slim their studies on

75

00:03:34,960 --> 00:03:32,620

single human beings emitting light

76
00:03:37,090 --> 00:03:34,970
especially from the palms of the hands

77
00:03:39,520 --> 00:03:37,100
and the fingertips but nobody's ever

78
00:03:41,740 --> 00:03:39,530
looked at or at least published studies

79
00:03:45,729 --> 00:03:41,750
of humans interacting and that's where

80
00:03:47,199 --> 00:03:45,739
we come in today there is some

81
00:03:49,690 --> 00:03:47,209
literature I'll just mention a couple of

82
00:03:52,060 --> 00:03:49,700
interesting papers one was a

83
00:03:54,130 --> 00:03:52,070
dissertation by Eugene Wallace at

84
00:03:57,460 --> 00:03:54,140
California Institute for human Science

85
00:04:01,449 --> 00:03:57,470
down in Encinitas and he looked at

86
00:04:01,780 --> 00:04:01,459
people who intended to heal in a Faraday

87
00:04:03,640 --> 00:04:01,790
cage

88
00:04:05,770 --> 00:04:03,650

it was just looking at the hand and

89
00:04:06,460 --> 00:04:05,780
measuring counting photons from the palm

90
00:04:08,020 --> 00:04:06,470
of the hand

91
00:04:10,090 --> 00:04:08,030
and the case where they were intending

92
00:04:13,479 --> 00:04:10,100
to heal versus doing mental arithmetic

93
00:04:16,810 --> 00:04:13,489
as a control and found an increase in

94
00:04:19,380 --> 00:04:16,820
light emission that was factors of a

95
00:04:23,140 --> 00:04:19,390
hundred two thousand in the healing

96
00:04:25,360 --> 00:04:23,150
condition and dr. Hiroshi motoyama in

97
00:04:27,760 --> 00:04:25,370
Japan has measured lights coming from

98
00:04:30,279 --> 00:04:27,770
the crown of the head in the palm of the

99
00:04:32,020 --> 00:04:30,289
hand by advanced meditators and also

100
00:04:34,279 --> 00:04:32,030
found that during the meditation state

101

00:04:35,629 --> 00:04:34,289

the light also increases so

102

00:04:38,659 --> 00:04:35,639

here's some pieces of evidence that

103

00:04:41,929 --> 00:04:38,669

maybe it's not just junk as the

104

00:04:44,209 --> 00:04:41,939

mainstream things the GTV the gas

105

00:04:46,519 --> 00:04:44,219

discharge visualization camera from

106

00:04:47,719 --> 00:04:46,529

Russia invented by dr. korotkov is

107

00:04:49,790 --> 00:04:47,729

something else we've used in our

108

00:04:53,149 --> 00:04:49,800

laboratory to look at light but this is

109

00:04:56,439 --> 00:04:53,159

an induced light because we're using a

110

00:04:59,209 --> 00:04:56,449

very high voltage electrophotographic

111

00:05:05,629 --> 00:04:59,219

technique where the fingertip is placed

112

00:05:07,879 --> 00:05:05,639

on say 15,000 volts signal and then a

113

00:05:10,779 --> 00:05:07,889

Corona discharge occurs it's the Kirlian

114

00:05:15,469 --> 00:05:10,789

effect basically in a digital camera and

115

00:05:18,980 --> 00:05:15,479

studying energy therapies therapists who

116

00:05:22,339 --> 00:05:18,990

are in the act of giving energy or or

117

00:05:24,350 --> 00:05:22,349

sending it by sure will and intention we

118

00:05:28,219 --> 00:05:24,360

see much more intense light and even

119

00:05:29,899 --> 00:05:28,229

sparks as shown here around those Corona

120

00:05:33,499 --> 00:05:29,909

discharges whereas in the resting state

121

00:05:35,749 --> 00:05:33,509

it looks rather uniform and is much less

122

00:05:37,399 --> 00:05:35,759

intense so this also suggests that

123

00:05:39,199 --> 00:05:37,409

there's something going on and possibly

124

00:05:41,929 --> 00:05:39,209

it's involved with the bio field

125

00:05:44,959 --> 00:05:41,939

therapies modalities such as therapeutic

126

00:05:46,879 --> 00:05:44,969

touch Reiki medical Qigong Healing Touch

127

00:05:48,259 --> 00:05:46,889

there are many of these today and that's

128

00:05:50,509 --> 00:05:48,269

one of the things our laboratory has

129

00:05:52,899 --> 00:05:50,519

been investigating these things remain

130

00:05:56,329 --> 00:05:52,909

outside of the mainstream and considered

131

00:05:58,129 --> 00:05:56,339

basically placebo effects but because we

132

00:06:00,320 --> 00:05:58,139

don't understand the modus operandi for

133

00:06:02,929 --> 00:06:00,330

how they work but we're trying to

134

00:06:07,899 --> 00:06:02,939

explore that and and show an energetic

135

00:06:11,239 --> 00:06:07,909

connection so in our first study I

136

00:06:14,059 --> 00:06:11,249

should say we we started we had to build

137

00:06:15,980 --> 00:06:14,069

a bio photon chamber because you can't

138

00:06:17,600 --> 00:06:15,990

just go out and buy one of these you can

139

00:06:19,969 --> 00:06:17,610

buy the photo detector but you need to

140

00:06:21,559 --> 00:06:19,979

set up a chamber that's completely dark

141

00:06:23,540 --> 00:06:21,569

in which to house the subjects during

142

00:06:25,369 --> 00:06:23,550

measurements and Harry will talk a

143

00:06:26,899 --> 00:06:25,379

little bit about that in a second but

144

00:06:28,309 --> 00:06:26,909

our research questions were these in the

145

00:06:30,829 --> 00:06:28,319

first preliminary study and it was

146

00:06:33,409 --> 00:06:30,839

really to test our apparatus so here we

147

00:06:35,749 --> 00:06:33,419

are back about a year ago can we measure

