

Moira Caruso

I'm Moira Caruso, a mediator with the Office of National Projects with FMCS.

We are so pleased to be able to host these conversations where we explore innovative ways to harness the creative potential inherent in conflict so that we can be at our best when it matters the most.

Tom Melancon is a mediator with the Office of National Projects.

He's a contributor to the podcast and he's kind enough to be hosting with me while Cynthia is away.

Tom, who was our guest today?

Tome Melancon

Moira, I am delighted to introduce developmental molecular biologist John Medina to the show.

Welcome John.

John Medina

Nice to be here.

Thanks for the invitation.

Tom Melancon

So Dr. John Jay Medina is a developmental molecular biologist focused on the genes involved in

human brain development and the genetics of psychiatric disorders.

John is an affiliate professor of bioengineering at the University of Washington School of Medicine.

He was the founding director of the Tilaris Research Institute, a Seattle based research

center, originally focused on how infants encode and process information at the cognitive, cellular and molecular levels.

In 2004, John was appointed to the rank of affiliate scholar at the National Academy of Engineering.

He has been a consultant to the Education Commission of the States and a regular speaker on the relationship between neurology and education.

For almost 20 years, John wrote the molecules of the mine column for the psychiatric times.

John has written an incredible book, one of many called brain rules, and many of us at FMCs consider a reference book, even though it is also a fantastic read.

His other books include brain rules for work, attack of the teenage brain, brain rules for aging well, and brain rules for baby.

Welcome, John.

Jonh Medina

Thank you.

Moira Caruso

Thank you so much, John, for being here.

John, the focus of this podcast, as you now know, is conflict.

And we aim to provide our listeners with specific tools and techniques that will help them navigate

conflict in their own lives.

And I can imagine that some of your research on the way the human brain develops would shed some light on how our brains respond to conflict.

Can you speak to us to just get this started?

John Medina

I'd be happy to.

But first, may I offer a word of congratulations for your courage.

Developmental molecular biologists are not known for giving compelling talks.

And sometimes when I tell people what I do, because I have a brain scientist, and I just watch the audience start to fade away.

So I congratulate you on sticking with somebody who's steeped in the empirical world to get out of what you guys do for a living.

Okay, probably the cognitive gadget the brain uses the most in any type of conflict is a cognitive gadget called executive function.

And function from a, I'll bet many of your listeners are familiar with it.

For those who are not, executive function, the lay audience definition would be something like the ability to get things done.

But it's actually a cognitive gadget with two peers associated with it.

You could sort of think of it like the Golden Gate Bridge that holds up this whole idea of how you're going to manage some of the tougher things in your life, including conflict.

The first pair, we call cognitive control.

This is the ability to go down onto a task and focus on it, and then remove yourself.

Maybe you're interrupted, or maybe you just leave it for a while, but then to come right back to it and focus on it once again, because you have cognitive control.

Another part of cognitive control is also the ability to imagine a set of circumstances and the consequences of those actions if you decided to do something.

We actually call it mental time travel.

It's the ability to try and visualize what might happen if you choose a certain word or if you choose to go down a certain path.

And on the basis of that virtual transposition, decide to go down a path or not.

So that's the first pier.

The first pier is cognitive control.

The second though is most interesting because it's probably the most relevant and gives the most spice to human interactions.

And that is emotional regulation.

If you are moody as a person and you go to your office and people walk around you with eggshells, almost invariably you do not have good emotional regulation in the executive function component of this cognitive gadget, you might see it better as anger management.

People with poor anger management skills usually have very poor emotional regulation.

Now in terms of conflict and perhaps negotiation, I think the most important thing to understand is that the brain is the world's most sophisticated survival organ, even in conflict.

Executive function allows us to navigate disagreements even when we feel threatened.

And what great way to assess how your executive function skills are, whether you're in negotiations

or just as home is this.

If a prior assessment of someone's EF, see how they react when they don't get their way.

See how you react when you don't get your way.

There's both cognitive control and emotional regulation components of it.

In fact, some people never fully develop it because your question has a developmental

feel to it.

Kids don't have much executive control.

Teenagers really suck at executive control and hopefully you come out of it.

Not everybody does.

And when I lecture on this topic, I often talk about what I call toddlers creed to show that some people just never grow up.

This is somebody with poor executive function.

If I like it, it's mine.

If it's in my hand, it's mine.

If I can take it from you, it's mine.

If I want it, it's mine, even if it's yours.

So you can see how disastrous that can be in terms of interpersonal interactions.

Executive function is a very powerful component.

And I think people that are into the professional world of negotiation should really become minor experts in what executive function is and how it is deployed in a real world setting.

