

## Cognitive PM and Military Planning

**0:00:00.0 Kendall Lott:** Comments discussed today represent opinions of the speakers only and are not the position of the Joint Special Operations University, US Special Operations Command, the US Department of Defense or the US government.

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**0:00:18.3 Announcer:** From the Washington DC Chapter of the Project Management Institute, this is PM Point-of-View, the podcast that looks at project management from all the angles. Here is your host, Kendall Lott.

**0:00:28.6 KL:** Hey, hey. Welcome back to a fall, as in autumn, of PM Point-of-View, my PMs, as we record our October episode of PM Point-of-View. Co-host Mike Hannon and I get to welcome back a repeat offender... I mean guest, Josh Ramirez of NeuralPlan fame. And we welcome an extension of our behavioral PM approach to, well, all the way out to the US military today. So, with us today, we have Jay Macias, Vice Provost of Strategic Operations at the Joint Special Operations University. I think I got that right. He's going to tell us later. Welcome, gentlemen.

**0:01:02.4 Jay Macias:** Thank you.

**0:01:03.3 KL:** So where are each of you calling in from? Mike?

**0:01:04.0 Mike Hannan:** Bethesda, Maryland. Gorgeous fall weather here.

**0:01:09.1 KL:** It's the beginning, isn't it? Josh, where are you calling in from?

**0:01:12.1 Josh Ramirez:** Washington State, about two hours south Spokane. Not quite fall here yet.

**0:01:16.2 KL:** Oh, yeah, yeah. And then it goes right to winter, right?

**0:01:18.8 JR:** Oh, yeah.

**0:01:19.7 KL:** And, Jay, welcome to our show and where are you calling in from?

**0:01:22.9 JM:** Beautiful sunny Tampa Bay, Florida.

**0:01:25.6 KL:** Well, we've got the ends of the country covered here it looks like. Hey, Josh, I wanted to have a quick comment for you as we started here. Since the last time we've recorded, which was not that long ago, I understand you've had quite a cohort coming through the whole NeuralPlan methodology here. Catch us up on what's happening there.

**0:01:40.5 JR:** Yeah, so there's nearly a hundred women from Brazil from a women's project management organization there that are essentially taking the course all at one time. And they speak

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Portuguese, I believe it is in Brazil, so they have set up translators and are going through the course one week at a time as kind of a joint effort. So, it's pretty interesting and fun endeavor.

**0:02:05.6 KL:** Congratulations on the expansion and use of the NeuralPlan. And also, I'm assuming you're going to pick up some good feedback. It's amazing to think there'll be a hundred people out there doing project management and thinking of it in a new way.

**0:02:16.5 JR:** Oh, yeah.

**0:02:17.2 KL:** When do they finish up?

**0:02:18.8 JR:** They're planning sometime in November.

**0:02:22.0 KL:** Okay. So, this is happening fast. So, we'll know where to go find some new and better resources.

**0:02:26.2 JR:** Yeah, if you go on LinkedIn, look up Vanessa Guitta. I probably did not say her name right, G-U-I-T-T-A, but she's leading that effort. So yeah, follow them and see what they're up to.

**0:02:38.3 KL:** Excellent. Well, congratulations and I'm happy for you. And I think you're right, when we talked so many years ago, you were part of the cohort of people leading the change to a project management 2.0 way of thinking and farther, and I think that's really helpful. So, we're going to find out how we have one of our first pick-ups into a new space today. So, Jay, lay it out. Who are you and what do you do?

**0:02:58.3 JM:** So, my name is Jay Macias. I've had the honor and the privilege of serving our nation for over 33 years. I started off my career in the Marine Corps, and retired after 31 years. Then I did a couple of years in the private sector as a government contractor and now, I am a government civil service employee, working as the Vice Provost for Strategic Operations at a joint professional military education institution, where our focus is educating special operation forces and leader development. So that's kind of a little bit about my background. And I have a doctorate in organizational leadership, so while working in this space, I am essentially the senior project manager, strategic planner, for the university, ensuring that their resources are managed properly and that we maintain our academic alignment going forward. So definitely, a lot of fun in a good way of mixing the military and project management, and strategic planning world into one space.

**0:04:04.5 MH:** So, Jay, let me start off right off the bat then. A famous quote often attributed to Dwight Eisenhower is "Plans are useless. Planning is indispensable." Please comment.

**0:04:17.4 JM:** Yeah, yeah, I mean, that is true though. Planning sets the stage for thinking. I had an old boss that used to say planning is anticipatory decision-making, right? So, you plan so you could anticipate decisions in the future. So planning is everything. And there's also another famous quote that says, "No plan survives first contact with the enemy," right? That's Clausewitz. If you kind of keep those two things in mind, things like the NeuralPlan are really critical, because they help you think about planning and then thinking about that space going forward. So that's why I'm super excited to have this conversation with you guys and super excited to claim to be one of the few first graduates of the NeuralPlan.

**0:05:00.8 MH:** Let me take that to the next logical question that I think a lot of people have. A lot of people, especially in the Agile and Scrum worlds, hear things like that and say, "Yeah, plans are useless. Why bother planning?" They missed the part that planning is indispensable. So, for people that might not... Might be kind of caught in this conflict, like, "Should we spend a lot of time planning or not?" If the plan doesn't survive first contact with the enemy, why bother?

**0:05:21.0 JM:** Yeah, I mean, 'cause again, it's anticipatory. It helps you frame a general direction. It helps you think about what you may encounter in the future. So, I would tell you, even in the military, we have the same discussions. We logically are having these intellectual debates about, "Should we follow the traditional military planning model that's very logical in nature, that some argue would kind of predict an end state that you can't predict until you actually go down the road? So why waste our time doing that? Let's just be more adaptive and agile and apply more of a design kind of thinking?" And there's that debate going on and then there's the guys in the middle which kind of say, "Hey, we can do that. And why don't we look at it more from a systems approach and look at the connections between issues?" And then there's people like me who say yes to all of the above, right? I'm an and guy. I have a boss that says it doesn't have to be either, or, it could be and, right? So...

