

S2 EPISODE 05

[INTRO]

[0:00:09.1] AS: When you're fed up with fighting food and your body, join us here. I'm Ali Shapiro, creator of the Truce with Food Program and your host for Insatiable, where we explore the hidden aspects of fighting our food, our weight, and our bodies, and dive deep into nutrition science and true whole health.

Fair warning, this is not your parents' health care. This is a big rebel yell to those who crave meaning, hunger for truth, and whose lust for life is truly insatiable. Believe me, freedom awaits.

[INTRODUCTION]

[0:00:47.7] Host: Welcome to Season 2, episode 5 of Insatiable; Inferior: How Science Got Women Wrong with Journalist Angela Saini. I wanted to have Angela on, because I read her book several months ago and just thought everyone needs to know about this, especially in these very anti-woman political times.

Her book talks about how science likes to believe it's independent on politics, yet politics, the media produce quite a vicious cycle that leads to the general culture believing women are inferior. She really delves into the science to show how that's not true, how the gender differences from who's built for parenting versus who is more sexual are actually often fabricated and there is no basis of science for it.

We're going to talk about all of that today. I especially wanted to bring that point about this idea that women are better built for parenting, because I see in my practice a lot and in the Truce with Food group, a lot of women have guilt over wanting a career, wanting a life outside of their career. They don't feel guilty for that itself, but they feel like they're never doing enough as parents. I think a lot of that comes from this idea that women need to be the primary caregiver. That's just socialized conditioning that we can unlearn.

I hope you get a lot of ahas today, you could see some of the beliefs that you've unconsciously been living by and you can make better health choices for yourself and also a better emotional and life choices for yourself. Enjoy today's episode, and remember this year's round of Truce with Food 2018 is open for registration from January 22nd. The registration ends on February 1st and we begin on February 6th.

As you'll hear one of Angela's big conclusions is that we are all very different, not based on gender or male or female, but really individuals and we have to figure out what works for us. That's what we're going to do in Truce with Food from a food standpoint, and also the reasons that you turn to food. It's going to be quite the liberating journey. I hope you'll join us if it's something that resonates this round for you right now and you can get more information at alishapiro.com/trucewithfood.

Enjoy today's episode.

[INTERVIEW]

[0:02:56.3] Host: I am here with Angela Saini, who is the author of *How Science Got Women Wrong* and the new research that's rewriting the story. I just want to thank you so much for being here Angela this season 2 of *Insatiable*. The theme is the feminine perspective. Maybe some of the things that we're leaving out, so I can't think of a more perfect topic than some of the hidden aspects of the scientific method that I was completely unaware of, until I read your book. Thank you for doing this work.

[0:03:24.2] AS: No, I'm thrilled to be here. Thank you for inviting me.

[0:03:27.2] Host: Yeah. I'm curious what made you want to follow this inquiry line. What questions were you asking, or what suspects did you have to start to write *Inferior*?

[0:03:38.9] AS: Well, my background is in engineering. For most of my times writing career I've maybe concentrated on engineering stories, physical sciences, not really human biology or behavior at all. Then a newspaper I just read here in the UK asked me to write a story on

menopause, and that gave me an avenue into understanding actually how much controversy and how much of a battleground research on women really is.

There is so much contradiction there. There is quite a lot of bias. That fascinated me, because as someone who comes from a very different scientific background in which you're not studying people, you're studying things, so it's not as complicated in a way.

Studying people really is a minefield, but studying women in particular is a very special minefield. That just sparked off this huge fascination in me, and I just wanted you to know more. I wanted to understand myself, I wanted to understand the problems in science when it came to women. I think fundamentally I just wanted to understand myself.

[0:03:38.9] Host: Yeah. I'm curious about how your approach to your own health has changed. Let me ask you that now and then we'll get into the book. How has your own approach to your health changed as a result of this book?

[0:04:55.7] AS: Well, I mean not very much I have to say on health. In health terms, even though there are differences I think in the way women's health has been approached. Certainly for me for instance, one of the big issues in my life has always been period pain. I get very severe period pain. I've ended up in hospital a few times because of it.

