



**COGNITION
BEYOND
NEURONS**

1
00:00:05,030 --> 00:00:02,629
I like to imagine that if somebody had

2
00:00:06,769 --> 00:00:05,040
come to the people who were inventing

3
00:00:08,629 --> 00:00:06,779
connectionism in the first you know sort

4
00:00:10,310 --> 00:00:08,639
of perceptrons and neural networks and

5
00:00:12,110 --> 00:00:10,320
so on if somebody had come to them and

6
00:00:13,970 --> 00:00:12,120
said oh by the way sorry you know we're

7
00:00:15,709 --> 00:00:13,980
with the biologists we we got it wrong

8
00:00:17,510 --> 00:00:15,719
it's not the thinking isn't in the brain

9
00:00:18,710 --> 00:00:17,520
it's in the liver and so then the

10
00:00:20,210 --> 00:00:18,720
question is what would they do right

11
00:00:22,550 --> 00:00:20,220
what would they have changed anything

12
00:00:24,349 --> 00:00:22,560
about what they're doing and we said ah

13
00:00:26,509 --> 00:00:24,359

now we have to rethink our model or with

14

00:00:28,130 --> 00:00:26,519

his fine who cares uh this is exactly

15

00:00:30,109 --> 00:00:28,140

the same the same model everything works

16

00:00:33,110 --> 00:00:30,119

just as well so I often I often think

17

00:00:35,569 --> 00:00:33,120

about that that question what exactly do

18

00:00:38,450 --> 00:00:35,579

we mean by by neurons and isn't it

19

00:00:41,690 --> 00:00:38,460

interesting that we are able to to steal

20

00:00:43,490 --> 00:00:41,700

most of the tools the concepts um uh the

21

00:00:46,069 --> 00:00:43,500

Frameworks the the math from

22

00:00:48,170 --> 00:00:46,079

neuroscience and apply it to problems in

23

00:00:49,970 --> 00:00:48,180

other spaces so not movement in

24

00:00:51,770 --> 00:00:49,980

three-dimensional space with muscles but