LIKE YOUR BRAIN HAS JUST GONE TO THE GYM (WARGAMING ROOM)

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Ken Gilliam: Hi, I'm **Colonel Ken Gilliam**, and today on A Better Peace, we will once again venture into the Wargaming Room, a series dedicated to war games and other innovative methods used at the Army War College and other institutions for education, research and experience. My guests today are **Chris Dougherty** and **Becca Wasser** from the Center for New American Security. Chris is a senior fellow in the defense program and his research areas include defense strategy, strategic assessments, force planning and wargaming. Chris has an extensive background in wargaming with the Department of Defense and the Center for Strategic and Budgetary Assessments. He also served as an airborne infantryman with the 2nd Battalion, 75th Ranger Regiment. Becca is a fellow in the defense program. Her research areas include wargaming, force posture and management, and U.S. defense strategy. She is also an adjunct instructor at the School of Foreign Service at Georgetown University, where she teaches an undergraduate course in wargaming. Becca previously led war games at Rand Corporation and before that, she was a research analyst at the International Institute for Strategic Studies. Chris and Becca are the co-leads for the Gaming Lab at CNAS where they make innovative unclassified games and exercises on a range of challenging national security issues. Chris and Becca, welcome to the Wargaming Room.

Becca Wasser: Thanks for having us.

Chris Dougherty: Thanks Ken, happy to be here.

KG: So, for you two, I ask the same opening question of all our first-time guests, which really is more of a personal than professional question: what was your favorite game or play activity as a kid and do you still play it? Becca, I'm going to let you go first.

BW: Sure. So, I was never really a big game player growing up, but what I did do a lot of was spend some time by myself. So that meant that I did a lot of playing make believe. And so, a lot of times that just really involved making up stories, sometimes playing with dolls or Legos or

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cars to make those stories come alive and today, I definitely still get to do a little bit of that with the storytelling aspects of wargaming.

KG: Very nice. Chris?

CD: I played a lot of games growing up. I think most of my youth was probably spent playing some game or another. Many of them, computer, but also some kinds of board games. One that sticks out to me, I used to play this old Avalon Hill game called Feudal which was basically chess on steroids with plastic pieces in lieu of your standard chest pieces and a movable map where you could change the terrain based on rotating these four interlocking pieces of plastic. And in the real world, I enjoyed playing all sorts of things, although I think the thing that was probably most pertinent to my development was, I used to take the little plastic army figurines that most of us had when we were kids with the little plastic base and they all stand up, and I used to build elaborate fortresses out of blocks and then I would shoot rubber bands at the little army figurines. Despite my parents' admonition not to do anything so violent, that didn't really work out for them given where my career headed.

KG: And from your website, I saw that the experts at the Gaming Lab design and conduct activities for leaders in government, policy, industry and academia. How do you see the Gaming Lab contributing to CNAS' larger research agenda and I will quote, "designed to shape the choices of leaders in the U.S. government, the private sector and society to advance U.S. interests in strategy."

CD: Yeah, it's a great question. When I think about it, I think about it in three ways and the first is analytic. So we use war games a lot, especially in the projects that I lead on analyzing and exploring new ways of operating, new ways of applying military strategy, new ways of approaching problems, and I think that's a focus of my project on what I call "a new American way of war," borrowing the term from Russell Weigley 's famous book. That's sort of one aspect to it, so it's analytic, let's go figure out new things, concept development kind of aspect. I think the second aspect is educational and that is habituating people and getting them to understand a headspace, which is something I think gaming does really well is it puts people into an environment. And I like to talk about the difference between knowledge and understanding. It's one thing to know a thing, to have read it in a book or to see it on a PowerPoint slide. It's another thing to actually go through the experience of living it in a game and experiencing it. I think the understanding you get from that is much richer, much deeper and much longer lasting than it is if you just read it off the page. And then the last part is about development of the next generation of policymakers, the next generation of gamers, game designers, game consumers and game players, through a project that I'm going to toss it over to Becca to talk about.

