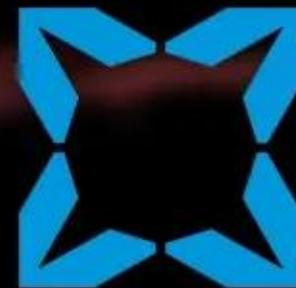


WHAT MAKES “SCIENTIFIC” EVIDENCE SCIENTIFIC?

PAUL SMITH

INI HOTELS & RESORTS
interlocken | denver



**SOCIETY
FOR
SCIENTIFIC
EXPLORATION**

1
00:00:15,190 --> 00:00:11,470
oh stop thinking them

2
00:00:17,349 --> 00:00:15,200
and coming from a super-duper very

3
00:00:19,720 --> 00:00:17,359
rigorous military background and is

4
00:00:20,909 --> 00:00:19,730
really one of the foremost leaders in

5
00:00:24,339 --> 00:00:20,919
remote-viewing

6
00:00:27,249 --> 00:00:24,349
thank you I appreciate it so full

7
00:00:31,210 --> 00:00:27,259
disclosure upfront I just finished this

8
00:00:33,250 --> 00:00:31,220
PowerPoint in the very recent past so I

9
00:00:37,060 --> 00:00:33,260
may be as surprised as what turns up as

10
00:00:39,490 --> 00:00:37,070
you are and of course I have to first

11
00:00:42,280 --> 00:00:39,500
master the technology here too this is

12
00:00:43,660 --> 00:00:42,290
for this is a reverse this is neutral oh

13
00:00:45,459 --> 00:00:43,670

never mind okay

14

00:00:51,099 --> 00:00:45,469

what makes scientific evidence

15

00:00:52,720 --> 00:00:51,109

scientific okay so many of you have

16

00:00:54,880 --> 00:00:52,730

probably encountered skeptics and

17

00:00:57,009 --> 00:00:54,890

critics and people who are dubious about

18

00:00:59,439 --> 00:00:57,019

this all the subject matter that we deal

19

00:01:03,369 --> 00:00:59,449

with here and they will say there is no

20

00:01:05,139 --> 00:01:03,379

evidence for what you believe often

21

00:01:06,910 --> 00:01:05,149

times you do get some who actually

22

00:01:08,680 --> 00:01:06,920

believe that most of these are

23

00:01:11,410 --> 00:01:08,690

uninformed skeptics who actually haven't

24

00:01:14,350 --> 00:01:11,420

done any looking into the debate at all

25

00:01:17,290 --> 00:01:14,360

much less surveyed what what evidence

26

00:01:19,559 --> 00:01:17,300

there is what most people who say this

27

00:01:21,580 --> 00:01:19,569

mean though is something along lines of

28

00:01:24,580 --> 00:01:21,590

there's no evidence that isn't

29

00:01:28,210 --> 00:01:24,590

controversial or there's no evidence

30

00:01:30,760 --> 00:01:28,220

that I will accept or there's no

31

00:01:33,969 --> 00:01:30,770

evidence that is scientifically

32

00:01:36,309 --> 00:01:33,979

respectable essentially the evidence for

33

00:01:42,370 --> 00:01:36,319

ESP or whatever cyma dalit II you want

34

00:01:46,389 --> 00:01:42,380

to consider it just isn't scientific so

35

00:01:47,919 --> 00:01:46,399

this is of course at root a major

36

00:01:49,270 --> 00:01:47,929

component of the argument about

37

00:01:50,469 --> 00:01:49,280

demarcation that is how do you

38

00:01:53,620 --> 00:01:50,479

distinguish between science and

39
00:01:55,660 --> 00:01:53,630
pseudoscience and no matter how much how

40
00:01:57,729 --> 00:01:55,670
hard they try philosophers of science

41
00:01:59,859 --> 00:01:57,739
and mainstream scientists haven't

42
00:02:02,229 --> 00:01:59,869
successfully come up with a criteria

43
00:02:04,059 --> 00:02:02,239
that can divide those two out and it's

44
00:02:05,680 --> 00:02:04,069
doubtful that they ever will partly

45
00:02:07,809 --> 00:02:05,690
because of course that today's

46
00:02:12,550 --> 00:02:07,819
pseudoscience is tomorrow science in

47
00:02:16,270 --> 00:02:12,560
many cases so recognizing that we have

48
00:02:18,369 --> 00:02:16,280
an issue of this I was thinking about

49
00:02:21,670 --> 00:02:18,379
the fact that we don't have any

50
00:02:23,630 --> 00:02:21,680
specialized criteria for what counts as

51
00:02:27,360 --> 00:02:23,640
evidence

52
00:02:29,700 --> 00:02:27,370
with my next lady oh yeah so we don't

53
00:02:33,060 --> 00:02:29,710
have a checklist of attributes that when

54
00:02:36,720 --> 00:02:33,070
we produce a set of evidence we say well

55
00:02:38,700 --> 00:02:36,730
this evidence is scientific it and and

56
00:02:42,660 --> 00:02:38,710
maybe another set of evidence isn't

57
00:02:45,270 --> 00:02:42,670
scientific so what would be the value of

58
00:02:49,830 --> 00:02:45,280
having a checklist so if you think about

59
00:02:52,530 --> 00:02:49,840
it instead of having this criteria to

60
00:02:54,690 --> 00:02:52,540
determine what scientific evidence is

61
00:02:56,670 --> 00:02:54,700
that is we know it when we see it and

62
00:02:59,640 --> 00:02:56,680
some of you may remember where that

63
00:03:01,320 --> 00:02:59,650

phrase comes from in the past people say

64

00:03:03,000 --> 00:03:01,330

well it's nice ient if ik evidence but

65

00:03:05,850 --> 00:03:03,010

this is scientific evidence well you say

66

00:03:09,870 --> 00:03:05,860

well okay so what distinguishes one set

67

00:03:11,850 --> 00:03:09,880

of evidence from another we can have

68

00:03:15,420 --> 00:03:11,860

instead a set of criteria against which

69

00:03:16,890 --> 00:03:15,430

we can assess this scientifically don't

70

00:03:19,530 --> 00:03:16,900

look for that in a dictionary the

71

00:03:22,200 --> 00:03:19,540

scientist 'ti of a set of evidence that

72

00:03:23,520 --> 00:03:22,210

you might encounter alright so this is

