

1  
00:00:00,000 --> 00:00:32,951

2  
00:00:32,951 --> 00:00:39,010  
Well, now he told me  
that the psychiatrists

3  
00:00:39,010 --> 00:00:40,260  
didn't seem to oppose this.

4  
00:00:40,260 --> 00:00:46,300  
Was there anybody vocal  
who opposed these programs?

5  
00:00:46,300 --> 00:00:49,960  
There was one person,  
and unfortunately I

6  
00:00:49,960 --> 00:00:54,010  
forgot his name, who, not  
vocal, but at least he

7  
00:00:54,010 --> 00:00:55,020  
said he was against it.

8  
00:00:55,020 --> 00:01:02,830  
Not very loud, but not in a  
very loud voice, but at least

9  
00:01:02,830 --> 00:01:04,860  
within his colleagues.

10  
00:01:04,860 --> 00:01:08,230  
Within the scientific  
community generally?

11  
00:01:08,230 --> 00:01:09,600  
No, not generally.

12  
00:01:09,600 --> 00:01:14,840  
Just within his close

group of people around him.

13  
00:01:14,840 --> 00:01:16,900  
But what I meant to  
ask was, so within

14  
00:01:16,900 --> 00:01:18,250  
the scientific community--

15  
00:01:18,250 --> 00:01:22,390  
I don't just mean  
psychiatrists--

16  
00:01:22,390 --> 00:01:25,630  
was there generally  
no opposition?

17  
00:01:25,630 --> 00:01:27,050  
No, absolutely none.

18  
00:01:27,050 --> 00:01:28,210  
Just none.

19  
00:01:28,210 --> 00:01:29,500  
Zero.

20  
00:01:29,500 --> 00:01:32,110  
Could you say that  
in a full sentence?

21  
00:01:32,110 --> 00:01:33,920  
No.

22  
00:01:33,920 --> 00:01:38,470  
One may wonder whether, within  
the scientific community,

23  
00:01:38,470 --> 00:01:42,540  
there was an opposition  
against the euthanasia program,

24  
00:01:42,540 --> 00:01:45,890

and as far as I know,  
there was absolutely none.

25  
00:01:45,890 --> 00:01:49,600  
There were some private persons,  
of course, private people

26  
00:01:49,600 --> 00:01:53,740  
who tried to save  
their relatives

27  
00:01:53,740 --> 00:01:56,920  
and who fought for  
their relatives.

28  
00:01:56,920 --> 00:02:02,200  
And that was Bishop Galen  
who gave his famous speech

29  
00:02:02,200 --> 00:02:05,800  
condemning the  
murder of the insane.

30  
00:02:05,800 --> 00:02:09,699  
But these were just--

31  
00:02:09,699 --> 00:02:11,950  
yeah, this was Galen  
on the one hand.

32  
00:02:11,950 --> 00:02:14,980

33  
00:02:14,980 --> 00:02:17,830  
But this was all  
still very private.

34  
00:02:17,830 --> 00:02:20,530  
Still pretty on the  
private level, yeah.

35  
00:02:20,530 --> 00:02:24,070

36  
00:02:24,070 --> 00:02:29,440  
In terms of some of  
the research that

37  
00:02:29,440 --> 00:02:31,780  
was being done during  
this time, I kind of

38  
00:02:31,780 --> 00:02:37,660  
want to get to whether this  
was genuine scientific research

39  
00:02:37,660 --> 00:02:39,880  
or quote unquote,  
"pseudoscience."

40  
00:02:39,880 --> 00:02:44,710  
For example, the  
genetic research that

41  
00:02:44,710 --> 00:02:47,140  
was being done in  
Germany at that time.

42  
00:02:47,140 --> 00:02:50,950

43  
00:02:50,950 --> 00:02:56,050  
Were they genuinely  
pursuing scientific goals?

44  
00:02:56,050 --> 00:03:03,375  
Or was it more, as I  
said, pseudoscience,

45  
00:03:03,375 --> 00:03:04,870  
without any real--

46  
00:03:04,870 --> 00:03:11,400  
I think to call it  
pseudoscience is much too nice.

47

00:03:11,400 --> 00:03:15,300

Unfortunately, it was  
more than pseudoscience.

48

00:03:15,300 --> 00:03:17,130

It was not pseudoscience.

49

00:03:17,130 --> 00:03:19,710

I come back to cases  
of pseudoscience.

50

00:03:19,710 --> 00:03:23,470

But in general, I think it  
was just ordinary science.

51

00:03:23,470 --> 00:03:26,070

For example, just to  
give you an example,

52

00:03:26,070 --> 00:03:33,120

there was a brain  
anatomist, [PERSONAL NAME],,

53

00:03:33,120 --> 00:03:37,800

who got approached  
by the people who

54

00:03:37,800 --> 00:03:42,600

worked in one of these  
extermination places

55

00:03:42,600 --> 00:03:44,860

near an insane asylum.

56

00:03:44,860 --> 00:03:46,830

And so he got approached  
by these people.

57

00:03:46,830 --> 00:03:49,350

And they asked him,  
now, we are just

58

00:03:49,350 --> 00:03:51,360  
killing all of these people.

