

Talking to Change: An MI Podcast

Glenn Hinds and Sebastian Kaplan



Episode 34: MI from an Evolutionary Perspective with Abilio (Bill) de Almeida Neto

Sebastian Kaplan:

Hello everyone, and welcome to another episode of Talking to Change: A Motivational Interviewing Podcast. My name is Sebastian Kaplan. I am based in Winston-Salem, North Carolina, USA. As always, I'm joined by my good friend, Glenn Hinds from Derry, Northern Ireland. Hello Glenn.

Glenn Hinds:

Hey Seb. Hey, man.

Sebastian Kaplan:

How's it going over there for you?

Glenn Hinds:

It's good. It's 11:00 at night for me on the ninth of August. I'm looking out on a very dark evening, quite a warm evening, which is quite surprising for us in the summer. We're having, as I was saying to you before we came on air, we've been having lots of rain this summer, but the last couple of days have been really bright and warm. All's good.

Sebastian Kaplan:

Yeah, yeah, all is good. It's a little after 6:00 p.m. We're saying this because our guest is actually in a different day even, not just a few hours before or ahead of us; 6:00 p.m. on Sunday the ninth. Pretty nice, bright sunshine, hot and humid as it is in North Carolina throughout the summer. It's been a nice weekend so far.

Glenn Hinds:

Great. Good.

Sebastian Kaplan:

We're going to do what we normally do and introduce our guest in a little bit. Before that, we want to orient the audience to social media and we also want to acknowledge a person and an entity for the first time. Glenn, why don't you get us started with the social media stuff.

Glenn Hinds:

Following us or commenting on Twitter, it's @ChangeTalking, Talking to Change on Facebook, and Talking to Change Podcast on Instagram. For email conversations with ourselves, it's podcast@glennhinds.com.



Sebastian Kaplan:

Excellent. Of course, rate and review us as you wish. We hope to get lots of feedback from people. Briefly, we wanted to acknowledge a person and an entity, like a said. Brief story. Back in September of 2019, I attended the Motivational Interviewing Network of Trainers Forum in Tallinn, Estonia. Glenn, unfortunately, you could not join us. You were missed for sure. We were at this forum. It's like a conference for people who are unfamiliar with the forum, with the MINT Forum. I was approached by one of our friends and colleagues, Bryan Hartzler who is a director at the Northwest Addiction Technology Transfer Center which is based in Seattle, Washington in the USA.

Sebastian Kaplan:

For those who don't know, the ATTC's are a consortium of roughly 10 or so regional ATTC's in the US with a handful of international sites. These are federally funded by the US government, federally funded programs or projects whose mission is to promote education in addiction treatment.

Sebastian Kaplan:

Bryan, who we've known for many years, approached me at one of the coffee breaks and said that he had heard a bit about the podcast and listened to an episode or two and felt like it was something that was really valuable for not only the MI community but for the community at large in his world, which again, is addiction treatment providers.

Sebastian Kaplan:

He made a very generous offer to us to provide some support over the course of three years. We're very grateful to him for his offer, and we accepted that support. It's our first sponsor, I guess. We wanted to express thanks to Bryan and his team that we've been working with for the last several months to get that up and running. We hope that it will enhance the product. It's already enhanced my end, I know, because I have a new microphone as of a few episodes ago. Hopefully, it's been a more enjoyable experience already.

Glenn Hinds:

I just want to give a personal shout-out to Bryan and the ATTC and my gratitude too for your support. Thank you.

Sebastian Kaplan:

We are very pleased to have Abilio de Almeida Neto joining us who, from this point forward, we will refer to as Bill. Bill is joining us all the way from Sydney, Australia. It is tomorrow right now where you are, Bill. We'll say welcome, Bill.

Bill Neto:

Thank you very much, Sebastian. Thank you, Glenn. It's my great pleasure to be here with you. Indeed, I am in Sydney, Australia. It is August the 10th here. It's a rainy day outside but still a good day.



Sebastian Kaplan:

Bill, we're going to unpack a really interesting but, I imagine for many of audience members, a rather novel concept and even a novel field. We're really going to be exploring today the link between Motivational Interviewing and evolutionary theory. We're going to dig deep into a paper that you wrote in 2017 which we'll describe a bit later. Maybe you could start us off, as we often do with our guests, just tell us a little bit about yourself, your background, and how you came to discover MI and how it's blended in with your professional work.

Bill Neto:

As you well know, I am a psychologist. I graduated from the University of New South Wales nearly three decades ago. I started my career in psychology as a clinician at the Prince of Wales Hospital here in Sidney in the area of smoking sensation, more precisely, as a Motivational Interviewing counselor in the area of smoking sensation.

Bill Neto:

I can say that I was one of the early adopters. I started as an MI practitioner not long after Bill Miller published his seminal paper on Motivational Interviewing in 1983. After working as a Motivational Interviewing counselor for a few years in the area of smoking sensation, I became very intrigued by Motivational Interviewing.

Bill Neto:

One of the things that impressed me the most about Motivational Interviewing was how comfortable both counselors and clients were with Motivational Interviewing. I then decided to do a PhD in the area of Motivational Interviewing. I went to the University of Sydney, and I graduated in the year 2000.

Bill Neto:

Since I graduated, I've dedicated myself to research and also to training of a professional from different backgrounds in Motivational Interviewing. After graduating, I worked in the healthcare setting as a researcher for nearly 10 years. As I said before, I was fortunate enough to be able to use Motivational Interviewing in my research and also to train professional in the area.

Bill Neto:

I then moved to the area of corrections where I worked for 11 years. Again, Motivational Interviewing was part of my research. I also conducted a lot of training in Motivational Interviewing for professionals in the area.

Bill Neto:

I now work for the New South Wales Government Center for Work Health and Safety in the capacity of research manager. I work in the area of prevention in the workplace. Again, I am very fortunate because I have had the opportunity to use Motivational Interviewing



in the area of work, health and safety and also to conduct extensive training in the area for professionals in the area of work, health and safety.

Bill Neto:

I have always been a very big fan of Motivational Interviewing. From the very beginning, I can say that I was one of the early adopters, as I said before. I think that we need to recognize that nearly 40 years down the track, Motivational Interviewing is still one of the best evidence-based behavior change interventions in the world.

