Goodness: A Dialogue between an Intelligence Analyst and a Consumer of Intelligence[1]

By

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And

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Introduction to the Dialogue[2]

Adrian (Zeke) Wolfberg: I am an intelligence professional although I am loath to use this title to describe myself. I am passionate about whatever I do, but often feel I work within a system that prefers following procedures rather than doing the right thing. I sense that the way we have framed our role with consumers of intelligence is moving us towards our own obsolescence.

So, why have a dialogue with a consumer of intelligence? I can barely have a dialogue with my tribe. We need to change the current paradigm of the relation between analyst and consumer. We need an integrated approach, a partnership. So, who is my audience? Who am I trying to convince? Not the consumer; I suspect you are already there. I am speaking to my brethren professionals, my tribe.

Richard (Dick) Szafranski: I would describe myself as a former "operator" and a lifelong "consumer" of the product of intelligence "professionals. I am not at all loath to admit that. Hence, I am chary of the process and perhaps even the outcomes of self-analysis that aims to give the tribe greater discernment of *itself* and of goodness apart from the consumer. Converting the brethren may work, but recall that J.F.C. Fuller, commenting on the grand doctrinal battle between the cavalry and the tank observed, "To establish a new invention is like establishing a new religion—it usually demands the conversion or destruction of an entire priesthood."[3] Converting intelligence professionals is a chore left undone by all the post-9/11 Commissions and studies that recently pilloried intelligence for professional malfeasance, although some wonder whether or not creation of a Director of National Intelligence may prove a step toward destroying the existing priesthood by substituting new priests for the old ones.[4] Today, and in my opinion, "Intelligence" is neither a profession, nor a business, nor an endeavor governed by professional ethics, a shared sense of significance, a common lexicon, or, for military

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[1] In 1973 Paladin Books published Gregory Bateson's "Steps to an Ecology of Mind." This dialogue is our unsophisticated way of acknowledging transformational books.

[2] The views expressed are those of the authors and do not necessarily reflect the officially held position of the Department of Defense, the Defense Intelligence Agency, or the consulting firm, Toffler Associates, Inc.

[3] I.B. Holley, Jr., "Of Saber Charges, Escort Fighters, and Spacecraft," Air University Review, September-October 1983.

[4] Richard A. Posner, Preventing Surprise Attacks: Intelligence Reform in the Wake of 9/11," (New York: Rowman & Littlefield Publishers, Inc.).

intelligence, a workable "joint" doctrine. We must see whether or not these onerous problems are intractable ones.

The Evolution of Goodness

Zeke: We shall see. We, my brethren, and you need to share some context and history. Do all of us appreciate, for example, the roots of the intelligence field?

Historically, going back thousands of years, intelligence has been synonymous with information received or transmitted through the senses of a human, by sound, sight, smell, etc. How human-sensed collection opportunities were managed was based on operational needs of those conducting the operations. What do we mean by "operations?" What we mean is that in the course of being human, competition is at play at various levels, which results in actions from one side against another side to survive. One side needs as much information as possible, for either good or evil purposes, and so deploys these human-sensed opportunities to increase their chances of successfully carrying out their action by either knowing something that turns into a vulnerability that can be exploited against the other side or assists in the success of the operation as it occurs.

Dick: It is here that you and I begin to part. I agree that the "operations" of heft prior to the agrarian age related to hunting and to self-protection: survival. The world has always been populated by predators: others who must fight to survive. When clans and tribes formed at the cusp of the agrarian age and nomads settled down, survival included acquiring resources beyond food: access to water and breeding stock. Fighting included opposing other clans and tribes. There was no "intelligence" except as you redefined it. Intelligence did not arise as a discipline until "spies" arose to assist "warriors." Hierarchies in States supplanted tribes as a dominant organizational form in the West, and war was born.