59  
00:03:51,360 --> 00:03:53,760  
Are you interested  
in the brains?

60  
00:03:53,760 --> 00:03:56,340  
And he said, of course I'm  
interested in the brains.

61  
00:03:56,340 --> 00:03:59,838  
And there's an interesting--

62  
00:03:59,838 --> 00:04:07,200  
as this conversation is  
recalled, that he just was

63  
00:04:07,200 --> 00:04:08,880  
delighted to get these brains.

64  
00:04:08,880 --> 00:04:11,400  
And he got about more  
than 600, in fact.

65  
00:04:11,400 --> 00:04:14,370  
And in fact, he went  
once to the place

66  
00:04:14,370 --> 00:04:20,010  
and he was present when the  
children, the sick children,

67  
00:04:20,010 --> 00:04:23,580  
were killed with carbon  
monoxide in the gas chamber.

68  
00:04:23,580 --> 00:04:25,080  
He was present.

69  
00:04:25,080 --> 00:04:27,540  
And after they were  
dead, he took them out.

70  
00:04:27,540 --> 00:04:30,030  
And he took the brains  
out, their brains out,

71  
00:04:30,030 --> 00:04:33,150  
and he showed these other  
guys how to do that.

72  
00:04:33,150 --> 00:04:37,830  
And I'm not a brain  
anatomist, but I'm

73  
00:04:37,830 --> 00:04:40,500  
told that about  
35 papers resulted

74  
00:04:40,500 --> 00:04:42,540  
from this type of research.

75  
00:04:42,540 --> 00:04:45,000  
And they are all solid.

76  
00:04:45,000 --> 00:04:50,970  
And nothing is kind of wrong  
or bad or something like this.

77  
00:04:50,970 --> 00:04:55,650  
It is solid, possibly  
boring, but solid, boring,

78  
00:04:55,650 --> 00:04:59,300  
normal science as usually.

79  
00:04:59,300 --> 00:05:00,990  
But this is this case.

80  
00:05:00,990 --> 00:05:04,920  
So either you have a case  
where the scientist in fact

81  
00:05:04,920 --> 00:05:07,020

went himself to the  
extermination place,

82  
00:05:07,020 --> 00:05:08,850  
was present when the  
children were killed,

83  
00:05:08,850 --> 00:05:10,680  
but he was still  
doing solid science.

84  
00:05:10,680 --> 00:05:12,060  
No pseudoscience.

85  
00:05:12,060 --> 00:05:13,080  
Solid, yeah.

86  
00:05:13,080 --> 00:05:16,030  
Well, what was the  
science he was conducting?

87  
00:05:16,030 --> 00:05:17,820  
What kind of research  
was he doing?

88  
00:05:17,820 --> 00:05:18,390  
Oh, yeah.

89  
00:05:18,390 --> 00:05:25,320  
He was interested in the brain  
anomalies of various brain

90  
00:05:25,320 --> 00:05:26,010  
diseases.

91  
00:05:26,010 --> 00:05:29,570  
And then, obviously, if you have  
a very rare brain disease which

92  
00:05:29,570 --> 00:05:33,870  
occurs only, I don't  
know, one in 200,000



93

00:05:33,870 --> 00:05:37,860

and you find one particular  
one and you can get a brain,

94

00:05:37,860 --> 00:05:39,450

you get a very fresh brain also.

95

00:05:39,450 --> 00:05:45,930

You don't have to wait for  
days after the person died.

96

00:05:45,930 --> 00:05:48,520

You get it two hours,  
half an hour later.

97

00:05:48,520 --> 00:05:49,470

Yeah.

98

00:05:49,470 --> 00:05:54,600

Yeah, so this is normal science.

99

00:05:54,600 --> 00:05:55,560

Is that?

100

00:05:55,560 --> 00:05:56,060

Yeah.

101

00:05:56,060 --> 00:05:56,727

I can hear that.

102

00:05:56,727 --> 00:05:58,290

Can you go out and see--

103

00:05:58,290 --> 00:05:59,470

It's not discovering much.

104

00:05:59,470 --> 00:06:04,020

It's just ordinary  
science, ordinary science.

105

00:06:04,020 --> 00:06:05,950

There was nothing  
breathtaking there.

106  
00:06:05,950 --> 00:06:08,845  
But ordinary science  
isn't breathtaking.

107  
00:06:08,845 --> 00:06:10,190  
It's just normal, yeah?

108  
00:06:10,190 --> 00:06:13,570

109  
00:06:13,570 --> 00:06:20,330  
But I guess someone like  
[PERSONAL NAME] thought perhaps

110  
00:06:20,330 --> 00:06:22,930  
he might make important  
discoveries by doing this.

111  
00:06:22,930 --> 00:06:24,880  
Yeah, but this is  
everybody thinking that.

112  
00:06:24,880 --> 00:06:30,010  
I think this is not so--

113  
00:06:30,010 --> 00:06:31,810  
this is one and then  
you have another.

114  
00:06:31,810 --> 00:06:36,910  
And you have a guy  
named Rascher in Dachau

115  
00:06:36,910 --> 00:06:39,220  
who operated in Dachau.

