

A Colloquy on “Tailoring” Nuclear Deterrence

by

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&

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DASSO is pleased to present the following colloquy on nuclear deterrence theory between Professors Ford and Payne, both of Missouri State University’s School of Defense and Strategic Studies.

Part I:

Dr. Ford on “Conceptual Challenges of ‘Tailoring’ Nuclear Deterrence”

Introduction

There can hardly be a topic in national security and defense policy of more importance than how to keep the peace between adversaries armed with nuclear weaponry on a scale that could – if things went wrong – lead to worldwide catastrophe. Ever since the dawn of the nuclear age, strategists confronted by the awesome and terrible power of these tools have debated how best to approach the challenges of deterring aggression.

One of the more interesting and valuable intellectual threads to have been spun out of these debates over the last few decades is the concept of “tailoring” deterrence policies to the particular characteristics of the adversary. This essay will explore the important insights offered by what might be called the “tailored deterrence” school, before offering both a theoretical and a practical critique of some of its conclusions and suggesting a partial reformulation – acknowledging its important contributions but slightly stepping back from the ideal of what might be called “exquisite” or “bespoke” deterrence “tailoring” – that advocates instead an alternative ideal of what might be termed *force posture supersufficiency*.

Tailored Deterrence

The concept of “tailored deterrence” can be seen as having grown out of a conceptual debate within the U.S. strategic policy community dating back to the relatively early years of the Cold War. Though thinkers at the time did not necessarily categorize themselves in such terms, the noted deterrence theorist Keith Payne has described the longstanding existence of a “great divide” in American thinking about nuclear deterrence, between adherents to what he calls the school of “easy deterrence” and that of “difficult deterrence.”

For the “easy” school – among whose members Payne includes thinkers such as Kenneth Waltz, Thomas Schelling, Bernard Brodie, and Robert Jervis – “the essential requirements for stable mutual deterrence are not difficult to understand or meet[,] and ... the functioning of mutual deterrence can be considered largely predictable and reliable.” For them, to oversimplify, the existential dangers of nuclear weaponry are such that any rational leader will perceive them in more or less the same way. Accordingly, one can, through the threat of using such weapons in the event of war, effectively deter *any* great power adversary from undertaking aggression with essentially the same – and a relatively simple – recipe of force posture, risk manipulation, and declaratory policy. As Payne put it in an article six years ago, for “easy deterrence” thinkers,

... [the] general expectation that punitive threats against an opponent's society can deter reliably [derives from the assumption that] ... [d]eterrence works reliably and predictably at nuclear force levels that are easy to acquire and maintain because opponents with a modicum of common sense will place decisive value on the preservation of their nation's societal assets – which generally are relatively few, undefended, and highly vulnerable to modest numbers of nuclear weapons.¹

By contrast, still following Payne's characterization, thinkers from the "difficult deterrence" school – among whom may be found Herman Kahn, Albert Wohlstetter, Colin Gray, and ultimately Payne himself – "envision[] deterrence as difficult to establish and sustain." Rather than concluding that nuclear terrors always produce essentially the same deterring effect, "difficult deterrence" theorists feel instead that

"... [a] leader's nationality, passion, idealism, cynicism, pragmatism, dogmatism, stupidity, intelligence, imagination, flexibility, stubbornness, and so on, along with mental disorders such as depression, anxiety, and paranoia, shape reactions and decisions during a crisis." ... In short, the functioning of deterrence 'is heavily context dependent.' The confident expectation of an opponent's sensible caution when confronting a severe societal deterrence threat may be upset by a variety of factors that may not be obvious in advance to an outside observer.²

This contextuality, in turn, can have force posture implications, inasmuch as a strategy based upon "difficult deterrence" premises may, as Payne noted, "potentially requir[e] greater nuclear capabilities, contingency planning, and for some, strategic defensive capabilities" than is felt necessary by "easy deterrence" advocates. Simply put, if the "difficult deterrence" thinkers are right, it may take the threat of using "more" nuclear capability – or different *kinds* of nuclear capability – to deter some leaders than to deter others.

The concept we now call “tailored deterrence” grew out of this latter insight early in the Cold War, though the term itself is much more recent, being attributed – in Sarah Faris’ insightful account – to Payne himself in a 1993 briefing to the U.S. Strategic Command. And indeed, “[s]ince its early post-Cold War introduction,” Faris relates, “tailoring has become a well-established element of the U.S. approach to deterrence, on a bipartisan basis.” It emphasizes the need to calibrate one’s deterrence policy and posture “to a broad range of opponents via a close and ongoing understanding of their respective values, perceptions[,] and calculations – their decision-making frameworks.”³

Such formulations can be seen, for instance, in modern U.S. nuclear guidance documents such as the 2006 National Security Strategy, which called for “a future force that will provide tailored deterrence” vis-à-vis “both state and non-state threats.”⁴ Similarly, the 2006 Quadrennial Defense Review (QDR) declared that the Department of Defense was

continuing its shift from a ‘one size fits all’ notion of deterrence toward more tailorable approaches appropriate for advanced military competitors, regional WMD states, as well as non-state terrorist networks. The future force will provide a fully balanced, tailored capability to deter both state and non-state threats ... while assuring allies and dissuading potential competitors.⁵

Under the Obama Administration, it was likewise said in the 2010 QDR that “[c]redibly underwriting U.S. defense commitments will demand tailored approaches to deterrence,” and that “[s]uch tailoring requires an in-depth understanding of the capabilities, values, intent, and decision making of potential adversaries.”⁶ As recently as the 2022 Nuclear Posture Review, in fact, “tailored deterrence approaches” that adjust postures and policies “for specific problems, competitors, and settings” were needed in order to provide

“tailored options that will shape adversary perceptions of benefits and costs.”⁷

As Faris summarizes such thinking, tailored deterrence both requires and builds its approach around acquiring “an understanding of opponents’ unique characteristics, including their decision-making frameworks in the context of the engagement.” It rejects the aforementioned “‘one-size-fits-all’ approach to deterrence based on the assumption that rational opponents will calculate alike,” because in fact

human decision making is variable – [and] there are no universal rules that govern calculations of cost and benefit, or risk-taking. ... [D]ecision making and resultant behavior is subject to influence by a variety of factors that can lead opponents to different responses to U.S. deterrence strategies, depending on their particular decision-making frameworks, perceptions and expectations⁸

Tailoring [thus] consists of adapting deterrence strategies to opponents’ decision-making frameworks, and the context of the engagement. This means that the character of U.S. deterrence threats, including how and when they are communicated, must be based on an understanding of factors driving opponents’ perceptions and decision making. Opponents’ diverse decision-making frameworks will shape how they respond, in potentially unique ways, to U.S. deterrence strategies and redlines. Consequently, understanding these frameworks, to the extent practicable, and structuring U.S. deterrence strategies accordingly, can be critical to their reliability and effectiveness.

