Conventional Options Theory in the New Nuclear Era

Ryan Vest: Welcome to *Horns of a Dilemma*, the podcast of the *Texas National Security Review*. I'm Ryan Vest, executive editor of *TNSR*, and I'm here with our Editor-In-Chief, Dr. Sheena Chestnut Greitens. We're pleased to have Tyler Bowen from the US Naval War College joining us today. Tyler is the author of the article, "Threading The Needle, The Logic of Conventional Coercion in Nuclear Crises". Which is featured in Volume 9, Issue 1 of the Journal. Tyler is an assistant professor in the Deterrent Studies Institute in the Strategic and Operational Research Department at the United States Naval War College, whose work focuses on issues related to nuclear deterrence, nuclear strategy, and US grant strategy. He previously worked as a visiting professor at the United States Air Force Academy and a post-doctoral fellow at Johns Hopkins SAIS. Tyler, welcome to *Horns of a Dilemma*.It's great to have you on the show.

Tyler Bowen: Yeah, great to be here, and thank you so much.

Sheena Chestnut Greitens: In the past 30 years, discussions of nuclear deterrence have, in some sense, faded into the background during the post Cold War period. And the Western focus on the global war on terror, and other forms of irregular warfare in the global security environment. But with Russia's war in Ukraine and China's conventional and nuclear expansion, discussions on nuclear deterrence are really back in the top of our national security conversation and debate at levels unseen since the 1980s. How did you approach this renewed interest in nuclear deterrence? And how do you see this new era of nuclear competition as different than previous area eras? Can you talk us through some of the challenges that led you to write the article?

Tyler Bowen: Oh, absolutely. And this is, yeah, this is a great question. So in terms of how I approach this renewed interest and deterrence, I take it as a return to the broad questions about the effects of nuclear weapons on relations between great powers that animated so much of the literature, during the Cold War.

Things like, you know, what exactly do nuclear weapons deter states from doing? How many nuclear weapons are enough and what nuclear posture is best suited for deterring wars and crises. And how do they affect fighting at the conventional level of conflict, which we will obviously be getting into here in this episode. And so because of that, I often find myself reading current literature and then going back and comparing it to something that, you know, I

read in grad school. And that was written in the 1980s, 70s, or even the 50s and 60s. And what we're seeing is, you know, a lot of the same questions popping up, but now we have more declassified material on important cases.

We also have more insight into adversary decision making. Which is crucial because, for any study of deterrence, because you know, deterrence happens in the mind of the adversary. For me personally as a nuclear scholar, it's just a really exciting time when you can use lots of this, you know, new data that we have to answer, some foundational questions. In terms of how it's different, you know, we have a different context in the nuclear world.

This, you know, current, this emerging. Second, third nuclear age, what you want to call it, is multipolar in two senses. First, there's just more independent nuclear powers than there were during the Cold War. India, Pakistan and North Korea did not have nuclear weapons then, and they do now. And then second, we just have an emerging two peer problem, as we would say here in the United States due to China's nuclear modernization expansion.

So the US will face two major nuclear powers rather than one, which is raising questions about the sufficiency of current US nuclear posture. It's also raising questions about, you know, will the US be able to deter conventional conflicts in the future between that Russia or China might want to start?

And I think these are the why questions about, you know, how much is enough for deterrence? What the US needs to deter, and those questions are just gaining a lot more prominence now.

Ryan Vest: In your article, you introduced the debate over whether conventional military success leads to coercive success in a nuclear crisis. I was wondering if you can give our listeners a broad overview of this debate and what led you down this road.

Tyler Bowen: Sure I will. So this debate started in the Cold War, and it started from pretty much from the moment that, you know, scholars started grappling with the implications of first, atomic weapons and then, of course thermonuclear weapons. 'cause you had Bernard Brody in 1946 writing in “The Absolute Weapon” about like it used to be the job of the military to fight wars.

