The Centenary of Herman Kahn: Assessing His Intellectual Legacy

TRANSCRIPT

Discussion ................................................................. ................................................................. 2

• William Schneider, Senior Fellow, Hudson Institute
• Kenneth R. Weinstein, Walter P. Stern Distinguished Fellow, Hudson Institute

Disclaimer: This transcript is based off of a recorded video conference and periodic breaks in the stream have resulted in disruptions to the audio and transcribed text for William Schneider.

A video of the event is available: https://www.hudson.org/events/2074-virtual-event-the-centenary-of-herman-kahn-assessing-his-intellectual-legacy22022

About Hudson Institute: Founded in 1961 by strategist Herman Kahn, Hudson Institute challenges conventional thinking and helps manage strategic transitions to the future through interdisciplinary studies in defense, international relations, economics, health care, technology, culture, and law.

Hudson seeks to guide public policy makers and global leaders in government and business through a vigorous program of publications, conferences, policy briefings, and recommendations.
Ken Weinstein:

Welcome to Hudson Institute. I'm Ken Weinstein, Walter P. Stern Distinguished Fellow at Hudson. I'm delighted to welcome you to what is an important discussion for us at Hudson Institute, the Centenary of Herman Kahn: Assessing His Intellectual Legacy.

February 15th, 2022. Would've been the 100th birthday of Hudson Institute Founder Herman Kahn. Herman Kahn, though he passed away almost four decades ago, passed away suddenly in July in 1983, and remains in many ways the guiding spirit of this organization. But Herman was much more than simply an organizational founder and builder. He was arguably the most famous public intellectual of his day, a pioneer in an extraordinarily diverse set of fields from strategic studies to nuclear deterrence, escalations theory, systems theory, global economic development, and future studies, just to name a few areas. And I’ve got a number of Herman's books behind me, and you can sort of see the depth and breadth of his knowledge and his intellectual contribution, which still is heavy for us today here at Hudson Institute and beyond in the public discourse.

Herman in his day was described as a polymath, brilliant, provocative, unconventional, hilarious, adjectives that really only begin to capture the legendary briefings and the bestselling books that he produced. And he also built what we believe is a unique interdisciplinary think tank designed to be bold and unconventional, and that has left itself a profound impact based on Herman's legacies in a range of fields from national security to nuclear strategy, future studies, and development economics.

To mark Herman's Centenary, I can think of no one better to guide us through this than Dr. William Schneider.

Bill first joined the Institute in 1968, actually on the day that the Soviet troops, or the ‘Warsaw Pact troops’ rolled into Czechoslovakia August 20th-21st, 1968. He worked very closely with Herman Kahn and though he left the Institute on numerous occasions to be a U.S. Senate aide, to join the Reagan administration, where he eventually served as Under Secretary of State, and he would later chair the Defense Policy Board under the George W. Bush administration. Bill Schneider has had the longest association with Hudson Institute of anyone alive today.

And I have to say, one of the proudest things under my legacy as President and CEO of Hudson Institute was bringing Bill back into the center of Hudson. He remains for so many of us, the guru on so many policy issues and it's in part because of his close association and what he learned from Herman, that all of us looked to Bill for his unique insights.

So, Bill, I'm delighted to welcome you to the discussion and to turn the microphone over to you for your thoughts on Herman's 100th Anniversary, the birth anniversary of Herman.

William Schneider:

The 100th Anniversary is a perfect time to recall some of the intellectual contributions Kahn made as both as an individual, but also as an institution builder in the creation of Hudson Institute. And perhaps it's particularly appropriate at this occasion when the world is considering the consequences of a set of circumstances, we perhaps had not anticipated in the past where a nuclear arm state is confronting in a non-nuclear state that voluntarily gave up its nuclear weapons in 1994, and now poses a threat, not only to that state of Ukraine, but also global security.
Perhaps Herman's most enduring intellectual contribution has been to strategic thought where his recognition of the enduring problem of nuclear weapons and how that would be managed. Particularly compelling, his first book, On Thermonuclear War, was a product of nearly a decade of work. The RAND Corporation and some of his early work is one of the contributors to the development of thermonuclear weapons in the early '50s.