It never really occurred to me to question that. I just assumed that this is something women go through. There are pain killers for us to learn to cope with it. We have to learn to manage enduring the pain and that's it. I didn't really think too much about why it was, that it wasn't dedicated to pain treatment for this condition that it was taken as such a given that women should have to experience this pain and just live with it. Just not happen in any of men's pain. There is any way that pain that men experience that they're expected to just absorb as much of course.

I think writing this book, perhaps maybe we think differently about that. Why it was that period pain for instance is being so ignored for so long, or treated as such a throw-away problem, when it really is debilitating for many of the women who suffer it severely. I guess in that sense it

made me question. In terms of treating my own health, nothing really has changed. I still do the same things that I do.

[0:06:16.4] Host: Yeah. I think what I love about your book is it goes from this macro level into micro in terms of studies and stuff. But you talk about the scientists like to think that they are not influenced by politics. In your book, you talk about that back-loop a little bit. I think what you're describing with, "Oh, it's normal for women to have pain," that's – when I think of politics, I think of cultural conditioning in general, like the culture and politics to me are often the same thing.

How do you think politics influences science when it comes to women's health?

[0:06:47.8] AS: Well, it's fundamental in a way, because politics and policy is what sets the parameters of how women's health is approached. For example, until very recently the National Institute of Health did not make it a requirement for clinical trials to include women, as well as men. Often, many of the drugs that we use today were tested only on men.

That we now know may have had adverse effects for a small number of women. There are other drugs for instance that pregnant women can't take, because they were never tested in pregnant women. There are drugs for diseases and issues that affect predominantly men, predominantly women that also don't have treatments for, or we don't have enough treatments for.

There's no doubt that the public policy aspect of this, the funding issues, which political issues in a way because governments are some of the main funders of medical research, is crucial that – it's very important that we understand the politics is intimately related to this, I think.

[0:07:54.7] Host: Yeah. I think the challenges is part of why we don't have quite the equality we have in terms of funding and everything, it's because for so long males were the dominant scientists. I was fascinated in your book to learn about Darwin. I learned about him in biology class and he sounded like he's a great guy, but he had some real biases in terms of – one of the quotes that I pulled from the book – I mean, I laughed at first, but then I thought of all the downstream of patients was he said that it's a stroke of biological luck that has stopped women from being even more inferior to men than they already are. I mean, you have to laugh at that

now a hundred years later. But that really influenced [0:08:34.5] to really inhospitable environment for female scientists.

[0:08:39.3] AS: Well, actually that time there weren't very many female scientists obviously, because in Victorian-Britain, women didn't have access to higher education. Also the scientific establishment was pretty much closed to the women scientists that were tended to be the wives of scientists. A lot of scientists were amateurs, gentlemen amateurs and they worked from home.

If you happened to be a woman interested in science, you would marry a male scientist and that would give you an avenue to be able to do this and research. Sometimes if you happen to be the daughter of a scientist then that would also give you an avenue to do this for certain. Women scientists in the way we think of them now on an equal footing to men didn't really exist. There were a very few of them anyway.

[0:09:24.4] Host: Right. I think that environment, they'll discourage – I mean, granted it was a different time and space in terms of who had access to school and being a scientist. It certainly didn't make it for a hospitable environment. I think of the equivalent of the tech industry today, like it's very brutal to even try to get – being there at all, let alone thrive.

[0:09:42.3] AS: Yeah. I think what people like Darwin did – male scientists who painted women as inferior, who reinforce the stereotypes with their so-called biological facts, they were really holding all of women back [inaudible 0:09:56.7] time, and especially maybe end of Darwin's life that women were fighting – they were out in the streets fighting for the vote, the right to vote. Very simple rights. To have prominent male biologists tell the world that they didn't deserve them, because they weren't naturally equal, that they were biologically, intellectually inferior and couldn't have helped that cause in any way.

It's really sad that at the time that science should've been elevating women, should've been giving us the truth, should've been furthering progress in society, should've been on the leading edge of society, was actually on the back-foot and was telling us exactly what – they shouldn't have been telling us, which is perpetuating these very ill-founded assumptions about men and women.

