## Sawbones Episode 32: Left-Handedness

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## Intro (Clint McElroy):

Sawbones is a show about medical history and nothing the hosts say should be taken as medical advice or opinion. It's for fun, can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme song Medicines by The Taxpayers plays]

#### Justin:

Hello everybody and welcome to *Sawbones* a marital tour of misguided medicine. I am your co-host Justin McElroy.

#### Sydnee:

And I'm Sydnee.

#### Justin:

Sydney, it was a big week this week, here at the McElroy ranch.

#### Sydnee:

That's true.

Justin:

Trying that out.

#### Sydnee:

Yeah.

#### Justin:

McElroy ranch?

#### Sydnee:

McElroy ranch?

## Justin:

Kinda.

# Sydnee:

I don't know.

# Justin:

It's a little much.

# Sydnee:

I don't think we have enough land for it to be a ranch.

# Justin:

We were celebrating your moms birthday.

# Sydnee:

That's true.

# Justin:

Uh, uh, This week.

## Sydnee:

My moms birthday week.

## Justin:

Birthday week, yes. Your mom doesn't narrow herself, she doesn't limit herself to one birthday.

## Sydnee:

Well, why limit yourself to just one day when you could be born every day, for several days, and then get more presents.

#### Justin:

Give the quick version of why your mom does not have a birthday, or just one birthday.

## Sydnee:

So, my mom does have a birthday, multiple. She, when she was, when she turned 16, uh her dad picked her up from school to take her to get her drivers license and he had stopped by the courthouse to get copy of her birth certificate beforehand, and when he did so he got, she got in the car all

excited to go get her license and he said "I have some bad news, you are 15 still."

## Justin:

Now, how'd that happen.

## Sydnee:

When she was told until she was just about 16 years old that her birthday was February 20th, however, when they went to get her birth certificate it said February 21st.

## Justin:

That is crazy.

## Sydnee:

Yeah.

## Justin:

So she does not, she has two birthdays basically.

## Sydnee:

Yes, her mother always swore it was the 20th, uh, there was a nun in the delivery room who swore it was the 19th, strangely enough.

## Justin:

That is weird.

## Sydnee:

But her birth certificate says the 21st so I try to be safe, cover all bases, I figure, hey mom deserves it, she can have two to three birthdays consecutively if she wants to.

## Justin:

Now the funny thing about your mom learning that way is of course your mom wouldn't have been able to get her drivers license and is still not permitted to because of her left handedness.

## Sydnee:

Wait what?

Right, as we all know left handed people uh, the, all the knobs and switches and stuff on the right side, so left handed people are not permitted to drive, it's just one of many challenges that left handed people have faced in our country.

#### Sydnee:

Okay, well, I mean, yes my mom is left handed but...

## Justin:

And yes your mom can't drive.

## Sydnee:

I didn't say that, you did, you can answer for that later. Um, although you're one to talk, really.

## Justin:

Fair, okay, that's fine.

## Sydnee:

Uh, but left handed people can drive, honey.

## Justin:

But they can't vote, which is weird.

## Sydnee:

Whoa, no, they can. You don't seem to know much about left handed people.

#### Justin:

Well Sydney that sounds like an opportunity to me, a podcast opportunity.

#### Sydnee:

Would you like to know more about handedness, Justin?

#### Justin:

Would you like to know more, yes, I would.

#### Sydnee:

Okay, I think its about time since you apparently think that left handed people can't drive or vote legally in this country.

#### Justin:

School me.

## Sydnee:

I do want to say thank you to Christopher, by the way.

## Justin:

Thanks Christopher.

## Sydnee:

He suggested this topic. Handedness.

## Justin:

If you want to suggest a topic for us, sure you can email us sawbones@maximumfund.org

## Sydnee:

So, the thing about uh, the concept of handedness, or lateralization you may hear, the idea that you favor the use of one hand over the other, basically, is that this has probably been around, that humans you know, prefer to use one hand as long as humans have been around.

## Justin:

That makes sense.

## Sydnee:

If you got back like, one and a half million years ago and look at tools that early humans used we can tell from the way that they were chiseled and the wear and tear on them if they were predominantly used by the right or left hand which I think is kind of interesting. Um, also weird, if we look at those tools we also find that there was slight right handed predominance at the time but only like 56%.

#### Justin:

So, we had a lot of left handers back then.