Maira Caruso

Yeah.

So it kind of it raises all of these images immediately about so many things that are very present in the world today, in politics, in high level conflict that everyone is seeing on the main stage.

And really just, I mean, generally how adults tend to behave.

John Medina

Or like children.

Yeah.

Right.

Tom Melancon

I had the same reaction, Moira.

It's playing out in front of us right now as we record this podcast.

Wow.

Powerful.

Moira Caruso

I had a question actually about door number one, which the...

Or was it bridge number one?

When it comes, pier number one.

Okay.

When it comes to viewing the future, I think as you call it, or seeing and predicting what's going to happen if X, Y, Z occurs, you know, how accurate would you say we are when we're in the midst of conflict?

I certainly have my sense from a practitioner's perspective, but I...

How would you say?

John Medina

Well, we mostly suck at it.

Yeah.

What...

The only thing it really gives us, because you can't predict the future very well.

That's not...

I'm being disingenuous.

That's not entirely true.

In fact, there is a cognitive gadget that actually can, I think, aid and abet your ability to do the mental time travel.

The important part of mental time travel to understand is that it is the cognitive gadget that allows us to be responsible for our own actions by seeing how those actions play out before they play out.

So begin to take responsibility for certain suite of behaviors and whatnot.

There is a...

Another cognitive gadget, which I'm sure we're going to get to eventually, so why don't we just jump into it.

It's called the theory of mind.

And theory of mind is a cognitive gadget that can actually predict your mentalizing ability, your ability to mentally time travel.

Tom Melancon

No, that's where we were going to go next.

And especially, I'm interested in...

And when you talked about that at a workshop that I attended, there were techniques.

That can increase theory of mind.

I'd love to get to that as well, John, but yeah, this is where we were going.

John Medina

Okay, great.

Well, something that can improve mental time travel is theory of mind.

Theory of mind, it was first developed by a primatologist named...

It was our husband and wife research team, Premik and Premik.

Theory of mind is defined as the ability to understand the intentions and motivations of somebody else.

It's the ability to beam into their heads and understand their world.

So it's a little bit like trying to understand what makes people tick, but in flowery neuroscience language, we call it mentalizing or theory of mind.

Theory of mind also has two gadgets associated with it, sub-gadgets, if you will.

Number one, the gist of the talent is the ability to peer inside someone else's psychological interior and with very little queuing, understand the rewards and punishment systems inside that interior.

So you really are taking a look at them and developing a theory of their mind so you can understand their intentions.

But there's a second more subtle cognitive sub-gadget that's associated with theory of mind that's equally as important.

And that's this.

It's the ability to understand that at all times the person you are trying to understand, the person you're trying to figure out how they tick, their rewards and punishment systems inside their head are not the same ones inside your head.

They're different.

And as a result of that, they are not going to react how you would react to a certain circumstance.

They are going to react how they react to their certain circumstance.



So if you're doing any mental time travel and trying to make predictions as to behavior, you have to be willing to become very quickly not self-centered, but other centered. You'll be able to dig inside those interiors and understand their rewards and punishment systems.

I like to call it John Medina's Second Law of Marriage.

What is perfectly clear to you is perfectly clear to you.

If you wanted to aid and to bet this whole idea of mental time travel to answer the question, developing theory of mind skills is a great way to get started.

And there are ways we know how to boost it.

We actually know the things that actually take it away too.

Tom Melancon

That's fantastic.

So another topic that you talked about at the Lyra presentation earlier this year was this theme of stress and thymotic motivations.

Can you tell us a little bit about the connection between stress and conflict?

John Medina

Yeah.

Well, let's begin with that big \$90 million word you just said, thymotic motivations, which most people haven't heard of.

And it sounds a little weird.

It's literally the great word thymus, which means spiritedness and area of the souls where feelings of pride, indignation, shame and success are all located.

So it's got a lot of, it's kind of a frothing broth of behavior.

Formally defined, thematic motivations is a desire or a hunger people have for personal

recognition and acknowledgement of their worth and significance.

Now, that sounds a little fufu.

That sounds a little Dr. Phyllis.

If you're a brain scientist, we tend not to go there and this stuff help a podcast, that's for sure.

But to say that there's a science in there is to say a true thing.

This thematic motivations, this need for personal recognition and respect and significance has strong evolutionary roots.

We survived on the planet because we learned to coordinate our behavior.

It's called the social brain hypothesis of Robin Dunbar.

But we could double our biomass, not by sitting around and waiting millions of years to get bigger, like elephants did.

You could double your biomass.

If you could change a few gadgets in the brain and create the concept of ally and then coordinate

your behaviors together, then you could take over the world as long as you would be cooperative

in your interactions together.

