DEF CON 13 - Paul Graham, Inequality and Risk

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Interviewer: [Music] [Applause] [Music] This is Paul Graham. He's going to be speaking on inequality and risk.

Paul Graham: That was quick. Hey guys. Hello. Well, the last speaker in here trained the audience to chant [unclear] you in unison whenever authority commanded them to do anything. Then at the end of the talk, everybody said, "Okay, talk's over," and the guys in the red shirt said, "Everybody out," that into the room, and they just filed out as meekly as sheep. All right. So, um, are we ready to start? I think we're ready to start. All right, let's go. Um, suppose you wanted to get rid of economic inequality. By the way, I have no slides. Asking, um, is what I do for talks. Suppose you wanted to get rid of economic inequality. There are two ways to do it, basically. You can give money to the poor or take it away from the rich, but they both amount to the same thing because if you want to give money to the poor, you got to get it from somewhere. Um, and if you take it from the poor, they end up just where they started, so you basically have to take it from the rich. There is, of course, a way to make the poor richer without merely shifting money from the rich to them. Um, could make the poor more productive, for example, by giving everybody equal access to education. That is, instead of taking money from engineers and giving it to checkout clerks, you could enable the people who would have become checkout clerks to become engineers. Well, that works. Um, that's an excellent strategy for making the poor richer, but the evidence of the last 200 years shows that, uh, it doesn't reduce economic inequality because [unclear] tend to make the rich richer too. If there are more engineers, then there are more opportunities to hire them to sell things. Henry Ford couldn't have made a fortune making cars in a society in which people were all still subsistence farmers because there would have been no one to buy his products and no one to build them. If you want to reduce economic inequality instead of just improving the overall standard of living, it's not enough just to raise up the poor. What if one of your newly minted engineers goes on to become the next Bill Gates? Economic inequality will be as bad as ever. Who, dudes? Yes, go ahead. Really? Can people not hear? Oh, God. This talk, inequality and risk. Are you guys in the wrong place? You are. You are. Am I? I'm brought me right. There's been a rescheduling. That's at 2:00. This is Paul Graham. It's all on the website. Okay, guys. Um, I was supposed to talk today and then they switched me to yesterday, but they didn't tell me. So, um, I look on the website yesterday to find out where the hotel is and I'm astonished to discover I'm supposed to speak four hours before my plane arrives. So they put me in this slot today. Um, I'm also not even in the printed thing. I'm on the website. There's a description of the talk, but let me tell you what the talk's going to be about. Um, sorry, what, what's the talk about? All right, I'll tell you what the talk's about and you can tell me, you, well, actually you can decide if you want to hear it. All right. Um, what did the abstract say? Um, the abstract was about, uh, where's the right place to hack the connection between power and wealth? All right. So if that sounds interesting, there is no hardware component to this talk. Out you go. No, no, I totally understand. Believe me, I feel the same way you guys do. After these guys all leave, I'll tell you all the secret behind-the-scenes stories of the creation and launching of the internet worm of 1988. Just kidding, Robert would kill me. All right, let's start again. I feel like what doesn't kill you makes you stronger, and in the speaker department, this is definitely one of those experiences. So, inequality and risk. Does everybody remember where we are? I'll start somewhat, somewhat over. All right, Bill Gates. Bill Gates, that's right. If you want to reduce economic inequality instead of just improving the overall standard of living, it's not enough just to raise up the poor because what if one of your newly minted engineers goes on to become the next Bill Gates, or maybe in this case, Larry Ellison? Economic inequality will be as bad as ever. If you actually want to compress the gap between rich and poor, it's not enough just to, just push up on the bottom. You also have to push down on the top. So how do you push down on the top? Well, you could try to decrease the productivity of the people who make the most money. You could make all the best surgeons operate with their left hands, force the most popular actors to overeat, and so on. But this approach has implementation difficulties. Um, it seems like the only practical approach is to let people do the best work they can and then, either by taxation or by limiting what they can charge, to confiscate whatever you deem to be surplus. So let's be clear what reducing economic inequality means. It's identical with taking money from the rich. When you transform a mathematical expression into a new form, you often notice new things about it. So it is in this case. Taking money from the rich turns out to have consequences you might not foresee. When you phrase the same idea in terms of reducing economic inequality, the problem is risk and reward have to be proportionate. A bet with only a 10% chance of winning has to pay a lot more, in fact somewhat more than five times more, than a bet with a 50% chance of winning. So if you lop off the top of the possible rewards, you decrease people's willingness to take risks. Transposing into our original expression, we get: decreasing economic inequality means decreasing the risk people are willing