And Herman was concerned about how to think about nuclear weapons because the scale of their destructive potential became better understood and there was an increasing sense of paralysis that these weapons were so horrible that nothing could or should be done except to get rid of them. And in fact it still exists today, but Herman's contribution was to recognize that there was a way of managing the nuclear weapons. That where we could not only deter their use, but we could protect against the consequences of their proliferation to other nuclear states and manage consequences in a way that would be able to enable societies to survive, and the patience involved to survive as well.

Something that he had to engage over and over again, was that he believed that the current system of nuclear armament among the major states and in the '60s, that was five nuclear states, U.S., UK, France, Soviet Union, and China. And there was a belief that nuclear war with that constellation was inevitable. But his important contribution was that it was not inevitable and sort of an emotional reaction to the existence of nuclear weapons was not in any... [Herman] had a strong belief, which I believe instrumental in the Reagan administrations to develop defenses against ballistic missiles.

In '83 came just a few months before he died, and Herman's perspective on active defense was very, very positive and affirmed its ability to contribute to deterrence rather than undermine it. [Breaks in the video recording follow] One of his other important contributions, I think, guided in the era... arms control, where...historical context that he brought to bear to the question of arms control. He... classic way in which he... characteristic way of engaging these issues. He cited that World War I broke out because of an arms race between the empires of Europe at the time, but World War II broke out because of the lack of an arms race. And during the Cold War there was not an arms race, there was simply an effort almost entirely on the Soviet side to first to catch up to the U.S. and then to surpass it.

[Interruptions in the video recording follow] And this is an important or maybe an important lesson to plum with China's recent surge, just over the past year, and its fielding of a large number of ICBM silos that if they are fully of... and reentry vehicles... warhead, that combined with their other strategic modernization initiatives will have them with more nuclear weapons than China and Russia... U.S. and Russia combined under the new START Treaty.

So it's... [inaudible 00:09:29] have definitely a contemporary importance to them. Deterrence and stability and the management of the escalation process in an intense crisis are of such crucial importance. We are being an object lesson in that... circumstances in Ukraine where... To achieve a diplomatic settlement is going to... coupled with escalatory measures. And how that gets managed is going to be a very important outcome of this crisis.

So Herman's two volumes in the '60s, On Thermonuclear War in 1960 and On Escalation in 1965, really formed the corpus of modern strategic thought about how to manage the distance proliferation and possible use of nuclear weapons in a way... Serve allied security, but also to manage the global security environment where nuclear weapons are clearly international issue and not just the United States.
In 1983, a few months before Herman's death, President Reagan announced a plan for ballistic missile defense. President Reagan's perspective was very much influenced by Herman's view that it was immoral not to defend against the threat of nuclear weapons when there was a possibility of doing so. And this initiative started and has certainly continued in successive administrations to continue to invest in ballistic missile defense. It's coupled with other measures, of course, including diplomacy and arms control, but development of ballistic missiles, ballistic missile defense, and the increasing proliferation of ballistic missiles and weapons of mass destruction, including nuclear weapons, makes this an investment particularly urgent and compelling.

And the incorporation of the role of active defense with deterrence using nuclear weapons and potential delivery of those weapons remains a part of the way in which strategic stability is being maintained. It's faced some significant challenges to it, with the growth of advanced ballistic missiles in China, and a vast increase in their numbers, combined with Russia's circumvention of the new START Treaty and its development of the sonic cruise missiles, clear armed torpedoes, and submarines and so forth.

So we face a compelling challenge, but the notions that Herman developed under the work on escalation has some particular pertinence to the current circumstances we face in the Ukraine crisis, where you have a nuclear state, Russia threatening a non-nuclear state. Indeed Ukraine voluntarily gave up its possession of nuclear weapons in 1994... in return for which they signed the Budapest Memorandum, which Russia, U.S., and the UK guaranteed Ukraine's territorial integrity and independence.

