



TASK OPTIMIZATION IN PSI RESEARCH

MARK BOCCUZZI



**SOCIETY
FOR
SCIENTIFIC
EXPLORATION**

1
00:00:06,249 --> 00:00:03,290
great looking for sighing all the wrong

2
00:00:06,259 --> 00:00:13,600
restarting okay good morning everybody

3
00:00:18,670 --> 00:00:16,910
okay so just some quick definitions psy

4
00:00:21,650 --> 00:00:18,680
is an umbrella term that covers

5
00:00:24,529 --> 00:00:21,660
telepathy clairvoyance precognition and

6
00:00:27,200 --> 00:00:24,539
psychokinesis parapsychology is the

7
00:00:29,839 --> 00:00:27,210
scientific study of psy and also topics

8
00:00:32,479 --> 00:00:29,849
relating to post-mortem survival today

9
00:00:36,340 --> 00:00:32,489
I'm only going to talk about psy and not

10
00:00:38,959 --> 00:00:36,350
survival so over the years

11
00:00:42,110 --> 00:00:38,969
parapsychologists have been rallying

12
00:00:44,510 --> 00:00:42,120
around standardized protocols to test

13
00:00:45,080 --> 00:00:44,520

various aspects of psy and that's a good

14

00:00:48,860 --> 00:00:45,090

thing

15

00:00:50,630 --> 00:00:48,870

standardization is helpful you can do

16

00:00:55,939 --> 00:00:50,640

meta-analysis on your data you can

17

00:00:58,490 --> 00:00:55,949

replicate in different labs typically a

18

00:01:00,680 --> 00:00:58,500

way a typical experiment would work as

19

00:01:03,160 --> 00:01:00,690

we'd recruit people from a general

20

00:01:08,240 --> 00:01:03,170

population and we would run them through

21

00:01:11,330 --> 00:01:08,250

si mode protocol but when we do this

22

00:01:15,940 --> 00:01:11,340

what we find is that not everyone's data

23

00:01:19,420 --> 00:01:15,950

actually produces evidence for psy so

24

00:01:22,100 --> 00:01:19,430

being scientists were very clever and we

25

00:01:25,850 --> 00:01:22,110

have figured out ways that we might be

26
00:01:27,920 --> 00:01:25,860
able to optimize our populations to find

27
00:01:30,260 --> 00:01:27,930
high performers and so some of those

28
00:01:33,859 --> 00:01:30,270
ways short of full genetic testing and F

29
00:01:36,350 --> 00:01:33,869
MRIs might include things like belief

30
00:01:38,749 --> 00:01:36,360
whether or not people meditate levels of

31
00:01:41,450 --> 00:01:38,759
creativity previous eye experience and

32
00:01:44,330 --> 00:01:41,460
so on in addition we become good at

33
00:01:46,850 --> 00:01:44,340
looking at target optimization and the

34
00:01:49,520 --> 00:01:46,860
roles of researchers in the in their

35
00:01:52,010 --> 00:01:49,530
experiments so even when we optimize for

36
00:01:54,440 --> 00:01:52,020
all these things we still end up with a

37
00:01:57,170 --> 00:01:54,450
portion of our selected optimized

38
00:01:58,550 --> 00:01:57,180

population whose data don't necessarily

39

00:02:04,399 --> 00:01:58,560

support evidence for psy

40

00:02:05,630 --> 00:02:04,409

I find this very annoying and this is

41

00:02:07,580 --> 00:02:05,640

the thing I've been sort of obsessing

42

00:02:09,020 --> 00:02:07,590

out over so we end up with these two

43

00:02:11,390 --> 00:02:09,030

populations

44

00:02:13,070 --> 00:02:11,400

are optimized subset of our optimized

45

00:02:14,870 --> 00:02:13,080

population that isn't doesn't do well on

46

00:02:17,870 --> 00:02:14,880

a test and then this whole other group

47

00:02:20,000 --> 00:02:17,880

of people that for some reason don't do

48

00:02:21,650 --> 00:02:20,010

well on these tests at all and so I'm

49

00:02:24,050 --> 00:02:21,660

really interested in understanding why

50

00:02:25,340 --> 00:02:24,060

that is so in this talk I'm going to

51
00:02:26,840 --> 00:02:25,350
give some examples of where I'm seen

52
00:02:29,900 --> 00:02:26,850
that sort of play out in my own research

53
00:02:31,520 --> 00:02:29,910
and some a new research project that we

54
00:02:35,090 --> 00:02:31,530
hope will sort of look into this a

55
00:02:37,880 --> 00:02:35,100
little bit more so the first example I

56
00:02:40,760 --> 00:02:37,890
want to give is a project a joint

57
00:02:43,430 --> 00:02:40,770
research project between Julia Moss

58
00:02:46,400 --> 00:02:43,440
bridge and the Moss bridge Institute and

59
00:02:49,699 --> 00:02:46,410
the wind bridge Institute where I work

60
00:02:52,310 --> 00:02:49,709
and that's not confusing at all anyway

61
00:02:53,840 --> 00:02:52,320
and so we haven't formally published

62
00:02:56,930 --> 00:02:53,850
these data yet so I'm not gonna go into

63
00:02:58,640 --> 00:02:56,940

a lot of detail but there's one aspect

64

00:03:00,559 --> 00:02:58,650

of this experiment that I wanted to talk

65

00:03:02,360 --> 00:03:00,569

about which is relevant so at the

66

00:03:04,640 --> 00:03:02,370

beginning of our experiment after we

67

00:03:06,680 --> 00:03:04,650

selected our population we asked all of

68

00:03:10,040 --> 00:03:06,690

our participants to fill out a survey

69

00:03:12,470 --> 00:03:10,050

and on what and rate their frequency of

70