> Our states, being ourselves multiplied, are what we are; they write our natures in bolder type, and do our good and evil on an elephantine scale. We are acquisitive, greedy, and pugnacious because our blood remembers millenniums through which our forbears had to chase and fight and kill in order to survive and had to eat to their gastric capacity for fear they should not soon capture another feast. War is a nation's way of eating.[5]

You and I separate because you are already using the dispassionate language of analysis suggesting the root of the problem: the lack of passion that separates "intelligence professionals" from those of us who hunt something other than the carefully turned exculpatory phrases that pass as intelligence estimates and those of us who must survive in a world of predators by being a predator in turn.

Zeke: Passion has been squelched as knowledge once integrated with operations became more complex and developed through specialization, becoming more and more disconnected from the operations that needed that knowledge.

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[5] Will and Ariel Durant, The Lessons of History (New York: Simon and Schuster, 1968), 19.

Dick: When did this separation occur?

Zeke: After the Civil War, starting the 1880's, our military services created intelligence components to support them, the Navy being the first. This was probably done because handling and making use of human-sensed data, extended by technology such as cameras and telescopes, and its correlation of this data with non-sensed information, such as cartographic data, required specialized attention to achieve precision firing solutions. This became engineering stuff, not in the sense of building fortifications, but of devoting technical capabilities to exploit the human-sensed data. The likely reason this was done, the strategic reason, was to improve the probability of battlefield victories, as these battles were taking place.

A change occurred after World War II: intelligence was not used primarily to aid in the victory of battles on the field, rather to prevent and stop major wars of attrition, especially the possibility of nuclear war.

The role for intelligence has changed once again. Now, there is a need for a wide spectrum of information, beyond the traditional remotely-sensed technologies, because engagements are no longer confined to battlefields, to force-on-force confrontations. What kind of information is needed? We had been thinking of intelligence as the output of the remotely-sensed devices, or words or sight of a human source, an output that we use as direct "evidence" of events or intended events. What we need to know now is more than direct evidence. We need to meld that with all sorts of background and contextual information. The end result becomes knowledge, not intelligence. And where are the sources of knowledge? The sources are everywhere, which means nothing should be excluded. If the reader agrees with this tenet, then, in addition to whatever sources we may think of as traditional intelligence sources, the analyst must also consider knowledge from outside of intelligence sources. Extending this argument to its logical conclusion means that analysts need to establish partnerships with consumers of knowledge.[6]

Dick: Accepting conditionally—not being an historian—the evolution outlined, I suspect that the development of "intelligence" as an organized endeavor has always been more multidimensional and messy than described in the précis. Acquiring knowledge in the context of continuous mortal competition to survive and thrive may have been more hot-blooded than you and your brethren seem to appreciate. The historical lack of warrior-like passion for the success of operations makes one wonder whether more lives have been saved by good intelligence over the past 80 or more years—on any side—than have been lost by intelligence "badness."

The bad calls make an impressive corpus, don't they?[7] Recall the 13th Hussars at Balaclava: "Forward the Light Brigade!" Recall the surprises of the Shenandoah Valley and Gettysburg during the US Civil War. Pearl Harbor? Recall the hundreds of Glider

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[6] These partnerships need to be trust-based. The consumer must realize that the analyst's mission is to search for truth. The analyst must realize that the consumer wants "good" information.

[7] My objective here is not Beltway Piling-On. Rather it is to illuminate a few poignant episodes where operations suffered when information was incorrect or missing.

Troops lost in Normandy because military intelligence analysts presumed that French hedgerows were the same as English hedgerows?[8] Recall the atomic bombing of Nagasaki and Hiroshima? Recall Inchon and the Chinese invasion of North Korea? Recall Sputnik? Recall the Soviet invasion of Czechoslovakia?   Recall the Walker family spy ring? Recall the collapse of the Soviet Union? Recall Robert Philip Hanssen? Recall September 11, 2001? Recall Iraqi weapons of mass destruction? Recall the improvised explosive devices?