## Sydnee:

That's the thought, there is the theory too that as tools got more refined we um, we saw more and more evidence they were using their right hands to make them so the idea is that the tools or the early tools were so rough they could have been made by either hand really.

#### Justin:

It's easier to tell as time goes on..

#### Sydnee:

So yeah the more detailed tools we could easily tell but it may indicate that for a while humans were almost 50/50 left hand and right handers um, but then this changed as time went on. Uh, we can also tell you know, another was we figure this out is um tooth wear.

#### Justin:

Of, of what.

#### Sydnee:

We look at their teeth, we see um which side shows most wear and tear and then they can reconstruct which hand they use to hold the food.

#### Justin:

Wow, that's bizarre.

#### Sydnee:

Isn't that crazy?

#### Justin:

That's really crazy.

#### Sydnee:

And they can also tell that it was more common to hold your food in your right hand which we would interpret as being, you know, right-handed, or that's the thought.

#### Justin:

So roughly 44%, back at the beginning of time, where are we at, more recently?

#### Sydnee:

So, I there must have been some kind of evolutionary advantage, I guess, to right handedness because we slowly see the proportion shift to about 10 thousand years ago 10% of the population was probably left-handed and that's about the same today. So, it shifted and then has remained really steady ever since.

That's weird do you think that left handed people are still on a downturn, like do you think they'll eventually be bred out of existence?

## Sydnee:

Well in the last 10-

## Justin:

Like any other imperfections?

#### Sydnee:

Okay, it, now see you're going to make lot of well, you're going to make 10% of our listeners-

## Justin:

10% of our listeners-

## Sydnee:

very upset. No, because it's not necessarily a disadvantage and I mean you know for the last 10,000 years its stayed pretty steady.

## Justin:

Mm-hmm [affirmative]. That's weird that it would get to a certain spot and hover there.

#### Sydnee:

It is kind of weird. Um, now that varies from culture to culture and part of that is genetics of course, but then part of that is also thought to be, as I'll talk about, left-handed people have been discriminated against historically and have also been encouraged to become right-handed.

#### Justin:

Because the history of medicine is nothing if not a history of discrimination through the ages.

#### Sydnee:

Oh yeah.

#### Justin:

We don't miss a beat when it comes to discriminating against minorities whatever the minority, we're not picky.

## Sydnee:

Find people's differences, treat them for them, and then-

# Justin:

And then crush them.

# Sydnee:

Discriminate against them. Um. So like, if you look at some eastern cultures you will find like one percent of the population is left handed and that may be because they're more rigid about correcting left handedness whereas in, you know, our country you would see maybe 10 to 12 percent.

So, somewhere within that range, and then of course like I said genetics is part of that, uh but, as I mentioned, throughout the ages right-handedness has been associated, and I mean, in all these times where we have writings and you know, things to indicate how people felt at the time, um... righthanded people would have been the predominant people, I mean you know, the vast majority would have been right-handed um but, right handedness was seen as, not divine, but definitely better.

## Justin:

Better. I think that makes a lot of sense.

# Sydnee:

Well, you would, you're right handed. Full disclosure we both are.

## Justin:

Yeah, we tried to interview some experts on the topic and, so sorry this is coming from the people who could never really put themselves in your shoes.

# Sydnee:

We can't understand it, or in your gloves.

## Justin:

Yeah. In your weird shoes that are both the same.

## Sydnee:

No wait, hold on, I think they're all the same. I think gloves and shoes are the same thing.

# Justin:

Okay.

You just tie them differently.

## Justin:

Wrongly.

## Sydnee:

Uh, if you look back at the gods and Egyptian cultures, Greek cultures, Mesopotamian cultures they always blessed or healed people with their right hands and then their left hands were used for cursing people. The Egyptians in their writings and paintings depicted all of their enemies as left-handed.

## Justin:

It's interesting, isn't it, that the majority decides that whatever is... whatever most of us are doing is probably the thing that is holy-

## Sydnee:

Exactly.

## Justin:

-and correct and right and blessed.

## Sydnee:

Well, and can you imagine if you were a left-handed Egyptian.

## Justin:

Ugh.

#### Sydnee:

I mean, I guess you wouldn't be, you wouldn't tell anybody.

## Justin:

It'd be a terrible secret.

#### Sydnee:

Although it would've been much easier.

