

1

00:00:00,433 --> 00:00:10,435

This series presents information based in part on theory and conjecture.

2

00:00:10,435 --> 00:00:20,436

The producer's purpose is to suggest some possible explanations, but not necessarily the only ones to the mysteries we will examine.

3

00:00:21,436 --> 00:00:25,437

The Superchild

4

00:00:25,437 --> 00:00:30,438

The Superchild stands apart from the rest of us.

5

00:00:30,438 --> 00:00:37,439

Whether it be a highly accomplished ballerina at the age of 14, or a 13-year-old computer genius,

6

00:00:37,439 --> 00:00:41,439

Superchildren are somehow different.

7

00:00:41,439 --> 00:00:48,440

To some, the secret rests in the deepest recesses of the human brain.

8

00:00:48,440 --> 00:00:53,441

Yet there are methods already known which can reshape the minds of children.

9

00:00:53,441 --> 00:00:58,442

Where's the bullfrog? Can you touch the bullfrog for mommy?

10

00:00:58,442 --> 00:01:04,443

This normal 18-month-old baby has a 10,000-word vocabulary.

11

00:01:04,443 --> 00:01:09,443

Is it possible that more such Superchildren can be created?

12

00:01:18,445 --> 00:01:23,445

The Superchild

13

00:01:23,445 --> 00:01:26,446

The Superchild

14

00:01:26,446 --> 00:01:30,447

What is a child prodigy?

15

00:01:30,447 --> 00:01:35,447

Leslie Ann Cope's is just such a genius.

16

00:01:35,447 --> 00:01:40,448

The Superchild

17

00:01:40,448 --> 00:01:43,448

The Superchild

18

00:01:43,448 --> 00:01:52,450

In 1979, she was the only pianist to win the prestigious Los Angeles Philharmonic Symponies for Youth competition.

19

00:01:55,450 --> 00:02:04,452

In the little investigation that has been done of the gifted or genius child, there are a few indications that genius spawns genius.

20

00:02:04,452 --> 00:02:07,452

What then is the determining factor?

21

00:02:07,452 --> 00:02:14,453

It seems highly likely that environment may play a key role in the nurturing of the gifted child.

22

00:02:14,453 --> 00:02:22,454

The Superchild

23

00:02:22,454 --> 00:02:32,456

Melissa Allen at 14 is considered by some at the American Ballet Theater to potentially be one of the prima ballerinas in America.

24

00:02:32,456 --> 00:02:38,457

The Sacrifices

25

00:02:38,457 --> 00:02:45,458

The sacrifices have been many. Melissa explains the rigors of her daily schedules.

26

00:02:45,458 --> 00:02:53,459

It's really strenuous. I get up in the morning about six o'clock, get ready for school, go, school starts at eight o'clock.

27

00:02:53,459 --> 00:02:57,460

Then I go from there, I eat my lunch and do my homework on the way to ballet.

28

00:02:57,460 --> 00:03:04,461

I take three classes and then I come home about 7.30. I'm home about 8.30.

29

00:03:04,461 --> 00:03:06,461

You got a lot of homework there?

30

00:03:06,461 --> 00:03:09,461

Yeah, biology and English. I'm a lot in it.

31

00:03:09,461 --> 00:03:11,462

You better get started on that.

32

00:03:11,462 --> 00:03:13,462

Yeah, you better get started.

33

00:03:13,462 --> 00:03:20,463

Despite her harried schedule, Melissa will finish high school a year early.

34

00:03:20,463 --> 00:03:28,464

The necessary ingredients to create such a Superchild are discussed by her teacher, Margaret Graham Hills.

35

00:03:28,464 --> 00:03:35,465

I don't like the word genius, but she has something very close to it.

36

00:03:35,465 --> 00:03:44,467

Genius in a way to me implies something that's not as down to earth as the people who really work.

37

00:03:44,467 --> 00:03:48,467

Genius is almost as though it happens to you and you don't have to work for it.

38

00:03:48,467 --> 00:03:54,468

And Melissa works for it. She's got the body, she's got the brain and firing accidents and that sort of thing.

39

00:03:54,468 --> 00:03:57,469

I think she will go very far.

40

00:03:57,469 --> 00:04:15,471

Because of her outstanding potential, Melissa is expected to work with the American Ballet Theatre in New York within a year.