[0:10:44.6] Host: Yeah. I think that's again another great example of the political influencing this feedback loop often and if science were really unbiased, we might have more balanced politics of the sexes as well, which I'm a big champion for.

One thing that you mentioned in that example and also I thought was really interesting was also how this political, the scientific body then has the role of the press, right? All of these things are culture makers together. I thought it was really fascinating about how you were talking about women and men are different, but we're not as different as often – sometimes the press comes out to make the differences, but it's really sexy to say men are from Mars, Venus are from women and try to make these almost pit us against each other. Can you speak to that a little bit?

[0:11:30.4] AS: Well, I think this has happened for a very long time. There has always been – I think in many societies this division between the sexes created – wherever it comes from. It's been exacerbated by culture and religion and laws and society, this idea that we are very, very different. That's where our ideas of gender come from today, the entire construct that were built around gender stems from these very ancient assumptions about what was appropriate for men and women were filtered on that for centuries. In that sense, it's very old.

What scientists did when modern science came along, so I'm talking about in a post-enlightenment side, in the 18th to 19th century was not question how it was that these ideas about gender came about, but actually through biology reinforced how these ideas about gender might be true. That was dangerous. It was a very lazy assumption that the scientists made. In some sense, we can forgive them because it was such a natural thing to do, because we all do that every single day.

Now every time we look around that and we see, for example, if we see a group of women they happen to be talking with a group of men who [inaudible 0:12:46.6] anything, women are not truly more gossipy. What didn't happen in post-enlightenment was a attempt to start again and say we have all these ideas men and women. Are these rooted in fact, or are these biological? Where did these ideas come from? That didn't happen.

What they did instead was they assumed that everything they saw around them reflected biological facts. Darwin looks at the world around him. He saw that women weren't chipping as much as men, and he assumed that this must be because women are somehow intellectually less capable.

He didn't really question all the structure society around women that prevented them from achieving as much as men to go to that point. They didn't have access to higher education like I mentioned before. Often girls didn't even have the same primary education as men.

From a very young age, girls were being treated very differently from boys. As soon as they were adults, they weren't given access to the cordials of power, they weren't given access to the professions, they weren't given access with time education. There was no scope of them even achieving what men achieved, yet Darwin and others skinned over all that and just assumed that the outcome was the biological fact, that this was innate, that the reason society was structured this way is because women were less capable. That was the big mistake. I think that's a mistake now that science and social science in particular has started to correct.

[0:14:19.7] Host: That reminds me, here in the states there is a very strong meritocracy belief of like, if you work hard enough, you're going to succeed. I think when we look at people who are wealthy versus poor, we don't look at why certain people are wealthy, why certain people are people. I think it's a similar comparison of like, let's look at all the root causes that certain people are wealthier and some people are poor, versus just assuming it's this natural selection, especially because in America a lot of times that means race and class are highly intertwined.

One of the socialized constructs that you brought up in your book was that assuming women were built for parenting in a way that men weren't. If you actually look, you were saying it at the history through a less biased lens, there is these dramatic differences in who should be the sole caregiver.

[0:15:05.7] AS: Now, the thing is humans are very plastic in this way. There are societies for examples in which men take very little interest in child care, that they're not very hands-on parents. There are other societies in which men are very, very hands-on parents, and in fact,

their biology reflects that. It is in the case that they're born good parents or bad parents. It's that being a parent makes you a better parent.

If you take an interest and you were involved from a very young age, then your world, your blood – your hormone levels reflect that interest in parenting that you have and the effort that you make to be a good parent. In that sense, humans are very adaptable. We're not set in one single mold. We can choose to live whichever way we want to live.

If we want fathers to be very involved parents, they are. In fact, what makes us incredibly special as species is it's not just fathers and mothers who are involved in parenting, but actually everyone around us. For example, when I gave birth, of course we have teams around us when we give birth, which is very unusual for primates to have other people, other beings around when they're giving birth.

Usually in other primate species, the female goes off and has the baby by herself. She's completely alone when she gives birth by choice, because she doesn't want that child to be attacked, or injured in any way. She's taking care of it. She's in that sense an attachment parent. She's with that child all the time.