The fact that it can be threatened in this environment raises anew the issue of the escalation management of this crisis and how things will be. It's at a very delicate stage at this point as to how the escalation will be managed. But I think the path that Herman described in On Escalation suggests a way of managing the escalation in a way that... Likely, that a satisfactory outcome can be achieved if those managing our diplomacy pay attention to doing so.

So the lessons of the management of escalation, whether it applies to nuclear weapons or some of the new non-kinetic means of cyber electromagnetic spectrum, even, and weapons like chemical and biological weapons that countries remain attached to using, all, nevertheless fit into this construct, intellectual construct of the management of escalation, which Herman [inaudible 00:17:51] has been a pioneer. And so, I think, Herman's role is certainly secure in that, in making that contribution and an enduring character for diplomacy.

So, I think, we're very strong position institutionally, and in trying to see how this is going to apply in an environment where many of these means of warfare can be applied at the same time, that is, you may have cyber going on simultaneously with... next to the electromagnetic spectrum, in space and so forth. And the complexity is demanding requirement and something that many of our leaders are not yet comfortable with, but I think we have a path to do it. And Hudson Institute is probably the... Practitioners of trying to understand this and make it intelligible to policy makers.

Ken Weinstein:

Thank you, Bill. Thank you for that remarkable exposition of Herman's impact on strategic thinking today, the lessons to be drawn. Now, one of the things that strikes me from a conversation we had a
few years ago, I remember you talking about the very day you arrived at Hudson Institute. It fits into this question of complexity. You arrived, as I said earlier, the day the Soviet troops or the so-called, ‘Warsaw Pact troops’ rolled into Czechoslovakia. And you talked about Herman calling an all-staff meeting that day to talk about the challenges.

And if my memory serves me correct, you noted how he kept on saying, "we need to think about these challenges from the perspective of the United States." You had, I believe you had, there was the major offensive going on in Vietnam at the time. There were tensions in the Middle East and your notion about how Herman saw complexity, how did that fit into his being a polymath and having such a broad view of... Herman talked often about this notion of expanding the policy imagination. How did all that work in his mind and how did he try to imbue that in younger people, and what lessons did you learn?

William Schneider:

Yeah, it's a particularly good case and may hold some lessons for our own experience. At the time, the Tet Offensive was underway in Vietnam, taking 500 casualties a week at that point. And yet we had observed for the previous couple of months, the clandestine buildup of Soviet military power. They had moved their forces into Poland, and they were conducting exercises just near the Polish-Hungarian border. This was not a new development because we had seen earlier in... '50s, the intervention and uprisings in both East Germany and in Hungary. And so we understood how the Soviets operated, but you've had a circumstance where things were going on in multiple theaters. The Soviets were building up their position in Cuba, the Chinese had successfully tested a nuclear weapon in 1964.

The Soviets were particularly active in not only supplying the North Vietnamese with... were helping manage the North Vietnamese air defense network, and so trying to figure out a way in which the escalation could be managed, how the diplomacy of the activities in multiple theaters would be managed really has some pertinent lessons for today. If we look at the environment we have now with China and Russia, increasingly collaborating in an alliance like relationship, while both countries feed the clear and long range missile ambitions of China and Iran, we have a circumstance where for different reasons, each of these nations has an aspiration to diminish or even eliminate military power as a source of [hegemony] as they like to see.

Looking at these crises in a holistic manner is really where we need to be. And the technique, if you want to call it that, of having a large meeting of groups, not only the professional staff, but we also had some consultants who work for Hudson to try and act to these developments, to benefit from the interchange between the professional staff as they had much different takes on the developments. One of the early members of Hudson Institute, Frank Armbruster, had been a railroad fireman before World War II was quite an expert on railroads. He wrote a master's thesis at George Washington University, which he finished in the spring of 1950 on the Trans-Siberian railway, which was then seen as the main route to resupply North Korea.