Now, if you are a respected member of the tribe, you are going to get lots of cooperation and you're going to be able to take down mastodons and saber tooth cats and do all kinds of things.

But if you are not respected, your survival could be in jeopardy if no one will cooperate with you.

No one will go hunting with you.

Indeed, they kind of pull off camp while you're away somewhere so that they can get away from you.

Pymotic motivations are terrifying if you are not respected because your survival is on

the line.

So that's thematic motivations.

It's not a self-help thing.

It's an actual behavior that you have to take a look at.

Now here's an assumption.

The brain operates the best when it senses an atmosphere of psychological safety.

That's not kumbaya.

Safety is generally communicated by upholding and preserving.

Wait for it.

Someone's thematic motivations.

When they feel safe, they know that they're going to survive, which is a big thing to say.

Now why does that matter and how does that relate to the second part of your question,

Tom, which was had to do with stress.

So let's talk about stress for a second and then we'll come back and combine stress and thematic motivations together.

So stress.

Here's an interesting thing about stress that a lot of people don't know, except if you're in the cognitive neurosciences, the brain really doesn't care all that much about stress.

It doesn't.

In our sojourn through the Serengeti and on the sides of the Ngorngor crater, we probably ran into life threatening situations two or three times a week.

So stress is not that big a deal where what really hurts the brain is the ability to control the stress.

The more out of control you feel over some of versus stimulus that's coming at you, the more likely you are to have it hurt you, to have it hurt your thinking, your processing

speed, your memory, under severe circumstances can even cause brain damage.

The more out of control you feel over an aversive stimulus, out of control here is measured in two dimensions.

You can't control the frequency of the aversive stuff coming at you and or you can't control the severity of the stress once it has arrived at your doorstep.

When you feel out of control over that, you will enter into a type of stress that severe enough can actually cause brain damage and will certainly be no friend to you in the middle of a heated negotiation.

So here's how they're related.

Dinging somebody's thymotic motivation is a direct threat because control could be lost in another evolutionary history.

The echoes are I'm going to die if you disrespect me.

So one of the most important things you can do is that whatever else you're going to have in a negotiation, you preserve everybody's personal recognition and acknowledgement of their worth, of their significance, of the kinds of things that you need to go after to solve an alley that is not related to them to their survival, but simply related to their perspective.

Tom Melancon

That's fascinating.

John Medina

And that's a whole different thing.

And by the way, that's not an opinion.

That's really just how the brain works.

Tom Melancon

Yeah.

Well, that this ties in so well with some other themes in this podcast, especially related to how teams work together.

And I just want to kind of reiterate what you just said.

What I heard is that the more the frequency and severity of that the feelings of being out of control of aversive stimulus, that particular thing is what causes stress to be so devastating.

John Medina

Yeah.

If you feel like control of a stressful situation, you often don't report it as stressful.

Yeah.

Moira Caruso

Sure.

John Medina

But if you've measured people's cortisol levels or epinephrine levels, if you're feeling control of it, you might have a little bit of a bump here and there, but it's not that big deal at all.

It's only when people feel out of control.

It's one of the reasons why I've heard said in negotiation corners, when I was when I talked to Lara, talking, I was talking afterward with somebody who said, well, does this mean you can't back people into a corner?

And the answer is, yeah, you can't back them into a corner because when their survival is threatened, a whole different suite of behaviors come to the front, none of which are a friend to getting a negotiation to a settlement.

Moira Caruso

Right.

Well, and there's nowhere left to go when you're in a corner.

John Medina

Well, the only thing is that you die or claw your way out.

Neither option is very good.

Yeah.

Moira Caruso

Yeah.

It also makes me think though about workplace conflict, which is something that we deal a lot in, in a different sphere of our work.

And so my mind goes to conflict peer to peer between coworkers in a work unit and supervisor to subordinate relations.

But in both of those scenarios, there is a limit to what you can control about the conflict about the other person.

I mean, you really can't control anything about the other person, right?

And so I guess my question is what to do with that need to control?

John Medina

Sure.

Well, one of the things you can say if you, if it appeared in a peer to peer or work relationship where there's an asymmetric distribution of power is simply, it's a very interesting admonition.

Don't yell at anybody.

Stop it.

Keep the amplitude, the energy of your waveform coming out of your mouth on a civil tone.

Also, limit the amount of profanity you're willing to use in an interaction.

People start getting angry.

They start getting, they, they, their governor, their executive function starts to slip.

Everybody start to get going.

One of the reasons why that that's actually been studied in the laboratory, interestingly enough, was something that's called weapons focus.