We don't like that. We give birth communally. We have lots of people involved. Immediately after birth, we often have other people taking care of our child. I certainly did, I had the nurses at the hospital, I had my mother-in-law, I had my sister, I had my husband, I had a whole team of people. In the whole four years of his life, he's had countless caretakers, other parents if you want, nursery stuff, family, friends, many different people take care of my child and that's very common all around the world. It's a firm feature of the human species that we don't as mothers take care of our children completely on our own by ourselves until they're adults.

I mean, that's unheard of. I don't know a single family in which nobody else is involved in taking care of each other. At the very least, they have teachers when they go to school. They always have people around them. That's what makes us special and forgetting that, which is I think what in some ways has happened largely because of demographics.

Over the last 100 years, people have moved out of the cities and moved in to the cities, have moved away from their families. We don't live in extended families anymore. We have the small UK families. From the 1950s, 1960s onwards, often women have also been expected to stay at home while men went out to work. We have this – in middle-class families, not in working-class families, because in working-class families we have no voice, but because they have to.

The middle-class families, we have this nuclear family setup, which woman stays at home. The woman becomes the sole caretaker for her children. Then we're surprised when women get depressed, they get upset, they become neglectful, they're unhappy. Of course, they're unhappy because we've never lived that way. We have always worked. We have always had lots of people around us to take care of our children, not just ourselves.

Expecting a woman to fend for herself and look after all her children without any outside help is just completely strange. I'm not saying it's unnatural, because we can live anywhere we want. Of course, it puts a huge strain on a woman, because that's not how the human species has ever lived.

[0:18:46.7] Host: Yeah. I love how you say it's not that it's natural because we can adapt, but yeah, it's not ideal. You can't really thrive in those conditions. I think that what happens sometimes culturally at least here on the states is you're viewed as like a bad mother. If you're not filled by your kids, that people will even – you choose not to have kids, people will even say you're selfish. As if that's like your whole purpose for living is to recreate.

I thought it was really interesting how you showed in hunter-gatherer communities, the women were just as important in that food chain, because men might have hunted, but they didn't always get their kill. The women were dependent on to be those consistent gatherers in many of the cultures of prehistoric past. Not all of them obviously, but women were out there in it.

[0:19:34.2] AS: Yes, absolutely. Women always has been. We forget just how egalitarian life is when your hunter-gatherer is living a subsistence life so. This is still how most people live today. Most families around the world, they are extended family so you live communally. Everybody works, because they all have to work. There isn't usually a very strict division of labor, unless it's the kind of side to that requires it. Because that's the reality of life as a human being when you

don't have very much food and your existence is quite precarious. There is no other way to live, except for everyone to do everything.

The idea that there was a strict division of labor in our ancient past is just frankly ridiculous. Division of labor merged at the very least, the strict division of labor that we see now emerged after we settled down, after agriculture as wealth – cousins of wealth change, as cousins of living change. It certainly wasn't there right from the beginning.

[0:20:35.4] Host: Yeah. I think that's what I found so fascinating about your book is sometimes because I'm in women's health and I see how women – how they're neglected and how medications affect them differently; alcohol, sugar, all these things, but there is so much more in common than I think sometimes – there is always I think some benefit when they're exasperating the differences, I guess is what I – there's an agenda.

One of the agendas I think, especially as you were talking about religion and politics being intertwined in science is – I loved learning about the Bonobos, which were the matriarchal culture. You said they were able to maintain that matriarchal culture one, because the female Bonobos, which for listeners they're like chimpanzees, correct? We're cousins of – our chimpanzees cousins, is that correct?

[0:21:18.5] AS: Yeah. Sometimes Bonobos are described as pigmy chimpanzees, because they look like small chimpanzees. There were different species, but they're very closely related. They are along with chimps, along with chimpanzees are closest – the closest species to us genetically.

[0:21:35.6] Host: Yeah. You talked about they were able to maintain this matriarchal culture by the women having sex with multiple men, so that they didn't know who was the mother of their children, so they wouldn't kill them. Then they were also able to bond together against the men, because they weren't necessarily stronger than them, but by bonding together they had more of – anytime you bond together you have more of a force.