to take. There are whole classes of risks that are no longer worth taking if the maximum return is decreased. One reason high taxes are so disastrous, as the English found in the 1970s, is that this class of risks includes starting new companies. Startups are intrinsically risky. That's just, that's just what the deal is. A startup is like a small boat in the open sea. One big wave and you're sunk. A competing product, a downturn in the economy, a delay in getting funding or regulatory approval, the loss of a big account, patent suit, changing technical standards—any one of these can sink you overnight. It seems like the odds of a startup succeeding are a little worse than one in 10, which is not very good. Our startup paid its first round of investors 36x, which meant with current US tax rates it made sense to invest in us if it seemed like we had a better than one in 18 chance of succeeding. That's probably roughly how we looked when we were a pair of nerds operating out of an apartment. If that kind of risk doesn't pay, venture investing as we know it doesn't happen. Now, that might be okay if there were other sources of capital for startups. So, for example, why not just have the government or some almost-government organization like Fannie Mae be in charge of supplying venture capital for new companies? Well, I'll tell you why that wouldn't work, because then you're asking the government or almost-government employees to do the one thing they're least able to do: take risks. As anyone who's worked for the government knows, the important thing in the government is not to make the right choices; it's to make just choices that can be justified later if they fail. If there's a safe option, that's the one a bureaucrat will choose. But that is exactly the wrong way to do venture investing. You want to take the most risky choices you can find if the upside looks good enough. VCs currently get paid in a way that makes them focus on the upside. They get a percentage of the fund's gains, and this is what enables them to overcome their understandable reluctance in investing in a company that seems to be run by a pair of college students. If VCs weren't allowed to get rich, they'd behave like bureaucrats. Without hope of gain, they'd have only fear of loss, and so they would make the wrong choices. They'd turn down the nerds in favor of the smooth-talking MBA in a business suit because that choice would be easier to justify later if it failed. Even if you could somehow redesign venture funding to work without letting VCs get rich, there's another kind of investor you really can't do without: the startup's founders and early employees. What they invest is their time and ideas, but these are equivalent to money, as you can tell from the fact that the VCs, if forced, will grant the same status to sweat equity that they do to the equity they've paid for with cold cash. The fact that you're investing time and ideas doesn't change the ratio between risk and reward. If you're going to invest your time in something, you'll only do it if the payoff is proportionate to the risk. If large payoffs aren't allowed, you may as well play it safe. So, for example, most people who start startups do it with the hope that as a result, if it pays off, they'll end up much richer than they were before. So if your society has some kind of policy designed to prevent anyone from being much richer than anyone else, then unless your startup founders were before the only poor people in the country, your economic policy is going to be tending to prevent startups from even happening. Like many startup founders, I did it to get rich, not because I wanted expensive things, but because I wanted security. If I'd been forbidden to make enough from a startup to do this, I would have sought security by some other means, for example, by going to work for a big, stable organization from which it would have been hard to get fired. Instead of busting my ass in a startup, I would have tried to get a nice, low-stress job in a big research lab or tenure at a university. That's what everyone does in societies where risk is rewarded. If you can't ensure your own security, the next best thing is to make a nest for yourself in some large organization where your status depends mostly on seniority. So it's interesting, actually, you'll find in societies you either get economic inequality or a world where seniority counts for a lot. You'll always get one or the other. Even if we could somehow replace VCs, I don't see how we replace founders. VCs mainly contribute money, which in principle is the same no matter where you get it. Founders contribute ideas; those are not interchangeable. So let's rehearse the chain of arguments because I'm heading to a conclusion many people will have to be dragged kicking and screaming towards. I've tried to make every link unbreakable. Decreasing economic inequality means taking money from the rich. Since risk and reward are interchangeable, decreasing potential rewards decreases people's appetite for risk. Startups are intrinsically risky. Without the prospect of rewards proportionate to the risk, founders won't start them. Founders are irreplaceable. So eliminating economic inequality means eliminating startups. This argument applies proportionately. It's not just that if you eliminate economic inequality you get no startups; to the extent that you reduce economic inequality, you decrease people's appetite for risk, and that seems bad for a lot of people. New technology and new jobs both come disproportionately from new companies. In fact, if you don't have startups, you'll find just as if you didn't have any more children, you wouldn't have any established companies either after a while. It sounds benevolent to say we ought to reduce economic.

