

What Happens Next – 7.11.2021

Literature, Creative Destruction and Supermarkets

My name is Larry Bernstein.

What Happens Next offers listeners an in-depth analysis of the most pressing issues of the day.

Our experts are given just SIX minutes to present. This is followed by a Q&A period for deeper engagement.

This week's topics include Literature, Creative Destruction, and Supermarkets.

The first speaker today will be Angus Fletcher who is a Professor at Ohio State University. I first met Angus when I listened to his screenwriting class offered online by The Teaching Company. The course was fantastic. I loved Angus's passion for methods to write a great screenplay. Angus has a new book entitled *Wonderworks: the 25 Most Powerful Inventions in the History of Literature* that applies modern psychology and neuroscience to understand techniques that authors use in the art of storytelling.

A few weeks ago, on What Happens Next, we had a conversation with Aljean Harmetz about the making of the movie *Casablanca*, and I plan to ask Angus about the screenwriting methods in that Hollywood classic.

Our second speaker is Philippe Aghion who is a Professor at the College de France and at the London School of Economics. His research focuses on the economics of growth and in particular his pioneering work on the application of the economist Joseph Schumpeter's work on creative destruction to explain the economy's endogenous growth. Today, Phillippe will be discussing his new book entitled *The Power of Creative Destruction: Economic Upheaval and the Wealth of Nations*.

Our final speaker today will be Benjamin Lorr who is the author of *The Secret Life of Groceries: The Dark Miracle of the American Supermarket*. Ben explores the economics and inner workings of the American supermarket. He will cover how entrepreneurs fight for shelf space and the mechanics for food distribution.

Since the beginning of What Happens Next, I have commented on the monthly employment report because it includes the most important economic statistics. The volatility of these employment numbers has been unprecedented and they help us understand what is going on in the real economy. The Bureau of Labor statistics report was released a week ago, but I took the 7/4 holiday off, so my analysis is unusually tardy.

I want to focus our listeners on the surprising differences between the two employment measures calculated each month. The BLS employs two different surveys to estimate the changes in employment. The first is the Establishment that surveys large firms that include

around 150k businesses and asks them the number of new hires and fires. The Household surveys 60,000 and asks over the phone how many people in that home got hired, fired or left the labor force. Each survey has their respective benefits and problems. The Household survey covers many types of employment that are not covered by our largest firms but the Household survey has a variance that is 5 times more.

Betsey Stevenson who was the former chief economist at the US Department of Labor in the Obama Administration who spoke on this podcast previously, mentioned that when she analyzes trends in US employment, she uses an estimate based on the three month average of employment change in the Household survey and the current month for the Establishment survey. Betsey uses weights of 60% for Household and 40% for Establishment because she believes the Household trends more but uses an average because of its higher variance.

Let me get to the punch line. The Establishment Survey is showing solid growth in employment but the Household is *Not*. The question is why and which survey is telling us the true story. Here are the numbers. The Establishment survey shows employment growth of 850k in June and 1.7mm for the past three months.

The Household survey showed ZERO growth last month and 750k for the last three months or a difference of a million jobs.

Which survey is more accurate now, who knows, but it is important to consider because it will impact Fed policy and the pace of the recovery?

Here is what we know, there are over 9 million Americans looking for work and even more job openings. Economists like Casey Mulligan who spoke on our podcast several times, thinks that his chasm is caused by very high unemployment benefits. Casey hopes that these distortions will be reduced after September when the Federal government's extra benefits are scheduled to end.

Many small businesses were forced to close because of COVID and most of them will never reopen. Those workers from these closed firms will end up working for either large established firms or newly formed companies. It is possible that this shift of workers from closed small businesses to large established firms explains the rosy establishment survey employment results.

The Establishment survey uses a historic model to estimate job gains and losses from small firms and newly established firms who are not surveyed, but we are living in unprecedented times, so that model may be wildly off.

I have not seen a discussion about the different survey results in the business press, but I expect it to become a big story if these different survey results are ongoing. One last point is that we hear from small businesses that they are having a very difficult time hiring and keeping workers which is consistent with the idea that workers are drifting away from small businesses to larger established firms.

I would like to expand the What Happens Next audience so that more people can enjoy our programming. I started a social media outreach using Twitter to increase listener engagement. Please use twitter or email me to ask questions during the live discussion. Our twitter username is whathappensin6, where six is the number. I want to hear from you. You can always email me at larrybernstein1@gmail.com.

Our first speaker today is Angus Fletcher, an English Professor at The Ohio State University.

Angus Fletcher:

I'm here to tell you that what's next in our future is literature because literature is the most powerful technology that we humans have ever invented. More powerful than computers, rocket ships, and artificial intelligence. By literature, I mean the classics like Sappho, and Shakespeare, and Maya Angelou, but I also mean Winnie the Pooh and comic books like Alison Bechdel's Fun Home, and TV shows like Tina Fey's 30 Rock, and films like Casablanca. All that is literature, all that is the most powerful technology ever invented.

Now, when I say that literature is the most powerful of all technologies, people sometimes think that I'm being metaphorical or over the top, but it's a literal, scientific fact. Which is why, to give you one example from my recent research, I'm doing a joint study with the United States Army in which we're testing a specific literary invention on 800 of the Army's top officers, majors and colonels, to help them boost creative thinking in pressurized situations. So, in other words, we're testing how a literary technology can increase your performance in life and death environments, to think fast and devise original solutions to rapidly changing problems that computers and artificial intelligence can't solve. And the data is solid enough that we've already got strong interest from other sectors of the Department of Defense and a half-dozen Fortune 50 companies.

The scientific reason that literature is so powerful is that it allows us to get more out of our brain. And the human brain is, as we all know, the most powerful thing on earth, for good or for ill. So, by helping us get more of the good, and less of the ill, literature can transform the globe, giving us more medicine and innovation, and less prejudice and hate.

We've all experienced those literary benefits firsthand. We've all read a book and felt better, or read a poem and felt uplifted, or watched a play and felt our imagination spark, inspiring us to dream up new possibilities. And what our research at Project Narrative does is take the next step. It identified the specific nuts and bolts, the specific technological innovations, the specific invention blueprints that literature uses to generate its psychological benefits. Then we run experiments to quantify those psychological benefits, to help you get more of the good stuff waiting on your bookshelves.

So, for example, if you wanted to boost your optimism, availing yourself of the mental benefits that Martin Seligman and other psychologists have associated with a shift out of pessimism, we can point you toward what fairy tales are most likely to help and also which fairy tales to avoid. Hint, avoid most of the stuff made by Disney. With that scientific know-how, you can read more intentionally, targeting your reading to get more of what you want now and changing your reading to shift as your own personal wants and needs evolve. So, if you want to get more

creative, there's a technology from Shakespeare. If you want to help recover from trauma, there's a technology from ancient Greek tragedy. If you want to get over anger, there's a technology from the Hebrew Bible. If you want to become a better problem solver, there's a technology from Edgar Allan Poe. If you want personal growth, there's a technology from Maya Angelou. If you want more courage, or life purpose, or any of dozens of other psychological benefits, there are technologies for them too.

I'm able to do this work because I have dual training in neuroscience and literature, but I don't do my research alone. I do most of it in collaboration with neuroscientists, psychologists, and doctors. And that interdisciplinary focus is why our research has attracted interest outside of university literature departments, inside of hospitals, engineering labs, and as you might have seen at JP Morgan and McKinsey. But our research also has revolutionary consequences for the way that we teach literature at school.

A scientific approach to literature's technology can access more of the practical potential of the humanities. It can help undergraduate engineers invent more creative technologies and science PhDs imagine new experiments, and students of all kinds boost their mental wellbeing. But to do all this, we have to change the way that we teach literature in our schools. We have to stop telling students to interpret books and write argumentative essays. That is the same pre-scientific approach that was taken to literature in the Middle Ages and that is recycled today through institutions like the Common Core.

Instead, we need to bring psychology, and neuroscience, and medicine into literature classrooms, marrying cutting-edge lab research with classic novels, plays, and poetry. Empowering students from kindergarten to college to tap into the parts of literature that their brains intuitively respond to. The characters, the stories, the worlds, the emotions. Hopefully that sounds intriguing, even exciting, but because it's a radical change, I often get questions and skepticism. So, if you have concerns, I'd love to talk them through.

I'm not here to force science on anyone, but I believe that we have an opportunity in front of us to use science to unlock more of the power that's in our favorite books and films, to make a happier, mentally healthier, more resilient, more courageous, more joyful, and more creative future. The future, I hope, that's what's next.

Larry Bernstein:

Fabulous, Angus. I'm really interested in how it's going to change the teaching of literature in schools. In your book you have a chapter on Hamlet, for example, and so maybe I'll start with that because that was a play that I was taught in high school. How would you teach Hamlet that's different from the way that I was taught? What are your objectives and what sort of homework assignments or essay writing would I do differently in your paradigm?