**0:06:21.1 MH:** Right, so are you saying you just have to know when to use which?

**0:06:25.3 JM:** Absolutely. You have to kind of... First you have to know the context, right? And decide what to use it with, and you could use all of them together, right? You could have human center design at the same time that you're doing logical, detailed planning. So, for your business guys out there that argue about waterfall and agile and which one is best, we have the same kind of debates in the military. We just call it the traditional military planning process. Design thinking, systems thinking, it's the same debates of which way to go, where I think this conversation and what the NeuralPlan does or could do for the military space is work around the margins of those discussions, right? Don't try to throw out those planning processes, but say, how could NeuralPlan thinking behavioral planning models help to underpin some of those processes and make them better, not to come up with something new. The military like everybody else, we're tired of new ideas, we just have to figure out how to do some things better and only change when we have to.

**0:07:23.8 KL:** I'm going to want you to put a pin in that right there. Mike, you had a follow on?

**0:07:27.0 MH:** Yeah. So, some people take that and say, oh, so now I got to learn everything and apply everything and I somehow magically have to know when to use which, that's not helpful. Give an example of when I shouldn't use a predictive approach and when I shouldn't use an iterative approach.

**0:07:41.9 JM:** Yeah. So, from a military context perspective, depending on the situation that you're dealing with, for example, let's just say you're dealing in an environment where there is a lot of unknown variables and planning a clear end state may not be as logical, 'cause you just don't know what the environment is going to look like, because it's not as clear. Then you don't want to have that fixed end state. Now, if your mission is take that bridge, take that hill, destroy that airfield, whatever the case may be, that end state is fairly clear, right? So...

**0:08:19.3 MH:** Let me pause right there. This is a critical point that I think a lot of people in

traditional practice miss that I think the military doesn't often miss. And that is, let's make sure the objective is clear and if it's not super clear or it's shifting a little bit, like it's not so simple, like take the airfield or whatever, then there's... I think the military does a good job of teaching commander's intent, right? So that way when you're operating on your own and the comms are down and you got to just make a quick decision, you can't just go run it up the flag pole. You understand what the intent is here. So still in my mind, that's like making sure the objectives are clear.

**0:08:54.1 JM:** Absolutely. And I think things often are clearer, I won't say that they're not difficult, 'cause they're different things, right? They're clearer at the tactical level, right? Because you're trying to meet an objective that may be limited in scope, right? So, those tend to be very clear, sometimes, they may be very difficult and very complex, but they're clearer when you know you've achieved that objective. The further back you get more at the... In the military we talked about the tactical, the operation of the strategic level of it. As you start to get things towards the operational level and the strategic level, you start to introduce more uncertainty and more variables. That's when you probably want to be more open in the way you develop your planning models and apply some of those other concepts, like design thinking, multiple end states and those kind of things. But as you get down to execution level and your scope is a little bit smaller, your timeframe is a little bit smaller, then you're right, it's a little bit more predictive in nature as you move forward.

**0:09:58.7 KL:** Let me take it from here then for a second. I'm glad you talked about it from like the higher level and strategic and levels of knowing. We've covered that actually in the systems engineering and some of the R&D questions as well. Mike, you and I did from way back when there's an R&D problem, it's very different than having very specifics of something that you know how you've produced before and that changes how you do your planning and the nature of it. But this is not a podcast strictly about, or an episode strictly about planning. So, I want to go from planning for just a second to build in here a bit. Jay, why the connection to this NeuralPlan then and the cognitive and behavioral sciences applied to the aspect of leadership development? Why the connection?

**0:10:38.1 JM:** Yeah, because from a basic theory perspective, right? War is best understood as a social phenomenon, right? It's an application of force, but it is truly a social phenomenon. A conflict of wills is what Clausewitz would call it, right? So, when you think of war in that perspective and you're talking about a social phenomenon and a conflict of wills, you're essentially saying, it's a human endeavor, right? It's a human endeavor. And when you're talking about human endeavors, you're talking about behaviors and you talk about neuro kind of thing. So, when you put the context of planning into a social phenomenon and a conflict of wills, then naturally you need to understand what does that mean at a human level? And the NeuralPlan concepts of cognitive biases, anchoring, forecasting, escalation of commitments, attribution error, those are all human behavioral aspects that go into the way you developed your planning. It's not necessarily a math problem, when you talk about military planning.

**0:11:41.7 JM:** Some of them are. I need to move so many pieces of material from point A to point B, then that is truly an engineering problem. But when you're talking about campaigning and things at the operational level of war, when you're talking about a conflict of wills, you now have to talk about the human aspect of it and you better start thinking about how do humans think and how do humans make decisions and what impacts and affects those? And more importantly, what biases do we have that we introduce into our planning and forecasting models when we lay these things out going forward? So that's what's interesting and fascinating about things like NeuralPlanning. It's not

just a logical step process, it's thinking about thinking, right? It's metacognition and how do you apply that into the planning process?

**0:12:30.6 KL:** I think you must have completed the course 'cause you've started using the word planning and forecasting.

**0:12:35.3 S?:** And metacognition.

[laughter]

**0:12:38.4 JR:** Metacognition.

**0:12:38.9 KL:** Yeah. Enter Josh. So, Dr. Ramirez, what are you thinking?

**0:12:42.5 JR:** Well, so neuroscience, behavioral science, to some people that kind of sounds like a fuzzy, "Oh, sit on the couch and tell me how you feel" type ideal, but there's so much more to it when you think about the brain as almost like a computer. And so, the brain is like an information processor. And so, as information comes out, it goes through all these filters of cognitive load, psychological safety, cognitive dissonance, etcetera. And so, from a military planning perspective, project planning perspective, what have you. If you're making a prediction or you're looking into the future and making decisions, as that information comes through, you have to realize a lot of that gets filtered out by this, what we call, cognitive moderators, which you can kind of think of them as filters of thinking.