BW: Yeah, so we're going to be launching a project in the New Year called "Game On," which as Chris mentioned, seeks to develop the next generation of defense and national security analysts and situates them to understand what gaming is both as a method, but how it can be applied to produce policy relevant insights. And I think producing policy relevant insights or policy relevant recommendations is really at the heart of all of the work that the Center for a New American Security does, and gaming is just one means to start to socialize some of those ideas as well as producing them themselves.

KG: Becca, I know that the Gaming Lab is committed to improving diversity and inclusivity in gaming. How does that help you find and recruit players and how does it influence where you go to find those players?

BW: That's a great question, Ken and I think something that Chris and I are both personally committed to is not only developing this next generation of national security leaders who understand gaming and use it, but making sure that in addition to this next generation, we're currently involving people in our games who have diverse backgrounds, and this expands the full spectrum of what diversity means. It's really important to have people who have had different experiences involved in your games because they're going to view the issues with a slightly different perspective than perhaps the ones that are most socialized, whether that's in policy, circles or around the Department of Defense. But I won't lie, it takes work to find people who are not sort of your usual cast of characters. It means that you have to ask people for recommendations, you have to cold call different offices. It means making sure that you're reading things that get published so if you see a new name trying to draw those people into your games, even if that means that you're making sort of an approach to them out of the blue. Those are the sorts of things that you have to do. I think a lot of people just assume that well, it's really easy to convene a group of people together, and to a certain extent, yes, it is easy to do so and there are a lot of really well qualified and very public facing people who fulfill sort of these dimensions of diversity, but there's also a lot of really smart people who also fit that mold who haven't really gotten a bite at the apple yet in part because some of the systemic barriers that happened to be in existence. So, it's incumbent upon us to try and reach out to some of those individuals and find them where possible and try and involve them in some of the work that we're doing, even if it's the first time that they're seeing a game because it doesn't mean that they don't have something to contribute. They probably have tons to contribute but it means trying to make sure that they come back to our games over and over again so they can become a little bit more comfortable with gaming and become more active participants.

KG: So Chris, Becca just hit on something there. We talk about the comfort of the players inside of the game. Do you have any resistance to the games once you get the players there? Have you experienced any negative feedback potentially?

CD: I think you're always going to have a degree of resistance on the behalf of some people for living in an imagined future that's different than the one that they are in at the present. Generally speaking as Becca mentioned, player selection is critical and ensuring that you don't have people there who are going to dig their heels in at every turn of the game, every period in the scenario and every roll of the dice if that's the kind of game were playing. So generally, you try to select for that and it's not that you don't want people who are contrarian. Quite to the contrary, I very much enjoy having folks in our games who are contrarian, who challenge my assumptions, challenge the assumptions upon which we built the game, but at the same time, at some point you need to check that and go with the game as it's been constructed and then if there are places to change either we can make those changes on the fly or make it on a second or third iteration of the game. But generally speaking, in the games that we've run that hasn't been a huge issue, there have been occasional tactical issues wherein somebody says, "you're representing this particular weapon system in this way, and I actually think more accurate way to represent it as that," in which case usually we just say, "okay," and we have a little discussion and then we change the model or whatever it is that we're doing of that particular thing. That hasn't really been a huge issue for us though just because we are pretty flexible. We do have, at least for the operational gains that we run, we have a rule set but it's eminently flexible, so we're willing to have that discussion with people. I will say one of the things that has been tough about doing virtual gaming has been that it's very hard to do the adjudication in an open and transparent fashion. And also you're working off of, at least in our method, you're working off slide decks that are denoting all the moves that a team has made in that round and then we're going back and adjudicating those moves and it's not a totally clean process and I think sometimes people say, "well, what happened with this?" or "well, what happened with that?" and sometimes the answer is as simple as the app you are using to share a file didn't work and so it didn't come through quite right. And we've worked through most of those bugs and most of those issues, but it's still there. I will say though that virtual gaming has gotten a lot better than I even thought it would and I think for a lot of topics in the future, even post-COVID, we might continue to use virtual gaming because of the modalities it opens up in terms of manipulation of the information environment and manipulation of things like command control and communications networks in between the team. I think it's actually a really good reflection of the kind of challenges that the joint force would face in a conflict with China or Russia. And so I think a lot of those things, we would like to keep them even post-COVID.

