

3 Takeaways Podcast Transcript

Lynn Thoman

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Ep 26: How Right and Wrong Change with Technology with Juan Enriquez

0:00:00 INTRO male voice: Welcome to the 3 Takeaways Podcast, which features short, memorable conversations with the world's best thinkers, business leaders, writers, politicians, scientists, and other news makers. Each episode ends with the three key takeaways that person has learned over their lives and their careers. And now your host, and board member of schools at Harvard, Princeton and Columbia, Lynn Thoman.

0:00:25 Lynn Thoman: Hi everyone, it's Lynn Thoman, welcome to another episode. Today I'm delighted to be here with Juan Enriquez, author of Right/Wrong. We all know what's right and what's wrong, but according to Juan, the rules change. Right and wrong today are different from the right and wrong of the past. One can act reasonably now, according to today's prevailing norms, but Juan believes that even the most enlightened among us will be judged harshly by future generations. He's going to tell us what things we do now that will be considered wrong in retrospect. Welcome Juan, and thank you so much for being here today.

0:01:04 Juan Enriquez: Oh, thank you so much.

0:01:16 LT: So, Juan, one area that has changed is sex. How have our beliefs on sex and what's right and wrong changed over time?

0:01:16.2 JE: One way to think about it, remember that movie Back to the Future, and they get into a car and suddenly they're forward or they're backwards in the future? Try a thought experiment, try putting your four grandparents in that car, you bring them back to the present to talk about the birds and the bees, you bring them back as four 20-something-year-olds. The first thing that you'd know is that they probably knew a lot about sex because they were probably married way before most of us were. Then when you started getting into what sex and reproduction is today, the first conversation you'd have with them is, "You know, Gramps, today you can have all the sex you want and never have a baby." Yes, they knew about birth control, it wasn't constant, it wasn't easily available, and they didn't have a lot of choices. So what we've done is we've decoupled sex from consequence, and that would be mind-blowing to them. The second part of the conversation is to say, "It turns out that we now have this thing called In vitro fertilization", and you could just imagine the puzzled looks. They'd be thinking, "You know, I've heard about this. We used to call that the immaculate conception, and you're now telling me that you're performing millions of miracles a year."

0:02:23 JE: And then the third part of the conversation, you'd say, "Oh, by the way, it turns out that now you can hire a surrogate mother and you can freeze an egg, fertilized. You can have identical twins born decades apart." Those are three things which would be so utterly alien, inconceivable, wrong to them that if they were asked in their 20s, "Do you think this is right or wrong?" They would have said, "Absolutely not." Now flip the conversation. You're 60 or 70-year-old grandkids, bring you back in your 20s to talk about the birds and the bees. Do you think sex is going to look anything like what it looks like today? Do you think how we conceive of children, how we hold children during pregnancy, what we do in terms of editing genomes is going to look anything like

what it looks like today? And so I guess the question is, "How do we judge?" So I think what I'd like our listeners to think about is you may think you know right from wrong, maybe. The second thing I'd like people to think about is, "What if the rules change across time and what if technology changes the rules? What if technology allows us to do things that are very different, and in the process of changing what we can do changes how we think about things?"

0:03:34.8 JE: And then the last point, I think it's important. Most people think of technology as The Terminator, what if technology enables us to act in a far more ethical way?

0:03:45.5 LT: So, practices that can be viewed as acceptable change. Sex is one example, and that changed society's view of number of sex partners, it enabled women to get married later, to have careers, it had implications for divorce. These very foundational concepts of society, you argue, change. And another example of that is slavery. Every single person in the world knows that it's wrong to enslave human beings, but slavery existed in societies all around the world for thousands of years, across civilizations, across continents and across time. Why did so many people believe such a heinous thing was acceptable?

0:04:41.5 JE: That's an incredibly important question, because we often look at slavery through a narrow period in history, why then did this practice last, not for centuries, but for tens of thousands of years? And I think the more important question is, "Why did we stop, almost globally, in a relatively short period of time?" A lot of this had to do with people putting their lives on the line, that is a part of it, but there have been folks who've been arguing against slavery for thousands of years, in various cultures. And I think one of the things we have to think about carefully is "Is it a complete coincidence slavery began to go away when you started using oil and machines?" Energy is dense material when it comes out of oil or gas.