The Post-WW II history of intelligence may be, from an operator's perspective, a chronicle of the consequences of lack of passion and lack of pursuing military genius. For example, intuition regarding ways in which an adversary would employ the logic of the model of warfare—understanding the predatory art of war as it existed at any epoch in history—has been an accepted component of military genius for at least thirty centuries. It has never been a component, except for maybe the 10th Fleet and the exploitation of the Enigma machine, of "intelligence" genius. Technical genius? Yes. Military genius? No. And here to me is the rub: intelligence professionals lack a sense of what it is that consumers of their product *do*. That is, to intelligence professionals, intelligence and navel-gazing are allied always. There seems to be no passionate quest for military genius; the genius that bests adversaries. To some in Defense Intelligence, "beating" adversaries in Central Intelligence is the goal. To some in NGA, being better than DIA or NSA is the goal. The competition is within and among the brethren.

"Intelligence" to intelligence professionals today, I fear, may not be so much about the life-or-death struggles that consume—in every sense of the word—operators in contact with the enemy. Rather, intelligence is about process and format and facts and flows and re-writes and consensus-building that are too often divorced from awareness of what combatants—operators—actually can and cannot do. Hence, intelligence professionals tend to get the somewhat trifling facts correct (order of battle), but totally miss the surprises, the ambushes, and the sneak attacks. The get the "characters" in the enemy's story, but usually miss the "plot." If the quest for goodness is the expedition to solve the problem of present day malfeasance or nescience, then it must begin by requiring all in the intelligence profession to understand what it is their "customers"—the ones in harm's way—*do* with the information or knowledge these professionals provide.[9]

Part of the problem, I suspect, is divided attention. If, for example, a high-ranking political appointee asks a question of the defense intelligence community, whether the question is on the mark or not, the resource of time of and attention is consumed serving what ultimately is the wrong customer. Policy is interesting, but operations are much more important.

So, Zeke, what is "intelligence" all about?

A Return to Goodness: The Abstract View

Zeke: It's about service. And the service is acquiring knowledge of threats. The

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8 Stephen E. Ambrose, D-Day, June 6, 1944: The Climactic Battle of World War II, (New York: Touchstone, 1995)

9 Read, for example, Guy Sajer's *The Forgotten Soldier*.

characterization of the adversary (the threat) has been expressed as the relationship between the intent and capability of the adversary. In hindsight, this is an obviously incomplete understanding of the world but it was the way intelligence professionals tended to frame the world. Expressed as simple mathematical equation, the relationship looks like this:

$$K_k = I_a + C_a$$

> Where K = knowledge, k = known threat, a = adversary, I = intention, and C = capability

But we know now that this equation is the wrong equation. It was fine for the past, but what is needed now is an equation for an ever-changing world where battles are no longer confined to the battlefield, and combatants are no longer the uniformed armies of nations.

The adversary needs to be considered as a potential threat to include adversaries the intelligence community believes it knows are adversaries as well as threats that are not known as adversaries but may evolve into adversaries.[10] The knowledge about the threat needs to be much more dynamic than the classical framework to include the threat as an agent of change. We need to consider the opportunity costs and benefits from the adversary point of view. Expressed as an equation, the relationship looks like this:

$$K_p = I_a + C_a + O_a$$

> where K = knowledge, p = potential threat, a = adversary, I = intention, C = capability, and O = opportunity

The second equation is still framed from an incomplete perspective. It seeks the knowledge about the adversary from the adversary's point of view as if there were such a thing as absolute truth of the intelligence analysts' view of the adversary's intent, capability or opportunity costs/benefits.

To consider all views means being aware of adversary and allied intent, capability and opportunity. In today's terms, this translates into collaboration between analyst and operator, or analyst and consumer. The reader will note that the suffixes are removed from the right-hand side of the equation representing the consideration of intent, capability, and opportunity from both adversary and ally. Expressed as an equation, this relationship looks like:

$$K_p = I + C + O$$

> where K = knowledge, p = potential threat, I = intention, C = capability, and O = opportunity

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[10] An understanding of chaos/complexity theory should be standard knowledge of all analysts.