BW: May I also just add that one area where we have sometimes gotten some pushback during our games is what we always face as wargamers: fighting the scenario. But one of the reasons why we tend to face that pretty consistently is because we've purposely decided to try and do different and innovative scenarios for a number of our games. And this is in part because all of our games are unclassified, so we are trying to push the scenario space a little bit further and make folks think about range of different futures that could unfold. So because a lot of these scenarios tend to be really unfamiliar for a lot of our players who are used to a set of canonical

scenarios, we get a bit more pushback than usual and some of this is really just based on unfamiliarity, but we found that that's pretty easy to overcome and at the end of the game and at the end of result for everything is really just folks acknowledging that they've had their horizons broadened in some way because we've made them think about a problem in a different setting or made them think about a problem that they didn't even realize was a challenge.

KG: So, you both now hit a few keywords for me: new, innovative, different. And even companies who are considered highly innovative have a high failure rate, especially along the way as their developing products and I'm relatively new to the wargaming community design and development, but I do know, at least I feel that war games themselves are just a string of failures until you get to the point where you think you're at success and that's on the development side, not necessarily the playing side. So, I will give you an opportunity here to describe both sides of that coin. One, do you have any games that just didn't come through on what you wanted to get out of them?

CD: I've had a couple of those, and actually probably more than a couple and virtually always, I would say every time, it's been about miscommunication with players and just players thinking that they were supposed to zig when really the object of the game was to get them to zag. And usually it's something around the fact that my project is designed to explore a new American way of war, and it's very, very difficult for all of us, especially people who've got 20 to 30 years invested in the old American way of war to actually do something that's very different than what they've done before. And the classic example of this is, we're looking at a problem and the first thing that the players want to do is, okay, so we're going to suppress all the enemy air defenses and we're going to launch this sequentially ordered operation and it's very much what you would have seen in the Gulf War or the second Iraq War, and the purpose of what we're trying to do with the games is not to do that. But I think that's instructive. It's helpful learning for both the players and for us that it's hard to take yourself out of that mental headspace and to go into a different headspace. But at the same time, it can be frustrating because all our analysis and wargaming shows that we know that didn't work and so sometimes when you find yourself doing the thing that you knew didn't work over again, it's frustrating. And as a game designer, sometimes you want to go in there and intentionally force them onto the track you were hoping they would explore, but there's got to be this tension between having the game as a space for exploration and having the game be a somewhat unbiased analytic exercise and then putting your finger on the scale so that you get an outcome that looks more like the one you were aiming for. I will say those are the games I think that have gone, not totally off the rails, but that haven't gone quite as I would have wanted them to. But again, I'm fully cognizant that I'm asking folks to do something different and difficult—or different is difficult in this regard. You're trying to come up with something new on the fly in a dynamic environment with a whole bunch of people that maybe you don't know all that well and it's a hard thing to do, especially for people who don't

have experience in what it is that we're trying to accomplish. And so, I would say those are the things where we've had the hardest time and the most difficulties.

KG: So Becca, since Chris gave me the difficulties there, I'm going to give you the opportunity to explore any of your games that might have been more successful than others, either in gaining insights or learning about gaming methods.

BW: Oh man. Chris I think is going to be quite jealous that you threw that question over to me because I'm going to steal perhaps maybe one of his favorite stories to tell.

KG: Well, sometimes there's an advantage in going first and sometimes there's not.

BW: Yeah, so Chris forgive me in advance. We recently had a game, or a game series, that initially, because it was in the virtual environment, we were a little bit worried about how it was going to go, but as the conflict unfolded and as we were able to layer in some of the neat benefits that frankly virtual games can provide, that Chris had mentioned, we definitely saw the game starting to build momentum and sort of go in that right direction. And then at the end of the hot wash, one of the most senior seasoned wargamers and defense analysts who is fairly famous in our field, turned around and said, "I feel like my brain has just gone to the gym." And that is exactly what you want from your players. You want that ah ha moment where they understand something, but you also want them to leave going, oh man, you made me think about things that I wasn't thinking about before or you made me think about things in a new way. And for someone who has been around the block a few times before to still have that moment, it sort of signaled to us, okay, we're doing something right.

