



1  
00:00:03,300 --> 00:00:09,990

[Music]

2  
00:00:15,369 --> 00:00:12,009

well it's really a great honor to be

3  
00:00:17,410 --> 00:00:15,379

here today and the temptation to comment

4  
00:00:19,749 --> 00:00:17,420

on the previous presentations is nearly

5  
00:00:21,670 --> 00:00:19,759

overwhelming but I'm going to resist it

6  
00:00:28,420 --> 00:00:21,680

and instead give you the talk that I

7  
00:00:31,319 --> 00:00:28,430

wrote for today yes so what I'm going to

8  
00:00:34,060 --> 00:00:31,329

talk about today is hidden events and

9  
00:00:36,340 --> 00:00:34,070

we've we've already talked about some of

10  
00:00:37,479 --> 00:00:36,350

the excesses of science we've talked

11  
00:00:40,750 --> 00:00:37,489

about some of the excesses of

12  
00:00:43,210 --> 00:00:40,760

alternative science but what I'm going

13  
00:00:45,730 --> 00:00:43,220

to look at today is the ability of

14

00:00:47,800 --> 00:00:45,740

science to assimilate new information

15

00:00:50,680 --> 00:00:47,810

especially information that's highly

16

00:00:56,380 --> 00:00:50,690

disturbing so the title of my talk is

17

00:00:59,080 --> 00:00:56,390

battered kids and closed minds now one

18

00:01:01,450 --> 00:00:59,090

of the things that about anomalies is

19

00:01:03,040 --> 00:01:01,460

when we think about making decisions

20

00:01:06,179 --> 00:01:03,050

about anomalies we need to understand

21

00:01:09,880 --> 00:01:06,189

the dynamics of the sociology of

22

00:01:11,710 --> 00:01:09,890

information about anomalies okay and

23

00:01:14,289 --> 00:01:11,720

I've made this actually a fairly serious

24

00:01:17,289 --> 00:01:14,299

study I started the manuscript on this

25

00:01:19,959 --> 00:01:17,299

in 1984 and thanks to the encouragement

26

00:01:21,819 --> 00:01:19,969

of my local sse group i literally pulled

27

00:01:23,679 --> 00:01:21,829

this out of the closet and i've started

28

00:01:25,959 --> 00:01:23,689

working on this again so the talk that

29

00:01:29,980 --> 00:01:25,969

you're going to hear here is part of

30

00:01:32,379 --> 00:01:29,990

reflection of that that manuscript so

31

00:01:36,840 --> 00:01:32,389

i'm going to use the battered child

32

00:01:41,800 --> 00:01:39,760

what is it hidden event exactly hind'