Have you ever heard of weapons focus before?

Moira Caruso

No.

Tom Melancon

I think so.

This is Beth Loftus's work when she was at the University of Washington.

Now she's in, in California.

Weapons focus is this.

It drives law enforcement crazy.

Let's say an assault has occurred and there was a weapon that was involved.

If you've had an assault and your life was threatened, your brain does lots of different things.

But one of the things it does is that it enters into a type of amnesia.

There's going to be both retrograde and anterograde, anterograde amnesia, which means if you survive

the assault, you won't remember several hours before what happened and several hours after what happened and you certainly don't remember much of the assault.

In fact, your body will often undergo an associate, what's called a dissociation reaction, will hover above the threat for a period of time.

I mean, there's all kinds of things the brain does to try and survive, except if there's a weapon involved.

If there's a weapon involved, your brain will lock down onto that weapon.

Let's say your weapon competency.

You know it was a nine millimeter and you know the color of the stock and you know the safety was off.

So this guy means business.

I mean, take your pick of that stuff.

You know and you know everything about that.

You don't know the perpetrator's eye color.

You don't remember their hair.

You don't remember what they're wearing, but by God, you remember their weapon.

That's why it's called weapons focus.



That's the source of the threat.

And so the brain is collapsing.

If you think about it for a second, it's trying to clear the decks for everything else except what is the tip of the spear?

What is the point of the gun and they're trying to remember that?

Now the reason why I say that is this.

If you yell at somebody and threaten them, you have essentially weaponized your mouth.

And when you have weaponized your mouth or an end your words and the amplitude, the energy

of the waveforms actually can measure when you when you have weaponized your mouth, the person that's that's on the receiving end of your junk is not going to remember anything about it.

It's not going to remember three hours before.

It's not going to remember three hours later and it certainly isn't going to remember the point of what the reason why the boss was angry in the first place.

They will remember the anger.

And if there was a cutting word, a profane word that was said, they'll remember that too.

So one of the first things, if you think about it for a second, thymotic motivation is now

I'm not being respected.

I am not being recognized.

I have no worth and significance.

I'm being run over.

And by the way, it so hurts the brain functions, particularly a type of memory we call working memory.

We used to call it a short term memory, but now it's better to say working memory, which

by the way is a card carrying member of executive function.

So these things are all related.

Working memory collapses when somebody yells at you.

And if you want to have an employee be not productive, yell at them at three o'clock and then just let them go home because for the next two hours, they're going to be in recovery.

Weapons focus.

I think it's a topic that negotiators should know about, even if there is never a weapon ever involved, God help it.

Tom Melancon

I think it relates, John, because yeah, we haven't, Moira and I've done this for a while and I've never had a weapon pulled out in a room, but people use their words as weapons.

And we've been in those situations where, you know, it feels like there's this scorched earth policy happening in one side of the table, the other, especially in collective bargain negotiations.

And it does damage.

And then that's all the focus.

The topic of negotiation is lost.

The words that were.

John Medina

And it hardens you in such fashion that further processing becomes a obvious use the word eroded.

Like I say, you might as well just go home because what people are going to remember are the nasty things that were said about each other, not content.

Tom Melancon

Yeah.

Right.

Moira Caruso

And I wonder, does this also apply to written communication?

Because the way people shoot out emails is breathtaking to me.

So I wonder, I mean, what else do we weaponize?

Do we?

Tom Melancon

Yeah.

Yeah.

John Medina

Well, anytime you try to exert control away from somebody when you when you remove control of any kind, that's that cornering idea, right?

Which is a lot, complete loss of control.

So you're either going to fight your way out of it, or you're going to die.

Whatever that becomes threatened, you're no longer in any place where some where some type of meeting of the minds can come.

What you bet you're on basically is what we call the lizard brain.

And the lizard brain is not a good thing.

Tom Melancon

That's fascinating.

Moira Caruso

I feel like we could stay on this for the rest of the day.

Tom Melancon

I do.

I do.

You want to stay on this or you want to go on the next question?

Moira Caruso

Because we well, I actually wanted to check in.

I think it was the second question that we asked because the theory of mind and the thymotic motivation, but one thing that you mentioned, John, there are ways and skills to be worked on and built that can increase your theory of mind.

And I wanted to check in on those to see if there were any specific suggestions that we could give our listeners.

Jonh Medina

Sure.

There's both a short term suggestion and a long term suggestion.

Both of them involve a willingness for you to not be self centered.

Tom Melancon

Well, come on, John.

Don't make it difficult.

John Medina

Like with that, yeah.

Dr. Medina is not your parent.

Okay.