41

00:04:15,471 --> 00:04:21,472

Time, effort and talent will determine if she will become a permanent member of the troupe.

42

00:04:21,472 --> 00:04:25,473

There's many instances that I feel like I'm a gifted child, but it's not an ego.

43

00:04:25,473 --> 00:04:29,473

It's just being proud that you know that you can do something other people can't.

44

00:04:29,473 --> 00:04:35,474

The work is worth a thousand times more than you put out.

45

00:04:35,474 --> 00:04:38,475

It gives you a feeling of satisfaction knowing that you've done it.

46

00:04:38,475 --> 00:04:54,477

As far as Melissa and Melissa's type are concerned, I think yes, they would be very, very good at anything they set out to do.

47

00:04:54,477 --> 00:05:02,478

The brain is essential. People say, ah well, you know, she's no good for anything, let her be a ballet dancer.

48

00:05:02,478 --> 00:05:07,479

Doesn't work. The brain's got to be absolutely first class.

49

00:05:09,479 --> 00:05:21,481

The abilities of Leslie and other such super children have just begun to motivate scientists to investigate the source of their talent.

50

00:05:21,481 --> 00:05:26,482

No organism is as mystifying as the human brain.

51

00:05:26,482 --> 00:05:31,483

Its complicated methods of relaying messages are beginning to be understood.

52

00:05:32,483 --> 00:05:42,484

For Leslie to play with her precision, electrochemical impulses must be relayed to her fingers at a speed of 120 miles per second.

53

00:05:42,484 --> 00:05:47,485

These impulses probably emanate from this illuminated section.

54

00:05:47,485 --> 00:05:55,486

The area that responds to melody and tone may also be more highly developed.

55

00:05:55,486 --> 00:06:00,487

This alone, however, does not fully explain her genius capabilities.

56

00:06:00,487 --> 00:06:06,488

Perhaps probing even deeper into the interior of the brain will provide the answers.

57

00:06:06,488 --> 00:06:11,489

Marilyn Ferguson, editor of Brain Mind Bulletin.

58

00:06:11,489 --> 00:06:19,490

The human brain has tremendous capacities which can either unfold or be left sleeping.

59

00:06:19,490 --> 00:06:25,491

And we all have the brain that we need right now to learn anything we want to know.

60

00:06:25,491 --> 00:06:32,492

The capacity has always been there. I don't think it's a matter of some sudden evolution that is going to change things.

61

00:06:32,492 --> 00:06:37,493

It's just that the tool we've always had is there and we are only recently discovering that it is.

62

00:06:40,493 --> 00:06:49,494

Perhaps each of these children possess within his or her brain abilities associated with Da Vinci, Mozart or Michelangelo.

63

00:06:49,494 --> 00:06:53,495

Are we simply wasting our children's minds?

64

00:06:54,495 --> 00:07:04,497

Our whole educational system and in many ways our whole culture has valued only one half of human intelligence, one aspect of human intelligence.

65

00:07:04,497 --> 00:07:17,499

In the current parlance this is referred to as left brain intelligence, which means the left half of the brain tends to specialize in analytical learning into breaking things into their parts.

66

00:07:18,499 --> 00:07:23,500

The right hemisphere, on the other hand, tries to see patterns and see things as a whole.

67

00:07:23,500 --> 00:07:31,501

And it's more artistic, in a sense, more aesthetic, musical, more sexual, more closely related to our dreams.

68

00:07:31,501 --> 00:07:34,501

And in many ways a quicker learner.

69

00:07:34,501 --> 00:07:41,502

And now what's happening is educators all over the country are going to courses called Teaching Both Hats at the Brain, Educating Both Hats at the Brain.

70

00:07:41,502 --> 00:07:50,504

And beginning to appreciate the fact that whole brain learning is what really unlocks our hidden talents, our hidden genius and our hidden understanding.

71

00:07:52,504 --> 00:07:58,505

One of the few schools to stress nurturing the whole child is the Merman School in Los Angeles.

72

00:07:59,505 --> 00:08:03,506

The school is restricted to children of IQs over 140.

73

00:08:04,506 --> 00:08:07,506

Nevertheless, they are taught to be well-rounded individuals.

74

00:08:08,506 --> 00:08:13,507

Teachers strongly encourage their students to be intimately in touch with the world around them.