So he became the flavor of the month in the intelligence community and had an interesting career... intelligence throughout the '50s. So, bringing some of this dispersed expertise together to look at a problem was a very formative way of trying to get alternative insights, and to do so rather rapidly, but also to be... Have the benefit of a more or less a debate over the evidence contrasted with Herman's experience at RAND where they had a lot of technical experts is a wonderful institution and made great contributions.
But there was a certain constraint that was associated with deep expertise in particular areas that were sometimes a barrier to trying to integrate things with another dimension of his thinking, which he tended to think in system terms, rather than in terms of... or disjointed developments that had to be subsequently integrated. His contributions to systems analysis, especially when he was at RAND are important part of his thinking and the way he approached public policy problems.

Ken Weinstein:

And one of the big things Herman contributed is this notion of the need to open the aperture as you... to avoid the kind of training capacity that specialists have. And so we would focus on these large interdisciplinary teams, putting an economist in them. I'm sure you did not train to do the kind of defense work that you ended up doing. You joined Hudson as an economist, but came very quickly to work on defense work.

That's not to say, Herman also at the same time though saw the critical importance of innovation as key to national security. He was an early believer in the revolution in military affairs, as it were, not Lenin's version of it, but the version that came to be in the '60s, '70s, the way that information sciences would come to transform warfare and how technology would come to transform warfare. And in that period, I think it's quite striking when you look at both the study of strategy history and the like in the days when Hudson was founded, you compare it to today.

We're living in an environment where the policy imagination is much weaker. Granted there is arguably more of a focus on technology as a whole and innovation as a whole, but there's sort of a, there's our schools, the study of international relations has become systematized, has been made dry by IR theory and the like. I'm wondering what your sense was of Herman's view of how we thought through problems, the kinds of minds that he liked to bring together.

There are some of incredible individuals. You mentioned, of course, Frank Armbruster, who later became famous for doing an important book on education policy. Obviously, there was the legendary Don Brennan, who was a high school dropout, who was PhD student at Norbert Winters at MIT became one of the early, I guess, the first president of Hudson and one of the early contributors to the Institute. How did Herman attract these minds? What did he see in them?

William Schneider:

Well, I think his interest were people who were informed by their expertise, but not limited by it. And all of the early members of Hudson Institute had these interesting properties... Quite catholic interests compared to what one would’ve anticipated from their particular training and Herman's process of interrogating people to understand how they looked at issues that were not related to their discipline was a particularly important factor, even though being informed by the discipline was important.

For example, in economics, it's mainly about resource allocation and resource allocation is sort of a universal problem in any field. So an issue of how resource allocation might be applied to national defense was an interesting problem. And he was... and at the time, particularly, articulate on failure of many critics to separate inputs from outputs. That is, there was a confusion on how much you're investing in defense, on how much defense you're producing at the other end as an outcome.
So his thinking in that way, and again, this systems approach that animated so much of his work was really critical and able to shape the way Hudson Institute operated, which was... Always had a relatively small staff, but quite a footprint. Herman was perhaps the dominant figure, but by no means... For example, where he was very keen on having a diverse range of views, he... Have the kind of polarization that you had... Places today with views.

He had two of the professional staff members, Bill Pfaff, who later became a columnist in the Herald Tribune and was a soldier in the '50s. Ed Stillman, who had been in CIA, who was very critical of the U.S....staff, but Herman... Keen on publishing a Hudson Institute volume that had these ranges of output outcomes that were advocated by different staff members.

So, I mean, I think it's emblematic of the way in which he chose to understand the views of people who disagreed with him. He thought it was important to be able to make a better argument for their point of view than they were making themselves. He prescribed his fortiori arguments. And it was a way of trying to have a deeper understanding of implications, of adversary, of youth, than is often the case today, where you... We find in many cases the source, rather than the substance of the idea that has more prominence. It's a good contemporary lesson as well, and something I know as a congenial Hudson, but it's not otherwise widely published.

Ken Weinstein:

Well, you've mentioned, of course the famous Can We Win in Vietnam book, which is right behind me over here, which... and over time, we've obviously, we had major disagreements about the Iraq War, certainly, internally on the staff. There have been other periods of time we've had major disagreements on critical issues from immigration to trade, and the like. Herman did not understand himself as a conservative. He certainly was no social conservative, that can be clearly said.