And not have a developmental molecular biology.

But let's talk about a short term and a long term to answer the question.

The short term solution is really is this almost is going to sound like stalking and

I don't mean it to be, but I'll give you an example of what we call this social decentering.

What let's say you're at a restaurant and you're with your significant other or with somebody that you know, and you see somebody at another table and they're busy talking.

You all of a sudden take a look at them.

And then you say to yourself, I wonder what they're talking about, not because you're nosy, but because you're going to start to develop your theory of mind.

So what you do is that you just make up a story about what you think is going on in their lives by completely focus, even if it's a fantasy and just, you know, do your sideways glance or whatever.

But when you begin to focus on somebody else's world and not your own, think of that as reps in the theory of mind, gym, you can do that anywhere.

You can be walking down the street.

I call them Ray Carver stories.

I don't know if you know who Ray Carver is.

He's was this author, actually, who was in the Pacific Northwest who just give these tiny little vignettes of stories, like somebody looking longingly at a dress in a Macy's store.

And they would give this delightful, you know, three-page story on it.

Totally focused on somebody else.

So the more you focus on other people and their worlds, the stronger your theory of mind reflects gets.

That's the short term.

So and that can be done ecologically, it can be done anywhere.

You can walk out the door today, go take a look at a poster and make up a story about it.

And he'd be in that one.

But there's also a longer term one that also has deep empirical support and it's hysterical.

But this is literally done.

So what we're going to do is that we're going to take a nonfiction book, like the books that I write, and then we're going to take a, they are romance novels of some kind, Jane Austen, but without the genius, you know, type things, romance novels.

Then they also then took books that were written by people who knew their way around a paragraph,

Nobel laureates, people that won a Man Booker prize, people that won a national book award.

So from William Faulkner to Toni Morrison, all kinds.

And ask the question, if we put these people in a book club, we measured them before and after their theory of mind, which is actually something you can measure use what's called an RME test.

What would it look like in that exercise, what they were asked to do was to write down to socially decenter, to write down just little paragraphs, whenever they would come across somebody's interior motivations, just to write it down so that they were starting to flag

their theory of mind.

So when the author would say, she was angry because of X, that's a theory of mind thing to say.

So you just write those down.

At the end of the exercise, which I think the first one was a, was about a month long month in length, you saw dramatic changes in theory of mind in the group that what that read the Nobel prize winning literature.

The Daniel Steele literature, not so much.

And in books like I write zero.

In other words, you have to be around somebody who can paint a deep enough picture that it actually triggers your theory of mind.

And to do that, you have to be a pretty good writer.

When you do that, you get into something we call virtual transport.

And then you get into what I like to call narrative land, because if there's anything the brain is all about, it just loves narratives and wants to get it as much as it can.

And theory of mind gives you the psychological interior, the motivations of particular narratives.

In fact, I would define a narrative as simply theory of mind stretch over time.

Moira Caruso

Wow.

Okay.

Well, that really brings up another question that we had, John.

You know, you sort of got there in your answer to the last question.

And you've also used a term, your brain on storytelling.

So we would agree with you.

We use storytelling in our conflict resolution work.

We teach courses where, where folks practice and kind of up their storytelling game.

What would you say that storytelling does for us, that other modes of communication don't necessarily achieve?

John Medina

Oh, man.

How many hours do we have, Moira?

I'll try to be brief.

Good luck with that.

But you can edit this out.

So, okay.

Let's talk about storytelling.

We think storytelling is an evolved trait that gave us a selective survival advantage.

No kidding.

We think it's a biological entity because it does so many cool things.

I'll maybe I can read it just maybe three or four of them that produce brain health.

And it could actually be useful in the world.

You guys inhabit.

So let's talk about narrative and storytelling.

First thing that it does, narrative detection gets the brain's attention.

The first thing that happens is if the brain sniffs that there may be a story coming, it immediately pays attention.

It's actually put on high alert if it thinks that a narrative is beginning to form because it loves it like it loves ice cream.

In fact, it stimulates an area of the brain that is essentially a narrative factory.



It's a story generator.

It's located on the left side of the brain.

One researcher calls it the interpreter.

The interpreter has an aggregating function.

It combines small pieces of fact with large pieces of timing actually pushes it through a timeline.

So you're manufacturing a set of facts.

That's the cold, hard world of how we use narratives.

But there's a big reason we pay attention to narrative, which is the second thing I can say to you about narratives.

Making information into a story makes the information more memorable.

More memorable to answer the question about comparing it to other styles of communication.

Before you can turn it into a narrative, the more areas of the brain light up that are going to, it's essentially pushing the record button.

Wow.