75

00:08:13,507 --> 00:08:20,508

Discussions range from topics such as the recycling of industrial resources to the preservation of

wildlife.

76

00:08:20,508 --> 00:08:23,509

Animals, okay, what else?

77

00:08:23,509 --> 00:08:29,510

If you had an aluminum recycling center they would recycle it and melt down the aluminum to make new cans.

78

00:08:29,510 --> 00:08:37,511

Also aluminum is a finite resource of yours and will run out Sunday if we don't recycle it and keep using it.

79

00:08:37,511 --> 00:08:38,511

What else, Max?

80

00:08:38,511 --> 00:08:49,513

Well imagine 2,000 years from now somebody decides to build a garden in his backyard but his backyard is on top of a former nuclear waste dump.

81

00:08:49,513 --> 00:08:52,513

Oh, how can that present a problem?

82

00:08:52,513 --> 00:08:55,513

For being radioactive food.

83

00:08:55,513 --> 00:08:59,514

These students far exceed their peers in verbal abilities.

84

00:08:59,514 --> 00:09:03,515

The school's curriculum is explained by Dr. Norman Merman.

85

00:09:03,515 --> 00:09:09,516

We feel that our program is important in enabling the bright child to develop a positive self-concept.

86

00:09:09,516 --> 00:09:20,517

So often these children are perfectionists and they need the reassurance in a school situation like ours to make mistakes, to learn from their mistakes and to realize that that is how we grow.

87

00:09:20,517 --> 00:09:31,519

They also, we feel, learn that there are other people like themselves with similar interests, with

similar enthusiasm for learning and they are not in a sense the loner out in left field.

88

00:09:31,519 --> 00:09:43,521

An animal that hasn't really changed a lot is the cockroach which has stayed the same for about 3 million years, sort of gotten its own little niche right there.

89

00:09:43,521 --> 00:10:00,523

That brings up the theory of punctuated equilibrium which states that equilibrium or evolution is not, as some people think, a gradual, continuous change, very slight changes though.

90

00:10:00,523 --> 00:10:09,525

But instead it's a million years or a few million years of something staying the same and then all of a sudden a spur of change.

91

00:10:09,525 --> 00:10:17,526

Consider the bright child in a conventional situation, how he or she feels that they are really number one, so to speak, a top banana.

92

00:10:17,526 --> 00:10:31,528

And when they come to us, it sort of takes the hot air out. They really have to produce and think through what they're saying and this is so often brought about not necessarily by the teacher but by the other children in the classroom.

93

00:10:31,528 --> 00:10:45,530

Specialized schoolroom programs provide a fertile ground for capable children. Their potential is being carefully nurtured. For them, education is a challenge.

94

00:10:45,530 --> 00:10:53,531

Given an opportunity equal to that of the Merman children, some believe children of average intelligence could become gifted.

95

00:10:54,531 --> 00:11:06,533

A startling new process used only in Philadelphia provides this child with a 10,000 word vocabulary. Will this program make it possible for every child to be a genius?

96

00:11:07,533 --> 00:11:27,536

Every summer, over four million children attend camp in America. They enjoy the usual pleasures of nights around the campfire.

97

00:11:28,536 --> 00:11:39,538

They spend lazy days exploring nature from horseback. Camp Rancho Oso near Santa Barbara, California is like no other in the country.

98

00:11:39,538 --> 00:11:47,539

While it is different, the young campers are just regular kids. Camp founder, Dennis and Boley.

99

00:11:48,539 --> 00:11:56,541

Basically, the kids that come to this camp come from all over the country and indeed all over the world and they're basically a very normal kid.

100

00:11:56,541 --> 00:12:07,542

What they're here to do is to build very specialized unique vocabulary that's known only to the computer and therefore they can use the computer as a tool to work for them.

101

00:12:08,542 --> 00:12:14,543

There's a segment string out of that so that eventually you wind up with the words, computer camp written on one line.

102

00:12:14,543 --> 00:12:16,544

Are there any questions?

103

00:12:16,544 --> 00:12:21,544

Yeah. It doesn't work on the idea. How can we get it to work?

104

00:12:21,544 --> 00:12:26,545

Every different home computer has a little bit different syntax in order to perform the same function.

105

00:12:27,545 --> 00:12:33,546

The interaction amongst the kids is fantastic. They all teach each other the skills.