Angus Fletcher:

So, first of all, in my classrooms I don't assign Hamlet. Even though I'm an expert in Hamlet, even though I published a whole book on Hamlet, I don't assign Hamlet. And, in fact, I don't assign anything. I tell my students to bring in their favorite works of literature or whatever it is that they're reading, or in advanced classes I tell them to bring in literature from people they

admire, or like, or respect. To find a parent, or a mentor, or a hero of theirs and find what their favorite poem was and bring that in.

So, the whole point of the way that I would like to teach is to empower students to bring in their own readings, as opposed to assigned readings to students. Because I think, on a most fundamental level, the whole joy of literature and the whole emancipation of literature is being able to walk into a library and choose what to read. I mean, that primordial sense of possibility is the number one thing that literature gives us, the sense that we can create something new as opposed to being told something old.

And that idea of being told something old is, I think, what most of us get when we're in school. We get this book, it's an old book, and then we get this anxiety. We feel we have to interpret it or analyze it in a way that pleases our teachers, and it makes us conservative. So, first of all, I just want to get rid of all of that. If you wanted to read Hamlet, if you came to me and said, Angus, I love Hamlet, I want to read this. Then I would say, absolutely, let's read it together. But if you wanted to read something else, we would do that.

Then, whatever it is that you brought in, whether it's Hamlet or something else, the first thing is we would not read it for its themes. We would not spend a lot of time arguing about what it meant. That's the approach that was developed in the Middle Ages to read the Bible, where people just got into endless arguments. And you will notice that in modern literature departments, it's the same way. All people do is argue over the meanings of texts, and then everybody gets their own meaning, and then we spend a lot of time talking about ambiguity or whatever as a kind of high value of literary works. And that's just another way of saying that we're all having an argument that we can't resolve, and that's not helpful.

What is helpful is to start by identifying what your emotional response or your imaginative response is to a text. And that means bringing in all these questions that we're not allowed to talk about in school anymore. So, for example, what characters did you like? Why did you like those characters? Were you surprised by the story? Did you feel a sense of suspense? Did you feel fear, did you feel joy? Bringing in all those kinds of questions, that starts to allow us to process your brain's natural and normal psychological response to literature.

And then, finally, instead of having you write a paper in which you use supporting evidence, which is supposed to teach critical thinking, instead what we would do is we would have you write your own work of literature. We would have you write your own creative work. And we would, in that way, teach creative thinking. And by teaching creative thinking, what we would do is we would help empower you to leverage the imaginative potential of literature and carry it outside of a classroom to solve problems in your own life. Whether you're a scientist, or an engineer, or a doctor, or an artist, or a politician, or a business person, to leverage that creative potential in literature. So that instead of having an argument and writing a thesis and using evidence, you would instead be using your brain to create, to generate, and imitate the same force that went into the literary work to begin with.

Larry Bernstein:

That's very consistent with your screenwriting class. So, you would always have a screenplay like *The Princess Bride*. And then you would say, okay, look at how the author wrote this

screenplay to follow a certain structure. Why don't you, at home, try to write a TV pilot or write a screenplay that would focus on that approach. So, this idea of being a creative person is a consistent theme of yours.

Angus Fletcher:

Yeah. Well, one of the things that's kind of curious about my background is I started out in neuroscience. I did not start out in literature at all. I started out in neuroscience and I started out in neuroscience in a neuroscience lab. And what we thought in that lab, as everyone did at the time, was that the brain was basically like a computer. That it basically operated like artificial intelligence operates. And it just took in a lot of data, and it crunched that data, and then it came up with judgments. And the only time the brain misfired, we thought, is when it had emotion or something like that that came in and kind of corrupted its judgment and interfered with its decision making.

But the more you understand the brain and the more you understand the mechanics of the brain, the more you understand the brain does not work at all like a computer. It's not logical. It doesn't take on huge amounts of data, it doesn't do any of that. What's special about the brain is that it's creative. I mean, the human brain is enormously creative and it has a series of machine mechanisms inside it, built into it, that are not magic, that don't involve the soul or imagination, but are there that you can study in a nuts and bolts way that generate creativity. And so, the reason I left neuroscience and went to literature, to get my PhD in literature, was because I wanted to study creativity.

And I thought, literature is a great example. That's where creatives go. They go to create stories, they go to create art, I want to understand how that operates. And so, I was surprised, as I think many people are surprised when they get into literature classes, to realize that actually most of what you do in literature classes today is critical thinking, which is a species of logic, which is the same thing that a computer can do. And so, ever since I had those early classes, I've thought to myself, well, we need to turn this education around. We need to tap back into what it is that people respond to intuitively about literature, which is its creative force. And everyone, when you read a book or a story, the first thing you do is you enter into the character's perspective and you start imagining yourself as that character. And you start imagining, what would I do as this character?

And we've all had the experience as a child, when we read a book, which we entered into maybe a fantasy world or science fiction world or what have you, where we start imagining our self in that world. And we thought, where would I go in this world, and how would I journey in this world, and how would I do these things in this world? That's the immediate primordial power of literature.

And so, even though my background and my training, started out in neuroscience, ended with a PhD in literature, I've gradually transitioned over my career to teaching more and more MFA classes in creative writing and to working more and more in creative industries, like Hollywood, because I think that's ultimately what literature should be used for. And the fact that it's now used in classes to teach other things, like arguments, is to me very counterintuitive and not very scientific. And so, I would really like to see there be more emphasis on creative writing at a

young age in schools, and more of an emphasis on if you like a movie, write your own movie. If you like a poem, write your own poem.

And that, to me, I think is really how we learn from authors because, ultimately, do we go to Shakespeare to learn right and wrong? Do we go to Maya Angelou to learn right and wrong? Or do we go to them to learn how to write, how to create, how to think, how to imagine, how to develop characters, how to tell a story? I mean, that's what they're experts in. That's always been kind of the focus of my training and kind of my work. And I'm really glad you responded to the screenwriting class.

And that, I think, in general is something that most people respond to in education, is a feeling of being empowered to do something that they want to do. And I think what most of us most want to do is create.

Larry Bernstein:

We had this education scholar, E.D. Hirsch, on our call a few months ago. I don't know if you know his work, but he focuses on the importance of content. He thinks that all American children should have a similar syllabus. And, therefore, we would be exposed to the same sort of work and, therefore, all Americans could have a collective conversation. He feels the same way about the French. The French would have their own literary works, and they should have their own conversation, and should be able to speak with each other. What he fears is that in many American classrooms we learn different books, different novels, different plays, and, therefore, it limits the conversation and undermines the learning experience on a national basis. He doesn't care so much about what the books are, he just wants there to be a lot of overlap.

What you're heading for is almost no overlap, everyone gets to decide on their own, even within the same classroom. How do you think about E.D. Hirsch's concern about a national conversation with all this academic freedom of choice?

Angus Fletcher:

Well, I think that's a totally non-biological concern that he has, frankly. That's an ideological concern. So, I mean, humans, our brain evolved to function in diverse and shifting environments. And we have a lot of anxiety that is misplaced, that somehow being surrounded by a lot diversity and change is bad for us. It's healthy for us. Humans evolved as empathetic, curious creatures. We're very adaptive, we're very good at changing. And the more variety we have in our lives, the more stimulation we have in our lives, the happier we are.

What causes us to be unhappy is not a variety of stories. What causes us to be unhappy is economic fragility, or poverty, or a sense that our personal being could be damaged or harmed. So, we don't like instability or variety in a sense that I could wake up one morning and then find I was thrown out of my house, but we love the idea that we could turn on the TV and see something totally new. I mean, nothing is better in life than making a new friend, and then realizing that she knows something about the world that we don't know at all. And nothing is better in life than going on a journey or a vacation to a different part of the world.

So, if we could have more of that variety, that cultural variety in our lives, we would be much more emotionally happy. And that's the bounce we need, is emotional variety, intellectual variety, cultural variety, but economic stability, medical stability, so that our bodies and the kind of basic wellbeing and needs are taken care of in that way, and our minds are allowed to bloom, and flourish, and explore, and branch, and go in any direction we want.

So, I could not be further apart on that issue, but hopefully that's a kind of positive debate for the people who listen to this podcast to have among themselves.

Larry Bernstein:

A couple weeks ago we had Aljean Harmetz, a Hollywood correspondent, who had written a book on the history of the making of the movie Casablanca. And in your Teaching Company course, you had a full segment on the screenplay Casablanca. A number of our listeners went out and re-watched or watched for the first time Casablanca in the last couple of weeks. So, I thought this would be a good way to sort of employ your techniques in the context of thinking about the structure and the making of the screenplay Casablanca.

