

TRANSCRIPT

The Work Goes On

Guest: James Heckman

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James Heckman:

At one point, we were saying, “The government couldn't have done anything,” but I kept looking at the data. I remember Gale Johnson, who was at that time the chair of economics department, asking me, “Do you really believe the government did good?” And I said, “Yeah, in this case.” That's the way I really, honestly believe empirical work should be done in economics, and that's why honestly that's my proudest paper.

Orley Ashenfelter:

Welcome to [The Work Goes On](#), a podcast from the [Industrial Relations Section at Princeton University](#). I'm your host, [Orley Ashenfelter](#), the Joseph Douglas Green 1895 Professor of Economics at [Princeton University](#). In this podcast series of conversations with leading thinkers and practitioners, we are creating an oral history of an entire generation of industrial relations experts and labor economists whose contributions to their fields have been absolutely extraordinary. Our guest today is [James Heckman](#), Henry Schultz Distinguished Service Professor of Economics at the University of Chicago. He is renowned for his work in labor economics and especially for his work in the application of statistical methods to labor market problems. Jim, welcome to [The Work Goes On](#).

James Heckman:

Okay, well, I'm pleased to be here and nice to talk to you again.

Orley Ashenfelter:

Look, we're going to begin the discussion by talking about your background. Where did you grow up?

James Heckman:

Well, I was born in Chicago. In fact, I was born in this very neighborhood. In fact, I was born about five or six blocks from where I'm currently speaking. That was a while back, but I've moved around a lot. So my background is very much, one, of being in Chicago, then moving out to the suburbs, and then going down to the border south, Lexington, Kentucky, and then Oklahoma City, and ending up in Denver by the time I was in high school and where I went to college. So I've been around, and that way I've been able to see some very different perspectives, which influenced my thinking a lot, especially the two years in the border south when segregation was still the rule.

Orley Ashenfelter:

I didn't realize you'd spent time in the south at all.

James Heckman:

Oh, yes. No, I was living in Lexington, Kentucky. My father was there working for Armour and Company, which was, of course, headquartered initially in Chicago, and then now it's faded. It's gone completely,

and then he transferred over to Oklahoma City. So yes, both places there was segregation. In fact, one of the big events in my early life, and I remember my sister and I loved... We were from Chicago, and we liked riding the buses in Chicago, and we always liked the bay window in the bus in the back. And one time I remember my sister and I got on the bus from where we lived in Lexington, Kentucky, just to go downtown, and we went to the back of the bus just instinctively because we could see, and the driver stopped the bus and said, "Look, you must be from out of town. You have to understand you should get up front." And so we did, and that was my first exposure to something that direct and blunt, but there were a lot of exposures like that in the time I was there.

Orley Ashenfelter:

We're going to come back and talk about that, because you have written a paper that's directly connected to the economics of racial discrimination that I quite admire, and probably it doesn't receive as much attention as it should, but let's go back to Denver. So your dad ended up in... You went to high school in Denver.

James Heckman:

Went to high school and went to college in Colorado Springs, so I spent about seven years in high school, in college in Colorado, either in Denver or really outside of Denver, Lakewood.

Orley Ashenfelter:

How did you end up at Colorado College? It's a small liberal arts college. I went to one myself, although not that one, and I've always admired them. How in the world did you end up there?

James Heckman:

Well, in some sense it was a strange thing. When I was in high school, I applied to the standard schools, places like Cornell, and Stanford, and a few other places, Yale, and so forth. And I got into those places, and I thought, "Well, yeah. I'm going to go and go to Cornell," I thought, but then I won a fellowship, and the fellowship was something that's unique to Colorado. It's called the Boettcher Scholarship, and the Boettcher Program was actually one that was fully funded. So it took a high school student, it covered tuition, room and board, all expenses, and it gave me at age 16 a kind of independence that I couldn't resist. The stipulation was that you had to go into a school in Colorado. So, I said, "Okay, I'll go."

Now, my father who hadn't gone to college, so he and I talked about it. He says, "Yeah, it doesn't really matter where you go." I think it does, but nonetheless, at that time, I took his word for it, and I was going to go to the University of Colorado, and then an English teacher of mine, and I had a roommate even, a guy who I knew in high school, and so I was all set to go, and then one of my high school teachers called me up and said, "There's another college down in Colorado Springs called Colorado College, and you should think about going there." So, in the middle of July, I already had a room and roommate picked out in Boulder, and I thought, "Well, I'm going to. I'll try it out."

I went down there, and I talked to a guy, his name was Nick Nicolls, I remember his name still to this day, very inspirational for a graduating high school student, and things like, "Are you going to be your brother's keeper," and on, and on, and on, but it was inspirational. And somehow the idea of going to this large impersonal state university and then going to this other college, I thought, "Well, is it going to be okay?" And people I respected in my high school, and there were some good people in my high school, said, "Yeah, it's a good school." So I went. I went in some sense on a lark. My roommate to be has not forgiven me since apparently. He apparently ended up with a real jerk. I'm pretty bad myself, but I think this guy was really bad.