106

00:12:33,546 --> 00:12:39,547

It's like you work with one person and you show them how to do it. Pretty soon five minutes later you'll see them showing a friend how to do it.

107

00:12:39,547 --> 00:12:47,548

And it passes on incredibly quickly how to program the computer. So they really teach each other. It's fantastic.

108

00:12:47,548 --> 00:12:59,550

A normal program at the camp here would consist of spending several hours on the computers getting in various facets of learning about how to use computers and interacting with them.

109

00:12:59,550 --> 00:13:07,551

And the rest of the time is spent in a very well-rounded activity. They go horseback riding and they go swimming and they play tennis and go hiking.

110

00:13:07,551 --> 00:13:15,553

And they're really normal kids having a normal time and what we've done is integrate into that a way to learn to use a new tool, a computer.

111

00:13:17,553 --> 00:13:28,554

With the knowledge these children now possess, one young man was able to create a computer program to catalog his lawyer father's personal injury cases and antique collection.

112

00:13:28,554 --> 00:13:33,555

Another plans a program to analyze his parents' stock purchases.

113

00:13:33,555 --> 00:13:55,559

Camp Rancho Oso provides us with some intriguing questions. The children there are aged 10 to 15. What if they were much younger? Would they have an even greater capacity to learn?

114

00:13:56,559 --> 00:14:08,560

We are taught that the capacity of the brain at birth is limited. Parents may hold the key to actually expanding their children's intelligence.

115

00:14:08,560 --> 00:14:17,562

In a sense the teaching, if we want to use that term, involves stimulating children, answering their questions, talking to them when they're very tiny.

116

00:14:17,562 --> 00:14:24,563

The capacity that is there in the average child is, it dwarfs what we think children can do.

117

00:14:24,563 --> 00:14:35,565

And we're just now becoming aware of that every normal that is not brain damaged baby who is born has the capacity to be what we think of as intellectually gifted.

118

00:14:36,565 --> 00:14:47,566

At the Institutes for the Achievement of Human Potential in Philadelphia, children like Sean Katz and his sister Brandy are part of a unique program.

119

00:14:47,566 --> 00:14:55,568

Contrary to most school traditions, mothers such as Joan Katz actually enroll along with their children in the Institute.

120

00:14:55,568 --> 00:14:59,568

There they learn how to expand their youngsters intelligence.

121

00:15:00,568 --> 00:15:02,569

Is the jute founder, Glenn Dorman?

122

00:15:03,569 --> 00:15:10,570

Well first of all, most professionals have an unspoken law that says that all mothers are idiots and they have no truth in them.

123

00:15:10,570 --> 00:15:16,571

And nobody talks to mothers and God knows nobody listens to them. Well, that's nonsense.

124

00:15:16,571 --> 00:15:23,572

Mothers know more about their kids than anybody in the whole world knows about them. And they are superb teachers.

125

00:15:23,572 --> 00:15:31,573

Mothers are the best teachers the world has ever seen. All we do is teach mothers and all the things that happen.

126

00:15:31,573 --> 00:15:37,574

The paralyzed kids who walk and run and jump, the blind kids who read, the deaf kids who are, that's all done by mothers.

127

00:15:37,574 --> 00:15:46,575

And so teaching their children things such as Japanese or violin or history is a cinch for mothers.

128

00:15:47,575 --> 00:15:50,576

Christine Hagg and her daughter Tagan.

129

00:15:50,576 --> 00:15:55,577

Tagan was started on the program at birth, the first day of her life.

130

00:15:55,577 --> 00:16:03,578

And what we did with her initially was just give her visual, auditory and tactile stimulation.

131

00:16:03,578 --> 00:16:12,579

At a very low level, we've shown lights in her eyes. We showed her very large, outline pictures.

132

00:16:12,579 --> 00:16:16,580

We did lots of talking, lots of music, lots of auditory, lots of good touching.

133

00:16:16,580 --> 00:16:22,581

And we've done program with Tagan pretty much every day of her life.

134

00:16:22,581 --> 00:16:26,581

For tiny children, learning is a survival skill.

135

00:16:26,581 --> 00:16:34,582

And they believe that, well, they'd rather learn, eat, they'd rather learn than play games, they'd rather learn than do anything.