CD: At CNAS we are into new and innovative and all this stuff, but I think one of the reasons that we don't fall on our face quite so often is we have, both between me and Becca but also with Ed McGrady, who's our adjunct senior fellow, he brings 30 years of wargaming experience to the table. If there is an issue out there to be gamed, Ed has probably gamed it, and as a result, he allows us to avoid bad design decisions really fast. And so, I think he and I have a great creative tension because I'm usually in the world of trying to push boundaries and I have the same tension with Becca. I'm usually kind of out there and "why don't we do this?" and "this would be great," "this would be cool," and Ed says, "well, I've tried this before, and it failed for the following reasons." And I think that kind of tension allows us to go to innovate but avoid egregiously stupid decisions based on hubris.

KG: Very nice. Do you have any upcoming games that you can discuss and maybe some of the issues you're going to examine?

CD: We're going to do a game, an international game in January involving both U.S. and Taiwanese participation that's looking at the potential pathways and policy ramifications of a China-Taiwan crisis or conflict. And I think that's really important to me. It's something I've been wanting to do for a very long time because for various reasons, there are difficulties in working when you're in government directly with the Government of Taiwan. And so what we have is a bit of a disconnect I would argue in some of our policy engagements and some of our mil to mil engagements about what exactly the challenges would be on both sides and how we both see this conflict or crisis unfolding. And I think having that shared mindset is really critical if you're going to have a unified coalition response to Chinese coercion or aggression. So I'm really, really excited about that and one of the things that it's going to do, which I think is interesting, it's a bit of a branch out from the games I ordinarily run which are oftentimes quite operational and don't involve discussion of other aspects of national power, is that the game is going to be intentionally multidisciplinary, interagency. What I mean by that is we're not just going to have DoD and Ministry of Defense folks from Taiwan, but it will also be State Department, Foreign Affairs, Treasury type folks, other folks from different aspects of the government to see what is the totality of instruments that both sides will bring to bear in a crisis or conflict like this? And what are the policy implications of that, beyond just how many missiles we ought to buy and what sensors we ought to have to spot targets?

BW: So Chris is raising something that I think is a hallmark of what the Gaming Lab is trying to do. We're trying to broaden the aperture so that people don't just think of war games when they think about the gaming community. They also think about the ways in which warfare can span across different levers of national power. So Chris mentioned the game with Taiwan, one of the other things that I'm definitely working on and Chris has been helping with as well, is looking at ways in which you can use strategy gaming to explore questions of Chinese economic coercion to understand some of its impacts on not only defense more broadly and national security, but the ways in which it might actually erode some of the U.S. competitive advantages overtime. So in addition to some of the operational games that we've been running, we're also trying to innovate in the strategy game space and sometimes it's almost combining these operational games and these strategic level games together, so that you provide players with a more holistic sense of some of the key decisions that they would have to make in these crisis or conflict situations.

KG: So I will restrain myself from doing an internal self-serving discussion of the games that we have that sound a lot like that, but I would love to share some of that with you offline for some of the things that we've been using both inside of the Army War College curriculum and at the General Officer Education level.

BW: Absolutely, would be super interested to hear about those.

KG: So Becca and Chris, what do you see as challenges to the war gaming community either for the Gaming Lab at CNAS or the community at large going forward?

BW: So I see two very immediate challenges for the gaming community more broadly. The first is how it is we adapt some of our manual games to make sense in a virtual environment. I think with COVID-19, we have a duty of care to not hold in person games and events, even though I know some folks have been doing that and I understand the imperative around it. But I think it's incumbent upon us to make sure that everyone is safe and secure and not holding games in person is probably a pretty easy way to do that. So trying to think of different ways in which we can move some of our manual games whether that's a board game or a table top exercise to an operational war game to virtual platforms, so that we can still have that safe space for exploration but do it not only in a safe space in terms of the conflict at hand but safe space in terms of everyone 's health as well. The second challenge for the war gaming community, and we touched upon this briefly, it's the questions of diversity and inclusion. I think the war gaming community has in recent years come around to acknowledging that it has a diversity problem. And it's definitely taking some steps in the right direction and I laud everyone for even acknowledging that there is a problem and taking those initial steps, but we still have a long way to go if we're trying to build diverse teams within war gaming or gaming more broadly, but also we've got a long way to go if we're trying to create inclusive environments because right now, I think that's the long pole in the tent and we've got a while to go before we can get there.