That is just so counter-culture, like in Western society, at least I'd probably say all over. Women are supposedly thought you talked about not having as much of a sex drive all the time. I find

that women often are competing with each other, because this is the first time in a long time that we've had independent resources.

Often, we inadvertently are unconsciously compete with other women from a survival standpoint. The Bonobo culture gave us a clue to unlearn some of those patriarchal condition – I also include patriarchal religions in that. Unlearn some of that cultural conditioning.

[0:22:31.4] AS: I think we have to be really careful when it comes to the biology, not to take too many lessons. I think one of the things I was cognizant of when I was writing this book is that a lot of, for example evolutionary psychology is very prescriptive. It makes the argument that because certain behaviors or certain traits are hardwired, because this is how we lived throughout history, that this is somehow how we should live. That's not the point I'm trying to make in *Inferior*.

Equality is something that we have decided as a society, as a civilization is a right that we all have. That is a good thing that we are all equal irrespective of who we are and what we're capable of. In that sense, the science touch doesn't even matter, because if science were for example to show that there is let's say a five-point IQ difference between men and women, which there isn't. There is no IQ difference between men and women. But if it were to show that, it shouldn't matter to the course about equality. We should still treat everybody the same.

We should still push for equality anyway, because that is what we've decided to cite is the good thing we know we're all different. We know we all have as individuals, differences, that we are all equal. Where I think the science matters is when it comes to those people who argue that there are natural differences between us that mean that you can discriminate against groups. There's where I think the problem lies.

The point of my book wasn't to say that because Bonobos for instance have managed to band together as females and become a female-dominated society, that is how we are. Well, that is somehow hardwired into us, or that's how we should be.

All I'm saying is that there is such – so much more a variety out there in the animal kingdom amongst species close to us and within our own species, there is so much variety. We can't be

as prescriptive about us, as for example Darwin was. Darwin looked around and said that women are like this, men are like this, and inequality is fair because we are so different.

What I'm saying is equality – what we're pushing for as a society when we say that we're equal does not run in any way counter to anything that biology says. Not that biology says we're equal, so we should push for equality. But that biology doesn't stand in its way, which is the argument that some people make, this biologically determinist argument that we don't deserve equality, or that it's a natural for women to do the things that men do, or for men to do the things that women do.

I think we have to be careful about reading, or drawing too many lessons from other species, or looking too hard for example, matriarchal societies, or examples of women who run counter to a stereotype. Because even though that's useful in broadening our perception, we shouldn't need that to fight for equality, if that makes any sense. I don't know if that does make any sense.

[0:25:28.2] Host: Yeah. I'm glad that you clarified that, because I think what I was trying to say is when we can look at these cultures that are different than how we've been conditioned, it gives us that opening to say, "Wait, am I that way because of the culture, or because of who I really am?" At least ask that question, rather than – I just find the cultural waters when you're swimming in them to be so hard to know what's actually culture versus inherently who you are.

[0:25:52.9] AS: Yeah. I think in *Inferior*, the reason I have all these different examples of stuff that goes counter to a stereotype is exactly what you say that it makes us challenge our stereotypes and makes us think again. I think what I've realized since writing the book is especially since I've done so many interviews, I've done a lot of talks. What I've realized is that why do people need these examples? Why is it so important for them to have these examples of societies for example in which women are promiscuous, or a given license to behave however they want sexually.

Why is it so important to know that there are very intelligent women out there who have achieved in science as much as men have? Why should it make any difference if we're equal, if we know that we are intellectually equal, or that we are sexually equal, why do we need hard examples to fight for equality?

I think as humans, maybe we do need those examples because we find it hard to accept otherwise. The barriers in our minds are so profound, that unless we can see it actually happening, we can't accept that it's possible. Which is a shame in a way, because I'd like to think an equal society is possible even if we've never seen it anywhere else, even if it's never existed an equal society should still be possible. For some reason, we want to believe that it existed once, or it can – or we need to see an example of it having actually happen before we can believe that it can actually happen again.