If it sees a narrative in a meet, you immediately pay attention to it.

And then when you pay attention to it, you then lock down and the brain starts giving you memories.

That's a great quote from Jerome Kagan.

He's dead now.

He's a developmental psychologist, a titan in my field.

Information told through stories is far more memorable.

Twenty two times more according to one study because multiple parts of the brain are activated for narratives.

Wow.

And that says everything you need to know.

Why you paying attention?

Because the record button has been pressed and you're now remembering it.

There's a great empirical support for Jerome's, another paper that Jerome is not referencing.

This was done by the Heath brothers, the people who wrote the book made to stick.

You may is from Stanford.

They have a very famous experiment they did because their job was to, in some cases, teach kids how to do elevator pitches for Silicon Valley.

So the test is going to be a 60 second presentation because they're kids that they want to get out the numbers and make more money.

Of course, there's going to be a lot of statistics in those 60 second presentations.

In fact, in the study, there was 2.5 on average.

Only 10% of the presentations used narratives to persuade their audience.

Everything else was just a number.

So you can imagine when they did the retention tests later, they found something extraordinary.

Only 5% of the class remembered any individual statistic.

63% remembered the narrative.

The reason why we pay attention to narratives is because we want to remember something.

And it's an easy, powerful way to get it to remember.

So anytime you can turn your information into a story, the better it's going to be.

But there's a third reason.

In fact, there's 20.

That's the third.

If you could probably tell, I'm kind of a fan of the narrative.

Takes one to know one.

Well, you can imagine in me just saying this about the kids, the 60 second presentation,

I've already started on a narrative.

Imagine the classroom and you can imagine that things are beginning to go.

It's triggering a cognitive gadget in the brain we call episodic memory, which is a very powerful.

It's different than remembering that Thomas Jefferson was the third president of the United States.

It's more like remembering Thomas Jefferson and his enslaved concubine.

They had another family together.

Now you've got a narrative forming.

That's the stuff that's going to be more remembered.

Okay.

The third is this and it's fascinating because it relates directly to how we started this podcast when we were talking about mental time travel.

Remember that narrative allows us as a species to live experiences without having to go through them.

We can, if you will, use our narrative functions like a flight simulator trying to learn how to fly an actual airplane.

That's what it appears to be really good at.

That's the idea behind this is a cautionary tale.

And so many of the narratives where we sat around the campfire in our cave people days was about, this is what our tribe does.

This is what our tribe does.

And if you do this, bad things will happen and so on.

It allows us to learn from our mistakes without being damaged by those mistakes.

It's so powerful.

We actually call it narrative transport.

This is another form of mental time travel.

How many, if you just sit around, have you two, when you have read a book?

I don't know, maybe like Lord of the Rings.

You read Lord of the Rings.

All of a sudden you start visualizing the Lord of the Rings, Middle Earth.

Oh, that's not happening.

Hell yeah.

Yeah.

Yeah.

It happens to everybody, particularly if the words are well crafted, you get a more vivid presentation of it.

We actually call that something that's called virtual transposition or narrative transport.

That form, that ability to do a narrative transport pushes you into somebody else's world.

And you guys, that's the reason why when you read a book, your theory of mind improves because you're no longer in your own stupid world, you're in somebody else's stupid world.

And you're thinking about what they're doing and how they're interacting.

So it's a form of social decentering.

The more you can read, that's the reason why nonfiction books don't do it.

And badly written books don't do it.

But if you can get, so I have an odd suggestion.

It's kind of a weird thing.

If I could wave a magic wand for people that are in conflict that are in need to negotiate something, this is what I would do.

Everyone before the negotiations began, both combatants, both sets of people, combatations is probably a bad word here.

Everyone would take a day long seminar in how the brain handles conflict.

And one of the first items on the menu would be learning about theory of mind and how not to be so self-centered.

Moira Caruso

But wow.

Yeah.

Tom Melancon

It's so interesting, John.

When you talked about the Lord of the Rings, it made me remember that when I read that, one of the books the first time also, it just so happened to coincide with the first time

I visited the area I live in now, the Pacific Northwest.

Coming from Nevada, which was a very beautiful place, but dry and arid, I was in the Pacific Northwest for the first time.

I just read the book and my mind could not stop picturing these places in the book and because I pictured in my mind a very green lush place.

I don't know if that's what Tolkien was trying to do.

And I was just, yeah, my mind was just going.

Fascinating.

Wow.

So John, we work with so many people who are in conflict and their focus is often on the source of conflict and the time they spend within the conflict.

You talk about a lot of things that one might not think pertain to conflict resolution, but that could provide insight into how we behave and can behave more skillfully in conflict.