116  
00:06:39,220 --> 00:06:48,070  
And there are things I think  
are pretty different because he

117

00:06:48,070 --> 00:06:53,350  
cheated already in his thesis.

118

00:06:53,350 --> 00:06:56,560  
His thesis is cheating.

119

00:06:56,560 --> 00:07:00,040  
The data cannot be  
reproduced from his thesis.

120

00:07:00,040 --> 00:07:02,710  
So obviously there I  
would say, this guy I

121

00:07:02,710 --> 00:07:05,890  
wouldn't trust anything.

122

00:07:05,890 --> 00:07:08,800  
And of course, under  
such conditions,

123

00:07:08,800 --> 00:07:14,710  
such maniacs may be more  
pushy and getting more

124

00:07:14,710 --> 00:07:18,580  
to the front then  
more slower guys.

125

00:07:18,580 --> 00:07:22,430  
So Rascher is just  
on the other side.

126

00:07:22,430 --> 00:07:26,310  
And then there's  
one guy, one man,

127

00:07:26,310 --> 00:07:30,520  
von Verschuer who was kind  
of an interesting in-between.

128

00:07:30,520 --> 00:07:34,420

He did some interesting  
twin research which

129  
00:07:34,420 --> 00:07:36,580  
was generally accepted as good.

130  
00:07:36,580 --> 00:07:40,510  
Was paid by the Rockefeller  
Foundation between '32 and '35.

131  
00:07:40,510 --> 00:07:43,360

132  
00:07:43,360 --> 00:07:48,290  
He was invited to speak in front  
of the Royal Society in England

133  
00:07:48,290 --> 00:07:49,960  
in '39.

134  
00:07:49,960 --> 00:07:53,540  
And he gave a talk there which  
was published in '40 still,

135  
00:07:53,540 --> 00:07:58,300  
in the proceedings of the  
Royal Society during the war.

136  
00:07:58,300 --> 00:08:01,600  
And so he was pretty  
goddamn good, yeah.

137  
00:08:01,600 --> 00:08:06,220  
But then he had this  
postdoc, Mengele,

138  
00:08:06,220 --> 00:08:13,720  
who started his own  
phantasmagoric research

139  
00:08:13,720 --> 00:08:15,520  
in Auschwitz.

140

00:08:15,520 --> 00:08:22,630

And there, things went  
totally overboard indeed.

141

00:08:22,630 --> 00:08:27,783

So I think it's a mixture  
between solid and fake science.

142

00:08:27,783 --> 00:08:29,450

And the fake science,  
the pseudoscience,

143

00:08:29,450 --> 00:08:36,630

is probably more frequent  
there than in peacetime.

144

00:08:36,630 --> 00:08:38,500

That I would say.

145

00:08:38,500 --> 00:08:40,690

But it's not exclusive there.

146

00:08:40,690 --> 00:08:42,700

It's not exclusive.

147

00:08:42,700 --> 00:08:46,840

When you mention  
Verschuer, his work,

148

00:08:46,840 --> 00:08:50,560

which was well-received  
and funded by Rockefeller,

149

00:08:50,560 --> 00:08:58,570

was he using subjects  
against their will?

150

00:08:58,570 --> 00:09:02,500

Was he part of a program  
that essentially--

151

00:09:02,500 --> 00:09:05,050

I mean, we know  
Mengele in Auschwitz,

152  
00:09:05,050 --> 00:09:08,410  
clearly he has captured  
people against his will.

153  
00:09:08,410 --> 00:09:11,470  
Was Verschuer doing  
the same kind of?

154  
00:09:11,470 --> 00:09:15,610  
Some work that was done on  
Gypsies, which were certainly

155  
00:09:15,610 --> 00:09:21,040  
not free at time, in '42, '43,  
before they came to Auschwitz.

156  
00:09:21,040 --> 00:09:23,740  
There was a big camp in Berlin.

157  
00:09:23,740 --> 00:09:30,040  
And some research which he had  
also-- where a postdoc of his

158  
00:09:30,040 --> 00:09:32,330  
was involved with those people.

159  
00:09:32,330 --> 00:09:37,240  
And this was certainly  
not their free will.

160  
00:09:37,240 --> 00:09:39,430  
So I would say  
there was a mixture.

161  
00:09:39,430 --> 00:09:47,260  
There was-- this began, that  
he had people who we analyzed

162  
00:09:47,260 --> 00:09:49,450  
who were not asking for it.

163  
00:09:49,450 --> 00:09:52,780

164  
00:09:52,780 --> 00:09:57,340  
And can you discuss also  
some of the genetic research

165  
00:09:57,340 --> 00:10:00,100  
at the Kaiser Wilhelm  
Institute and the work

166  
00:10:00,100 --> 00:10:01,840  
of Baur and Fischer, Lenz?

167  
00:10:01,840 --> 00:10:04,300  
What kind of work  
were they doing?

168  
00:10:04,300 --> 00:10:07,190  
Verschuer, too, was at the  
Kaiser Wilhelm Institute,

169  
00:10:07,190 --> 00:10:07,690  
by the way.

170  
00:10:07,690 --> 00:10:10,670  
He was a successor of Fischer.

171  
00:10:10,670 --> 00:10:15,970  
Fischer kind of  
retired in '42, '43.