[0:27:25.5] Host: Yeah. I think that's actually really existential question. I love it. Why do we need those examples? Again, I think a lot of the work that I do with clients is making them feel as part of why people overeat and overdrink is when they feel emotionally at risk. I'm just realizing how important belonging is to evolution to survival, having that sense of belonging.

I think when we have these examples, it gives us permission that hey, we're not going to be all out there alone. I think what's so important about your book and why I just had this huge like, "Oh, my God." It's because as someone who tends to be analytical, more scientific minded, if you're like, "Let's go back to the data," but then you realize that the data is skewed in such an entrenched way.

It's like, "Oh, my God. I've been looking at data that maybe it's not untrue, but it's not the whole story." It feels when I had – for example, I had a lot of health issues and I was able to piece them back together or heal myself through food and instead of the medicines I was trying to use and I was like, "Wait, how is this happening?" I don't even understand and that was almost like I couldn't believe it because it was so outside of the norm. I don't know. I think that sense of belonging and comparing ourselves can be a beneficial thing too as well, so that we are culturally included and socially included.

[0:28:41.9] AS: I think it's a very human thing to want to – if things are going to be very different from how they are now, if we're going to do something that challenges very ingrained assumptions that we have, or the narrative that we have about the world. If something is going to come along to challenge that, then we need extraordinary proof that it's possible.

It's not good enough to be idealistic, or just to have a belief about it. We have to know that it's possible. We have to know that it can happen. I think that's part of the reason why even to this day, so many people still resist sexual equality. The idea, there's so many millions of people out there who still very firmly believe that it's impossible for men and women to be equal, to have equal position in society, to do the same things. Because it's so far outside their imagination that that kind of life might be possible.

I think one of the reason that the people who think it is possible think that it's possible, is because we've often lived in societies or in circumstances where it's already happened. For example, in my case I grew up in a very egalitarian household. My mom and dad split everything down the middle. They did everything.

My dad at no point saw any distinction between men's work, or women's work, or work at home, or work outside the home. For him, it was all the same. My mom felt exactly the same. For me and my sisters, there was never any sense that there was anything that men could do that women couldn't do, or that there should ever be any barriers crossing our lives, because there are gender. Gender was never an issue for us.

I guess that has always instilled me of whatever other stereotypes I have. I know I have other gender stereotypes, because obviously I grew up in society and like everybody else I'm exposed to gender stereotypes. I've never thought that men and women were intrinsically unequal, intellectually or cognitively.

It's natural for me to assume from that position that of course, sexual equality is perfectly possible. Why wouldn't it be, given that we're not different? Then I know that there are many other people who didn't grow up in those circumstances, who've never seen sexual equality in practice. For them, it's a much harder cognitively is that psychologically it's a big junk for them to imagine that something they've never seen before might actually be possible.

I can understand why it's difficult for them. Also, for some people they are invested in sexual equality not being possible. If you had a very traditional upbringing or you live in a very traditional way and you think that actually I think women are better off at home and men are

better off working, then it's not in your interest to think that we are psychologically actually not very different.

The same for men. I mean, there are many white privileged men out there who don't want things to change, because it would take away some of their privilege and some of the benefits that they enjoy, because women on the workplace challenging them and competing for the same job.

[0:31:42.1] Host: One of the best quotes I heard after the 2016 election here was when you've had privilege, equality feels like oppression. I was like, "Oh, my God." Because I grew up very similarly to you; my parents were both teachers, made the same amount of money. My did most of the house work. My sister and I both thought we were equal.

It was actually, my sister is in the tech world. She was saying it wasn't until she really got there that she even realized that she was struggling, was having a hard time because she was female. It didn't even occur to her until she met other people like "Did you know it was this?" It's like, "Oh, my God. Wait. This is a thing? I thought we were equal."

That was one of the things I was going to ask you, because you said in society if we agree that we're all for equality, and I think that's the challenge is like, I inherently believe we're all equal, as long as we're all – if we're all given equal opportunity. I think to what you just were sharing, I don't know if everyone is invested in that vision.

[0:32:35.2] AS: I think politically, that's what most societies have decided is right – I mean, this is where the idea of human rights comes from. This is a universal goal that we are equal, we should be treated equally. You're right, there are many individuals. I think in some ways, what we're seeing now with the rise of the old right – we have to remember, the old right isn't just racist, it's also sexist.