00:03:13,910 --> 00:03:12,480

precognitive experiences so on one end

71

00:03:16,039 --> 00:03:13,920

we're like no I've never had a

72

00:03:17,539 --> 00:03:16,049

precognitive experience on the other end

73

00:03:20,509 --> 00:03:17,549

they often have pre cognitive

74

00:03:22,699 --> 00:03:20,519

experiences so this is the results of

75

00:03:26,360 --> 00:03:22,709

that survey would basically 29 percent

76
00:03:28,250 --> 00:03:26,370
of the people in our population where

77
00:03:31,759 --> 00:03:28,260
frequent Precog errs and I'm like those

78
00:03:33,440 --> 00:03:31,769
are our peeps that's gonna be good but

79
00:03:35,449 --> 00:03:33,450
when we run the experiment and look at

80
00:03:39,410 --> 00:03:35,459
the results of the data what we find

81
00:03:45,289 --> 00:03:39,420
that of these frequent Precog errs only

82
00:03:49,030 --> 00:03:45,299
39% showed a result and 61% failed

83
00:03:52,009 --> 00:03:49,040
sorry that's that's wrong our test

84
00:03:55,039 --> 00:03:52,019
wasn't designed in a way that allowed us

85
00:04:00,140 --> 00:03:55,049
to capture what these people were

86
00:04:04,370 --> 00:04:00,150
experiencing so in some some extent for

87
00:04:05,720 --> 00:04:04,380
as a general test this didn't quite cut

88
00:04:10,400 --> 00:04:05,730

it but we were testing for something

89

00:04:11,810 --> 00:04:10,410

very specific in another set of

90

00:04:14,180 --> 00:04:11,820

experiments I've been working on for a

91

00:04:19,190 --> 00:04:14,190

while I've been using real-time 3d

92

00:04:20,379 --> 00:04:19,200

virtual reality systems to develop SCI

93

00:04:24,339 --> 00:04:20,389

testing and training

94

00:04:26,110 --> 00:04:24,349

applications and these have run across a

95

00:04:28,320 --> 00:04:26,120

number of different scenarios mostly

96

00:04:31,600 --> 00:04:28,330

dealing with first responders and

97

00:04:33,249 --> 00:04:31,610

search-and-rescue applications we've

98

00:04:37,600 --> 00:04:33,259

also been doing things with threat

99

00:04:38,800 --> 00:04:37,610

avoidance and asset recovery I can't

100

00:04:40,749 --> 00:04:38,810

talk about all this stuff today but I'm

101
00:04:43,989 --> 00:04:40,759
going to focus on the threat avoidance

102
00:04:46,209 --> 00:04:43,999
piece so this is a pretty

103
00:04:48,219 --> 00:04:46,219
straightforward simulation you have an

104
00:04:50,950 --> 00:04:48,229
operator the goal is to move the

105
00:04:53,110 --> 00:04:50,960
operator safely from point A to point B

106
00:04:55,420 --> 00:04:53,120
in the simulation the operator has to

107
00:04:58,330 --> 00:04:55,430
make intuitive choices about which way

108
00:05:02,950 --> 00:04:58,340
to go so they avoid roadside bombs

109
00:05:05,409 --> 00:05:02,960
basically and so in the first round of

110
00:05:07,899 --> 00:05:05,419
experiments we use these operators and

111
00:05:10,959 --> 00:05:07,909
they were relying on their own intuitive

112
00:05:13,899 --> 00:05:10,969
abilities to safely navigate the space

113
00:05:19,029 --> 00:05:13,909

and what we found is that this worked

114

00:05:23,079 --> 00:05:19,039

spectacularly poorly and what we found

115

00:05:27,399 --> 00:05:23,089

is that the operators were incredibly

116

00:05:28,600 --> 00:05:27,409

good at finding these bombs and and if

117

00:05:30,760 --> 00:05:28,610

you think about it it sort of makes

118

00:05:32,709 --> 00:05:30,770

sense because the people that would be

119

00:05:35,769 --> 00:05:32,719

attracted to being involved in this kind

120

00:05:38,800 --> 00:05:35,779

of experiment they're a little bit

121

00:05:40,929 --> 00:05:38,810

adrenaline junkies and so the way the

122

00:05:44,050 --> 00:05:40,939

experiment works is if you successfully

123

00:05:46,389 --> 00:05:44,060

get to the end nothing happens you get a

124

00:05:50,889 --> 00:05:46,399

pat on the head and you're rewarded for

125

00:05:52,269 --> 00:05:50,899

your ability to not get hurt but what

126
00:05:54,610 --> 00:05:52,279
makes more sense is the reason why these

127
00:05:56,769 --> 00:05:54,620
people were finding these explosives is

128
00:05:58,959 --> 00:05:56,779
that when you bump into one there's an

129
00:06:02,320 --> 00:05:58,969
adrenaline rush it's a surprise you get

130
00:06:04,209 --> 00:06:02,330
a visceral hit and so it really appealed

131
00:06:07,329 --> 00:06:04,219
to the people that were actually doing

132
00:06:09,129 --> 00:06:07,339
the experiment so I had to take a step

133
00:06:10,570 --> 00:06:09,139
back and rethink this because unlike

134
00:06:12,790 --> 00:06:10,580
Dean I don't have a lot of research

135
00:06:16,510 --> 00:06:12,800
assistants so I've involved in all of

136
00:06:20,320 --> 00:06:16,520
our experiments so for the second round

137
00:06:23,700 --> 00:06:20,330
I said I decided maybe we could pair the

138
00:06:24,850 --> 00:06:23,710

the operators in the experiment with

139

00:06:28,930 --> 00:06:24,860

intuitive's