148

00:06:37,820 --> 00:06:35,759

a change in the bio photon emission from

149

00:06:40,249 --> 00:06:37,830

the hands of practitioners before and

150

00:06:42,589 --> 00:06:40,259

after energy therapy can we measure a

151
00:06:45,050 --> 00:06:42,599
change from the hands of patients that

152
00:06:47,119 --> 00:06:45,060
they've just treated before and after

153
00:06:48,170 --> 00:06:47,129
energy therapy and can we measure bio

154
00:06:50,150 --> 00:06:48,180
photons during

155
00:06:52,850 --> 00:06:50,160
the energy healing event itself all

156
00:06:55,430 --> 00:06:52,860
housed in this dark chamber now I'll

157
00:06:58,279 --> 00:06:55,440
turn it over to Harry who will tell us

158
00:06:58,850 --> 00:06:58,289
about his design and construction of the

159
00:07:01,580 --> 00:06:58,860
device

160
00:07:04,189 --> 00:07:01,590
okay the technical challenge with

161
00:07:07,310 --> 00:07:04,199
measuring bio photons are twofold first

162
00:07:09,320 --> 00:07:07,320
of all you have to have absolute light

163
00:07:12,680 --> 00:07:09,330

tightness you cannot afford to have a

164

00:07:15,320 --> 00:07:12,690

single photon in stray or it's going to

165

00:07:17,840 --> 00:07:15,330

upset your measurement and we managed to

166

00:07:19,550 --> 00:07:17,850

build a chamber that indeed we could get

167

00:07:21,680 --> 00:07:19,560

completely light right and that's what

168

00:07:24,230 --> 00:07:21,690

you're seeing here the second challenge

169

00:07:26,089 --> 00:07:24,240

is you have to be able to detect single

170

00:07:28,249 --> 00:07:26,099

photons and that's another challenge in

171

00:07:31,310 --> 00:07:28,259

itself and for that we had to use a

172

00:07:33,140 --> 00:07:31,320

special photo detector photomultiplier

173

00:07:36,140 --> 00:07:33,150

tube that was specially selected for

174

00:07:39,140 --> 00:07:36,150

extremely low dark count here you see

175

00:07:43,070 --> 00:07:39,150

our chamber that we built it's about 4

176

00:07:46,070 --> 00:07:43,080

feet by 4 feet by 8 feet and can sit 3

177

00:07:48,950 --> 00:07:46,080

people and you see the electronics next

178

00:07:51,050 --> 00:07:48,960

to it here you see an interior of course

179

00:07:54,740 --> 00:07:51,060

is painted all black we have three

180

00:07:57,350 --> 00:07:54,750

chairs were Beverley and healer and the

181

00:07:59,300 --> 00:07:57,360

Healy can sit and the bio photon

182

00:08:00,890 --> 00:07:59,310

detector is the black tube that's

183

00:08:02,990 --> 00:08:00,900

mounted on the standard lamp which

184

00:08:05,899 --> 00:08:03,000

allows us was 6 degrees of freedom to

185

00:08:09,050 --> 00:08:05,909

move and position the detector in any

186

00:08:10,939 --> 00:08:09,060

possible way and remain steady there

187

00:08:12,620 --> 00:08:10,949

remember also that Beverley has to do

188

00:08:15,680 --> 00:08:12,630

all of these things in complete and

189

00:08:18,680 --> 00:08:15,690

utter darkness I mean she can't see

190

00:08:22,670 --> 00:08:18,690

anything so that added another dimension

191

00:08:24,649 --> 00:08:22,680

of difficulty to it this is a close up

192

00:08:27,770 --> 00:08:24,659

of the detector right now we've just

193

00:08:29,839 --> 00:08:27,780

strapped it with some broccoli rubber

194

00:08:32,149 --> 00:08:29,849

bands there but it's holding up the

195

00:08:34,850 --> 00:08:32,159

little green LED that you see at the

196

00:08:36,800 --> 00:08:34,860

bottom is to calibrate the detector and

197

00:08:39,140 --> 00:08:36,810

we did a test where Beverley could

198

00:08:40,940 --> 00:08:39,150

barely after her eyes were adapted she

199

00:08:43,370 --> 00:08:40,950

could barely see that there was

200

00:08:46,970 --> 00:08:43,380

something and then the detector already

201
00:08:48,829 --> 00:08:46,980
registered 16,000 counts per second so

202
00:08:51,230 --> 00:08:48,839
that tells you that how low the

203
00:08:53,740 --> 00:08:51,240
intensity of the emitted light is and we

204
00:08:57,860 --> 00:08:53,750
will be below hundred counts per second

205
00:08:59,990 --> 00:08:57,870
here's a close-up below you see the LED

206
00:09:02,000 --> 00:09:00,000
which is actually pointing away from

207
00:09:05,510 --> 00:09:02,010
the detector right now we have a cap on

208
00:09:08,480 --> 00:09:05,520
it and this is the detector tube that we

209
00:09:13,130 --> 00:09:08,490
used the SEL stands for selected they

210
00:09:13,730 --> 00:09:13,140
selected for less than 15 counts per

211
00:09:17,510 --> 00:09:13,740
second

212
00:09:19,550 --> 00:09:17,520
dart count at room temperature here we

213
00:09:22,190 --> 00:09:19,560

show obviously this is not done in light

214

00:09:26,420 --> 00:09:22,200

this is just a mock up how we position

215

00:09:29,830 --> 00:09:26,430

the detector to view the third eye here

216

00:09:32,360 --> 00:09:29,840

how we view the palm of the hand and

217

00:09:35,870 --> 00:09:32,370

that's me with the electronic snake

218

00:09:38,270 --> 00:09:35,880

right next to it we use NIM modules to

219

00:09:41,270 --> 00:09:38,280

to process the data to process the

220

00:09:44,840 --> 00:09:41,280

signals and then use a PC to acquire the