Angus Fletcher:

I should be honest and say that I, myself, had not watched that film until I was asked to do that Teaching Company course. And I kind of grew up in a kind of, and I was kind of trained in the kind of newer Hollywood, where everything was about color movies, and animation, and kind of fast, fast, fast. And first of all, just watching that movie was just a tremendous pleasure because, to me, it was such an uplifting and hopeful and joyous movie. I mean, even though it's a movie in black and white, it's a movie that touches the heart. And it's a movie that by the time you get to the end of it, you feel just a deep, powerful, hope. A deep, powerful sense that people can be redeemed and that the future can be better.

And so, I did with that film what I do with all my work, which is started out with a kind of scientific research. We worked with a large population of audiences to kind of talk and determine what their emotional responses were to the film, and we found out that my response was relatively consistent. In fact, really was consistent in the sense that most people who get to the end of that film feel a sense of emotional renewal and hope. And we then went into the technology of the film, in terms of what it was doing and how it was building that.

And the film takes a lot of technologies from 19th century romanticism. And in the romantic era, as people will know if they're a fan of poetry and painting from that era, the kind of core of the art is to reconnect us with our nature, with our inner nature, with what we were born as. And the idea being that what happens over time is that culture, and logic, and society, and all these kind of artificial things take over and alienate us from ourselves. And the more we become obsessed with the job that we have to do, or the more we get obsessed with the kind of machinery of society, the further we get away from our core self, which is our heart, which is our ability to love ourselves and love other people.

And what Casablanca does is it introduces you, in terms of its story world, into a world that has become that kind of heartless machine. That Nazi world, where this kind of relentless, artificial attempt to engineer a better society that is totally and fundamentally un-human, that kind of

makes sense to a certain kind of rationalist mind, but is just profoundly dismaying to all of us sentimentally and emotionally. And then it gives us a series of characters who are themselves alienated,

who feel that it's dangerous to feel and to care and to love. And then what it does, is having kind of put us in that place, it starts to unlock our hearts by looking back to the past. By looking back to Paris, by looking back to this moment where love was possible, where romance was possible. And it creates this ache in us to want to go back to that time, back to our earlier selves, back to our prior nature, back to who we were before the kind of world took over, before this kind of machine took over and alienated us from ourselves. And then that kind of locked state of emotion of aching, of wanting, of desire to go back to the past is held onto by the movie. It's a remarkably static movie in terms of its storytelling and its plot.

That's why a lot of audiences now find it slow. But what it's doing is it's putting you in this state of kind of compressed, wanting to feel without actually being able to feel. And then in the last 15 minutes or so of the movie, all of a sudden everything happens, the past returns to the present, the heart opens and unlocks, and you can just feel again. And it's that moment of feeling of your heart unlocking, of your heart unfreezing, that creates that sense of joy and enthusiasm and happiness that is kind of locked down at the end with that kind of final line and that kind of opening up of a new future.

So hopefully when people watched Casablanca, that's what they felt. Hopefully they felt this sense of renewal, hopefully they felt this sense of tension as they were watching it and wanting to care and wanting to hope but being unable to because everything was kind of locked in place. And then all of a sudden, the moment of release. And that's the kind of way that literature in general works. This literature is this technology for activating different parts of our heart, our emotions, different parts of our psychology, and then kind of shifting them around and moving them around to generate these powerful responses. Which in the case of Casablanca is a renewal of hope, in a sense that things can be better again.

Larry Bernstein:

Yeah, I love the movie. And one of the interesting aspects in terms of character development, what we don't see is a lot of character development for Victor Laszlo or Ilsa, but we do see character development for the Claude Rains and the Humphrey Bogart characters as they've completely shifted in what they care about and how they behave. How do you think about which characters develop and which ones don't, and is that important as you think about who the audience responds to in this film?

Angus Fletcher:

I think to say that Rick develops is correct, but also what he develops, how he develops is he gets back to who he was before he became jaded and cynical. So that's an unusual kind of, I mean that's like getting back to our true selves. I mean, that's like if any of us have ever had that experience of getting into a job or getting into a stage in our life and we start to lose our way. And we become disenchanted and we start to drift, that's where he is. And so really his character development is getting back to who he was. And at the time that that movie was

made, I mean, and I think a lot of times now, people looked around and said, "How have we got here? What are we doing with our world?"

I mean, this is not human. This world we built is not human, and why do we keep running forward in this direction that is hurting us? And I think what's remarkable about what those characters do is they have the bravery to let go of that and go back to who they were. And I think that's why the movie is both powerful, but also plausible. Because all of us have that inside us to go back, all of us can go back to being who we were. All of us can kind of give up the kind of artificial stuff that we've kind of put into our lives. And the things that we're chasing, because we think that somehow that's going to bring happiness and go back to who we were when we were younger and were better people. And I think that's courageous, but it's in us, and to me that's the power of the movie.

And as far as the characters who don't change, I mean, I think to a certain extent when we're talking about Ilsa part of the reason she doesn't change is because she's already kind of whole to begin with. She's always a character who we admire from the beginning and has always kind of held out certainly in the kind of romantic story structure as who we were and the person who, when our heart was truest, we were with her. So I think that's why she doesn't change, because she doesn't need to is because she is the heart.

Larry Bernstein:

Do you feel like there's a universality to that story world? I mean, it came out when the Nazis were basically running Casablanca and then United States invades it around that time. Casablanca wins best picture in 1943, but it becomes one of the most watched films of all time in the decades and even to the current day. What is it about Casablanca that makes it both universal and timeless?

Angus Fletcher:

So I don't think it is universal or timeless, I'm just going to be honest about that because I'm a biologist, I don't think anything is universal or timeless. I mean, I think the dinosaurs made the mistake of thinking that they were universal and timeless. And I think if we humans make that mistake we're gone. But I do think that it has enormous power for a lot of people and is going to continue to have a lot of power for a lot of people. Because what it's pointing to is the nightmare that we've created in the modern world. I mean basically, the modern world is a machine that has gotten away from all of us. I think that's why people tap into it, is because people want to feel, and people want to believe that there's a way out of this prison we've created with empires and kind of these sort of large industrial corporations that have kind of taken over our lives. And they've kind of marginalized us in this kind of huge rat race.

And I think that resonates very powerfully for people and particularly after the second world war, because I mean the whole crisis that the world got into at that point was this idea, this kind of idea, that we were going to build these better societies by imposing them on people. That communism was going to impose a better society or that fascism was going to impose a better society. And I think people just realized, actually, I want to just... I don't want to be kind of thrust into this man-made nightmare. I actually want to kind of return to a simpler state of

joy and happiness and hope and friendship, which is what really the end of the movie is about. So the answer I would give is that, yeah.

Larry Bernstein:

My final question for you is your comment about Disney films being exactly the opposite of what you want. Needless to say, like many parents, I indulged my children with endless supplies of Disney movies. Sometimes watching over and over again, Beauty and the Beast, the Lion King, almost with continuous showings. We did have the Wizard of Oz also in that loop. What is it about the Disney films that you found counterproductive in terms of creativity and human development?

Angus Fletcher:

If audiences want more of this, I just, Malcolm Gladwell has written about me on this, and I'm on his podcast in the future on this. But basically this was a very surprising research result to me, because I got together with Marty Seligman and we wanted to look at literature that created optimism. And our instinct was, well optimism is created by fairytales and Disney fairytales are so popular they must be an enormous source of optimism. And it turns out that actually when people watch Disney fairytales the same thing happens, which is that they feel better in the short term and then in the long run they start to feel worse about themselves. And the reason for that is it's very simply that in Disney fairytales, virtue is always rewarded. So good things always happen to good characters and bad things always happen to bad characters. And that seems like that makes a lot of sense. You'd think you'd want to watch, you'd want your kids to watch movies where bad things happen to bad people and good things happen to good people. But it turns out that when you're depressed or you're feeling down about yourself, what that says to your brain is if I'm feeling sad right now, and bad things happen to bad people, there must be a reason why I'm feeling sad. And that must be that I'm bad, I must be being punished for being bad. And if I'm a bad person, I'm going to get worse and worse and worse and worse. So we just see that these Disney movies actually lead to catastrophizing and sadness. And actually what makes people happier is movies like Up, Pixar's Up, or Willy Wonka and the Chocolate Factory, movies that are about kind of random serendipity. That's what really helps people get their hope back, because hope involves something good coming from something bad with no reason whatsoever. And Disney movies are just far too logical to allow for that human optimism.

Larry Bernstein:

All right, Angus, thank you so much. We're going to go onto our second speaker, Philippe Aghion. You're going to be talking about your new book, The Power of Creative Destruction: Economic Upheaval and the Wealth of Nations. Philippe, tell us about creative destruction.