**0:13:29.5 JR:** And so, it's so important, especially from a military perspective, if the decision being made is critical, and in most cases in the military it is, you want to be able to process the information clearly and also let the information in. So, the brain is constantly making associations, but under cognitive load or time pressure, maybe not all the information is coming through. So, you've got to clear the way for the information to come through, and then once the information comes through, you have to be able to accept it and process it. And so, there's so many different components that we don't realize, because our brain's just kind of filtering them out. It's kind of like the unknown unknowns, and then when you know that the unknown existed, you're kind of like, "Well, duh, it was there the whole time." Well, in many cases, the brain is processing out all that information and you just never even knew it existed. And so, I think that's very important to military planning.

**0:14:29.7 KL:** What I'm struck by when you say that, now that we know... We've talked about planning as important, you've just talked about how this new way of thinking about it is so important 'cause it introduces so much. When we talked earlier in our scoping session, Jay really laid out the nested military planning, and I never really thought of that. Jay, I was wondering if you could give that to us. I'm so used to thinking of it as executives have a strategy, and then they direct people to start figuring out how to execute, but it was a lot more complicated [chuckle] when we start at the National Defense Strategy level. It sounds like we have a lot of opportunity for planning concern, so what Josh is highlighting becomes very important. Tell us a little bit about that for those of us who don't speak military.

**0:15:06.3 JM:** Yeah, so from the military context, from the national security context, understanding the climate and the culture and the environment is critical, if you really want to talk about what does

military planning look like, and what underpins some of those things? So, if you first start from the environment perspective, it's very top-down driven, so the military planning construct starts from strategic documents, the top of the document chain is the national security strategy, that normally comes from the President of the United States. And in that document, it lays out what does the United States as a whole of government need to do to establish national security, you know, model a way forward? That eventually transitions down for the military, through the National Defense Strategy, right? That's where the Secretary of Defense now says, I'm going to take the guidance that I'm receiving from the commander in chief through the National Security Strategy and put it through the lenses of the National Defense Strategy.

**0:16:11.0 JM:** Then it comes down to more focus to the military, as part of the National Defense structure, through the National Military Strategy, and then what are the military forces going to do or need to do to nest within the National Defense Strategy, which is obviously nest within the National Security Strategy, and through the National Military Strategy, the regional combatant commanders. So, every major region within the globe is assigned to a regional combatant commander, Central Command, Pacific Command, Africa Command, that kind of oversee what are the national security issues in that area. Those combatant commanders develop campaign plans for that region. So, if you could see from that perspective, it's very top-down driven, before you actually execute a plan. So, let's just say, if you took that construct all the way down to recent campaigns in Afghanistan and Iraq, it will come down all the way from the President's strategy down to the Combatant Commander at Central Command for what the campaigns will look like in Afghanistan.

**0:17:23.1 JM:** So, you could see that there's a lot of human interaction and direction that's coming down from that construct before you actually execute a plan of action to achieve a certain objective.

**0:17:35.3 MH:** So, I got to ask, Jay, there's command and control cultures all over the place, right? And not just in government or the military. Although a lot of historians have pointed to the fact that a lot of the corporate cultures from like, post-World War II borrowed heavily from the command-and-control mindset that they got from their military experience. What you just described sounds a lot like right up the middle with command and control, but yet I know for a fact that you're a big believer in giving situational awareness and some decisional authority to those closest to the fight, or closest to the task at hand, to secure our national security. So, how do you guys at Joint Special Operations University talk about that conflict? When do we need to wait for the command structure to tell us what to do? When are we free to just act based on trust?

**0:18:27.0 JM:** Yes, I'll speak in general just from a larger military context. The focus is always on mission-type orders, so any military commander will tell you that the plans are a framework, that execution will always be at the tactical commander-level execution because they have the greatest insight and understanding of what needs to be done and not done within the rules and the parameters of what the plan tells you you're supposed to be doing and not doing. So, the plan is what needs to be executed but the tactical execution will always be at the lowest level of command and that could be a platoon commander or that could be a company commander or a battalion commander. So, you're not constrained by the fact that the plan says, "Do X, Y and Z." At the end of the day, those rules of engagement will always be delegated at the execution level of the lowest level of command. There are obviously challenges with that, obviously, as we move into more of an information age, the higher-level commands have greater visibility of what's happening at the tactical level, so there's always that natural tendency of wanting to deep dive into what's happening

at the tactical level.

**0:19:35.9 JM:** But most commanders understand that the commander on the ground will always have the greatest level of understanding, so therefore they are given the greatest amount of latitude to make those command-level decisions. And that's even greater at the special operation forces level where the training for those individuals that are very high level, and that's some of the things that at the Joint Special Operations University, we try to focus, is how do we educate SOF operators to operate at that level of thought and intellect. And that's why education is so important, specifically now as things are becoming more complex, not less. War has always been a complex endeavor, but as you introduce things like technology and more of a blending of complexity, we like to term it as compound security threats where there's a more blending of not simply the traditional military on military, but it's things like social, diplomatic type of things. Our soldiers, our sailors, our marines need to be more educated and be able to think more critically than perhaps ever before, just because that is what the environment is demanding, and that is the focus of what we are trying to do, at the university where I work, is to focus on that level of leader development and education.

**0:21:00.8 MH:** Josh, you look like you wanted to comment...

**0:21:02.0 JR:** Yeah, so basically, in most situations, you are making a decision about the future next steps, a prediction, although from a project management perspective, someone might say, "Well, this is a prediction, this is not." But if you're making a decision, any decision about the future, you're making a prediction. And so, no matter whether you're high-level command or down on the field, there's always degrees of decision-making about next steps or predictions about the future. Would you say that's an accurate statement?

**0:21:32.0 JM:** Yeah, absolutely. As you point out, in your plan life, during the planning stage, you're predicting before you execute, which is kind of what we talk about here, so people like me who spend a lot of their time as a planner, my predictions are based on the information that I know before execution. The operator that's actually going out on a mission, his predictions are based on forecasting things as things are in execution, he or she is thinking about the future within that tactical space, while the planner is thinking about predictions of the future within the planning space before, as we say colloquially, before you cross the light of departure.

**0:22:14.5 JR:** Right, so you're making long-term predictions during planning and you're making short-term predictions during the actual execution?