73

00:03:24,660 --> 00:03:23,530

the set don't bother trying to capture

74

00:03:27,750 --> 00:03:24,670

this I'm going to go through these in

75

00:03:29,660 --> 00:03:27,760

detail but I have seven suggestions here

76

00:03:32,010 --> 00:03:29,670

that I think would count as criteria

77

00:03:33,750 --> 00:03:32,020

against which you can assess evidence

78

00:03:35,880 --> 00:03:33,760

determine whether it reaches the

79

00:03:39,720 --> 00:03:35,890

threshold of being scientific or not so

80

00:03:41,640 --> 00:03:39,730

but first some preliminary details first

81

00:03:43,560 --> 00:03:41,650

the criteria I'm going to suggest are

82

00:03:45,540 --> 00:03:43,570

often already understood in to

83

00:03:48,570 --> 00:03:45,550

intuitively you'll say oh yeah obviously

84

00:03:50,699 --> 00:03:48,580

that that's a criterion criterion you'll

85

00:03:51,720 --> 00:03:50,709

you'll say that when you see it duh I

86

00:03:53,670 --> 00:03:51,730

mean why is he putting that up there

87

00:03:56,190 --> 00:03:53,680

it's because it's never been it's never

88

00:03:58,440 --> 00:03:56,200

been actually codified or formalized as

89

00:04:01,350 --> 00:03:58,450

part of the criteria for what counts of

90

00:04:05,910 --> 00:04:01,360

scientific evidence my list is perhaps

91

00:04:07,380 --> 00:04:05,920

in fact highly likely incomplete maybe

92

00:04:10,560 --> 00:04:07,390

there are better labels available than

93

00:04:14,640 --> 00:04:10,570

what I've used perhaps some of these

94

00:04:15,420 --> 00:04:14,650

don't really belong and I'm open to

95

00:04:17,400 --> 00:04:15,430

suggestions

96

00:04:20,729 --> 00:04:17,410

okay if you have some thoughts about it

97

00:04:23,340 --> 00:04:20,739

that'd be great but I think that this

98

00:04:27,030 --> 00:04:23,350

exercise is necessary and we really need

99

00:04:28,980 --> 00:04:27,040

to probably boil down to what is the

100

00:04:31,620 --> 00:04:28,990

essence of what counts as scientific

101
00:04:34,600 --> 00:04:31,630
when it comes to evidence okay so first

102
00:04:36,249 --> 00:04:34,610
off well there's lots of first offs here

103
00:04:38,529 --> 00:04:36,259
the next thing we're talking about is

104
00:04:41,890 --> 00:04:38,539
the idea of how evidence fits into

105
00:04:44,290 --> 00:04:41,900
hypotheses and theories right obviously

106
00:04:47,379 --> 00:04:44,300
evidence is the kind of the foundation

107
00:04:49,119 --> 00:04:47,389
from which hypotheses and theories come

108
00:04:52,200 --> 00:04:49,129
and then it actually serves as a

109
00:04:54,879 --> 00:04:52,210
validating device and a way of assessing

110
00:04:57,189 --> 00:04:54,889
theory a theory or hypothesis and

111
00:04:58,929 --> 00:04:57,199
determining the truth value of it over

112
00:05:00,850 --> 00:04:58,939
all and refining it and you know you

113
00:05:02,200 --> 00:05:00,860

know the whole scientific process but if

114

00:05:06,339 --> 00:05:02,210

you think about it evidence is the core

115

00:05:09,189 --> 00:05:06,349

of all of that right so let's go through

116

00:05:12,670 --> 00:05:09,199

these criteria that I'm proposing first

117

00:05:15,219 --> 00:05:12,680

was what I call relevance and roughly

118

00:05:17,950 --> 00:05:15,229

said the more strongly directly a set of

119

00:05:20,350 --> 00:05:17,960

evidence supports the hypothesis or some

120

00:05:21,939 --> 00:05:20,360

other claim you're making the more

121

00:05:24,399 --> 00:05:21,949

confirmation it provides for that

122

00:05:26,680 --> 00:05:24,409

hypothesis this is one of those duh

123

00:05:29,409 --> 00:05:26,690

things well you know if you're trying to

124

00:05:30,670 --> 00:05:29,419

determine that bacterial count content

125

00:05:33,550 --> 00:05:30,680

of milk and you're measuring the

126

00:05:35,019 --> 00:05:33,560

temperature of the cow probably is not

127

00:05:38,980 --> 00:05:35,029

gonna make much difference that evidence

128

00:05:41,589 --> 00:05:38,990

isn't going to be very helpful right but

129

00:05:43,930 --> 00:05:41,599

when you get right down to it evaluating

130

00:05:46,469 --> 00:05:43,940

how relevant a piece of information is

131

00:05:49,390 --> 00:05:46,479

for a particularly claim or hypothesis

132

00:05:51,129 --> 00:05:49,400

is actually the first step you do that's

133

00:05:54,879 --> 00:05:51,139

an important thing and the more relevant

134

00:05:58,629 --> 00:05:54,889

is the the more it has to it more it

135

00:06:03,010 --> 00:05:58,639

brings to bear against that claim so the

136

00:06:05,439 --> 00:06:03,020

next one is independence and what I mean

137

00:06:06,670 --> 00:06:05,449

by independence is by the way not all

138

00:06:09,040 --> 00:06:06,680

these pictures are going to necessarily

139

00:06:10,689 --> 00:06:09,050

match I couldn't figure out how you show

140

00:06:13,119 --> 00:06:10,699

independence other than an American flag

141

00:06:15,399 --> 00:06:13,129

with a guy blowing the flute right so

142

00:06:16,719 --> 00:06:15,409

here we have you know a different kind

143

00:06:21,189 --> 00:06:16,729

of a flower but it's still a flower