221

00:09:48,560 --> 00:09:44,850

data and here's the data where we show

222

00:09:50,270 --> 00:09:48,570

what we get as dark counts we first has

223

00:09:52,550 --> 00:09:50,280

to have to establish the baseline and

224

00:09:58,460 --> 00:09:52,560

here we looked at five hours of dark

225

00:10:01,400 --> 00:09:58,470

count you can see how even the signal is

226

00:10:04,160 --> 00:10:01,410

and mind you we have two we have in

227

00:10:06,560 --> 00:10:04,170

order to get good statistics we have to

228

00:10:08,710 --> 00:10:06,570

use an integration time of about two

229

00:10:11,690 --> 00:10:08,720

minutes so we monitor for two minutes

230

00:10:24,470 --> 00:10:11,700

acquire data and then we have a good

231

00:10:27,920 --> 00:10:24,480

statistics so that we can average okay

232

00:10:30,230 --> 00:10:27,930

in our first preliminary study it was a

233

00:10:32,690 --> 00:10:30,240

quantitative study with five bio field

234

00:10:36,770 --> 00:10:32,700

practitioners of different types medical

235

00:10:39,020 --> 00:10:36,780

Qigong reiki and mixed modalities where

236

00:10:41,240 --> 00:10:39,030

they've studied many different types we

237

00:10:42,950 --> 00:10:41,250

had pain patients and we paired them off

238

00:10:44,930 --> 00:10:42,960

so they weren't couples that knew each

239

00:10:46,940 --> 00:10:44,940

other they were completely novel pairs

240

00:10:48,970 --> 00:10:46,950

and measured them in eight different

241

00:10:53,000 --> 00:10:48,980

sessions I'm only going to discuss a few

242

00:10:54,470 --> 00:10:53,010

of those sessions and I was always in

243

00:10:56,450 --> 00:10:54,480

there with them and some of the latter

244

00:10:59,000 --> 00:10:56,460

studies I realized I had to totally

245

00:11:00,350 --> 00:10:59,010

black in my body in the early studies we

246

00:11:03,380 --> 00:11:00,360

were only black clothes but then I

247

00:11:05,720 --> 00:11:03,390

realized even my face was an emitter so

248

00:11:07,400 --> 00:11:05,730

then we needed a black mask and of

249

00:11:09,620 --> 00:11:07,410

course black leather gloves everything

250

00:11:11,840 --> 00:11:09,630

was blackened out as much as possible on

251
00:11:13,440 --> 00:11:11,850
my body when I was measuring the others

252
00:11:17,460 --> 00:11:13,450
because these photons bounce around

253
00:11:19,290 --> 00:11:17,470
interact so and they also had post

254
00:11:22,350 --> 00:11:19,300
questionnaires on theirs on the

255
00:11:25,020 --> 00:11:22,360
satisfaction with the healing session

256
00:11:27,600 --> 00:11:25,030
with relaxation and and some other

257
00:11:29,880 --> 00:11:27,610
things that I'll go over so the overall

258
00:11:31,200 --> 00:11:29,890
procedures are as follows the

259
00:11:32,880 --> 00:11:31,210
practitioner and patient arrived

260
00:11:34,980 --> 00:11:32,890
independently they go through the

261
00:11:37,080 --> 00:11:34,990
consent process and complete the

262
00:11:38,220 --> 00:11:37,090
demographics questionnaire so we

263
00:11:40,560 --> 00:11:38,230

understand more about their background

264

00:11:43,170 --> 00:11:40,570

these were all very experienced healers

265

00:11:47,190 --> 00:11:43,180

who had on the average about 19 years of

266

00:11:50,130 --> 00:11:47,200

experience practicing their biofield

267

00:11:51,630 --> 00:11:50,140

modality then they go into the dark

268

00:11:53,820 --> 00:11:51,640

chamber with me and the doors shut and

269

00:11:55,890 --> 00:11:53,830

sealed we did have a ventilation system

270

00:11:57,750 --> 00:11:55,900

that was sent through baffles so that

271

00:11:59,670 --> 00:11:57,760

didn't add any light to the room but so

272

00:12:02,460 --> 00:11:59,680

we could breathe three people in a tiny

273

00:12:03,990 --> 00:12:02,470

room sealed would be difficult Harry

274

00:12:05,880 --> 00:12:04,000

stayed outside and was doing the

275

00:12:07,500 --> 00:12:05,890

monitoring and collecting data and we

276
00:12:09,480 --> 00:12:07,510
were just speaking to each other through

277
00:12:11,610 --> 00:12:09,490
the doors and then I was going around

278
00:12:13,890 --> 00:12:11,620
and placing the detector on different

279
00:12:17,190 --> 00:12:13,900
bodily regions of the subjects to count

280
00:12:19,620 --> 00:12:17,200
the photons in two minute time periods

281
00:12:21,420 --> 00:12:19,630
and then finally when we were done they

282
00:12:23,850 --> 00:12:21,430
came out of the box and completed the

283
00:12:29,430 --> 00:12:23,860
post session questionnaires related to

284
00:12:30,570 --> 00:12:29,440
satisfaction relaxation etc so we needed

285
00:12:34,440 --> 00:12:30,580
a little time for the baseline to

286
00:12:37,230 --> 00:12:34,450
stabilize once we were in there and we

287
00:12:39,300 --> 00:12:37,240
needed we took two minutes to measure

288
00:12:41,720 --> 00:12:39,310

each bodily region which gave us very

289

00:12:44,520 --> 00:12:41,730

good photon count statistics with a

290

00:12:47,760 --> 00:12:44,530

standard deviation of about about a

291

00:12:50,490 --> 00:12:47,770

tenth of a photon per second so it was

292

00:12:52,800 --> 00:12:50,500

incredibly physically accurate and then