Dick: If this is moving us toward understanding "goodness," I must say either that I'm puzzled by the obviousness of the third equation or am missing some significantly important fractal of its relevance. Nonetheless, it is, as promised, "abstract."

Zeke: That it is obvious to you substantiates my assumption I made at the start of this dialogue: that consumers already understand.

Dick: Zeke, this is not filling me full of confidence.

A Return to Goodness: The Practical View

Zeke: Bear with me. Intelligence is about the people. That's one of the areas I am passionate about. "Intelligence" is only as good as the people who work in this field. I am an "analyst." Intelligence analysis is where the core intellectual property of our business resides.

Let's take the broadest sense of analysis, what is referred to as "all-source analysis." As one can imagine, this phrase is used in widely different meanings.   There are at least three broad usages of the phrase and they vary based on how source and content are defined. The three usages of all-source analysis are referred to here as traditional, contemporary and full spectrum.[11]

1) **Traditional**. The first is the traditional usage of all-source analysis, which means the integration or fusion of information from classified sources or sensors, or unclassified sources, or sensors that collect information that becomes classified as soon as it is collected resulting in what we call "intelligence data." But even the notion of what we mean by traditional sources or sensors has evolved so that even the meaning of traditional "all-source analysis" can be viewed in multiple levels of sophistication, depending on what one means by "sensor."

2) **Contemporary**. The second usage of all-source analysis is a contemporary meaning where any and all sensor data is integrated or fused, which is the combination of classified and unclassified government sensors with "open source" sources. Open source has meant information originating outside of government direction but still pertaining to topics about military and military-related issues. When combined, they collectively might be categorized as "enlightened intelligence data," an advocacy that began in the 1990's and still used today.   However, in this conceptualization, there is ambiguity of the meaning of "open source."

The meaning of open source started with print or visual media, either in English or foreign language, largely synonymous with the transmission sources of this media – the Internet, television or radio. The meaning evolved in the early 1990's as an expanded view of the sources of this media, again largely confined to the Internet, where access to publicly accessible databases (where no password required), web logs (blogs), etc., were

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[11] There is no naming convention for expressing the difference usages. These terms are those of the author.

eventually included. The meaning is being redefined again to include any and all sources of knowledge outside of classified collection sources. This includes people, what people say/write or research, and databases that are password-protected by gaining legitimate access to passwords, and so forth.

3) **Full Spectrum**. A third and proposed meaning of all-source analysis is the integration of "enlightened intelligence data" with contextual and influencing factors pertaining to the various human behavior drivers (emotional, social, ethnic, political, cultural, meteorological, physical, and others), including awareness of analyst biases, and methodologies.[12] We call this meaning "full spectrum." This is the view that says to understand anything observed through sensors requires context—what you call constructing an understanding of the "plot"—an especially important consideration since there is no pre-existing formal doctrine that makes it relatively easy to understand sensor data, as there was during the Cold War. This impetus for this view has emerged since the post-9/11 study and commission report recommendations.

Dick: Zeke, one more time: we operators don't give a flip how you get "it." We just need knowledge to beat enemies. Can't you and your brethren consider that the operations that count are based on hunting, and can't you share with us the awareness that warfare-as-hunting offers your brethren what John Keegan calls other "moral consolations": "the thrill of comradeship, the excitements of the chase, the exhilarations of surprise, deception and the *ruse de guerre*, the exaltations of success, the sheer fun of prankish irresponsibility." These moral consolations are exciting.