144

00:06:23,829 --> 00:06:21,199

right so independence essentially is it

145

00:06:25,869 --> 00:06:23,839

I'm suggests as if it's evidence that

146

00:06:27,159 --> 00:06:25,879

presents a stronger confirmation so it

147

00:06:29,589 --> 00:06:27,169

comes as a result of a separate

148

00:06:33,490 --> 00:06:29,599

evidentiary claim as opposed to some

149

00:06:34,990 --> 00:06:33,500

evidence that that is kind of a piece

150

00:06:36,939 --> 00:06:35,000

with other kinds of evidence the more

151

00:06:40,390 --> 00:06:36,949

dog noir and the more independent it is

152

00:06:43,899 --> 00:06:40,400

of the that particular of other evidence

153

00:06:44,829 --> 00:06:43,909

the stronger it tells now he I was going

154

00:06:46,449 --> 00:06:44,839

to try to get through without saying

155

00:06:47,780 --> 00:06:46,459

Concilium stew prove to somebody I could

156

00:06:50,300 --> 00:06:47,790

buy failed so

157

00:06:53,090 --> 00:06:50,310

you might recognize this is kind of an

158

00:06:55,670 --> 00:06:53,100

element of conciliation the in the in

159

00:06:59,720 --> 00:06:55,680

the lowercase C version of it not the

160

00:07:02,870 --> 00:06:59,730

uppercase C of Concilium right so let's

161

00:07:04,220 --> 00:07:02,880

see this is something Eliot sober the

162

00:07:06,440 --> 00:07:04,230

philosopher of biology philosopher of

163

00:07:08,180 --> 00:07:06,450

science said he said if I examine two

164

00:07:10,250 --> 00:07:08,190

dependent effects there's a higher

165

00:07:13,310 --> 00:07:10,260

probability that I will obtain relevant

166

00:07:15,560 --> 00:07:13,320

information a match to I'm sorry two

167

00:07:17,150 --> 00:07:15,570

dependent effects there's a higher

168

00:07:20,240 --> 00:07:17,160

probability that I will get a match

169

00:07:23,330 --> 00:07:20,250

however if I examine the independent

170

00:07:25,790 --> 00:07:23,340

effects but managed nonetheless to

171

00:07:28,640 --> 00:07:25,800

obtain a match that information will be

172

00:07:30,650 --> 00:07:28,650

weightier than a match obtained on

173

00:07:32,840 --> 00:07:30,660

dependent effects okay

174

00:07:35,090 --> 00:07:32,850

and then again this is also kind of

175

00:07:36,590 --> 00:07:35,100

intuitive if you get a separate piece of

176

00:07:38,450 --> 00:07:36,600

information that isn't dependent on the

177

00:07:41,240 --> 00:07:38,460

information you already have that's

178

00:07:45,370 --> 00:07:41,250

going to be more confirmatory now a a

179

00:07:47,870 --> 00:07:45,380

real-world example back when I was a

180

00:07:50,060 --> 00:07:47,880

wet-behind-the-ears second lieutenant I

181

00:07:53,140 --> 00:07:50,070

had a old crusty senior master sergeant

182

00:07:56,360 --> 00:07:53,150

who had done four tours in Vietnam and

183

00:07:58,460 --> 00:07:56,370

he was telling story about one of the

184

00:08:00,110 --> 00:07:58,470

problems they ran into and that was that

185

00:08:01,460 --> 00:08:00,120

of course everybody's out there trying

186

00:08:02,720 --> 00:08:01,470

to collect intelligence against the Viet

187

00:08:05,330 --> 00:08:02,730

Cong and the North Vietnamese whoever

188

00:08:07,160 --> 00:08:05,340

might be and and each of these units

189

00:08:08,900 --> 00:08:07,170

were kind of independent of each other

190

00:08:10,910 --> 00:08:08,910

and they weren't necessarily comparing

191

00:08:13,970 --> 00:08:10,920

notes as back before we had all this

192

00:08:17,420 --> 00:08:13,980

great integrative technology which

193

00:08:20,270 --> 00:08:17,430

sometimes works ok so they had this

194

00:08:22,310 --> 00:08:20,280

vietnamese source who would peddle

195

00:08:24,170 --> 00:08:22,320

information right he would he had some

196

00:08:25,910 --> 00:08:24,180

some information sometimes it was real

197

00:08:27,620 --> 00:08:25,920

but usually it wasn't and he go from

198

00:08:29,480 --> 00:08:27,630

each of these units which were spread

199

00:08:31,010 --> 00:08:29,490

out over a particular reason and he

200

00:08:33,950 --> 00:08:31,020

would sell the same intelligence to each

201
00:08:35,480 --> 00:08:33,960
one of them and then what had happen is

202
00:08:36,860 --> 00:08:35,490
each of you had a different name he

203
00:08:38,839 --> 00:08:36,870
stopped knew him by different names so

204
00:08:40,159 --> 00:08:38,849
they're all thinking ok there's all

205
00:08:41,839 --> 00:08:40,169
these different sources we're getting

206
00:08:43,580 --> 00:08:41,849
all the same confirmation about you know

207
00:08:45,670 --> 00:08:43,590
movements of the enemy or whatever it

208
00:08:48,350 --> 00:08:45,680
must be really legitimate information

209
00:08:49,670 --> 00:08:48,360
but he was making a great living at

210
00:08:50,900 --> 00:08:49,680
peddling the same information and

211
00:08:53,540 --> 00:08:50,910
pertaining to be somebody different in

212
00:08:55,850 --> 00:08:53,550
each place and consequently a lot of bad

213
00:08:58,340 --> 00:08:55,860

decisions were made because the

214

00:09:00,710 --> 00:08:58,350

information really wasn't independent ok

215