Now it might be their main job to prevent them. So this is, I think, a question that really gets to the heart of the effects of nuclear weapons on international politics. So there's one view that nuclear weapons, and this partly comes from the work of Bernard Brody, though it also comes out in the work of Robert

Jervis, or Kenneth Waltz, or even Thomas Shelling, is that nuclear weapons have revolutionary effects.

On relations among great powers, especially when they both have what's known as a secure second strike capability, or the ability to receive a first strike from an adversary and respond with unacceptable damage and retaliation. And one of those hypothesized effects, revolutionary effects, is to reduce the utility of achieving a conventional military victory.

Since the adversary could just escalate in response to experiencing a defeat on the battlefield. And in that world, conventional capabilities mostly serve to coerce by manipulating the risk of nuclear escalation. These are, you know, provisional forces acting as trip wires, threats that leave something to chance.

And I can get into what exactly that means. Then, there's another view which argues that nuclear weapons, you know, they're obviously a big deal and use a technical term, but they're not that revolutionary. And it's based on something called the stability instability paradox, or the idea that the mutual possession of nuclear weapons by making escalation to nuclear war unthinkable, actually makes lesser forms of conflict safer to engage in.

And in this logic, a nuclear power could use conventional military capabilities to achieve some sort of operational success. And then the fear of escalation to nuclear war could inhibit an adversary from responding to that success. You see this come out if you read closely, you can see this come out in the work of Herman Kahn.

And in that sense, nuclear weapons act as shields that enable conventional aggression. I wanted to examine this debate for a couple of reasons. First, it gets to the heart of how nuclear weapons affect the behavior of states who possess them. I think not just in crises, but also in relation to military competition and peace time.

Second, what animated this paper specifically is that it speaks to a huge problem that US military and political leaders face right now, which is how do you use your conventional military power effectively against a nuclear armed adversary? And so I said about answering that question by looking at different cases of how threats of conventional military success could coerce the arrivals.

Sheena Chestnut Greitens: Okay, so in the article, if you are a nuclear power in a crisis with another nuclear power, so you're, you're in a nuclear crisis and you want to achieve conventional coercion. The article mentions two conditions

that are necessary for success. Can you tell us about what those two conditions are?

Tyler Bowen: Absolutely. So, I'll just describe what the conditions are and then for each of them describe why they're important. So the first condition is possessing an effective limited conventional option. And the second condition is possessing a strong second strike nuclear capability.

So why are these important? We'll start with the first one. An effective, limited conventional option, that's just a way to say that the challenger needs a conventional option for the use of military force that can achieve operational success, while also staying within desired thresholds on escalation.

This is important because the challenger faces a dilemma when it's in a nuclear crisis with another nuclear power. So obviously it wants to avoid escalation to nuclear war. But it also wants to win the crisis, for lack of a better term. It wants to put pressure on the adversary to back down, and steps to maximize one goal could jeopardize the other.

So, for instance**,** you could try to bring lots of military power to bear on the adversary, or on the target, and inflict lots of cost on it, to try to get it to make concessions. But that increases the risk that the target uses nuclear weapons. Vice versa, you could try to ease up on your pressure to reduce the risk of nuclear escalation, but this decreases the chance that the target's going to make concessions.

And so Robert Powell calls this the power risk trade off, and having an effective, limited conventional option, helps challengers manage this trade off. So by being limited, a conventional option respects certain thresholds with regards to things like targeting, geopolitical boundaries, maybe the scope and size of operation, as well as the duration of operations.

That reduces the risk of nuclear escalation. And then the limited conventional option also needs to be effective. And that imposes then a choice in the target between making concessions, and backing down. So you can think of an effective, limited conventional option, as sort of a goldilocks option for the use of force.

It's strong enough to exert pressure on an adversary, but not so strong that it starts some sort of escalatory spiral. Now as to the second condition, the challenger also needs a strong nuclear second strike capability. Just as I

mentioned earlier, this is the extent to which it can receive a first strike from the target and inflict damage and retaliation.