As Payne put it in a 2018 article on the topic, the essential predicate for sound deterrence policy is therefore the need “to understand the unique characteristics of diverse adversaries” and “tailor deterrence to the unique character of [those] adversaries,” and to the particular context in which one engages with them.

We must pursue the hard work of understanding how to deter a more diverse set of adversaries and potential adversaries, from a wider array of specific actions, in a similarly wider array of plausible circumstances⁹

Accordingly, he concluded,

... [i]n the contemporary era, there can be no generally-applicable “rule of thumb” derived from the U.S.-Soviet experience for predicting that a particular set of U.S. capabilities will be “stabilizing” or “destabilizing” across a spectrum of potential adversaries and contexts.¹⁰

The insights of tailored deterrence thinking within the “difficult deterrence” intellectual tradition are profound, and they offer planners an invaluable cautionary warning about the need to understand what is likely to deter *your actual* adversary rather than just to deter a hypothesized rational actor who is assumed *a priori* to think and respond just as we ourselves would. The challenge of avoiding the evergreen temptation of “mirror-imaging” vis-à-vis our adversaries – and the need to build our approaches to them, instead, on an understanding of how they actually are – has long been well-known in intelligence and policy planning circles, even though meeting this challenge has always been frustratingly difficult. Tailored deterrence theory, however, offers a critical reminder that these problems are *especially* important in the realm of nuclear weapons posture, where errors could quite literally lead to the death of billions.

For all the powerful intellectual contributions of tailored deterrence theory, however, I fear it nonetheless presents challenges, both logical and practical, which may require us at least partly to reconceptualize its assumed links between behavioral insight and policy prescription. The following pages will explain what I mean by this.

The Problems of “Tailoring”

First, however, let me make clear that I strongly endorse the basic insight of tailored deterrence thinking about the need to adjust one’s approach, as much as feasible, to the particular characteristics and potential idiosyncrasies of the adversary. This is an extremely important lesson, which we forget at our peril.

After all, deterrence is not, and never has been, a *physical condition* that can reliably be arrived at and maintained through attention merely to fixed and clear formulae of weapon system hardware and deployment options, much as an engineer might perhaps calculate the design of a bridge based upon the tensile strength of steel, compression loadings for a particular mix of concrete, certain specified wind and weather parameters, and expected traffic volume. Indeed, deterrence is not first and foremost a question of nuclear weapons *hardware* at all, though the specifics of the hardware through which one employs threats and counterthreats and manipulates risk are obviously important.

At root, one might say, deterrence is a question of *wetware*: an operation in the grey matter between the ears of the participants, a psychological game in the adversary’s head. This makes deterrence a deeply *human* phenomenon, in just the sort of actor- and decision-contextual ways that tailored deterrence theorists emphasize; it is anything but formulaic.

To be sure, as I’ll discuss more later, one probably indeed needs the *least* “tailoring” of deterrence policy when it comes to the specific task of dissuading an adversary from launching a “bolt from the blue” nuclear first strike of the sort about which Cold War planners on both sides once worried a great deal. The assumption that suicide is not a rational game-theoretical choice is one that hopefully holds for most players under most circumstances.

Even there, however, we know from many other contexts that humans do not *invariably* make the “rational” choices. In the context of nuclear deterrence, it would be desperately unwise not to consider whether variables are present that might, in practice, lead one’s adversary to take a highly extreme and subjective approach to calculating costs, benefits, risks, and opportunities. Is he, for instance, operating in some extremity of cognitively-distorting stress or other emotion? Is he in fact a sociopath, an ideological fanatic obsessed with extirpating perceived evil at essentially any cost, or a religious enthusiast enthralled by the prospect of martyrdom and subsequent eternal life in Paradise? (As Keith Payne notes in his companion piece to this essay, for instance, “[i]n some cases, opponents’ decision-making may effectively be immune to external deterrence threats and redlines.”) If the answer to any one of such questions is “yes” or even “maybe,” deterrence even of a “bolt from the blue” may start to sound rather more “difficult” than “easy.”

Moreover, if an adversary concluded that he had a good chance of landing a knockout blow with his first punch via a decapitating or otherwise crippling first strike, he might perhaps, in a crisis, feel such preemption to be rational even if he were quite sane. (This might be particularly true if he felt that full-scale war were inevitable anyway, and hence that his choice was not between peace and a quasi-suicidal war, but rather between a terrible war on slightly “better” terms *sooner* versus one on “worse” terms *later*.) This is one reason why the maintenance of robustly survivable second-strike capabilities – *e.g.*, ensuring that at least some minimum force of quiet ballistic missile submarines is always at sea on continuous patrol – has long been such an important focus of U.S. nuclear force posture planning.

And such an “out of the blue” scenario is presumably the *easiest* nuclear deterrence question to answer. It would be much harder and complicated still to prevent war from breaking out in the first place by deterring conventional attacks under a varying range of possible circumstances, or to navigate the treacherous shoals of “escalation management” – on which more below – by deterring adversary movement “up” the “escalation ladder” either *to* nuclear use or to *more*

nuclear use once a conflict has begun. The principle of “tailoring” acknowledges that in terms of their “detrability” in any specific situation of this sort, all adversaries are *not* created equal, and that such differences must perforce be taken into account. And in this, tailoring theorists are surely correct.

That said, I suspect that “tailoring” has limits: practical and conceptual ones that are, I fear, particularly salient for U.S. deterrence planners in today’s context of multi-power “near-peer” rivalry. Specifically, I would suggest three such challenges: (1) problems of *fidelity*; (2) problems of *temporality*; and (3) problems of *plurality*.