00:09:01,350 --> 00:09:00,720

and that can well we have to be careful

216

00:09:07,259 --> 00:09:01,360

that that doesn't

217

00:09:10,590 --> 00:09:07,269

in science okay what's next

218

00:09:13,319 --> 00:09:10,600

diversity a very popular word today and

219

00:09:15,360 --> 00:09:13,329

in some ways is kind of similar to how

220

00:09:17,940 --> 00:09:15,370

we meet it in society and culture so

221

00:09:20,100 --> 00:09:17,950

diversity diverse evidence is more

222

00:09:22,170 --> 00:09:20,110

confirmatory than less diverse evidence

223

00:09:24,240 --> 00:09:22,180

this was related to independence but

224

00:09:27,540 --> 00:09:24,250

it's a little bit different they kind of

225

00:09:30,569 --> 00:09:27,550

overlap so the more different sources

226

00:09:33,150 --> 00:09:30,579

you can get confirmatory evidence from

227

00:09:35,040 --> 00:09:33,160

the more confirmatory it is and

228

00:09:39,150 --> 00:09:35,050

therefore the more scientific it is

229

00:09:40,620 --> 00:09:39,160

right so this is something that a writer

230

00:09:42,540 --> 00:09:40,630

and hora which said we think that

231

00:09:44,280 --> 00:09:42,550

theories are better confirmed by a broad

232

00:09:47,329 --> 00:09:44,290

spectrum of different kinds of evidence

233

00:09:51,389 --> 00:09:47,339

than by a narrow repetitive set of data

234

00:09:55,980 --> 00:09:51,399

makes sense this is also an element in

235

00:09:57,930 --> 00:09:55,990

lower seekin silly ins as well so how do

236

00:10:00,360 --> 00:09:57,940

you achieve diversity that is diversity

237

00:10:01,440 --> 00:10:00,370

between or among instances of items of

238

00:10:03,240 --> 00:10:01,450

evidence so when you talk about

239

00:10:06,930 --> 00:10:03,250

diversity you can't be talking about

240

00:10:09,120 --> 00:10:06,940

about one element of evidence because

241

00:10:14,040 --> 00:10:09,130

we're talking about some diversity

242

00:10:15,660 --> 00:10:14,050

implies multiple elements right so I in

243

00:10:17,790 --> 00:10:15,670

my writing about this I call them

244

00:10:19,290 --> 00:10:17,800

evidence says I've added an S on it

245

00:10:22,259 --> 00:10:19,300

again something you probably won't find

246

00:10:26,340 --> 00:10:22,269

in a dictionary but so we're talking

247

00:10:28,199 --> 00:10:26,350

about about comparing evidences here so

248

00:10:31,380 --> 00:10:28,209

ways you can do it making very the

249

00:10:34,050 --> 00:10:31,390

properties that you're testing you have

250

00:10:35,880 --> 00:10:34,060

maybe multiple independent investigators

251

00:10:37,710 --> 00:10:35,890

in a particular field all of whom are

252

00:10:40,410 --> 00:10:37,720

working on the same project but

253

00:10:42,569 --> 00:10:40,420

separately from each other you may

254

00:10:44,340 --> 00:10:42,579

explore multiple phenomenon that still

255

00:10:47,460 --> 00:10:44,350

nonetheless may have relevance to each

256

00:10:49,500 --> 00:10:47,470

other you may vary the kinds of

257

00:10:54,660 --> 00:10:49,510

instrumentation you use to examine the

258

00:10:58,079 --> 00:10:54,670

phenomena okay example I have of that so

259

00:11:00,480 --> 00:10:58,089

let's say you're working on an

260

00:11:02,550 --> 00:11:00,490

experiment to determine the refractory

261

00:11:06,990 --> 00:11:02,560

properties of some kind of translucent

262

00:11:08,430 --> 00:11:07,000

material to make sure they meet meet you

263

00:11:10,260 --> 00:11:08,440

predict a certain thing about the

264

00:11:12,420 --> 00:11:10,270

referent refractory I should have picked

265

00:11:15,460 --> 00:11:12,430

a word I can say better refractory

266

00:11:16,450 --> 00:11:15,470

properties of this material

267

00:11:19,270 --> 00:11:16,460

there's a number of ways you can

268

00:11:21,870 --> 00:11:19,280

evaluate that so one might be the angle

269

00:11:28,420 --> 00:11:21,880

at which you strike it with a light beam

270

00:11:30,630 --> 00:11:28,430

another might be see then using

271

00:11:32,800 --> 00:11:30,640

different wavelengths of light

272

00:11:36,460 --> 00:11:32,810

attempting different dispersion patterns

273

00:11:38,500 --> 00:11:36,470

with it intensity of light or other

274

00:11:40,570 --> 00:11:38,510

elements that are be different ways of

275

00:11:43,390 --> 00:11:40,580

taste-testing the same material to come

276

00:11:45,610 --> 00:11:43,400

to the outlet to achieve the outcome

277

00:11:48,130 --> 00:11:45,620

that the information that you're trying

278

00:11:50,470 --> 00:11:48,140

to achieve about it right so that's a

279

00:11:52,600 --> 00:11:50,480

version of diversity another one might

280

00:11:54,910 --> 00:11:52,610

be in the field of archaeology you're

281

00:11:57,310 --> 00:11:54,920

trying to assess maybe the beliefs or

282

00:11:59,530 --> 00:11:57,320

practices of a certain culture and there

283

00:12:01,870 --> 00:11:59,540

you might go for you know markings on

284

00:12:03,850 --> 00:12:01,880

part recharge shards and say I'm not an

285

00:12:05,170 --> 00:12:03,860

archaeologist you know the

286

00:12:08,710 --> 00:12:05,180