33

00:01:44,529 --> 00:01:41,810

event is a widespread set of experiences

34

00:01:47,469 --> 00:01:44,539

that are counterintuitive and this

35

00:01:49,809 --> 00:01:47,479

shouldn't happen so information about

36

00:01:54,669 --> 00:01:49,819

them is slight and this contributes to

37

00:01:57,249 --> 00:01:54,679

keeping the event hidden now here are

38

00:02:00,730 --> 00:01:57,259

some key dates for the subject that

39

00:02:01,839 --> 00:02:00,740

we're going to talk about is there

40

00:02:04,269 --> 00:02:01,849

anybody in the room who's more

41

00:02:05,949 --> 00:02:04,279

knowledgeable about this than I am if

42

00:02:09,790 --> 00:02:05,959

there is I'd be curious to know because

43

00:02:14,020 --> 00:02:09,800

you can act as a good critic in 1947 the

44

00:02:16,360 --> 00:02:14,030

first paper in a radiology journal was

45

00:02:19,119 --> 00:02:16,370

published which discussed the battered

46

00:02:22,210 --> 00:02:19,129

child syndrome but interestingly enough

47

00:02:23,030 --> 00:02:22,220

it was largely a descriptive paper about

48

00:02:25,699 --> 00:02:23,040

the

49

00:02:27,850 --> 00:02:25,709

pattern of injuries that were seen by

50

00:02:31,610 --> 00:02:27,860

this particular physician John Caffee

51  
00:02:33,589 --> 00:02:31,620  
without necessarily indicating that the

52  
00:02:36,410 --> 00:02:33,599  
origin of these injuries to children

53  
00:02:40,940 --> 00:02:36,420  
which he saw was due to parents or

54  
00:02:42,559 --> 00:02:40,950  
caretakers in 1955 there was a JAMA

55  
00:02:44,539 --> 00:02:42,569  
article published that was really

56  
00:02:47,270 --> 00:02:44,549  
excellent which discussed the

57  
00:02:50,930 --> 00:02:47,280  
possibility that some of the cases of

58  
00:02:53,149 --> 00:02:50,940  
child injury might be due to intentional

59  
00:02:54,890 --> 00:02:53,159  
abuse other possibilities that were

60  
00:02:57,170 --> 00:02:54,900  
considered was that parents might create

61  
00:02:58,839 --> 00:02:57,180  
an accident-prone environment and that

62  
00:03:03,259 --> 00:02:58,849  
the injuries might occur in a sort of

63  
00:03:05,599 --> 00:03:03,269

unavoidable way in 1961 we'll talk about

64

00:03:08,569 --> 00:03:05,609

this in more detail at the academy of

65

00:03:11,240 --> 00:03:08,579

pediatrics symposium in Chicago

66

00:03:12,920 --> 00:03:11,250

the phrase battered child syndrome first

67

00:03:16,160 --> 00:03:12,930

entered public consciousness and we'll

68

00:03:19,099 --> 00:03:16,170

talk about how that happened in 1962 a

69

00:03:20,780 --> 00:03:19,109

definitive JAMA article Journal of the

70

00:03:24,460 --> 00:03:20,790

American Medical Association was

71

00:03:26,569 --> 00:03:24,470

published essentially detailing the

72

00:03:32,119 --> 00:03:26,579

kinds of things that one would expect to

73

00:03:34,309 --> 00:03:32,129

see in battered child cases 1964 T V Ben

74

00:03:36,800 --> 00:03:34,319

Casey and had an episode on child abuse

75

00:03:39,229 --> 00:03:36,810

this was very very important in

76  
00:03:40,939 --> 00:03:39,239  
informing the public much more important

77  
00:03:43,520 --> 00:03:40,949  
I think than the JAMA article was and

78  
00:03:45,740 --> 00:03:43,530  
finally in 1974 there was a passage of

79  
00:03:47,629 --> 00:03:45,750  
the child abuse treatment and Prevention

80  
00:03:50,360 --> 00:03:47,639  
Act and much could be said about that

81  
00:03:52,640 --> 00:03:50,370  
too but I need to pass on here

82  
00:03:55,520 --> 00:03:52,650  
now basically hidden events go through

83  
00:03:57,559 --> 00:03:55,530  
what I see is three stages first of all

84  
00:03:59,659 --> 00:03:57,569  
there are uncorrelated observations

85  
00:04:02,780 --> 00:03:59,669  
there are observations that don't seem

86  
00:04:05,390 --> 00:04:02,790  
to join up to form a pattern and we'll

87  
00:04:07,309 --> 00:04:05,400  
talk about how that happens then there

88  
00:04:09,830 --> 00:04:07,319

is a controversy stage where there is

89

00:04:14,390 --> 00:04:09,840

some public discussion of the reality of

90

00:04:16,699 --> 00:04:14,400

whatever it is I believe UFOs are in

91

00:04:20,210 --> 00:04:16,709

this stage right now

92

00:04:23,740 --> 00:04:20,220

and number three the final acceptance or

93

00:04:27,230 --> 00:04:23,750

dismissal of whatever the anomaly is

94

00:04:29,770 --> 00:04:27,240