So if the challenger can probably inflict unacceptable damage and retaliation, it has strong, or what's known as a secure second strike capability, if it probably cannot inflict unacceptable damage–and the target has what technical parlance is called, the meaningful damage limitation capability, then the challenger has a weak second strike capability.

Now, why is this important? Well, if the challenger has an effective limited conventional option, the target is essentially choosing between escalating or backing down. And if the challenger has a strong second strike capability, then the expected cost of escalation for the target are just that much higher.

That also undermines the credibility of any nuclear escalatory threats the target may make, and this encourages the target to back down. Otherwise, the targets may see threats of asymmetric nuclear escalation, as a way to avoid backing down, and sort of escape the choice that's been imposed upon it.

And the challenger's sense of nuclear inferiority would then deter it from following through on its conventional military.

Sheena Chestnut Greitens: And together these two criteria really form the basis of what you call conventional options theory, right? And that's the theory that drives the outcomes that lead to conventional coercive success?

Tyler Bowen: Yes. So these are the two conditions, that are like the main independent variables within the theory, that then explain whether or not threats of conventional military success are effective in leading, and convincing an adversary, to make concessions within a nuclear crisis.

Ryan Vest: In your article, you used the phrase "threading the needle," in the title of the article. And you point out that successful conventional coercion is possible, but requires the challenger to thread a fine needle. So, I was wondering if you could explain what it means to thread the needle in this context, what exactly are you looking at there?

Tyler Bowen: That's a good question. I think what I mean here is that the challenger needs to achieve operational objectives, while also restraining itself to some extent. But those two goals are in tension with each other.

So putting thresholds on escalation, from the perspective of a military commander, look like constraints on the use of military force that then make achieving operational success more difficult. I chose this threading needle terminology, because I wanted to convey that challengers needed to strike a balance in their conventional war fighting operations, against a nuclear rival.

But it's just difficult to strike that balance. And so, you know, I was trying to find some sort of metaphor that got me there. I was in church one day, and it was like the reading for that week was–it's easier for a camel to pass through the eye of a needle.

And I was like–oh, I see, okay, there we go. So then that's how I arrived at that, but anyways. The threading needle point is just to say that challengers need to strike a balance, and it might be hard to strike that.

Ryan Vest: That makes a lot of sense, kinda that goldilocks problem of, you know, not too much, not too little, just the right amount.

Tyler Bowen: Yep. Yep.

Sheena Chestnut Greitens: So you talk in the article about the debate over the utility of conventional coercive threats. Can you help us understand, you know, you come into this debate, but can you give us an overview of what that debate is, and how the debate is really relevant for American national security, and international security in today's environment?

Tyler Bowen: Absolutely! I think this is like a rich debate here. So there's different types of threats that states could make with their conventional capabilities within a nuclear crisis. So issuing a threat to achieve success in the battlefield, or to defeat an adversary's conventional forces, is just one of them.

So, as I mentioned, another one is using conventional forces as trip wires, that make some sort of threat, that leaves something to chance. And what that threat is, is just a threat that a crisis is going to get out of control, and end in nuclear war, through a process that's hard for either side to foresee.

So you could think of the NATO Garrison in West Berlin as an example. So the idea being that these are only, you know, a few thousand US troops, you know, 10,000 to 12,000 Allied troops in total. It's not going to do anything, really operationally or tactically, to stop the Red Army from taking, or surrounding West Berlin, or the East Germans for that matter.

But what it will do, is that, you know, by essentially killing them, by inflicting casualties on those troops, it obligates the U.S., as well as NATO more broadly, to react violently. And at that point, you know, who knows where things go. So that's kind of the logic there.

Another is the threat of conventional punishment. So this is just air missile strikes, or now drone strikes, on civilian infrastructure, as well as naval blockades. And another is conventional counterforce, or the threat to use non-nuclear forces, to destroy an adversary's nuclear weapons. So this operation has a very high bar for success, but new technologies are making conventional counterforce increasingly possible, and states have resorted to it, and planned to do it in the past.