stratification of different elements

287

00:12:10,780 --> 00:12:08,720

that you find in a dig I have a whole

288

00:12:12,310 --> 00:12:10,790

laundry list of these but but you get

289

00:12:13,510 --> 00:12:12,320

the idea if there may be all kinds of

290

00:12:15,010 --> 00:12:13,520

different elements that you can bring

291

00:12:16,630 --> 00:12:15,020

together that have bearing on your

292

00:12:17,890 --> 00:12:16,640

question that may help you bring

293

00:12:21,430 --> 00:12:17,900

resolution and those are all diverse

294

00:12:26,320 --> 00:12:21,440

elements that will make your conclusions

295

00:12:27,750 --> 00:12:26,330

more robust and more accurate ok next

296

00:12:31,780 --> 00:12:27,760

from those repeatability

297

00:12:34,210 --> 00:12:31,790

okay so repeatability evidence that can

298

00:12:36,280 --> 00:12:34,220

be reproduced by the creation of the

299

00:12:37,630 --> 00:12:36,290

same or closely similar circumstances in

300

00:12:40,390 --> 00:12:37,640

which that information was first

301

00:12:42,460 --> 00:12:40,400

observed in a repetitive way more

302

00:12:45,370 --> 00:12:42,470

strongly confirms hypothesis than does a

303

00:12:48,790 --> 00:12:45,380

singular occurrence of such evidence ok

304

00:12:50,740 --> 00:12:48,800

that's a non no brainer if you have one

305

00:12:53,050 --> 00:12:50,750

instance of a phenomenon occurring under

306

00:12:55,450 --> 00:12:53,060

certain conditions that's not enough to

307

00:12:56,890 --> 00:12:55,460

really tell you much if you can repeat

308

00:12:59,080 --> 00:12:56,900

that then of course you're making

309

00:13:01,750 --> 00:12:59,090

progress you can you can certify that

310

00:13:05,670 --> 00:13:01,760

this this outcome is not just a one-off

311

00:13:08,800 --> 00:13:05,680

fluke but that it can be repeated now

312

00:13:09,970 --> 00:13:08,810

this is also very obvious to us except

313

00:13:12,100 --> 00:13:09,980

there's one thing I want to add to this

314

00:13:15,040 --> 00:13:12,110

and that is repeatability isn't reckless

315

00:13:18,070 --> 00:13:15,050

replicability I'm going to go into that

316

00:13:20,290 --> 00:13:18,080

in a little bit but in this case repeal

317

00:13:23,700 --> 00:13:20,300

repeatability applies whether it's the

318

00:13:26,230 --> 00:13:23,710

same lab doing the same experiment or

319

00:13:28,540 --> 00:13:26,240

multiple labs no matter how many doing

320

00:13:29,320 --> 00:13:28,550

the same or similar experiments that all

321

00:13:34,650 --> 00:13:29,330

counts

322

00:13:40,090 --> 00:13:37,329

so next is something I've called

323

00:13:42,160 --> 00:13:40,100

accordance coordinates acceptable

324

00:13:45,090 --> 00:13:42,170

evidence must be produced in accordance

325

00:13:48,430 --> 00:13:45,100

with well-formed and scientifically

326

00:13:50,079 --> 00:13:48,440

trustworthy methods and techniques now I

327

00:13:51,819 --> 00:13:50,089

don't know you may recognize some of the

328

00:13:53,050 --> 00:13:51,829

folks in this photo and if you want to

329

00:13:55,030 --> 00:13:53,060

approach me afterwards I'll tell you

330

00:13:57,400 --> 00:13:55,040

what was going on here but it did

331

00:14:00,819 --> 00:13:57,410

involve research into a phenomenon is

332

00:14:02,920 --> 00:14:00,829

quite interesting a coordinates

333

00:14:04,060 --> 00:14:02,930

accordance however so essentially what

334

00:14:07,180 --> 00:14:04,070

I'm saying when I say at coordinates

335

00:14:08,650 --> 00:14:07,190

what I'm talking about is and this is

336

00:14:11,079 --> 00:14:08,660

kind of an expectation that people

337

00:14:13,720 --> 00:14:11,089

automatically have in scientific fields

338

00:14:15,190 --> 00:14:13,730

is that when you produce evidence the

339

00:14:16,810 --> 00:14:15,200

thing that looks your methodology they

340

00:14:17,980 --> 00:14:16,820

can look at your statistics they can

341

00:14:20,500 --> 00:14:17,990

look at your analysis they know what

342

00:14:23,910 --> 00:14:20,510

your conclusions and save ok this fits

343

00:14:27,370 --> 00:14:23,920

within the framework of the process and

344

00:14:29,680 --> 00:14:27,380

conduct of standard accepted science

345

00:14:30,819 --> 00:14:29,690

okay that would be accordance but there

346

00:14:32,730 --> 00:14:30,829

are a couple of things to keep in mind

347

00:14:35,560 --> 00:14:32,740

that are important first one is

348

00:14:39,519 --> 00:14:35,570

accordance and the way I mean it doesn't

349

00:14:42,130 --> 00:14:39,529

require that new methods necessarily be

350

00:14:44,769 --> 00:14:42,140

consistent and ours that they be

351

00:14:46,120 --> 00:14:44,779

consistent with current scientific

352

00:14:47,920 --> 00:14:46,130

practice but it doesn't require they be

353

00:14:51,430 --> 00:14:47,930

the same otherwise let's you drive a

354

00:14:55,360 --> 00:14:51,440

slide for this ok do not preclude nor

355

00:14:58,829 --> 00:14:55,370

novel methods or techniques or exploring

356

00:15:01,300 --> 00:14:58,839

divergent phenomenon because oops

357

00:15:04,420 --> 00:15:01,310

because otherwise science couldn't