sometimes the final dismissal may may be

95

00:04:32,899 --> 00:04:29,780

a temporary thing as with for instance

96

00:04:35,780 --> 00:04:32,909

continental drift and may come back in a

97

00:04:40,950 --> 00:04:35,790

different form as continental drift did

98

00:04:44,210 --> 00:04:40,960

but quite often there is in fact a final

99

00:04:46,469 --> 00:04:44,220

acceptance of whatever the anomaly is

100

00:04:49,620 --> 00:04:46,479

now let's talk about the first stage

101  
00:04:52,590 --> 00:04:49,630  
uncorrelated observations and in the

102  
00:04:55,980 --> 00:04:52,600  
case of child abuse for years physicians

103  
00:04:58,409 --> 00:04:55,990  
would see injuries that children had

104  
00:04:59,700 --> 00:04:58,419  
that were unexplained by the parental

105  
00:05:02,689 --> 00:04:59,710  
histories parents would come into

106  
00:05:04,980 --> 00:05:02,699  
hospital with an injured child and the

107  
00:05:06,719 --> 00:05:04,990  
histories the parents this is a medical

108  
00:05:09,000 --> 00:05:06,729  
term the histories of parents gave did

109  
00:05:10,890 --> 00:05:09,010  
not explain the injuries that were seen

110  
00:05:12,060 --> 00:05:10,900  
and quite often interesting Lee now if

111  
00:05:16,879 --> 00:05:12,070  
the parents didn't seem to be terribly

112  
00:05:20,010 --> 00:05:16,889  
interested in the health of the child so

113  
00:05:22,710 --> 00:05:20,020

the physicians were reluctant to believe

114

00:05:25,200 --> 00:05:22,720

that parents could inflict injuries like

115

00:05:26,730 --> 00:05:25,210

this and this was a potent bar to

116

00:05:28,860 --> 00:05:26,740

finding out about these kinds of things

117

00:05:32,610 --> 00:05:28,870

because if you don't want to find out

118

00:05:34,290 --> 00:05:32,620

about it often you don't one

119

00:05:36,300 --> 00:05:34,300

pediatrician stood up in a meeting and

120

00:05:37,890 --> 00:05:36,310

he said if I thought parents could do

121

00:05:42,000 --> 00:05:37,900

this to their children I would get out

122

00:05:44,430 --> 00:05:42,010

of Pediatrics immediately okay so this

123

00:05:46,830 --> 00:05:44,440

leads down to an interesting principle

124

00:05:50,659 --> 00:05:46,840

and the principle is this what we are

125

00:05:53,879 --> 00:05:50,669

willing to see is shaped by our ability

126

00:05:57,240 --> 00:05:53,889

by our ability to handle whatever the

127

00:05:59,760 --> 00:05:57,250

situation is I think this is a very

128

00:06:03,860 --> 00:05:59,770

important thing to understand that what

129

00:06:06,420 --> 00:06:03,870

we are willing to to bear witness to is

130

00:06:08,760 --> 00:06:06,430

often a function of how much power we

131

00:06:14,339 --> 00:06:08,770

feel we have to affect whatever the

132

00:06:15,839 --> 00:06:14,349

phenomenon is now in the uncorrelated

133

00:06:19,409 --> 00:06:15,849

event stage there is a kind of

134

00:06:21,120 --> 00:06:19,419

pluralistic ignorance so that this is a

135

00:06:23,640 --> 00:06:21,130

term by the way coined by the social

136

00:06:25,320 --> 00:06:23,650

psychologist Floyd Allport and you

137

00:06:27,210 --> 00:06:25,330

describe pluralistic ignorance as a

138

00:06:29,610 --> 00:06:27,220

situation in which many people have

139

00:06:32,750 --> 00:06:29,620

experiences but each person thinks that

140

00:06:35,730 --> 00:06:32,760

his or her experience is unique and

141

00:06:37,439 --> 00:06:35,740

therefore it's undiscussables since it's

142

00:06:40,350 --> 00:06:37,449

not comparable to other people's

143

00:06:43,290 --> 00:06:40,360

experiences I could give you lots of

144

00:06:45,330 --> 00:06:43,300

examples from my own researches on this

145

00:06:47,040 --> 00:06:45,340

about people who felt that they had seen

146

00:06:49,060 --> 00:06:47,050

somebody know something nobody else had

147

00:06:50,800 --> 00:06:49,070

seen and we're really

148

00:06:52,840 --> 00:06:50,810

to find that whatever they were seeing

149

00:06:54,700 --> 00:06:52,850

was something that actually a lot of

150

00:06:59,170 --> 00:06:54,710

other people had seen ball lightning is

151  
00:07:01,060 --> 00:06:59,180  
a common example of this but the basic

152  
00:07:01,990 --> 00:07:01,070  
point is if people don't discuss what

153  
00:07:07,570 --> 00:07:02,000  
happens to them

154  
00:07:09,490 --> 00:07:07,580  
the system cannot learn now there is a

155  