172  
00:10:15,970 --> 00:10:22,090  
And then Verschuer  
was his successor.

173  
00:10:22,090 --> 00:10:28,040  
And Baur he was also at a  
different Kaiser Wilhelm

174  
00:10:28,040 --> 00:10:32,830

Institute for plant research.

175

00:10:32,830 --> 00:10:35,890

And he is an interesting  
case, you know.

176

00:10:35,890 --> 00:10:38,560

He was a top scientist.

177

00:10:38,560 --> 00:10:42,940

He did excellent,  
excellent plant genetics.

178

00:10:42,940 --> 00:10:45,850

179

00:10:45,850 --> 00:10:49,870

But he had the  
idea that he would

180

00:10:49,870 --> 00:10:55,120

become the Secretary of  
Agriculture of the first Hitler

181

00:10:55,120 --> 00:10:56,650

government.

182

00:10:56,650 --> 00:10:58,120

Which he did not.

183

00:10:58,120 --> 00:10:59,960

Which didn't happen.

184

00:10:59,960 --> 00:11:05,810

And so then he had, in his group  
he had some, in his institute,

185

00:11:05,810 --> 00:11:10,390

he had some SS, young SS  
guys, who were really pushing

186

00:11:10,390 --> 00:11:12,550



the future and so on and so on.

187

00:11:12,550 --> 00:11:18,220

And so he got so disconcerted  
that he got a heart attack

188

00:11:18,220 --> 00:11:21,080

and died in December of '33.

189

00:11:21,080 --> 00:11:24,940

So we don't really know what  
he would have done or had done.

190

00:11:24,940 --> 00:11:27,760

He just died too early.

191

00:11:27,760 --> 00:11:33,100

Lenz, he was a subdirector  
of the institute of Fischer,

192

00:11:33,100 --> 00:11:36,040

in the same institute.

193

00:11:36,040 --> 00:11:40,160

And he was, I would say, he  
was loyal to the last end.

194

00:11:40,160 --> 00:11:41,620

He didn't do any experiments.

195

00:11:41,620 --> 00:11:45,580

He was kind of just  
doing theoretical work.

196

00:11:45,580 --> 00:11:51,790

But he certainly-- and in  
fact, he very courageously, so

197

00:11:51,790 --> 00:11:54,070

to speak-- there were  
some guys who did

198

00:11:54,070 --> 00:11:57,400  
some really absurd genetics.

199  
00:11:57,400 --> 00:12:00,850  
And he attacked them  
from a solid point

200  
00:12:00,850 --> 00:12:01,990  
of view of solid science.

201  
00:12:01,990 --> 00:12:06,130

202  
00:12:06,130 --> 00:12:09,280  
But again, after the  
war you may think

203  
00:12:09,280 --> 00:12:13,180  
that he would have sat  
down and just reconsidered

204  
00:12:13,180 --> 00:12:16,150  
what the hell are we doing?

205  
00:12:16,150 --> 00:12:16,840  
Nothing.

206  
00:12:16,840 --> 00:12:18,250  
Absolutely nothing.

207  
00:12:18,250 --> 00:12:20,650  
Two lines or  
something like this.

208  
00:12:20,650 --> 00:12:25,390  
But not a page on this issue.

209  
00:12:25,390 --> 00:12:28,856  
And this I find just incredible.

210  
00:12:28,856 --> 00:12:33,423  
Well, what work were they doing

there at the Kaiser Wilhelm

211  
00:12:33,423 --> 00:12:34,840  
Institute?

212  
00:12:34,840 --> 00:12:41,980  
Yeah, what work-- for  
example, Verschuer

213  
00:12:41,980 --> 00:12:45,130  
was there at the Kaiser  
Wilhelm Institute,

214  
00:12:45,130 --> 00:12:52,030  
at the Fischer Institute as  
a group leader between '28

215  
00:12:52,030 --> 00:12:55,330  
and '35 or something like this.

216  
00:12:55,330 --> 00:12:57,850  
So he did his twin work.

217  
00:12:57,850 --> 00:13:04,700  
Then there were some people  
who worked on blood groups.

218  
00:13:04,700 --> 00:13:05,680  
Solid work.

219  
00:13:05,680 --> 00:13:09,770  
For example, also a  
postdoc of Verschuer

220  
00:13:09,770 --> 00:13:12,670  
kind of showed that you  
can use blood groups

221  
00:13:12,670 --> 00:13:16,570  
to objectively differentiate  
between monozygotic and

222

00:13:16,570 --> 00:13:17,980  
dizygotic twins.

223  
00:13:17,980 --> 00:13:20,590  
Either identical twins  
and non-identical twins,

224  
00:13:20,590 --> 00:13:22,752  
you can really use very well.

225  
00:13:22,752 --> 00:13:26,290  
And it's all solid  
science, yeah?

226  
00:13:26,290 --> 00:13:31,600  
There was one guy who was  
working on Alzheimer's disease.

227  
00:13:31,600 --> 00:13:33,220  
Solid, yeah?

228  
00:13:33,220 --> 00:13:39,100  
So it was a mixture between  
solid stuff and then

229  
00:13:39,100 --> 00:13:42,460  
some other non-solid stuff.