Orley Ashenfelter:

You blew off your potential roommate, so you could go [inaudible 00:06:14].

James Heckman:

I blew off an old friend, my former friend. He's never forgiven me. He's a very bright guy by that way, my roommate, by the way, my roommate to be.

Orley Ashenfelter:

Well, I looked you up. You're quite famous at Colorado College. They've named a dormitory after you.

James Heckman:

Yes, they did. That's true. It was flattering. Yes. There were some others who received various kinds of recognition, but it is flattering.

Orley Ashenfelter:

Well, the other one I noticed was Peggy Fleming, the famous ice skater.

James Heckman:

Peggy Fleming. Yes, exactly.

Orley Ashenfelter:

Did you know her?

James Heckman:

Well, I met her on several occasions, but what was interesting is we were both at a ceremony together, and we were talking about what we had done in life, and I remember I couldn't resist. She gave a talk about her career and everything, and then I was reminiscing myself about Colorado College, my days there, and I couldn't resist saying, "But I remember a course where I skated on thin ice." I said, "I skated too," but it was basically a class where it was a class, believe it or not, in natural law, and the class was reading books in Latin and German, and I felt I knew enough Latin and German to read it. I found out within a week I didn't know enough Latin or German. So I remember giving my first report on Pufendorf, actually natural law, but it was all in Latin, so I was screwed. So I gave my report. I read the Encyclopedia Britannica, and you can imagine Peggy Fleming wasn't in the class, but I definitely fell through the ice in that one.

Orley Ashenfelter:

That's right. She skated on thin ice too. I guess that was kind of the connection.

James Heckman:

Yes.

Orley Ashenfelter:

Well, so you're at Colorado College, and you're doing economics, or was it mathematics?

James Heckman:

Well, my original emphasis was on physics, but I was really lousy in the labs. I mean, we were supposed to build equipment and solder things, and my solders were very messy. I wasn't good. My late wife actually was a much better engineer than I was, and so in physics, you would do a lot of mathematics. So I figured, okay, I'm taking differential equations, and mathematics was easy, because all you had to do was just read theorems and prove things, and you didn't have to go to a lab five or six hours a day or something. So, I switched, and it was basically sloth, but I enjoyed the math. It was good. I had some good teachers, and there was a very famous guy who wrote a book that's still used on topology, and he taught me things. So, it was very good in that regard, but it wasn't MIT, and it wasn't Stanford, and it wasn't Cornell. So probably in some sense I fell behind the curve going there, but it was at the time, quite stimulating.

Orley Ashenfelter:

Now, of course, you went to the University of Chicago for your graduate degree to start, although I know you ended up at Princeton, in fact, while I was here.

James Heckman:

Correct. Right.

Orley Ashenfelter:

How did you end up going to the University of Chicago?

James Heckman:

Well, that's a good question. Two things, I applied to MIT, and I got in, and I got this letter when I got to MIT. I was in the middle of waiting to hear about whether I was admitted, and what the terms were, but I was admitted finally, but I got this really snotty letter from some administrator. I don't remember her name. I remember it was a her, but she basically said, "We don't accept all the Woodrow Wilson scholars that we get, so don't be disappointed if you don't get in." I just remember that. It just kind of rankled me. So then it turned out I did win a Woodrow Wilson. I did get into MIT, and I was thinking of Princeton. I had an advisor, the dean of my school, Colorado College, the provost really was actually a econ major and PhD from Princeton.

And so he was strongly urging that I go to Princeton, and then I had an advisor who was really very meat and potatoes, a guy whose PhD was from the University of Nebraska, but who was inspirational. He gave me a lot of books to read and so forth, and he was very big on the University of Chicago. He said, "Go to Chicago." And so I went to Chicago, and I have to admit I was a little bit terrorized by Chicago for many reasons, but I did come, yes, and because there was a culture there that was... Friedman was in his prime. There were people there who were world famous. Stigler, of course, was in his prime too, but there were others that were pretty well known around the world.

So, I thought, "Well, this is pretty good." And for some reason I developed a deep hatred for MIT, only because of that administrator. That was it. I mean, I respected the people like Samuelson and Solow, and Yale, it never really appealed to me at the time.

Orley Ashenfelter:

You did teach at Yale for a while though.

James Heckman:

I did for three years. Yeah, I did, and I really enjoyed my interactions there. Yale was a very, very laid-back environment compared to Chicago where I'd been on the faculty already many years when I went there.

Orley Ashenfelter:

Well, let me ask you this, so how did you end up moving from Chicago to Princeton?