00:07:12,730 --> 00:07:09,500  
transition in many cases from

156  
00:07:16,000 --> 00:07:12,740  
uncorrelated observations to the

157  
00:07:17,830 --> 00:07:16,010  
controversy stage and a controversy

158  
00:07:19,720 --> 00:07:17,840  
stage is typically triggered by

159  
00:07:22,690 --> 00:07:19,730  
somebody's seeing a group of

160  
00:07:24,370 --> 00:07:22,700  
observations a pattern that they can

161  
00:07:27,460 --> 00:07:24,380  
make sense of in some way and they can

162  
00:07:29,920 --> 00:07:27,470  
give it a name so this helps them

163  
00:07:31,840 --> 00:07:29,930

organize their own perceptions but it

164

00:07:33,970 --> 00:07:31,850

also helps organize the perceptions of

165

00:07:38,500 --> 00:07:33,980

other people and by the way encourages

166

00:07:40,180 --> 00:07:38,510

reporting because when people publish an

167

00:07:42,160 --> 00:07:40,190

account of some sort of event other

168

00:07:44,500 --> 00:07:42,170

people can then jump in and say oh I I

169

00:07:45,790 --> 00:07:44,510

had one of those and you'll see how this

170

00:07:49,030 --> 00:07:45,800

happened with the battered child

171

00:07:50,970 --> 00:07:49,040

syndrome but at the same time there are

172

00:07:53,530 --> 00:07:50,980

other people who feel whatever is

173

00:07:56,500 --> 00:07:53,540

described by this class events is

174

00:08:05,580 --> 00:07:56,510

somehow impossible it can't exist and

175

00:08:12,340 --> 00:08:10,690

battered child syndrome a typical case

176

00:08:14,530 --> 00:08:12,350

would present with fractures to the long

177

00:08:16,630 --> 00:08:14,540

bones or phalanges sometimes in

178

00:08:19,210 --> 00:08:16,640

different stages of healing subdural

179

00:08:21,790 --> 00:08:19,220

hematomas blood blisters on the brain

180

00:08:25,450 --> 00:08:21,800

and often a lack of relevant history to

181

00:08:27,460 --> 00:08:25,460

explain the injuries now here is an

182

00:08:30,490 --> 00:08:27,470

example from a social worker of

183

00:08:32,800 --> 00:08:30,500

essentially creating a controversy by

184

00:08:34,810 --> 00:08:32,810

coming forward with providing a name for

185

00:08:40,150 --> 00:08:34,820

something which previously had not been

186

00:08:43,000 --> 00:08:40,160

seen to be a class of events when miss

187

00:08:44,740 --> 00:08:43,010

Elmer was asking a nurse on the infant

188

00:08:46,630 --> 00:08:44,750

floor at Children's Hospital in

189

00:08:48,670 --> 00:08:46,640

Pittsburgh about a case she'd heard

190

00:08:50,590 --> 00:08:48,680

about where a particular child had been

191

00:08:52,150 --> 00:08:50,600

injured brought to the hospital by the

192

00:08:54,850 --> 00:08:52,160

parents and parents had left the

193

00:08:59,080 --> 00:08:54,860

hospital she wept to the infant floor

194

00:09:01,540 --> 00:08:59,090

and asked for the cards for the case the

195

00:09:05,200 --> 00:09:01,550

nurse came back with six cards

196

00:09:06,610 --> 00:09:05,210

and she says if I had thought in such

197

00:09:09,430 --> 00:09:06,620

terms at all it would have considered

198

00:09:10,720 --> 00:09:09,440

the original case unique but in the few

199

00:09:13,000 --> 00:09:10,730

minutes revealing talk with the nurse

200

00:09:15,250 --> 00:09:13,010

abuse had become a class of events with

201  
00:09:20,290 --> 00:09:15,260  
ramifications far beyond to the infant

202  
00:09:24,300 --> 00:09:20,300  
and family but others doubted that

203  
00:09:26,980 --> 00:09:24,310  
parents could do this to their kids and

204  
00:09:29,820 --> 00:09:26,990  
pediatricians who came across these

205  
00:09:32,800 --> 00:09:29,830  
cases as well as by the way radiologists

206  
00:09:34,570 --> 00:09:32,810  
had difficulty dealing with these things

207  
00:09:37,270 --> 00:09:34,580  
because there was nothing written about

208  
00:09:39,730 --> 00:09:37,280  
it and this is a quotation from one of

209  
00:09:43,270 --> 00:09:39,740  
the pediatricians I interviewed he said

210  
00:09:44,590 --> 00:09:43,280  
I remember one trip down to San Antonio

211  
00:09:46,840 --> 00:09:44,600  
he said usually everybody would gather

212  
00:09:48,550 --> 00:09:46,850  
and then some of the older experienced

213  
00:09:49,740 --> 00:09:48,560

pediatricians would sneak up to you at

214

00:09:52,270 --> 00:09:49,750

the cocktail hour

215

00:09:54,220 --> 00:09:52,280

they said you see you know I've seen a