0:05:25.3 JE: The second thing that happened is when you started having machines that had the equivalent of 10 horsepower, 100 horse park, 1000 horsepower, all of a sudden you could make enormous amounts of stuff without having to enslave thousands of people, and in the measure that technology gave us enormous power, enabled a huge amount of work to be done by machines instead of being done by oil, it became easier for societies to do the right thing and to stop enslaving people. It doesn't mean we've stopped all slavery, but it does mean that on average we do 1/10,000th of that, than we were doing in the 1800s, and we were doing in the year whatever. I want to stress here, I do not accept that slavery is or ever was right. I'm asking the question, "Why did we practice it for so long and why did it start to go away so quickly?"

0:06:13.8 LT: In many ways, that is a horrifying answer. It says that fundamentally people were not moral across continents, across civilizations, and across time. How about homosexuality? How have our ideas changed and what has caused the changes in our perspective on it?

0:06:32.8 JE: For a very long time, and there were exceptions where there was a greater tolerance for homosexuality, but on the whole we have treated people with different sexual orientations in absolutely horrifying ways. There are still parts of the world today where being openly gay leads to a death penalty. Why did we do this, and why did it start to go away? Understanding, again, that there's still enormous amounts of suffering and discrimination against various sexual orientations and communities, but there's less, and so you've had a change, and what's fascinating to me is how quickly that change occurred. In about 1997, two-thirds of the US population was against gay marriage.

0:07:11.5 JE: You fast-forward that to last year and it's two-thirds of the United States not only accepts but defends gay marriage, gay rights, to the extent were those who hold discriminatory beliefs are now boycotted or now put out of business, are now considered absolutely backwards. One of the things that I think changed our attitudes in a fundamental way was media and a plague. The plague of AIDS forced people out of the closet and forced people to fight for their lives, because the government was so against it and it was like, "Okay, you deserve that", and that was just so fundamentally wrong. But it also took a community that had been hidden for a long time, that had kept a low profile, and it forced it to come out to their loved one and say, "I'm fighting for my life, will you fight alongside me?" It took a community that was hidden and all of a sudden you said, "Oh my goodness, I happen to know a lot of people who are gay", and it humanized, because it's very hard to treat people as "they" when they're part of you.

0:08:08.6 JE: The second part of this is changes in popular media. And suddenly you had this portrayal of this incredibly talented community, not as the stereotypes that we used to hold but as people who you'd say, "These are incredibly funny, talented... These are people that I'd like to be friends with." And that humanizing through the media and humanizing through the tragedy of a plague changed moral perceptions to the point where the Pope as Cardinal said "Gay marriage is against God's plan", and three years later he says, "Who am I to judge?" And last year he says, "I'm in favor of gay rights", when a lot of his global flock is not there yet. He's leading a big chunk of his global flock, and it's fascinating to me how quickly something that I was taught as a child, which is "Being gay is absolutely wrong", completely flipped.

0:09:00.2 LT: So you've talked about three areas now where what we believe was wrong, where our ideas have changed, which is sex, sexual orientation, and slavery. Are there other areas or are these really the only three?

0:09:14.9 JE: No, I think our notions of right and wrong continue to evolve. Not so long ago, the very sophisticated and beautiful squares of Paris were filled with guillotines. And people would dress up in their weekend finest and come watch heads being chopped off. And in that context you also have to ask yourself, "Why in the past few weeks has the government of the United States chose to execute so many people in a very short period of time, after a relatively long stay on mass executions?" People are going to look at that and think, "What were you thinking? Why were you allowing this as a society?"

0:09:53.7 LT: So it's very easy for us, as you point out, to look at our ancestors and say, "What is wrong with them? What were they thinking?" But looking ahead, you have a wonderful example in your book of having a conversation in the future with your spry 100-year-old grandkids, what do you think that they would think about some of our practices, such as eating meat?