Problems of Fidelity

It is the central selling point of deterrence “tailoring,” of course, that the cognitive terrain of the adversary’s mind and decision-making processes – the terrain on which one seeks to exert a deterring influence upon the foe through nuclear force posture, doctrines, and declaratory policy – can be a very complicated landscape. (The considerable demands that tailoring places upon intelligence collection and analysis, for instance, are discussed in the essay by Keith Payne that accompanies this piece.) This is certainly true, but it is worth spelling out in more detail just how much problematically detailed and deep knowledge one would need to acquire (and to maintain over time) in order to achieve truly “bespoke” tailoring.

With respect even merely to the *personal* characteristics of a single adversary leader, for instance, as we have seen “difficult deterrence” theorists remind us, one must assess the impact upon his decision-making of factors such as “nationality, passion, idealism, cynicism, pragmatism, dogmatism, stupidity, intelligence, imagination, flexibility, stubbornness, and so on,” along with “mental disorders such as depression, anxiety, and paranoia.”¹¹ Nor is acquiring such knowledge likely needed just for one person, since few adversary regimes are *so* personalistic that nobody else matters: in all probability, one would also need to evaluate the impact of such factors

upon all of the essential players within that country's nuclear-relevant decision-making apparatus.

Moreover, such potentially idiosyncratic human beings would be making decisions within a highly complex web of factual circumstances, as well as bringing both to the perception and the interpretation of these circumstances – and to the formulation and implementation of policies in response thereto – a range of antecedent assumptions, habits, preconceptions, policy-behavioral “instincts,” and intellectual and cognitive path-dependencies. In principle, therefore, these would *also* need to be well understood if “tailoring” were to be fully effective in addressing one's deterrent policy to a particular adversary in the specific circumstances in which one faces him.

Obviously, ever being able *actually* to have such a degree of analytical fidelity about any given adversary is a fantasy. It is surely impossible to “know one's enemy” at the level of detail that tailored deterrence holds out as the ideal.

This does not in itself invalidate “tailoring” theory, of course, for just as having *more* accuracy in targeting a kinetic weapon system is better than having *less* of it, doing more tailoring in adjusting deterrence policy to one's adversary is generally preferable to doing less. Tailoring remains a valuable aspiration and conceptual lodestar notwithstanding the fact that in the real world, the *degree* of one's deterrent tailoring will be unavoidably imperfect.

The point here, however, is that a degree of “bluntness” in deterrence tailoring is unavoidable, and that one can be sure that there are *always* aspects of one's assumptions about how the adversary thinks that will be *wrong*. Because by definition one cannot be sure *which* such conclusions are mistaken, however, deterrence planning based upon assessments of the adversary must at some point aim not so much to *maximize* performance against an extremely detailed cognitive model of the other party but rather to attempt to find an approach that, to use Herbert Simon's term, “satisfices” across a *range*

of possible alternative adversary cognitive terrains. (Where you have very high confidence in your ability to understand him, this can perhaps be a fairly narrow range, but in no case can you assume that you've gotten him *completely* right.)

Interestingly, there is at least some precedent for this kind of thinking as a way to inform force posture planning. A RAND Corporation study in 1969, for instance, sought to create “future best estimates” of an optimal U.S. posture on the basis of a model that considered multiple planning factors and a series of “expected value submodels” across a range of uncertainty in order to identify “the appropriate force mix (or size) to achieve a desired level of confidence at least cost” in each scenario.¹² Another RAND study in 1974 explored the USSR's hypothesized susceptibility to being deterred by U.S. nuclear force posture across four different sets of alternative assumptions about the dynamics underlying Soviet decision-making.¹³ From today's vantage point, it is not clear whether U.S. leaders actually used such calculations in developing nuclear plans during that period, and it has been observed more generally that such analyses have tended to be less influential in Pentagon decision-making than analytical literature suggests they should be, and that “scenario planning in the DoD has not fulfilled its promise as a fulcrum for strategic planning.”¹⁴

Nevertheless, with such insights in mind, tailored deterrence should admit its own limitations and eventually derogate from its own aspiration to fidelity in favor of some degree of *deliberate* bluntness of approach. The question is not one of *whether* such derogation will be needed, but rather one of *where* and *how much* of a departure one must make in favor of more broad-brush approaches in order to reduce the risk that deterrence will fail on some unexpected patch of cognitive terrain. It is perhaps ironic that the operational end-state of tailored deterrence is thus a careful and prudential avoidance of “too much” tailoring, but some sort of such analytical “hedging” would seem to be inherent in the project.

Problems of Temporality

A second challenge for tailored deterrence theory – with its emphasis upon understanding the complex physical and cognitive circumstances of any given situation of adversary decision-making – is the awkward but unavoidable fact that such circumstances *change* over time. To ensure that one's approach is and remains "tailored" thus requires that one adjust it over time as relevant facts evolve. But this temporal malleability introduces important additional challenges.

For one thing, tailored deterrence solutions may need to be adjusted or re-set with each successive new national leader. It's not difficult to imagine, after all, that the question of "What will deter *you*?" might be answered in meaningfully different ways depending upon whether the nuclear decision-maker in question is, for instance, Joseph Stalin, Nikita Khrushchev, Yuri Andropov, Mikhail Gorbachev, or Vladimir Putin. (By comparison, Dwight Eisenhower, Richard Nixon, Ronald Reagan, Jimmy Carter, George H.W. Bush, Barack Obama, Joe Biden, and Donald Trump differ hardly less among themselves, and perhaps more so.)

The answer might also differ depending upon *when* the question is asked even within the tenure of the *same* leader, for real-world human beings frequently learn, grow, deteriorate, or otherwise evolve while in office. Since leaders do not generally make decisions in a bureaucratic vacuum, moreover, some degree of adjustment may also be needed depending upon changes in the landscape of policy advisors and implementers. (Anyone thinking it doesn't matter who else is "in the room" as long as the paramount decision-maker remains the same might wish to compare the divergent policy approaches of the First and Second Trump Administrations.)

And of course, even if one could hold the characteristics of the decision-maker constant in a notably unrealistic way, the *context* in which he will assess his security environment and make nuclear decisions is also subject to change. "Facts on the ground" are always evolving, and such evolution will at some point inevitably bring

changes relevant to nuclear decision-making – and that may accordingly require some adjustment of one’s nuclear “tailoring” solutions. *What* adjustment, *how much* of it would be needed, and *how often* this need would arise presumably cannot not be predicted with any particular accuracy, but it seems inescapable that *some* process of ongoing adjustment will be required if deterrence tailoring is to be maintained.