216

00:09:57,190 --> 00:09:54,230

number of these cases there's just

217

00:09:58,690 --> 00:09:57,200

nothing written about it so the fact

218

00:10:01,030 --> 00:09:58,700

that there's nothing written about it

219

00:10:05,680 --> 00:10:01,040

tends to indicate to you that you

220

00:10:08,290 --> 00:10:05,690

shouldn't in fact believe in what you're

221

00:10:10,080 --> 00:10:08,300

actually seeing now an interesting

222

00:10:12,550 --> 00:10:10,090

comparison to this by the way was the

223

00:10:14,380 --> 00:10:12,560

discovery of the ozone hole how many of

224

00:10:15,580 --> 00:10:14,390

you are familiar with the history of the

225

00:10:17,500 --> 00:10:15,590

discovery of the ozone hole

226

00:10:19,540 --> 00:10:17,510

all right well for the rest of you what

227

00:10:21,310 --> 00:10:19,550

happened was very interesting the

228

00:10:24,340 --> 00:10:21,320

British had observed the ozone hole for

229

00:10:27,520 --> 00:10:24,350

several years before they revealed its

230

00:10:31,360 --> 00:10:27,530

existence and why did they sit on the

231

00:10:35,110 --> 00:10:31,370

data because the Americans had not seen

232

00:10:36,490 --> 00:10:35,120

it and they knew the Americans had they

233

00:10:39,220 --> 00:10:36,500

knew the Americans had a satellite

234

00:10:44,800 --> 00:10:39,230

called the Nimbus 7 and this satellite

235

00:10:46,060 --> 00:10:44,810

had a sensing device that would tell you

236

00:10:53,500 --> 00:10:46,070

what was going on in the upper

237

00:10:56,020 --> 00:10:53,510

atmosphere well the Americans had a

238

00:10:59,500 --> 00:10:56,030

glitch in the computer actually been

239

00:11:05,080 --> 00:10:59,510

programmed in that ignored out size

240

00:11:06,460 --> 00:11:05,090

values of ozone so what happened was the

241

00:11:09,070 --> 00:11:06,470

Americans reprogrammed their computer

242

00:11:11,020 --> 00:11:09,080

and the ozone hole stood out what had

243

00:11:14,990 --> 00:11:11,030

happened is a systematic blind spot had

244

00:11:18,499 --> 00:11:15,000

been programmed into the t computer

245

00:11:20,119 --> 00:11:18,509

now with the battered child syndrome one

246

00:11:22,460 --> 00:11:20,129

physician suggested it might be bone

247

00:11:23,869 --> 00:11:22,470

fragility these were kids were easily

248

00:11:27,350 --> 00:11:23,879

injured but they stopped being injured

249

00:11:31,639 --> 00:11:27,360

when they got to the hospital so this

250

00:11:33,920 --> 00:11:31,649

lead sent to the third stage and the

251  
00:11:36,559 --> 00:11:33,930  
third stage is resolution when the issue

252  
00:11:39,499 --> 00:11:36,569  
comes together and is finally admitted

253  
00:11:42,050 --> 00:11:39,509  
to be a fact the person who convinces

254  
00:11:44,869 --> 00:11:42,060  
the world by about this by the way is a

255  
00:11:46,550 --> 00:11:44,879  
person who connects the dots Charles

256  
00:11:48,290 --> 00:11:46,560  
Darwin was the person who convinced the

257  
00:11:49,879 --> 00:11:48,300  
world about evolution and that was

258  
00:11:51,559 --> 00:11:49,889  
because he connected the dots he wasn't

259  
00:11:53,569 --> 00:11:51,569  
the first person to discover evolution

260  
00:11:57,170 --> 00:11:53,579  
and in fact it wasn't even the first

261  
00:11:58,879 --> 00:11:57,180  
person to publish on it or actually what

262  
00:12:02,240 --> 00:11:58,889  
happened is when the William Wallace

263  
00:12:03,920 --> 00:12:02,250

wrote into the journal Nature the

264

00:12:05,929 --> 00:12:03,930

publication was held up until Darwin

265

00:12:07,670 --> 00:12:05,939

could prepare a paper himself so he and

266

00:12:10,550 --> 00:12:07,680

Wallace both got credit for this

267

00:12:11,929 --> 00:12:10,560

something for the battered child

268

00:12:13,910 --> 00:12:11,939

syndrome the person who did this was

269

00:12:15,249 --> 00:12:13,920

Henry Kemp a pediatrician a head of

270

00:12:17,689 --> 00:12:15,259

pediatrics at the University of Colorado

271

00:12:20,210 --> 00:12:17,699

Kemp had been observing cases of child

272

00:12:21,650 --> 00:12:20,220

abuse for years but found his resident

273

00:12:25,519 --> 00:12:21,660

physicians at the University of Colorado

274

00:12:27,650 --> 00:12:25,529

didn't want to see it so the key event

275

00:12:29,509 --> 00:12:27,660

for him was treating a system that would

276