230  
00:13:42,460 --> 00:13:44,530  
What was some of the  
non-solid stuff that

231  
00:13:44,530 --> 00:13:46,000  
was going on there at the time?

232  
00:13:46,000 --> 00:13:51,100

233  
00:13:51,100 --> 00:13:55,780  
Yeah, I would say all  
the ideological one,

234

00:13:55,780 --> 00:13:57,160  
which is no real science.

235  
00:13:57,160 --> 00:14:03,070  
Where they were writing  
articles about how wonderful

236  
00:14:03,070 --> 00:14:07,030  
the Nazi government was now  
pushing biological thinking

237  
00:14:07,030 --> 00:14:09,250  
by pushing the race thing.

238  
00:14:09,250 --> 00:14:11,580  
And just talking about  
race and all that.

239  
00:14:11,580 --> 00:14:17,320  
This was this was pretty,  
pretty, pretty weak.

240  
00:14:17,320 --> 00:14:19,150  
Certainly pretty weak.

241  
00:14:19,150 --> 00:14:21,340  
And this was going  
on there at the--

242  
00:14:21,340 --> 00:14:24,130  
And this was going on there  
all the time, obviously.

243  
00:14:24,130 --> 00:14:29,815  
They were all the time writing  
and publishing such articles.

244  
00:14:29,815 --> 00:14:36,550

245  
00:14:36,550 --> 00:14:41,270  
What was the relationship or  
the evolution, if you will,

246  
00:14:41,270 --> 00:14:45,155  
between the euthanasia program  
and the final solution?

247  
00:14:45,155 --> 00:14:52,170

248  
00:14:52,170 --> 00:14:53,500  
It was a mechanical one.

249  
00:14:53,500 --> 00:14:58,960  
That is, the people who  
were experts and specialists

250  
00:14:58,960 --> 00:15:04,570  
in killing patients during  
the euthanasia programs

251  
00:15:04,570 --> 00:15:07,240  
became then later  
the first killing

252  
00:15:07,240 --> 00:15:11,800  
units in Treblinka and Sobibor.

253  
00:15:11,800 --> 00:15:18,940  
So it was just the people  
who did the euthanasia

254  
00:15:18,940 --> 00:15:23,950  
thing, the active, they  
kind of got their money paid

255  
00:15:23,950 --> 00:15:25,720  
from a certain institution.

256  
00:15:25,720 --> 00:15:27,490  
Which then later  
paid them anyhow

257  
00:15:27,490 --> 00:15:32,940

when they became then the  
first people who started

258  
00:15:32,940 --> 00:15:37,210  
the massive killing with gas.

259  
00:15:37,210 --> 00:15:39,380  
What institution was that?

260  
00:15:39,380 --> 00:15:51,180  
Oh, this was Tierstrasse Vier,  
kind of a subset of Hitler's--

261  
00:15:51,180 --> 00:15:53,500  
of the central  
government of Hitler's.

262  
00:15:53,500 --> 00:15:57,670  
Just a side thing where the  
money was floating to them.

263  
00:15:57,670 --> 00:15:59,080  
And they were paying--

264  
00:15:59,080 --> 00:16:01,840  
actually, in fact, they  
were supposedly also

265  
00:16:01,840 --> 00:16:05,140  
when they were still discussing  
and when it was still

266  
00:16:05,140 --> 00:16:10,150  
discussed that all  
Jews should be brought

267  
00:16:10,150 --> 00:16:13,930  
to Madagascar in  
1940, the idea was

268  
00:16:13,930 --> 00:16:17,890  
that, again, the same  
institution should pay the,

269  
00:16:17,890 --> 00:16:20,840  
should organize the shipping.

270  
00:16:20,840 --> 00:16:23,580  
So it was kind of a--

271  
00:16:23,580 --> 00:16:27,520  
the administrative  
organization was kind of

272  
00:16:27,520 --> 00:16:32,140  
involved in first  
paying and organizing

273  
00:16:32,140 --> 00:16:34,810  
the killing of the insane.

274  
00:16:34,810 --> 00:16:37,840  
And then later when  
this got stopped,

275  
00:16:37,840 --> 00:16:41,590  
they organized and paid  
the killing of the Jews

276  
00:16:41,590 --> 00:16:44,800  
in Treblinka and Sobibor.

277  
00:16:44,800 --> 00:16:48,970  
So it was just, it was  
exactly the same people

278  
00:16:48,970 --> 00:16:49,660  
who had done it.

279  
00:16:49,660 --> 00:16:52,720  
And the people who had organized  
it would just continue.

280  
00:16:52,720 --> 00:16:55,690  
And this can be well



read in this book

281  
00:16:55,690 --> 00:16:59,710  
by Henry Friedlander  
who has really written

282  
00:16:59,710 --> 00:17:01,450  
in great detail about that.

283  
00:17:01,450 --> 00:17:11,890

284  
00:17:11,890 --> 00:17:15,430  
This is a difficult question.

285  
00:17:15,430 --> 00:17:27,540  
As you said, there are genetic  
traits for certain diseases--

286  
00:17:27,540 --> 00:17:31,350  
schizophrenia we keep  
hearing about, Alzheimer's.