Can you provide a few examples of these tools for our listeners.

John Medina

Sure.

Well, let's go back to that day-long seminar where you're learning about theory of mind.

Let's add to the curriculum, maybe to answer the question.

You'd learn about theory of mind for sure because you're beginning to learn about virtual transposition, but you're going to utilize that one cognitive gadget to do a whole bunch of other things.

So let's talk about, oh man, there's another 20.

Tom Melancon

Okay.

John Medina

I'll do three more.

Sorry.

Okay.

One thing that we haven't talked about yet is something that's extraordinarily powerful

and utilizes virtual transposition.

That is your Lord of the Rings, your ability to get out of yourself and into the world, is called counterfactual thinking.

You may have heard of that before.

It gets, no.

We use it a lot in asking questions about how should a, I teach bioengineering graduate students and occasionally second year medical students.

And so with the medical students asking the question, how can you empathize better with your patients?

Counterfactual thinking, counterfactual thinking is defined this way.

What would my life had been like if I had been born not as me, but as my opponent to put it in conflict terms?

What, what, do you see how that's a virtual transposition?

What would my life have been like if I had been born not as me, but as my opponent?

How does my opponent's position make sense to them?

It doesn't make sense to me, but I'm not trying to make it sense, have it make sense to me.

I'm trying to have it make sense to them.

Why are they behaving this way?

It's often actually answerable by asking this question to what perceived threat are they reacting?

Like I said, the word, great is the world's best survival order, right?

If both parties do that in this day long seminar before they get started, it would force them out of their own perspective.

They would have to have a counterfactual.

They would be thinking about what not, they're trying to make sense of the other person's

world.

What is it that about them that in their motivation?

Can you see where that's a virtual transposition?

That that's a theory of mine thing to say because you're actually trying to ask for their rewards and punishment system.

So that would be if the first part of the curriculum is learn about theory of mine the second would be learn about counterfactual thinking.

Okay.

Another one.

Learn and practice something I like to call intellectual self monitoring behaviors.

We teach this a lot, particularly with budding scientists, the bioengineering graduate students that used to do that a lot to save them time on staying away from failed experiments.

Here's what we tell them.

This is intellectual self monitoring behavior.

But I think it would apply, I think to you guys as world two.

When you form an opinion about how something works, when you form an opinion, learn to ask yourself what would have to happen to prove that opinion false.

Even if you hold tightly to it and you think this is the right way to think about something right perspective, what would have to happen to prove that opinion false?

Then you keep track of your views so that you can see as the world develops underneath you when you were right, when you were wrong and how you're thinking may have evolved when

you moved from right to wrong.

You are monitoring your behavior.

That's useful if you're a scientist for sure because the world is going to work the way it damn well pleases.

You may think the brain works a certain way, but you know, oh gee you guys, 50% of any



experiment I've ever done failed.

And that's a success.

Okay, but if you practice self-monitoring behaviors, if you form an opinion and if everybody is learning to do that, even in a conflict situation, if you think about it for a second, it's another form of virtual transposition.

What would have to happen to prove that opinion false?

You could almost make a narrative about it.

So the third part of it, if the first part of the quick on this theory of mind and the second is counterfactual, the third would be practice intellectual self-monitoring behavior.

Then maybe the last suggestion I would make is to create teams with high C-factor whenever you can.

And we should probably go over that a little bit.

Tell us more about the C-factor.

I'm talking about that at the conference that I know you spoke.

Sure.

Well this is the great work of Anita Woolley.

She had started out at MIT.

She's now at Tufts.

She asked this question.

It looks like, if there's something called the, forgive this term, this is so wonky, the McGrath test circumplexed inventory.

Get all that?

What the McGrath is, it's a way of measuring how well people can solve problems.

It's actually a form of a memory test too, which is interesting.

But the McGrath is a tough bugger.

You can give it to individuals and you can give it to groups.

Girls with their individual intelligences tend not to do the McGrath very well, not compared to groups.

Groups tend to do the McGrath on average much better than group interactions.

They tend to solve them much better.

But what Anita noticed in all of this stuff was if she looks at the collective intelligence, the group intelligence, she noticed that some teams, groups, stuck at the McGrath, they were horrible.

You probably have been on teams that are dysfunctional like that.

She notices that.

She also noticed that there were other teams that sailed through the McGrath like hot and I threw a butter.

And the question she asked is, what's up with that?

And the reason why she's on the map is she found the answer.

The answer is teams with high C factor, C stands for collective.

Teams with high C factor, they're the ones who sailed through, who solved the most problems, who solved them in the quickest amount of time, who sailed through the McGrath.