358

00:15:06,519 --> 00:15:04,430

progress ok you have to allow a room for

359

00:15:10,480 --> 00:15:06,529

people to explore an experiment beyond

360

00:15:12,880 --> 00:15:10,490

the bounds but but you have to use good

361

00:15:15,639 --> 00:15:12,890

judgment beyond the bounds of what's

362

00:15:18,069 --> 00:15:15,649

normally accepted as science as long as

363

00:15:20,800 --> 00:15:18,079

most of what they're doing fits within

364

00:15:22,389 --> 00:15:20,810

that context okay so accordance is

365

00:15:24,970 --> 00:15:22,399

really important and oftentimes that's

366

00:15:30,430 --> 00:15:24,980

all that people use to judge where their

367

00:15:32,050 --> 00:15:30,440

evidences is scientific or not all right

368

00:15:34,870 --> 00:15:32,060

it goes some way or other that was a

369

00:15:36,759 --> 00:15:34,880

scientific experiment I failed it ok so

370

00:15:39,190 --> 00:15:36,769

the next one was publicity and

371

00:15:42,490 --> 00:15:39,200

objectivity

372

00:15:45,160 --> 00:15:42,500

what I mean by this is evidence must be

373

00:15:46,600 --> 00:15:45,170

observable and reportable by anyone who

374

00:15:47,560 --> 00:15:46,610

can arrange to be in the right place at

375

00:15:50,950 --> 00:15:47,570

the right time under the right

376

00:15:55,060 --> 00:15:50,960

conditions and if necessary with the

377

00:15:55,870 --> 00:15:55,070

correct equipment okay now I'm gonna

378

00:15:58,840 --> 00:15:55,880

expand on that

379

00:16:00,550 --> 00:15:58,850

first off subjective evidence is still

380

00:16:02,560 --> 00:16:00,560

evidence that's one of the mistakes that

381

00:16:05,050 --> 00:16:02,570

a lot of scientists make is that

382

00:16:07,000 --> 00:16:05,060

oh that evidence objective or that claim

383

00:16:08,140 --> 00:16:07,010

is injective or whatever this kind of

384

00:16:11,170 --> 00:16:08,150

goes back to a little bit of what Hamas

385

00:16:12,580 --> 00:16:11,180

was talking about that's subjective it

386

00:16:14,620 --> 00:16:12,590

doesn't count as evidence it's not

387

00:16:16,780 --> 00:16:14,630

evidence well that's false it is

388

00:16:23,190 --> 00:16:16,790

evidence of a sort it's just not as

389

00:16:28,330 --> 00:16:23,200

powerful in a scientific context as as

390

00:16:30,130 --> 00:16:28,340

objective or public evidences okay so I

391

00:16:32,560 --> 00:16:30,140

want to say it so the best evidence in

392

00:16:35,500 --> 00:16:32,570

science has to be available to science

393

00:16:39,010 --> 00:16:35,510

because they have to check it test it

394

00:16:41,650 --> 00:16:39,020

verify it and apply it objectively in a

395

00:16:43,180 --> 00:16:41,660

public way or you'll never know you

396

00:16:45,820 --> 00:16:43,190

can't know just based on someone's

397

00:16:48,100 --> 00:16:45,830

subjective experience how legitimate or

398

00:16:52,740 --> 00:16:48,110

illegitimate that experiences that they

399

00:16:57,370 --> 00:16:52,750

report okay all right so let's go to

400

00:16:59,470 --> 00:16:57,380

congruence what's congruence the more

401

00:17:02,800 --> 00:16:59,480

closely a piece of evidence can be

402

00:17:05,410 --> 00:17:02,810

accommodated without contradiction

403

00:17:07,270 --> 00:17:05,420

within an existing body of evidence that

404

00:17:09,280 --> 00:17:07,280

already supports the hypothesis or

405

00:17:11,439 --> 00:17:09,290

theory the more strongly the new

406

00:17:14,560 --> 00:17:11,449

evidence confirms that hypothesis or

407

00:17:16,689 --> 00:17:14,570

theory it's this is also an intuitive

408

00:17:18,730 --> 00:17:16,699

fairly obvious thing do you think about

409

00:17:21,280 --> 00:17:18,740

it if somebody pops up with a piece of

410

00:17:23,980 --> 00:17:21,290

evidence that doesn't fit all at all

411

00:17:27,420 --> 00:17:23,990

maybe in contradicts the information you

412

00:17:29,590 --> 00:17:27,430

have first the first psychological

413

00:17:31,600 --> 00:17:29,600

inclination and in fact the first

414

00:17:33,750 --> 00:17:31,610

legitimately scientific inclination is

415

00:17:37,030 --> 00:17:33,760

to question that new piece of evidence

416

00:17:40,600 --> 00:17:37,040

okay if it fits within your already

417

00:17:43,020 --> 00:17:40,610

existing theory base then it's less

418

00:17:46,080 --> 00:17:43,030

questionable it makes more sense because

419

00:17:49,810 --> 00:17:46,090

we understand it this goes back to

420

00:17:51,010 --> 00:17:49,820

Willard fun Norman crying coin no we

421

00:17:51,260 --> 00:17:51,020

spelled his name right because I do it

422

00:17:54,020 --> 00:17:51,270

from

423

00:17:56,330 --> 00:17:54,030

who had this idea of web the web of

424

00:17:59,450 --> 00:17:56,340

belief where the idea you had kind of a

425

00:18:02,480 --> 00:17:59,460

core of belief core set of knowledge and

426

00:18:04,730 --> 00:18:02,490

the closer piece of information came for

427

00:18:07,460 --> 00:18:04,740

a piece of knowledge came to that core

428

00:18:09,380 --> 00:18:07,470

the more readily we were accepted and we

429

00:18:11,000 --> 00:18:09,390