0:10:20.6 JE: So let's go back to this notion of how quickly things can change across time. We've been eating meat for tens of thousands of years. It's, again, an instance where technology will fundamentally change our notions. Once synthetic meats spread, once it's easy to buy, the tolerance and acceptance of breeding an animal and then slaughtering it in a brutal fashion is going to be seen with pretty different eyes. And in the same way, as today we would judge somebody who decides to go out and murder whales to light their home as somebody who's savage, because we have gas, because we have electricity, because we have oil, you're going to start finding something similar occur with meat eaters. We might end up on the wrong side of history, and you may have a very

quick flip between people eating meat every day, meat and potatoes, to eating meat a couple of days a week, to never touching meat and thinking, "Wow, it's really wrong to do that."

0:11:22.4 LT: How about experimenting on animals? Today we deliberately engineer horrendous diseases and cancers into whole strains of mice and other animals to test drugs. How do you think animal experimentation will be viewed?

0:11:39.4 JE: I think a lot of us are conscious that it's just horrendous to do that to a living creature, and yet we still tolerate it. Not everybody, there are certainly people who are ahead of the curve, but what I'm talking about here is "Will the majority think this is okay, or will the majority say this has got to stop and it's gotta stop now?" On animal testing I think that's going to happen pretty quickly, and the reason why I think it's going to happen is because we're able now to design organs on chips, so we're able to design the equivalent of how a liver functions or how a kidney functions on a chip, and we're able to engineer organs out of cells. And as that happens, the necessity to have an animal, grow the cancer in the animal, or give extreme toxic substances to that animal has less and less justification, because now you have a technological alternative.

0:12:32.2 LT: Okay, so it seems clear that experimenting on animals or eating meat could look very different in the future. How about something as basic as women being pregnant and having babies? Surely that's not something that's going to change. Or is it?

0:12:53.6 JE: The first patent for an external womb, a synthetic womb, went to the US Patent Office and was granted in the 1950s. It seemed like science fiction, not a lot of stuff happened with that until a couple years ago. And so a couple years ago what was shocking to some people is, if you can imagine a little baby lamb growing in a giant Ziploc bag, and that was a proof of concept that you can take a sophisticated large animal and bring it to a term externally. It's not a stretch to think that if you have a premature baby and the baby has to come out of the mother because of disease or because the birth starts, or because X or Y reason, that instead of putting that preemie inside an incubator, like you've got today, those plastic boxes, you would want to re-insert that baby into the equivalent of synthetic womb. And it would be a different way of bringing that baby to term. Probably as this procedure becomes faster, better, cheaper, you could see a scenario where some mothers, or two fathers, decide to bring a baby to term outside a body. You could see a scenario under which a mother might be asked by her daughter, "How dare you have carried me inside your body, when you could have left me nice and protected inside this artificial womb at home, while you went on these stupid adventures."

0:14:14.1 JE: When you have an external womb it becomes a lot easier to operate on an embryo. You might want to operate the first times for life-threatening conditions, but as this technology gets faster, better, cheaper, you could start seeing widespread gene editing. And again, you, I, and the majority of folks today, if we're told "We're going to have broad systemic gene editing of babies", we probably have a huge yuck factor and say, "I don't really want that." But fast-forward this conversation 60 or 80 years, and you could see a conversation with the grandchild, where the grandchild says, "Grandma, my mother was so primitive and so superstitious. When I was in the womb, external womb, she didn't even bother to edit my genome, and she left in the BRCA gene, she left in the p53 gene, she left in the KRAS gene, and so I'm now suffering these horrendous diseases because she had the power to edit what she didn't." And you'll see the logic flipped 180 degrees of today, "How dare you edit babies?" to tomorrow a majority saying, "How dare you not have edited your child's genome?" We are a singularly un-diverse species, which by the way, makes

us pretty vulnerable to a whole series of diseases.

0:15:28.7 LT: How can space travel change our ideas on right and wrong?