#### Justin:

The end of it *The Crying Game* that's written in Sanskirt is uh, at the end it turns out that the right-handed person has been left-handed the entire time.

[laughs] that's such a huge twist.

#### Justin:

Yeah it is, it's hard to discern from the hieroglyphics because you know they're not like, letters or anything.

#### Sydnee:

Uh, I mean they do, they're just pictures but-

#### Justin:

Uhhh, agree to disagree.

#### Sydnee:

Well anyway, um, you also ate with your right hand. Um, now as we move forward in history that's for very practical reasons. Um, most people ate with their right hand, so it was convenient to eat with your right hand because most people were right-handed and if we're looking at a time when we did not have for, instance toilet paper, your left hand was necessary for less savory tasks.

#### Justin:

That is a delicate way of putting that my dear.

#### Sydnee:

[laughs] I'm trying. So, uh, you would always want to be consistent.

#### Justin:

For sin paper. Dirty duty.

#### Sydnee:

Ew, don't say that. But you would want to be consistent, and use one for eating and one for you know, everything else.

#### Justin:

[laughs] Everything else.

#### Sydnee:

And it was just customary, it was tradition that you would use your right hand for eating because most people did, and then of course everybody's heard, you know, the expression 'you're my right hand man, 'you will be on my right hand side', 'you are my right hand', and obviously that is an expression of favor, you know, the most treasured the most blessed.

## Justin:

Right, the best hand.

## Sydnee:

The best hand. Uh. The Greeks agreed that left handedness was probably bad, and they were the first to start correlating it with criminals. So, if you were left handed, you were probably a thief or a murderer or a liar.

## Justin:

That's so, and... you know, it's really, eh, we're joking... Listen, we like to have a lot of fun here, but it is really interesting that like, you can track a lot of... It's really interesting as a case study for how we treat minorities right, because this could not be more benign as an idea. Like it could not be more, it... It is on par with butter side up, butter side down in terms of like, ridiculousness of it, but we still have this propensity to suspect people who are the slightest bit different, just because their thumbs are backwards.

## Sydnee:

And well it really is, when you consider that as we move through history, um, these were like, periods of time where not everyone would be writing, even. You know, the most obvious manifestation of your handedness is which hand you write with today, because we all learn how to write.

#### Justin:

Right.

## Sydnee:

But we're dealing with certain times in human history where the majority of people wouldn't even have been writing. So, we're just mad at people for... I don't know, the way that they sew, or the hand they hold their siphon when they're harvesting, I mean like, really, this is what we're mad about.

## Justin:

Corn grinding hand.

#### Sydnee:

Um. Uh. Plato thought that it was purely a learned activity, um, while there were some like Aristotle disagreed and said no I think there's something, you know, innate about it. You know, kids tend to favor one hand or the

other early on, I think there's something about it that is just part of who you are. Plato were like 'no, no, no. This is the fault of shoddy mothering.' And he blamed it all on bad mothers and bad nurses who basically didn't discipline their children enough, and if you don't discipline your kid enough the way he rebels is to use his left hand?

## Justin:

That's very mild rebellion.

#### Sydnee:

Um, in general they broke people into two categories and this just throws in you know, what they think about women. So, uh, on one hand you would have things of the male persuasion associated with uh straight, light, good, all on the right side of the body on the right side of everything and on the left you would have women, and they were crooked and dark and evil.

#### Justin:

Right, but also creative.

#### Sydnee:

At the time that wasn't something that we, we believed. Um, they did believe that uh, female children came from the left testicle. Sperm from the left testicle.

#### Justin:

Just because we didn't know how anything worked didn't stop us from guessing about basically everything, right?

#### Sydnee:

No, its like we think left is bad and we don't like women as much as men so...

#### Justin:

You don't even have two nuggies?

#### Sydnee:

So, like the left one is probably where the girls are.

#### Justin:

Yeah the girl sperm, well we don't even know about sperm because we're weird old cavemen who are just guessing about everything.

Well Greeks, but okay.

#### Justin:

Same thing, they lived in caves, what'd they have, houses? yeah right.

#### Sydnee:

I wonder if there were any horrible surgeries done as a result of this.

#### Justin:

Just to see if the sperm in the left one were like wearing skirts or something like that? [laughs].

## Sydnee:

I don't know, maybe, they did think they were like human, humanoid things inside sperm for a while.