So, as I mentioned earlier, the main debate in nuclear politics literature is whether conventional forces are useful only for manipulating nuclear risk and acting as trip wires, or if the threat to achieve conventional military success has any course of utility.

However, I mentioned these like conventional punishment, and conventional counterforce, because I do think they shed light on current, and future coercion and escalation dynamics, and crises between nuclear powers. For example, Russia has developed long range precision strike weapons, as a way to provide it conventional options to inflict punishment on adversaries.

And you now see that Russia is conducting lots of Michelin drone strikes on Ukrainian civilians. In the late 1970s and early 1980s, the Soviet Union developed plans to target NATO's tactical nuclear forces, at the outset of a war in Europe. And today you also see the United States has, you know, worked hard on developing plans to try to take out North Korea's nuclear weapons with its conventional forces, or various cyber left of launch operations. So, I mean, I don't have space to really unpack those coercive dynamics in the article, but I did want to mention them, because I think that it just shows the variety of ways that conventional capabilities could be used for coercive effect.

Ryan Vest: So along those lines, you developed the conventional options theory. How did you develop this theory, and why is it an important addition to this debate?

Tyler Bowen: So in terms of how I developed it, it was mostly an iterative process of deduction, and then some induction from examining specific cases. So in terms of the deduction, it was really about just digging into really the literature on the stability-instability paradox, and really thinking hard about

when should we expect it to operate, and what exactly animates the fears behind it.

And it struck me that there were two fears that, because it was developed within the early to mid 1960s, when the Soviet Union was conventionally strong in Europe, though not globally, but specifically within Europe. And that they were gaining strategic nuclear parity, or at least gaining some sort of getting into a condition of nuclear stalemate with the United States.

And the fear was that kind of stalemate would deter U.S. leaders from responding to some sort of Soviet conventional success in Europe. So it's like– Oh, so it's not that the stability-instability paradox is this thing that just acts in general on nuclear powers–it might be contingent.

And eventually that then led me to this hypothesis of like–Okay, well when does conventional success? When would that work? When would threats of conventional success work? It's like, well, you know, you have these effective, limited conventional options, but then you also have the strong second strike capability.

And then, you know, some iteration from cases to figure out exactly what I mean by, you know, what exactly encompasses effective, limited conventional options, and some of the thresholds on escalation that nuclear powers take into account. In terms of what it adds, I think there are two contributions that I see myself as making.

First, it does get into this debate over the value of conventional superiority in a nuclear crisis. So, for conventional superiority to have an effect, a state isn't going to need to translate that into conventional options that can achieve operational success, while also respecting certain escalatory thresholds.

That “threading needle” title suggests that's difficult to do, but it has been done before, and it can explain past coercive successes. Second, I think it also sheds some light on this debate over the utility of nuclear superiority within a nuclear crisis.

So that's been a huge topic within recent literature. I come down on it through this in my article, by saying that nuclear superiority does have a role, but it is a circumscribed one. So it applies to conventionally weak targets of coercion that have, like, a pretty high degree of nuclear superiority, some sort of meaningful damage limitation capability.

And even then, their nuclear superiority doesn't really embolden them, per se. Instead, these conventionally weak targets of coercion, that have nuclear superiority, they issue a nuclear threat, kind of as a last resort, to avoid having to make concessions. And then as the challenger's sense of nuclear inferiority, their doubts about the strength of their own retaliatory capability, that makes that threat credible.

Sheena Chestnut Greitens: Let's talk a little bit more, and dig a little deeper, into some of the specific conditions that are in your theory. The first one is this idea of the challenger having effective, limited conventional options. And I wondered if, you know, why is it that states face limited conventional options, and how does that affect the challenger's ability to exert pressure on the target, when options are limited?