140

00:06:31,210 --> 00:06:28,940

remote location watching the operators

141

00:06:33,130 --> 00:06:31,220

remotely and then giving feedback

142

00:06:37,330 --> 00:06:33,140

to the operators about how to navigate

143

00:06:39,940 --> 00:06:37,340

the space and this actually worked much

144

00:06:42,760 --> 00:06:39,950

better our success rates were getting

145

00:06:43,540 --> 00:06:42,770

higher but the intuitive's didn't like

146

00:06:45,370 --> 00:06:43,550

this at all

147

00:06:48,190 --> 00:06:45,380

they were really uncomfortable with the

148

00:06:50,080 --> 00:06:48,200

real-time video aspect and the whole

149

00:06:51,460 --> 00:06:50,090

guns and bombs thing really wasn't

150

00:06:53,620 --> 00:06:51,470

sitting comfortably with this population

151

00:06:56,160 --> 00:06:53,630

and I said well that's a really

152

00:06:59,320 --> 00:06:56,170

interesting challenge how do we

153

00:07:02,290 --> 00:06:59,330

incorporate the talents of intuitive's

154

00:07:04,420 --> 00:07:02,300

in a way that works for them on an

155

00:07:06,310 --> 00:07:04,430

emotional and psychological level but

156

00:07:08,590 --> 00:07:06,320

still meet the objectives of our test

157

00:07:11,730 --> 00:07:08,600

which is to safely navigate our

158

00:07:14,830 --> 00:07:11,740

operators across the space in real-time

159

00:07:19,210 --> 00:07:14,840

so I became really interested in this

160

00:07:22,240 --> 00:07:19,220

idea of proxy tasking and so I ended up

161

00:07:25,900 --> 00:07:22,250

developing a second app specifically for

162

00:07:28,350 --> 00:07:25,910

the intuitive's and so instead of the

163

00:07:32,250 --> 00:07:28,360

intuitive seeing our friend with an m4

164

00:07:33,990 --> 00:07:32,260

they got to see this dog and instead of

165

00:07:37,300 --> 00:07:34,000

navigating this post-apocalyptic

166

00:07:41,500 --> 00:07:37,310

landscape they got to see this little

167

00:07:44,020 --> 00:07:41,510

island with a forest on it and so again

168

00:07:46,690 --> 00:07:44,030

in the third round of experiments we had

169

00:07:49,180 --> 00:07:46,700

our operator in our intuitive's and the

170

00:07:52,170 --> 00:07:49,190

intuitive's were navigating the dog

171

00:07:55,690 --> 00:07:52,180

through the island space and the

172

00:07:57,760 --> 00:07:55,700

operators were in the simulation and

173

00:08:01,210 --> 00:07:57,770

there was a real-time feedback loop

174

00:08:03,420 --> 00:08:01,220

between the two and the results from

175

00:08:05,860 --> 00:08:03,430

this while still very preliminary are

176

00:08:07,210 --> 00:08:05,870

these are the best results so far we

177

00:08:09,760 --> 00:08:07,220

seem to be getting much higher accuracy

178

00:08:12,280 --> 00:08:09,770

rates the intuitive seem much happier

179

00:08:14,820 --> 00:08:12,290

and of course the operators have sort of

180

00:08:19,780 --> 00:08:14,830

stopped blowing themselves up on purpose

181

00:08:22,480 --> 00:08:19,790

okay so the interesting bit from my

182

00:08:29,590 --> 00:08:22,490

perspective is that we basically had

183

00:08:31,750 --> 00:08:29,600

this simulation which had the the sorry

184

00:08:32,890 --> 00:08:31,760

we had the simulation of the threat

185

00:08:35,320 --> 00:08:32,900

avoidance simulation and we had these

186

00:08:37,899 --> 00:08:35,330

two very different populations that were

187

00:08:39,610 --> 00:08:37,909

interacting with that simulation and

188

00:08:40,050 --> 00:08:39,620

having different results and different

189

00:08:41,700 --> 00:08:40,060

feelings

190

00:08:45,120 --> 00:08:41,710

about it and it wasn't until we

191

00:08:47,519 --> 00:08:45,130

basically tweaked the facade of that

192

00:08:51,900 --> 00:08:47,529

application that we suddenly got really

193

00:08:54,660 --> 00:08:51,910

good responses and data and evidence

194

00:08:59,340 --> 00:08:54,670

force I out of this other intuitive

195

00:09:02,760 --> 00:08:59,350

population so that drove drew me back to

196

00:09:06,150 --> 00:09:02,770

this annoying thing and I started to

197

00:09:08,490 --> 00:09:06,160

think well could we instead of using

198

00:09:10,920 --> 00:09:08,500

these standardized protocols could we

199

00:09:14,070 --> 00:09:10,930

give each participant their own highly

200

00:09:16,079 --> 00:09:14,080

individualized task optimized for SCI

201

00:09:19,740 --> 00:09:16,089

modality motivation and other

202

00:09:21,720 --> 00:09:19,750

personality variables and so we're

203

00:09:23,280 --> 00:09:21,730

starting to see this move away from

204

00:09:25,530 --> 00:09:23,290

certain kinds of standardization and

205

00:09:29,579 --> 00:09:25,540

other fields so an education for example

206

00:09:32,450 --> 00:09:29,589

the SATs were recently tweaked to

207

00:09:34,650 --> 00:09:32,460

account for people's social economic

208

00:09:38,400 --> 00:09:34,660

factors that might impact their scores