As with problems of analytical fidelity, these dynamics of change do not in principle invalidate tailored deterrence theory. Adapting tailored deterrence solutions only *imperfectly* to changed circumstances is surely probably better – in terms of overall deterrent performance – than not adjusting things at all. Yet dynamics of temporal change seem likely to sharply limit the extent to which tailoring can be accomplished, given the degree to which nuclear force posture depends upon a range of complex nuclear weapons and delivery system development, deployment, and acquisition decisions that can take years to be made, and that can take *decades* to bear fruit.

The reader of this journal is likely to be familiar with John Boyd’s famous concept of the “OODA loop” – his acronym for a decision-and-action cycle in which each player attempts to be as rapid and accurate as possible in *observing* his environment, *orienting* himself within it, *deciding* what to do, and *acting* upon that decision. The player who can cycle through the “OODA loop” faster than his opponent, the theory goes, can generally outfight him, because having a faster cyclic rate means that one is able to change the opponent’s operational environment (presumably to his disadvantage) faster than he can react to it. If you cycle faster, he will inevitably fall behind.

The OODA loop concept offers us a cautionary note for tailored deterrence, because the factual context in which nuclear-relevant decisions are made – including the political-bureaucratic terrain of decision-making within an adversary regime, or the cognitive terrain of the individual “wetware” of the adversary leader – is capable of changing *much* faster than one can change one’s nuclear force posture. It is true that declaratory policy and doctrine can be revised more

quickly than the number and nature of the physical nuclear tools one deploys, but it seems unavoidable that the world of deterrence-relevant “facts” in the security environment will be able to change more rapidly than one can build, modify, redeploy, or dismantle nuclear weapons and delivery systems.

One can see aspects of this dilemma surfacing clearly in post-Cold War U.S. nuclear force posture planning. The fall of the Berlin Wall in 1989, the collapse of the USSR in 1991, and the resultant dramatic easing of Cold War tensions opened up remarkable opportunities for nuclear force posture reductions, and indeed in time allowed both Washington and Moscow to reduce their nuclear arsenals to only a small fraction of their Cold War peaks – in the American case, to its smallest size since 1960. This could perhaps even be seen as an application of tailored deterrence, for it was almost certainly the case that in the circumstances of the early post-Cold War years, neither of the former superpower rivals *needed* very large forces to deter aggression against it by the other in the new security environment they both faced.

Notably, in U.S. practice, planners attempted to employ concepts of deterrence “hedging” by not cutting the arsenal *quite* as far back as they probably could have given the security environment of the time, and by retaining a modest reserve of retired, non-deployed weapons that could, in theory, be returned to service if the security environment failed to remain as non-threatening as it then seemed to be. On the whole, however, we “tailored” down quite dramatically from Cold War levels to a much smaller force keyed to the assumedly benign circumstances of the post-Soviet world. We did so, moreover, not just by taking many thousands of weapons and delivery systems out of service over the subsequent two decades, but also by radically scaling back the footprint and production capacity of the U.S. nuclear weapons production infrastructure and the overall size of the American Defense Industrial Base (DIB) as a whole.

Today, of course, the security environment does not seem nearly so benign, and we are being forced to confront a force posture “OODA

loop problem” in the form of the mismatch between the rate of change in the security environment and the available pace of change in our development, production, and deployment of nuclear weaponry. At the moment, we are struggling to keep pace even with the programmatic and financial demands of modernizing the types of strategic delivery system we retained from Cold War days – and of replacing them merely at today’s vastly-reduced post-Cold War numbers – and we still have very little capability to build any *more* of them, or to build anything *new*, as deterrence requirements change or grow in today’s deteriorating security environment.

U.S. national security planners have for years emphasized the importance of ensuring that America’s nuclear weapons development and production infrastructure and the associated deterrence-relevant DIB are as agile and “responsive” to evolving threats as possible. As early as the 2001 Nuclear Posture Review (NPR) published by the George W. Bush Administration, for instance, the U.S. Department of Defense called for “[r]evitalization of the [nuclear] infrastructure so that it can support in a timely manner the full range of future capability and modernization requirements.”¹⁵ In a similar vein, the First Trump Administration’s 2018 NPR stressed that

An effective, responsive, and resilient nuclear weapons infrastructure is essential to the U.S. capacity to adapt flexibly to shifting requirements. Such an infrastructure offers tangible evidence to both allies and potential adversaries of U.S. nuclear weapons capabilities and can help to deter, assure, hedge against adverse developments, and discourage adversary interest in arms competition.¹⁶

This was also a point made in the Biden Administration’s 2022 NPR, which declared it essential to

establish the capabilities and infrastructure that can efficiently produce weapons required in the near-term and beyond, and that are sufficiently resilient to adapt to

additional or new requirements should geopolitical or technology developments warrant.¹⁷

Yet despite literally decades of such calls for more “responsiveness,” and some new infusions of money to this end in recent years, we are still far from where we need to be. Some portions of the U.S. nuclear weapons infrastructure still date from the Manhattan Project itself, and only the most modest of recoveries has yet been achieved from the dramatic downsizing of this infrastructure after the Cold War – which left the weapons complex all but “hard-wired,” as it were, in a form too small to permit effective future adaptation to a more threatening security environment. According to a 2025 memorandum from the current U.S. Deputy Secretary of Energy,

... [f]or nearly three decades, the United States has not had the ability to produce plutonium pits in the quantities required for the nuclear weapons stockpile and to maintain nuclear deterrence.¹⁸

In the First Trump Administration, we set in motion a plan to build two new production pipelines for the plutonium “pits” that form the core element of U.S. nuclear weapons, but these efforts are over budget and behind schedule. (One of these lines produced its first pit only as recently as late 2024, while the other may do so until the mid-2030s.) Even when this pit production begins, moreover, the two lines’ combined throughput will be a mere 80 per year – a tiny fraction of the United States’ peak annual pit production capacity of between 1,000 and 2,000 during the Cold War, and nothing at all like a genuinely “responsive” infrastructure capable of hedging against future threats.