Philippe Aghion:

Creative destruction is a process whereby new innovations replace old technologies, whereby continuously new innovations make old technologies obsolete. For example, the steam engine replacing carts on wheels, electricity replacing steam engine, robots replacing Fordian assembly

lines, this is all about creative destruction. The history of growth is all about creative destruction. Now the problem, creative destruction involves a contradiction. On the one hand, you want innovation rents to encourage innovation. We innovate because we pursue rents, we get rents when you innovate. But on the other hand, yesterday's innovators will be tempted to use their rents to prevent subsequent innovations, because they don't want to be subject to creative destruction. And you see regulating capitalism, it's all about how to manage this contradiction. On the one hand, you give rents, you need rents, but you must make sure they are not used to prevent subsequent innovation.

Schumpeter himself was pessimistic about the future of capitalism, because he thought that the first innovators would tell me to conglomerate that would prevent subsequent innovations. We are in this book instead, we are optimistic, but it's an optimism of the wheel. And we explain how we can avail Schumpeter's pessimistic prediction. What we do in this book is to use the lens of creative destruction to do three main things. First, to solve historical enigmas about growth, second, to question some common wisdoms, some wrong policy advice, and three, guidelines to rethink capitalism. So let me talk briefly about the three. What enigma is the secret of stagnation? Since the early 2000's productivity growth in U.S. has declined, in spite of the IT revolution and the AI revolution. Why with these revolutions that should boost growth, do you see growth declining?

And we explained in the book that in fact what happened is that the IT way, you have big firms that develop through merger and acquisition. First when they develop growth went up, and that's what you see in the U.S. between 1995 and 2005, growth goes up. But then when these firms begin, they discouraged growth and innovation by other firms. But there is a way out that's Schumpeter pessimism. There is a way out, it's competition for you, so Biden yesterday taking steps to improve competition in the U.S., and that's exactly what you need to do to reverse and to deal with the secular stagnation problem.

So that's the first kind of thing we do in the book, to deal with enigma, any possibility of the enigma of secular stagnations. The second thing we do is to question some wrong policy ideas. First, one of them is to tax robots. There is the view that robots eliminates jobs, and because it eliminates jobs the way to solve that problem is to tax robots. But we explain in the book that firms that automate and robotize, in fact, they create employment.

Why? Because it might be true that some jobs, some manpower is replaced by machines. But in fact, the firms that automate, they become more productive. Because they become more productive they can lower their price, so they can expand their market. And because they expand their markets, there is more demand for their product and therefore they can demand more employment. And that productivity effect more than counteracts the substitution effects of manpower by machines. So taxing robots would be counterproductive because you would prevent those firms from innovating, from becoming more productive and at the end of the day from creating jobs.

The third thing the book does is to rethink capitalism. You see, what we explained in the book is that the U.S. is a fantastic ecosystem for innovation. We saw that with the vaccine, the best vaccines came from the U.S., Because they have the whole ecosystem for vaccine. They have the top Pharma firms, they have the NSF, the NIH. They have venture capital, they have

institutional investors, and the whole ecosystem of innovation is fantastic. Nobody does nearly as well as the U.S. When it comes to innovation. But on protection, the U.S. is not good. When you lose your job in the U.S. and you are white or Hispanic, middle-aged, you go through a lot of stress. That's why you observe the increase in mortality of middle aged, white, non-Hispanic men.

Whereas in Denmark, it's much more protected. When you lose your job in Denmark, no negative effects on your health at all because they created a system that really ensures you. When you lose a job, you get very generous supplemental insurance, and the state helps you find a new job and retrain. And so now the challenge is to construct the capitalism that would be as innovative as the U.S. capitalism and as protective and inclusive as the Danish or Scandinavian capitalism. Some people believe that if you choose to be innovative, you need not to not be productive. You see that not being protected in the U.S. is the price to pay for the U.S. to be innovative, and I don't believe so.

For example, I mentioned the secular stagnation and the need for more competition to help creative destruction and growth resuming the U.S. Well, if you put more competition in the U.S., it will not only spur creative destruction and growth, but it will make growth more inclusive because you can have new entrants, new people can come in. So you can see that first during competition in the U.S. will make capitalism in the U.S. both more innovative and more inclusive.

Another example is education. We show in the book that the probability of inventing depends on your parents and income. Why? Because it depends on your parents' education. If you invest massively in good quality education, you will make the economy much more innovative, many more people can become innovators. But you will also make growth more inclusive. We have many lost Einsteins in the U.S. of people who are very smart but they are born to poor families, whose parents did not give them the education and the aspiration. And making up with a good education system would make the economy more inclusive, but also much more innovative. And at the end of the day, to avert some better specialism that innovators would turn into conglomerates that would hinder innovation. You need a triangle, what we call the magic triangle.

The magic triangle is first, you need first to innovate. You need the state to regulate firms, for example, to impose more competition or greener innovation. But you need also civil society, because if you don't have civil society, there is very much the tendency for incumbent firms to collude with the states. And to prevent that collusion, or to minimize the scope for collusion between existing enterprises, incumbent enterprises, and the state, you need the civil society, the media, the unions. To check on the voters, to check on the state, to make sure that the state is not in the hands of incumbent firms, and therefore, creative destruction can continue. And that's what we believe this triangle is the response to Schumpeter's specialism and it's also the key for making creative destruction produce more inclusive and greener growth.

Larry Bernstein:

You mentioned Biden's increased steps to encourage competition. He made an executive order yesterday that was unbelievably broad and covered many industries. But in particular, he wanted to throw his hat in the ring to support Lana Khan at the FTC and Wu, also, who's working on pro-competitive behavior. In the last few weeks on the show, we've been focusing on Amazon as an example of an innovative firm, but also that is facing increased scrutiny by the state. Let's take a look at that.

The speaker we had most recently on Amazon was the author, Brad Stone, who wrote the *Everyday Store*, and he also wrote *Amazon Unbound*. And he focused ironically on how innovative Amazon was, and what the FTC, Lina Khan, who runs the FTC now, she's very opposed to Amazon. And one of the things that she wants to do is to prevent Amazon from selling its own products, its own manufactured or its own products on its website. Amazon can only be used to sell third-party, which is different than every other store that also sells its own products. How do you feel about Amazon as an example of our biggest upstart, probably our largest employer? Is it a problem, has it already passed the baton as being yesterday's innovator, trying to undermine future innovation, or is this an example of a firm that's still innovating and the government, if anything, is going to prevent further innovation by its regulation?

Philippe Aghion:

We can see that in the data, is that these firms like Amazon, Google, Facebook, they were big innovators and they contributed a lot to the growth that came from the IQ revolution. So they had a period where they were really boosting growth in the U.S. But then what happened is that they were allowed to do merger and acquisition to acquire a new sector of a new product line freely. And the problem is that then they stifled subsequent innovation and entry. And we know that small firms tend to do more radical innovation than existing firm.

The problem is that you see competition policy needs to be adapted to the digital era. It's very important when you decide whether or not to allow for a new merger, not only to look at market definition and market share, but also to look at whether this merger will encourage subsequent entry and subsequent innovation. And that's what needs to be changed, and that's why competition policy needs to be deployed. We need to rethink and redesign competition policy in the digital era.

Larry Bernstein:

If they were going to limit Amazon's ability to sell, let's say shirts or pants that they manufacturer or produce under the Amazon name on the website. Now let's imagine that Amazon got into pants or shirt business, not by an acquisition of a manufacturer, but they did it themselves. They got into the shirt business, but they got their own designers, they got their own plants, maybe they got third party deals with these plants, we're going to build this stuff. Are you troubled by that, or is it only in the acquisition of third-party manufacturers that gets you going?

Philippe Aghion:

We see that the acquisition tends to eventually undermine innovation. I think there is also a problem in having a firm, having a span of control, which is too big. I think at some moment it may be counterproductive. So it might be that you are less innovative or creative when you control many lines. So well, that's where it has to be judged in each case, so each acquire or you enter in a new activity, will that stifle entry and innovation. Because you see, you can also cross subsidize, when you have a large firm that gets into a new activity, you actually can cross subsidize the line and practice dumping to discourage other entrants. We don't have this flexibility of the cost of digitization across the various activity, so that's why you have to be careful. I'm not a specialist of competition policy, but I can see the problem of allowing without any limits, large firms to enter any kind of new sector unboundedly. Because then it creates unfair competition vis-a-vis the rest.

Larry Bernstein:

Let me give you a different example, and I don't mean to harp too much on Amazon. But one of the things that Brad Stone had to say was what Amazon does spectacularly well is logistics, both warehouse and distribution. And they went to the post office, they went to UPS and they went to FedEx, and they asked, they said, "Look, we want to do this next day or two day delivery. And we want to work holidays and we want to work weekends." And they went to UPS and FedEx and they said, "Look, we're a union shop, and our people don't work on the weekends and we can't get them to work." And so Amazon said, well, you're forcing us to get into the last mile logistics business with all these Amazon trucks and people. And they use third parties to help them in that process. Then they had to literally develop a logistics system themselves. Now they're offering that logistics system, that new logistics system, out to third parties.