James Heckman:

Oh, I was very unhappy, even in the first quarter I was there, the first quarter here in Chicago, and then things developed, and I happened to be here in 1966 when there was a big racial outbreak. In fact, the National Guard was stationed about three blocks from where I lived in a place called Washington Park, and it was very intimidating. There was a lot of violence and near violence going on, and at the same time, the department was huge. It was huge, and I've been in these liberal arts classes, I could take readings courses where I was the only student or one or two other students, and I got a lot of personal attention. Here, I was like a cipher, one out of hundreds it seemed, and there was an intense competitive atmosphere here, which I just wasn't used to. And I was pretty soft, I think, in terms of that. I think I could put up with it now pretty easily. In fact, I'm probably generating it myself, but at the time, I was very unhappy with it. And my first wife, whom you knew, Sally, she got a Woodrow Wilson herself, and at the time, she was very curious about somebody at Rutgers, whom you may know, Paul Fussell. Do you know that name?

Orley Ashenfelter:

Yes.

James Heckman:

He wrote about the first World War. He wrote about war generally, and he was very distinguished, and she was interested in working with Fussell at Rutgers, and so it seemed well, and I was really disturbed. So I visited Princeton. You were there. I talked with you when I came back. I visited you the first time I considered Princeton, and I visited you the second time. I remember I think it was at the graduate.

Orley Ashenfelter:

Yeah, the graduate college yeah.

James Heckman:

We talked at the graduate college. We talked through the night and had a good exchange. So I thought this seemed like a much more laid back place, and there was this cult, to be very honest. There was this cult where people were really dismouthing the party lines, and at that time, I just felt it was maybe I just wasn't tough enough or... There were some very good people. I took courses from people like Harry Johnson and Friedman. Got an A in Friedman's class. I thought it was good, and some of the people there were really quite good, but the whole atmosphere was one of intense competition, and I just wasn't up for it, to be honest.

And Princeton looked like the Garden of Eden at that time, but there was another thing too, and the other thing that you have to keep in mind, and you remember it, but many people won't. During that time, this was 1965, '66, the war in Vietnam was going full tilt, and literally if you weren't in graduate

school by that time, all the undergraduate deferments were gone, but stay there. You had those deferments if you stayed in graduate school, so screwing up in graduate school would mean you were in the Mekong River area. So there was another sense that I felt, honestly, it was a calculation I made that I just didn't want to be marching around in the Mekong Delta with 100 pound pack on my back.

So, it was somewhat insecure, and then Princeton just seemed like at that time, it was so relaxed. The woods were there. I'd been growing up in Colorado. I would go out almost every certainly two or three times a week walking in the woods, climbing some of the mountains nearby, either Denver or Colorado Springs, and it was easy. It was just a very... something natural. Nature was there, and in Chicago there was this tension. So it was a number of things, but probably at the time, I mean, I don't regret that. I think Princeton was a good school, and I met you, and I met a lot of people. And of course, I met, I mean, a top teacher, some very top teachers.

Orley Ashenfelter:

Well, actually, I don't know if this story is apocryphal. Al Rees had moved from Chicago to Princeton too.

James Heckman:

Yes.

Orley Ashenfelter:

And I once heard him say, I thought I heard him say, but this could be apocryphal in my memory now, that the best class he ever taught in labor economics with the highest quality students was the class you were in, and in fact, he said you were the only one in it.

James Heckman:

Yes. Well, Rees played a very fundamental role in my life in the sense that he was here at Chicago when I was considering going to Princeton. So, he and I talked about it. I went to his office on several occasions, and we talked about it, and he wasn't badmouthing Chicago, not intellectually, but he was also singing the praises of Princeton. So, he in that regard played a role. And then later, I mean, when I was in Chicago, I took a course from Harry Johnson, whom I really liked. He was good. Friedman I liked too. I literally was in Friedman's monetary class where he gave this what later became his presidential lecture, so I was among the first to hear the story about how people would catch on to the acceleration of fallacy, that literally the Phillips Curve was not to be worked on the way they were going to work it or hoped to work it.

So I learned a lot. I was inspired. Johnson was very inspiring, and Johnson actually was teaching some of Becker's work. I didn't even know Becker, and Becker wasn't here, not at all, but he was kind of a legend. He had been a student here. He was loved, but I did hear about human capital. And so when I finally got to Princeton, I took a class in the second year there, and it was a labor economics class that Rees was going to teach, but then I was the only one who showed up, and he said that he was going to cancel a class. So, I said, "Look, give me a readings class. You don't have to teach in the usual way. Give me some readings, and you can grill me on the readings," and that's the way it was one semester.

Orley Ashenfelter:

So really it isn't apocryphal. It's true.