Tyler Bowen: Well, I guess I would say that they need to have these limited conventional options, and I think it does two things. So, the reason you might need, or really even face limited options, is that you do have a constraint to where you want, as a challenger, where you want to avoid nuclear escalation. But you're often unsure exactly of what is going to trigger, as like the other side, the target, to actually deliberately use them, or inadvertently use them.

Maybe the target's leaders decide to use nuclear weapons based on erroneous intelligence, or maybe there's a field commander that has been pre-delegated launch authority, and decides to launch them, without necessarily the central decision makers making that positive decision to use them.

So, you know, challengers, they want to avoid nuclear war, but they're unsure exactly what's going to trigger it. So, you know, the way that they can kind of deal with this problem is to say, well, here's certain thresholds on escalation that we are going to try to respect, that we think if we stay within Harry's, at least a tolerable risk of nuclear escalation.

And then why did they need to be effective? You know, that's what imposes a choice on the target. Otherwise, the target could just kind of stand firm, at the current level of conflict, whatever level of conflict the crisis is at. It doesn't really face a choice of whether or not to escalate the crisis or back down, and in fact, kind of throws that back onto the challenger itself.

So if the challenger, you know, so let's say it has options that it thinks are effective, but they're not going to be limited. They might, you know, think that they're too risky just to try and say, all right, well, we're not going to go there. So that would deter them from backing down.

Or, it's like, say it has options that it thinks are limited, but it's not going to be effective, it's like–Well, then we just don't think that this is going to exert enough pressure on the adversary to be successful. So again, we're going to back away from exerting this pressure, either of which would cause the, you know, the challenger to stop its coercive campaign, and coercion just fails.

So that's, you know, in a nutshell, why states need not only options that are limited conventional options, that are limited, but also effective.

Ryan Vest: The second condition in your theory, as you go through this, is the challenger's nuclear retaliatory capability. What factors influence the challenger's retaliatory capabilities, and how does this influence the target state's response?

Tyler Bowen: Well, the first part could be a whole podcast in and of itself, but I'll just leave it to be like, there's several factors that influence the challenger's nuclear retaliatory capability, such as, you know, the balance and the number of nuclear warheads, the challenger's ability to actually launch nuclear weapons on the targets territory. The survivability of its platforms, fragility of its nuclear community control, all that. I kind of bracket all those factors and just say, look, if this retaliatory capability is strong, then the target just has a higher expected cost for escalation, in response to the challenger's conventional success.

This goes for the tactical use of a nuclear weapon, in response to experiencing a conventional defeat. If you use a tactical nuclear weapon, there's, you now have a pretty huge risk of escalation, to general nuclear war, because it's just, it might be really hard to put the nuclear genie back in the bottle, at that point.

And if the other side, so if the challenger, if you're the target and the challenger has a strong second strike capability that, you know, escalation to nuclear war is equivalent to just a catastrophe, that you probably can't escape. Whereas if it has a weak nuclear retaliatory capability, nuclear war would still be a very costly outcome, but you might be able to avoid total catastrophe.

And this is also true for actions that escalate conventionally, since those also could increase the risk of nuclear escalation. So again, if you have lower expected costs. Essentially if you have a lower expected cost for escalation, you might be more willing to take various escalatory steps, and the threats to take those steps are going to be more credible.

Sheena Chestnut Greitens: Your article uses historical case studies of nuclear crises among a number of countries including Pakistan, India, Russia, the

United States, Cuba. And so I wondered, you know, in each of those, you apply conventional options theory, to help us look at why these crises led to the outcomes that they did. So I wondered, you know, what is that U.S. policymakers can learn from these historical case studies, and in particular for people who might have read about some of these crises in the past, what is it that conventional options theory draws out of the crisis that you think is new and distinctive?

Tyler Bowen: I'll go through just the two main comparisons that I've made in the article. So, first with Pakistan and India, what I did there was I compared India's attempts to coerce Pakistan in the Kargil War in 1999, which was a conflict they had where Pakistan tried to infiltrate some Indian military outposts on the Indian side of the line of control in Kashmir. And India was trying to coerce them into, Pakistan, into withdrawing back behind the line of control.