We are in no danger, in other words, of being able to build any genuinely new capability anytime soon – or to produce any significant number of *new* weapons from scratch – and though the evidence suggests the problem is not nearly as bad as some once feared, there remains debate and concern about the implications as our existing collection of plutonium pits gradually ages over time. In the

immediate term, the only U.S. capacity to respond to increased force posture requirements in the face of decreasingly “detractable” modern adversaries thus stems from the modest “hedge” of non-deployed weapons we decided to keep around gathering dust on the proverbial shelf years ago. Nor will we be able *replace* those weapons in the American “hedging” stockpile because the abovementioned 80-pit annual throughput will be primarily allocated merely to producing warheads for existing programs to replace existing delivery systems at current stockpile numbers.

All of this suggests the conceptual and practical limits of aspiring to “tailor” deterrence in a context in which our OODA loop response time for nuclear force posture evolution is *very* slow. Having tailored our deterrence posture three decades ago to the characteristics of adversaries who we did not then find particularly threatening, we now find ourselves falling behind the curve in being able to respond to the much more problematic ones of our day. What little ability the United States now has to tailor our force posture to *today’s* threats, in fact – *e.g.*, the ability to “upload” some of our retired weapons into deployed delivery systems – is the result of a fortuitous decision *not* to tailor U.S. force posture *too* closely to yesterday’s limited needs.

There thus exist sharp programmatic limits, it would seem, on how well “bespoke tailoring” can cope with temporal change – particularly as the security environment gets *worse*. Yet an environment of growing threats is presumably just the context in which you would ordinarily want to tailor deterrence *more* in order to maximize its effectiveness. We clearly face a real challenge here.

Problems of Plurality

Tailoring faces additional problems with respect to what one might call *plurality* – that is, the challenges of coping with deterring multiple “near-peer” nuclear adversaries at the same time. In principle, it might be possible to plan and implement a tailored deterrence strategy against a single peer adversary in a bilateral rivalry, as indeed we arguably attempted to do during the Cold War

vis-à-vis the Soviets. To extend the tailoring metaphor a bit further, if you know for whom a “suit” is being made, a good tailor can make the cut work very attractively indeed. If the same garment is being made to fit *multiple* people, however, it seems unlikely – particularly through the context-minded prism of “difficult deterrence” thinking, which analogically posits that national leaders come in greatly varying sizes and shapes – that one could ever *really* make the suit look good.

However many adversaries one faces, one still only gets to have *one* force posture, at least in terms of the actual weapons systems one builds and deploys. Nuclear weapons-related *policies* might perhaps still be “tailored” – *e.g.*, by preparing different approaches to strategic signaling, different rules of engagement and conceptual frameworks for escalation management, and different doctrinal and declaratory policy caveats for each adversary – but one still only gets *a single* force posture at a time where actual weapons systems are concerned. In that respect, ensuring one’s ability to tailor deterrence policy to the target over time might require being careful *not* to tailor one’s arsenal *itself* too much to existing deterrent needs: the logic here suggests the need to err on the side of excess capability in numbers and type, rather than aim at very close tailoring.¹⁹

In principle, in the face of multiple adversaries, one might thus be best served by approaching tailoring *additively* – that is, layering what one needs vis-à-vis one adversary on top of what one needs against the other, as packages separately calculated and concurrently maintained. Nevertheless, due to real-world limitations on funding and to production programmatics, a purely cumulative approach is surely unfeasible vis-à-vis near-peers, driving force posture planning into the challenging intellectual terrain of considering how *little* surplusage – over and above what one would need for mission taskings against a single near-peer adversary – one could safely get away with. Here, again, one may have to forego the aspiration to optimality in favor of a somewhat different approach less finely tuned to actual needs.

Beyond Core Deterrence

It is also worth noting that tailored deterrence is, on its own terms, a framework arguably incapable of providing a comprehensive force-sizing construct for the arsenal of a major nuclear weapons power in the first place. To help explain this point, recall that there are at least three conceptually different types of task, or “mission sets,” to which a nuclear arsenal might be put: Core Deterrence (CD); Escalation Management (EM); and Damage Limitation (DL).

As it has been described in the literature, tailored deterrence seems best suited for providing force posture guidance for Core Deterrence purposes – that is, for deterring an adversary from launching a “bolt-from-the-blue” attack in peacetime or in crisis, or from thinking it worthwhile to launch an all-out conventional war. In principle, a careful analysis of adversary nuclear thinking could help determine what force posture one requires in order to have the capabilities needed to dissuade him from taking such steps – *e.g.*, how large a survivable second-strike force, and capable of hitting what targets, would likely frighten him into thinking the risks and likely costs of aggression not worth its potential benefits.

Even with CD, of course, really high-fidelity tailoring is likely impossible due to the aforementioned problems of analytical fidelity, temporality, and plurality. Nevertheless, a nuclear force posture’s CD mission set – which is planned for and implemented in advance, thus allowing at least *some* careful study of the adversary under more or less the same contextual non-wartime conditions in which one hopes deterrence will work – is the one most conducive to tailored deterrence theory.²⁰

Tailored deterrence struggles somewhat more, however, with the coercive bargaining questions of Escalation Management – which is to say, with the challenges that arise as one attempts to use one’s force posture to manipulate nuclear risk in ways that dissuade an adversary from crossing the threshold into nuclear weapons use or

escalating into *further* nuclear use after a limited nuclear conflict has begun. EM is a type of coercive bargaining, and involves not only efforts to use nuclear-related threats and actions to achieve one's affirmative goals against the adversary, but also to cope with and respond to *his* efforts to employ nuclear threats for coercive bargaining against *you* in crisis or conflict.

In principle, the tailoring of deterrence should be possible here too. In contrast to the CD mission set, however, EM involves questions of how an adversary will react in circumstances radically different from the peacetime baseline – circumstances for which advance analytical preparation is much less possible, and which are more likely to change with extreme rapidity. This makes tailoring's "fidelity" and "temporality" problems particularly acute.

Importantly, in terms of number and type of nuclear weapons systems, EM-related force posture requirements for such coercive bargaining are probably significantly greater than those needed merely for CD. Core Deterrence might perhaps be achieved merely by the maintenance of a survivable second-strike capability, as long as it was of a sort capable of holding at risk what the adversary indeed most fears losing. (These forces, in other words, would be structured to ensure that, come what may, you could destroy whatever it is that the foe most prizes.)