## Justin:

God.

## Sydnee:

Yeah, tiny, tiny little people.

## Justin:

Just taking shots in the dark.

#### Sydnee:

Yeah well they didn't think the woman was important at all so all of it came from the man, the woman just grew it, it was her punishment.

#### Justin:

Yeah, I floated that idea past you when you got pregnant, it didn't seem to get a lot of traction.

#### Sydnee:

Yeah.

## Justin:

Didn't gain a lot of ground.

## Sydnee:

No, a lot of that humor doesn't sit as well with me now.

## Justin:

Much like undercooked eggs, does not agree much. Not allowed to have those.

#### Sydnee:

I'm... No, I agree with them but society doesn't agree with my ability to eat them.

#### Justin:

Thanks doc... Thanks Doctors!

## Sydnee:

Thanks a lot.

#### Justin:

Science.

#### Sydnee:

I miss my runny eggs

#### Justin:

Why did you even do that research, why open that Pandora's box you knew the effect it would have on people.

#### Sydnee:

You knew all we wanted was to have some sunny side up eggs on our bacon in the morning.

#### Justin:

We could've just, listen, listen we've studied a lot of medical history over the past few months we don't need an answer for everything we will just say, like 'I don't know, every once in a while sometimes after I eat eggs, ghost sickness I don't know, go figure, I can't figure it out, anyway back to my eggs.'

#### Sydnee:

And you know in another 50 years they're going to be telling all pregnant women to eat as many runny eggs as possible so it doesn't matter.

Babies need it for fuel.

## Sydnee:

Hurry, eat some runny eggs and sushi, and wash it down with a couple beers.

## Justin:

Bill Gates' mom, she ate runny eggs, all the time, she loved them.

## Sydnee:

So back to handedness.

## Justin:

Yeah.

## Sydnee:

In ancient Japan, you could uh... So, let's say I'm left handed, and we are ancient Japanese people.

## Justin:

You're taken me on a lot of emotional journeys on this episode. I've been a left-handed person in ancient Egypt, a left-handed person in ancient Japan, I feel like I'm playing left-handed *Where in Time is Carmen San Diego*.

## Sydnee:

[laughs] That was not as popular as the original.

#### Justin:

No. Not, yeah, not a big seller.

#### Sydnee:

Uh, well, If I'm left handed you could've divorced me for that.

#### Justin:

Wow really?

## Sydnee:

Mm-hmm [affirmative].

## Justin:

I wouldn't have, for what it's worth.

Aw thanks.

#### Justin:

No problem.

## Sydnee:

I would've been a social outcast.

## Justin:

You weird south paw. Sorry I got really into my character, a left handed ancient Japanese man.

## Sydnee:

Is that what they would've said 'you weird south paw'?

## Justin:

Bound by culture torn by time. No I don't speak Japanese Sydnee, sorry I didn't prep for the episode.

# Sydnee:

Next time could you learn Japanese before we start?

## Justin:

Uh. Yes.

## Sydnee:

Thanks.

## Justin:

Hai.

## Sydnee:

So you're familiar with the custom of shaking hands.

## Justin:

I don't know, I'm really having to think outside of the box, a lot.

# Sydnee:

Have you ever shaken anyone's hand?

#### Justin:

Yes.

## Sydnee:

Well I don't know you work on the internet.

# Justin:

Yes, but I mean, I do have to go to panera bread every once in a while.

# Sydnee:

Who's hand do you shake at panera bread.

# Justin:

The bread maker.

# Sydnee:

Do you?

# Justin:

I'm like this is excellent. This is an excellent rye, I want to shake the hand of whoever made this pumpernickel!

# Sydnee:

[laughs] Is there a digital equivalent to shaking hands, like on the internet? Like, you meet somebody new on the internet? Do you do anything?

# Justin:

Uh, sometimes people type 'fist-bump', I guess.

## Sydnee:

Are you serious?

## Justin:

Some people, not myself.

## Sydnee:

No. See I work in the real world, so I don't know. In the analog world where you shake hands.

## Justin:

Can we get back to the topic at hand? I feel like you're really distracting us.

Okay, shaking hands.

## Justin:

With your various chronological journeys.