Bill Neto:

I see Motivational Interviewing as a gift that Bill Miller and also Stephen Rollnick gave to the counseling world. In summary, my career has always focused on research that promotes well-being, that promotes people wellness. That's a brief summary of where I come from Glenn and Sebastian.

Glenn Hinds:

MI has really been part of your professional DNA. It's influenced almost everything that you've done, and every direction that you've taken has involved some form of relationship with Motivational Interviewing for you.

Bill Neto:

Definitely. When I started my career nearly 30 years ago, I never thought that it was going to be the beginning of a long MI journey for me. That's what I describe my career as a long Motivational Interviewing journey for me.

Glenn Hinds:

One of the things that I suppose that has attracted us to have this conversation with you is the piece of work that you did around the evolution of psychology and Motivational Interviewing. Perhaps you could tell us about how you found yourself following that path and what you've discovered.

Bill Neto:

As you know, we never really had a theory of Motivational Interviewing. The delivery of Motivational Interviewing in the counseling setting has always been based on efficacy data that clearly demonstrates that influences behavior, that Motivational Interviewing does influence behavior, but without a theoretical basis necessary for any comprehensive understanding, so without a theoretical basis that gives clinician an understanding of what they are doing when they engage in Motivational Interviewing.

Bill Neto:

As we all know, past attempts to provide MI with a theoretical basis focused on the causes of behavior change but it never addressed the mechanisms that mediate change. They never explained the underlying mechanisms by which processes used Motivational Interviewing in just behavior change.



Bill Neto:

I personally believe that if we are to make sense of Motivational Interviewing, we really need to understand this underlying mechanism. We really need to understand what mediates change in Motivational Interviewing. If we gain this understanding, not only we will have a much greater awareness, much greater understanding of what clinicians are doing in the counseling setting, but it also provides us with the opportunity to design more effective Motivational Interviewing sessions. I think it's really important is understanding of the underlying mechanisms by which process is used in Motivational Interviewing induce behavior change.

Bill Neto:

As you mentioned, in the year 2017, I published a paper whose title was Understanding Motivational Interviewing: An Evolutionary Perspective. In this paper, I used an evolutionary framework to make sense of why and how Motivational Interviewing works. What I did was to provide an understanding of the adaptive significance of the strategies, the techniques that we use in Motivational Interviewing.

Bill Neto:

What I'll be talking about today is what happens in the human brain when two people interact and one tells the other what to do, so what mechanisms become active in the human brain and why. Hopefully, we'll be able to apply this understanding of how the human brain works to make sense of why and how MI influences behavior. In other words, to understand why, when we put pressure on someone to behave in a certain way, it leads to greater resistance to do so.

Bill Neto:

What I thought I would do initially is just to very briefly describe the theory just to give listeners an initial understanding of the theory, and then we can talk about it in more detail. We can elaborate on it.

Sebastian Kaplan:

Question about something you said earlier about the lack of the theoretical basis and why that would matter for clinicians but also just to mention to the audience, we will be talking about this paper throughout, of course, and in the episode notes, we will put the citation for those who can access papers. I suppose anybody could access it. Some people could access by paying for the paper, others freely, but we would only be able to put the citation on there.

Sebastian Kaplan:

My question, Bill, is without a theory, someone who is new to MI or learning about MI or perhaps even an experienced clinician, the best that they could do is to either say I do MI because it works, or they might be able to describe certain components. For instance, we know that there's evidence that supports that increase of change talk or the presence of change talk is predictive of positive outcomes or other things like when we work with



somebody, it frees them up and they feel more autonomy. Therefore, they're more able to make decisions that support healthy behavior or that kind of thing.

Sebastian Kaplan:

Without that integrated theory, it's really just a smattering of things that we believe in, but it's not really connected well, would you say, as far as the importance of having that theory for clinicians out there?

Bill Neto:

Yes, exactly. That goes back to a point that I made before that past theories of Motivational Interviewing, they focused on the causes of behavior change. Yes, Change Talk is a cause of behavior change. Yes, the way that we relate to the client is a cause of behavior change. The spirit of MI is a cause of behavior change.

Bill Neto:

I think that all of this understanding about Motivational Interviewing is very important and past theories that actually focused on the causes of behavior change like SDT theory, they've been very important because they have emphasized the causes of behavior change and they are very important when it comes to gaining that understanding of Motivational Interviewing, but they do not explain how it works. That's what I mentioned before. If we are to understand Motivational Interviewing, we also need to understand is underlying mechanisms by which processes used in Motivational Interviewing induce behavior change. That's what the current understanding of Motivational Interviewing doesn't do.

Bill Neto:

I believe that if we understand the underlying mechanisms by the mechanism that mediate change, then we have a much greater understanding of Motivational Interviewing, of how it works, and we'll be able to conduct much more effective Motivational Interviewing sessions.

Glenn Hinds:

In some ways, it's understanding here's the description of Motivational Interviewing, SDT. We spoke with Professor Ryan about the influence and the inter-connectiveness of SDT and Motivational Interviewing, and it sounds like you're taking us to another new level which is then going to look at the mechanisms that Motivational Interviewing and SDT explain, and you're going to describe the mechanics in the human mind and the human brain, why change happens or what it is a practitioner needs to be doing to influence an individual's willingness to change.

Bill Neto:

Precisely. If you look at SDT, what do they say? They say that autonomy is important. It's a cause of behavior change. They say that competence is important, and relatedness is important. If you look at the psychological literature, these concepts, they're not actually new to the psychology literature.



Bill Neto:

Carl Rogers himself, nearly 80 years ago, he emphasized how clients, they are able to come up with the wrong solution to a problem. He emphasized autonomy. He also argued, the clients, they have the capacity to make decisions, to choose what's best for them. He was talking about competence. He also talked about genuineness towards the client. He talks about unconditional positive regard.

Bill Neto:

What he was talking about was relatedness. There are concepts that have been in the literature for around 80 years. SDT, we thought it has a lot of value. It actually emphasizes these concepts that are very important for understanding Motivational Interviewing, the causes of behavior change, but, as I said before, they don't explain why and how Motivational Interviewing works.