He began the Institute as a Kennedy Democrat, certainly very much aligned with the mainstream views of that administration, but over time became less taken by America's elites and more taken by the commonsense approach of average citizens and would... Had his own version of the William Buckley joke about "I'd rather be governed by the first a hundred names of the Boston phone books than the Harvard faculty," where he found common sense, he enjoyed talking to taxi drivers, thought they had, and children, who he thought had a much better, strategic understanding actually than many of the intellectuals that he dealt with. Your sense of Herman's intellectual populism as it were.

William Schneider:

Yeah, it's a very, a good point, and I think it parallels the way he looked at his own life. He was very conscious of his Jewish heritage and he had the one aphorism that I recall where he said, he became an atheist at the age of 10, and when he was 21, he became an agnostic, and he hoped to die a rabbi. So it's in Herman's style, somewhat exaggerated view of flexibility, but nevertheless, he was very attentive to how real life works.

When he served in the China-Burma-India theater in World War II, his job was a telephone lineman. And most of the people that were doing that were people from quite ordinary existence. And he was impressed by the sort of common sense approach to public policy problems, where they were not burdened by academic vision of these problems. So he always retained an appreciation for that.
But I think especially during the '60s and the Vietnam conflict, he had this diversion in, especially in academic life where you had people becoming intensely committed to a point of view, and were rejecting a point of view that differed from theirs and... My own work and going through the Congress during the Watergate period, you could see some of the same kinds of intensities perhaps magnified today, but the same sort of thing that we're seeing in public policy research is also being replicated in political life.

Herman had a good insight to this and where it was headed, which is I think why he, he found the populist impulse in, in American culture that deserved a place in its political culture as well, and his advocacy for it, and frequent use anecdote information, people who were not burdened by specialist knowledge.

Ken Weinstein:

Well, another area that Herman was famous for rejecting the conventional wisdom of the specialist was international economic policy. And his legacy there is as deep as his legacy in nuclear deterrents escalation theory, and the like. And I, of course, first think back to the big study Herman did for the Pentagon in 1962 at Hudson, where he was asked to look at the question, whether Japan might develop its own nuclear weapons. And in order to do the study, Herman started to do projections, his own projections on Japanese economic growth. And he realized that Japanese economy was growing at that point around 8% of the year. And that that growth would continue to the foreseeable future.

And at that point, Herman realized, and he was the first Western observer to realize, that Japan was headed to becoming the world's second largest economy at some point in the late 1970s, which led to a famous study, The Emerging Japanese Economic Super State, which became a bestseller in Japan, led to Hudson's legendary role in Japan, but also in Korea and Singapore, where he became an advisor, not just the Japanese prime ministers, but the Korean presidents and to Singapore's president as well.

I'm just, it's your reflections on Herman's... but I guess you'd say it went beyond Japan, because Herman noted the challenges to economic growth were largely cultural and they were cultural from the very same people who were out of touch with American populism. I'm just wondering your thoughts on Herman's economic contribution and the important work that he did, not just in Japan, but also in the rest of Asia and also for the United States.

William Schneider:

Yeah, it's a very interesting feature and I think it's received less attention than it deserves. And I had a sort of preliminary introduction to this issue when I was a graduate student, I took a statistical quality control course from W. Edwards Deming who became the senior guide of the recovery of Japanese industry after World War II. And Deming's cultural insights were perhaps at least as important as those relating to his observations about statistical quality control. Deming recognized the power of Japan's culture, and the fact that... In fact, some of the occupation policies limited the pace at which Japan could recover.

But by the '60s, the engine had already begun to recover and Herman identified these cultural imperatives that were going to drive Japan. And he became quite fascinated with the way in which Japanese citizens observed their own recovery. He commented that they tended to watch GDP growth
rates like baseball scores. He wanted to see how they were doing in comparison to others and that sort of thing, and their recovery was remarkable, certainly parallel to Germany in some ways, developed a more diverse industrial base than did Germany after World War II.