287  
00:17:31,350 --> 00:17:44,580  
Is it possible that these are  
race based or that these are--

288  
00:17:44,580 --> 00:17:48,010  
that some of the  
foundation of this eugenics

289  
00:17:48,010 --> 00:17:50,575  
is legitimately based?

290  
00:17:50,575 --> 00:17:54,647

291  
00:17:54,647 --> 00:17:55,980  
Let's first talk about genetics.

292  
00:17:55,980 --> 00:17:59,640

293  
00:17:59,640 --> 00:18:04,440  
It is I think most interesting  
that the people who

294  
00:18:04,440 --> 00:18:08,700  
have promised to solve the  
genetics of schizophrenia,

295  
00:18:08,700 --> 00:18:13,860  
of manic depression,  
have so far all failed.

296  
00:18:13,860 --> 00:18:15,210  
It's total failure.

297  
00:18:15,210 --> 00:18:19,530  
I don't know whether  
this is clear.

298  
00:18:19,530 --> 00:18:22,530  
Total failure means  
no gene has been

299  
00:18:22,530 --> 00:18:27,240  
isolated where you can say  
this is directly involved

300  
00:18:27,240 --> 00:18:28,320  
in the thing.

301  
00:18:28,320 --> 00:18:32,370  
And this is kind of  
a strange situation.

302  
00:18:32,370 --> 00:18:35,760

303  
00:18:35,760 --> 00:18:40,350  
So the possible solution  
is there is not one gene.

304

00:18:40,350 --> 00:18:45,280  
That it's 5 or 10  
genes and they all

305  
00:18:45,280 --> 00:18:50,820  
are somehow a little bit  
involved in the whole thing.

306  
00:18:50,820 --> 00:18:53,220  
OK, so then one could  
still analyze it.

307  
00:18:53,220 --> 00:18:56,040  
It would get much, much  
more difficult than if you

308  
00:18:56,040 --> 00:18:57,210  
have just one gene.

309  
00:18:57,210 --> 00:18:59,970  
But it's still feasible, yeah?

310  
00:18:59,970 --> 00:19:03,780  
But I have to say  
that at the moment,

311  
00:19:03,780 --> 00:19:10,200  
there's no way one could make  
a genetic analysis with genes

312  
00:19:10,200 --> 00:19:11,610  
where you could predict--

313  
00:19:11,610 --> 00:19:13,320  
I would get a  
blood sample of you

314  
00:19:13,320 --> 00:19:16,310  
and I predict-- a-ha,  
no schizophrenia.

315  
00:19:16,310 --> 00:19:20,770  
Or I predict there's a good

chance of schizophrenia.

316  
00:19:20,770 --> 00:19:22,750  
So this cannot be done.

317  
00:19:22,750 --> 00:19:25,170  
So from this point of view,  
if it cannot be done here,

318  
00:19:25,170 --> 00:19:26,790  
it cannot be done there either.

319  
00:19:26,790 --> 00:19:30,030

320  
00:19:30,030 --> 00:19:34,140  
I would say-- but the  
question is sooner or later

321  
00:19:34,140 --> 00:19:36,720  
one may be able to do so.

322  
00:19:36,720 --> 00:19:41,100  
Maybe the guys who were  
doing that are pretty--

323  
00:19:41,100 --> 00:19:43,400  
I shouldn't talk bad  
about my colleagues

324  
00:19:43,400 --> 00:19:47,500  
--pretty incompetent  
of doing that.

325  
00:19:47,500 --> 00:19:54,330  
So the question is if  
they get it, what then?

326  
00:19:54,330 --> 00:19:57,120  
And obviously, then  
you could immediately

327

00:19:57,120 --> 00:20:01,660  
test blood samples  
of people from Africa

328  
00:20:01,660 --> 00:20:04,930  
or from Australia or whatever.

329  
00:20:04,930 --> 00:20:08,160  
And just find out whether  
you find differences.

330  
00:20:08,160 --> 00:20:10,290  
And obviously I would  
not be astonished at all

331  
00:20:10,290 --> 00:20:13,540  
if you would find differences  
from this point of view.

332  
00:20:13,540 --> 00:20:16,230  
I would not be  
astonished at all.

333  
00:20:16,230 --> 00:20:20,580  
But the point is not that  
if you have differences,

334  
00:20:20,580 --> 00:20:26,730  
you can immediately say you  
are apt to say that now you

335  
00:20:26,730 --> 00:20:30,120  
have to take all rights  
of all of those who

336  
00:20:30,120 --> 00:20:31,620  
have the wrong type of gene.

337  
00:20:31,620 --> 00:20:33,720  
And only those who  
have the proper

338  
00:20:33,720 --> 00:20:35,610

get the full rights and so on.

339

00:20:35,610 --> 00:20:36,520

This is incredible.

340

00:20:36,520 --> 00:20:38,460

This is eugenics.

341

00:20:38,460 --> 00:20:41,040

I think the main  
thing of eugenics

342

00:20:41,040 --> 00:20:43,590

is not that there  
are differences.

343

00:20:43,590 --> 00:20:46,020

Obviously, I would  
say one would--

344

00:20:46,020 --> 00:20:48,000

I would expect that.