KG: Well, I agree with you there. We're struggling with that ourselves. Having tried to hire to get there and build the culture internally to make that possible is, I wouldn't say it's a struggle, but it's definitely a new way of thinking for us.

CD: On my end, I agree with everything that Becca said so I'm going to try to take my comments in a little bit different direction. One of the issues I think is really hard, and I'm sure your team at the War College has experienced this Ken, is actually managing to encapsulate the complexity of modern warfare in a game environment. In any kind of environment it is difficult but with the expanding numbers of domains or whatever you want to call it, some folks are against the phrase "domain," but until there's a better term of art, I'll still use that. But the inclusion of cyberspace space and the electromagnetic spectrum as operating domains, inclusive also of this increasing information domain or whatever you want to call information environment. The complexity of modern warfare is really making it difficult to actually model effectively, especially when you're thinking about the interactions between all these domains and how complex it is. And so we're struggling, I think, with how we're trying to simplify all of that so that it's playable in a reasonable period of time and representable in a game environment while at the same time, trying to make sure that we are accurate enough to reality that it's actually a representation of what players might encounter in their real world jobs. And I think it just keeps getting harder as combat and warfare gets more and more and more complex and more and more

fast paced. The ability of us to continually model that effectively in a way that is playable and concise and repeatable is quite difficult. I think that's something that we are continually struggling with, but I don't see that going away. In fact, I think it's probably likely to get worse as you start to include things like artificial intelligence, more autonomous unmanned systems and other things of that nature. I think it's going to get harder for designers and for players both to have a model of the world in this game space that's simultaneously simple enough for them to understand inside their heads, but complex enough to represent that reality. And then I think it's kind of related to that but on a slightly different note, I think that for a long time, the modeling and simulation community and the gaming community have been separate and perhaps at times at loggerheads. I know when Secretary Work wrote the memo about reinvigorating the wargaming capacity inside the Department, there was some pushback within the modeling and simulation community about exactly what this would mean and the validity and the usage of war games as an analytic tool. An I think what we ought to increasingly see and I think we've seen this in some places, but I'd like to see it in more places is an integration and lash up and a cross-pollination between the modeling and simulation community and the gaming community. And I think our work at CNAS does this a lot. We use modeling and simulation on the back end of a lot of our games to help verify insights, to make sure they weren't just one offs based on luck or random choices by the players and then make sure that they're actually analytically robust. We use a company called Group W. We're in close partnership with them and what that does is, because we bring them into the game development process, we bring them into the game itself. So it's not a separate process. They're completely lashed up with the game. They get to see what the critical issues are, they get to see what the critical analytic problems are, and as a result, I think that gives us a really strong connection between the game and the analysis that comes out of it. And I think it makes both stronger for the participation on either side. I think to the extent that we could make that the norm rather than the exception, I think it would be a significant step forward for the gaming community and for the modeling and simulation community, and that's I think, to the benefit of both and particularly the benefit of the Department of Defense.

KG: So I think that's the next level of diversity and inclusion as well. The diversity of experience, big "D"s and little "d"s, we talk often about including that. So Becca and Chris, thanks for joining me today. I think we're just about out of time. I wish you the best of luck with the Gaming Lab at CNAS and I look forward to reading about the next challenge that you've got coming out and I'm very interested in your Game On project.

BW: Absolutely. Thanks, Ken. We're looking forward to the time where we can do a Gaming Lab and Army War College lash up in the future.

KG: Oh, absolutely.

CD: Thanks so much, Ken, really appreciate it.

KG: And thanks to all of you for joining us in the War Gaming Room. Please send us your comments on this and all the programs, including ideas for future programs. If you want to hear more subscribe to A Better Peace. After you've subscribed, please rate and review this podcast on your podcatcher of choice because that helps others find us as well. We will see you here next time, but until then, from the War Gaming room, I'm Ken Gilliam. Play to win.