209

00:09:39,930 --> 00:09:38,410

and also in education the GREs were

210

00:09:43,740 --> 00:09:39,940

recently dumped from a bunch of

211

00:09:48,990 --> 00:09:43,750

universities as requirements for

212

00:09:50,820 --> 00:09:49,000

admission because initially they weren't

213

00:09:54,030 --> 00:09:50,830

really good predictors of how people

214

00:09:56,010 --> 00:09:54,040

would do in grad school and then in

215

00:09:58,980 --> 00:09:56,020

healthcare we're seeing sort of this

216

00:10:02,040 --> 00:09:58,990

interest to move away from standards of

217

00:10:04,740 --> 00:10:02,050

care to highly specialized treatments

218

00:10:06,540 --> 00:10:04,750

based on genetics and other factors so

219

00:10:08,579 --> 00:10:06,550

what would it mean could we take this

220

00:10:13,380 --> 00:10:08,589

idea of high high specialization and

221

00:10:15,630 --> 00:10:13,390

apply it to SCI research and if we were

222

00:10:17,850 --> 00:10:15,640

to do that would we would we be able to

223

00:10:20,100 --> 00:10:17,860

capture evidence for SCI in new

224

00:10:22,920 --> 00:10:20,110

populations create opportunities for

225

00:10:28,829 --> 00:10:22,930

personal SCI exploration provide new

226

00:10:31,110 --> 00:10:28,839

tools for application development so I

227

00:10:33,000 --> 00:10:31,120

came up with this project with the not

228

00:10:36,060 --> 00:10:33,010

so exciting name of the site asked

229

00:10:37,590 --> 00:10:36,070

optimization project and it's very

230

00:10:40,949 --> 00:10:37,600

simple we recruited a bunch of

231

00:10:43,769 --> 00:10:40,959

participants at the moment we're giving

232

00:10:48,420 --> 00:10:43,779

everyone the BFI ten the Machiavellian

233

00:10:50,610 --> 00:10:48,430

scale and the emotional the empathy

234

00:10:51,840 --> 00:10:50,620

potion and I'm doing this specifically

235

00:10:53,210 --> 00:10:51,850

at this time because I really want to

236

00:10:55,069 --> 00:10:53,220

leverage off of what

237

00:10:57,110 --> 00:10:55,079

learned from our intuitive's and

238

00:11:00,110 --> 00:10:57,120

operators in the other experiment and

239

00:11:01,340 --> 00:11:00,120

the threat avoidance experiment once we

240

00:11:03,710 --> 00:11:01,350

have our participants we'll break them

241

00:11:05,840 --> 00:11:03,720

randomly assign them to two groups we'll

242

00:11:09,050 --> 00:11:05,850

let them play a series of games these

243

00:11:11,329 --> 00:11:09,060

games are optimized to appeal to people

244

00:11:12,530 --> 00:11:11,339

with these certain personality I don't

245

00:11:15,290 --> 00:11:12,540

wanna use the word traits but I'm going

246

00:11:16,819 --> 00:11:15,300

to use the word traits and a

247

00:11:21,559 --> 00:11:16,829

counterbalance fashion and then we'll

248

00:11:25,220 --> 00:11:21,569

analyze the data so what are these games

249

00:11:26,840 --> 00:11:25,230

that we're talking about so we're going

250

00:11:29,090 --> 00:11:26,850

to continue to work on things like

251

00:11:32,900 --> 00:11:29,100

virtual reality and augmented reality

252

00:11:34,939 --> 00:11:32,910

games apps and other online activities

253

00:11:38,329 --> 00:11:34,949

that people can do but I have to admit

254

00:11:40,100 --> 00:11:38,339

I'm a little app doubt there's this

255

00:11:42,079 --> 00:11:40,110

really and it makes sense to use apps

256

00:11:43,699 --> 00:11:42,089

you can get a lot of online experiments

257

00:11:47,509 --> 00:11:43,709

you can get a lot of people through you

258

00:11:51,860 --> 00:11:47,519

can you get accuracy of protocol and all

259

00:11:53,840 --> 00:11:51,870

those kinds of things but I start to

260

00:11:57,050 --> 00:11:53,850

feel like we're moving away from the

261

00:11:59,540 --> 00:11:57,060

human components that for me is what SCI

262

00:12:01,699 --> 00:11:59,550

is really all about it's this human

263

00:12:03,379 --> 00:12:01,709

interaction piece that I feel is really

264

00:12:05,749 --> 00:12:03,389

missing so I started developing

265

00:12:09,199 --> 00:12:05,759

literally in the last like three or four

266

00:12:11,410 --> 00:12:09,209

weeks a series of board games that allow

267

00:12:15,319 --> 00:12:11,420

groups of people to come together and

268

00:12:16,490 --> 00:12:15,329

try to experience their own SCI and I

269

00:12:18,199 --> 00:12:16,500

think this is really interesting because

270

00:12:19,759 --> 00:12:18,209

when you get people together they're in

271

00:12:21,679 --> 00:12:19,769

their own you're in bio fields that

272

00:12:23,900 --> 00:12:21,689

you're sharing your there's the

273

00:12:27,069 --> 00:12:23,910

opportunity for spontaneous side to

274

00:12:29,749 --> 00:12:27,079

express itself and things like that so

275

00:12:31,189 --> 00:12:29,759

these games which actually brought if

276

00:12:31,699 --> 00:12:31,199

anybody's interested we talk about it

277