And then Operation Parakram in 2001, 2002. That was triggered by a terrorist attack on the Indian Parliament Building in December, 2001, which Indian leaders held Pakistani leaders at least partially responsible for, given that they, you know, Pakistan had a long, has a long tradition, still does, of supporting various jihadist groups that are Kashmiri separatists. India mobilized hundreds of thousands of troops within Operation Parakram, to try to get Pakistan to curb cross border, you know, terrorist jihadist infiltration across the border in Kashmere, among other demands.

And there I just said that, well, actually, you know, in the Kargil War, India was successful in getting Pakistan to withdraw back, behind the line of control in the Operation Parakram. Many Indian analysts regard that as coercive failure. So what exactly happened here?

Well in the Kargil War, India imposed a restriction to not cross the line of control on its own military forces, and yet it was still able to drive, you know, probably at more a cost to its own military forces than otherwise, but still able to drive the Pakistani forces, that had occupied the Indian military outposts, to recapture some of those posts, and show that it was probably going to be able to recapture all of them. Pakistan withdrawals, rather than escalates.

Whereas in Operation Parakram, you know, many of the options that India threatened, like, you know, like airstrikes on jihadist camps, hot pursuit across the line of control, taking small swaths of territory of Pakistan–I show that it was going to be very difficult for India to do that, without escalating to a much larger conflict, which then also carried a higher risk of nuclear escalation, was just deterred.

So this comparison of those two cases shows why having effective, limited conventional options is important for coercing a nuclear rival. Then I go into the Cuban Missile Crisis, and the Berlin Crises in 1958-59, and 1961. What I show there is just the importance of having a strong second strike capability, because the problem for the Soviet Union in the Berlin Crises wasn't necessarily that it didn't have strong conventional options. It had quite strong conventional options that could also be limited in scope–and U.S. leaders recognized that– but the Soviet Union had lots of problems still with its long range nuclear striking capability.

U.S. leaders were aware of that and this. And Soviet leaders were also aware of that, even though Khrushchev tried to bluster his way, and say that this was not a problem–he was aware it was a problem. And, because of that, U.S. threats of asymmetric nuclear escalation were actually effective in deterring Khrushchev from using conventional force, to try to change the status quo in Berlin, during those crises.

And so, you know, I argue that this was not really a problem for the U.S., within the Cuban Missile Crisis, and that it was able to use threats of an airstrike, plus use the implementation of the Naval blockade, plus the threat of a subsequent Airstrike, plus invasion, to exert coercive pressure on Soviet leader Nikita Khrushchev, to withdraw his missiles from Cuba.

But I think, in terms of the lessons that policymakers should draw, I also point out that this was a pretty dangerous game. Which is that U.S. leaders were careful when they were designing, and trying to decide on their conventional steps, that military steps they would take within that, within that crisis, to try to reduce the risk, mitigate the risk of nuclear escalation as much as possible.

But even then, there were things they just weren't aware of. Like a Soviet submarine almost deciding to use its tactical nuclear weapon, in response to harassment by U.S. anti-submarine warfare forces. Or the fact that they just didn't know about some of the tactical nuclear weapons that the Soviets had deployed to Cuba.

That would've made any sort of airstrike plus invasion of Cuba, even more dangerous than U.S. leaders thought it would be at the time. And so, you know, even though the U.S. had a coercive success in that case, you know, future policy makers should keep in mind that they might not be as fortunate.

Sheena Chestnut Greitens: The case studies are great, and I learned a lot from reading them even about crises that I thought I knew relatively well. So, I

commend everybody to go check out the article at *TNSR.org,* and dig further into those, then we have time for today. But just wanted to flag how much I appreciated the history in the case studies themselves.

Tyler Bowen: Yeah, there were things in that answer that I kind of glossed over, just in the interest of time. But yes, please go read everything within the article. because, you know, there's things that I tried to restrain myself from bringing up.