So for example, we had another co speaker on our show who mentioned that the GNC vitamin business, that GNC just called up Amazon and said, will you take care of all of our logistics. How do you feel when Amazon goes into the logistics business and delivers that last mile? Do you think that that also undermines competition, or is this an example of the opposite, where it's innovating logistics?

Philippe Aghion:

It all depends. how it's achieved. To each extent they achieve it by, we know also that in Amazon you have problems of working conditions in Amazon. So that has been an issue raised. We also know that large companies benefited from not paying much taxes, you see from avoiding, from doing a lot of tax optimization. So it all depends how it's done. I don't want to say that Amazon did this, my answer is kind of general. So if it relies on escaping basic labor rules by doing multinational optimization, taking advantage of loopholes in fiscal and social systems abroad. If it's done through that way, then I am against. If it's legal competition, I'm always going to follow competition. So it has to be seen case by case, but it has, it's very important that the competition be legal. And that's what has to be analyzed, and also to look at this thing, will the takeover of the line or whatever, undermine innovation or not. So there's not easy to do, it's easier said than done, but we have to move in that direction.

Larry Bernstein:

We have a question from one of our audience members, Tony Calenda. Tony asked this question, how do you plan to retrain middle-aged workers who lose jobs, can we really teach them Python? It sounds good, but does it really work in practice?

Philippe Aghion:

The retraining you're absolutely right. It depends a lot on having a good basic education. I think it's very important to invest in high quality basic education, because it's there that you learn to learn. You see what I mean. We at school, we don't only learn, we don't only acquire particular knowledge about things, we also learn to learn. And we learn not to be afraid of having to learn. And I think that's very important. I think Scandinavia works well, not only because they put a good system for retraining, but because that system hinges on the basic education system, which is inclusive and a very high quality. So I think you need to act on both. If you, with a very bad education system, you could have any system you want on the labor markets, it will not do the job. So you need both that then we know it will be easier to retrain.

but I believe very much in the retraining, but I believe very much also showing what I call good jobs. We have, firms have to be induced to provide good jobs, jobs, where you have on the job training, where you have senior prospects for improving your status. It's very interesting that more innovative firms in fact, tend to provide most new jobs to its non-educated workers.

Larry Bernstein:

Angus. Can you join in this? You, you talked a little bit in your discussion about the role of innovation in education.

Angus Fletcher:

I completely agree. I think first of all, what Philippe is talking about as education as a space in which to encourage openness and bravery towards innovation in general is absolutely true. That's one of the real values of a classroom space is things seem possible in a classroom, which don't seem possible when you go out in the real world.

So in the case of my students, a lot of times my students will go out and they'll have an internship. And in the internship they'll suddenly become scared because they'll be told by a boss, "oh, you can't do that." Or "we don't do that here" or whatever. Where as they come back in the classroom space. We say, why not? Why can't you do that? What do you need to empower you to do those things? So, first of all, just education itself has been a huge engine of innovation, I think is very important.

The other thing I would add as you probably heard from my earlier remarks is I think innovation itself needs to be innovated. And I think, you know, when we hear questions about, you know, can you teach a middle-aged man to code Python or what, or what have you, the first thing we have to do is, we have to say, how can education meet the needs of that person, not how can education force that person to do what it is that education wants them to do, you know not how can education force you as a middle-aged man to learn Python, but how can education invite you in, empower you, open you up, ask you, what do you want to learn? How can we retrain you?

So there's a kind of dynamic relationship so that instead of people feeling like they are compelled to be retrained like robots or widgets, they're empowered to join this kind of cycle of creative destruction. So they don't fear change the day they themselves open themselves up to change. And I think that's really what we can do more of in our, in our educational institutions and also what we can do more of to our educational institutions.

Philippe Aghion:

I fully agree with that. I think education is a key input to innovation and innovation is a key input to education and that, so that totally intertwines, but education is very important you know, sorry, I thought there was a view that R & D is, would be the main thing to do. If you are in the, without an education, educational basis, your, the effectiveness of your R & D subsidy will be very low. So, you need, you need education for R & D effectiveness. But in education, you need to be innovative.

Larry Bernstein:

You mentioned that the United States is a fantastic ecosystem for innovation and that you were not surprised that the COVID vaccines originated in the US and at an unprecedented rapid pace. The United States paved the way using a combination of government, the NIH, medical institutions, but also private firms. You are a professor at, in multiple different countries. You were just a visiting professor at Harvard, a professor in France, and in London. You are our global guy.

I'm in the finance business, I've been in finance my whole career. I worked at Salomon Brothers and from time to time, I've had the opportunity to work with French banks. And I got to tell you nothing is more unproductive than dealing with them.

It's just extraordinary.

Philippe Aghion:

I know, I know.

Larry Bernstein:

now I, I don't mean to beat up, but I.

Philippe Aghion:

No! No! No! But you are right.

Larry Bernstein:

I have not dealt with French engineering firms or other French industries. My experience with French banks is terrible. Douglas North talked about the role of institutions in economic growth. What is it about French institutions that undermine innovation and what is it about American institutions that encourage innovation?

Philippe Aghion:

I think it's Institutions and culture, I would say first on institution, for example, in biotech, for basic research in the U.S you have the national science foundation, the national Institute of health. Howard Hughes medical Institute, which is a huge sponsor foundation. There is very little basic research, very little sponsorship in France. That doesn't exist, basic research is underfunded, dramatically in France. All this medical research is underfunded. You have venture capital, very developed, who are the venture capitalist? Most of the time it's successful people who did their own startups, entrepreneurs, who did an IPO and they then became venture capitalists.

In France, venture capitalists are civil servants essentially, they're not at all people who have gone through the experience of working at a startup and growing and becoming successful. You have institutional investors, they play a big role in innovation. They explain all that in the chapter 12 of the book, France has much fewer developed institutional investors.

And for the vaccine, the US has biologic advanced research development agency created on the same model as DARPA, Defense Advanced Research Project agency. This is to turn basic research into mass industrial production very quickly. It worked well with the vaccines. The M-RNA messenger was successfully used. Incredibly, in less than one year into mass production of vaccine that would do the job. There is nothing like BARDA [Biomedical Advanced Research and Development] in France or in Europe, nothing. So you see, so the US has the whole ecosystem. You are much better on all grounds, basic research, venture capital, BARDA, DARPA We don't have any of these.

But on the culture, there is a culture of risk in the U.S. When you fail, early failure is not punished say in France in the school system, people tell you that you are an idiot all the time. And so you're afraid of the teacher. You don't dare and you don't have to ask question. It's very impolite to ask the question to the teacher. Whereas in the U.S, It welcomes to ask questions to the teacher and it's welcome early failure. If it helps you learn, we don't have that at all in our culture. So it's both institutions and culture in France that are detrimental to innovation.

Larry Bernstein:

In my introductory remarks, I commented on the creative destruction caused by COVID. We've had more firms go bust probably in the last 18 months than probably in the history of the United States.

There is this economist who we had on the show who you probably know him Chad Syverson who commented about the very different variance in the return on capital within industries. That's unlike anything we've seen before. Some firms have very low rates of return. Others have very high rates of return in the same industry. And what I suspected happening right now is those firms that were having zero or very, very low returns on capital pre-COVID experienced negative returns during COVID. They just decided to close up shop and all those workers who had been working for these firms with very low returns on capital got fired because these firms closed and are now being gobbled up by these large established firms who have been historically very productive. Should we be thrilled to death about this creative destruction? Is this the best example of creative destruction in modern times?

Philippe Aghion:

I'm not happy about it, particularly. I'm not, you know, creative destruction is a fact. It's true that COVID boosted bankruptcies? Although in France, during the crisis, France was so protective with firms that the French government that the rate of bankruptcies went down by 30% in France. So during COVID period, in fact, because the government over reacted by protecting firms, the rate of credit destruction went down compared to previous years. Do you see? It will go back to normal. So it depends what the government does. The U.S Government didn't react the way the French government did. So from Germany and other European countries, they reduced creative destruction during Covid, because they over protected firms.

If we go back to normal, they will be something that will resume as before some activities may not resume as before. Medical consultation will go online. I don't know if we fly as much as I used to because maybe now I will do conferences on zoom, some of them at least. So, you know, shopping online might develop. So there are things that we know work, well we know work from home, and the work of Nick Bloom on working from home, it tells you that it will last, that somehow Covid produced a shift in working from home much more. And once that shift is done, you don't go back to where you were before.