And indeed, it's among BLIs now. It has the greatest industrial capabilities and perhaps the greatest capacity to contribute to the allied defense industrial base, if circumstances allow it to do so. So he found that very interesting and he saw this potential in other cultures that are sometimes not seen as highly dynamic industrial cultures. Mexico and Brazil, for example, were examples where he saw that they had tremendous potential for growth and that also underlined his perspective that economic growth was the engine that would enable you to solve problems.

Those who are concerned about climate change and that sort of thing see economic growth as the adversary of solving these problems, where Herman quite the opposite. He saw growth as the engine of addressing social problems, and by being able to draw reserves of cultural strength, to be able to enable armies to develop was a key part of his grip on international economic policy and saw how it could change. It's a pity that he's not still around to examine China's convergence of its economic aspirations with the security aspirations that are producing a global threat rather than a benign [inaudible 00:42:40], the way say Japan, Germany, or Brazil or Mexico have.

**Ken Weinstein:**

Let me ask you about Herman's take on China. I mean, what I've read of Herman's writings, there's not a huge amount on China's economic growth and potential. I mean, it wasn't a singular focus of Herman's unless I'm mistaken.

**William Schneider:**

No, well, he actually did have a, some interesting observations about that. One I recall was that the only place Chinese are not successful in economics was in China, Taiwan, Singapore, and these Chinese, Chinese in the U.S., et cetera, were all remarkably successful, much more so than the others that could be considered a cohort. Mao had only been dead for about five years, and the form process had not emerged in China at that point. So it was a little hard to anticipate the way China has grown and to further anticipate how it would try to convert its economic growth to global military aspirations. But no doubt, he had great respect for the cultural engine of China to be able to produce a very successful state and possession of nuclear weapons. That of course cause of concern simply because... Although it's not so much mentioned now, Mao had a minimum deterrent, but he thought everyone should have nuclear weapons.

He thought, Mao thought, that the minimum deterrent was a way to protect oneself against other new nuclear states. So his, the Chinese view in that respect on nuclear weapons was not particularly denying it and, of course, didn't prevent them from signing the nuclear nonproliferation treaty or helping [inaudible 00:45:05] on develop its nuclear weapons and to test them and so forth. So the... and his hands are unfortunately not very clean on this, but from the perspective of economic development, I think Herman would've anticipated great things from China if it was able to work around the restrictions political and administratively imposed.

**Ken Weinstein:**
And I guess the question of the administratively imposed restrictions are... They’re a major focus of the books that come towards the end of Herman's life where he was increasingly focused on international economics. First, I guess, really in the Year 2000 book that was done for the American Association of Arts and Sciences in 1967, that looked at the possibility of where American society was going and where the world was going in which... And the 1976 book The Next 200 Years, both sort of unusual books for a think tank since they didn't deal either with this legislative cycle, this new cycle, but they really tried to look far into the future. But Herman had... He brought a deep interdisciplinary understanding of the direction of the future, and it was something that resonated also in his reaction to the oil crisis of the 1970s. And you were around Hudson at that time, and it was a time of great despair in the West. And Herman's, I was wondering if you could go through Herman's take on the energy crisis and what the lessons are for today.

William Schneider:

Yeah, no, it's a very good point. And even going back to On Thermonuclear War, he had, it was tested with optimism about the path of technology and being able to both create problems, but also to mitigate them. And Herman was very keen on the idea that the energy issue was a non-problem. It was an administrative issue, not a technical problem. And there was an engineer on the staff, Bill Brown, who was quite knowledgeable about geo-pressurized zones, which are vast subterranean holdings of hydrocarbons that could be accessed, as long as you... The idea of energy resources being somehow limited and manipulated by [inaudible 00:47:57] shakes, it was really something that was... playbook. Public policy advice was built on a foundation of scientific understanding of how these problems could be addressed to the extent that they were resourced or [inaudible 00:48:21] as technical problems. And so The Next 200 Years is replete with some of the references to these kind of opportunities that technology made available. And I can only imagine today with technologies of data sciences, the bio technology revolution at the front end of, and so forth. All of these things are remarkable.