00:12:33,799 --> 00:12:31,709

later

278

00:12:35,720 --> 00:12:33,809

our series of flex and they're still in

279

00:12:37,689 --> 00:12:35,730

the design phases we've we literally

280

00:12:40,819 --> 00:12:37,699

just did this over the last few weeks

281

00:12:43,280 --> 00:12:40,829

they're a series of flexible components

282

00:12:45,619 --> 00:12:43,290

that allow us to test different the game

283

00:12:47,509 --> 00:12:45,629

mechanics and play styles so we can

284

00:12:48,860 --> 00:12:47,519

tweak things like the timing whether

285

00:12:51,559 --> 00:12:48,870

it's a single-player activity

286

00:12:53,809 --> 00:12:51,569

multiplayer a competitive so on and then

287

00:12:55,819 --> 00:12:53,819

we can also tweak the activities to

288

00:12:59,559 --> 00:12:55,829

whether it's generally is pee test or

289

00:13:01,819 --> 00:12:59,569

telepathy test Prieta Precog PK etc

290

00:13:02,620 --> 00:13:01,829

although I try not to get too hung up on

291

00:13:07,180 --> 00:13:02,630

that

292

00:13:10,300 --> 00:13:07,190

separations in modality so I do have

293

00:13:13,090 --> 00:13:10,310

some very very preliminary findings from

294

00:13:16,389 --> 00:13:13,100

people using these two games as they're

295

00:13:18,070 --> 00:13:16,399

still in the design phase so the first

296

00:13:20,590 --> 00:13:18,080

bit the first thing we sort of learned

297

00:13:22,870 --> 00:13:20,600

is that people with lower empathy scores

298

00:13:25,269 --> 00:13:22,880

tend to do better on competitive games

299

00:13:28,000 --> 00:13:25,279

that are Precog based and they tend to

300

00:13:32,079 --> 00:13:28,010

be really good at macro pique tests

301

00:13:33,699 --> 00:13:32,089

specifically dice rolling on the flip

302

00:13:36,160 --> 00:13:33,709

side of that we found that people with

303

00:13:37,630 --> 00:13:36,170

higher higher end a--they scores do

304

00:13:40,870 --> 00:13:37,640

better in cooperative collaborative

305

00:13:43,540 --> 00:13:40,880

games co-op games but they tend to do

306

00:13:48,340 --> 00:13:43,550

really poorly on the peak a macro pique

307

00:13:49,600 --> 00:13:48,350

tests and then we had a third so one of

308

00:13:51,820 --> 00:13:49,610

the other games we started to play with

309

00:13:55,449 --> 00:13:51,830

was this game that I kind of love but

310

00:14:00,340 --> 00:13:55,459

it's called psychic spy and your goal is

311

00:14:03,670 --> 00:14:00,350

to prevent your your opponent from

312

00:14:05,920 --> 00:14:03,680

guessing your secrets and it's sort of a

313

00:14:07,720 --> 00:14:05,930

telepathy based game and unfortunately

314

00:14:09,640 --> 00:14:07,730

no one has done well in this game it's

315

00:14:12,300 --> 00:14:09,650

all so I've been coming in a chance and

316

00:14:17,110 --> 00:14:12,310

I got to figure out why that's happening

317

00:14:18,610 --> 00:14:17,120

so again as I said all this stuff has

318

00:14:21,070 --> 00:14:18,620

sort of been happening over the last few

319

00:14:23,769 --> 00:14:21,080

weeks and sort of what I realized a

320

00:14:25,660 --> 00:14:23,779

little bit late in the game was that

321

00:14:28,030 --> 00:14:25,670

essentially what we're doing at the end

322

00:14:31,329 --> 00:14:28,040

of the day is we're taking tests and

323

00:14:33,519 --> 00:14:31,339

we're gamifying them so it probably

324

00:14:35,079 --> 00:14:33,529

would be a really good idea in addition

325

00:14:37,390 --> 00:14:35,089

to our standard psychological measures

326

00:14:39,790 --> 00:14:37,400

to have a good idea of how people

327

00:14:41,590 --> 00:14:39,800

interact with games what they like about

328

00:14:43,540 --> 00:14:41,600

games what they don't like about games

329

00:14:45,610 --> 00:14:43,550

so on and so forth and so there's some

330

00:14:48,190 --> 00:14:45,620

online measures that let us create gamer

331

00:14:50,199 --> 00:14:48,200

motivation profiles so I think in

332

00:14:51,550 --> 00:14:50,209

addition we're gonna start looking at

333

00:14:53,890 --> 00:14:51,560

these data these are just three examples

334

00:14:57,250 --> 00:14:53,900

from three different participants I'm

335

00:14:58,870 --> 00:14:57,260

over on the far my right and these are

336

00:15:00,490 --> 00:14:58,880

some volunteers that let me look at

337

00:15:02,230 --> 00:15:00,500

their data and their similarities but

338

00:15:05,560 --> 00:15:02,240

there's also a lot of differences so

339

00:15:08,530 --> 00:15:05,570

building taking these variables into

340

00:15:11,110 --> 00:15:08,540

account as we develop new games and as

341

00:15:13,019 --> 00:15:11,120

we look at the data it was probably

342

00:15:15,570 --> 00:15:13,029

going to be pretty helpful

343

00:15:17,880 --> 00:15:15,580

so speaking of data

344

00:15:18,720 --> 00:15:17,890

so the final bit is about data what

345

00:15:21,750 --> 00:15:18,730

about how we're going to think about