293

00:12:57,630 --> 00:12:52,810

we put a two minute baseline between

294

00:13:00,060 --> 00:12:57,640

each measurement of a person then the

295

00:13:02,220 --> 00:13:00,070

practitioner conducted a 20-minute bio

296

00:13:04,890 --> 00:13:02,230

field therapy session on the patient

297

00:13:06,690 --> 00:13:04,900

while I put the detector which was still

298

00:13:09,120 --> 00:13:06,700

inside the box I moved it to the top

299

00:13:11,280 --> 00:13:09,130

part of the box so that it might see

300

00:13:15,630 --> 00:13:11,290

ambient photons in relation to the

301
00:13:17,670 --> 00:13:15,640
healing session and then finally we

302
00:13:20,100 --> 00:13:17,680
measured again the same bodily regions

303
00:13:21,870 --> 00:13:20,110
usually the palm of the hand and

304
00:13:24,960 --> 00:13:21,880
sometimes the sword fingers which are

305
00:13:27,180 --> 00:13:24,970
these two fingers especially associated

306
00:13:30,000 --> 00:13:27,190
with martial arts and Qigong

307
00:13:31,290 --> 00:13:30,010
as special emitters of energy and then

308
00:13:33,060 --> 00:13:31,300
finally the subject came out of the

309
00:13:35,300 --> 00:13:33,070
chamber completed questionnaires on

310
00:13:39,980 --> 00:13:35,310
relaxation well-being and satisfaction

311
00:13:43,620 --> 00:13:39,990
the demographics of the healers arranged

312
00:13:45,690 --> 00:13:43,630
in terms of modalities very experienced

313
00:13:47,960 --> 00:13:45,700

we also asked him whether they thought

314

00:13:50,670 --> 00:13:47,970

energy was connected with light and

315

00:13:52,410 --> 00:13:50,680

answers were ranging from uncertain -

316

00:13:54,570 --> 00:13:52,420

maybe - yes

317

00:13:58,260 --> 00:13:54,580

following the therapy we also measured

318

00:14:01,200 --> 00:13:58,270

heart rate variability the low frequency

319

00:14:03,150 --> 00:14:01,210

high frequency ratio is is related to

320

00:14:04,980 --> 00:14:03,160

autonomic nervous system balance and

321

00:14:06,630 --> 00:14:04,990

almost all of those values are good

322

00:14:08,880 --> 00:14:06,640

except the one that's three point one

323

00:14:11,490 --> 00:14:08,890

seven seven indicating little too much

324

00:14:13,770 --> 00:14:11,500

sympathetic dominance but nonetheless

325

00:14:15,960 --> 00:14:13,780

the scores of relaxation well-being and

326

00:14:18,300 --> 00:14:15,970

satisfaction on a scale from zero to ten

327

00:14:19,830 --> 00:14:18,310

were all high so people were happy with

328

00:14:21,870 --> 00:14:19,840

the session even though it was done in a

329

00:14:24,030 --> 00:14:21,880

completely dark box we didn't know how

330

00:14:26,490 --> 00:14:24,040

that would feel either our patient

331

00:14:30,240 --> 00:14:26,500

demographics they were essentially pain

332

00:14:32,280 --> 00:14:30,250

patients and they were also relaxed felt

333

00:14:35,910 --> 00:14:32,290

good and satisfied with the experiment

334

00:14:37,950 --> 00:14:35,920

they were all women and various ages so

335

00:14:41,010 --> 00:14:37,960

here he will talk about the kinetics

336

00:14:44,220 --> 00:14:41,020

because he did the data analysis ok here

337

00:14:48,380 --> 00:14:44,230

we see the raw data as it was acquired

338

00:14:50,490 --> 00:14:48,390

from the detector in the y axis you see

339

00:14:53,880 --> 00:14:50,500

accounts per second although here it's

340

00:14:57,540 --> 00:14:53,890

mentioned as millivolts as it came from

341

00:15:00,960 --> 00:14:57,550

our rate meter but please note that we

342

00:15:03,690 --> 00:15:00,970

have a signal and then I asked Beverly

343

00:15:06,000 --> 00:15:03,700

to remove the photomultiplier - to get

344

00:15:08,730 --> 00:15:06,010

the dark count again and then do another

345

00:15:12,450 --> 00:15:08,740

signal again so because as the baseline

346

00:15:14,610 --> 00:15:12,460

changes over the course of an hour we

347

00:15:17,190 --> 00:15:14,620

will be able to subtract the better at

348

00:15:20,640 --> 00:15:17,200

the background and here you can see that

349

00:15:23,610 --> 00:15:20,650

the healer palms left and right or right

350

00:15:26,340 --> 00:15:23,620

and left emitted much more light than

351

00:15:28,050 --> 00:15:26,350

the patient palms and then we had the

352

00:15:29,640 --> 00:15:28,060

healing session where something was

353

00:15:32,400 --> 00:15:29,650

happening and we don't know exactly what

354

00:15:34,260 --> 00:15:32,410

happened and afterwards we had the

355

00:15:35,940 --> 00:15:34,270

healer palms and the patient palms again

356

00:15:36,489 --> 00:15:35,950

I'm going to point out that during the

357

00:15:38,709 --> 00:15:36,499

healing

358

00:15:41,409 --> 00:15:38,719

there were certain comments made by the

359

00:15:43,299 --> 00:15:41,419

practitioner that said now the energy is

360

00:15:45,969 --> 00:15:43,309

flowing and right then

361

00:15:47,529 --> 00:15:45,979

the photons are also being emitted at a

362

00:15:49,059 --> 00:15:47,539

higher count which we felt was

363

00:15:50,289 --> 00:15:49,069

significant yes that that we could

364

00:15:52,029 --> 00:15:50,299

actually correlate there was very

365