In fact, he wanted to set up a center for data, which would be both a repository of data, a collector of data, but also a processor of data that would facilitate research by otherwise small institution, because he could see what was coming up with computation. The net had already been created and so forth. So there was a great deal of technical basis for his political and social optimism.

Ken Weinstein:

Herman never, in terms of his views on the data, I think you've stressed this to me in our past conversations, that it's not simply the data that you need to sort of approach it in this broad manner to analyze it. That there's a way in which people dig into the data to prove their ideological points, and that was never Herman’s take in examining data.

William Schneider:

Right, yes, indeed. And that's one of the things that's very promising today about Artificial Intelligence, machine learning, deep learning, and so forth, is that because of the ability to take in all of the data, the capacity of people to cherry pick bits of data that merely course their point of view is going to be made more difficult. And that in the '70s and '80s, Artificial Intelligence was just emerging and people understood what it could do, but the computation resources were not widely distributed.
Personal computers had just come on the scene in the couple of years of his life. And so the prospects were not there even though he had a very good understanding of what happened to integrated circuit technology. That because that was sort of pioneered in the applications to the Minuteman program in the '60s.

Ken Weinstein:

Let me shift gears a little bit. One of the things we've chatted in the past about Herman's manner, his exposition of policy research, and also his use of scenarios to think things through, I'd love to get your thoughts on how these contributions are so unique.

William Schneider:

Yeah, it's especially stands out unique by way of contrast because of the way in which a lot of policy researchers being conducted today. He came out of the science and technology world where the mathematical and statistical models of scientific phenomenon was the way in which advances were made, but he found in public policy research that it was much... Say bringing in multiple avenues of influence was much more successfully applied using scenarios rather than using or dealing with the limitations of mathematical or statistical models.

And so he used scenarios extensively as a way of teasing out secondary and tertiary consequences of specific developments, development used before the Soviet invasion of Czechoslovakia but it got, became more baroque as from the Soviet invasion in '68 took place, a rather complex scenario of dealing with an East German uprising and how the world would respond to it was generated in the early '60s when Hudson was established, there were successive Berlin crises that were seen as taking the world to a brink of nuclear exchange.

So it was a good platform for bringing these sort of things in, and you could... Doing it in World War I where you can inject the Zimmerman Telegram that dealt with Mexico and all these other developments that were taking place in parallel, that had an effect on the outcome. And the scenarios proved to be a much more engaging way of bringing the insights of multiple specialists together. You know, "Have you thought about this or did that... This wouldn't work," kind of thing. You got much more dynamism in the analysis of a particular public policy problem through the use of scenario-based considerations than would arise from more traditional... Same time, it had more rigor than the kind of academic policy research, which tended to limit the influence... Other things that may not have been in the purview of the... Or may not have been convenient, the point the author wanted to make.

Ken Weinstein:

Let me ask you, in terms of one of the great contributions Herman made in his days at Hudson actually was the real focus on civil defense that came out of his work on thinking the unthinkable as a major contribution to American national security, particularly in the aftermath of the Cuban missile crisis.

William Schneider:

Yeah.
Ken Weinstein:
Where he was able to really convince the Kennedy administration that this had to be a national priority.

William Schneider:
Yeah, it's a good point. I think it really was derived from his work in On Thermonuclear War, where the assumption during the '50s was the world could not survive a nuclear exchange. And his work on Civil Defense was first to establish an existence theorem that, yes, there could be a, likely to be an ability to survive a nuclear exchange. And in fact, during the Kennedy administration, they had an assistant secretary for civil defense, and it was well attended to in the form of doing some thinking about how the society would evolve. And as nuclear weapons are proliferated, we know now with modern technology, it's going to be relatively easy for countries that have the need... That see the need to acquire nuclear weapons, they are going to get them.

And so I think there's a... needs to be a revival of this. And we're seeing now with the pandemic that we need an existence theorem about how we can survive deliberate pandemics. So I think there's probably, we're probably due for a renaissance, and some of the thinking that Herman had about... By these certainly manmade catastrophes that could be imparted by the use of weapons of mass destruction. In Herman's day, it was mostly nuclear, but we know that's not the only way in which a society can be devastated and it doesn't have to be kinetic. It can be non-kinetic.