would be more justified to accept it the

430

00:18:12,770 --> 00:18:11,010

close read the further out on the

431

00:18:14,720 --> 00:18:12,780

fringes that's where we start having to

432

00:18:16,370 --> 00:18:14,730

kind of maybe the jury is out on

433

00:18:18,260 --> 00:18:16,380

something withhold judgment on it and

434

00:18:21,320 --> 00:18:18,270

examine it more carefully more closely

435

00:18:25,460 --> 00:18:21,330

before we are willing to admit it into

436

00:18:27,260 --> 00:18:25,470

our into our database into our corpus of

437

00:18:29,720 --> 00:18:27,270

belief and I just got three minute

438

00:18:32,419 --> 00:18:29,730

warning that that's kind of a football

439

00:18:35,540 --> 00:18:32,429

thing isn't it okay all right so

440

00:18:37,340 --> 00:18:35,550

important points to consider now all the

441

00:18:38,540 --> 00:18:37,350

criteria may apply to certain items of

442

00:18:40,430 --> 00:18:38,550

evidence there are some kinds of

443

00:18:44,060 --> 00:18:40,440

evidence that you can't apply these to

444

00:18:45,230 --> 00:18:44,070

in paleontology for example you aren't

445

00:18:46,850 --> 00:18:45,240

going to go and keep creating new

446

00:18:49,570 --> 00:18:46,860

evidence you just have to find what you

447

00:18:52,070 --> 00:18:49,580

can find and that's what you get right

448

00:18:54,410 --> 00:18:52,080

the more that can be applied of these

449

00:19:00,080 --> 00:18:54,420

criteria the more we consider that

450

00:19:02,480 --> 00:19:00,090

evidence of scientific but how and these

451
00:19:04,310 --> 00:19:02,490
criteria can be used in Demark and haldi

452
00:19:05,570 --> 00:19:04,320
I don't know what I meant by that how

453
00:19:09,919 --> 00:19:05,580
these criteria can be using the

454
00:19:11,419 --> 00:19:09,929
demarcation demarcation debate is when

455
00:19:12,320 --> 00:19:11,429
somebody claims that the evidence isn't

456
00:19:15,590 --> 00:19:12,330
scientific

457
00:19:16,910 --> 00:19:15,600
then you can say okay well why isn't it

458
00:19:18,650 --> 00:19:16,920
here's what counts the scientific

459
00:19:20,630 --> 00:19:18,660
evidence do it does it not meet these

460
00:19:22,250 --> 00:19:20,640
criteria okay and so it helps us

461
00:19:25,190 --> 00:19:22,260
determine what might be scientific what

462
00:19:27,169 --> 00:19:25,200
might not be okay there are two concepts

463
00:19:30,230 --> 00:19:27,179

I didn't mention one was falsifiability

464

00:19:32,660 --> 00:19:30,240

Warner's replication except briefly so

465

00:19:35,410 --> 00:19:32,670

falsifiability notoriously Karl Popper

466

00:19:37,790 --> 00:19:35,420

who thought that astrology and

467

00:19:42,110 --> 00:19:37,800

psychoanalysis were equally valid

468

00:19:44,180 --> 00:19:42,120

Sciences which wasn't okay it's relevant

469

00:19:46,130 --> 00:19:44,190

hypotheses and theories but it's not

470

00:19:50,210 --> 00:19:46,140

concerned with evidence it has only to

471

00:19:53,410 --> 00:19:50,220

do with with the religious legitimacy of

472

00:19:55,520 --> 00:19:53,420

a hypothesis or a theory elements of

473

00:19:57,590 --> 00:19:55,530

replication replication is actually a

474

00:19:59,210 --> 00:19:57,600

composit is kind of a meta property of

475

00:19:59,930 --> 00:19:59,220

three that I mentioned one is

476
00:20:02,690 --> 00:19:59,940
independence

477
00:20:04,550 --> 00:20:02,700
one is a repeatability one is diversity

478
00:20:07,430 --> 00:20:04,560
those together

479
00:20:08,510 --> 00:20:07,440
constitute replication and I don't have

480
00:20:10,160 --> 00:20:08,520
time to make the argument because I've

481
00:20:12,410 --> 00:20:10,170
already been told me time is exhausted

482
00:20:14,030 --> 00:20:12,420
but I'm gonna charge on anyway as

483
00:20:16,070 --> 00:20:14,040
quickly as I can okay

484
00:20:17,750 --> 00:20:16,080
if we think these seven criteria are

485
00:20:20,090 --> 00:20:17,760
definitive does the evidence Versailles

486
00:20:21,260 --> 00:20:20,100
meet these criteria and I'm not going to

487
00:20:23,120 --> 00:20:21,270
give you an example of that because I

488
00:20:26,150 --> 00:20:23,130

don't have time for that but if it does

489

00:20:27,500 --> 00:20:26,160

does that mean it if it is its if it's

490

00:20:29,630 --> 00:20:27,510

what does that mean if it's still

491

00:20:31,190 --> 00:20:29,640

rejected so if you get a critic who says

492

00:20:34,190 --> 00:20:31,200

I don't care if it meets those criteria

493

00:20:36,140 --> 00:20:34,200

it's still not legitimate evidence well

494

00:20:38,390 --> 00:20:36,150

then here's the problem makes us wonder

495

00:20:40,430 --> 00:20:38,400

first of all well makes us wonder does

496

00:20:42,590 --> 00:20:40,440

scientific evidence itself even counter

497

00:20:45,440 --> 00:20:42,600

scientific because if the criteria

498

00:20:46,850 --> 00:20:45,450

applies the scientific evidence but they

499

00:20:49,610 --> 00:20:46,860

say yes there is this

500

00:20:51,500 --> 00:20:49,620

sigh sigh effect that we have we have

501
00:20:54,740 --> 00:20:51,510
the same criteria fit the evidence for

502