00:12:32,059 --> 00:12:29,519

allow them to do something about child

277

00:12:35,329 --> 00:12:32,069

abuse if people saw it and the key thing

278

00:12:37,790 --> 00:12:35,339

yes thank you the key thing was creating

279

00:12:40,960 --> 00:12:37,800

an interdisciplinary team to deal with

280

00:12:47,660 --> 00:12:40,970

the child abuse a team of pediatrician

281

00:12:49,129 --> 00:12:47,670

radiologists and social worker in 1961

282

00:12:50,840 --> 00:12:49,139

he was the head of the academy of

283

00:12:53,480 --> 00:12:50,850

pediatrics he decided to use his

284

00:12:56,259 --> 00:12:53,490

position to broadcast what he thought

285

00:12:59,629 --> 00:12:56,269

was going on and he did this in the

286

00:13:02,540 --> 00:12:59,639

Grand Ballroom of the Palmer House in

287

00:13:04,069 --> 00:13:02,550

Chicago the Palmer House ballroom held a

288

00:13:05,990 --> 00:13:04,079

thousand people he had an

289

00:13:09,290 --> 00:13:06,000

interdisciplinary panel he invited the

290

00:13:10,730 --> 00:13:09,300

press and the result was stupendous

291

00:13:14,379 --> 00:13:10,740

basically the battered child syndrome

292

00:13:17,960 --> 00:13:14,389

was put on the social agenda

293

00:13:19,819 --> 00:13:17,970

so the interdisciplinary team then was

294

00:13:22,040 --> 00:13:19,829

what enabled him to do something about

295

00:13:24,650 --> 00:13:22,050

it and that was what encouraged him and

296

00:13:25,879 --> 00:13:24,660

his fellow pediatricians to go forward

297

00:13:28,160 --> 00:13:25,889

and do something about the battered

298

00:13:28,950 --> 00:13:28,170

child syndrome so the ability to see the

299

00:13:31,020 --> 00:13:28,960

problem was in

300

00:13:33,060 --> 00:13:31,030

connected with the ability to do

301  
00:13:35,580 --> 00:13:33,070  
something about it now an interesting

302  
00:13:37,350 --> 00:13:35,590  
question is why didn't John caffee the

303  
00:13:39,510 --> 00:13:37,360  
pediatric radiologist who published the

304  
00:13:41,700 --> 00:13:39,520  
original paper why wasn't he the person

305  
00:13:45,030 --> 00:13:41,710  
who brought this forward and the answer

306  
00:13:47,400 --> 00:13:45,040  
was he was afraid of legal action he was

307  
00:13:48,930 --> 00:13:47,410  
afraid that Pediatric Radiology which he

308  
00:13:51,120 --> 00:13:48,940  
had pioneered in which he was deeply

309  
00:13:53,370 --> 00:13:51,130  
connected with would be harmed by

310  
00:13:56,490 --> 00:13:53,380  
talking about something as far out as

311  
00:13:59,040 --> 00:13:56,500  
battered children so he literally sat on

312  
00:14:00,450 --> 00:13:59,050  
the data as far as his publications were

313  
00:14:05,070 --> 00:14:00,460

concerned he did confide in his

314

00:14:06,960 --> 00:14:05,080

residents about this so principle number

315

00:14:08,370 --> 00:14:06,970

three is an anomaly will seldom be

316

00:14:10,860 --> 00:14:08,380

accepted based on physical evidence

317

00:14:13,350 --> 00:14:10,870

alone it has to be connected up to what

318

00:14:15,150 --> 00:14:13,360

we already know and this by the way for

319

00:14:17,490 --> 00:14:15,160

ball lightning has been a the kiss of

320

00:14:19,470 --> 00:14:17,500

death because nobody really knows what

321

00:14:23,940 --> 00:14:19,480

ball lightning is and therefore since we

322

00:14:28,200 --> 00:14:23,950

can't explain it we can't accept it all

323

00:14:30,710 --> 00:14:28,210

right so here's my summary first of all

324

00:14:34,500 --> 00:14:30,720

when you're dealing with a hidden event

325

00:14:36,420 --> 00:14:34,510

reports will be scarce at first if you

326

00:14:41,370 --> 00:14:36,430

say there can't be any reports often

327

00:14:44,120 --> 00:14:41,380

there won't be three if you expect to be

328

00:14:46,320 --> 00:14:44,130

the first to know often you aren't

329

00:14:48,440 --> 00:14:46,330

experts sometimes say well hey I would

330

00:14:53,370 --> 00:14:48,450

be the first person to know about this

331

00:14:54,600 --> 00:14:53,380

well often they aren't for if you create

332

00:14:56,820 --> 00:14:54,610

channels for reporting you will get

333

00:14:58,860 --> 00:14:56,830

reporting this is certainly true the

334

00:15:00,690 --> 00:14:58,870

battered child syndrome which originally

335

00:15:02,580 --> 00:15:00,700

seemed to be hundreds of cases and now

336

00:15:06,240 --> 00:15:02,590