Sebastian Kaplan:

I don't know that we mentioned on this episode yet, but SDT is Self-Determination Theory. A brief plug, Episode 26 of our podcast with Richard Ryan where we discussed Self-Determination Theory and its relationship to MI. Many of these concepts, whether it's in SDT or some of the skills and some of the concepts in MI even, Bill and Steve, are quite open in saying that they didn't invent reflective listening or the use of affirmations or summaries or these sorts of things, so that a lot of the things that we're doing in MI have been around for a while.

Sebastian Kaplan:

While they are helpful, they're useful tools, and when used effectively, can be viewed perhaps as a cause of behavior change or at least as a helpful element in conversation that leads to change, but they fall short of being able to explain why Motivational Interviewing works, which is something that you attempted to unpack a bit or propose anyway in this paper of yours. Maybe we can come back to that and come back to where you wanted to head with your discussion around the paper.

Bill Neto:

There was a very good summary of my argument, Sebastian. What I'll do, I'll very briefly describe the theory, and then we can actually get into more details, we can elaborate on it. As we all know, when someone talks about change, the person becomes a lot more likely to change compared to when someone else talks about change. Today, we'll be describing why that is the case. Why is it that when we tell someone what to do, the person becomes a lot less likely to do what we want?

Bill Neto:

I will start by describing the phenomenon of psychological reactants. Psychological reactants is an innate human tendency to act contrary to recommendations from others, an innate tendency to be oppositional, something that we are born with, a biological tendency.



Bill Neto:

The interesting thing about psychological reactants is that it is primed from our subcortical brain. What does it mean? It means that oppositional behavior can be triggered independent of intentions, a mechanism that happens below conscious awareness, a mechanism that happens below conscious reflections.

Bill Neto:

The interesting thing about psychological reactants is that it is the product of a behavior system that evolved to facilitate group living. How did it facilitate group living? To answer this question, we need to take a look back at the history of the human race.

Bill Neto:

We humans have been on earth for approximately 200,000 years, according to the fossils. Most of our existence we spent as hunter gatherers in fact, 99% of our existence. For our ancestors to live as hunter gatherers, to live in such small functional groups, social dominance, differentiation had to be established within the group. Who bosses who had to be determined in order to establish social order.

Bill Neto:

It's only when social dominance differentiation is established within a group that we get stable hierarchies. The group can then function as a social unit, as it allows for the division of labor and for the coordination of tasks and activities increasing the group's chances of survival.

Bill Neto:

Acting contrary to recommendations from others, the phenomenon of psychological reactants, played an important role in the formation of stable hierarchies. It is a signal that conveys social dominance within a group. It is a tactic for achieving and maintaining dominant status within a group. Implicit in having no say in terms of decision-making is social submissiveness, whereas, having the option whether or not to adhere to communication from others, signals dominance within a group. To this day, in human society, those who easily influenced by others, they attain low dominance status.

Bill Neto:

We often hear people saying, "Don't let them treat you like a push-over." A behavioral response like acting contrary to recommendations from others played an important role in the formation of stable hierarchies. When we are told what to do, our instinctual brain intervenes. It literally thinks that a submissive act, it will lead to low dominance status and consequently less access to resources and mating opportunities.

Bill Neto:

What does an instinctual brain do? It prompts us to behavior in the opposite way. It prompts us to be oppositional. I must also add that this tendency to be oppositional becomes active when we sense that we are in a position of power for the simple reason



that if we challenged a more powerful potential social opponent, it could lead to physical harm.

Bill Neto:

When we sense that it is, we that are in a position of power, we tend to become oppositional. When it comes to behavior change, it is the client and not the counselor. It is the client that is in opposition of power simply because it is the client that decides how to behave. It is the client that decides how to conduct himself or herself.

Bill Neto:

For behavioral interventions to be effective, we must not trigger instinctual resistance to behavior change. In other words, we must not make the client, make the individual, feel that they are being pressured to behavior in a certain way. If we do, the client, as the ultimate decision-maker, will make use of his or her instinctual survival mechanisms to assert such position of power.

Bill Neto:

That is why within a Motivational Interviewing framework we do not tell people what to do. Instead, we prompt them to talk about change. We also listen for change talk. When we hear it, we reinforce it.

Bill Neto:

In summary, within a Motivational Interviewing framework, we shift the client from an instinctual survival mode to a collaborative mode where the possibility of change can be explored in an evolutionary safe environment.

Glenn Hinds:

In many ways, it sounds like you're inviting us to really appreciate that human beings are one of the species on earth, and we are part of the Mammalian group and we ourselves are animals. There was a time before we became this evolved self that can talk to people in Australia and North Carolina at the same time over the internet, that most of the journey that human beings have taken have been as hunter-gatherers in small social groups.

Glenn Hinds:

What you're describing is that the brain has been adapted to facilitate that group living. The higher up the social hierarchy I went, the more access I had to resources, whether it be food and water but also to mate and to have progeny. That's still with us and that's still influencing all that we do.

Glenn Hinds:

We evolved knowing that it happens at an unconscious level by understanding that the invitation for us today and for the lessons to consider is to remember we are animals by nature, and we have to understand our animal nature when we are interacting with other people. Notice that when a client gets resistant towards you, that perhaps what you're



describing is that what they're doing is they're simply saying, listen, you're a threat to my sense of self in this hierarchy. What I'm going to do is I'm either going to become passive or else I'm going to fight you because I want to assert who I am.

Glenn Hinds:

It sounds like what you're describing is one of the things that Motivational Interviewing does is takes that into account. Can you maybe say a wee bit more about what is it that's happened then in the Motivational Interviewing conversation that you've discovered that means that people react less? Why is there less reaction? Why is there less opposition? Why is there less psychological reactants in an MI conversation?

Bill Neto:

Yes, I'll answer your question, but I'll also go back to a comment that you just made, that, yes, we are animals, and we need to understand the context in which the human brain developed. Let's talk for a minute, Glenn, and think about the history of the human race.

Bill Neto:

As I said before, we have been on earth, modern humans, now homo sapiens, for around 200,000 years. It was only in the last 10 years that we created agriculture. Then we started domesticating plants and animals. Only 10 years ago would signal the beginning of the end of our hunter-gathering days.

Bill Neto:

By 5,000 years ago, farming was widespread and it signalled the end of our hunter-gathering days. If you think about modernity and if we dated back to the beginning of the Industrial Revolution, it's not more than 200 years old.