**0:22:20.8 JM:** Yeah. And what's common for both are those type of things that are so critical that we often don't teach, which is like, "What if your predictions are anchored on false assumptions?" Whether that's happening at the planning level for the guy sitting back in beautiful Tampa Bay, Florida, thinking about what we should do in Afghanistan, versus the tactical operator who's physically landed at Kandahar and it's getting ready to execute a mission, are their actions and recommendations anchored on the right information? How is time constraints impacting those? How are all those things that we need to ensure that we work around the edges to make sure that what we are predicting is not based on some faulty assumption or some cognitive bias, or some attribution error, or whatever those... That competent moderator may be...

**0:23:14.7 JR:** So, if you're thinking about the brain as an information processor, again, we use very advanced computers to aid us in decision-making, reporting, etcetera, in the military, project

management, business, etcetera, but in terms of the brain and all that we know about that, I don't see us updating that software very often. So, I'm just trying to make that kind of mental comparison, in the military, we've got some of the most advanced computer systems in the world for information processing, but all this information processing is also happening between our ears, and we're not updating that software.

**0:23:45.5 KL:** So, let's talk about the application of it thing, 'cause you really are hitting on the intersection between planning in the military, and we know that there's an intersection of project management and planning. Link the role of how we see things as projects, or execute as projects, 'cause that's where the NeuralPlan was kicking off, trying to bring this into the project management space, if you will, the production of something that has to be done on a given time to produce value. Where are you seeing besides...? I guess if we got some forecasting errors, some attribution error, how do you see the application of what you've been picking up in NeuralPlan to this and why project management, as a concept itself, in your leadership training with the idea of this national level planning down to the campaign...

**0:24:22.9 JM:** Yeah so you know, part of understanding the environment, we talked a little bit about the structure, the orders, the guidance, those kind of things, and that'll come, as pointed out, as part of the command and control system, and is built by design that way. The military, at the end of the day, is a hierarchical system, and that's good. There's nothing wrong with hierarchy, that's another debate for a different podcast of "Are bureaucracies good or bad?" I'm a bit of an outlier, because I do like bureaucracy.

**0:24:51.3 JM:** I think that the military, by design, is a bureaucracy because bureaucracies are... They either are coercive, which is the bad side, or they could be enabling. And I tend to think that bureaucracies, when executed in its purest form, are enabling institutions that allow you to do the things like the military has to do, which is application of force, move large formations. But that again, that's a podcast for a different perspective, but the part of the environment is understanding that the military is a hierarchical structure that is built as a bureaucracy, and I think we, kind of, on a side bar, talk a little bit about... And by the way, don't tell anybody, but Facebook is a big bureaucracy, and Google is a big bureaucracy, and Amazon is a big bureaucracy, and so are all those high-speed organizations that everybody likes to write books about. They're all big bureaucracies.

**0:25:42.6 JM:** However, they do have an insight culture of innovation, and those type of things, and we could build that. That's a cultural issue, not a structural issue, but again, it's a separate conversation.

**0:25:53.0 MH:** You know what, Jay? I don't know if it is a separate conversation, I'm sure we could talk about it for hours, but I think it's very relevant to this conversation, because I think back almost 20 years ago, not long after 9/11, when then Secretary Rumsfeld said, "I'm pretty sure Al-Qaeda doesn't have a five-year planning and budgeting cycle," and, of course, tie that right into our conversation here and now, and like what Jay said, well, the strategic stuff is long-term, well, really? Five years out to predict what Al-Qaeda's going to do and how it might morph into ISIS and ISIL, and whatever else, may be not adaptive and responsive enough. So curious, if you could tie your philosophy, Jay.

**0:26:32.4 JR:** Yeah, bureaucracy should be enabling, but also needs to be adaptive and quick



moving and not locked into a decision that was made three years ago.

**0:26:40.7 JM:** Absolutely. And I think that's one of the environmental considerations that good planners need to understand. And again, linking it back to some of the NeuralPlans foundations of time pressure. How does time pressure or time serves as a moderator. So, when you know that in the military, for example, commanders normally get assigned to an operational unit for 2-4 years, normally is about 3-year window. There's a time pressure for you to show success within your time in that position. So that planning cycle, now, the time pressure for you to show success has an impact. So, when you take a place like Afghanistan and you look back over time, it was a 20-year campaign, a 20-plus-year campaign, people will say, "Well, not really, it was 4 or 5, four-year campaigns put together because it was commanders coming in every 3-4 years trying to figure out what was going wrong. So, over a span of time, it looks like 20 years, but really it was give the number of years, 10, 2-year campaigns, 20, 1-year campaigns 4, 5-year campaigns, whatever."

**0:27:51.9 JM:** That's what it has. So yeah, so bureaucracies do have that inherent risk of time that is constructed, whether it's an election year, whether it's an assignment time. But once again, I think if you're a planner and you're aware that you have to ensure that that's baked into your plans as your development and understand that that is going to be a bias that's may drive some of your decision-making in a good facilitator or a good planner if they know time as a moderator will keep an awareness of that when things are being worked.

**0:28:22.6 KL:** I want to step in with something there then, based on what reading and kind of discussions Josh took me through on NeuralPlan, one of the interesting discussions he and I had was this question of escalation of commitment. And I'm linking it to here because what we observed, as I remember, part of that comes from being in a bureaucracy. Part of that is related to the power relationships of the people who are making the commitments. And so, they tend to not want to back out, or you can look at NeuralPlan to figure out what escalation of commitment is. Go look it up on Wikipedia. But the more you talked about a bureaucracy and we're discussing flexibility or not, I'm imagining how it must be hard to teach planning in the face of that particular type of cognitive bias, but that behavioral science that kicks in. Josh, what do you think? You said escalation of commitment was a problem. I'm linking it to the more bureaucracy, the more escalation of commitment we're going to have.

**0:29:14.4 JR:** Yeah, I think so, but probably even more so strategic misrepresentation, which is essentially under the social pressure to essentially overestimate the cost associated with that. So, the higher the social pressure or the more hierarchy you have, there's a tendency for that social pressure to come down to lower levels, which causes strategic misrepresentation.

**0:29:35.9 KL:** Is there social pressure in the military's bureaucracy, I guess becomes the question in the context of this. And is that something you're teaching about? Is that the plug for NeuralPlan is to be aware of this? Is that what's happening?