00:20:56,000 --> 00:20:54,750
that but we reject that what stops us

503
00:20:58,130 --> 00:20:56,010
from rejecting mainstream science

504
00:21:01,730 --> 00:20:58,140
evidence as well so I guess I'll quit

505
00:21:04,610 --> 00:21:01,740
there whoops I'm not gonna give you that

506
00:21:06,830 --> 00:21:04,620
example I had a final slide let me find

507
00:21:19,220 --> 00:21:06,840
it OOP there it is right there thank you

508
00:21:21,830 --> 00:21:19,230
question and answer apologize in advance

509
00:21:24,290 --> 00:21:21,840
my question isn't is more comment as

510
00:21:26,570 --> 00:21:24,300
morally than the general topic then your

511
00:21:28,340 --> 00:21:26,580
specific talk huh huh I think in one

512
00:21:30,740 --> 00:21:28,350
minute or less I think I have a solution

513
00:21:32,930 --> 00:21:30,750

to Concilium it would be very simple

514

00:21:35,120 --> 00:21:32,940

software solution even though I started

515

00:21:36,440 --> 00:21:35,130

out as a critic of is it the blue screen

516

00:21:39,410 --> 00:21:36,450

of death that comes on everybody's

517

00:21:41,780 --> 00:21:39,420

computer is that okay so there's a crowd

518

00:21:44,060 --> 00:21:41,790

source software solution and we create

519

00:21:45,470 --> 00:21:44,070

an open and dynamic Concilium mind map

520

00:21:47,540 --> 00:21:45,480

you would start with a couple of dozen

521

00:21:49,810 --> 00:21:47,550

basic notes such as consciousness is

522

00:21:52,659 --> 00:21:49,820

primary or neurological material

523

00:21:54,639 --> 00:21:52,669

as wrong etc and then SSC members would

524

00:21:56,019 --> 00:21:54,649

just sign on to this website stirring

525

00:21:58,149 --> 00:21:56,029

the mind map and each node would have a

526
00:22:00,460 --> 00:21:58,159
slider control very important the analog

527
00:22:05,680 --> 00:22:00,470
not digital collaboration between right

528
00:22:07,060 --> 00:22:05,690
and left actors and and the nodes that

529
00:22:09,310 --> 00:22:07,070
got higher ratings

530
00:22:11,349 --> 00:22:09,320
we'd be invited to do it very quickly we

531
00:22:12,940 --> 00:22:11,359
get larger or otherwise indicate their

532
00:22:14,950 --> 00:22:12,950
heightened status well those popular

533
00:22:17,919 --> 00:22:14,960
ones would get smaller even voted off

534
00:22:19,479 --> 00:22:17,929
the mindmap Island those voted off my

535
00:22:21,009 --> 00:22:19,489
map would then go into our missionary

536
00:22:23,080 --> 00:22:21,019
area where they could be revived and

537
00:22:24,849 --> 00:22:23,090
then also be a candidate area of those

538
00:22:26,859 --> 00:22:24,859

nodes that could join the current mind

539

00:22:28,869 --> 00:22:26,869

map if they got enough support and this

540

00:22:31,509 --> 00:22:28,879

way there's no frozen ideology of

541

00:22:33,580 --> 00:22:31,519

Concilium but a dynamic crowdsourcing now

542

00:22:36,279 --> 00:22:33,590

open to excision of what has become

543

00:22:37,930 --> 00:22:36,289

obsolete headship totally Lindos the map

544

00:22:39,909 --> 00:22:37,940

would also track trends which we were

545

00:22:42,190 --> 00:22:39,919

interesting feedback and users would

546

00:22:44,440 --> 00:22:42,200

also receive their individual Concilium

547

00:22:46,719 --> 00:22:44,450

map based on their preferences so they

548

00:22:56,560 --> 00:22:46,729

can see how congruent or not that is

549

00:22:57,820 --> 00:22:56,570

with the collective map okay okay yes do

550

00:23:01,869 --> 00:22:57,830

you just want me to vote it off the

551
00:23:03,279 --> 00:23:01,879
concilium silencers all here at the

552
00:23:06,200 --> 00:23:03,289
beginning of you talk said hey there may

553
00:23:08,120 --> 00:23:06,210
be others yeah

554
00:23:09,830 --> 00:23:08,130
something just for your consideration

555
00:23:12,290 --> 00:23:09,840
you actually danced around this

556
00:23:14,540 --> 00:23:12,300
particular one several times of what you

557
00:23:16,250 --> 00:23:14,550
talked about so you may argue that it's

558
00:23:20,300 --> 00:23:16,260
already in there okay

559
00:23:22,310 --> 00:23:20,310
but the the quality and extent Asian of

560
00:23:25,030 --> 00:23:22,320
evidence is actually very important in

561
00:23:27,560 --> 00:23:25,040
establishing it scientifically because

562
00:23:30,680 --> 00:23:27,570
you need to understand the context of

563
00:23:33,800 --> 00:23:30,690

what you do so a lot of times we'll get

564

00:23:36,560 --> 00:23:33,810

evidence will say and here it is but we

565

00:23:39,650 --> 00:23:36,570

don't always document all of the issues

566

00:23:41,090 --> 00:23:39,660

I should say issues but all the areas in

567

00:23:44,690 --> 00:23:41,100

the context under which that evidence

568

00:23:46,070 --> 00:23:44,700

arose which makes it inaccessible to

569

00:23:47,960 --> 00:23:46,080

anybody except for the original

570

00:23:50,330 --> 00:23:47,970

collector so that's just something else

571

00:23:53,990 --> 00:23:50,340

yeah in a way that's related to

572

00:23:56,150 --> 00:23:54,000

publicity objectivity but but it's more

573

00:23:59,000 --> 00:23:56,160

like turning that into a record that