00:15:55,269 --> 00:15:52,039

interesting in this particular session

366

00:15:57,489 --> 00:15:55,279

here we have another session and as you

367

00:15:59,229 --> 00:15:57,499

can see the healer pumps are now lower

368

00:16:01,239 --> 00:15:59,239

than the patient palms and this healer

369

00:16:03,819 --> 00:16:01,249

was actually having a bad day that day

370

00:16:07,499 --> 00:16:03,829

and didn't feel very well so apparently

371

00:16:11,199 --> 00:16:07,509

the bio photons signal is correlated to

372

00:16:13,179 --> 00:16:11,209

the well-being of the individual and the

373

00:16:15,339 --> 00:16:13,189

healing session look here you can see

374

00:16:17,709 --> 00:16:15,349

there's nothing happening except for one

375

00:16:20,409 --> 00:16:17,719

spike in the beginning so it's a

376

00:16:22,809 --> 00:16:20,419

completely different flavor so to speak

377

00:16:24,339 --> 00:16:22,819

of the healing session and afterwards we

378

00:16:28,299 --> 00:16:24,349

have again the healer pumps and the

379

00:16:32,919 --> 00:16:28,309

patient pumps here we have a martial

380

00:16:34,599 --> 00:16:32,929

arts artist and he put out the most bio

381

00:16:36,309 --> 00:16:34,609

photons and you can see the sword

382

00:16:38,199 --> 00:16:36,319

fingers in fact he came up with that

383

00:16:40,449 --> 00:16:38,209

idea he said I used the sword fingers a

384

00:16:42,849 --> 00:16:40,459

lot and so we said okay then let's test

385

00:16:44,199 --> 00:16:42,859

it and indeed he put out the most slide

386

00:16:49,479 --> 00:16:44,209

from a sword fingers that was very

387

00:16:51,460 --> 00:16:49,489

interesting okay this is a summary of

388

00:16:54,699 --> 00:16:51,470

the data I just want to point out the

389

00:16:56,289 --> 00:16:54,709

data in red indicates the emission from

390

00:16:59,289 --> 00:16:56,299

the sword fingers which is higher than

391

00:17:02,949 --> 00:16:59,299

than any of the other the palms of hands

392

00:17:04,659 --> 00:17:02,959

etc and that the results really don't

393

00:17:07,269 --> 00:17:04,669

show much change before and after

394

00:17:09,159 --> 00:17:07,279

healing of healer palms or sword fingers

395

00:17:11,679 --> 00:17:09,169

for that matter except it's somewhat

396

00:17:14,259 --> 00:17:11,689

quieter less photons after the session

397

00:17:16,480 --> 00:17:14,269

and we didn't really analyze the data

398

00:17:19,179 --> 00:17:16,490

coming from during the healing session

399

00:17:21,100 --> 00:17:19,189

because the detector was placed above

400

00:17:22,749 --> 00:17:21,110

everything and it really wasn't our

401
00:17:24,309 --> 00:17:22,759
research question we just wondered if we

402
00:17:26,590 --> 00:17:24,319
could count something but we didn't do

403
00:17:28,419 --> 00:17:26,600
an in-depth analysis nor did we do

404
00:17:31,119 --> 00:17:28,429
statistics on this because it was such a

405
00:17:35,049 --> 00:17:31,129
small sample but just to show you the

406
00:17:38,669 --> 00:17:35,059
trend is post healing the emission is

407
00:17:41,710 --> 00:17:38,679
lower both patients and practitioners

408
00:17:43,659 --> 00:17:41,720
slightly lower in another study we

409
00:17:46,029 --> 00:17:43,669
looked at it was an outcome type of

410
00:17:47,440 --> 00:17:46,039
study on three subjects where a

411
00:17:49,899 --> 00:17:47,450
practitioner came

412
00:17:52,840 --> 00:17:49,909
and performed energy therapy on these

413
00:17:55,149 --> 00:17:52,850

people outside of the chamber and we

414

00:17:57,159 --> 00:17:55,159

looked at the patients inside the

415

00:17:58,720 --> 00:17:57,169

chamber before they did the energy

416

00:18:00,519 --> 00:17:58,730

healing and then once again after they

417

00:18:02,080 --> 00:18:00,529

did the energy healing and this time we

418

00:18:04,000 --> 00:18:02,090

not only looked at the palm of the hand

419

00:18:05,620 --> 00:18:04,010

but we looked at what's called in

420

00:18:08,769 --> 00:18:05,630

traditional Chinese medicine the three

421

00:18:10,870 --> 00:18:08,779

don't ends the forehead the upper don't

422

00:18:13,690 --> 00:18:10,880

in the hard area and the abdomen the

423

00:18:16,029 --> 00:18:13,700

lower don't in which are also minor

424

00:18:17,259 --> 00:18:16,039

chakras chakras two four and six there's

425

00:18:20,470 --> 00:18:17,269

another way to think about it

426

00:18:21,730 --> 00:18:20,480

we saw differences between the patients

427

00:18:23,980 --> 00:18:21,740

and it was interesting discussing it

428

00:18:25,720 --> 00:18:23,990

with the doctor later the people who

429

00:18:28,419 --> 00:18:25,730

were the sickest according to the

430

00:18:30,519 --> 00:18:28,429

physician had the most imbalance in the

431

00:18:33,700 --> 00:18:30,529

distribution of light from three don t

432

00:18:36,340 --> 00:18:33,710

ends the palm of the hand is always the

433

00:18:38,769 --> 00:18:36,350

highest emitter in most cases and then

434

00:18:42,120 --> 00:18:38,779

the third eye heart and abdomen emit

435

00:18:45,039 --> 00:18:42,130

less I'll just go through this quickly

436

00:18:47,230 --> 00:18:45,049

this subject had very low emitting don t