**0:29:46.1 JM:** Yeah, I think we're all aware in the military about sunk-cost fallacy escalation of commitment, understanding that, and that's a real thing in the military at least to be aware of because if you look at the campaign in Afghanistan, 20 plus years, the US government spent over \$145 billion in Afghanistan and there was a loss of over 2000 US service members in Afghanistan. Over a 20-year period, history books are obviously going to be written about this, they're going to continue to be dissect it. A lot of the lessons learned that have been written already in military

publications about that has been about escalation of commitment. There's been a lot of things that led to how do we find ourselves there for 20 years, \$145 billion later and the loss of life for our service members based on these prolonged campaigns. And it's not just a military, this was multiple administrations.

**0:30:43.7 JM:** So, it's not a military problem, it was just a thinking problem for the United States as a whole. And it starts with that first document that I spoke about, the national security strategy. Every president, every commander in chief that had his finger in the wars in Afghanistan at some point wrote a national security strategy that said, "Here are the US national security strategy goals for Afghanistan." And they worked themselves down to the lowest level. And 20 years later, 145 billion plus here's where we're at. Here's where we're at until almost a year ago to the date where the last service member left Afghanistan. So sunk-cost fallacy escalation of commitment. Absolutely, it's a real thing in the military. And just from historical perspective Afghanistan, Vietnam normally campaigns or if you want to call them, projects that go a long time are not successful. We look back at history and go, "Hey, Vietnam." Do we mark that as a success or not? Most people will say, "Absolutely not." So, look at Afghanistan 20-plus years later. Is that a success or not? Well, history books will be written about it, but again, the longer a military campaign lasts, the less likely that the outcome will be a successful outcome. And I think the history has shown that in the past.

**0:32:07.3 KL:** Probably true for any project, Mike.

**0:32:09.5 MH:** On that note, I wanted to ask Josh to weigh in here because we see things like groupthink and some of the cognitive functions of the human brain at work that drive groupthink, but then we have ways to counteract that. Like say, it's your job to play devil's advocate here. So, when you do, nobody's going to think you're a jerk or going against what we all think. It's your job and it's preassigned and that's...

**0:32:33.0 MH:** And that might not solve the whole problem of groupthink, but I would say it goes a long way. So are there similar interventions from your research and your learnings, Josh, that we can stop escalation of commitment in its tracks. We can stop sunk-cost fallacy from actually taking root in our brains and all the political and high stakes visibility things going on in the minds of presidents and four-star generals.

**0:32:58.1 JR:** So, there's many mitigations to thinking errors as we may call them, or cognitive biases, etcetera. It's more of a whole system. So instead of just saying, "Well, just teach me the skills to de-bias myself," for example, skills is just one aspect of improving our thinking and making better decisions. So, for example, visualization of realities helps to de-bias decisions. Giving more routine feedback tends to reduce errors. There's the awareness piece, which is, "Well, if I'm aware of the thinking errors that my brain has, I may self-correct some of them." One of the things you're talking about is really more the intentionality domain, which is essentially, "Well, I have a personal loss associated with this particular decision." Those are a little bit harder to combat because you have to know the personal drivers in with that particular person. One of my favorites is design and that's designing the methodology or the steps that you take in your procedures to essentially make better decisions.

**0:34:07.8 JR:** And we've talked about this in the podcast before, is obstacle identification. I love to use it because it's so simple, which is if I ask someone to identify the obstacles to the upcoming task prior to asking them to make a prediction about that task, they will likely make more accurate

predictions. And so, you design that into your steps to your procedures that you take in planning and strategy. And remember, we're not just talking about project management now we're talking about general predictions, we're talking about military planning, we're talking about strategy, anything looking into the future and making a decision. So, if you have something like obstacle identification, you design that into the process. And so, some of the military planning processes, something like that would be a really easy plugin because you say, "Well, behavioral science found in research, in evidence-based research that identifying obstacles is going to have better outcomes for you." Not only that, you get to identify the obstacles and hopefully reduce those or eliminate them, right? So, it's taking things like that and designing with behavioral science. We found behavioral science has this outcome, so let's design our procedures around human thought.

**0:35:18.6 MH:** Neat. So, it's kind of like inserting that devil's advocate as part of the process in advance and letting everyone know that that's their role.

**0:35:25.8 JR:** Right! I love that example by the way the Israeli defense uses that devil's advocate role.

**0:35:30.9 JM:** Yeah. We use in the military red-teaming. Traditionally the red-teaming hasn't taken a hold because when I designate someone to be a red team member, I've already primed everybody in the room to know that person's job is going to be to question what I'm coming up with. So, I'm already prepared for everything they say to be almost a controversial statement and an attack to my plan. I believe that where the NeuralPlan could become useful is helping the facilitator understand how they're executing the steps of whatever planning methodology they're using, right? So, I'm not telling the facilitator, "Don't use design thinking. Don't use systems approach to develop options. Don't use the logical traditional military planning process." Understand that as you're having these conversations, what is the effect of time in how you're developing your courses of action? What is the effect of escalation of commitment. And the facilitator is operating. He's almost playing a two-part game.

**0:36:42.2 JM:** Like I'm driving the team through the process, but I'm working at a higher level to see what's happening behind the scene here in people's brains and navigate them through that process. I don't need everybody in the cross-functional team to be an expert NeuralPlanner. I need the facilitator to understand what's happening within the planning team. Because the planning team, just like it is in any business world, they're going to come from folks who are focused on their expertise, right? If I come to a military planning team, it's going to be made up of intelligence people, communications people or logistics people. And they're going to see the plan through their lenses. "Hey, I'm hearing what they want me to say, but how am I supposed to apply it?" You as the facilitator have to be able to pick up on those cues when you're saying, "Hey, this is a time issue that I'm dealing with." Or, "This is a cognitive bias issue that I'm dealing with." Or, "This is an in-group, out-group issue that I'm dealing with." How do I navigate the team towards not getting stuck on that specific issue? So, it's a facilitator training more than trying to train everybody on NeuralPlanning.