Thus, in these hunts, the lives of operators pivot on two kinds of information: correct information and bad information. The *worst* form of bad information may be "no information," and the *worse* form is the more common form: bad information. "All source" and "full spectrum" are interesting notions, but it seems to me that the missing component—that which prevents the "spectrum" from being "full"—is a lack of awareness as to what enemy combatants can and cannot accomplish, how the enemy might move to hurt friendly forces, and the timing and tempo of the enemy's moves. Remember this is about human endeavors evolved from hunting. Only hunters—the good people you are passionate about creating—can understand the knowledge that other hunters need. Hunters are trackers first; only operators can provide the information and the knowledge that operators need. The interesting distinctions you are making above miss the central point: Zeke, only good information counts. Useful information, received on time in a form that the hunter can employ is "goodness."[13]

Zeke, why must it be so complicated? There is only one reward—a successful outcome for operators at risk—and one risk: an unsuccessful outcome for operators at risk caused

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[12] The important distinction we are making is between sensed data (regardless of purpose of origination) and non-sensed information. "Sensed" can be thought of as something directly or indirectly observed, whereas "non-sensed" are thoughts such as hypotheses, assumptions, and other types of awareness and interpretations about the world and how we think about the world.

13 Keegan, John. Intelligence in War: Knowledge of the Enemy from Napoleon to Al-Qaeda. New York: Alfred A Knopf, 2003.

by bad information. Operators need the interesting universe of "all possibilities" quickly boiled down to certitude: what *will* the enemy *do* based on what *can* the enemy *do*? The winnow is knowledge of the operational art as practiced by the enemy, in a place, at a time, in a season and a phase of fighting. These frameworks are useful only to the degree that they communicate to intelligence professionals that operators need good information and care little about how it is obtained.

For example, what if certitude could be extracted by torturing a captured enemy combatant? Is torture to extract good information "goodness," or part of the "full" in the full spectrum? Is torture, heaven forbid, of a civilian in cahoots with enemy combatants within the processes that produce full spectrum? Is it "goodness"? A profession that understood its central strategic purpose would have an ethic with a clear point of view on these questions. But the intelligence profession, not understanding what its customers do with information, is mute or wrongheaded on this point.

More of a problem, perhaps, than the brethren eventually understanding "full spectrum," is the brethren making it happen. You folks have mired yourselves in a disintegrated federation of bureaucratic hierarchies. Creating a holding company to sit atop stovepipes is not going to solve this problem.

Re-integration: The Ethical Perspective

Zeke: True, but let me return to the solution for both the problem of disintegration and the problem of stovepipes: good people. What attributes do people have to have to provide "good" information to the consumer? We have to have seeking and hunting instincts. Knowledge seeking is a collaborative effort amongst those individuals interested in protecting the national security. Knowledge hunting is not about the "how" a knowledge seeker does work; rather it is about the "who" or the object of the knowledge seeker's quest. On who should knowledge seekers focus their attention? For example, the family doctor and medical examiner are both trained to understand the human body system but their objective is very different. The object of the family doctor is the live human while it is the deceased human for the medical examiner.

Using this analogy, the purpose that drives these two medical professions is radically different. For the family doctor, the goal is to heal individuals and keep them alive. For the medical examiner, the goal is to acquire knowledge. For the former, it is a battle between life and death while, for the latter, there is no battle, rather a service to support medical and other disciplines as they do their battles.

I'm proposing that the analyst conceptualization as a knowledge hunter needs to be more like the family doctor than the medical examiner. In other words, the knowledge hunter is caught up in a struggle for survival from a national security perspective. The struggle is between those who are allies and those who are potential adversaries. I believe that there will always be this condition and that the knowledge hunter must adopt a highly competitive attitude against the adversary or potential adversary to ensure an adversary does not succeed.

Dick: Zeke, I absolutely agree.