Bill Neto:

What I'm talking about here is that any evolved characteristics, any evolved adaptations, anything that helped us to survive throughout the ages is of value to an existence as hunter-gatherers and not to the modern world.

Bill Neto:

One person in the psychological literature that made a very interesting argument was Cosban. He argued that the human brain is made up of different specialized units designed by natural selection that do not always work together. Our instinctual survival brain, our subcortical brain, does not know that it is the 21st Century. It does not know that we are in the counseling setting. It still thinks that we are hunter-gatherers, and it behaves accordingly, whereas, our instinctual survival, our rational brain, our cortex, is well aware that, indeed, it is the 21st Century, yes, we are in the counseling session, and they don't always work together, whereas the rational brain wants to do something about a problem behavior. The instinctual brain is there thinking, "Hey, you've been told what to do. You're going to fall out in the hierarchy, so I need to do something about it. I need to prime this oppositional behavior."



Bill Neto:

Motivational interviewing, as you know, one could think about Motivational Interviewing is that we, the counselors, are the ones that take the lower place in the interpersonal hierarchy. By doing that, by not telling the client what to do, by taking the lower place, by signalling to the client your social hierarchical position is safe, you are physically safe, then what happens? It averts these unconscious instinctual mechanisms from being activated, the mechanisms that are actually triggering oppositional behavior. Because these mechanisms are now quiet, the limbic system is not as active, it allows the rational brain to engage in reasoning and decision-making without the strong influences from these non-conscious subcortical processes that ruled behavior prior to cortical revolution. Does it answer your question?

Glenn Hinds:

Absolutely. It's actually really exciting incite to what just gave me, the understanding that we as counselors can have which is the back end of your brain is the old brain. It's the part that's making sure that no one's coming to kill you and that you're going to be safe and that you're trying to find a mate, but it doesn't know that the frontal cortex has evolved and developed. The cortex itself is really working for our benefit as well, but in the relationship that we create and almost like psychological safety, the space that we create for someone, silences the back brain. The back brain doesn't feel threatened by anything; therefore, its silence allows the frontal cortex to work the right of the brain to resolve the difficulties that it knows that the person was facing. It's that that then leads to the change talk, that then leads to overcoming their ambivalence. The frontal cortex is the part that works through the ambivalence and comes up with, "You know what you should do, you should do it this way because that'll work for you."

Bill Neto:

Exactly. Exactly. The cortex, the rational brain knows what's best for us. The subcortical brain it also knows what's best for us, but they have different interests.

Bill Neto:

I think that in the clinical setting, we clinicians, we must recognize this conflict between instinctual and rational motivations. The instinctual brain, the subcortical brain is right. If you behave in a submissive manner, you're going to fall in the hierarchy. It's there fighting to avoid this fall in hierarchy. It's prompting oppositional behavior. It's there priming, triggering oppositional behavior.

Bill Neto:

This goes back to what I said before. The subcortical brain influences behavior in a very subtle way, in a way that we are not even aware of. I go back to the phenomenon of psychological reactants. The interesting thing about physiological reactants is that we become less likely to do what people are telling us to do irrespective of the value of the recommendation. Even in circumstances where we recognize that the recommendation is of value to us, that it's going to bring benefits to us, we still become significantly less likely to do it.



Bill Neto:

That's a clear example of the instinctual survival brain dictating behavior. It dictates behavior in a very subtle way, in a way that we are not even aware of. As we know, the subcortical brain, instinctual brain, does not have verbal capabilities, so we cannot actually put into words the words of the subcortical brain, what the subcortical brain is doing. It does have a great influence on behavior in general and also in the counseling setting.

Sebastian Kaplan:

This is such interesting material to explore and certainly different, but I think it'll be quite enjoyable for our audience to listen to and to think about.

Sebastian Kaplan:

Thinking more about the adaptation or the, I guess, the societal benefit in having social hierarchies which is what you have proposed, you and others have proposed that or maybe that's even accepted knowledge at this point, but that there is some advantage both to there being a dominant member of a society or of a small group and, I suppose, an advantage for people to be submissive, to accept that, at least for a period of time. Otherwise, it seems like there would just be constant conflict in trying to establish who would be the dominant member.

Sebastian Kaplan:

I imagine some people might think or maybe it was just me, I don't know, I was thinking if it worked, it was socially adaptive for people to eventually submit at some point, well why wouldn't it work in a healthcare context. Why wouldn't somebody just say, "Okay, I accept what you're saying. You have more power over me," and whatnot. I know you were just talking about the subcortical brain as a firing entity, but again, I would imagine that at some point, for a period of time, someone would accept their status in those earlier societies.

Sebastian Kaplan:

It does seem though that if you think about the context of healthcare now and a small group of hunter-gatherers, that you can't possibly equate the context of where a behavior change might occur when you see a doctor twice a year, perhaps, or a therapist, you might see them once a week. The rest of the time, they're spent living their lives with their families, loved ones, with all the systems that are around them, not to mention their worries, their fears, their traumatic histories, whatever it might be. It's just a much different context than following the instruction of a dominant member of a small group that is tasked with hunting for food or gathering food. It's just a completely different context. You could see why it might break down, the adaptiveness of being submissive. This is my layperson's effort at contemplating this evolutionary psychology material.

Bill Neto:

You've raised very good points, Sebastian. I'll actually address each one of them. In your first point you touched on was on the importance of hierarchies. I'm sure that some of the



listeners are asking the questions why are adaptations related to interpersonal hierarchies so powerful. Why do they guide human behavior in modern society? They're very valid questions.

Bill Neto:

One thing that I can say with total certainty is that the emergence of the ability to establish interpersonal hierarchies was the most pivotal step in the evolution of humans as social beings.

Bill Neto:

As I said before, when dominance differentiation is determined within a group, stable hierarchies are formed, and that reduces antagonistic interactions among group members, and it fosters group cohesiveness and also the group functioning as a social unit. It also allows, as I mentioned before, division of labor and the coordination of tasks and activities which allowed our early ancestors to forage more efficiently.