For effective Escalation Management, however, a force of merely that size is unlikely to be enough. Indeed, without some ability to engage in EM in a crisis or limited conflict, a stable balance of "mutually assured destruction" capabilities at the strategic level might actually *invite* lower-level or merely regional aggression on the basis of an adversary's assumption that you won't respond effectively to such localized provocations precisely *because* getting into a full-scale war would present existential risks. (In Ukraine today, for instance, Russia has sought to employ the risk of nuclear escalation to deter *us* from directly intervening to stop *it* from feeding upon its neighbors. In contrast to the more *defensive* applications of deterrence as we usually contemplate in the West, I have called this strategy an

“offensive nuclear umbrella.”²¹) EM is thus likely to require both a larger and a more flexible nuclear arsenal – especially in terms of lower-yield weapons or those of more limited range suited to theater-level exchanges – than does Core Deterrence.

The point here with respect to tailored deterrence is that even to the degree that tailoring theory can help with both CD and EM tasks – which, as we have seen, is quite real, though ultimately limited – the resulting force posture requirements are *different*. Meeting the requirements of force posture planning thus entails looking beyond any specific single formulation of “tailoring” to broader logics tied to the purposes nuclear forces are intended to serve.

This disjuncture is especially dramatic when one considers Damage Limitation. As I have written elsewhere, DL strategy can come into play where both deterrence and escalation management have *failed*, and all-out nuclear war has begun:

In *those* unhappy circumstances, “damage limitation” refers to the effort, in effect, to destroy as many of the enemy’s nuclear assets as possible, as quickly as possible, in order to prevent them from being used against you. It is not damage *prevention*, of course, because in such circumstances that is presumably impossible[,] [particularly to the extent that the adversary possesses survivable second-strike forces]. Nevertheless, there is an undeniable logic in the idea that it is better to be hit by only *some* of an adversary’s nuclear arsenal than by *all* of it, and damage limitation strategies seek to make this ‘some’ as small a number as possible.²²

DL strategies generally pay little attention to tailoring except simply in the sense of making sure you know as much as possible about the nature and location of all surviving enemy nuclear forces. Indeed, DL isn’t fundamentally about *deterrence* at all, though of course one’s clear ability to achieve damage limitation missions may in fact contribute to deterrence by making an adversary think twice about

attacking. Rather, DL is about doing what one can to limit adverse national consequences after considerations of actually *detering* the adversary have already been swept from the board.

My point here is merely that Damage Limitation requirements – if one has them – may have very different implications for force posture planning than the other missions I have described. In particular, DL is likely to demand much more in terms of absolute numbers of weapons than either CD or EM, and likely *less* in terms of theater-level capabilities than EM (unless the particular geographies involved are especially constrained, making theater-range systems effectively “strategic” from the perspective of at least one party). This is, then, another way in which, while deterrence planning can draw upon powerful insights from tailored deterrence theory, it yet needs to look beyond it to meet the challenges of force posture planning.

And indeed, at least implicitly, it may be for such reasons that it is not actually clear that the U.S. Government has ever really *tried* to achieve tailored deterrence in a highly developed way. In principle, one might imagine that in its ideal form, a strategy of “tailoring” deterrence would have at least three elements: (a) we would do focused analytical work on what, specifically, a given adversary most fears losing and would wish to protect above all else; (b) we would change our force posture, doctrinal, and operational plans in order to make us able to hold that thing (or things) at risk under any and all circumstances; and (c) we would explicitly *signal* to the adversary that we have taken the foregoing steps in order to maximize their deterrent effect upon him.

Yet I am not aware of any evidence in the historical record of any such conjunction of steps; in practice, it would appear that U.S. leaders have at every stage decided, even if only tacitly, to opt for a *less* surgical approach to deterring our foes. It is perhaps not a coincidence, then, that I, too, suggest a somewhat blunter approach, as the following pages will detail.

A BaDASS Approach?

None of the above critiques invalidate the insights and importance of tailoring, and we owe a great deal to Keith Payne and other tailored deterrence theorists for enriching the literature and bringing these insights so effectively to our attention. Nevertheless, these challenges suggest that we also need to recognize the limitations of tailoring.

As a practical matter, however committed one may be to tailoring deterrent posture to the complexities of the adversarial environment, we cannot adjust major aspects of that posture to a changing world fast enough or surgically enough to achieve or maintain high-fidelity tailoring. One might be able to – and presumably *should* – try to tailor how one anticipates *using* one's nuclear capabilities (*e.g.*, through doctrinal adjustments, declaratory policies, and signaling strategies) in order to maximize their ability to accomplish whatever is felt most likely to deter one's adversary in all his potential idiosyncrasy. Attempting “bespoke” tailoring in terms of what nuclear capacities one *possesses*, however, seems problematic, both because the challenges of analytical fidelity increase the risk of *under-shooting* the mark, and because changing course along highly path-dependent development pipelines in response to new, differing, or additional requirements – or simply to the discovery that one's adversary is for some reason less “detractable” in that fashion than one had at first estimated – is so difficult, expensive, and slow.

It may thus be necessary to relax aspirations to a finely-tuned posture and be willing to accept – or indeed actively *seek* – a greater degree of “bluntness,” calibrated less to optimized performance against one adversary and set of facts than to performing “adequately” against a range of players and alternative futures. This helps shift the conceptual focus away from tailoring *per se* and toward an ethic of prudentially *non*-tailored policies that are oriented more toward as much hedging, flexibility, and *excess* capacity as one can afford than toward making one's posture correspond closely with current

deterrent needs. Put another way, the keen insights of tailoring theory retain salience in terms of *using* one's nuclear force posture to shape an adversary's decision-making, but are an inadequate guide to shaping the nature and scale of that nuclear force itself.