Paul Graham: Inequality, but when you phrase it like that, who can argue with you? Inequality has to be bad, right? It sounds a good deal less benevolent to say that we ought to reduce the rate at which new companies are founded, and yet the one implies the other. Indeed, it may be that reducing investors' appetite for risk doesn't merely kill off larval startups but kills off the most promising ones disproportionately. Startups yield faster growth at greater risk than big companies. Does this trend also apply within startups? Are the riskiest startups also the ones that pay off the most? I mean for everyone, not just for the investors. I suspect the answer is yes, and if so, that is a chilling thought because it means if you cut investors' appetite for risk, the most beneficial startups are the first to go.

Well, not all rich people get that way from startups, of course. What if we let people get rich by starting startups but taxed away all other surplus wealth? Wouldn't that at least decrease inequality less than you might think? If you made it so that people could only get rich by starting startups, people who wanted to get rich would all start startups, and that might be a great thing. But I don't think it would change the distribution of wealth a lot. People who want to get rich will do whatever they have to do. If startups are the only way to do it, you'll just get a lot more people starting startups. That is, if you wrote the laws very carefully. More likely, what you'll get is a lot of people doing steps that can be described on paper as startups. If we're determined to eliminate economic inequality, there's still one way out. We could say that we're willing to go ahead and do without startups.

What would happen if we did? At a minimum, we'd get lower rates of technological growth. If you believe that large companies could somehow be made to develop technology as fast as startups, the ball's in your court to explain how. The good news is, if you can come up with even a remotely plausible explanation, you can make a fortune writing books and consulting for large companies. Okay, so we get slower growth. Is that so bad? Well, one reason it's bad in practice is that other countries might not agree to slow down and jog alongside us. If you're content to develop new technologies at a slower rate than everyone else, what actually ends up happening is you don't invent anything at all. Anything you might discover has already been discovered elsewhere, and the only thing you can offer in return is cheap labor and raw materials. Once you sink that low, other countries can do whatever they want with you: install puppet governments, come and pacify you, siphon off your best workers, use your women as prostitutes, dump their toxic waste on your territory—all the things we do to poorer countries now. The only defense is to isolate yourself, as communist countries did in the 20th century, but the problem then is you have to become a police state to enforce the isolation. Eliminating economic inequality means eliminating startups, and to the extent you do that, you're hosed.

I realize startups are not the main target of those who want to eliminate inequality. What they really dislike is the sort of wealth that becomes self-perpetuating through an alliance with political power. For example, the construction firm that funds a politician's campaign in return for government contracts. But if you try to attack this type of wealth through economic policy, it's hard to hit without destroying startups as collateral damage. The problem here is not wealth but corruption, so why not go after corruption directly? We don't need to prevent people from becoming rich if we can prevent wealth from translating into power. And there has been progress on that front. Before he died of drink in 1925, Commodore Vanderbilt's wastral grandson Reggie ran down pedestrians on five separate occasions, killing two of them. By 1969, when Ted Kennedy drove off the bridge at Chappaquiddick, the bag limit seemed to be down to one. Today, it may well be zero. But what's changed is not variation in wealth; that's as bad or as extreme as ever. What's changed is the ability to translate wealth into power. Rich people can't get away with as much.