Bill Neto:

But later on; in the history of the human race, it allowed us to construct pyramids, it allowed us to build Stonehenge. We were able to move rocks that way many, many tons. In the modern world, this hierarchical organization enables us to build airplanes, cars, computers. They're all product of this division of labor and coordination of tasks that result from hierarchical organization. If not for interpersonal hierarchies, we wouldn't have survived throughout the ages. We wouldn't have accomplished, as a species, what we have so far.

Bill Neto:

Another thing that I say, and I go even further, is that interpersonal hierarchies is the glue that holds our society together. If not for this ability to form interpersonal hierarchies, we would not be able to live in society. There would not be a healthcare system. What is the healthcare system? It is a broader hierarchical organization, isn't it? You have the doctors at the top, we have the nurses, we have the nursing assistants. We always organize ourselves in hierarchies. Even at the country level, we have the government which is a big hierarchical structure. Even terms of countries, countries organize themselves into hierarchies, have the superpowers at the top and so on.

Bill Neto:

It's as much of relevance to today's world as it was to our hunter-gathering days. Obviously, we're no longer living in small groups. The adaptive mechanisms that allow us to survive, they are the same. If you stop to think, human existence is the structure around hierarchies. If there was no hierarchical organization, we would not be able to live together. Even our days, we would actually kill our species mates. There wouldn't be such a thing as somebody, a doctor telling a nurse what to do or a patient what to do. If there was no hierarchy, if we were all highly reactant and if we're not able to form this hierarchical organization, we simply would not be social beings. We would not be able to

live together or work towards a common goal. We'd never be able to actually do that. Have I answered your question, Sebastian?

Sebastian Kaplan:

Yes, for sure. We could talk about any one of these subjects for more time than we have today. That was helpful and better understanding in unpacking the importance of these hierarchies, both in ancient times as well as in modern times.

Sebastian Kaplan:

Thinking a bit, maybe more practically about the idea that a function of the subcortical regions that are there to, in part, resist another person asserting their dominance on us as humans. For clinicians out there, one of the ways that they might be able to understand client behavior in session or perhaps even outside of session, while one of the things that I really appreciate about thinking about things in this way is it offers yet another opportunity for us to view certain client behaviors in ways that aren't symptomatic of anything necessarily or syndromal or for us to pathologize this behavior.

Sebastian Kaplan:

We even have disorders, Oppositional Defiant Disorder. That's something that many, many children are diagnosed with every year. Not to say that those children don't struggle and don't need help, but even just thinking differently about a person's response to a parent, a teacher, a therapist, a doctor, and thinking a bit as actually something that's adaptive at some level or natural maybe even at some level, that in and of itself could be something that's really helpful for clinicians in helping them respond in ways that are more supportive and, I guess, relational rather than trying to defend themselves or to fight back, so to speak.

Bill Neto:

Definitely. I think your comments are very valid. When somebody behaves in an oppositional way in the counseling setting or in any setting, what we see is an adaptive system operating exactly as it was designed to do but doing so in an environment that does not necessarily match that's of the original environment that the adaptation evolved to operate in.

Bill Neto:

In a way, there is a mismatch between our ancestral environment and today's environment. Obviously, it is of greater value to display oppositional behavior when you are living in a small group in the African savannah compared to when you are in a counseling session. It's the same adaptive system operating as it was designed to do but in different contexts. That's what I mean, the subcortical brain does not know it is the 21st Century. It does not know it is the counseling session, it is the clinical setting, and it behaves in exactly the same way it did when we were hunter-gatherers.

Bill Neto:



From a Motivational Interviewing perspective, we counselors, what we have to bear in mind is that every time we tell someone what to do, every time we strongly advise someone to do something, we create a counter force, a counter force that comes from our instinctual survival brain, and a counter force that is triggered not consciously. The more we push, the greater the push-back. We create this counter force that wasn't even there in the first place.

Bill Neto:

It's not dissimilar to physics. I remember from my high school days, my physics teacher telling me that for every action, there is a reaction. If we punch the wall, the wall will punch us back with the same amount of force.

Bill Neto:

It's the same with psychological counseling. The more we push the person, the more we put pressure on someone to behave in a certain way, the greater the counter force. We create, we counselors, create this counter force that didn't even exist. That's the good thing about the advantage of Motivational Interviewing is that we do not create this counter force. We start the Motivational Interviewing session by signalling to the client there will be no social dominance contest here. Your social position in the social hierarchy is safe and you are physically safe. That really allows for the counseling session to go smoothly.

Bill Neto:

I think that most Motivational Interviewing counselors will agree with me. One thing that impresses me the most about Motivational Interviewing is how quickly the client relaxes in a Motivational Interviewing session. The reason the client does so is simply because we are sending the signals to the client, "I'm not going to challenge your social status, your dominance status. You are safe." When we send these signals, we actually communicate into the subcortical brain. What we are telling the subcortical brain is there is no need to activate your instinctual survival mechanisms because you are safe. Do not trigger oppositional behavior because you are safe. Basically, that's what we are telling the subcortical brain.

Glenn Hinds:

Again, I can remember we taught the idea that in Motivational Interviewing, when we spoke about resistance, that the practitioner was to recognize that resistance was a practitioner's issue, that no one would describe it as discord, that discord is that it's recognizing that I as a practitioner, am playing out of tune with the client's music and it's me that needs to adapt what I'm doing to reconnect with them. In some ways, it's recognizing that any resistance that they were experiencing, any reactants or any psychological reactants or any response to us that isn't conforming to a peaceful environment is itself, if we're paying attention, a message from the client on an unconscious level, "I do not feel safe right now, and I am asserting my need to feel safe in this environment and I'm going to react this way."

Glenn Hinds:



I suppose one of the things then is the other thing that came up for me as you were talking was as we become more aware of that as practitioners, it helps us to recognize when we're reacting to the threat of the client reacting to us and we get into the animals rutting in the middle of conversation which is not going to be very productive.

Glenn Hinds:

Again, this whole process is not about understand clients to change them. It's about helping us recognize that we are the same as they are, but what we bring to the relationship is an understanding of what's happened for them and create an environment for them to feel safe with us, for them to flourish, to become who they can be.

Glenn Hinds:

That whole thing about trust, if I can create a degree of safety where the subcortical hasn't been triggered, it's silent and allows the frontal cortex to come into action and to start resolving the problem for the client themselves, I have to get out of their way.