**0:37:51.0 KL:** Let me take you there then. So that's the leadership. I think you're talking about training in your organization now. You say, "I am here to develop leaders." I'm going to ask you then a couple questions around this. One is, Is that true? So, what is the facilitator role? What is that called in the environment you're in? You just mentioned in-group, out-group and tribes and I'm now remembering we have more than one service in operation here. How do we think about this in a

broader context across tribes or should we? And then I think the next step for me is, is so what would it matter if you have taught across these tribes, whatever this thing is you're going to tell me is the facilitator, or it could be, what are we expecting as impact and how would we know? 'Cause it sounds like you're trying to bring something new to inform how they operate now. You're not changing how we operate. It's bringing something new. Start connecting some dots. So, who are these facilitators? I'm a facilitator but I'm not in your environment. So, what do we got?

**0:38:44.2 JM:** Yeah. So, part of the environment that I was talking about is understanding that we first talked about the structure, and then the next is the people, right? Because we are a people organization in the military, specifically in the SOF community, which is where the university that I happen to work in, and the military's made up of tribes, right? We have tribes in the military, and I say that with all great affection, right? The Marines are a tribe, right? The army is a tribe. The navy is a tribe. The air force are a tribe. Our coast guard men are a tribe. And that tribe by design has its own culture, attributes, artifacts, all the things that you would learn about on a tribal system. And the first thing a tribe does when it sees someone not from their own tribe, is they put them into an in-group and out-group.

**0:39:27.8 JM:** And until they find themselves as in totality, in-group, everything that gets processed is going to be either friend or foe, right? Fight or flight, brain activity number one, right? We were designed to see the world as friend/foe, tribal units, right? It's the basic survival mechanism of the brain. It applies to any organization, right? So, in the traditional military model where you used to fight as an individual service, you didn't have as many tribal issues, right? Because Marines fought in World War II in the Pacific, the Army fought in World War II in Europe, and that's the way it was. You separated people by space and the navy was in the water and so forth and so on. Now, the military fights as a joint combined force, right? So, by design, Marines don't fight alone. Now Marines fight as part of a joint force with the army, the navy, the air force and special operations forces, joint, combined SOF by design, fight as a joint force.

**0:40:33.7 JM:** So, you've got all these different tribes. And combined means that we fight with other partners and nations that are not only Americans, right? So, you mix all these tribes together and you say, "Go plan a campaign," right? And now you have different cultures, different climates, different ways of doing things. You as a facilitator have to understand the tribal system that you're dealing with to ensure that as you're trying to lead them towards a joint combined planning effort, that you're speaking their language. And the first thing you have to do is get everyone to see themselves as an in-group, not as four or five distinct out-groups that are trying to be forced together to work together.

**0:41:17.7 KL:** Who's going to get this training as the facilitator? What is a facilitator that's going to have to know this NeuralPlan.

**0:41:22.2 JM:** Right! Every military service has a select group of folks that go to school for about a year to become strategic planners. When I was a young major, I went to a school in the Marine Corp called the School of Advanced Warfighting. The Army has one called SAMS, the School of Advanced Military Studies. The Air Force has one called SAS. The Navy has one called MAWS, Maritime and Advanced Warfighting School. And in that school, you spend a year or so give or take your service commitment. And in that school, you learn critical thinking. You learn how to do military planning, you study history, you do those kind of things. At the university where I work at, we have special operations planning course, and we have a design course and we have a center that

looks at how do we help people think about planning and those type of things.

**0:42:11.4 JM:** So that is a place where NeuralPlan thinking could grab a hold. But I also see it's utility in every one of the service schools as a module. Again, I want to be clear, I am not advocating in any way the NeuralPlan or concepts like the NeuralPlan to replace design thinking systems, operational design, and those type of things. There's a place for those type of planning processes. I view this as something that works along the margins to ensure that if you're executing a design thinking planning methodology, you're taking into account things like anchoring and time pressure and those that if you're executing a systemic operational design, you're taking into account these types of things. And obviously the same thing with the traditional military planning process. So, this is a module of enhancing, thinking about thinking as it comes from a behavioral planning perspective.

**0:43:07.6 JR:** Yeah, I'd like to add to that too, just giving a little context because remembering that everyone that's doing planning and strategy is processing, once again, processing information. So, if we just go real quickly through the list of the cognitive moderators, we call the moderators, essentially filters of thinking. It goes something like the following, information can get missed from time pressure, information may be avoided from cognitive dissonance. Information may be bypassed from inertia. You may default to the wrong information from heuristics. You may fear certain information from low psychological safety. You may under-process information due to cognitive load. You may change the information from social pressure, see the wrong information from framing or lose energy to find information due to decision fatigue. So, if we're talking about, as Jay was saying, you don't drop systems thinking, you don't drop project management methodologies. You look at behavioral science as an underlying foundation that now supports decision-making using all these other methodologies. It doesn't replace them. It essentially serves as a foundation as for information processing to make better decisions.

**0:44:19.6 MH:** So, let me see if I can apply that in domains that aren't just special operations command. So, I'm super intrigued, Jay and Josh on this notion of a facilitator. I almost see it as an honest broker of some sort where I'm not inflicted or afflicted by a lot of the things Josh just mentioned. I'm still a human being, I still have a brain, but because I'm not part of the campaign, nobody's going to blame me if it goes wrong. So right there, there's more psychological safety, for example. And there might be other benefits that I'm not you guys would know better than me.

**0:44:51.2 MH:** Is there a role for this sort of facilitator in every Project Management environment? Like, for example, we might normally have a project manager him or herself, to lead the planning effort, they might facilitate a workshop with their teams, but they're still kind of doing it. Are we saying maybe we should have a more detached third party, do it?

**0:45:09.9 JR:** From the project management perspective, I'd say If you want more accurate decisions, the Behavioral Science shows that, for example, in planning the planning files here or optimistic planning, the behavioral science shows that we tend to plan our own work more optimistically, which means we are considering less alternatives, considering less risk, considering less obstacles, etcetera. The facilitator helps to bring reality to the situation. But I'll hand it over to Jay now and get his perspective on that as well.