437

00:18:50,649 --> 00:18:47,240

ends from the three regions they were

438

00:18:53,080 --> 00:18:50,659

barely over the baseline count but the

439

00:18:58,659 --> 00:18:53,090

palms of the hands were robust and more

440

00:19:01,480 --> 00:18:58,669

normal and this is an example of a

441

00:19:03,250 --> 00:19:01,490

really unbalance don t unworthy the

442

00:19:06,159 --> 00:19:03,260

third eye is even a higher emitter than

443

00:19:09,159 --> 00:19:06,169

the right palm of the hand which is very

444

00:19:12,190 --> 00:19:09,169

unusual from what we've seen this was a

445

00:19:14,799 --> 00:19:12,200

subject who said I have the ability to

446

00:19:18,190 --> 00:19:14,809

open and close my third eye which is you

447

00:19:21,519 --> 00:19:18,200

know opening closing intuition so to

448

00:19:23,200 --> 00:19:21,529

speak and she said could she do it which

449

00:19:26,139 --> 00:19:23,210

she would we measure it I said go ahead

450

00:19:27,940 --> 00:19:26,149

yes and indeed we found that in the open

451
00:19:30,940 --> 00:19:27,950
condition which is the last column there

452
00:19:33,430 --> 00:19:30,950
her third eye emitted fifty-one photons

453
00:19:35,200 --> 00:19:33,440
per second whereas when it was closed it

454
00:19:38,200 --> 00:19:35,210
was thirty four point five that's highly

455
00:19:39,820 --> 00:19:38,210
significant difference I don't know that

456
00:19:41,680 --> 00:19:39,830
we can replicate that people aren't in

457
00:19:44,139 --> 00:19:41,690
the same state for a moment a moment and

458
00:19:45,789 --> 00:19:44,149
so that's how it is in biology but she

459
00:19:47,470 --> 00:19:45,799
was very convinced she had been measured

460
00:19:49,509 --> 00:19:47,480
in a closed condition and wanted to be

461
00:19:52,090 --> 00:19:49,519
measured in open condition and was very

462
00:19:53,769 --> 00:19:52,100
satisfied with this result we also

463
00:19:55,779 --> 00:19:53,779

looked at these patients than before and

464

00:19:58,000 --> 00:19:55,789

after bio field therapy and let me just

465

00:19:59,900 --> 00:19:58,010

tell you the general trend was the

466

00:20:02,510 --> 00:19:59,910

energy emission went down

467

00:20:04,730 --> 00:20:02,520

and there was also a tendency to balance

468

00:20:07,520 --> 00:20:04,740

out the irregularities between the don t

469

00:20:10,250 --> 00:20:07,530

ends that may have been higher emitters

470

00:20:13,580 --> 00:20:10,260

now they seem more balanced in the

471

00:20:16,730 --> 00:20:13,590

photon emission from all three and I'll

472

00:20:18,530 --> 00:20:16,740

go through that quickly so all of this

473

00:20:20,450 --> 00:20:18,540

relates to the possibility of what goes

474

00:20:23,510 --> 00:20:20,460

back to indigenous concepts of a

475

00:20:26,240 --> 00:20:23,520

universal life energy which modern

476
00:20:29,420 --> 00:20:26,250
science has sidestepped the concept of

477
00:20:31,970 --> 00:20:29,430
Chi Chinese medicine or ki in Japanese

478
00:20:33,470 --> 00:20:31,980
medicine of prana and Ayurveda just

479
00:20:34,850 --> 00:20:33,480
about every culture had a unique term

480
00:20:37,340 --> 00:20:34,860
for this even all of our Native American

481
00:20:39,170 --> 00:20:37,350
cultures and often we called it the

482
00:20:42,170 --> 00:20:39,180
vital force and now we call it the bio

483
00:20:44,380 --> 00:20:42,180
field in science but the metaphysical

484
00:20:47,090 --> 00:20:44,390
arts showed pictures like this

485
00:20:50,030 --> 00:20:47,100
fascinating to look at that so it's

486
00:20:52,430 --> 00:20:50,040
quite possible that the what we've been

487
00:20:53,960 --> 00:20:52,440
measuring is related to something more

488
00:20:56,600 --> 00:20:53,970

fundamental to life that's by a

489

00:20:58,400 --> 00:20:56,610

regulatory and involved in energy

490

00:21:00,890 --> 00:20:58,410

healing I guess I better stop with that

491

00:21:02,960 --> 00:21:00,900

and go to mine we did a study on

492

00:21:06,410 --> 00:21:02,970

cucumbers but I don't have a time to to

493

00:21:09,410 --> 00:21:06,420

mention except that organic emitted far

494

00:21:11,420 --> 00:21:09,420

less organic cucumbers far less bio

495

00:21:13,490 --> 00:21:11,430

photons than conventionally grown ones

496

00:21:14,720 --> 00:21:13,500

although we don't know the ages of the

497

00:21:17,480 --> 00:21:14,730

conventionally grown ones because they

498

00:21:20,360 --> 00:21:17,490

were purchased so this may not reflect

499

00:21:21,620 --> 00:21:20,370

anything accurate may I just state my

500

00:21:24,470 --> 00:21:21,630

conclusions thank you

501
00:21:26,300 --> 00:21:24,480
so to conclude we found distinct

502
00:21:28,610 --> 00:21:26,310
differences in bio photon counts for

503
00:21:30,950 --> 00:21:28,620
persons that may relate to their health

504
00:21:35,210 --> 00:21:30,960
status and their abilities to seemingly

505
00:21:37,010 --> 00:21:35,220
move energy around their bodies secondly

506
00:21:38,690 --> 00:21:37,020
the bio photon emission of healers and

507
00:21:41,210 --> 00:21:38,700
patients showed a slight decline

508
00:21:43,850 --> 00:21:41,220
immediately after energy healing in the

509