James Heckman:

No, it's true, and also I'll tell you it's true the worst grade I got at Princeton was from Rees. He was tough. He was honestly tough, but I thought I admired his honesty, and we covered a lot of material. We covered a lot. I read all the Becker and Mincer stuff. And when I was a graduate student, Mincer came to the industrial relations workshop, and I remember listening to him talk. This is about added worker and discouraged worker effects, and I just remember that workshop, and I was very impressed with Mincer, and then I read his paper on the labor supply of women, and Rees was a big fan of Mincer, and in fact, Rees I think got me into Columbia for my first job.

That was a different kind of labor market where literally a letter from Rees to Mincer could more or less get me hired at Columbia, and no longer true. You go through this enormous fly out and attention. It's a totally different market.

Orley Ashenfelter:

Yeah. I know you went to Columbia. One thing we have to talk about a little bit is your work that led to... I think it's what we consider as had to do with the Nobel Prize, but this is the work on selection.

James Heckman:

Yes.

Orley Ashenfelter:

Well, in fact, it goes a little bit. You're not the first person in this podcast to have a command in Stata named after you.

James Heckman:

What's the other one? I'm curious.

Orley Ashenfelter:

Oaxaca, the Oaxaca command.

James Heckman:

Oh, Oaxaca, Oaxaca.

Orley Ashenfelter:

You're the Heckit Command.

James Heckman:

Heckit, okay, good.

Orley Ashenfelter:

I wonder if you could explain for people that are not actually familiar with it what exactly does the Heckit Command do?

James Heckman:

Well, let me just put it in context in this regard. My dissertation at Princeton was on labor supply of women. I spent a lot of time at Princeton floundering around. I had done some work on lifecycle labor

supply and learning by doing, and that work really never got much attention, although it really is the foundation of a lot of learning-by-doing work. Mike Keene uses it, and I mean, it's a learning by doing model. Now it looks pretty pedestrian, but at the time, it wasn't. But I was also very curious about the fact that we had these wages that were missing for a group of women, and I wanted to do a labor supply curve, and so I read the literature. You and I were working on estimating labor supply functions, and I remember the standard strategy was just to impute the wage, and Bob Hall had a very influential paper in a Brookings volume, and he was basically just running a regression on the workers.

And even though it sounds like a minor issue, Bill Bowen later came back to me and said, "Well, you remember my concern about this issue," and said, "It turned out maybe you were right," but what I remember was that it deeply engaged me, and I wondered, "How do you use this information?" And so I got deeply interested in writing down labor supply functions, and I started writing down models when I was at Columbia. It was after I left. I was working on this question, and at the time, I was a graduate student at Princeton. There was a legendary statistician there named John Tukey, and I asked Quandt about this problem. Richard Quandt was on my committee, at least for a while. He said, "Oh, go see Tukey."

I remember the way he said it too, "Hang out around the men's room in the statistics department, and if Tukey is around, then get him." So, I said, "No, I don't think I'm going to do that." That was a little bizarre, but I did write Tukey through the inter library or inter [inaudible 00:21:10] mail.

Orley Ashenfelter:

Interoffice. It was interoffice correspondence. Yeah.

James Heckman:

Interoffice mail, exactly. So I wrote him, and he wrote back, and we set up a time, and I went to his office, and he had a gallery. I don't know if you ever went to his office in Fine Hall, but he had a little gallery there where actually he had a blackboard, and he could get five or six of his students. So the whole department was small when Tukey was there, so he had all of his students come when I asked Tukey the questions. It was very bizarre. I was presenting this question to the master, and the students were all in awe, and they were sitting there.

There was a lot of worship of Tukey at the time. He was smart, no question about it. He was kind of a living link to Von Neumann, and he's really one of the great minds at Princeton in stats, but what I remember though is that he basically suggested a certain transformation, and I said, "I didn't like that." I didn't tell him I didn't like it, but I thanked him, and then left, and ignored everything he said. And then I went off, and I started thinking about this question, and then I started thinking more and more about the economics of this problem, and then I really started thinking about shadow prices.

Now, Mincer had written a paper on shadow prices many years earlier, but it wasn't very formal. I can understand that I think he was really getting at what I was getting at, sort of, but there was this shadow price business. And so, I said, "Well, how do you go to work? It's the shadow price is bigger than the market wage." So, I started building models of labor supply, hours of work where the shadow price would play a role in determining the hours work. So, for me, I was sitting there just playing around with this, and it was really at the time, it's hard to believe all this now, now that given all the work that's been done, but I remember when I first encountered this. I mean, the idea of something that we now think of is Tobin or somehow discreet dependent variables, it was like a footnote. A little section of a book by Arthur Goldberger had this in there. It was just was just kind of a curiosity.

And Tobin had done this work, and Rosett had done some work, but this was a little bit different. And so I remember talking to a statistician at Columbia, and Columbia had some good statistics groups at the

time, and talking to this guy about how do I do this kind of mixed, continuous, discreet variable? So thinking through it, I wrote this down, and then I wrote this model, and then I had to build a model of labor supply, and that made me feel very, very happy. And I do remember at the time that I gave the paper at Mincer's workshop. After Becker had left Columbia, Mincer ran the Becker workshop. I think I told you about the Becker workshop, right?