Ryan Vest: That's not a bad thing, but let me ask you, as we think about all these examples, what are some of the limitations of using conventional options theory, and how can we overcome those limitations?

Tyler Bowen: Well, so I guess there are two that kind of bug me. One is that I envision space and cyber capabilities as enablers of conventional military operations, but not options in their own right, which strikes me as, you know, not fully, not quite fully correct. So I could expand the theory.

You could expand the theory, you could try to say like–Okay, well what are the expected costs of using a cyber operation to try to coerce an adversary by inflicting punishment. You could use conventional punishment, but, okay, well what about we could use cyber operations to do that.

So what are the expected costs of doing that? What are the expected benefits of doing that? Do we think it will convince the adversary to back down? So I think you could expand the theory's logic to incorporate that. And two, it acknowledges, the theory acknowledges the importance of setting thresholds on escalation to manage the risk of nuclear war. But it doesn't say anything about what those thresholds should be. So I think that the way to overcome that is, you need to pair this framework with some detailed insights on an adversary, to try to figure out the escalatory thresholds that, if respected, you think would carry a tolerable risk of nuclear escalation.

So I think those are the main limitations.

Sheena Chestnut Greitens: Let me loop us back to the present day here. You wrote that conventional options theory has relevance for policy makers that are trying to reorient U.S. national security and nuclear policy, in a world in which the United States now faces two major nuclear adversaries. I wanted to ask you, you know what, what do you see, or how would you characterize the major present day concerns for the U.S. as it looks at its nuclear rivals, or nuclear threats? And what conflicts should policy makers be paying the most attention

to, or potential conflicts should policy makers be paying the most attention to? And how could they use conventional options theory, to help them think through how best to counter, and defend against, today's nuclear threats?

Tyler Bowen: Yeah, great question. So I think there are, the way I see it, there are three main threats, based around three of the main nuclear armed adversaries. Obviously, you have Russia, that invaded Ukraine, and has issued multiple nuclear threats to the U.S. and NATO, over the course of its invasion.

You know, I think the big question here, in terms of just in general what the threat is–What would actually make Russian leaders make good on those threats? And there is a possibility that a catastrophic defeat in Ukraine could do that. This is why American Intelligence officials assessed a heightened risk of Russian tactical nuclear weapons use in October, 2022 in the midst of Ukraine's Counteroffensive in Kherson.

Second, you have China's nuclear expansion and modernization. So this makes it harder for the United States to achieve meaningful damage limitation. It also imposes a damage limitation trade-off at given current force levels. Because so many of China's new weapons are deployed on silo-based ICBMs, the U.S. would have to expend lots of nuclear weapons to destroy them, which means it may not have enough to meaningfully limit the damage that Russia's nuclear weapons could then cause.

And this could also, you know, by kind of getting into a deeper condition of stalemate as Caitlin Talmadge put it in the *Foreign Affairs* article, I think, and Abe Denmark as well–this was like four years ago. We could imagine that China thinks, again, getting back to conventional options theory, that they might have some opportunity to use their nuclear weapons as a shield to enable some sort of conventional aggression with increasingly capable conventional forces in the Indo-Pacific Theater.

And then third, you have North Korea, which continues to build more warheads, and qualitatively improve its nuclear launchers. This is again, another main concern is, will the DPRK be emboldened to use its stronger nuclear capability as a cover to try to alter, do something to try to alter the status quo, on the Korean peninsula?

So those are three main issues to be aware of. In terms of how conventional options theory sheds light on them? I think there's two main ways: at first in wartime, you know, just like if there is a nuclear crisis, if things go wrong, and we find ourselves in one, military leaders would ideally have operational plans

that they think stay within acceptable escalatory thresholds. That they think can achieve operational success. Otherwise, I think political leaders, if you present military options that are not both effective and limited to political leaders, then those political leaders are probably going to be self-deterred from participating in a crisis, or continuing along in a crisis, and be vulnerable to coercion by a nuclear adversary.

