1
00:00:04,950 --> 00:00:02,790
it so he goes back he does the third

2
00:00:06,470 --> 00:00:04,960
series d here and he's back on the

3
00:00:09,509 --> 00:00:06,480
bandwagon

4
00:00:11,749 --> 00:00:09,519
uh here are the various combinations now

5
00:00:14,629 --> 00:00:11,759
what happened in series d is not a

6
00:00:16,310 --> 00:00:14,639
trivial issue here

7
00:00:17,269 --> 00:00:16,320
we'll talk about that again in just a

8
00:00:19,990 --> 00:00:17,279
moment

9
00:00:21,269 --> 00:00:20,000
if you want to have another index on

10
00:00:23,910 --> 00:00:21,279
this thing

11
00:00:25,590 --> 00:00:23,920
let me show you what happens if you do

12
00:00:26,550 --> 00:00:25,600
the individual

13
00:00:29,509 --> 00:00:26,560

heist

14
00:00:31,349 --> 00:00:29,519
distribution versus the individual low

15
00:00:33,190 --> 00:00:31,359
distribution

16
00:00:35,350 --> 00:00:33,200
up here is the time of flight of the

17
00:00:38,389 --> 00:00:35,360
robot for all of the long intention

18
00:00:40,470 --> 00:00:38,399
trials look at that distribution of

19
00:00:43,270 --> 00:00:40,480
measurables dragged way out to high

20
00:00:44,950 --> 00:00:43,280
numbers reasonably flat in here at the

21
00:00:47,270 --> 00:00:44,960
intermediate numbers

22
00:00:49,190 --> 00:00:47,280
whereas the times the flight the

23
00:00:51,910 --> 00:00:49,200
shortened tension thing got a totally

24
00:00:53,830 --> 00:00:51,920
different distribution look at the major

25
00:00:54,950 --> 00:00:53,840
categorical difference between those

26
00:00:56,150 --> 00:00:54,960
efforts

27
00:00:58,389 --> 00:00:56,160
all

28
00:01:00,389 --> 00:00:58,399
done on the same piece of klutzy

29
00:01:01,670 --> 00:01:00,399
equipment okay

30
00:01:03,830 --> 00:01:01,680
now

31
00:01:05,910 --> 00:01:03,840
what do we get out of this

32
00:01:08,550 --> 00:01:05,920
well first of all

33
00:01:11,350 --> 00:01:08,560
we've seen a lot of it before

34
00:01:14,149 --> 00:01:11,360
this funny behavior of that

35
00:01:16,870 --> 00:01:14,159
second series of that operator fits

36
00:01:19,109 --> 00:01:16,880
right in with our

37
00:01:22,310 --> 00:01:19,119
immense body of data that we put into

38
00:01:24,469 --> 00:01:22,320

what we call a serial position phenomena

39
00:01:27,350 --> 00:01:24,479
where operators come into the laboratory

40
00:01:28,310 --> 00:01:27,360
they do fine on their first exposure

41
00:01:30,469 --> 00:01:28,320
they say

42
00:01:31,990 --> 00:01:30,479
i got the hang of this come back and

43
00:01:34,149 --> 00:01:32,000
they do a second one

44
00:01:37,270 --> 00:01:34,159
because valley it goes backwards okay

45
00:01:39,270 --> 00:01:37,280
and then then humility sets in we come

46
00:01:41,910 --> 00:01:39,280
back and we try again and we get back on

47
00:01:44,149 --> 00:01:41,920
the curve we've seen that many times so

48
00:01:46,149 --> 00:01:44,159