0:15:33.2 JE: When you start traveling in space, two things start to happen. You may need different gene engineering to be able to survive in space. Space is incredibly destructive to your bones, to your eyes, to your heart, to your muscles. We have not adapted for a different gravity, we have not adapted for a different radiation. We probably don't have a million years for Darwin to kick in and kill 99.9% of the mutants and generate a species that's better adapted to Mars or to Sirius or something else. Which means we're going to have to gene engineer human beings to be able to survive in very different environments. When we do that, we could end up reasonably quickly with diverging genomes, and we'd better become more tolerant of diversity.

0:16:19.8 LT: So, we are very judgmental. And you talk about examples of Laura Ingalls Wilder, who was not enlightened with respect to Native Americans, or Mark Twain who uses the N-word, or Elihu Yale, the founder of Yale University who traded in slaves, how should we look at our ancestors and people in the past?

0:16:45.5 JE: I think there's a couple of things that we have to do. The first is never to look at the past and say, "That was okay", so under no circumstances is it okay for somebody to have been a slave holder. Let's start there. When we judge people in the past I think it's incredibly important, as well as condemning the behavior, to understand how were they acting in the context of their time. So given what they were taught as kids by their teachers, by their preachers, by the lawyers, by their parents, by society as a whole, how might you and I have acted during that period of time? If you say everybody is the same you do enormous damage to history and you don't differentiate between acting in a less awful fashion in the context of your time.

0:17:30.0 JE: It's also incredibly important to have different standards for people who should have known better, and there I think the judgement of history should be not that they're all the same but, boy, it's shocking when you read Huckleberry Finn and you see the N-word so many times. Is it justified to use the N-word? No. But again, you have to ask yourself, "Did he mean it in the same way as today's white supremacists use that word? Does it have the same connotation?" And this is an especially fraught and complicated topic today because a word which is acceptable by society and by the community that's being described can flip and become very insulting. So you take the evolution of the word "gay" to be something that depicted joy and freedom and happiness at one point, to something which was used as a very derogatory term, to something that's now used in conjunction with a pride flag.

0:18:28.1 JE: And so when you judge an author for words used back then and you have no context for, "Was Mark Twain trying to really denigrate and put down and attack these folks as a white supremacist?" Versus, "Was he using a word in a different context?" Which, again, doesn't justify the word, but it's saying, "For God's sake, be a little more humble and nuanced in this and don't take the author of Little House On The Prairie and remove her books and her name from prizes, because you don't like the way she depicts Native Americans, because in the context of her time the relationship and the teaching and the understanding of Native Americans is very different from our understanding today." Does that justify how native Americans were treated? Absolutely not. But of the people who went and scalped Native Americans, Laura Ingalls Wilder was not the main offender, don't lump her in with the main offenders because then it makes it so much harder to look

at the main offender and really go after them, and go after them hard as historical examples.

0:19:33.2 LT: Coming back to the present, we live in a time where one Tweet, one photo, one costume, can come back to haunt us. In addition, who our friends are, who attends a dinner, who was included in a group photo or got a donation or support from someone, can also make us guilty by association. How do you think about that?

0:19:56.8 JE: Part of the reason why I wrote this book is because a very good friend of mine, who was a professor at Harvard, then became a professor at Yale, and during their first year his wife sent out an email after being asked for guidance on Halloween costumes, and the email in essence said "Look, you're all adults, figure out what to wear", and that was considered so vile, so insulting, so God awful, that you had protests starting on campus. When this man came out to try and defend his wife, the students not only protested against him, but they spit in his face and asked for him to be kicked out of the school, for defending his wife. We can't have behavior like that in society, because we can't ever discuss ideas that might be bothersome to somebody on campus, 'cause we might trigger them. We might not have a discussion about right and wrong because the professor is so terrified that he or she will use a wrong word, will use a turn of phrase, will use the wrong name to address a group of people, that they will take a 20 or 30-year career and cancel it.