Glenn Hinds:

What you're saying is the best way to help someone to grow is for you to take a more humble setting for the client where you trust that they're going to make the right decisions for them. You may not always agree with them, but that's interesting in itself. This is not a competition that you're in. You're here to help. Being in competition interferes with your ability to help.

Bill Neto:

Exactly. That's precisely it, Glenn. It's a very good summary of what I have been talking about. One issue that you mentioned in the beginning is that it takes two to resist. Usually when we talk about resistance, we blame the client. The client doesn't want to change, but it takes two to resist.

Bill Neto:

One thing that you mentioned is that exactly the same mechanisms that are active in the client's brain, will also be active in the counselor's brain. It's a matter of having this understanding of what's happening in the counseling session so that we can actually detect in ourselves in our own selves, we clinicians, when we are having a reactant response, when we are having that motivation to be oppositional towards the client. I think that as clinicians, if we are trying to recognize it, we can actually bring it under the control of the rational brain if we recognize it and then we can behave rationally.

Bill Neto:

Also, having this understanding that the client is being oppositional, and that's human nature. It's not the client being difficult. It's not the client not being serious about therapy. It's simply oppositional behavior. That's what we human are built to behave. Oppositional behavior is hardwired in the human brain. That's one of the things that we need to keep in mind, we counselors. We need to be aware of it when we enter the counseling setting. These dynamics that you mentioned, Glenn, between the counselor and the client is very



important, this understanding of the underlying mechanisms that are active in the client's brain and also in the counselor's brain.

Sebastian Kaplan:

Had a couple different thoughts also there. One is if you think about it, all of the sources of, I'll use the term negative feedback, on the part of a clinician either from their client, so their client may not show for a session. Maybe a client has an opportunity to review them online or something and gives them some poor rating. Maybe in the session itself there's push-back or an expression of lack of faith or belief in what the clinician's proposing. All of these would be threats to the clinician's own sense of professional self-worth, self-esteem perhaps. It could even go so far as if you have enough of these experiences strung together, the person might start feeling threatened of their job perhaps and maybe feeling like their job is in jeopardy.

Sebastian Kaplan:

Even as trainers, if we get feedback that's negative, that's, again, a threat to us and how our tendency might be when that subcortical part of our brain's firing to maybe dismiss it or put that back on the client or the learner. When we do that, if that's our initial reaction to the negative feedback that's coming our way that protects us, it also prevents us, perhaps, from using the more thought-based parts of our brain to consider the feedback that we're getting, to think critically and maybe more effectively about how we can use this feedback to make our treatment better or to make our trainings better, lots of places where we can go from a clinician's standpoint.

Sebastian Kaplan:

Going back a little bit further to your comments about if you push, you get pushed back, the punch the wall, the wall punches you back, it seems like a way of thinking that clinically is if you try to push the patient or the client towards change, they're going to maybe naturally push you back or at least that's something you might expect.

Sebastian Kaplan:

It would seem also, I think, that pushing and pulling as opposites, and you can imagine that there may some tendencies to pull a client towards change rather than push them. The way I was thinking in my mind was when we teach affirmations, for instance, we make sure that an affirmation is a genuine expression of how we view the client, but based on evidence, based on something tangible, not that something that we're just inventing out of mid-air that would come across as disingenuous.

Sebastian Kaplan:

If we're being disingenuous with our affirmations or if we're being overly cheerlead-y about a person's abilities without really knowing that person, that might feel like we're pulling them towards change. I think you might also expect that the person might feel like the clinician's not really understanding them or getting them or valuing them, and they may pull back, so to speak. I think that pushing back idea also works with pulling as well.



Bill Neto:

I completely agree, Sebastian. If we stop to think what do we achieve when we affirm a client, we make the other person feel valued, don't we. We make the other person feel accepted. It helps to build that sense of self-worth or of self-efficacy. That sense of self-worth is very important because when we get that message across that you are worth listening to, so that's a very powerful message. It makes the client feels safe. It quiets limbic arousal, and it allows for the thinking brain, the cortex, by engaging in reasoning and decision-making. That's very important.

Bill Neto:

The minute that we try to affirm a client, let's say that we praise the client, the affirmation comes across as not being genuine. Let's say we praise the client, "I'm really happy that you gave up smoking. Congratulations." What we are actually saying to the client is that "Fantastic. I was able to manipulate you. I was able to get you to give up smoking." That's an inappropriate affirmation. It's an affirmation that will have the reverse impact. The person will feel manipulated. That's where we have to be very careful when we affirm someone, that we're actually being genuine.

Bill Neto:

You touched on a subject that's very important because Motivational Interviewing is not only successful because we don't tell people what to do, it's also successful because we use the Rogerian client-centered techniques. They're also very important for behavior change. Bill Miller and Steven Rollnick, they talk about the spirit of Motivational Interviewing. The Rogerian techniques, they are very much part of the spirit of Motivational Interviewing. What do they do? The Rogerian techniques, when used in Motivational Interviewing, they enhance the client's perception of social support. Obviously, that makes the client feel safe. It reduces that activation of our non-conscious, instinctual, interest specific survival mechanisms, so they too serve to show the subcortical areas of the human brain that the counselor, the potential social opponent, cares about the individual and will not harm him or her. It enhances this feeling of being social hierarchically and also physically safe.

Bill Neto:

Safe here is the operative word. As we all know, life before society was very brutish, was very short. We humans, we used to kill each other for food because there were no laws, there was no government to force us to behave. You really need to place this into context why safety is so important for humans because that's the environment that we adapted to live in. The Rogerian techniques, they are very, very important.

Bill Neto:

If you think back about Carl Rogers, how he was really big in relation to genuine empathic response and how to show true concern about the person, to show that we actually understand the person's world. All these techniques, they actually, as I said before, they enhance that perception of the counselor caring about the client which enhances the client's feeling of being safe.



Bill Neto:

A non-judgmental approach, for instance, by the counselor, it serves to minimize the conscious or non-conscious perception of negative feelings towards the person, and what does it do? It mitigates the activation of this interest specific defence mechanisms that can hinder behavior change.