00:21:46,190 --> 00:21:43,860
two studies thirdly bio photon emission

510
00:21:48,140 --> 00:21:46,200
of patients Dante ins showed greater

511
00:21:51,530 --> 00:21:48,150
balance immediately following energy

512
00:21:53,480 --> 00:21:51,540
therapy from a practitioner and a

513
00:21:55,490 --> 00:21:53,490

healthier person also tended to show a

514

00:21:57,680 --> 00:21:55,500

greater balance between the emission of

515

00:21:59,960 --> 00:21:57,690

the three Dante ends and finally

516

00:22:01,970 --> 00:21:59,970

organically grown cucumbers emit less

517

00:22:07,580 --> 00:22:01,980

light than conventionally grown ones in

518

00:22:09,350 --> 00:22:07,590

this short study we think that the bio

519

00:22:11,240 --> 00:22:09,360

photon emission may be part of the bio

520

00:22:11,600 --> 00:22:11,250

field of the organism and fundamentally

521

00:22:18,020 --> 00:22:11,610

in

522

00:22:20,630 --> 00:22:18,030

hypothesis that I wrote about 12 years

523

00:22:22,940 --> 00:22:20,640

ago the biofield hypothesis which I can

524

00:22:25,640 --> 00:22:22,950

give you the paper reference and they

525

00:22:27,950 --> 00:22:25,650

were very unique energetic signatures to

526

00:22:30,440 --> 00:22:27,960

the various bio field therapy sessions

527

00:22:33,320 --> 00:22:30,450

however we did you know only eight of

528

00:22:35,750 --> 00:22:33,330

these and we also have a bit of an

529

00:22:38,539 --> 00:22:35,760

unreliability since we had only a single

530

00:22:40,330 --> 00:22:38,549

detector in the future we plan to set up

531

00:22:43,010 --> 00:22:40,340

a second detector so that we can monitor

532

00:22:45,380 --> 00:22:43,020

both patient and practitioner at the

533

00:22:47,450 --> 00:22:45,390

same time and look for coincidence

534

00:22:49,760 --> 00:22:47,460

counts and cross correlations between

535

00:22:51,830 --> 00:22:49,770

the emissions and finally we should

536

00:22:53,900 --> 00:22:51,840

really study the same age cucumbers and

537

00:22:56,330 --> 00:22:53,910

maybe grow them all ourselves from the

538

00:22:57,440 --> 00:22:56,340

same seed stock so I'd like to

539

00:22:59,030 --> 00:22:57,450

acknowledge the Global Gateway

540

00:23:01,730 --> 00:22:59,040

foundation who funded part of this

541

00:23:04,430 --> 00:23:01,740

project and publications at the bio

542

00:23:07,850 --> 00:23:04,440

field hypothesis and a chapter on the

543

00:23:09,640 --> 00:23:07,860

bio field in Lynn Freeman's book if

544

00:23:12,320 --> 00:23:09,650

you're interested I can mail you those

545

00:23:21,600 --> 00:23:12,330

that's it

546

00:23:34,300 --> 00:23:24,190

we do have time for two very quick

547

00:23:36,940 --> 00:23:34,310

questions Beverly I'm wondering why do

548

00:23:40,540 --> 00:23:36,950

you limit this range to the visible

549

00:23:42,220 --> 00:23:40,550

range of light because there's something

550

00:23:44,860 --> 00:23:42,230

arbitrary about that it's just that our

551
00:23:46,720 --> 00:23:44,870
eyes can detect it we try to healer we

552
00:23:49,990 --> 00:23:46,730
have an infrared camera it picks up

553
00:23:52,360 --> 00:23:50,000
three to five micrometers and of course

554
00:23:56,380 --> 00:23:52,370
who we met lots of infrared light the

555
00:23:58,480 --> 00:23:56,390
healer emit healer emitted more from her

556
00:24:01,090 --> 00:23:58,490
palms than the other people in the lab

557
00:24:03,880 --> 00:24:01,100
wouldn't it be interesting to expand to

558
00:24:07,680 --> 00:24:03,890
other wavelengths certainly would

559
00:24:09,790 --> 00:24:07,690
I think we'd need a very expensive

560
00:24:11,560 --> 00:24:09,800
detector to do that it wouldn't be

561
00:24:15,550 --> 00:24:11,570
photon counting then it would be thermal

562
00:24:17,500 --> 00:24:15,560
imaging but many people are looking you

563
00:24:20,860 --> 00:24:17,510

know at thermal imaging and medicine and

564

00:24:22,780 --> 00:24:20,870

I'm sure we would see something there

565

00:24:25,900 --> 00:24:22,790

too we're looking in this region of the

566

00:24:28,480 --> 00:24:25,910

spectrum because there's a history and a

567

00:24:33,280 --> 00:24:28,490

lore of bio information in these visible

568

00:24:36,070 --> 00:24:33,290

photons also that is a very good

569

00:24:40,270 --> 00:24:36,080

question and we heard that we are very

570

00:24:43,300 --> 00:24:40,280

limited by only looking at 700 400 to

571

00:24:46,150 --> 00:24:43,310

700 nanometers now in our case we were

572

00:24:48,400 --> 00:24:46,160

off on extremely limited funding and so

573

00:24:50,470 --> 00:24:48,410

all we could really achieve for single

574

00:24:52,240 --> 00:24:50,480

photon counting practically was a

575

00:24:54,220 --> 00:24:52,250

photomultiplier and that simply is

576
00:24:56,830 --> 00:24:54,230
limited to that energy range but

577
00:24:58,660 --> 00:24:56,840
absolutely agreed we should look into UV

578
00:25:01,690 --> 00:24:58,670
we should you look into infrared and far

579
00:25:03,370 --> 00:25:01,700
infrared thank you I like to say I mean

580
00:25:05,650 --> 00:25:03,380
I've always been an advocate of what I

581
00:25:07,810 --> 00:25:05,660
call the human energy project which