#### Sydnee:

So, shaking hands has been around for a long time. Um, the original, the origin of it, or, the thought is that it was a Roman custom, and where it came from is you, traditionally you would carry your weapon in your right hand, because again it was assumed everyone was right-handed, and in order to show a person you were meeting that you meant no harm, and that you were not carrying a weapon you would touch right hands and so that evolved into shaking hands.

## Justin:

Mm-hmm [affirmative].

## Sydnee:

So, as interesting as that is.

#### Justin:

That didn't prove anything if with your left hand though, that was why the left-handed people were the most powerful warriors, because they could be shaking hands and then what's that, oops.

#### Sydnee:

And then, they'd have sword behind their back.

## Justin:

A dirk in your throat

#### Sydnee:

There was, there was some... I read that in some cultures it actually evolved the opposite way briefly in some specific tribes, because you would drop your shield as a way of showing good faith and then you would use your left hand, because you carried your shield in your left hand.

#### Justin:

Hm.

## Sydnee:

but that's not most of human history so we'll ignore it.

## Justin:

Away with-

## Sydnee:

The thing with minorities is you ignore it.

#### Justin:

Away with you anecdote that doesn't fit our arc! We're done with you.

## Sydnee:

Um, A lot of people think that the tradition of wearing a wedding ring is because we believed that, on your left hand I mean, is because that we believed there was vein, your love vein, have you heard that? That connects, your... The ring finger on your left hand to your heart. Um, and yes many people believe that, but it was also to help ward off the evil of your left hand from yourself. [laughs].

## Justin:

[laughs] Keep it in its place.

## Sydnee:

Keep it there, in your hand.

#### Justin:

Your wedding ring used to be tied to a string that would be affixed to your jeans so it couldn't get, much like the film *Idle Hands* it couldn't get up to shady business of it's own volition.

#### Sydnee:

Let's talk about medieval times.

#### Justin:

Perfect.

#### Sydnee:

Like... Not the restaurant.

#### Justin:

I'll have- okay I've just lost interest.

In the medieval times, of course, the church really got into the oppression of left handed people because why not?

#### Justin:

Yeah.

#### Sydnee:

They were into oppressing everyone. Um, they believed that left-handed people were consorting with the devil, um, during the days of the witch trials being left-handed was evidence enough to convict a woman of witchcraft.

#### Justin:

Yikes.

#### Sydnee:

Based on that alone you could burn her at the stake throw her off a bridge whatever.

#### Justin:

Brutal.

## Sydnee:

And it was used during the inquisition. As an indication that you were a heathen.

#### Justin:

You'd think that people would get better at hiding it.

#### Sydnee:

I'm sure there were a lot of people that did, I'm sure there were many lefthanded people who just, well I mean, I don't know like, you weren't writing, so I guess-

#### Justin:

So they would just catch you.

#### Sydnee:

You would just eat with your right hand.

I guess the best thing to do would be to throw something at them, right? Got to get them on instinct.

## Sydnee:

See what happens?

# Justin:

Yeah.

# Sydnee:

That seems mean. Um, in the 18th and 19th century that was when we started trying to re-educate children, I mean and in theory they were probably always trying to do that on some level but it became institutionalized that if a child showed, um, a predisposition to use their left hand in school they would you know just, tell them not to, punish them for it, corporal punishment was part of that and then in some cases they would just tie the child's left hand behind their back, in school so they couldn't use it.

Um, there was a 19th century physician, that you can still find if you do like an um, a literature search for like actual scholarly research on handedness, which I did, then uh, you will find this guy Cesare Lombroso and his writings on left-handedness are still, you can, like, dig them up. And he studied tons of different things not just handedness but different facial characteristics that were associated to what he thought to be criminal or, you know, some sort of perverse behavior, um, and a lot of what he focused on were racial differences. So, you can imagine, he's fairly infamous, um, a lot of this research is not real. [laughs]

# Justin:

Accurate. Right. Correct.

# Sydnee:

So to speak, so of course when he studied left handers, another minority, um, he found all kinds of bad things about them, he associated it with savagery and pathological behavior and wrote all kinds of things about how if your kid as left hander they were going to be a criminal when they grow up.

# Justin:

But they aren't.

# Sydnee:

No. Paul Broca for whom parts of the brain are named. Um, was around-

# Justin:

Broca's...

# Sydnee:

Area.

# Justin:

Area.

# Sydnee:

Good job! There's an Aphasia named for him too. He was around at the same time and he was figuring out the idea of hemispheric dominance, so kind of what you mentioned about how left-handed people should be more creative, it's because they're right brained right?