So there will be this creative destruction. And it all depends. That's very important why that you have a labor market system that accommodates it. I think there is no drama in having more creative destruction. If whenever people lose their job, they are protected. They receive good unemployment insurance and retraining. I think if that is there, it's less of a drama than I think what we need to protect is more individual. That is the individuals that you need to protect. And that's the way of the Danish model. I find very attractive in that respect because they found a way that making creative destruction more human, more acceptable. They have no problem at all with creative disruption.

Larry Bernstein:

I mentioned in the opening remarks, we had the labor economist from UChicago, Casey Mulligan.

Philippe Aghion:

Yes. I know Casey. I know him.

Larry Bernstein:

And Casey said, when we have these very large federal unemployment benefits that are through September, they're not doing any retraining. These guys are just sitting at home, depreciating their skillset every day. We are going to allow people to sit home who would otherwise find employment. We have,

Philippe Aghion:

I think there are two ways to answer. Of course, there is a way to say if you want people to get back to work, provide zero insurance and then we'll get back to work. It's true. You get the U.S model where you have low unemployment rates, but very high mortality rates and stress and

all that. I look at two indicators. I look at the unemployment rate and the stress as well. And you see that's, what's good with the Danish system. If they found the system to reduce employment and also not have stress and opioids and all that. And how would they do that? If you lose your employment, you get 90% of your salary, but you have to retrain and go to work. And the state helps you find a new job. They propose you two new jobs in your qualification if you refuse more than two you lose your insurance.

So you see the idea is not to get people to stay at home. It's to have a very active labor market policy where you retrain, you help the guy find a job. And when you find a job and the guy doesn't take the job, you say, well, you don't take the job. The, the subsidy is over. And then that works well because they have an insurance, but they also get the job, you understand. And that's what is the genius of the Danish system. They found a competitive system and we explain that in chapter 11 of the book you see. And before there was the view that the only way you will have long unemployment rate is to have people, groups, under enormous amounts of stress. And, I think we can do better. Exactly. If I operate you with or without any anesthetic it is better that I operate with anesthetic.

Larry Bernstein:

All right, with that, we're now going to go into an example of where creative destruction is going on right now, which is the supermarket industry. Our next speaker is Ben Lorr. He is the previously the author of Hell-Bent. And he is most currently the author of the Secret Life of Groceries, the Dark Miracle of the American supermarket. Ben, take it away.

Benjamin Lorr:

Let's talk about ways the American supermarket is a miracle like you said, but some of its miraculous qualities contain tragic flaws that lead to consequences nobody wants and are kind of horrified by you have to understand just how enormous the grocery industry is, its sheer size. We spend \$700 billion per year. By far our largest food expenditure, pre COVID and fast casual. We spend 2% of our lives in it, wandering aisles and buying. It's also the cheapest system of groceries on the planet, the American grocery system, we spend the least amount of our income on food and also the lowest amount of our income in the history of the world. And the stores themselves are only taking tiny margins and all this like 1.5 to 3.5% to put this in perspective in 1900, our great grandparents were spending 40% of their budget on food.

And every year as the century advanced, that fell so that by the 50's, our grandparents were spending 30% of their budget. And in 2019 Americans spent roughly 8% of their budget, just enormous amounts of saving. And it partly because it delivers this bounty with such incredible precision convenience regularity, it's almost boring. The size and complexity gets completely ignored. And I think for people before Covid they didn't give a thought to grocery stores. It's just this miraculous engine of abundance, convenience, and low prices we'd completely taken for granted, which of course wasn't always true. When the first supermarkets opened, they were greeted like circuses. The first one opens in Queens and people are driving 50 miles away to visit it. Housewives report, feeling faint, dizzy at it. And this is like a 9,000 square ft store, by the way, roughly the equivalent of convenience store today.

So you can imagine a housewife feeling faint and busy in one of those stores being transported to a Sam's Club. And the echoing effects would be probably pretty profound. And I'm reinforcing all of this about the miracle of the supermarket both its range of offerings options that are available on our whims that weren't available to the greatest Kings or pharaohs or emperors. And also the systems of logistics that are backing it up because, it's so big that much like geological time or astronomical distances, it actually boggles the mind. Meaning our comprehension of the size actually gets in the way of intervening in it. The human brain is just used to much smaller numbers, simplify and localize, adding in abstractions to smooth out trade and or focus on what they can see right in front of them.

And this begins at the cash register where despite all the good intentions that we consumers elevate a few key qualities above all, mainly low price, high quality, lots of options and convenience, which if you pause and reflect on and squint, you'll notice they're all in tension with one another. And also as the supply chain and the deeper in the supply chain, we see these abstractions spring up around the notion of commodity goods and which, which are really the engine by which our, our food system runs. I think everyone here understands commodity, but it's worth dwelling on for a second. These are goods that can be traded freely, fungible swap without worry. The commodity, the word is etymologically derived from the French word for convenience, like many conveniences it's enabled by simplifying things, right?

So to play the commodity game, your goods must be interchangeable with one another certain characteristics get selected and elevated to define the product on the scale, maybe the pH of an apple set for juicing, maybe the aggregate protein content of a fish set to become fishmeal for farmed salmon and other qualities, quite intentionally vanish, maybe the precise species of those fish or how exactly the juicing apple was harvested.

In some ways thinking about commodity goods can be thought of like agreement around nuance and how deeply we're going to look at something and what we're going to elevate and what we're going to kind of let vanish, this is all a great thing in many regards and responsible for that miracle. With commodity, we get the blessings of trade uniformity purchasing at scale stability, through advanced buying, industrial engineering, predicated on regularity as consumers, we get the comfort of consistency, but there are certain qualities, less empirical ones like wages paid to employees, requests for overtime housing standards for live onsite employees and farm workers, wages withheld six months ago that are particularly hard to abstract in a reliable manner. They're hard to select and elevate into commodity goods and the commodity buyer, which is again, this guy who's kind of the engine of, of our food system in the commercial kitchens are co-packing spaces or manufacturing centers where food made has a really hard time selecting for them.

Even if everyone in the system wants to elevate things like wages paid to employees and housing standards, it's just hard to elevate them. And so while the global commodity structure can be very good at mandating some things like cooking temperatures and ensuring that frozen fish are held at a constant temperature it's really bad at things like labor and working standards and coercion, which poses a problem, giving those pressures and those tension points. I mentioned at the checkout register as the market searches endlessly for low prices, commodity markets create a certain standard to play the game. So if you're a producer, many aspects of your cost structure are very rigid. Like those freezers that you're using to freeze fish, but others

like labor are not. And so when a buyer was faced with those tensions comes to ask for lower prices. Labor is the place where the costs ended up coming.

And the popular phrase for this is the race to the bottom. The results are fairly horrendous and they compound farther down the commodity chain. You go so dismal things like stagnating retail in the U S are high turnover of driving trucks are actually dwarfed by real human miseries, human bondage, modern slavery work in forced through beating violence. That's endemic at the very bottom of the supply chain. And in my book, I go into great detail here. It gets extremely dark. I'm not going to dwell on it now, but again, size really gets in the way of intervention. Even with the best intentions grocery buyers can't intervene into the supply chains. If they want to, the chains are so big, aggravators of aggregators, multiple layers of brokers that knowing the supply chain is impossible for a single person or even a grocery buyer can't uncover them without embarking on a full-time job, which of course is not their job.

It's not their area of expertise. I would to NGOs who specialize in reforming some of these supply chains who admit they are learning as they're doing. So it's not something that you can expect them to learn. Despite prior conversations perhaps about retraining, this is not public facing information. And in fact, there's a great deal of precarity and people willing to lie about me to maintain an image of virtue around this. But it's very real in terms of the ability for suppliers in the grocery industry to control their supply chain. And I guess I'll wrap it up by saying this is all really dismal stuff, but I want to highlight the opportunities, I guess, in the spirit of the creative destruction conversation that nobody wants the system. It's not the case of greedy corporations who are willing to engage in the lowest level of trades.

It's those grocery stores fighting for the 3.5% margins that I was talking about at the beginning in fierce competition. And they've heavily invested in solutions. They just happened to be solutions like the \$50 billion, a year certification industry that just aren't getting the job done and are huge waste. Consumers obviously don't want images of slavery, child labor in their food. So there's a tremendous opportunity for people who can either create value by creating smaller, more human scale supply chains or raise worker standards, which everyone says they want to a place where they can be seen and valued throughout the global chain.