0:21:01.2 JE: And that's just fundamentally wrong. We all make mistakes, we all learn, we all have biases. We can start with one notion of right and wrong and it can evolve over time, and in the measure that we don't discuss this, in the measure that you're always supposed to use exactly the right terminology for that time, and otherwise you're being completely disrespectful, is a way of turning ourselves into a smaller, meaner, more small-minded community that instead of teaching and having some compassion for those who don't have the same education, is focused on fire, brimstone and punishment. This is a period where there's a lot of fear, there's a lot of fury, and there's not a lot of forgiveness and compassion.

0:21:44.7 LT: It seems clear that we will all be judged by future generations, and even the most enlightened among us will come up short. What should we do?

0:21:55.6 JE: There's two words that you just don't hear these days, one is "humility" and the other's "forgiveness". I wrote this book about right/wrong thinking I will come up with some smart answers on how to think about genetic technologies and brain technologies, and come up with a series of easily-to-understand principles. And, boy, six years later I was still thinking, "What do I really know? What do I know that's going to be true in 50 years or 100 years?" And so much has changed, and so much is changing, because if you actually believe technology changes ethics, and technology's accelerating, then you would expect ethics and our notion of right and wrong to change at ever faster rates.

0:22:35.2 JE: And so, in that context, we better be more forgiving of the past, we better be more humble in judging our own mistakes, and we better be more forgiving of those around us, because otherwise we can't... 99.9% of society wants to do the right thing, they want to get up every morning, they want their kids to do alright, they want their parents to do alright, they want to be respected by their co-workers, they want to be decent human beings. And they've been taught in different ways to be decent, sometimes in ways which are very prejudiced, especially with groups that they haven't had contact with, who can be isolated as the "they". When we don't engage those groups, when we stereotype those groups, when we lump big groups together and they become

"they", you rip societies to pieces, your rip nations to pieces. Three quarters of the flags, borders, and anthems at the UN did not exist a few decades ago, but then a group of people convinced another group of people that they were different from the others, and they didn't want to associate with the others. And so all of a sudden they started splitting Spain with the Basques and the Catalans and the Galicians, and France with the Corsicans, and the northern Italians, and the southern Finns, and the Walloons, and it just goes on and on.

0:23:51.2 JE: The other danger in taking big chunks of people and saying "I'm not like them", is that it makes it much harder for society to isolate the less than 1% that truly aren't like us, that truly are psychopaths, extreme narcissists, violent, sadistic-al, nasty human beings. And those people are getting a lot of coverage, because when you lump big chunks of people together with them they have a cover, they can't be isolated, it's all of us that you're coming after, it's not the true 10, 100, 1000, or 10,000 evil actors, because they become a part of a much larger movement. And that's why tolerance and humility and forgiveness are just so essential today.

0:24:38.8 LT: Juan, is there anything else you'd like to discuss that you haven't already touched upon before I ask you for your three key insights or takeaways?

0:24:47.3 JE: There's a lot of stuff that I've got wrong in this book, there's a lot of stuff that I didn't cover, there's a lot of stuff that will be wrong in retrospect. Help me make it a better book, if you find something that's wrong. I'm not trying to put out a catechism, I'm not trying to put out the commandments, I'm trying to come up with a better way of understanding why people in the past did things that were so horrendous and why some people that I love in many ways can believe or act in ways that I find just wrong. I'm certain that people will find that about me, and I'm certain people will find stuff in this book, help me make it better. Three takeaways: Right and wrong changes over time, Technology changes right and wrong, technology is moving ever faster. Therefore, our notions of right and wrong are going to change ever faster. Let's treat each other with a little bit more humility and forgiveness.

0:25:39.5 LT: Juan, this has been terrific. Thank you so much.

0:25:43.0 JE: Thank you, great pleasure.

0:25:46.0 Male voice OUTRO: If you enjoyed today's episode, you can listen or subscribe for free on Apple Podcasts or wherever you listen. If you would like to receive information on upcoming episodes be sure to sign up for our newsletter at 3takeaways.com, or follow us on Twitter, Instagram, Facebook, and LinkedIn. Note that 3takeaways.com is with the number three, three is not spelled out. For all social media and podcast links go to 3takeaways.com.