345

00:20:48,000 --> 00:20:52,860

But the point is,  
the real bad point

346

00:20:52,860 --> 00:20:57,720

is that these  
differences lead you then

347

00:20:57,720 --> 00:21:03,150

to inhumane acts against  
this minority which

348

00:21:03,150 --> 00:21:05,790

has different genotype.

349

00:21:05,790 --> 00:21:06,930

Why should you?

350

00:21:06,930 --> 00:21:09,150

Absolutely no.

351  
00:21:09,150 --> 00:21:12,000  
So from this point of view,  
I think there's a mixture.

352  
00:21:12,000 --> 00:21:15,870  
One should not say, and I  
think it's dangerous to say,

353  
00:21:15,870 --> 00:21:18,540  
that there's no genetic impact.

354  
00:21:18,540 --> 00:21:21,730  
For example, there had  
been in the UNESCO--

355  
00:21:21,730 --> 00:21:22,980  
I'm sorry, hold on one second.

356  
00:21:22,980 --> 00:21:26,660

357  
00:21:26,660 --> 00:21:28,490  
So if we could back  
up just a little bit,

358  
00:21:28,490 --> 00:21:32,000  
you're telling me that  
there's legitimacy

359  
00:21:32,000 --> 00:21:35,570  
to part of the genetic part.

360  
00:21:35,570 --> 00:21:37,940  
But then the eugenics is--

361  
00:21:37,940 --> 00:21:38,990  
Yeah.

362  
00:21:38,990 --> 00:21:44,290  
Let me just say again that in

1950, there was a meeting--

363

00:21:44,290 --> 00:21:46,040  
or '52, I don't know exactly.

364

00:21:46,040 --> 00:21:49,040  
There was a meeting  
in Paris of the UNESCO

365

00:21:49,040 --> 00:21:52,220  
where the question was  
discussed, is intelligence

366

00:21:52,220 --> 00:21:55,430  
and all these  
spiritual capabilities,

367

00:21:55,430 --> 00:22:01,640  
are they genetically inherited  
or are they exclusively not?

368

00:22:01,640 --> 00:22:06,500  
And of course, the majority then  
said they are exclusively not.

369

00:22:06,500 --> 00:22:08,900  
And there were very  
few people who opposed,

370

00:22:08,900 --> 00:22:12,620  
who said no, they are  
certainly not a genetic thing.

371

00:22:12,620 --> 00:22:15,530  
And it's interesting  
to look who said no.

372

00:22:15,530 --> 00:22:17,390  
There's one person who said no.

373

00:22:17,390 --> 00:22:23,690  
He was H.J. Muller, the  
great American geneticist.



374  
00:22:23,690 --> 00:22:28,820  
He got the Nobel Prize in '46.

375  
00:22:28,820 --> 00:22:33,320  
And Eugen Fischer,  
who as an old man,

376  
00:22:33,320 --> 00:22:34,820  
I don't know why  
they invited him.

377  
00:22:34,820 --> 00:22:37,730  
But they invited him and so  
he came with a statement.

378  
00:22:37,730 --> 00:22:38,720  
He doesn't believe it.

379  
00:22:38,720 --> 00:22:39,650  
He believes it--

380  
00:22:39,650 --> 00:22:43,160  
And I think it's  
kind of interesting

381  
00:22:43,160 --> 00:22:46,310  
that you have this kind  
of Fischer on the one hand

382  
00:22:46,310 --> 00:22:51,500  
and Muller on the other  
side who they are suddenly

383  
00:22:51,500 --> 00:22:56,420  
sit in the same boat, which are  
totally different in what else

384  
00:22:56,420 --> 00:22:56,930  
they think.

385  
00:22:56,930 --> 00:23:02,870

So I think one should not  
mix up the sheer fact how

386  
00:23:02,870 --> 00:23:07,982  
the world is, where they both  
seem to be of the same opinion.

387  
00:23:07,982 --> 00:23:10,190  
And how one should arrange  
it that they obviously had

388  
00:23:10,190 --> 00:23:12,800  
very different opinions here.

389  
00:23:12,800 --> 00:23:15,890  
Tell me again what the  
opinion that they shared was?

390  
00:23:15,890 --> 00:23:21,140  
An opinion they shared was  
is that human intelligence

391  
00:23:21,140 --> 00:23:25,040  
and similar things are  
partially inherited.

392  
00:23:25,040 --> 00:23:30,260  
They are not completely-- they  
are not only completely known.

393  
00:23:30,260 --> 00:23:32,840  
And this is, of course,  
today one is not--

394  
00:23:32,840 --> 00:23:37,370  
it's politically  
incorrect to say that.

395  
00:23:37,370 --> 00:23:42,890  
So is it-- now when you  
say that, then that leads

396  
00:23:42,890 --> 00:23:44,700

me to question certain things.

397

00:23:44,700 --> 00:23:50,480

For example, as I was saying  
before, there are people--

398

00:23:50,480 --> 00:23:52,412

and I don't know--

399

00:23:52,412 --> 00:23:53,370

let me put it this way.