582
00:25:10,330 --> 00:25:07,820
would be like the human genome project

583
00:25:11,920 --> 00:25:10,340
mapping all the genes of the human we

584
00:25:14,230 --> 00:25:11,930
really need to map all the energies

585
00:25:17,230 --> 00:25:14,240
emanating from the human body to fully

586
00:25:18,940 --> 00:25:17,240
understand this wholly unexplored facet

587
00:25:20,920 --> 00:25:18,950
of life which is completely

588
00:25:25,090 --> 00:25:20,930

complementary by the way to the particle

589

00:25:28,750 --> 00:25:25,100

view the energy view of life everybody I

590

00:25:29,950 --> 00:25:28,760

have a question you your comparisons of

591

00:25:32,830 --> 00:25:29,960

before and after

592

00:25:35,019 --> 00:25:32,840

with with healing sessions those are

593

00:25:38,289 --> 00:25:35,029

comparisons of the means did you look at

594

00:25:40,180 --> 00:25:38,299

variances or did you have too few

595

00:25:44,080 --> 00:25:40,190

experiments to be able to compute the

596

00:25:46,029 --> 00:25:44,090

variance obviously the concern is if the

597

00:25:49,710 --> 00:25:46,039

variances overlap then these mean

598

00:25:53,380 --> 00:25:49,720

differences may not be significant I

599

00:25:57,820 --> 00:25:53,390

think you have a very good point there

600

00:26:02,340 --> 00:25:57,830

and our our statistics was very low so

601
00:26:05,380 --> 00:26:02,350
we cannot make much of a meaningful

602
00:26:08,769 --> 00:26:05,390
conclusion but what we can say and this

603
00:26:11,889 --> 00:26:08,779
is not scientific it's just from us to

604
00:26:16,480 --> 00:26:11,899
you is we found that every session has a

605
00:26:23,919 --> 00:26:16,490
certain feel to it a certain how shall I

606
00:26:26,350 --> 00:26:23,929
say a certain sentiment for lack of a

607
00:26:28,360 --> 00:26:26,360
better word it it it really is quite

608
00:26:31,320 --> 00:26:28,370
different each one has its own little

609
00:26:34,630 --> 00:26:31,330
fingerprint and we don't know exactly

610
00:26:37,389 --> 00:26:34,640
how we can cast it into a scientific

611
00:26:39,010 --> 00:26:37,399
language but if you go to a party and I

612
00:26:40,180 --> 00:26:39,020
ask you so how did you feel about that

613
00:26:42,519 --> 00:26:40,190

person or that person and that person

614

00:26:44,799 --> 00:26:42,529

you would say well I felt completely

615

00:26:46,240 --> 00:26:44,809

different with these people but I didn't

616

00:26:47,919 --> 00:26:46,250

know and what kind of language I should

617

00:26:50,710 --> 00:26:47,929

cast it so it's a little bit like that

618

00:26:51,880 --> 00:26:50,720

so it's almost like as each session has

619

00:26:57,279 --> 00:26:51,890

its own personality

620

00:26:58,810 --> 00:26:57,289

that's it one question here can you

621

00:27:01,810 --> 00:26:58,820

discern the frequency of the wide

622

00:27:04,000 --> 00:27:01,820

emissions no we're just simply counting

623

00:27:07,210 --> 00:27:04,010

photons all we know is that they fall in

624

00:27:09,610 --> 00:27:07,220

the range of the detectors 400 700

625

00:27:11,139 --> 00:27:09,620

nanometers and I suppose filters could

626

00:27:14,710 --> 00:27:11,149

be used here he has some ideas about how

627

00:27:17,440 --> 00:27:14,720

we might discern the frequency specific

628

00:27:20,350 --> 00:27:17,450

frequencies in that range we had a

629

00:27:24,760 --> 00:27:20,360

problem we had to pick a detector that

630

00:27:26,710 --> 00:27:24,770

was winner within our budget and we had

631

00:27:29,500 --> 00:27:26,720

to have one that had extremely loud our

632

00:27:31,450 --> 00:27:29,510

low dark counts below about 15 counts

633

00:27:34,990 --> 00:27:31,460

per second anything else would not do

634

00:27:36,940 --> 00:27:35,000

because our signal is so low and that

635

00:27:37,450 --> 00:27:36,950

particular detector I talked to him

636

00:27:39,039 --> 00:27:37,460

amatsu

637

00:27:40,810 --> 00:27:39,049

but they would not give me an anode

638

00:27:42,830 --> 00:27:40,820

output if they would give me an anode

639

00:27:45,320 --> 00:27:42,840

output then I could run it into

640

00:27:48,290 --> 00:27:45,330

spectrum analyzer and then we could get

641

00:27:50,180 --> 00:27:48,300

a color a signal and I'm trying to

642

00:27:52,040 --> 00:27:50,190

convince Beverly to allow me to open it

643

00:27:57,020 --> 00:27:52,050

up because I have a screwdriver at home

644

00:27:59,660 --> 00:27:57,030

but so far she has not concerned about

645

00:28:02,390 --> 00:27:59,670

the detector if he opens it up with

646

00:28:04,820 --> 00:28:02,400

it'll work again of course but maybe he

647

00:28:07,970 --> 00:28:04,830

could take the anode voltage and then we

648

00:28:09,470 --> 00:28:07,980

could possibly discern frequency if you

649

00:28:13,220 --> 00:28:09,480

would put some pressure on her that

650

00:28:15,290 --> 00:28:13,230

would work they're expensive these

651

00:28:17,390 --> 00:28:15,300

detectors and we only have but we have

652

00:28:21,780 --> 00:28:17,400

two now but still we could use both of

653

00:28:25,520 --> 00:28:21,790

them thank you very much a thank you

654

00:28:31,350 --> 00:28:25,530

[Applause]