In hope of offering an alternative way to conceptualize deterrent requirements in a way alive both to the importance of tailoring capabilities and policies to the adversary and the strategic circumstances and to the *limitations* of such tailoring, I suggest a conceptual framework that draws upon tailoring theory but also *builds* upon it to offer a more comprehensive picture of how to think about force posture needs. As I see it, a more comprehensive approach would be one that:

- a) Accepts the key insights of “difficult deterrence” theory and hence aims to use “tailoring” as much as feasible to maximize deterrent impact;
- b) Accommodates the need for strategic “hedging” by developing capabilities *beyond* those that any given recipe for adversary-specific tailoring would itself require, aiming thereby to cope with the problems of limited analytical fidelity, temporal change, and the potential multiplicity of adversaries who must be deterred;
- c) Understands that optimal performance against any given set of deterrence needs is impossible when one has to plan against a range of adversary and circumstantial futures, and in an environment of unavoidably finite resources and programmatic path-dependencies, but that a certain overinclusive “bluntness” of approach can help preserve some degree of deterrent effect notwithstanding this unavoidable sub-optimality;

- d) Over time, prizes flexibility, programmatic “responsiveness,” and surplusages of available (even if unused) productive and developmental capacity at least as much as – and, in contexts of strategic benignity, even *more* than – it values actual “weapons-in-hand”; and
- e) Accepts that certain mission requirements can go well beyond what baseline “deterrence” requires, notably in the form of approaches designed to cope with the challenges both of coercive bargaining in Escalation Management and (especially) of Damage Limitation.

As the reader will by now have guessed, I think such an approach militates generally in favor of some degree of *supersufficiency*, calling for a larger and more flexible nuclear force posture either than one actually *needs* at any given point in time or than what would be suggested by any single given force posture theory – whether drawn from the world of “easy deterrence” posturing or from that of “difficult deterrence”-inspired tailoring. In my own head, I label this approach “Bargaining and Deterrent Arsenal Super-Sufficiency – or, more wryly, by its memorable acronym BaDASS.

BaDASS represents an acknowledgment that tailoring is a powerful insight, but has limits, and that “Saville Row”-levels of deterrent optimality are simply unavailable to us for the various conceptual and practical reasons I have tried to explain. BaDASS policy acknowledges that the physical elements of nuclear force postures change only slowly and expensively, and that one cannot ever adjust and thereafter readjust “tailoring” with nearly as much accuracy, detail, and responsiveness as one would wish. It seeks, instead, merely to “satisfice” against any given set of deterrence needs, while also building buffers into force posture planning – in the form of some degree of excess capacity and “responsive” productive and developmental capabilities, to the extent that one can afford them – as

a hedge against error, change, and deterioration in the future security environment.

Conclusion

I make no claim that this is a wholly original concept, though I am reasonably confident that “BaDASS” is a novel formulation. U.S. nuclear planners have recognized for years that their security environment is highly unpredictable and can change considerably over time, both in terms of *who* our adversaries are and in terms of what it might take to deter them from actions against us. The 2001 NPR, for instance, minced no words about this unpredictability, declaring that

... [t]he United States cannot predict with confidence what nation, combination of nations[,] or non-state actors may pose a threat to its vital interests or those of its friends and allies decades from now. In the coming decades, the United States is likely to confront unexpected crises and conflicts involving one or a combination of adversaries armed with a range of capabilities²³

Nor am I really telling thoughtful advocates of tailored deterrence anything that they don’t already know. In response to unpredictability, they frequently recognize the need to hedge against future threats *separately from and in addition to* the process of “tailoring” itself. Keith Payne himself, for instance – who has been described as “the main architect” of the George W. Bush Administration’s abovementioned NPR²⁴ – has pointed out the need for a “range of deterrent tools to tailor deterrence strategies better across a broad range of opponents and circumstances and to provide a defensive hedge.”²⁵

As Payne also put it in a 2018 article on tailored deterrence, while “[d]eterring contemporary adversaries is a challenge[,] deterring future adversaries yet to emerge is, by definition, a challenge of unknown dimensions,” making it important also “to ‘hedge’ against

uncertainty and risk” – such as, he noted, in the ways we called for in Trump’s 2018 NPR. For him, good deterrence planning indeed requires “hedging against the unknown and unexpected.”²⁶ Similarly, Sarah Faris has emphasized that

... [a] tailored deterrence approach calls for the ability to employ a variety of deterrent threats flexibly. The variability of opponents’ perceptions and decision-making frameworks mandates the U.S. ability to deter in a variety of ways to provide the greatest opportunity for effective deterrence. This flexibility pairs well with tailoring because it is intended to help provide Washington with a range of means to deter a spectrum of opponents given the potential variability in their decision making, value systems, perceptions, and calculations of risk, cost and benefit. Recognizing that not all opponents will respond to deterrence threats in the same way and from a similar decision-making framework, leads logically to the demand for the flexible means necessary to deter in a variety of ways to provide the greatest opportunity for deterrence to “work.” Specifically, a tailored approach to deterrence provides the fundamental rationale for a diverse arsenal, with both nuclear and non-nuclear capabilities, as a means for deterring multiple opponents simultaneously, including the flexibility of the nuclear triad and regional nuclear capabilities.²⁷

This clearly implies a recognition that precisely *because* one wants the ability to “tailor” the uses of one’s nuclear force posture to the circumstances of each adversary, one needs *enough* such forces to provide a broad repertoire of responsive behaviors.

My point here, therefore, is not that “tailoring” theorists got things wrong, but to emphasize that tailoring itself is only *part* of what is necessary for a sound deterrence policy. Indeed – properly conceived, as I have attempted to explain – the insights of tailored deterrence themselves point us precisely to the *limits* of “bespoke”

tailoring, and to the need to restrict it to the manipulation of doctrine and policy choice in the *application* of nuclear weapons power, while adopting more hedging-focused, BaDASS “supersufficiency” policies when it comes to force type and sizing. I suggest, in other words, that in order to ensure effective deterrence and sound force posture planning over time, we need not to *replace* the concept of tailored deterrence, but rather both to understand its conceptual and practical limits and to pursue *additional* capacity on top of – and to some extent in derogation from – the idea of high-fidelity “tailoring.”

* * *

About the Author

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This article was written for DASSO, in response to which Dr. Payne drafted his companion piece in this colloquy. Both essays, however, are being jointly published by the National Institute for Public Policy. Neither DSS nor CSIS take official positions, so all views expressed herein should be considered only the personal views of the author.