346

00:15:24,510 --> 00:15:21,760

analyzing these data and as we collect

347

00:15:26,400 --> 00:15:24,520

more data the relationships between all

348

00:15:30,390 --> 00:15:26,410

these different variables maybe not just

349

00:15:33,150 --> 00:15:30,400

whole readings or whole survey scores

350

00:15:35,100 --> 00:15:33,160

but maybe item-by-item scores these

351

00:15:38,850 --> 00:15:35,110

relationships may end up being kind of

352

00:15:40,920 --> 00:15:38,860

complex this may provide an opportunity

353

00:15:42,840 --> 00:15:40,930

to apply machine learning to create

354

00:15:45,270 --> 00:15:42,850

predictive models allowing us to better

355

00:15:48,180 --> 00:15:45,280

determine which tasks are better for

356

00:15:50,510 --> 00:15:48,190

which people and ultimately this may

357

00:15:53,490 --> 00:15:50,520

produce more robust experimental results

358

00:15:55,590 --> 00:15:53,500

and allow us to develop more highly

359

00:15:57,810 --> 00:15:55,600

customized applications which allow

360

00:16:01,380 --> 00:15:57,820

people to better utilize AI in their

361

00:16:04,830 --> 00:16:01,390

daily lives so just some quick

362

00:16:06,360 --> 00:16:04,840

acknowledgments first of all every thank

363

00:16:07,620 --> 00:16:06,370

you to everyone who's been supporting

364

00:16:09,390 --> 00:16:07,630

the wind bridge Institute for the past

365

00:16:11,100 --> 00:16:09,400

11 years

366

00:16:12,870 --> 00:16:11,110

it's amazing to me I get to get up every

367

00:16:15,300 --> 00:16:12,880

morning and do this work I'm humbled and

368

00:16:16,680 --> 00:16:15,310

proud of that of course dr. Julie by

369

00:16:19,040 --> 00:16:16,690

Scholl my wife

370

00:16:22,050 --> 00:16:19,050

our volunteers Ryan Michael and Katie

371

00:16:24,420 --> 00:16:22,060

Julia Moss bridge for continued

372

00:16:27,060 --> 00:16:24,430

enthusiasm around various aspects of my

373

00:16:29,730 --> 00:16:27,070

research and being just a generally

374

00:16:31,380 --> 00:16:29,740

great collaborator of course the SOC

375

00:16:33,360 --> 00:16:31,390

program committee for allowing me the

376

00:16:34,830 --> 00:16:33,370

opportunity to speak today and just

377

00:16:36,870 --> 00:16:34,840

another quick note to all the people

378

00:16:38,550 --> 00:16:36,880

working behind the scenes at this

379

00:16:41,130 --> 00:16:38,560

conference as an attendee and a speaker

380

00:16:42,510 --> 00:16:41,140

this has been really smooth I pry know

381

00:16:45,360 --> 00:16:42,520

that there's a ton of work that goes

382

00:16:48,040 --> 00:16:45,370

into this so with that I will attempt to

383

00:16:55,550 --> 00:16:48,050

answer questions thank you

384

00:17:02,310 --> 00:16:59,640

so I have two comments one is about a

385

00:17:05,670 --> 00:17:02,320

demographic that you might not be aware

386

00:17:08,640 --> 00:17:05,680

of there is evidence that there is a

387

00:17:10,980 --> 00:17:08,650

genetic variation in humans and at least

388

00:17:13,380 --> 00:17:10,990

40 other species called highly sensitive

389

00:17:14,699 --> 00:17:13,390

trait which is actually known to you

390

00:17:16,079 --> 00:17:14,709

know encompass a number of different

391

00:17:18,569 --> 00:17:16,089

brain traits now since its original

392

00:17:20,910 --> 00:17:18,579

discovery I'm one of the people who has

393

00:17:23,069 --> 00:17:20,920

this trait so that's like one in five

394

00:17:24,300 --> 00:17:23,079

people in this room and so I would think

395

00:17:27,179 --> 00:17:24,310

that there's gonna be an overlap between

396

00:17:29,160 --> 00:17:27,189

highly sensitive people and intuitive I

397

00:17:30,990 --> 00:17:29,170

mean people who don't want to you know

398

00:17:32,460 --> 00:17:31,000

run through a simulator and get vertigo

399

00:17:33,930 --> 00:17:32,470

and being bombs I would definitely in

400

00:17:36,540 --> 00:17:33,940

that category but I think that they may

401
00:17:39,450 --> 00:17:36,550
not be fully overlapping and so having

402
00:17:40,950 --> 00:17:39,460
some sort of testing for that may be

403
00:17:42,090 --> 00:17:40,960
useful that's a demographic to

404
00:17:44,700 --> 00:17:42,100
understand what they need in games

405
00:17:46,890 --> 00:17:44,710
absolutely my general goal is to make

406
00:17:49,590 --> 00:17:46,900
psy experiences available to as many

407
00:17:51,870 --> 00:17:49,600
people as possible so I try to stay away

408
00:17:54,540 --> 00:17:51,880
from things that include you know

409
00:17:56,220 --> 00:17:54,550
genetic full genetic testing or F MRIs

410
00:17:57,780 --> 00:17:56,230
or things like that but yeah you're

411
00:18:01,590 --> 00:17:57,790
absolutely correct there's far more

412
00:18:03,270 --> 00:18:01,600
subtlety in people's variations than

413
00:18:05,520 --> 00:18:03,280

what I'm specifically trying to capture

414

00:18:07,800 --> 00:18:05,530

here but we need to start somewhere and