I'll tell you later. There's an interesting story, but literally, I gave it, and then I said, "Look, there's a problem here, missing wage," but, and this is the key thing that really excited me, I said, "Because of this missing wage, and because the wage is bigger than the reservation wage, we can gain some information on labor supply that we don't normally think about, so we can estimate preferences." And so Mincer was extremely happy with that. I just remember Mincer was a very austere person, very, very central European, kind of like a Henry Kissinger type figure, just very austere.

Orley Ashenfelter:

Yes. And when he liked something, he made it quite clear that he liked it. I still remember. In fact, I gave a talk there at his workshop once about this work that Krueger and I had done using twins to study the returns to schooling. He loved that.

James Heckman:

Yeah. He made my day, and I started working on this, and I wrote it up, but at the time... And then I wrote some related notes up, like dummy endogenous variable paper that appeared in *Econometrica* maybe five years later, actually, but I finally worked through it, and then there's another earlier precursor to this. I wrote it up, and I was working on this, and I wrote it out, and then, and this is the interesting, and this happened, then as I was working on this problem, that summer when I was really had developed and given this at Mincer workshop, Gronau was around. And of course, Gronau it turned out was working on very, very similar problems, and I should have known Gronau's work at the time, but I didn't. So I talked with Gronau. Gronau, I gave him comments on what he was doing. He gave me comments, and it was a very constructive interplay, and I remember being very grateful that we had this interchange on these things.

Orley Ashenfelter:

I appreciate you're mentioning him, because believe it or not, he's the next guy in line for this podcast.

James Heckman:

I saw him in Israel maybe six or seven years ago, but at that time, he was already retired.

Orley Ashenfelter:

Jim, I want to turn to a couple of other topics here.

James Heckman:

Sure. Okay. Yeah.

Orley Ashenfelter:

So, you wrote a paper once, which had a remarkable effect, but it's not very well known, and that's this paper about the integration of the textile mills in the South.

James Heckman:

Yes.

Orley Ashenfelter:

I don't know if you remember this paper.

James Heckman:

I do.

Orley Ashenfelter:

And I always thought the paper... And it's one of these kind of papers. It's a totally empirical paper. There's nothing methodological about it. It's empirical. It has some findings that are quite remarkable, at least to some people. And what it did really is it changed those people who had said... There were some people who had said that there not only was there no racial discrimination in labor markets, but that there had never been racial discrimination in labor markets. I still remember this because Richard Epstein was one of these people.

James Heckman:

Oh, yes. Oh, yes.

Orley Ashenfelter:

At the Chicago Law School. And he actually-

James Heckman:

My former colleague.

Orley Ashenfelter:

Your former... And he actually changed his mind. So he finally was willing to acknowledge that there had been racial discrimination at one time. Of course, it wasn't that anymore. There had been, and he really changed his mind because of your paper, and your paper is an example of a paper that settles an issue so well that no one pays any attention to it anymore.

James Heckman:

To be very honest with you, if I think of any paper I've ever written, to me, that's the proudest thing I've ever done, but I'll tell you the origin of that paper.

Orley Ashenfelter:

I was going to ask you the origin.

James Heckman:

I was sitting here in Chicago working, and I'd been working with you, so you have had a big influence on me. I'll state that for all time, whoever wants to listen to the podcast anyway, but you were doing work on... And we did some work together on the EOC data. So, I'd been looking at discrimination and so forth, but I was very curious about this argument that is what did civil rights do? And there was some

work, and you wrote a paper on that. It was a time series paper, and then Freeman wrote a paper and so forth. But here in Chicago, there was a lot of skepticism, not just Epstein, but Becker, and Stigler, and D. Gale Johnson. In fact, a lot of people, and Rosen too, for that matter.

Everybody thought civil rights laws can't do anything. And at the time, one of my friends, the late Finis Welch, had been writing this paper with Jim Smith, also the late Jim Smith, talking about the black progress was all due to education, and this was all going to happen as a result of inevitable secular trends. And I looked at and I said, "This is really interesting." I looked at this South Carolina data. I don't know where I became aware of it, but I became... Well, I know where I became aware of it. I became aware of it at Columbia. There's a guy named Donald Dewey, who wrote a book, or wrote a paper anyway, about segregation in the South, in the textile industry.

Orley Ashenfelter:

Yes.

James Heckman:

And I talked to Dewey about it. So, I became aware of this unusual time series in South Carolina where in compliance with the segregation law of 1915, they collected data for 50 years where they were showing what the compliance was at individual establishment levels with the law.

Orley Ashenfelter:

O, I didn't know that the law required them to segregate.