Bill Neto:

Also, Carl Rogers, he always talked about genuineness towards the client which requires the counselor to actually care, to actually be concerned and to actually understand the person. What Carl Rogers said in his last book was that they are not actually techniques. They're actually a way of being. He was right. As we know, we have the amygdala in our primitive brain that continuously is scanning potential social opponents, is scanning everyone around us for signs of threat. In a genuine caring relationship, these signs of threat will not be detected. It will quiet the limbic system.

Bill Neto:

The Rogerian techniques, they're also very important. They are part of the spirit of Motivational Interviewing also the micro counseling skills, how we use the micro counseling skills to make the client feel heard, cared for, feel understood. To do that, we use open-ended questions and reflections and affirmation summaries. Active listening skills, they're very important. When we use active listening skills, what we are signalling to the client is, "I respect you. I respect what you have to say. I respect your intelligence. I am actually interested in finding out where you are coming from. I'm interested in what you mean, in what you are thinking." Above all, it signals to the client you are worth listening to, as I mentioned before. The Rogerian techniques, they are also active ingredients that make Motivational Interviewing such a successful counseling strategy.

Glenn Hinds:

I've just written so many different things here from what you're saying, but what strikes me is it's almost like the engaging process in Motivational Interviewing essentially is soothing the subcortical and the limbic systems. That's what we're doing in the engaging process is silencing the part of the client's brain to let them feel safe. Until that happens, there's no point going anywhere else. Once we've settled that part of the brain, then we can engage the frontal cortex, which is where the focusing starts, what's the issue here and then the invocation, "What do you want to do about this. What are your ideas from this perspective?"

Glenn Hinds:

The frontal cortex doesn't get a chance to get really into that if the person feels threatened. What strikes me about that is what life has this client lived before they come to see us, and how safe has that environment been for them? I guess some people's defence mechanisms are much more sensitive to small vibrations in their environment because of the threats that they've experienced growing up and it's just they're heightened, and they need to keep themselves safe. That's how they've survived this long even in those early threatened situations.



Glenn Hinds:

One of the thoughts coming to me is we often talk about the righting reflex in Motivational Interviewing, and I wondered, is that potentially one of the triggers. Even the idea that it's a righting reflex would suggest that it's arises at an unconscious level, that we as practitioners have to be conscious as you're describing it, we have to pay attention to ourselves.

Glenn Hinds:

I know that when I have examined my righting reflex, my righting reflex is I want for you to do something that ultimately makes me feel better. If you would just stop smoking, then it would tell me that I'm a good practitioner, and I can feel good about myself, whereas the work that I need to do is what I need to do to feel good about myself and then go to help other people so that I don't need you to change to make me feel anything which is that humbling, that compassionate perspective.

Glenn Hinds:

Again, just from this evolutionary thread that you've created, it just strikes me that given the fact that the Industrial Revolution was only over 200 years ago, and Roger's techniques were only just 80 years ago, it's almost like that in itself is you're describing we're still very early in our awareness of this and that these types of conversations, this type of research that you're doing is essentially part of the human development of the higher thinking. In generations to come, much more of this will become much more natural to people. We are learning it now as a species because we're only learning to understand it, and then we can begin to develop it, and it'll become much more natural.

Glenn Hinds:

Like the printing press and now we're on computers, it'll take a bit of time for this to happen, but our audience are part of the jigsaw. Let each person listen to this podcast, each person listen to what you're describing as an aspect of that human development by working on themselves, by working on their relationship with themselves and understand when they're being triggered and what could soothe that part of their brain can then help them be much more supportive and containing of a client that will then help them grow to become who they are. That's a reciprocal journey. I'm on a journey to understand why I do what I do as I help someone else discover why they do what they do.

Bill Neto:

Precisely, Glenn. As you mentioned, our adaptations, they are mainly of value to an existence as hunter-gatherers. We haven't had enough time in the history of the human race to adapt to the modern world. The righting reflex is also an expression of that. If there's a problem, we grasp it now as we see it and we provide advice. That's what we should do. It's interesting how it's called the righting reflex because we do it without thinking. It's not really under correct control of the rational brain. It's been primed by our subcortical brain.



Bill Neto:

Because there is this mismatch between our adaptations and the modern world, the way around it is for us clinicians to be aware of what mechanisms are influencing psychological counseling. If we have this awareness, then we can actually bring our behavior, we can bring the doings of the subcortical brain, of the instinctual survival brain under the control of the rational brain and we can actually do something about it.

Bill Neto:

I completely agree with what you were talking about, Glenn. One thing that I'd also like to mention very briefly is that we know that Motivational Interviewing is not the only counseling technique that's effective. We have a number of counseling techniques: CBT, 12 Step Program and so on.

Bill Neto:

An important question also is these techniques are also effective, so how do you explain it. An explanation for that is that they too act on the same mechanism of change that is primarily targeted by Motivational Interviewing. They too may quiet limbic arousal allowing the subcortical brain to engage in decision-making, in raising in decision-making. Anything deep to change environment can be created outside a Motivational Interviewing framework, then the logical question would be why to use Motivational Interviewing in the first place.

Bill Neto:

My answer to that is that Motivational Interviewing, we start counseling by deactivating these non-conscious instinctual mechanisms that were in the behavior change. We do it from the very outset of psychological counseling. We know that even a 15-minute session of Motivational Interviewing can have a very long impact on behavior that's apparent two years down the track. With other counseling of other orientations, you would take a much more elaborate process to gain that sense of safety.

Bill Neto:

In Motivational Interviewing, we start by signalling to the client, "I'm the one that's going to take the lower place. I'm not going to struggle with you. There'll be no dominance struggle." That's a good thing about Motivational Interviewing.

Bill Neto:

Also, as we all know, stress, what does the stress do? It sensitizes our instinctual survival mechanisms. That's something that we have known for many years. It sensitizes the fight or flight reaction and it also sensitize our positional behavior which has been triggered from our instinctual survival brain.



Bill Neto:

One thing about Motivational Interviewing is that the client becomes really relaxed from the very outset of counseling. We're actually avoiding that initial stress that we'll sensitize our instinctual survival brains which make Motivational Interviewing a very powerful technique.

Bill Neto:

One last thing about it that I want to mention is that Motivational Interviewing is also of vital importance for clients that have been coerced into treatment. Most counselors, most therapists will be able to relate to me a lot of clients, they undergo psychological counseling because they have been coerced by family members, friends, healthcare professionals, by the criminal justice system.