Larry Bernstein:

I want to talk about my first job, I was a runner at the Chicago Board of Trade and I was participating in an ecosystem for commodity futures. And one of the interesting things about the Chicago Board of Trade, I'll just pick one contract, which is the Wheat contract, before the board of trade was trading, Wheat futures, Wheat would be sold from a particular farm to be delivered to a specific place. And the board of trade defined what Wheat was, a certain quality, a certain quantity, and then it could be traded on a futures contract. And that led to the commoditization of Wheat, commoditization of corn, et cetera. But when I look back at that 150 years since the Chicago Board of Trade Instituted those commodity futures, it's, I think one of the greatest things ever accomplished in the commoditization of food. It allowed for hedging. It allowed for specification, as you described it, should we glorify the commoditization of food because it allowed for the most incredible productivity in history?

Ben Lorr:

I guess I would, I would try to avoid the binary cause I don't think it's very helpful. It is. It absolutely is responsible for what I'm calling this miracle here, not just in the financial sense of, of creating markets that are tradable and you can hedge on, but in terms of the production angle and creating consistency and regularity there, you can't have industrial supply without industrial regularized, regular components.

Consumers certainly expect that type of uniformity. On the other hand, it comes with these fairly negative consequences. And I think when the scale gets to a place where certain notions that I think may have been baked into the commodity system 150 years ago are no longer baked in, in terms of, or maybe people just didn't care about in terms of standards of living and wages and decency and, and, and you know, forced labor through violence. It's actually an open question, I guess, whether 150 years ago, those, those were even on the docket of discussion, but I think the march of progress, we'd like to think that there's something we do care about. The problem is the anonymizing qualities of commodity and enable these kinds of darker things to creep in, in the side.

Larry Bernstein:

Let me try a different route. You have a chapter in your book on Trader Joe's and I thought it was great. And in it, you talk about how Joe moves away from standard generic standard corporate brands and goes out and tries to build his own brands internally, , finding specific coffee with a story, finding a specific salad dressing with a story. It might be based on tastes based upon whatever, where it's from, how it's made or even its high wages paid to the employees. How do you think about Trader Joe's as an example, of working towards the very goals that you're describing?

Benjamin Lorr:

I think in the mid-1960s when Joe was making this, he's doing exactly that. Although I think he would be the first to acknowledge all the trade-offs that he was accepting in doing so, Trader Joe's at that time had about 1,500 SKUs. The typical grocery store of that era had about 3,500. Now, we're north of that, considerably. And you'll go to these bigger superstores will have 125,000 SKUs. So he was able to find those values and able to zoom in on products that he could look at with more of an individual lens and not play the continuous goods game by shrinking down his offerings, by creating a buying staff that didn't have to deal with that waste and a warehousing staff.

And in some ways, it took Trader Joe's a long time to climb to a national chain. This was in the mid '60s. It didn't become a national chain until the mid '90s, at least, and they had to start steering back in the other direction and they've kind of found a compromised version, which again, I guess is to say those opportunities are there. They come with compromises. No one's doing all their shopping at Trader Joe's, especially not in Joe's day, when he was doing those type of innovative things. I mean, I think he removed all paper towels and lots of things you'd expect to find at the grocery store.

Larry Bernstein:

I want to go back to what you described as the miracle of the grocery store for a second. I remember a story, I don't know if it's true, that when Gorbachev came to visit the United States, that Ronald Reagan, I think the first thing he did was take him to a grocery store to show him what choice, and plenty, looked like. And Gorbachev was absolutely, flabbergasted at the lack of lines and couldn't believe it was actually true. Do you know this story?

Benjamin Lorr:

Totally. It was actually was at a Randalls supermarket in Texas and he was touring, I think, an aerospace facility, but they stopped off, no doubt intentionally, during this tour at the Randalls and he was pretty staggered by it. And in fact, in his private diaries, he wrote something like, "I have great despair if the Soviets ever see this because they would immediately revolt. It was an actual jarring moment for him in his private memoirs because ... And at first, there was this idea that this was a dog and pony show and it kind of dawned that, no, this is how the food system worked on a regular basis.

And yeah, I think that's exactly right. That miracle is really important to take into account, I think, when considering the downsides of it because, when thinking about how much of this thing that really stretches our credulity as to whether it's possible or not in recent past, it's possible that we have overreached. And I think that we're not going to walk that back by limiting expectations. That genie is kind of out of the bottle, but I think we need to think about ways to reform that system.

Larry Bernstein:

Earlier in my conversation with Philippe, I mentioned Amazon as a constant topic of conversation for the show. And Amazon acquired Whole Foods. What are your thoughts on how Amazon will use and reform or modernize Whole Foods, or not, in the context of SKUs and other ways to improve the grocery shopping experience?

Benjamin Lorr:

Oh, it's a great question. Whole Foods, in many ways, is a victim of its own success. They were really innovative in the organic space and the whole first space early on and they nurtured a lot of brands. And they did that by being very decentralized, very nimble, putting a lot of their resources into local buyers who would get to know these smaller products. And it produced a lot of success, but then as they grew and as those brands grew and as organic became the seat change that became an ever bigger share of people's pocketbooks, those brands scaled up pretty easily. And Whole Foods, the amount of money they were taking to nurture these brands became wasted as the brands would jump over to Targets or Walmart's pretty easily. And Whole Foods was not centralized buying in a way that could compete with it.

So way pre-Amazon, Whole Foods was rethinking how it could play this game and centralized out. And I think, with Amazon, it was acknowledgment of that strategy that it was not going to innovate on a small level and do what we were talking about with Joe. It was going to stay pat and try to play into its existing brand image of whole earth, some people call it whole paycheck, but premium prices with some virtue that you're getting as a consumer when you buy from

them in absolute terms, and not really try to innovate in that space anymore, but instead try to play with the other big boys, Walmart now being the number one purveyor of organics.

So I think you're going to see a continuation of that strategy with Amazon because, obviously, Amazon brings a huge amount of expertise with logistics and whatnot.

Larry Bernstein:

Let me try to bring in Philippe. Philippe, you were talking about trying to prevent colossal firms through mergers from getting into new businesses. For me, this is a classic example of a difference of view on antitrust policy. Amazon had no grocery presence. It buys Whole Foods and is going to try to reform it, but I think the Biden Administration would say, "Whoa, whoa, whoa. You're big enough Amazon. We're going to prohibit you from growing in the grocery business." How do you feel about Amazon's growth, from a public policy standpoint, from getting in the grocery business and allowing increases in scale?

Philippe Aghion:

Well, it's true that you can have what you call economies of scope or economies of scale, but the problem is that that may stifle subsequent innovation. You see, that's the fear, because the scale may be so large. So it's true that there is a short-term gain, which is the scale and the scope, but the question is, will it or will it not stifle future innovation? Maybe in the sense of that, you could have had entry. Maybe new entrants would have come. You see what I mean? And there may be, as a result of this, they won't because they will be discouraged by the lost capacity of the incumbents. You see, that's the kind of things that ... Again, competition policy is not my specialty. Usually that's people like Gilbert or others, but I think those are the kind of issues.

Larry Bernstein:

What do you think about Ben's other comment about policing the supply chains? And should society expect grocery chains or, for that matter, the food manufacturers from policing wages and other matters related to the product of food, or does that really belong with the state and it's not the grocer or the food manufacturer's responsibility.

Philippe Aghion:

No. And although there is the old issue of corporate social responsibility, because you could have the Friedman view that firms should just be about maximizing profit and you should let the state decide about contracts or regulation, but there is some other view that there is the role for shareholders and consumers and also pushing for some changes. You see what I mean? And so that's the whole debate. We are moving away from the Friedman view that firms should just be concerned by profit and that anything else should be in the hands of the state, if only because we know, and that gets back to my point about the triangle, that the state and the regulators can be captured by large firms.

And so that's where there is a role for corporate social responsibility, for consumers, for shareholders that are concerned about something else in addition to profit.

Benjamin Lorr:

I don't think grocers have a responsibility, necessarily, to police their supply chain. What I think is that, given the scale, there's an unavoidable lack of transparency that happens. And what we need is innovation around that transparency. What we need is ways of creating that visibility through.

And it really dovetails to this Amazon/Whole Foods discussion right now. There's a lot of ways to innovate and very important ways to innovate around the supply chain in terms of workers' living conditions and standards, and we haven't even talked about ecological sustainability, but the problem is the visibility isn't there. Consumers have a very static view of how these things change. They're looking through many layers of this and it's just blurry and hazy.

And there's a disconnect between what they think they're getting and what is actually happening. And that disconnect is the problem. Who actually polices it, I'm very agnostic about it. It just needs to get done. And I actually think, to your point, that grocery stores are one of the worst in terms of being able to do that policing. They're not equipped for it. Nation states are far better at it.

Larry Bernstein:

I want to bring Angus into the conversation. Angus, in the late 1990s, I lived in London. And at the time, London's food quality was relatively poor and the people didn't expect much from their food suppliers or their restaurants, but since then, London is now completely a foodie town and England has much better food. I'm wondering about the neuroscience of food. When Ben was talking about the relative numbers of ... I can only imagine going to a general store in 1900 in rural Kansas and looking at the choice offerings that were available to me as compared to the 125,000 SKUs that Ben was saying was available in a modern mega supermarket. How does neuroscience explain the differences of choice, differences of quality, the breadth, and then the experience that we have, as humans, to all this choice and all these improvements in quality and breadth?