James Heckman:

It did. So I studied this, and believe it or not, I mean, nobody believes it. And in fact, I feel sad that nobody knows I wrote this paper, so I'm grateful you mentioned it because [inaudible 00:29:20].

Orley Ashenfelter:

Well, it's one of my favorites.

James Heckman:

Well, it's mine too, to be honest, and I wish to God... And it's not that I feel that I should say, I'm ignored or something, but this particular paper, what happened is I ended up reading every report of the South Carolina Department of Labor from 1915 to 1965 when it became illegal to collect such data, and I became deeply interested in this question. And then the question was you had this consensus, Smith and Welch really being the main protagonist that I was attacking in the opposite point of view, which was very popular in Chicago. Education, social change was gradual, and so forth, and so on. So I said, "I had nothing against Smith and Welch," but I said, it seemed to me that I wanted to test whether or not the government played a big role.

And that's a hell of a challenge because this is aggregate. I had this micro data. I had all this macro data. So what happened is I worked on this problem for years, literally, with two different groups of students, one of whom still won't speak to me, well, because we published this paper in the AER without his name, but that's another story. We published another version of the paper, but he had dropped out. **At one point, we were saying, "The government couldn't have done anything," but I kept looking at the data.** As I looked at the data, we collected one piece of data after the other. It was a census. We looked

at the South Carolina data. We looked at a number of different dimensions, and at the end, I had this study that had all these pieces of data.

And so, I would call this a methodological contribution, but I would call it to the study of abduction, which is this notion of instead of saying, "I'm going to have a null hypothesis a la R.A. Fisher," what I'm going to do instead is say, "I'm going to bring all the evidence I can from whatever to bear on this, including newspaper accounts." So in the end, before we sent it off to the AER, and before we really finished it, I had to speak at the University of South Carolina. There was an old labor economics professor there, and his name was Douglas Kiker, I think was his name. Douglas Kiker, I believe, was his name. He invited me down. I said, "Okay. This is Columbia, South Carolina." And I was okay, but I said, "I'll go there on one provision. I would like you to convene all of the textile, and union, and political officials who were around during this breakthrough of black textiles," and then I presented the paper in a seminar there for three hours, and then got their feedback, and it's cohered.

They said, "This is right. This is what happened," and so forth, and so on, but I tell you, I was swimming uphill in this. People would not accept it. I remember once I gave this talk at the AEA. And to be honest, one of the reasons why I went to Yale in the first place was I felt really uncomfortable here. I was basically a leftist, and the people still consider me a leftist. I realized a lot of people wouldn't consider me a leftist, not at all, but nonetheless, I was considered a liberal Democrat who was in favor of [inaudible 00:32:29].

Orley Ashenfelter:

Well, it's a little bit surprising because Gary Becker, who wrote the famous book, *The Economics of Discrimination*, presumably he must have thought that it had existed at some time.

James Heckman:

Well, he wasn't saying there was no discrimination, but the question is what brought about social change.

Orley Ashenfelter:

Oh, I see.

James Heckman:

And so I remember when I started giving this paper around here that David Friedman was still around. I don't know if you know David Friedman, that he wrote this book called *A Machinery of Liberty*, I think it's called.

Orley Ashenfelter:

Oh.

James Heckman:

Machinery of Freedom. He's still around. He's at Santa Clara Law School.

Orley Ashenfelter:

Yeah. No, he's Milton Friedman's son, isn't he?

James Heckman:

Milton Friedman's son, an ardent libertarian, more ardent than Friedman ever was, but there were all these people around, Reuben Kessel. You have to understand that there was a pretty large group of people who could basically... And Stigler, oh, Stigler, he couldn't believe that government could do any good. And so, what I remember showing this data, and to the people who were willing, Becker never really openly opposed it, but he never really ratified it either. I was a little bit fishy, and I remember Gale Johnson, who was at that time the chair of economics department, asking me, "Do you really believe the government did good?" And I said, "Yeah, in this case." And David Friedman's explanation was, "No, this is a case where government monopolies," sorry, "where unions had set up discriminatory laws, and so these laws undid the unions. "And I said, "Well, there were no unions in textiles." But I tell you, that's the way I really, honestly believe empirical work should be done in economics, and that's why honestly that's my proudest paper in the whole bundle of papers.

Orley Ashenfelter:

Well, I'm glad the two of us at least feel that way about it.

James Heckman:

Well, others do too. I'm surprised by it. I mean, a few years ago, I got this honor you've gotten too, the Distinguished Fellow Award, but that paper was cited in that citation, and I thought it was very nice.

Orley Ashenfelter:

Of course, I might have written the citation.

James Heckman:

Well, okay. That's probably true.

Orley Ashenfelter:

All right. We're getting towards the end here.

James Heckman:

Okay, sure.