400

00:23:53,370 --> 00:24:00,050

There are journals which  
posit the idea that there

401

00:24:00,050 --> 00:24:04,370

is a likelihood that if  
someone has schizophrenia,

402

00:24:04,370 --> 00:24:10,190

then their descendants may be  
more prone to schizophrenia.

403

00:24:10,190 --> 00:24:12,920

That children of  
intelligent parents

404

00:24:12,920 --> 00:24:16,340

are often more  
intelligent than those.

405

00:24:16,340 --> 00:24:18,050

Is that purely anecdotal?

406

00:24:18,050 --> 00:24:19,650

Is it incorrect in your view?

407

00:24:19,650 --> 00:24:20,150

Is it--

408

00:24:20,150 --> 00:24:22,310

At the moment, it's  
purely anecdotal.

409  
00:24:22,310 --> 00:24:24,890  
But it can become serious.

410  
00:24:24,890 --> 00:24:26,180  
That's exactly what it is.

411  
00:24:26,180 --> 00:24:29,270  
At the moment, it's anecdotal  
and there's no good proof.

412  
00:24:29,270 --> 00:24:30,050  
Absolutely.

413  
00:24:30,050 --> 00:24:33,780  
But there's no good  
proof against either.

414  
00:24:33,780 --> 00:24:39,350  
And so I think sooner  
or later, one will know.

415  
00:24:39,350 --> 00:24:42,870  
And what we know implies  
that you have a blood sample,

416  
00:24:42,870 --> 00:24:47,250  
you have blood samples,  
and you predict IQ.

417  
00:24:47,250 --> 00:24:50,600  
And of course, let me  
tell you I could do so.

418  
00:24:50,600 --> 00:24:56,405  
Let's say if you allow me, if  
you make this kind of-- conduct

419  
00:24:56,405 --> 00:24:58,230  
an experiment.

420

00:24:58,230 --> 00:25:01,260

So what would you do  
in order to make--

421

00:25:01,260 --> 00:25:02,660

no.

422

00:25:02,660 --> 00:25:04,070

Perhaps I stop.

423

00:25:04,070 --> 00:25:04,720

I stop.

424

00:25:04,720 --> 00:25:06,020

[LAUGHS] I better stop.

425

00:25:06,020 --> 00:25:09,260

426

00:25:09,260 --> 00:25:13,370

But let me-- but you  
were saying, here

427

00:25:13,370 --> 00:25:15,618

these two men,  
Muller and Fischer,

428

00:25:15,618 --> 00:25:16,660

were of the same opinion.

429

00:25:16,660 --> 00:25:18,050

They were of the same opinion.

430

00:25:18,050 --> 00:25:22,070

And you're saying that  
they were way off base.

431

00:25:22,070 --> 00:25:24,440

And the other people  
were in fact more--

432

00:25:24,440 --> 00:25:29,060  
though a layperson like me  
says, well, that sounds right.

433  
00:25:29,060 --> 00:25:33,500  
It sounds like intelligence  
is passed on, is hereditary.

434  
00:25:33,500 --> 00:25:36,410  
Yeah, to some extent.

435  
00:25:36,410 --> 00:25:38,240  
To some extent, exactly.

436  
00:25:38,240 --> 00:25:41,150  
You know, I think  
it's most likely.

437  
00:25:41,150 --> 00:25:44,150  
But there's no really  
good, hard proof.

438  
00:25:44,150 --> 00:25:47,360  
And good, hard proof  
is for me that you

439  
00:25:47,360 --> 00:25:50,420  
can predict the intelligence  
from a blood sample.

440  
00:25:50,420 --> 00:25:52,010  
Yeah?

441  
00:25:52,010 --> 00:25:55,660  
And show me also how you do  
it, because you may cheat that.

442  
00:25:55,660 --> 00:25:58,730

443  
00:25:58,730 --> 00:26:00,530  
OK, if you would say  
that one more time.

444  
00:26:00,530 --> 00:26:04,070  
"There's no good, hard proof  
that intelligence can--"

445  
00:26:04,070 --> 00:26:07,520  
There is no good, hard proof  
that intelligence is inherited

446  
00:26:07,520 --> 00:26:10,370  
and there's no good, hard  
proof that intelligence is not

447  
00:26:10,370 --> 00:26:14,000  
inherited, neither that.

448  
00:26:14,000 --> 00:26:16,640  
So it is open at the moment.

449  
00:26:16,640 --> 00:26:18,140  
But this will change.

450  
00:26:18,140 --> 00:26:19,940  
I'm pretty sure that  
this will change.

451  
00:26:19,940 --> 00:26:23,450  
And will change,  
it means that you

452  
00:26:23,450 --> 00:26:25,550  
are able to predict  
from a blood sample,

453  
00:26:25,550 --> 00:26:28,310  
from the DNA from  
a blood sample,

454  
00:26:28,310 --> 00:26:32,970  
the level of intelligence  
of a certain person.

455

00:26:32,970 --> 00:26:33,810

OK, great.

456

00:26:33,810 --> 00:26:37,080

457

00:26:37,080 --> 00:26:38,880

I have a couple of  
things to move on to.

458

00:26:38,880 --> 00:26:41,120

Do you want to stop tape?

459

00:26:41,120 --> 00:28:44,000