415

00:18:10,380 --> 00:18:07,810

I already leverage I already have some

416

00:18:11,640 --> 00:18:10,390

data around certain populations and I

417

00:18:15,720 --> 00:18:11,650

just want to continue to build off that

418

00:18:18,270 --> 00:18:15,730

that's my second quick comment is sorry

419

00:18:20,160 --> 00:18:18,280

is that playing games is a different

420

00:18:22,470 --> 00:18:20,170

motivation than real life I've been able

421

00:18:25,020 --> 00:18:22,480

to create extreme things to happen in

422

00:18:26,850 --> 00:18:25,030

real life like causing a u-haul truck

423

00:18:29,670 --> 00:18:26,860

that had run out of gas carrying several

424

00:18:30,810 --> 00:18:29,680

tons to go for about five extra miles to

425

00:18:32,700 --> 00:18:30,820

get to the grass station when it was

426

00:18:34,080 --> 00:18:32,710

definitely empty and it literally

427

00:18:35,100 --> 00:18:34,090

stalled the moment we pulled in I'm not

428

00:18:36,990 --> 00:18:35,110

gonna be able pull that off in a game

429

00:18:39,000 --> 00:18:37,000

there's just not that motivation so it

430

00:18:40,230 --> 00:18:39,010

might be useful to consider the

431

00:18:41,670 --> 00:18:40,240

difference in motivation you're

432

00:18:44,010 --> 00:18:41,680

absolutely correct and as a highly

433

00:18:46,350 --> 00:18:44,020

sensitive person you know that you have

434

00:18:49,440 --> 00:18:46,360

that ability what I'm trying to do is

435

00:18:51,930 --> 00:18:49,450

sort of use this as a gateway drug to

436

00:18:53,490 --> 00:18:51,940

give people some confidence that they

437

00:18:55,020 --> 00:18:53,500

can experience SCI on their own because

438

00:18:57,030 --> 00:18:55,030

I run into a lot of people that are like

439

00:18:59,340 --> 00:18:57,040

I'm a psychic brick I can't do this

440

00:19:02,040 --> 00:18:59,350

stuff guess what with the right set and

441

00:19:04,290 --> 00:19:02,050

setting and some encouragement from

442

00:19:05,600 --> 00:19:04,300

people around you you may actually

443

00:19:09,270 --> 00:19:05,610

produce data that's

444

00:19:11,640 --> 00:19:09,280

conducive but thank you mark my question

445

00:19:14,400 --> 00:19:11,650

is actually similar to hers did you take

446

00:19:15,660 --> 00:19:14,410

like age and sex into account I didn't

447

00:19:19,770 --> 00:19:15,670

see where maybe you'd done that if not

448

00:19:22,500 --> 00:19:19,780

yeah yeah we're yeah my son would love

449

00:19:24,930 --> 00:19:22,510

Mortal Kombat me you'd lose me at Mario

450

00:19:26,460 --> 00:19:24,940

Brothers right but but we also have so

451
00:19:28,350 --> 00:19:26,470
for example one of the simulations were

452
00:19:30,180 --> 00:19:28,360
working with is a financial investment

453
00:19:33,600 --> 00:19:30,190
one but that might be more appealing to

454
00:19:35,280 --> 00:19:33,610
you or a research yeah I don't know so

455
00:19:37,800 --> 00:19:35,290
you know so again it's all about

456
00:19:39,780 --> 00:19:37,810
understanding people's specific

457
00:19:41,760 --> 00:19:39,790
motivations I was dealing with the

458
00:19:44,250 --> 00:19:41,770
specific motivations of the population I

459
00:19:46,740 --> 00:19:44,260
had in hand but the broader spectrum of

460
00:19:48,570 --> 00:19:46,750
this is to really dig into the things

461
00:19:54,560 --> 00:19:48,580
that are exciting about people and

462
00:20:05,550 --> 00:20:01,680
forty seven quick comments for you no no

463
00:20:06,960 --> 00:20:05,560

I was joking one really cool thank you

464

00:20:09,990 --> 00:20:06,970

for presenting this oh thank you very

465

00:20:13,070 --> 00:20:10,000

much appreciate that too I particularly

466

00:20:16,650 --> 00:20:13,080

like the message that you're sending and

467

00:20:19,650 --> 00:20:16,660

that it's not all about some kind of

468

00:20:21,570 --> 00:20:19,660

pre-established categories it's going to

469

00:20:22,980 --> 00:20:21,580

be very easy for people to sort of

470

00:20:24,840 --> 00:20:22,990

decide well I can't do this because I

471

00:20:26,820 --> 00:20:24,850

don't have this particular gene or I

472

00:20:28,230 --> 00:20:26,830

don't have whatever and not recognize

473

00:20:31,440 --> 00:20:28,240

that that may be a small piece in a much

474

00:20:33,770 --> 00:20:31,450

larger puzzle that really dictates us so

475

00:20:36,330 --> 00:20:33,780

again kudos I really love the message

476

00:20:38,490 --> 00:20:36,340

and then the third which was actually

477

00:20:41,460 --> 00:20:38,500

the reason I got up here was just a

478

00:20:46,380 --> 00:20:41,470

quick observation that the one game that

479

00:20:48,150 --> 00:20:46,390

had no results was founded on greed no

480

00:20:50,790 --> 00:20:48,160

it's absolutely true but greed is

481

00:20:53,610 --> 00:20:50,800

actually a powerful powerful motivator

482

00:20:56,040 --> 00:20:53,620

for some people yeah maybe just now for