Orley Ashenfelter:

And there's one more thing I want to ask you about. You have in the last probably 10 years or longer, have been very actively involved in, I guess the Center for Economic Analysis of Human Growth, which I think it focuses on early childhood development, I guess you could say.

James Heckman:

Well, now it stretches into adolescence and adulthood, but yes, it started with early childhood.

Orley Ashenfelter:

How did you get so interested in that topic? Because I think I've heard you give a public lecture about it, a very impressive lecture, and I think it has had quite an influence on many people. I think I saw you on one of the television shows, on MSNBC, I think, where-

James Heckman:

Oh, Rachel Maddow?

Orley Ashenfelter:

Rachel Maddow. Weren't you on Rachel Maddow?

James Heckman:

I was with Rachel, and you told me at that time your wife was impressed.

Orley Ashenfelter:

She was. She was a great fan of Rachel Maddow, and-

James Heckman:

Well, she's a smart lady, Rachel Maddow.

Orley Ashenfelter:

She is, but I think she kind of was leery of you because I think she liked the idea that spending resources on people in early development would be helpful to them, but she was very surprised, perhaps, or even afraid that since you were from the University of Chicago, it couldn't really be true.

James Heckman:

You go back to the Mincer workshop at Columbia back in the 60s and 70s, there were people around working on aspects like this. Arlene Leibowitz, who's at UCLA now, wrote a paper that's published in the JPE in early... It was childhood investment, and Marshall talked about this, and the most important contribution to the development of a human being is the family, and of that, it's the role of the mother. I'm paraphrasing it. So it was around. That was in the atmosphere, but my personal interest in this came because of the work I was doing in job training. I did a lot of work, also inspired by you. Look, for the record, this guy actually had a huge influence on me and shaped some of the topics. I had a kind of rivalrous sometimes antagonistic view. I always question I can knock him off. I don't know if you ever read this poem by this poet, who is a doctor living in New Jersey. It's called My Son The Destroyer.

Orley Ashenfelter:

Oh, yeah.

James Heckman:

But there's always some competition. We weren't that far apart in age, but seriously what the whole discussion of job training to me at that time was totally depressing. We're getting negative results, nothing coming out. And then at the same time, this book by Murray, Charles Murray, *The Bell Curve* started, was in play. And the reason why that was so important to me is that Murray sought me out. And in fact, if you read the volume, if you read the book, I'm the first person thanked. He came to Chicago on many occasions. He liked the work I'd done on the GED. He had read some of my work. He asked for statistical advice, and so I spent time with him.

He'd fly here. We talked. I'd see him at conferences and so forth. And he sent me the manuscripts. I commented on it, but then Herrnstein died, and then he went to this genetics, which was nowhere to be found in the first part of the book, and that was purely Murray, and that was purely just unsubstantiated. At that point, Murray won't speak to me anymore because of some reviews. He just

won't. He won't even debate me. I've offered on several occasions. But one thing I found very interesting, and it was an accident, I had gotten a leaflet in the mail. My wife and I went to... And there was something called the Erickson Institute here in Chicago. Chicago has had some philanthropists, Irving Harris, after whom the School of Public Policy here is named. Harris done a lot of work on DOULAs, so called. These are environments to try to train children and give children early life experiences that were productive.

And so I started getting interested, and I said, "If it's really true that we can't change things and these skill.." I thought the contribution of the book by Murray and Herrnstein was showing that these skills mattered, but this was like an adult life. So, the question is how were these skills formed? And for him, Murray, it was genetics, but I said, "I don't think so." And then I started looking at this literature, some of which Herrnstein actually contributed to, some intervention of Venezuela, some back in the 1970s, I think, showing you could boost IQ. So, I started reading up on programs like Perry and ABC, and I got fascinated.

I said, "Well, maybe it's too late when they're teenagers, but maybe there's something we could do younger." And there was a guy, a lecturer at the Erikson Institute by a guy named Harry Chugani. That's his name. He's a neuroscientist at Wayne State in Detroit and he showed these brain scans of infants exposed to different environments, and I was blown away. I couldn't stop reading it at that point. So I got into it and slowly, slowly I wormed my way into this. So I had these studies of Perry and ABC. They were done very badly statistically.

So I got the data. I finally collaborated with these people. They were extremely paranoid. They thought I was going to take away their credit for their work, which I've never done. I've always given the credit, but put that as it was. What happened was that I got deeper and deeper into this question, and I became fascinated. And then there was another person who you may know, you may not know, he was a scientist, a physician really, in Canada, a guy named Fraser Mustard. Is that name familiar?

Orley Ashenfelter:

I don't know him, no.