seems like millions for the United

337

00:15:09,240 --> 00:15:06,250

States if you encourage reporting there

338

00:15:11,160 --> 00:15:09,250

will be more of it and sometimes there's

339

00:15:13,170 --> 00:15:11,170

over reporting and many of you have

340

00:15:14,640 --> 00:15:13,180

known as you've gone into the hospital

341

00:15:16,230 --> 00:15:14,650

with an injured child or something like

342

00:15:17,730 --> 00:15:16,240

that you're gonna be questioned about

343

00:15:20,130 --> 00:15:17,740

your role in creating the injuries and

344

00:15:22,560 --> 00:15:20,140

the child I had this happen with my

345

00:15:25,440 --> 00:15:22,570

mother who was brought to the hospital

346

00:15:27,690 --> 00:15:25,450

one day second and they questioned me

347

00:15:30,840 --> 00:15:27,700

for a long time

348

00:15:33,240 --> 00:15:30,850

so finally resolution the

349

00:15:35,910 --> 00:15:33,250

solution of all these things has to do

350

00:15:38,520 --> 00:15:35,920

with connecting the dots to attach

351  
00:15:40,500 --> 00:15:38,530  
causes to effects to show how this fits

352  
00:15:41,590 --> 00:15:40,510  
into the scheme of knowledge and so

353  
00:15:44,980 --> 00:15:41,600  
forth

354  
00:15:55,420 --> 00:15:44,990  
so this is the end of the presentation

355  
00:15:57,550 --> 00:15:55,430  
thank you very much for listening thank

356  
00:15:59,740 --> 00:15:57,560  
you Ron for an excellent presentation on

357  
00:16:02,670 --> 00:15:59,750  
a very serious subject do we have any

358  
00:16:15,040 --> 00:16:12,250  
subject was - serious question as I've

359  
00:16:17,320 --> 00:16:15,050  
been long interested in this problem of

360  
00:16:20,440 --> 00:16:17,330  
resistant to innovation not only in the

361  
00:16:24,100 --> 00:16:20,450  
medical field but in in other fields as

362  
00:16:25,990 --> 00:16:24,110  
well and I'm wondering it Ron do you

363  
00:16:28,900 --> 00:16:26,000

know of anybody who's done any studies

364

00:16:31,570 --> 00:16:28,910

to show the show the actual length of

365

00:16:36,520 --> 00:16:31,580

time from will say the discovery of a

366

00:16:38,740 --> 00:16:36,530

phenomenon or a disease or an event or

367

00:16:41,380 --> 00:16:38,750

something like this - the time of actual

368

00:16:44,020 --> 00:16:41,390

acceptance because it's in some cases

369

00:16:46,270 --> 00:16:44,030

it's hundreds even thousands of years

370

00:16:48,340 --> 00:16:46,280

like Democritus and the you know the

371

00:16:50,470 --> 00:16:48,350

theories of atoms and the Greek times of

372

00:16:52,870 --> 00:16:50,480

Greek and then it was wrong idea it was

373

00:16:56,050 --> 00:16:52,880

actually accepted so let me let me let

374

00:16:58,060 --> 00:16:56,060

me give you an example Mosteller the

375

00:17:01,830 --> 00:16:58,070

statistician has an article on

376

00:17:04,270 --> 00:17:01,840

innovation in Mosteller

377

00:17:08,170 --> 00:17:04,280

has an article on innovation in science

378

00:17:10,720 --> 00:17:08,180

ok the science a journal and he talks

379

00:17:12,280 --> 00:17:10,730

about the discovery of lime juice and

380

00:17:15,010 --> 00:17:12,290

its effectiveness in the British Navy

381

00:17:17,319 --> 00:17:15,020

and as I recall basically the lag

382

00:17:18,760 --> 00:17:17,329

between the first discovery of the

383

00:17:22,750 --> 00:17:18,770

importance of lime juice and its

384

00:17:24,220 --> 00:17:22,760

systemic uses about 100 years ok I'll be

385

00:17:26,230 --> 00:17:24,230

happy to give you some other references

386

00:17:28,240 --> 00:17:26,240

for for similar things in medicine and

387

00:17:30,670 --> 00:17:28,250

so forth sociologists of technology and

388

00:17:32,020 --> 00:17:30,680

medicine have had for a long time lists

389

00:17:33,600 --> 00:17:32,030

of things that were resisted by

390

00:17:35,830 --> 00:17:33,610

scientists and so forth in spite of

391

00:17:37,870 --> 00:17:35,840

discoveries ins and and basically

392

00:17:40,420 --> 00:17:37,880

everybody with a new discovery has to

393

00:17:42,070 --> 00:17:40,430

fight a battle of some lengths to you

394

00:17:44,860 --> 00:17:42,080

know to get whatever their discovery is

395

00:17:46,870 --> 00:17:44,870

accepted science seldom welcomes with

396

00:17:51,610 --> 00:17:46,880

open arms people who come forward with

397

00:18:08,930 --> 00:18:06,799

could you stand up start treating ulcer