# Justin:

Sure.

# Sydnee:

So, they're right brain dominant.

## Justin:

You're... This feels like a trick, I'm gonna say right now.

## Sydnee:

No, this isn't.

## Justin:

You're luring me into admitting the wrong thing.

## Sydnee:

I'm saying you know this stuff, you could teach.

## Justin:

All right. Student has become the master.

## Sydnee:

So, so if you're right-handed what side is dominant?

#### Justin:

Yeah, it's, you know, it's open to interpretation.

## Sydnee:

It's the left, you know this, there's no trick here.

## Justin:

Right there's not a trick.

#### Sydnee:

There's no trick, and Broca was figuring out this concept at the same time that this crazy Lombroso guy was writing about how left-handed people were all going to jail. Um. But, unfortunately we just, there wasn't much interest in it, so it didn't help anybody it wasn't until the 1970's that people started rediscovering this and going 'what does it mean if you're right brained or left brained' and it clearly means more than just I like art and I like math, so...

Um, in the late 19th and going into the 20th century we're going into the Victorian time and everybody had these weird ideas about like what a perfect person was and so part of that was uh, a guy names John Jackson founded the ambidextral cultural society.

#### Justin:

What the hell is that.

#### Sydnee:

Well, what he said was forget this right and left handed nonsense think how much better off we'd all be if we could all use both hands.

#### Justin:

Oh my god. Do you realize how little you must have to worry about in the Victorian era if you are devoting any of your mind jelly units to trying to make your left hand be good at things.

#### Sydnee:

Can I, these people must have had money and time to spare.

#### Justin:

But or, well, I mean, let's like... Let's be more honest they didn't have TV. Like, "well I gotta fill the hours somehow I may as well write my name a hundred times with my left hand, here we go, oh its eight o'clock already time for bed, man I love Victorian times."

I wonder if this became unpopular the moment like, radio programs were introduced.

# Justin:

"Do you hear this? I'm never gonna write my name again."

# Sydnee:

"Forget that!"

## Justin:

"Forget this left hand I'll just live with it."

# Sydnee:

This was not very popular, [laughs] this was short lived. And I mean, most right-handed people did not feel the need to use their left hand because as is true a lot of the time today.

## Justin:

It's the devil.

## Sydnee:

No, the world is created for right-handed people. Unfortunately for left-handers.

## Justin:

I'm sorry about that, everybody.

## Sydnee:

Um, in the mid twentieth century we were still uh, discriminating against lefties a psychoanalyst names Abram Blau uh, still was writing, there are official psychological papers published that this was the result of perversity and emotional negativity so if you're a-

## Justin:

Amazing, so like, two millennia, after Plato he's still banging that drum.

# Sydnee:

Yep that if you're a really negative person you end up left handed. It was kind of like... And he likened it to if your child refuses to eat their vegetables.

#### Justin:

Even with their right hand.

#### Sydnee:

[laughs] With their right hand. He thought that, he warned that if you didn't 'fix', again I'm using air quotes 'fix' your left-handed child they would become stubborn, rebellious, rigid and... obsessed with cleanliness, not a, not a bad thing.

#### Justin:

Doesn't seem like the worst thing in the world.

#### Sydnee:

No, well you, of course you wouldn't think that.

#### Justin:

I would, I would think, I would hope my, my future child will be at least into cleanliness.

## Sydnee:

It depends on if it's coming from me or you really.

#### Justin:

Yeah, good luck kid. Best of luck.

#### Sydnee:

I hope our child likes to clean cause I don't.

#### Justin:

Yeah, I need some help around the house.

#### Sydnee:

Um, now with the-

#### Justin:

A little chimney sweep. That'd be nice.

#### Sydnee:

As we move into the mid-1900's uh, a guy names John Dewey started... and I'm sure there are a lot of people in the education field that know this name. I'm not as familiar with him, but he kind of fathered the progressive

education movement, um, and part of that was that we should treat lefthanded people like they're normal. Because they are.

## Justin:

These radicals.

## Sydnee:

Um, so at the same time as we you know, the idea in public school was to stop trying to correct left handedness. Um, there's still in some parochial schools, uh, existed even into the 60's and 70's the belief that left handedness was something to be corrected, and they would, the children would be chastised again punished and I mean physically punished and accused of being either the devil or a communist.