we are seeing once again

49
00:01:47,350 --> 00:01:46,159
let's get that growth back we're seeing

50
00:01:50,950 --> 00:01:47,360
once again

51
00:01:51,990 --> 00:01:50,960
a severe serial position effect

52
00:01:56,469 --> 00:01:52,000
look at the

53
00:01:59,510 --> 00:01:56,479
absolute numbers those uh z-scores

54
00:02:01,670 --> 00:01:59,520
probabilities there of the effect sizes

55
00:02:03,670 --> 00:02:01,680
are all way out there there's nothing in

56
00:02:04,630 --> 00:02:03,680
the middle here

57
00:02:10,150 --> 00:02:04,640
you do

58
00:02:13,110 --> 00:02:10,160
and you're off the off the screen

59
00:02:15,270 --> 00:02:13,120
in terms of something happening when the

60
00:02:16,949 --> 00:02:15,280
operator interacts

61
00:02:19,830 --> 00:02:16,959
with the device

62
00:02:23,270 --> 00:02:19,840
now if we penalize

63
00:02:25,589 --> 00:02:23,280

the concatenations with that

64
00:02:27,830 --> 00:02:25,599
series position reversal

65
00:02:30,949 --> 00:02:27,840
the composite scores are much less

66
00:02:34,309 --> 00:02:30,959
impressive look at all of the x plus y

67
00:02:36,869 --> 00:02:34,319
trials look at just the y trials alone

68
00:02:38,550 --> 00:02:36,879
that last block down there incidentally

69
00:02:40,550 --> 00:02:38,560
the calibrations the machine was

70
00:02:43,030 --> 00:02:40,560
continuing to calibrate

71
00:02:44,710 --> 00:02:43,040
perfectly well while all of this was

72
00:02:47,990 --> 00:02:44,720
going on

73
00:02:50,070 --> 00:02:48,000
look though as i say at the end

74
00:02:51,830 --> 00:02:50,080
at the distribution of those things

75
00:02:53,910 --> 00:02:51,840
they're all out here

76
00:02:56,710 --> 00:02:53,920
somewhere in the

77
00:02:59,990 --> 00:02:56,720
in the vague vicinity of our arbitrary

78
00:03:01,030 --> 00:03:00,000
.05 criterion again nothing in the

79
00:03:03,670 --> 00:03:01,040
middle

80
00:03:04,790 --> 00:03:03,680
and this of course we have seen so many

81
00:03:07,030 --> 00:03:04,800
times

82
00:03:10,470 --> 00:03:07,040
how many of our data we can look at and

83
00:03:14,070 --> 00:03:10,480
say gee we got almost up to 0.05 we got

84
00:03:17,030 --> 00:03:14,080
a little bit past 0.05

85
00:03:19,190 --> 00:03:17,040
that is a magnet that attracts results

86
00:03:20,630 --> 00:03:19,200
from all of our experiments and it

87
00:03:22,070 --> 00:03:20,640
worked again

88
00:03:25,030 --> 00:03:22,080

here

89
00:03:27,589 --> 00:03:25,040
one can go on and speculate now about

90
00:03:29,509 --> 00:03:27,599
what the message to take away from this

91
00:03:32,470 --> 00:03:29,519
little experiment

92
00:03:33,430 --> 00:03:32,480
but as brenda has suggested to me to

93
00:03:37,270 --> 00:03:33,440
mention

94
00:03:41,270 --> 00:03:37,280
this program began with a simple student

95
00:03:45,190 --> 00:03:41,280
experiment back in 1978.