136

00:16:34,582 --> 00:16:41,583

They think it's a great joy. And in the first six years of life, when tiny children can take in any kind of information

137

00:16:41,583 --> 00:16:49,585

to read, to speak three languages, to have perfect pitch, to play the violin,

138

00:16:49,585 --> 00:16:55,586

in those years of life, we're treating children as if they were little nitwits, making little toys out of them.

139

00:16:55,586 --> 00:17:02,587

And such a shame. Nature builds in every newborn baby an absolute rage to learn.

140

00:17:02,587 --> 00:17:06,587

They want to learn about everything in the world and right now at this instant.

141

00:17:07,587 --> 00:17:14,588

And the brain grows by use. Therefore, we simply feed that famine for information.

142

00:17:14,588 --> 00:17:22,590

Here's Edgar Degas at the Milner's. The starry night, Vincent van Gogh, Pablo Picasso, painter and model.

143

00:17:22,590 --> 00:17:26,590

This information, in the beginning, we call bits of intelligence.

144

00:17:26,590 --> 00:17:29,591

Let's say photographs of the presidents of the United States.

145

00:17:30,591 --> 00:17:34,591

And there has to be three requirements. Each of these pieces of intelligence.

146

00:17:34,591 --> 00:17:39,592

It has to be discreet, it has to be precise and non-ambiguous.

147

00:17:39,592 --> 00:17:42,593

And they simply say this is Zachary Taylor.

148

00:17:42,593 --> 00:17:48,594

Here we have Abraham Lincoln. And with some paintings, here's the breakfast room by Pierre Bonard.

149

00:17:48,594 --> 00:17:54,594

And here we have some frogs. We've got a bull frog and a pickerel frog.

150

00:17:55,595 --> 00:18:02,596

Tegan's seen approximately 10,000 bits now, including her language bits,

151

00:18:02,596 --> 00:18:08,597

her different languages that she knows, the music bits that we're doing, art bits, bits in every category,

152

00:18:08,597 --> 00:18:10,597

from science to art.

153

00:18:10,597 --> 00:18:12,597

Okay.

154

00:18:12,597 --> 00:18:17,598

Hey, Tegan, I've got a bull frog. Where's the bull frog?

155

00:18:17,598 --> 00:18:21,599

Come here darling. Come get it. That's right.

156

00:18:21,599 --> 00:18:23,599

Bull frog.

157

00:18:23,599 --> 00:18:25,599

Right. Good girl.

158

00:18:25,599 --> 00:18:28,600

That's it. Very good. Okay, that's the bull frog.

159

00:18:28,600 --> 00:18:31,600

Wonderful. Okay, put that in your pile. That's excellent.

160

00:18:31,600 --> 00:18:33,600

And you know what we've got here?

161

00:18:33,600 --> 00:18:37,601

I've got a Vincent van Gogh. Where's Vincent van Gogh this starry night?

162

00:18:37,601 --> 00:18:41,602

While Tegan at times seems disinterested in her lessons,

163

00:18:41,602 --> 00:18:46,602

she has a 70% success rate when identifying her flashcards.

164

00:18:46,602 --> 00:18:50,603

Put it in your pile over here. Put it in your pile to do some more presidents, okay?

165

00:18:50,603 --> 00:18:52,603

Good girl. Okay.

166

00:18:52,603 --> 00:18:55,604

Look what I've got. Tegan. That's good.

167

00:18:55,604 --> 00:18:57,604

Okay, I've got Abraham Lincoln, Tegan.

168

00:18:57,604 --> 00:19:01,605

Can you find Abraham Lincoln? Which one is Abe?

169

00:19:01,605 --> 00:19:03,605

Honest Abe?

170

00:19:03,605 --> 00:19:07,605

How is it that Tegan has such advanced visual recognition skills,

171

00:19:07,605 --> 00:19:10,606

and yet is still in early stages of baby talk?

172

00:19:10,606 --> 00:19:13,606

Where is he? That's right.

173

00:19:13,606 --> 00:19:14,606

Want to touch Abraham for mommy?

174

00:19:14,606 --> 00:19:15,607

No.

175

00:19:15,607 --> 00:19:17,607

Okay, go ahead. Thank you.

176

00:19:17,607 --> 00:19:20,607

That's a good girl. Very good. Okay, excellent.