**0:45:41.6 KL:** As a facilitator, I'm hoping the answer is yes by the way.

**0:45:44.3 JM:** So yes, absolutely. I would tell you that using the school that I went to as a young marine where I learnt to be a facilitator of planning. The school takes X amount of students for us, it was about something around 12 students per year that go to this select school, and they come from across multiple backgrounds. But when you get assigned to your station to serve as a facilitator, it has nothing to do with what your primary occupation was in the military, so I was a communicator, a signal individual, and my other classmates in the school, some were infantry, some were artillery, some were logisticians. When we all graduated from the school, we got sent to any unit to be a facilitator, to help them plan through difficult situations. So, they didn't naturally just say, "If you were an infantry man, we're going to send you to an infantry unit to become a facilitator." You just went where they needed because you could help any organization work through difficult problems, through facilitating, through problem identification and going through the steps that you needed to go through.

**0:46:52.4 JM:** So, for example, I'll give you a real-life case study. Before I retired, I was the Chief of Plans at a marine unit, and the unit I was with was getting ready to get fielded a brand-new aircraft that had yet to be introduced into this specific area of operations. This new aircraft would have required a change of how we did our logistics, our operation employment, all these other things. I knew nothing about this type of aircraft platform because I'm not an aviator by background. All I knew how to do was facilitate a group of people with diverse backgrounds through an unknown problem towards a solution that can now be employed.

**0:47:41.2 JM:** So, I would bring all these subject experts together. All these different tribes came together, and I, because of the training that I had received, facilitated them through that process to figure out, what are the implications? What are the assumptions? What are the constraints for us to get this new capability into the environment to be able to be something that the commanders could benefit from? So, to answer your question, absolutely, a facilitator could serve any project, and that could be... I'm fairly confident that when I reached out to Josh, when I saw his course online, 'cause I was debating between, Do I want to get my PMP certification? Or do I want to look for something different, right? Because I felt confident enough that through my military planning experience, I could navigate most PMP environments. I just had to listen to the lexicon and understand things like, "Okay, the project management cycles, initiation planning, execution and closing, while the military one is problem framing, core development, core war game, operations and transition."

**0:48:48.6 JM:** It's essentially, are the same building blocks, we just use different names. So, I reached out to Josh and said, "Hey, tell me more about the NeuralPlan because, I could invest into the PMI process," and I'm not downing, I think it's a great construct for folks that don't have a planning background, right? Because it really does lay out the PMBOK is a great way of understanding how to take people that don't know about planning through a process towards a deliverable, with scope, budget and times and those kind of things. But I felt that where the principles of NeuralPlan could be useful is in the areas that I believe the PMBOK doesn't get at, and I believe that there's a potential need even in military planning to introduce some of these things because we have the framework and we did a little bit into some of the cognitive things. So, I'm not saying that the military client doesn't address cognitive issues, but they don't address them enough where it could have a huge impact, they address them enough where you could like, "Okay, yeah, the brain is important. Thanks for that, but I really need to figure out how do I build against some..."

**0:49:55.1 MH:** I'm hearing a huge aha for most of us, that run PMOs or have a heavy role in

planning large programs and projects. And I think oftentimes, since I'm well-schooled in traditional practice as well as a lot of the agile scrum stuff, this notion of, the team has to own it because they're the ones that have to execute it. And now we're saying, "Well hang on, that actually might introduce more bias than we want. We might want a facilitator to make sure the process is done well, without diluting any of that sense of ownership," which is totally possible, if not easy in my mind. But I haven't really seen that until this session. So, I think this notion of, "Have cross-functional, cross-trained facilitators that know how to get the best sense of ownership with good decisions on what a good plan should look like." In fact, you're making me think of a former client of mine, they had this great value statement they put up, as part of this initiative to improve their project outcomes, and they said, "Hope is not a plan, real hope comes from good planning."

**0:50:58.2 MH:** And they said, "No, Mike, we didn't say great planning. We didn't say awesome planning. We didn't say world class planning. We said good planning." And in my mind, getting to good planning requires a lot of this facilitator role.

**0:51:11.5 JR:** Yeah, and I would just say you hit the nail right on the head for the reframe. Hope is a good plan, creates essentially a hope for the future. But I'd also say, let's not focus too much on the word plan too. Remember we're just, behavioral science can really just help us make better decisions about the future and tomorrow will be the future, 10 minutes from now will be the future. Unless you're just dealing with a specific situation that requires decisions right now about the present, you're generally making decisions about the future. So really that's what it's about. Behavioral science, it's recognizing that your brain is an information processor and it makes decisions about the future. And there can be and will be errors in those decisions if unmitigated.

**0:51:54.5 KL:** And there I am having to plan the last five minutes of our audio, while we're all finally getting all wired up into it. I do want to highlight something that Jay just said that struck me and it ties to something you're saying there, Mike, that the team does have to own the plan. So, it's not about changing the power dynamic, but it was about adding a facilitator as the filter on the cognitive side while the team continues to own the planning process. I don't know, that's a connection I didn't quite make.

**0:52:17.9 MH:** I think that's a huge aha for everyone listening. It's already going to change everything I do with my clients.

**0:52:23.2 KL:** But you said something interesting which earlier you framed this all as, we're not trying to introduce yet another new thing to the military. It's not just another new thing. And as you said, I could check the box with or pick NeuralPlan or PMs, kind of how you'd framed it. You're kind of your PMI type of thing, your PMP thing. And I thought, "Oh, well you're now making a choice," but then you said something interesting to me, which is, it's not really like turning a PMP into a super PM nor is it you're saying do this instead of that, it was that your anchoring is around, I already understand forecasting and planning. I'm already in that world. It would be good to go and get the structured PMP or PM training about that, but it also might be good to go and learn more about the cognition that's going on that allows us to do this effectively.

**0:53:08.0 KL:** So, I'm seeing them as, I was thinking of them as serial and trying to stack them in some way or enhance one with the other. It's really that the anchoring is around this ability to talk about the future, which is where Josh just took us. It's really planning or forecasting or thinking about decisions in the future. If somebody wants to be better at that and has to work with other

people or even recognizing their own biases and their own tendencies, it would be good to be hooked up with the NeuralPlan or this understanding of behavioral sciences in this environment.