96
00:03:48,149 --> 00:03:45,200
okay a little reg breadboard reg

97
00:03:51,589 --> 00:03:48,159
klutzy experiment nonetheless produced

98
00:03:53,910 --> 00:03:51,599
striking results that drove us to do it

99
00:03:55,110 --> 00:03:53,920
a little better fashion for the next 30

100
00:03:58,070 --> 00:03:55,120
years

101
00:04:01,270 --> 00:03:58,080
somehow it's appropriate

102
00:04:03,030 --> 00:04:01,280
that this program ended

103
00:04:05,990 --> 00:04:03,040
with a student

104
00:04:09,030 --> 00:04:06,000
doing again a little klutzy experiment

105
00:04:11,350 --> 00:04:09,040
getting an outstanding result

106
00:04:13,670 --> 00:04:11,360
i leave those messages with you be glad

107
00:04:25,430 --> 00:04:13,680
to try to answer any questions but thank

108
00:04:29,590 --> 00:04:26,870
there is there were a series of

109
00:04:32,629 --> 00:04:29,600
experiments run by um someone named

110
00:04:34,230 --> 00:04:32,639
renee payock who the doctor in france

111
00:04:36,150 --> 00:04:34,240
back in the

112
00:04:38,469 --> 00:04:36,160
70s i think and anyway they were

113
00:04:40,390 --> 00:04:38,479

reminiscent of this but with chicks they

114
00:04:42,550 --> 00:04:40,400
were conditioned chicks

115
00:04:43,350 --> 00:04:42,560
conditioned to uh

116
00:04:44,950 --> 00:04:43,360
uh

117
00:04:49,189 --> 00:04:44,960
to

118
00:04:52,790 --> 00:04:49,199
was uh

119
00:04:55,110 --> 00:04:52,800
um driven by um a

120
00:04:57,189 --> 00:04:55,120
random event generator but it was

121
00:04:59,350 --> 00:04:57,199
actually by a taped

122
00:05:01,670 --> 00:04:59,360
uh result from a random event generated

123
00:05:03,430 --> 00:05:01,680
a run that was done in the past

124
00:05:04,469 --> 00:05:03,440
and uh

125
00:05:07,110 --> 00:05:04,479
they

126
00:05:09,350 --> 00:05:07,120
found it you know very strong uh

127
00:05:12,150 --> 00:05:09,360
significant correlation there that the

128
00:05:14,710 --> 00:05:12,160
chicks just by their intentionality of

129
00:05:18,230 --> 00:05:14,720
being attracted to the robot caused the

130
00:05:20,550 --> 00:05:18,240
robot to come to them in its random walk

131
00:05:21,430 --> 00:05:20,560
and so it's not just a human effect it's

132
00:05:23,029 --> 00:05:21,440
a

133
00:05:24,710 --> 00:05:23,039
it seems to be

134
00:05:27,189 --> 00:05:24,720
conscious intention

135
00:05:28,790 --> 00:05:27,199
from some living being not necessarily

136
00:05:30,710 --> 00:05:28,800
human and

137
00:05:31,510 --> 00:05:30,720
i read that also

138
00:05:33,670 --> 00:05:31,520

that

139
00:05:35,830 --> 00:05:33,680
this was demonstrated in a retrocausal

140
00:05:38,870 --> 00:05:35,840
way with a

141
00:05:41,430 --> 00:05:38,880
random event generator

142
00:05:42,710 --> 00:05:41,440
number sequences generated in the past

143
00:05:45,029 --> 00:05:42,720
so that meant this had to be a

144
00:05:48,469 --> 00:05:45,039
retrocausal effect so i just thought i'd

145
00:05:50,870 --> 00:05:48,479
comment on that because it relates

146
00:05:52,629 --> 00:05:50,880
was a close friend and colleague of ours

147
00:05:54,710 --> 00:05:52,639
actually we had the privilege of

148
00:05:56,550 --> 00:05:54,720
interacting with him at the time he was

149
00:06:00,150 --> 00:05:56,560
doing the experiments

150
00:06:03,350 --> 00:06:00,160
he was sponsored by a common sponsor of

151
00:06:05,189 --> 00:06:03,360
programs in this area and whatnot and

152
00:06:07,670 --> 00:06:05,199
the fairest thing to say is that he

153