Notes for Dr. Ford's Essay

- ¹ Keith B. Payne, “The Great Divide in US Deterrence Thought,” *Strategic Studies Quarterly*, Summer 2020, 21. Payne, it should be noted, is not just an influential deterrence thinker and the scholar most associated with tailored deterrence thinking, but also served as the second director of [Missouri State University's School of Defense and Strategic Studies](#) (DSS) and brought the DSS program to the Washington, DC, area in 2005.
- ² *Ibid.*, 29-30 (quoting Jonathan Roberts, *Decision-Making during International Crises* (St. Martin's Press, 1988), 162-63; and Gordon A. Craig & Alexander L. George, *Force and Statecraft: Diplomatic Problems of Our Time* (3rd ed.) (Oxford University Press, 1995), 192).
- ³ Sarah Faris, “Tailoring Deterrence: What and Why?” National Institute for Public Policy, *Occasional Papers*, vol. 5, no. 11, November 2025, viii & 1, <https://nipp.org/wp-content/uploads/2025/11/Vol.-5-No.-11.pdf>.
- ⁴ U.S. Department of Defense, *National Security Strategy of the United States of America* (March 2006), 43, <https://history.defense.gov/Portals/70/Documents/nss/nss2006.pdf>.

- ⁵ U.S. Department of Defense, *Quadrennial Defense Review Report* (February 6, 2006), 49, <https://history.defense.gov/Portals/70/Documents/quadrennial/QDR2006.pdf?ver=2014-06-25-111017-150>.
- ⁶ U.S. Department of Defense, *Quadrennial Defense Review Report* (February 2010), 14, <https://history.defense.gov/Portals/70/Documents/quadrennial/QDR2010.pdf>.
- ⁷ U.S. Department of Defense, *2022 Nuclear Posture Review* (October 2022), 9-10, <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-%20NATIONAL-DEFENSE-STRATEGY-NPR-MDR.pdf>.
- ⁸ Faris, “Tailoring Deterrence: What and Why?”, 20 & 23.
- ⁹ Keith B. Payne, “Nuclear Deterrence in a New Era: Applying ‘Tailored Deterrence,’” National Institute for Public Policy, *Information Series*, no. 431 (May 21, 2018), 3 & 13, <https://nipp.org/wp-content/uploads/2021/03/IS-431.pdf>.
- ¹⁰ Payne, “Nuclear Deterrence in a New Era,” 22.
- ¹¹ Payne, “The Great Divide,” 29.
- ¹² Donald E. Emerson, “A Note on Handling Uncertainty in Force Structure Studies,” RAND Corporation (1969), <https://www.rand.org/pubs/papers/P4017.html>.
- ¹³ William M. Jones, “Modeling Soviet Behavior and Deterrence,” RAND Corporation (1974), <https://www.rand.org/pubs/reports/R1065.html>. I am grateful to Austin Long for these two RAND examples.
- ¹⁴ Michael Fitzsimmons, “Strategic Insight: Challenges in Using Scenario Planning for Defense Strategy,” U.S. Army Strategic Studies Institute (January 30, 2018), <https://ssi.armywarcollege.edu/SSI-Media/Recent-Publications/Display/Article/3579721/strategic-insights-challenges-in-using-scenario-planning-for-defense-strategy/>.
- ¹⁵ U.S. Department of Defense, *Nuclear Posture Review* (2001), i, https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/NCB/06-F-1586_Nuclear_Posture_Review.pdf.
- ¹⁶ U.S. Department of Defense, *Nuclear Posture Review* (2018),
- ¹⁷ *Nuclear Posture Review* (2018), 23.
- ¹⁸ Deputy Secretary of Energy James P. Danley, Memo for John E. Dupuy and Theresa Robbins, “Special Study of the National Nuclear Security Administration’s Leadership and Management of the Plutonium Pit Production Mission” (August 11, 2025), http://www.lasg.org/MPF2/documents/DOE-SpecialStudyNNSALeadershipMgmtPPPMission_ltr_11Aug2025.pdf.
- ¹⁹ As a side note, it may be worth observing that tailoring deterrence in the context of multiple players is likely to be especially challenging as a result of feedback loops in how each adjusts itself to the other. Even in a bilateral relationship, once you begin adjusting deterrence policies in response to changing circumstances, and once the other begins in turn adjusting *his* policies in light of *your* tailorings, complex dynamics of reciprocal influence could develop. With luck, such dynamics would prove stabilizing – that is, the operation of negative feedback loops would have a behaviorally dampening effect, making extreme reactions less likely and conducing to deterring conflict. Alternatively, however, positive (accelerating) feedback loops might predominate, to potentially destabilizing effect. Adding third parties to the system would render such complex dynamics far more likely, making the system more nonlinear and unpredictable.
- ²⁰ I do not mean to suggest that the three force posture mission categories are mutually exclusive. It seems likely, for instance, that core deterrence will be affected by an adversary’s perceptions of how well equipped you are for escalation management and damage limitation, for those questions have bearing on how well the adversary is likely to think he will fare in the event that deterrence fails. (If you are not ready for escalation

management, for instance, he might feel more willing to engage in peacetime provocations – not necessarily because he doesn’t fear your survivable second-strike forces, but rather because a relative lack of “rungs” on your “escalation ladder” made it more likely that he would enjoy “escalation dominance” and that you would be commensurately self-deterred from pushing back against his provocations.) There is also a conceptual relationship between the maintenance of the survivable second-strike forces needed for core deterrence and the challenges of damage limitation, inasmuch as the very existence of reliably survivable forces provides a kind of “backstop” upon the degree of damage limitation his forces are going to be able to achieve, even preemptively.

- ²¹ See, e.g., Christopher A. Ford, “Offensive Nuclear Umbrellas and the Modern Challenge of Strategic Thinking,” remarks to a Nuclear Security Working Group Congressional Seminar at the U.S. House of Representatives (February 10, 2016), <https://www.newparadigmsforum.com/p2007>.
- ²² Christopher A. Ford, “Artificial Intelligence and Nuclear Weaponry,” INHR (March 27, 2026), <https://www.newparadigmsforum.com/artificial-intelligence-and-nuclear-weaponry>.
- ²³ *Nuclear Posture Review* (2001), 5.
- ²⁴ Anna Péczeli, “Best Options for the Nuclear Posture Review,” *Strategic Studies Quarterly* (Fall 2017), 76, https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-11_Issue-3/Peczeli.pdf.
- ²⁵ Keith B. Payne, “The Nuclear Posture Review: Setting the Record Straight,” *Washington Quarterly*, vol. 28, no. 3 (Summer 2005), 141, <https://ciaotest.cc.columbia.edu/olj/twq/sum2005/sum2005i.pdf>
- ²⁶ Payne, “Nuclear Deterrence in a New Era,” 4.
- ²⁷ Faris, “Tailoring Deterrence: What and Why?”, 40.