So we should probably talk a little bit about what in the world C factor is.

C factor you can think of it as a stool with three legs on it.

First leg, these are the teams that are going to succeed.

These are the ones that are going to really solve problems and get things done.

Number one, they all had high theory of mind skills.

Yep, they all had strong and in fact it was a form of theory of mind, we call pro-social theory of mind.

That's not just peering inside someone else's psychological interior to understand the rewards and punishment systems in it, but you are also kind with what you see.

That's important.

Crosocial theory of mind.

That's the first leg.

High conversational turn taking score, something we call CTT.

If you videotape high functioning teams, on average, you find some extraordinary things.

Nobody interrupts each other.

Nobody interrupts each other.

That's why it's called conversational turn taking, high CTT score.

You have to videotape.

You have to code the behavior.

Nobody interrupts each other.

Nobody frickin dominates.

If there is some member of the team that is not said very much, that team, can you see the pro-social theory of mind here, you guys?

That team will actually turn to them and say, you know, we haven't heard from you in a bit.

We value your opinion.

Value.

Oh, is that a thymotic motivation?

Or what?

I mean, there's so many of these things that work together here.

We would like to hear from you.

They don't interrupt each other and nobody dominates.

That's the second leg.

The third leg is amazing.

And I don't know what to do with it, but it makes me smile.

It's the presence of women.

You guys?

The more women there are in the group, the higher the C factor is.

And that finding is so robust, you can actually titrate it.

The more women there are in the group, the better the McGrath tests are.

The less women there are in the group, the less good the McGrath tests are.

The flerson tests have no problem.

And it's no good explanation for that.

Of course, it's been run through a peer review at a million times because Anita actually is a female.

And so the biases there could be pretty strong, I would argue.

The data are beautiful and she actually...

Everything I've just said, by the way, is referenced and including an interview, a delightful interview, you should read this.

She did it in the Harvard Business Review.

Anita Woolley has spelled W-O-O-L-L-E-Y.

And Harvard Business Review, they had an interview with her where she talks a lot.

about everything I just said here. And so, the last thing I would say in this day-long seminar before the negotiations would begin, would to recreate teams as much as you can with as high a

C factor as you can. You know, the weird part of all of this, you can be absolutely confident in your ability to want to achieve a goal in the future, while maintaining the humility to question whether you have all of the needs at your disposal to make that happen and that you would like to

have other to learn from other people so that the learning could occur and a negotiation could finish.

I think there's the two, if this is a rib steak, the fat marble, one of the fat marbles is theory of mind of this conversation. But the other is an unspoken one. And that is the form of intellectual

humility where you are not at all afraid to admit that you are wrong because you have absolutely

nothing to lose by trying to come to a solution.

Tom Melancon

Wow. Well, John, you're talking about how we should you know, offer these classes, day-long classes to negotiators on either side of the table. I

want to be in that class. I don't know about you, Moira.

John Medina

Well, we can couch it and I'll close with

this maybe. We can couch it in the form of this is brain science. Hopefully, I'm a nice guy, pretty grumpy scientist. I don't think most a lot of things in my world apply to the real world.

This does, this does like a son of a gun. I sense. And the more I travel on my journey with you wonderful folks, the more I see that there are aspects of this way that could fully integrate.

And because it's not an opinion, as a scientist, I don't care what I believe. I never have. I just want to know what's out there. And if this didn't work, I couldn't say it. But the fact that it does work and that it is powerful enough to be able to actually illuminate broad regions of the brain for God's sake says that it's worth knowing about.

Moira Caruso

Wow. There's enough to unpack there for an entire season of podcast episodes.

Tom Melancon

Yes. There really is. Yeah. Yeah.

Moira Caruso

Wow.

John Medina

You guys have always been delightful.

The I can see it's not smoke or scar tissue, but you guys are battle experienced. That's a way to say it. I sense that. So there is both a hesitation and a generosity, which I consider something of a miracle given what you guys have seen via a generosity of spirit that I am delighted

to go on this journey with you and understand you and your world better. Hats off to you. Well, actually, I can tell you.

Moira Caruso

Thank you. I mean, John, with generosity of spirit, I mean, there's not a better word to describe what you've provided for us today. I mean, thank you so much for being here, giving of yourself of your considerable knowledge, the research speaks for itself. We'll certainly make sure that there are links to some of it in the show notes. And please, I'm going to put you on the spot right here. If we ask you back, please, will you come?

John Medina

Oh, no, not on the spot at all.

I've got, you know, 17 more things. That's right. I'll hold you to it.

Moira Caruso

Thank you again, John.

Voiceover and closing music - Cynthia Pyle-Manley

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