00:06:08,950 --> 00:06:07,680
stimulated our interest in robotic

154
00:06:11,830 --> 00:06:08,960
experiments

155
00:06:14,230 --> 00:06:11,840
uh we patterned the original studies off

156
00:06:16,390 --> 00:06:14,240
of his work and so on so we're well

157
00:06:18,710 --> 00:06:16,400
aware of that those are great

158
00:06:19,990 --> 00:06:18,720
great events what i think you might want

159
00:06:22,550 --> 00:06:20,000
to think forward though are the

160
00:06:24,790 --> 00:06:22,560
implications here you know

161
00:06:25,990 --> 00:06:24,800
we can now go out and buy robots to

162
00:06:28,629 --> 00:06:26,000
clean our

163
00:06:29,830 --> 00:06:28,639

living room we can get robots watering

164
00:06:31,510 --> 00:06:29,840
our lawn

165
00:06:34,150 --> 00:06:31,520
we have robots

166
00:06:37,749 --> 00:06:34,160
doing sensitive things in nuclear power

167
00:06:40,790 --> 00:06:37,759
plants and so on but robotics has now

168
00:06:43,350 --> 00:06:40,800
entered in a very heavy duty way the

169
00:06:45,110 --> 00:06:43,360
medical profession there's a good chance

170
00:06:48,230 --> 00:06:45,120
that some of you here are going to wind

171
00:06:51,749 --> 00:06:48,240
up on an operating table someday with a

172
00:06:54,070 --> 00:06:51,759
little miniaturized robot running around

173
00:06:56,790 --> 00:06:54,080
inside of you in an artery repairing

174
00:06:58,870 --> 00:06:56,800
your heart valve or in your intestines

175
00:06:59,830 --> 00:06:58,880
doing some sort of colonoscopy i don't

176
00:07:02,629 --> 00:06:59,840
know

177
00:07:04,790 --> 00:07:02,639
but these robots these miniature robots

178
00:07:07,110 --> 00:07:04,800
involve random elements

179
00:07:09,749 --> 00:07:07,120
and they certainly involve

180
00:07:12,469 --> 00:07:09,759
resonance with their operators

181
00:07:15,029 --> 00:07:12,479
they certainly involve an intention

182
00:07:16,390 --> 00:07:15,039
uh maybe we ought to be taking a look

183
00:07:18,870 --> 00:07:16,400
about the

184
00:07:21,589 --> 00:07:18,880
communication between

185
00:07:23,670 --> 00:07:21,599
between physician and robot or between

186
00:07:26,790 --> 00:07:23,680
patient and robot

187
00:07:29,110 --> 00:07:26,800
going forward in this business and think

188
00:07:31,510 --> 00:07:29,120

john may even mention that

189
00:07:33,110 --> 00:07:31,520
cyloran is going to get into the

190
00:07:35,990 --> 00:07:33,120
nanorobot

191
00:07:38,230 --> 00:07:36,000
business and see if we can indeed

192
00:07:41,110 --> 00:07:38,240
in basic experiments to be sure

193
00:07:43,110 --> 00:07:41,120
demonstrate that they are vulnerable and

194
00:07:45,990 --> 00:07:43,120
maybe we can even make better use of

195
00:07:50,390 --> 00:07:46,000
them if we implement this

196
00:07:55,510 --> 00:07:53,589
thank you bob there is one more

197
00:08:00,230 --> 00:07:55,520
and this will we only have time for one

198
00:08:03,589 --> 00:08:01,029
in

199
00:08:05,110 --> 00:08:03,599
9 11 2001 i heard there was a random

200
00:08:07,350 --> 00:08:05,120
number experiment

201
00:08:09,830 --> 00:08:07,360
that happened showing

202
00:08:12,950 --> 00:08:09,840
random number changes right before

203
00:08:14,469 --> 00:08:12,960
9 11 2001 2001. are you aware of that

204
00:08:16,869 --> 00:08:14,479
experiment were you part of you're about

205
00:08:17,909 --> 00:08:16,879
to hear from it i hear about it from

206
00:08:20,150 --> 00:08:17,919
roger

207
00:08:21,990 --> 00:08:20,160
in his talk we are certainly all aware