483

00:20:57,660 --> 00:20:56,050

my particular population but but but it

484

00:21:01,170 --> 00:20:57,670

there are a lot of powerful motivators

485

00:21:04,200 --> 00:21:01,180

and it may be that greed is one that

486

00:21:05,850 --> 00:21:04,210

deliberately might hinder some of these

487

00:21:08,130 --> 00:21:05,860

things in comparison to others that's a

488

00:21:08,850 --> 00:21:08,140

really good point thank you very much hi

489

00:21:11,430 --> 00:21:08,860

York

490

00:21:11,830 --> 00:21:11,440

hello I'm glad I already have your

491

00:21:14,680 --> 00:21:11,840

comment

492

00:21:17,380 --> 00:21:14,690

information because I love what you're

493

00:21:19,149 --> 00:21:17,390

doing with the games and you can expect

494

00:21:22,390 --> 00:21:19,159

some communications from me in the near

495

00:21:25,360 --> 00:21:22,400

future but for right now I just wanted

496

00:21:29,159 --> 00:21:25,370

to know given the emphasis or given the

497

00:21:33,190 --> 00:21:29,169

apparent effect of empathy and

498

00:21:35,110 --> 00:21:33,200

collaborative personality on sihit

499

00:21:37,630 --> 00:21:35,120

versus I miss I was a little bit

500

00:21:41,110 --> 00:21:37,640

surprised that there seemed to be a

501
00:21:43,060 --> 00:21:41,120
recent genre of games that was missing

502
00:21:45,810 --> 00:21:43,070
as far as I could tell from the stuff

503
00:21:48,669 --> 00:21:45,820
you'd been working on which is fully

504
00:21:50,620 --> 00:21:48,679
competitive games cooperative games

505
00:21:52,930 --> 00:21:50,630
where all of the players have to work

506
00:21:56,200 --> 00:21:52,940
together to beat a challenging board and

507
00:21:58,419 --> 00:21:56,210
they either all lose or all win we do

508
00:21:59,830 --> 00:21:58,429
have a model that does that clearly I

509
00:22:01,899 --> 00:21:59,840
couldn't talk about it there are there

510
00:22:03,789 --> 00:22:01,909
are literally 14 different variations

511
00:22:05,769 --> 00:22:03,799
these games currently and I was only

512
00:22:08,230 --> 00:22:05,779
able to show a few but yes fully

513
00:22:10,630 --> 00:22:08,240

collaborative against the game is one of

514

00:22:11,610 --> 00:22:10,640

the models we're looking at hi Julie oh

515

00:22:15,130 --> 00:22:11,620

hi mark

516

00:22:16,750 --> 00:22:15,140

did great was awesome um two things one

517

00:22:18,310 --> 00:22:16,760

thanks for saying kind things about me

518

00:22:21,909 --> 00:22:18,320

but also I'm gonna say some kind things

519

00:22:23,110 --> 00:22:21,919

about you publicly which Institute as

520

00:22:26,950 --> 00:22:23,120

far as I can tell is the most creative

521

00:22:29,320 --> 00:22:26,960

and and productive organization doing

522

00:22:30,970 --> 00:22:29,330

this kind of work it's amazing so thank

523

00:22:32,799 --> 00:22:30,980

you for that - I just want to support

524

00:22:36,580 --> 00:22:32,809

you in this looking at this peak a

525

00:22:38,200 --> 00:22:36,590

Precog negative correlation because I'm

526

00:22:39,610 --> 00:22:38,210

finding that - and I think that's really

527

00:22:43,930 --> 00:22:39,620

interesting and it speaks to sort of a

528

00:22:46,750 --> 00:22:43,940

size sensory sigh motor sort of skillset

529

00:22:51,190 --> 00:22:46,760

that seems to be mutually I don't know

530

00:22:53,769 --> 00:22:51,200

balanced Thank You Julia oh right thank

531

00:22:56,049 --> 00:22:53,779

you over the years I worked as a lot of

532

00:22:59,440 --> 00:22:56,059

people some that have reasonable talent

533

00:23:03,250 --> 00:22:59,450

at the start and others that don't and

534

00:23:06,250 --> 00:23:03,260

an informal protocol I found that if

535

00:23:09,519 --> 00:23:06,260

those that have good talent just simply

536

00:23:12,039 --> 00:23:09,529

sit back and focus on the intention of

537

00:23:14,950 --> 00:23:12,049

the one that's not a good performer to

538

00:23:17,200 --> 00:23:14,960

do well on the next round and just wish

539

00:23:21,220 --> 00:23:17,210

or hope or intend that person to do well

540

00:23:23,379 --> 00:23:21,230

he or she will so it's like a transfer

541

00:23:26,199 --> 00:23:23,389

temporarily maybe of

542

00:23:28,149 --> 00:23:26,209

side talent and in some instances it's

543

00:23:30,069 --> 00:23:28,159

actually lingered more than just simply

544

00:23:31,629 --> 00:23:30,079

for that experimental period I wonder if

545

00:23:32,709 --> 00:23:31,639

you've had that kind of experience uh

546

00:23:34,779 --> 00:23:32,719

you know I think that's fascinating

547

00:23:36,489 --> 00:23:34,789

actually no I haven't really thought

548

00:23:39,999 --> 00:23:36,499

about that but it makes total sense

549

00:23:42,729 --> 00:23:40,009

have you published this unfortunately no

550

00:23:44,829 --> 00:23:42,739

but I have written about it and here and

551

00:23:47,049 --> 00:23:44,839

there in pieces okay that's a