I'm not saying this is an easy thing to do. This is quite a very difficult thing to do. To try to design operational plans that meet both of those criteria. But I'm just trying to provide a path forward for how US military leaders might be able to use, think about using, their conventional war fighting capabilities to achieve a successful resolution of a conflict, against a nuclear peer.

And clearly, the second thing is that the best option is to deter anything from happening in the first place. So to do that, I think you want to try to counter this kind of, this nuclear shield theory of victory. And for that, I think, you know, oddly enough, the answer is to try to take away the adversary's ability to win a quick, or limited victory.

So you communicate to them like, well, to change the status quo, you actually will have to escalate to a large, or a longer war. And while you might think you have a nuclear capability that makes our nuclear threats less credible, this is, in this larger and longer war, the risk of nuclear escalation is just going to be more unpredictable.

So there's some sort of complementarity there between conventional strength and nuclear credibility for the United States. And that will hopefully keep the peace, and prevent my theory, of how conventional war fighting capabilities can produce coercive success, from being tested in another crisis between nuclear powers.

So I'll leave that as my big takeaway.

Ryan Vest: As we've been talking here today, some of your comments reminded me of an article that we published last summer in Volume 8, Issue 3 of the journal. Nick Anderson and Darrell Press wrote a great article assessing North Korean conventional forces in Seoul. And one of the interesting takeaways that they came up with, one of the findings is they said–Hey, we don't believe that North Korea's artillery is as strong as maybe we previously thought it was. And if that is the case, that could have a significant effect on North Korea's willingness or necessity to use nuclear weapons in a conflict on the Korean peninsula. I was wondering, kind of putting your article, and Anderson and

Press' article together here, if you had any thoughts on how coercive theory might affect a situation like they identified, where perhaps the conventional forces are not as strong as we thought they were? And what does that mean for nuclear deterrent forces?

Tyler Bowen: So I've read that article, but I've read it only once, and it was a little bit ago, so I don't remember everything from. But I guess, I would say I had like, you know, two reactions in terms of trying to compare it with my work. The first is that, I think, it is actually good news for general deterrence holding on the Korean peninsula.

Because if North Korea's conventional artillery isn't as strong, if their conventional forces aren't that strong, then my theory would predict that even if, even as they increase the strength of their nuclear forces, they're probably still going to be deterred from trying to do anything at the conventional level, to try to change the status quo.

Because they just don't think that would be successful. And as much as, you know, we like to think of, as much as policy makers like to make out North Korea as being irrational, or quite willing to take risk, I actually think they're a little bit more rational and risk averse than people give them credit for.

And that this is kind of a hedge. These nuclear weapons are a hedge against unexpected aggression from the U.S. But then I think it's bad news if deterrence ever does, if there ever is a crisis. The problem is that there's, it's really bad news, because now, if you're telling me that they don't really have the conventional option to impose punishment.

So if there ever is a crisis, and their backs are against the wall, they really only have nuclear weapons as their go-to, as their recourse. Sure, that might mean they just back down early, but that might not be the case. And if that's not the case, then they might just use nuclear weapons.

And so again, it just underscores the point that hopefully, you know, general deterrence continues to hold on the Korean peninsula.

Ryan Vest: Well Tyler, thank you very much for joining us today.

Tyler Bowen: Thank you, it was an exciting conversation.

Ryan Vest: Thank you for joining us on *Horns of a Dilemma* from the *Texas National Security Review*. Our guest today has been Tyler Bowen, author of the

article “Threading the Needle, the Logic of Conventional Coercion in Nuclear Crises,” which as always can be accessed for free on our website, *TNSR*.org.

If you enjoyed this episode, be sure to subscribe and leave a review wherever you listen, and you can always find more of our work at *TNSR*.org. Today's episode was produced by *TNSR* Digital and Technical Manager, Jordan Morning, and made possible by the University of Texas Systems. This is Ryan Vest and Sheena Chestnut Greitens.

Thanks for listening.