398

00:18:10,549 --> 00:18:08,940

disease duodenal ulcer disease with

399

00:18:13,130 --> 00:18:10,559

antibiotics even though it was proven

400

00:18:15,110 --> 00:18:13,140

that it was caused by a bacteria and for

401  
00:18:17,330 --> 00:18:15,120  
about five to ten years doctors would

402  
00:18:18,740 --> 00:18:17,340  
you know reluctantly give the bacteria

403  
00:18:20,299 --> 00:18:18,750  
because it was standard or given

404  
00:18:22,100 --> 00:18:20,309  
antibiotic because it was standard of

405  
00:18:24,399 --> 00:18:22,110  
care but they would also give the

406  
00:18:29,539 --> 00:18:24,409  
antacids and tell people to avoid coffee

407  
00:18:32,450 --> 00:18:29,549  
but it took ten years um you've given us

408  
00:18:34,010 --> 00:18:32,460  
a very good microcosmic look it was a

409  
00:18:36,500 --> 00:18:34,020  
more macro but I believe it's more

410  
00:18:37,909 --> 00:18:36,510  
macrocosmic problem and I'm sure

411  
00:18:40,520 --> 00:18:37,919  
everyone here can find their own

412  
00:18:44,029 --> 00:18:40,530  
research and your little principles and

413  
00:18:46,310 --> 00:18:44,039

such and I think this is very applicable

414

00:18:48,890 --> 00:18:46,320

to the evolution of science as a whole

415

00:18:50,570 --> 00:18:48,900

in fact your last step could be if it's

416

00:18:52,549 --> 00:18:50,580

a big enough connecting the dots it

417

00:18:54,440 --> 00:18:52,559

could be a scientific revolution have

418

00:18:59,120 --> 00:18:54,450

you personally tried to put it into

419

00:19:02,960 --> 00:18:59,130

these larger perspectives scientific

420

00:19:06,020 --> 00:19:02,970

evolution repulsion the fact is is that

421

00:19:07,430 --> 00:19:06,030

I disagree with Henry slightly that he

422

00:19:09,799 --> 00:19:07,440

thinks science has gotten worse I think

423

00:19:11,899 --> 00:19:09,809

it's it's been pretty bad all along when

424

00:19:15,230 --> 00:19:11,909

I come when a kind when it comes to this

425

00:19:17,270 --> 00:19:15,240

kind of stuff okay I think I've done

426  
00:19:19,610 --> 00:19:17,280  
essentially a comparative study of these

427  
00:19:22,430 --> 00:19:19,620  
hidden events including the meteorite

428  
00:19:26,029 --> 00:19:22,440  
case battered children black footed

429  
00:19:29,600 --> 00:19:26,039  
ferret UFOs sea serpents ball lightning

430  
00:19:31,820 --> 00:19:29,610  
etc etc etc there are remarkably common

431  
00:19:33,470 --> 00:19:31,830  
patterns this is not to say that the

432  
00:19:36,080 --> 00:19:33,480  
stuff that's more questionable today

433  
00:19:38,570 --> 00:19:36,090  
will ultimately be proven to be correct

434  
00:19:41,570 --> 00:19:38,580  
but simply denote you know John

435  
00:19:43,399 --> 00:19:41,580  
Alexander has made fun of faint signals

436  
00:19:45,830 --> 00:19:43,409  
but often these events announce

437  
00:19:48,110 --> 00:19:45,840  
themselves by faint signals and the key

438  
00:19:50,000 --> 00:19:48,120

is what is the device by which we sort

439

00:19:51,950 --> 00:19:50,010

out the signals and to those that are

440

00:19:53,810 --> 00:19:51,960

potentially researchable it's a very

441

00:19:57,680 --> 00:19:53,820

interesting comment on this by the way

442

00:19:59,720 --> 00:19:57,690

made by Jean Baptiste Bo who was a

443

00:20:02,000 --> 00:19:59,730

discoverer in many respects of

444

00:20:04,970 --> 00:20:02,010

meteorites and did the first report on

445

00:20:07,850 --> 00:20:04,980

the fall in 1803 that essentially

446

00:20:10,550 --> 00:20:07,860

the meteorite situation for science and

447

00:20:14,240 --> 00:20:10,560

he said in these matters he said the

448

00:20:17,570 --> 00:20:14,250

uninformed simply believe the half seven

449

00:20:20,090 --> 00:20:17,580

decides but the instructed person knows

450

00:20:23,120 --> 00:20:20,100

how to do research and I think that's a

451

00:20:26,900 --> 00:20:23,130

good thought for the sse yes we have to

452

00:20:29,450 --> 00:20:26,910

know how to do research I think you've

453

00:20:32,270 --> 00:20:29,460

also at least for me I think you've

454

00:20:35,570 --> 00:20:32,280

shown me that it isn't just me it's more

455

00:20:38,150 --> 00:20:35,580

or less endemic to human nature yes I

456

00:20:42,410 --> 00:20:38,160

think so we call this section the

457

00:20:44,200 --> 00:20:42,420

sociology of science so thank you thank