With the rights of Trump who have caused in his own way has not furthered the causes of women, has **[0:33:06.9]** world back on them, things like abortions, for instance abortion, access to abortion. I don't really think these days that everyone is invested in the same way, even

politically. We knew that there were individuals who are opposed to equal rights. Now, it feels that even politically, there are elements out there who are resisting the cause of sexual equality.

That's a real shame. I think we have to be so careful with women not to lose the rights that was so hard won by our mothers and our grandmothers and our great grandmothers. They fought and died for what we had. It wasn't that many generations ago that women had nothing. I mean, in this country where I am in London and in the UK, if you're a married woman in Victorian times, whatever you owned before you were married became your husband's property after you're married. You didn't even have the right to own your own property after you're married.

We have gained a lot, but we are equally at risk of losing everything. We have to keep the fight up. We have to make sure we never become complacent, or take anything for granted, because just as easily as we have fought and won things in the past, we can lose them.

[0:34:21.6] Host: Yes. I'm so glad you said that, because I feel that way as well. I was stunned frankly that over here 53% of white women voted for Trump. I have a lot of theories on that. I think some have internalized their own oppression. They think, "Oh, this is just —" and a couple of the women I knew who voted for him had been emotionally and physically abused, or are in emotionally controlling relationships and they think, "That's just how it is."

I think some of them also benefit from their husband's white man privilege. They feel safe enough. Then some people might've had other reasons, but as a block, white women keep voting for women's rights to be rolled back, like they did in Virginia, they did in Alabama and recent elections and it's obviously not all white women, but the majority.

It's granted it's often intertwined with religion. It's fascinating and there was an article actually this week, or maybe it was last week over here about this women who are complaining, because they're in the outright movement and they are like, "Oh, but they're being so mean to us because we're women." It was like, "Yeah."

It's not just about being white. It's about being male too. I mean, I laughed because it's sad. It's like I didn't know what they thought they were getting into, I guess in joining in forces with that. Just to turn back to health, I think one of the things that I thought was so important that your book brought up is that because we are honoring that our bodies – women's bodies are – have

differences and we're not as included as medication testing, you ran at things like ovarian cancer, which there is no good test, because no one is studying it.

I think that's one of the biggest concerns that we have to take up as women is advocating for health test that if men were suffering from, there would be a cure tomorrow. Or I even think about with Viagra, like that is covered by health insurance here. We're fighting right now for birth control to have access, but Viagra sure.

Do you have any recommendations for how women can start to be champions for these areas of research, or any ideas or thoughts on how to approach that?

[0:36:25.8] AS: There are already very mutual and dedicated campaigns for women's health. In the US for example, I describe one of them in the book, those are a huge campaign from within governmental bodies to include women in clinical trials for instance. That's happened now. Women are now included females and that included – sex is included as a variable in many medical studies and that's also true in Europe. Some battles have already been won.

In certain diseases, women's health is already taken very seriously. For example, I don't know about the US, but here in the UK, breast cancer is a very well-diagnosed, very well-treated condition that many women now survive, because it's been taken so seriously. Women have taken very good control of their own health in that respect and is being taken very seriously. There is a lot of funding granted.

My mom for example had breast cancer a couple of years ago. It was diagnosed, treated incredibly well. She's completely better now. That's largely, because breast cancer is such a good, or well-funded, well-understood. Women routinely make sure they check themselves, mammograms are done, everything. There's a system around it. It's very good.

I wouldn't say women's health is failed in all respects, because there are very good case studies of where it isn't – that isn't the case. I guess if women want diseases that affect predominantly women, for example things associated with pregnancy, or things associated with menstruation, menopause, things at least to be taken more seriously, then there are organizations out there

that they can join and they can lobby. Of course, we have to remember the women are a big part of the medical revision now.

[0:38:18.5] Host: Yeah, that's exciting.

[0:38:18.7] AS: Students are women. The majority of medical students are women. That's true all over the world. I think in medicine particularly, women are becoming very well represented based on the science side, the policy side, but also in public disability of women in certain health issues that were well-represented. I think we already – we're getting there already and I think the progress is good.