**0:53:37.7 JM:** Yeah, absolutely. I've taken other courses on understanding the brain and I took a neuro leadership course, like how do leaders make better decisions under, and understanding things like emotional regulation and those kind of things. But this was something that drew me because it was the same kind of logic, but applied to planning and decision-making particularly. So yes, I think if you are in your space is planning and decision-making 'cause planning is about decision. We kind of started off the podcast talking about planning is about anticipatory decision-making, right? And if that is the case, understanding behavioral project management would only make your decision-making process better. Or as Josh would probably say, less error prone because you understand...

**0:54:29.9 JM:** Some of those moderators. But I'd like to say something before we wrap up too because here's the cautionary tale.

**0:54:35.0 JM:** We are all trying to figure out how do we become more one with technology. Whether it's artificial intelligence or machine learning. And the one constant is your brain, your 2000-year-old brain that is your limited factor or your enhancement. So, if I now introduce an artificial intelligence system that's going to move things faster, but I still have to process that output through my brain, I better be able to recognize my own cognitive biases and cognitive moderators because things are going to be coming to me a lot faster than I'm used to. And so, it's like teaching someone how to drive a car. It's easy to navigate obstacles if you're going 10 miles an hour, which is kind of like what we're doing now when information's coming to you at the analog speed. But now when I plug in a decision maker to something that's feeding information to me at 75 miles an hour, am I going to be able to recognize those cognitive errors if I haven't even been thinking about what those are? 'Cause, now I'm going to be making decisions without having the time to process them.

**0:55:45.8 JM:** So, we better get this whole thing of understanding cognitive decision-making right, before we introduce artificial intelligence and machine learning to our decision-making models. And that is a cautionary tale for all of us because one of the first truce of special operation forces is humans are over technology. So, we always default back to, it's about the human first. However, that doesn't stop the desire of strapping the human with more technology everywhere we go.

**0:56:15.6 KL:** That's a great ending there, but I am interested in, based on what we've heard in the extension of this, into this area, Josh, I'm sure you were happy to hear it. So, I'm going to pick you up and ask you those kinds of questions. What's your excitement about seeing it used this way? What have you picked up as you've thought about it, talking with Jay over the last couple of months and watching him go through the plan? Anything new you're picking up or seeing how you can see it applied differently or what have you learned?

**0:56:40.3 JR:** So first of all, I had this huge dream and you've had Dr. Jodi Wilson on the podcast as well with me in the past. And her and I have talked about, oh my goodness, like decision-making, prediction, behavioral science, combine it all together and wow, where would this really be cool? And I'd say Spec Ops, military planning, military strategy. Why? Because that's where the critical decisions mean a lot, and not like project management decisions don't, but its decision-making there is very, very, very important. So that's what I'm excited about, is just to see an interest



and in applying behavioral science to that domain. So, my hope is that someday, hopefully in the near future, some of that science will be able to get plugged into the military domain because I really think it'll improve decisions for the most critical efforts in strategy.

**0:57:35.7 KL:** Mike, you had picked up an aha already, but anything else you want to round us out with there based on what you've heard today and thinking about.

**0:57:42.6 MH:** Yeah, just a quote, you'd like to use Kendall from some British statistician who said, "All models are wrong, some are useful." So, I think what I hear from Josh is no matter what we do, we're going to be wrong. Let's just make sure it's as useful as possible, especially in those Spec Ops environment.

**0:57:58.4 KL:** Oh, I love it. Well, and Jay, I'm going to leave you with your last comment because Josh told me that he couldn't have said it any better. So, I'm going to take that as a bow on that topic. I loved ending on a cautionary tale, so I really appreciate that. So, in closing, gentlemen, let's talk real quick, how people can keep up with you. So, Jay, where do people get to hear or share thinking with you? Do you have a non-military public persona people can interact with you on? Or are you on the platform now with Josh?

**0:58:23.0 JM:** I am not as cool as having my own platform or my own site or anything like that. So maybe I'll start one after this podcast if people are interested in something that I want to say. I just...

**0:58:32.7 S?:** Are you on LinkedIn?

**0:58:34.0 JM:** I am on LinkedIn. How's that? So, you...

**0:58:35.9 KL:** There we go. Jay Macias, Tampa, Florida. [laughter]

**0:58:39.1 JM:** You can find me on LinkedIn. I'm just excited about being part of this discussion and hopefully introducing some of this thinking going forward. But yeah, LinkedIn, if you need to reach out to me.

**0:58:49.1 KL:** And then Josh, tell us how people can get ahold of you.

**0:58:51.9 JR:** Go to our institute website, nbpmi.com. I'd highly recommend actually going to the membership website though, that's behavioralpm.com. And if you're interested in the NeuralPlan certificate and training that we've been talking about itself, that is neural-plan.com. And that's N-E-U-R-A-L, not N-E-U-R-O.

**0:59:13.8 KL:** And Mike as always LinkedIn. Yeah?

**0:59:16.7 MH:** Yeah, LinkedIn.

**0:59:16.8 KL:** Well, Josh is taking more takers toward his plan. So, thanks so much. Jay and Josh, thank you for sharing your own exploration today and linking it together. Josh, always feel free to keep bringing us new ideas and new guests. Mike, as always thanks for processing it from a PM and even more you and I are finding, I think, oh, I had a client that perspective. So, I do appreciate you bringing that forward for us.

## Cognitive PM and Military Planning

**0:59:40.5 KL:** With that PMs, who've listened to this whole episode, you can go to [ccrs.pmi.org/plane](https://ccrs.pmi.org/plane) and scroll to the fourth banner on the left column, online or digital media and manually enter code number 4634 and select M Powered Strategies. And then manually enter the name of the episode PM POV 0103 Cognitive PM and Military Planning. And select ways of working in the new talent triangle, did you catch that, the New Talent Triangle, Ways of Working. I am Kendall Lott and although it might just be recency bias, I genuinely believe I am your co-host and producer, thanking you for listening in and reminding you that even as we explore new ways of working, keep it in scope and get it done.

**1:00:30.8 Announcer:** This has been a Final Milestone Production sponsored by M Powered Strategies. Final milestone.