In short, how do you break the connection between wealth and power? Demand transparency. Watch closely how power is exercised and demand an account of how decisions are made. Why aren't all police interrogations videotaped? Why did 36% of Princeton's class of 2007 come from prep schools when only 1.7% of American kids attend them? Why did George Bush make it harder to see previous presidents' papers? Why does the US so often put Israel's interests before its own? Why don't government officials disclose more of their finances, and why only during their term of office? Why not for 10 years after? A friend of mine who knows a lot about computer security says the single most important step is to log everything. Back when he was a kid trying to break into computers, what worried him most was the idea of leaving a trail. He was more inconvenienced by the need to avoid that than by any obstacle deliberately put in his path. Like all illicit connections, the connection between wealth and power flourishes in secret. Expose all transactions and you will greatly reduce it. Log everything. That's a strategy that already seems to be working, and it doesn't have the unintended side effect of making your entire country poor.

I don't think many people realize there's a connection between economic inequality and risk. I didn't fully grasp it until recently. I'd known for years, of course, that if one didn't score in a startup, the next best alternative was to get a cozy research position somewhere they couldn't fire you, but I didn't understand the equation governing my behavior. Likewise, it's obvious empirically that a country that doesn't let people get rich is headed for disaster, whether it's Diocletian's Rome or Harold Wilson's Britain, but I didn't until recently understand the role that risk played. If you try to attack wealth, you end up nailing risk as well, and with it, growth. If you want a fairer world, I think you're better off attacking one step downstream, where wealth turns into power. Thank you for listening to this talk. Sorry about the circumstances. Thank you.

[Applause]

Interviewer: That was hair-raising. Do we have any time left? Are we done? If anybody—are we done? We are done. We have two minutes left. Should anybody have any questions about this talk that was obviously so enthralling, by all means, let me know.

Paul Graham: Um, yeah. Oh, the question is why do you want to reduce economic inequality in the first place? Well, actually, I'm saying you don't have to, but a lot of people seem to think that it's a really bad idea. I mean, it's one of those things you see in newspaper stories, not as a statement but as an axiom underlying the story. They say inequality has increased, you know, as if this were ipso facto bad. I think it's not necessarily.

Interviewer: Yeah, if government control can't result in growth, how do I explain what's happening in China?

Paul Graham: What's happening in China is the government has a lot less control than it did in the time of Mao. That's why China is growing faster.

Interviewer: Yes. Oh, okay. That's an interesting question. How much collateral—how much should you have this sort of—I think what you're saying is, should you have this sort of Wild West economy where everybody can do what they want, or would it be better to have some kinds of protections to, you know, how much is an acceptable level of damage to startups in order to reduce economic inequality?

Paul Graham: I don't know. I don't know. I just discovered this sort of equation relating these—well, not discovered, but discovered for myself—this equation relating these two things. Like, you know, you yank on the bedsheet here and someone on the other end of the bed gets, you know, the covers pulled off them, right? People yanking on the economic inequality end of the bedsheet don't often realize that it's attached to all these other things. But what's the right relationship? God only knows. It's enough for me to point out that this relationship exists.

Interviewer: All right. Yes.

Paul Graham: Well, for example, I think bloggers have put a bit of a fire under government that didn't used to be there before. If everybody, you know, demanded more—like asked more hard questions of politicians—that would be a good thing. Is everybody going to do it? No. But, you know, these things might change slowly in the right direction.

Interviewer: Would the politicians just ignore you?

Paul Graham: Well, I'll try. But look what happened in Northern Ireland. I just read recently that someone, an analyst looking at what was happening in Northern Ireland, said basically the people got tired of the violence and the politicians were forced to go along with them. That bumper sticker, "If the people lead, the politicians will follow," I definitely agree with that one.

Interviewer: All right, we are done. Thank you very much. Sorry about the strange circumstances.

[Applause]