I think what we have to be careful of and I think I made this clear in *Inferior* is about treating men and women as though a completely different species. We're actually very similar. In fact, one of the reasons that we don't see a huge number of adverse drug reactions in women compared to men even though drugs are predominantly be treated, or being tested on men is because we're so similar.

We actually don't have a huge amount of difference between us, except for in things obviously that to do with reproductive organs, or to do with sexual organs, hormones, things like that. In many ways, we're not that different.

[0:39:19.5] Host: I'm glad that you clarified that and brought that up, because I think especially as feminism is having this research and I have some in-laws who don't want to be called feminist, because they have a different idea of what it is. They don't understand why I consider myself one. There is this idea that it's like women versus women versus feminism is just about all of us together moving forward.

I think that idea that hey, women and men are actually much more similar than I think we – yes, there is differences, but we are very similar. We want similar things and how can we pursue that together in an equal way is so much more cooperative, rather than adversarial to approach things. We don't have to recreate the wheel. We have a good starting point and can just build upon that, especially as we bring new lenses to medicine, to fields and stuff.

In wrapping up, I would love to ask you what do you think is the radical truth of your book?

[0:40:11.6] AS: God, I don't know. I mean, science even though it's the procedure of the truth, it doesn't really – it doesn't really offer truths when it comes to human behavior and biology, because we're so complicated species, we're always changing. Individually we're also dif. I think one of the lessons that I learned from writing it is that we can't generalize. We can't generalize about men and women, we can't generalize about any group really because as individuals, we're so, so different from one another.

I think one of the challenges for science going forward is to understand the extent of that individual difference and make that part of the picture when it comes to research. Rather than lumping people into groups, try to understand us as individuals and understand how the individual variation works.

If there is any truth in there, I guess that would be my – I think the big message for me even more than that is that – well, two really. One is that there is nothing standing in the way of equality. That equality really is – if we want to think of it this way, our natural right. But there's certainly nothing compels you to suggest that equality isn't possible.

Secondly, I want people who read the book to become much more critical of the signs that they read. I get very frustrated sometimes when I read the papers, or even when I read journals, scientific journals and I see stuff that suggest that men are from Mars and women are from Venus. It's really in this day and age, you really still banging on this drum. Very often those studies have problems and they're very speculative for example, or the research is very limited, the study is very limited.

What I hope is that women and men read my book and just become a bit more wary and critical of what they read, to not take it at face value when they read about science in the past, to always remember that one study is not the build and end to all these, especially when it comes to human behavior.

[0:42:11.1] Host: I love that. I love in this interview too how you've been able to be so nuanced about the differences of us. Obviously caught myself making generalizations I didn't realize I

was making, and I appreciate that because – I mean, when I work with my clients I'm like, "There is no formula. We have to figure out what works best for you. We have certain systems that we can start with and foundations."

Then ultimately, everyone's body is so different at different phases of their lives, with different stress periods. I really appreciate you in clarifying that and yes to being more critical about scientific studies and over-generalizations, because the PR pip who are doing the press releases right now the scientist.

[0:42:50.6] AS: Yeah. I think the science wants to hide itself, because that's how they get funding and they get support and get published and get attention. Sets of different studies are so fashionable and so sexy, but we as consumers of this content, we just need to be a bit more skeptical and a bit more careful really.

[0:43:11.8] Host: Yeah. I cannot recommend this book enough, *Insatiable* listeners; *Inferior: How Science Got Women Wrong* in the new research that's rewriting the story. It will fire you up. Thank you, Angela for being here.

[0:43:22.9] AS: Thanks so much for having me on your program. I really enjoyed it.

[END OF INTERVIEW]

[0:43:29.6] AS: Thank you, health rebels for tuning in today. Have a reaction, question, or want the transcript from today's episode? Find me at alishapiro.com. I'd love if you leave a review on Apple Podcast and tell your friends and family about *Insatiable*. It helps us grow our community and share a new way of approaching health and our bodies.

Thanks for engaging in a different kind of conversation. Remember always, your body truths are unique, profound, real and liberating.

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