Bill Neto:

For instance, as we all know, in the criminal justice system, for someone to get parole, they have to engage in intense psychological treatment to address the offending behavior. What do they do in the correctional setting? They provide offenders with what they call preparation course which is Motivational Interviewing.

Bill Neto:

Through Motivational Interviewing through directing the client's cognition towards making the decision to actually engage in such intensive psychological treatment, they get to believe that they chose to take part in treatment by their own accord. That averts that instinctual oppositional behavior. It averts that antagonism towards the intensive psychological counseling which enables the person to actually take part in the psychological counseling actively and to gain a lot out of it. Motivational interviewing is also very important in this respect.

Sebastian Kaplan:

Part of why MI can produce fairly quick results or can be viewed as a brief intervention that doesn't require years of treatment and that sort of thing, is the style, the spirit, the attitude that the practitioner exhibits and, thus, that is less threatening.

Sebastian Kaplan:

I was wondering if you think that the reflection, which is the main way that MI practitioners communicate with their clients, and if we think about what a reflection is, since it is basically a way of either presenting verbatim what the client has just said or repackaging it in some way, that in and of itself is less threatening because that's not something that's coming from me as a practitioner, it's coming from them. They are hearing it back. It is their words that are presented back to them, whereas a question or certainly directives or information, certainly information that comes in an unsolicited way, that is viewed as something that's coming from the outside, like some kind of external organism that's invading them.



Sebastian Kaplan:

Maybe that's a way of understanding why a reflection, along with the MI spirit, you put those things together and it could be a way to understand why MI produces the results that it does and in quick ways very often.

Bill Neto:

I agree with everything you've said, Sebastian. I think reflections, as you mentioned, they're very important. They are an integral part of Motivational Interviewing. It's part of the spirit of MI, of making the client feel understood and also feel valued.

Bill Neto:

Also, we as counselors, we know that we can make reflections a lot more powerful. We can reframe it. We can reframe it in a very positive way. It is all part of making the client feel safe. As I said before, safety is the operative word. We are adapted for a very harsh environment. That's why safety is so important. That's why Motivational Interviewing is such an effective treatment. It achieves that sense of safety and very quickly.

Glenn Hinds:

So often is the case, we could continue to talk, and it's fascinating and there's so many more questions and more avenues to follow, but I'm conscious of our time. What I'm leaving this with is just that reinforcing of when we as practitioners meet what we have described as resistance, the most effective thing to do is meet resistance with non-resistance.

Bill Neto:

Exactly.

Glenn Hinds:

So, of us not to react to your reaction and to try and understand the whole process of Motivational Interviewing is that desire to be understanding of the other person. That's the growth for me as a practitioner, to get to a place where I don't need you to do anything for me. I'm here to serve and support you and to get to a place where I actually believe and know in myself that you have the capacity, you have the means to resolve this problem for yourself. My job is to be with you and to explore your word with you without me trying to fix it for you.

Glenn Hinds:

I guess one of the ways of understanding this is I remember learning that idea of if you're doing a jigsaw or you're doing Sudoku or something and somebody comes over your shoulder and tells you where to put the piece, there's a reaction. When I do that in my training groups, very often people say, "I don't like people doing that because I didn't ask you for help." The invitation has to be there. "Can I help you, and I can only help you when you give me permission to do that."



Glenn Hinds:

Again, it's an invitation for me to continue to grow to a place where I can value you for who you are even when you're doing things I don't agree with. When I can create that space, then what you're doing that I consider wrong may be also things that you're not happy with yourself, and you will make the changes because it doesn't suit you, not to suit me. I think that's the shift that you're describing. That Motivational Interviewing offers and you're offering as an insight into why human beings behave that way.

Glenn Hinds:

Thank you for that. That's been wonderful and certainly very stimulating. As we always do close to the end of a session, we always ask our guests, all of them, this that you've been describing, is there anything in particular that you're doing at the minute that you're exploring at the minute, whether it's MI related or not, that you want to share with us for a few minutes?

Bill Neto:

As you know, my passion is evolutionary psychology. That's something that I've always been very interested in. I think that my work is focused mainly on the client. I think that in the step forward now is actually understanding the impact of these mechanisms that we have been talking about today on the counselor themselves. I think that's very important. As we mentioned in this session, the client's behavior can trigger these unconscious, instinctual mechanisms from the counselor. That will have an impact, obviously, on the counseling relationship.

Bill Neto:

I think that's why we have so much within variability when we're actually comparing different counseling techniques of different orientations. Usually, we find a lot more variability because some clients, they can trigger that mechanism on the counselor. Other counselors, they instinctively diffuse it.

Bill Neto:

I think that's the next step is to actually understand the impact of these mechanisms on the client, on the counselor, and understand this dance of dominance that occurs in the counseling setting, taking both into account, the counselor and the client. I think that's the way forward.

Sebastian Kaplan:

Really interesting stuff. We look forward to some of your future work. Perhaps we'll have you on once you've worked out what's going on with us practitioners in the room.

Bill Neto:

It will be my pleasure, Sebastian.

Sebastian Kaplan:

Towards the end, we also ask our guests if you would be willing to have people contact you, and if so, with questions, of course, and ideas, and if so, how can people contact you.

Bill Neto:

You can contact me on Twitter, deneto4. That is my Twitter address, or you can send me an email. My contact details are actually on the article, Understanding Motivational Interviewing: An Evolutionary Perspective. I've got all my contact details there. I'm quite happy for listeners to contact me.

Glenn Hinds:

Fantastic. Thank you, Bill. Again, just to reinforce, if having listened to this episode, if you have any questions for us or ideas for future episodes, you can contact us on podcast@glennhinds.com, or you can have conversations with us and the rest of the people here and the group @ChangeTalking on Twitter, at Talking to Change on Facebook, and on Instagram, it's Talking to Change Podcast.

Sebastian Kaplan:

Excellent. Bill, thanks so much for today. It's been wonderful. It's been fascinating. It's leaving us with many, many questions that we'll certainly enjoy mulling over. Thank you for your time, Bill. We appreciate it.

Bill Neto:

It's been my great pleasure. Thank you.