Ken Weinstein:
Certainly, there, and I think we have tried over time to learn from Herman's lessons about nuclear war, for cyber war to see what lessons can be applied. Let me ask you two final questions. One is the link between civil defense and ballistic missile defense. Did Herman ever explicitly see them as linked in his mind, just one is sort of a low tech version of what the other offers or...

William Schneider:
No, no, at least my recollection of him was he saw them as relevant and complimentary, that doing both increased deterrence because... them have a predictable outcome in the form of effectiveness. Missile defense maybe is 70% of effective, but it may be 40% effective. And so the combination of passive defense and active defense, he saw as integral rather than, rather than being alternative choices or wholly separate activities. It's perhaps much the same in dealing with pandemics. Vaccines are very important, but also other measures of quarantine and so forth that we're finding also to be effective.

And, indeed, going back to our history where pandemics have been a characteristic, we know there are certain things that have sort of a civil defense character, but also certain things of an active defense character in the form of vaccines or therapeutics that are likely to be part of the mix. So I think Herman's insights about the parity and mutually reinforcing characteristic of active and passive defense are pertinent, and probably...

Ken Weinstein:
Thank you. Let me ask you the last question, which is this. So Herman Kahn dies suddenly July 7th, 1983. And I assume you were in Washington at that point.
William Schneider:

Yes.

Ken Weinstein:

But I just wanted to get your immediate reaction when you learned the news, and also just a deeper sense of not just of the loss of a human being, but also when you're around an unbelievable mind, like Herman's, a unique mind, when someone like that passes away, it not only shapes you... I mean, your experience interacting with him obviously has shaped you... for the last 54 years, but it also, but his absence also has... creates a vacuum and one that's so hard to fill. And I'm wondering about both your immediate sense of loss and the broader sort of sense of strategic, loss of the strategic community, the intellectual community that you've felt since in Herman's passing.

William Schneider:

Yeah, it's... I felt the loss personally, not only because of the personal relationship and with Herman there was one mentor and everyone else was a mentee in that respect, but because he had such a profound impact on my own career, it was a particular personal loss. But more significant than that was there's a few people that have insights to the point where when they speak on anything, they command attention. And Herman's catholic spectrum of interest made his views particularly powerful and sought after. During Don Rumsfeld's first term as a Defense Secretary, Herman frequently met with him. Rumsfeld also had a very wide range of ventures because of the variety of his government service. He's in the military. He ran the Office of Economic Opportunity in Nixon administration and White House Chief of Staff, and Sec Dev and they had quite a good mind match between Rumsfeld's interests and Herman's. And so his impact on public policy was very extensive.

Another relationship that's not so widely cited was with Johnny Foster, who was research and engineering. He and Johnny were very involved in the nuclear weapons programs and the development in the '50s, but shared this very wide interest and Herman's impact on people in the government that had these kind of broad responsibilities was really enduring. And now that, that have that, that kind of impact, it may just be the way in which public policy debate is currently being conducted, which may be part of the problem. But in any case, the lack of [inaudible 01:03:29] who command the kind of breadth of impact public policy issues is really... nation in the public policy debate. And I'm please to... Association with Hudson, which is committed to this kind of image and inspiration.

Ken Weinstein:

Well, thank you, Bill. I think that's a wonderful note to end the conversation. Herman Kahn left an extraordinary legacy, an intellectual one, an institutional one, a policy legacy, and certainly someone 100 years since his birth, who is very much missed here at Hudson Institute, very much beloved and still has a profound impact, whether it's through you, Bill, or through others who had the wonderful good fortune of getting to know Herman at his peak or through the rest of us who have had the wonderful, good fortune of reading Herman's writings over the years, looking at a policy problem and saying, "Aha, that's how Herman might have looked at it." With all of Herman's characteristic bravado, insight, and also the intellectual humility, that really was key to the insights that he had.
I want to thank you. And I want to thank the audience for joining us.