## Justin:

[laughs]

## Sydnee:

There were a lot of other countries, you know we've talked about the US but a lot of the soviet block countries uh, banned left handedness it was mandatory to use your right hand in Spain, Italy, any of the iron curtain countries it was illegal and punishable as a crime in Albania.

## Justin:

Yikes.

#### Sydnee:

But of course, today that mostly has passed, uh, the world as I mentioned is still largely designed for right-handed people, which doesn't seem very fair and there's still some people today who try to adapt to use their right hand because of that but it is not institutionalized. For the most part people are good about accepting that it's just a normal thing please leave the lefties alone.

#### Justin:

Do you think it's something that you could, that you could correct, like that it will ever feel right or do you think that you know, it's always going to feel like you're pushing the boulder up the hill.

## Sydnee:

I think, you know it's hard to imagine but there's certainly a lot of examples of left-handed people who developed the ability to at least write with their

right hand or do some tasks you know, some degree of ambidexterity. Um, probably as result of being forced to when they were younger, uh, that's part of why you know, one of the things we talk about a lot, there's been a lot of studies, are there health differences? Are you more likely to develop certain diseases? Is your life expectancy less? And some of the life expectancy studies are really flawed because if you look at people in their 20's, you'll find this 10 percent-ish number of left handers, but if you look at people above 50 you'll find like five percent, but it's probably not because left-handed people aren't living that long, it's because these are still people who may have been corrected as children.

## Justin:

'Corrected' again in air quotes.

#### Sydnee:

Right. So, so these are, these may have been people who were born lefties, but have been changed into right-handed people in their lives. So, I don't know, I think time will really tell if that's true or not, that's the same thing there's supposedly an increased risk of breast cancer among left-handed women, there's actually been a few studies that have shown this, and it's not that left handedness causes you to get breast cancer it's the same risk factors that they think may predispose you to cancer also make you lefthanded.

#### Justin:

Weird.

#### Sydnee:

It has to do with estrogen exposure when you're in the uterus. Um, but this is very highly criticized I should mention, these are really controversial studies nobody is really clear that this is, that this is true, this is a hypothesis, there is no increased risk of schizophrenia.

#### Justin:

That used to be a theory?

#### Sydnee:

Yes, it was a commonly held belief there was an increased risk of anxiety, schizophrenia and all kinds of psychiatric disease among left handers uh, that is not thought to be true anymore.

And of course, lots of people have managed to overcome their disability to become successful people in their own right.

## Sydnee:

Well, again, not a disability, uh.

## Justin:

Well, okay.

## Sydnee:

But there are a lot of famous um left handed people.

## Justin:

Mm-hmm [affirmative].

#### Sydnee:

If you look online you'll find lots and lots of lists, now I should warn you there are lots of untruths.

## Justin:

Really?

## Sydnee:

But, uh many of our presidents have been left-handed. Barack Obama, our current president, is left-handed, James Garfield, Herbert Hoover, Henry Truman, um, George H.W. Bush, Bill Clinton, now Ronald Reagan was actually initially left-handed, but he trained himself to be right-handed.

#### Justin:

Huh.

## Sydnee:

I think that sounds very Reagan-esque.

#### Justin:

[laughs].

## Sydnee:

It was the most majority thing. [crosstalk 00:31:45]. It was the most popular thing to do so, 'hey, I'll go with it.' Um, there, uh, Bill Gates was left

handed, or is left handed. Oprah Winfrey, um Babe Ruth, Jimmy Hendrix was left handed, Paul McCartney, lots of creative people, David Bowie.

## Justin:

You know you have to, to string your guitar differently.

## Sydnee:

I didn't know that.

## Justin:

Yeah you gotta string the, you have to put the strings upside down basically.

## Sydnee:

That makes sense.

## Justin:

Yeah.

## Sydnee:

I, this is also the one time that I think you would ever read a list that includes Jimi Hendrix, Paul McCartney, David Bowie and Justin Bieber all together.

# Justin:

That's fine company for the Biebs.

# Sydnee:

I know, that's the best list that he will be a part of, I would say.

## Justin:

You know, there are positions in baseball, you mentioned Babe Ruth and positions in baseball, but left handed, there are a lot of great left handed pitchers, but there's some positions that left handers uh, very rarely or almost never play. Like, catcher, short stop because the position they have to get in to cover and throw-

# Sydnee:

And to throw are like third base.