177

00:19:20,607 --> 00:19:23,608

Put him in your pile. Okay, you want to see one more?

178

00:19:23,608 --> 00:19:24,608

Okay, okay, let's see.

179

00:19:24,608 --> 00:19:27,608

How about another frog? Another frog for you?

180

00:19:27,608 --> 00:19:31,609

Oh, I've got an Eastern Grey Tree Frog.

181

00:19:31,609 --> 00:19:35,610

Which one is the Eastern Grey Tree Frog?

182

00:19:35,610 --> 00:19:38,610

Eastern Grey Tree Frog. Right.

183

00:19:38,610 --> 00:19:41,611

Good girl. Very good. Okay, put it in your pile, please.

184

00:19:41,611 --> 00:19:45,611

Put it in your pile. That's a good girl. That's wonderful.

185

00:19:45,611 --> 00:19:49,612

It is easier to teach a one-year-old to read than to teach a seven-year-old.

186

00:19:49,612 --> 00:19:51,612

That's why the schools all flop.

187

00:19:51,612 --> 00:19:55,613

It's easier to teach a one-year-old mathematics than to teach a seven-year-old.

188

00:19:55,613 --> 00:20:02,614

It's easier to teach a one-year-old absolutely anything that you can present in an honest and factual way than to teach a seven-year-old.

189

00:20:02,614 --> 00:20:08,615

So parents simply give them accurate information with love and respect.

190

00:20:08,615 --> 00:20:14,615

While Tegan is obviously successful, years of study have even more outstanding results.

191

00:20:14,615 --> 00:20:17,616

I'll see the type of fun, fun, fun.

192

00:20:17,616 --> 00:20:23,617

Sean, age seven, Fumio, age five, and Brandy, age five,

193

00:20:23,617 --> 00:20:30,618

can not only recite Japanese songs or rhymes, but can fluently communicate in Japanese with one another.

194

00:20:30,618 --> 00:20:33,618

This feat alone may seem outstanding.

195

00:20:33,618 --> 00:20:37,619

Each equally excels at reading and explaining Shakespeare,

196

00:20:37,619 --> 00:20:41,620

and all are learning to be expert gymnasts.

197

00:20:45,620 --> 00:20:49,621

For Dr. Domen, there is no question that his program works.

198

00:20:49,621 --> 00:20:53,621

It remains for the rest of the educational community, however,

199

00:20:53,621 --> 00:20:58,622

to judge whether his techniques can create geniuses out of old children.

200

00:21:02,623 --> 00:21:08,624

It now seems highly possible we can develop geniuses from normal children.

201

00:21:08,624 --> 00:21:12,624

The question is, however, do we want to?

202

00:21:13,624 --> 00:21:18,625

I believe, with good reason, that every child born has the potential for genius.

203

00:21:18,625 --> 00:21:21,626

And I think the world needs more, not fewer, geniuses.

204

00:21:21,626 --> 00:21:24,626

I think it's good, not bad, to be a genius.

205

00:21:24,626 --> 00:21:27,626

And I wish we had dozens and dozens and dozens of them.

206

00:21:27,626 --> 00:21:31,627

And I think we're wasting our children's brains at a prodigious rate,

207

00:21:31,627 --> 00:21:36,628

and the world would be infinitely better off and I'd feel a lot safer

208

00:21:36,628 --> 00:21:42,629

if there were more geniuses and every child has that potential, if parents wish it.

209

00:21:44,629 --> 00:21:48,630

Coming up next on FBI The Untold Stories,

210

00:21:48,630 --> 00:21:52,630

a woman kills the state prosecutor who player her husband behind bars,

211

00:21:52,630 --> 00:21:55,631

but was something more than love involved.

212

00:21:55,631 --> 00:21:59,631

Then histories, crimes and trials tracks the fate of Gary Gilmore,

213

00:21:59,631 --> 00:22:04,632

the first man to be executed in the U.S. after the reinstatement of the death penalty.

214

00:22:04,632 --> 00:22:09,633

And later tonight, test your knowledge of inventions and engineering

215

00:22:09,633 --> 00:22:14,634

as Chevy Chase hosts the celebrity-studded Great American History Quiz

216

00:22:14,634 --> 00:22:20,634

at 8 Eastern 9 Pacific, here on the History Channel, where the past comes alive.