James Heckman:

Yeah, he's the one. He set up this Canadian Institute for Advanced Research, but Mustard was deeply committed to early childhood. So he and I were put together on a series of panels, and we got to know each other, and we ended up I think we were in Mexico together, and we went to Australia together. Anyway, what happened is he gave me a full education on the neuroscience and child development physiology, and I got deeply interested and started building economic models. And so my feeling was this may be the actual counter to that negative that I was getting on the job training data. I figured if we start early enough, maybe it'll make a difference, and I qualify it now a little more, but I got deeply interested. There were all kinds of statistical and technical issues, and there were some statistical issues I got into that I simply hate. I did it. I mean, this was a sense like I felt it was my duty.

So, I got deep into this small sample statistical inference, exact small sample inference, and I hated it. I don't like testing that much, and it was just a lot of permutations, a lot of inequalities, but I did it, because we had to get the results, but there were other aspects about development. So, I became fascinated by this, but I've also now developed a lifecycle perspective, and I've become aware of something else. Yes, the early years are important, but the adolescent years are also very important. There are two phases of development, and I feel a little bit like, okay, the early years are getting a lot of attention, and I'm sort of heading myself into the adolescent years where I see there's a lot of growth. You know Steinberg was at Temple University?

Orley Ashenfelter:

No, I don't.

James Heckman:

He wrote a book called something like *The Age of Opportunity*, I think it's called, but basically he has this model, which it's documented, and it's documented by good neuroscientists showing that not surprisingly there's a neurophysiological basis, but what you see is that there is this growth of the pleasure center, the dopamine receptors, these receptors that give you pleasure. Those mature earlier in the child, in the adolescent, and the control, the self-control centers associated with the prefrontal cortex and amygdala are later. So there's this gap in development, which exactly explains a lot of crazy things in adolescent years.

Orley Ashenfelter:

Yeah, it's interesting because it's obviously the case that something happens in the early adolescent years.

James Heckman:

Yeah, puberty, puberty. It seems to be puberty.

Orley Ashenfelter:

Right. My favorite example is... I don't know if you've ever met Henry Kissinger and his brother.

James Heckman:

I've met Kissinger, but not his brother.

Orley Ashenfelter:

His brother is just a little younger. So Kissinger arrived in the US after he was the age of 14, and the brother arrived earlier.

James Heckman:

Ah, yes.

Orley Ashenfelter:

I'm sorry, later. So the brother is actually younger than Henry Kissinger and arrived at a point where he was younger when he arrived in the US.

James Heckman:

I see.

Orley Ashenfelter:

Both of them, of course, were originally German speaking. The brother sounds just like any other American. Henry, of course, sounds like Henry Kissinger.

James Heckman:

Exactly, yeah.

Orley Ashenfelter:

And it's just a question of when they arrived in the US that somehow that accent is formed. Anyway, my favorite example...

James Heckman:

Yes. No, around 10 or 11 the language acquisition in the brain, it takes over. I mean, you're learning from different parts of the brain. That's been documented.

Orley Ashenfelter:

But I can see how you get interested in adolescence. Well, anyway, it's been great to talk to you, and I think it's pretty obvious from our discussion that you could talk forever.

James Heckman:

Well, that's the trouble. I probably can, the question is, am I saying anything? Talking is easy. Talk is cheap. Content may be a little harder. That's all.

Orley Ashenfelter:

It's a conversation, but I think it's I'm not the only person who's listened to you in a seminar that went on for hours. You described the three hours with the textile people, but I think I went through that seminar here, and it was almost three hours here too, so it's-

James Heckman:

Right. No, I gave it there.

Orley Ashenfelter:

Yes, I remember.

James Heckman:

But I'm glad you raised that, because that to me... I feel sad though. One thing about that paper that I actually treasured, when that paper came out in the AER, I got a letter from Solow. This was at a time when letters were sent through the mail, and Solow congratulated me on the paper, and he made a statement. I have it around here somewhere, saying, "This should be a model for empirical research and economics." And I think he was right because we don't do that. I mean, really understanding your data, understanding the context.

Orley Ashenfelter:

That's [inaudible 00:45:11]. Yeah.

James Heckman:

And right now you have these natural experiment people. Somebody comes in from Austria and does a study of a natural experiment in Alabama. He has no idea.

Orley Ashenfelter:

It's a lot of work. It's a lot of work, and-

James Heckman:

It's a lot of work, but at the same time, it's that sense of standard where you present all the evidence and the best you can, but you're always open to criticism that you missed something or you misinterpreted something. So anyway...

Orley Ashenfelter:

I am going to end this. Our guest today has been [James Heckman](#), the Henry Schultz Distinguished Service Professor of Economics at the University of Chicago. Please join us again for the next episode of [The Work Goes On](#), an Oral History of Industrial Relations and Labor Economics from the [Industrial Relations Section at Princeton University](#) when we will speak with [Reuben Gronau](#), Professor of Economics Emeritus at the Hebrew University in Jerusalem. I'm your host, Orley Ashenfelter. Thanks for listening.

Announcer:

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