## Justin:

Yeah exactly.

Yeah, that makes sense to me, I can see that.

#### Justin:

I don't think there's been a catcher, I think is the most notable one, I don't think there's been a, uh, left handed catcher in quite a long time like since 1900 or like a crazy amount of time.

#### Sydnee:

You know it was also thought that lefties are better fighters, you know the fighting hypothesis? Um. Because there's more surprise I guess we-

#### Justin:

Whoa, whoa this guys got two hands, whoa.

## Sydnee:

[laughs] I guess we're conditioned to take a punch from a right hand, um but, uh, that may not be true. Although if you look in certain like, leagues like, boxing leagues and you know, ultimate fighting champions and stuff, you'll find more left handers, when you put them head to head with a right hander it's, they're no more likely to win.

#### Justin:

Well, that's just because left handed people have had to fight their entire life. Just to get their own, their fair share.

#### Sydnee:

[laughs]. Um, Well, that's kind of true, again I feel bad, I know that, you know, the whole world is kind of designed for us right handers.

#### Justin:

Yeah, well listen I've joked about you left-handed people but I realize that you're just like us, you know, in a way and I think that I'm sorry about your struggles.

#### Sydnee:

Me too except I will say that my mom's handwriting is just atrocious,

#### Justin:

Oh, boy, yeah.

## Sydnee:

And the way she holds a pen I don't even-

## Justin:

She may, she may have been-

## Sydnee:

How is that even possible she like curls her hand all the way around.

## Justin:

She actually may have been right handed this whole time.

## Sydnee:

I don't know.

## Justin:

Now that I think about it.

#### Sydnee:

Maybe it was just a, maybe they were trying to put the pen in her right hand like no seriously look at your handwriting its terrible.

#### Justin:

Well happy birthday Sydnee's mom and happy birthday to you.

#### Sydnee:

Happy birthdays mom.

#### Justin:

Happy birthday to you, at home. Uh-

#### Sydnee:

If it's your birthday.

#### Justin:

If it's your birthday, one 356th of you, I'm sure are celebrating a birthday today so congratulations.

#### Sydnee:

And if it's not just play this episode again on your birthday.

Listen to it again. Thank you to people tweeting about the show like Allie Dryer, Andrea Sheil, Matt Jones, Michael Dancey, Indie Geek, Lionel Chermal, Kip, Fred Wood, Harlequin, Clairity Pheeney, Sammus, Sam Bay, David Belmoore, Javis Burr, Emily Allen.

Thank you to everybody who told people to, like Emily told uh, another uh, friend of hers Emily to listen to our program maybe just somebody she knew but either way she told them we appreciate people spreading the world you can use sawboneshow.com as a link to share there if you want, or just a link directly to our iTunes page.

## Sydnee:

And thank you for the wonderful game we just received.

## Justin:

Yeah friends games by play date they made a *Sawbones* game.

## Sydnee:

We just received, we haven't got a chance to play it yet we just went through it right before we recorded the show and I am excited.

## Justin:

It looks really neat. Um, so thank you to you guys.

## Sydnee:

I'm gonna beat Justin.

#### Justin:

Probably, that'll be easy you're much smarter than I am.

#### Sydnee:

Thanks, honey.

#### Justin:

Yeah, that's my pleasure. Uh, listen to other shows next on the fun network, now that you got some free time on your hands celebrate your birthday with *Jordan, Jessie Go, Judge John Hodgman, Stop Podcasting Yourself, Wham Bam Pow, One Bad Mother*, uh.

## Sydnee:

My Brother, My Brother and Me.

Thank you so much, *The Goose Down, International Waters*, so, so many other programs for you to listen to they're just waiting there for you, and while you're there on maximum fun.org why don't you head over to the forums, you can talk about this episode, and every single episode on the entire network of the ever in history.

There you go, I'm, were assuming you have a lot of free time, thank you to The Taxpayers for letting us use their song Medicines for our intro and outro music you can go download all their stuff at their website and follow them on twitter it's @thetaxpayers so thank you to them and thank you to you, make sure to join us next Tuesday for another episode of *Sawbones* until then I'm Justin McElroy.

#### Sydnee:

I'm Sydnee McElroy

## Justin:

As always don't drill a hole in your head.

[theme music plays out]

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