Angus Fletcher:

I think the paradox is, that the two earlier speakers have talked about, on the one hand, humans have created that diversity of choice in a supermarket because that's innovation. I mean, all of us want more and it's exciting for us to go to a supermarket and discover something new in a supermarket, and the same reason it's exciting to discover a new book on a shelf. So there's this constant drive for more products, more innovation, more choice, but the flip side of that is that the human brain cannot handle choice. The human brain is not like a computer. A computer can handle thousands and thousands of data points in a second. The human brain gets swamped out after about six or seven data points and then it just starts to cramp up.

What happens is we create that choice because it's exciting, but then when we get in the supermarket, we immediately get overwhelmed. And most people in the supermarket just go to the three or four things that they know they want to buy and just ignore everything else because, otherwise, it's panic inducing. And if you've ever been in that situation where you're in

a strange supermarket or you're looking for something where you don't know where it is, I mean, it is kind of like this Kafkaesque vertigo experience where you're completely overwhelmed.

This is just another example of the way that creative disruption works, in the sense that we have generated this thing, which on the one hand is very exciting in its generation process, but then very rapidly does have this kind of darker side to it. So I think, as in all things in human life, it comes about from not romanticizing it or from demonizing it, but basically saying, "Hey, the fact that supermarkets exist is the sign of an enormous creativity and innovative potential in the human mind. Now, let's train that on solving the problems around us."

The way to solve problems is local. None of us can solve big problems. And I know it's attractive to think about Amazon and somehow, if we fixed Amazon, we would fix the world, but the reality is that most problems get fixed in our backyard. And the more that those problems get fixed in our backyard, the more there's kind of knock-on effect.

Larry Bernstein:

Ben, one of my favorite chapters in your book relates to finding shelf space for a new product. I don't remember the details, but there was some sort of a Slaw product that this woman had purchased the rights for and was trying to get it on shelves and enormous challenges for entrepreneurs, innovators, to actually get space in the modern supermarket. Maybe you could comment on that and talk about that in the context of creative disruption and innovation in that grocery store.

Benjamin Lorr:

So that was Slawsa, a combination of coleslaw and salsa.

Larry Bernstein:

Fantastic.

Benjamin Lorr:

Kind of a lost dog of a product. It tastes delicious. I promised I wouldn't feature anything that I wouldn't eat, myself, but partly because of these very low margins in the industry, supermarkets are such a volume game, they've invented ways of getting their margins in other places besides price on shelf. And that comes through selling shelf space, which is not that ... It sounds odd because I think, when you walk into a supermarket, you picture something like a public market, where the best possible items are going to be there because they've survived some competitive forces to get on shelf, but actually what you're viewing is a curated assortment of things that the category manager or grocery buyer has put there and they're all leveraged off of each other to either highlight items with really high gross margins for them or they've just paid to play and are there because the entrepreneur or producer has put up some money to get on shelf.

And that money, called trade spend, comes in a variety of different ways from outright slotting fees where they're literally just paying money for inches on shelf space. And these are not small numbers either. You're talking about a million dollars for nationwide rollout of a single SKU and that's one item in the frozen aisle, \$50,000 for a 12-inch section in an upscale supermarket, to payments for internal promotion fees or buy-one-get-ones or all these free tastings where the supermarket is essentially getting free cases of product in exchange for some dubious promotion. And so there's this whole kind of ... It's just a different business.

Larry Bernstein:

Actually, think about this, Ben, because you mentioned earlier that the supermarket basically doesn't make any money. It's just unbelievable. It makes two cents for every dollar of revenue. So the place is lean, right? And so what are they selling? The business is selling shelf space and these firms have become very entrepreneurial on how to sell that shelf space. It's there for the highest bidder. They have all these gimmicks. You can buy one get one free. You can have the tastings, as you described. In many ways, it's like your modern department store, except it's food.

Benjamin Lorr:

That's right. I mean, like other places that take a percentage for using their platform.

Larry Bernstein:

That's all they're selling, is their platform. That's all they got. They got this box and they're trying to get as much out of that box as they can, but it's so competitive, going back to what Philippe was talking about. We want a highly-competitive environment. The American grocery store has to be the most competitive place known to man. They're making 2%. I actually think Amazon is only making 1.5% on their sales. It's unbelievable how competitive these markets are. Everyone's got to be the best in logistics and best in marketing, et cetera. How should we think about this grocery store from 10,000 feet up? Is it the most dynamic, fantastic store that is offering this enormous breadth? Let me ask, maybe, ask you this question; when you think about the future, if 25 or 50 years from now, your children or grandchildren go to his grocery store, what would it look like and how will they view that experience?

Benjamin Lorr:

Well, let me give a slightly disappointing answer, but I think it's real, is that nobody really knows how they're ... People are thinking about this inside the industry in a very confused manner because both of those things coexist with each other. On one point, they're taking very slim, very razor-thin margins off products. On the other hand, they're running this backdoor platform fee where they have all these different not straightforward charges that they're taking. And if someone is making money in their business, they're going to come after it, but again, it's not just through slotting fees, which is inches for dollars. It's through a whole wide range of backdoor things that will change, year to year, just so they get their cut.

I talked to some consultant when writing a book and he was like, "Nobody knows what anything costs in this industry." Their internal bottom lines are often very fuzzy for them

because they're getting their margins. These two things are coexisting at the same time, which allows people to say, on one hand, "Oh, we're so lean and efficient. Look at this," and on the other hand, very backwards.

I think that, to go back to your question, where this will go in the future is I do think there'll be a great movement away from a lot of these tacky tacky things. There'll be a movement towards consistency. I think computers help us make sense of big numbers and big volumes and help from artificial intelligence in applying things to these problems is going to do away with a lot of the antiquated parts of the grocery industry, but right now, it's a big cluster, big mess.

Larry Bernstein:

I end each episode of What Happens Next on a note of optimism. What are you optimistic about, as it relates to your topic? So let's start with you, Ben. Ben, what are you optimistic about with the grocery store?

Benjamin Lorr:

I'm super optimistic in the sense that I think COVID has really shone a light on a lot of the problems around essential workers. And I think it's, one, getting a lot of attention and, two, people are looking for solutions to this in ways that are really honoring the essential worker. So right now, for-profit certification regimes are how ethical claims are enforced and you pay an outside auditor to go in. And that's really changing as people are trying to focus on using workers, themselves, who are obviously the experts of their own situation, as ways of gaining insight into the supply chain. And there's a variety of things that are slowly bubbling up for that. And that both offers an opportunity and a promise of honoring the expertise of workers and empowering them.

Larry Bernstein:

Okay. Angus, what note of optimism would you like to end on?

Angus Fletcher:

Well, I guess I'm optimistic because literature is an instantly renewable resource. It's something we all can do. And if you want to get a little positive creative disruption into your life right now, just get a book you love and give it to a friend and change their world.

Larry Bernstein:

That ends today's session. I want to make a plug for next week's episode.

Our first speaker will be Anne Clarke Wolff. I attended New Trier High School with Anne as well as worked with her for over a decade at Salomon Brothers. Anne ran fixed income capital markets at Citigroup and global corporate banking at Bank of America. Her latest project is to create a women-run investment bank. I hope to learn from Anne her challenges for setting up an investment advisory business from scratch, and I want to hear about the market for advice exclusively from women bankers.

Our second speaker is Lisa Picard who is the CEO of EQ Office which is Blackstone's office division. Prior to that Lisa ran Canyon Ranch Spa and Resorts. In her career, Lisa has managed the development of 6.5 million square feet of real estate with a market value of more than \$5 billion. I hope to learn from Lisa about the future of office.

Our third speaker will be Paul Rahe. He is the Charles and Louise Lee Chair in the Western Heritage in the Van Andel Graduate School of Statesmanship at Hillsdale College. Paul has written on the classics from the ancient world as well as the foundations of democracy in the American Revolution. Paul will speak about the cycles in American politics.

If you are interested in listening to a replay of today's What Happens Next program or any of our previous episodes or wish to read a transcript, you can find them on our website Whathappensnextin6minutes.com. Replays are also available on Apple Podcasts, Podbean and Spotify.

Please check out our new social media outlet on Twitter at [Whathappensin6](https://twitter.com/Whathappensin6). We want to engage our audience and hear your views and ask questions for the show. I want to create a community that learns together.

I would like to thank today's speakers for their insights. I would also like to thank our listeners for their time and for engaging with these complex issues. Please stay tuned for next Sunday to find out What Happens Next.