Zeke: Good, you should. My view is that this competitive attitude should exist at the individual and group level as well as the organizational level. The problem is that it generally only exists at the organizational level. We know that the Defense Department has the job of protecting the nation from foreign threats. Ask anyone in the intelligence field within the Department of Defense and they will tell you that this is so. But it is quite a different story when the individual attitudes are considered.[14]

Dick: This is a good line of thinking, but is it incomplete? What if the goal of the medical profession was "wellness," and not just "healing" or keeping bodies alive? Likewise, what if the goal of the "hunter" was prevention of threats from other predators by preemption? That is, just as in times past sheep ranchers killed wolves before, well before, the wolves could kill the sheep. I absolutely agree that the knowledge hunter must adopt a highly competitive attitude against the adversary or potential adversary to ensure an adversary does not succeed. Given that central strategic purpose, do you now see a path toward a "profession"?

The Challenges of Achieving Goodness

Zeke: Yes. If full spectrum analysis is a path to achieving re-integration between intelligence and operations, we have to understand how people and groups learn to be seekers and hunters of knowledge. The fundamental distinction, therefore, between what we need to be and how we have been is the way we get to the goal—the journey—the "how." However, there is a goal and a "how" to the conventional meanings of all-source analysis as well. What is the difference then between the "how" of where we are now and the "how" of the where we need to be? I believe that because of the very nature of the difference between these conceptualizations—all source and full spectrum—the method of learning (the "how") has to shift from one based on a transactional approach (how to ingest and process bits of sensed data, a linear construct) to a transformational approach (how to think about a wide range of sensed data and non-sensed information, a nonlinear construct).[15]

Why was the transactional approach to learning within the intelligence community not questioned very much in the latter part of the 20th century? I think there were two major reasons.

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[14] As far as I know, Rob Johnston's 2005 ethnographic study "Analytic Culture in the U.S. Intelligence Community" is the only published research that contains intelligence analyst attitudes. Rob asked analysts how they identified themselves and he found they referred to themselves by their organizational function or their educational background. (p. 26)

[15] The transactional approach can be thought of as training the individual to operate specific skills on an "assembly line" in a manufacturing process. In the assembly line, what is important is to know what is coming at you (the inputs), what you have to do (the process), and what is expected from you (the output). The transformational approach can be thought of as creating the conditions for individuals to become imbued with a wide variety of skills within an "assembly space" so that teams of super-empowered individuals can be aware of, adapt to, and exploit the full spectrum of changing conditions of human behavior.

First, we framed our understanding of the strategic environment in a way that reflected a binary world.[16] The other half—the Soviet doctrine—was very predictable, at least we thought it was, especially from a military perspective. This understanding of the other's doctrine was self-reinforced and reinforcing over time by the ways we developed capabilities to get indications of Soviet behavior. Those ways involved all the all-source analysis traditional sensors. We were able to create a mapping function—not about cartography, rather mathematics. We were confident that when we knew a piece of something (the left hand side of an equation), this meant something much broader than the thing we knew, that what we knew *really* was an instantiation of a behavior, an action that was consistent with the strategic grid we defined, an indicator of a well-defined scenario. We all agreed on what this mapping function was, by and large, because we shared an understanding of the Soviet doctrine and tacitly, then explicitly, accepted the strategic environment of this binary world. Said another way, all-source approaches working well when applied to a group whose declaratory view of the world, confirmed by their behavior, was as mechanical and deterministic as Marxism. We understood the enemy by taking a transactional approach to learning.

Second, technology developments and technology deployments throughout the world accelerated in the second half of the 20th century. This had two effects: it made much of the world much more interdependent and more quickly so, and it also created a separation between those nations who did and who did not embrace technology. For those cultures that are in the mainstream, like the U.S., the increased dependence on technology tended to reinforce the linear approach of learning, the "assembly line." We can have more data—even data that is more than just the data we traditionally collected—accessible to us, quicker, and therefore the "fusion" model of the 1970's and 1980's was reinforced. What this driver also eventually made evident was the way other cultures did or did not use technology, or did or did not embrace values of the mainstream. And, sometimes we learned that there is no "melting pot" attribute of the mainstream; the mainstream can be highly fragmented as well.

Therefore, because the end of the binary view of the world essentially eliminated our old definition of the strategic environment, and because rapid advances in technology created greater challenges in understanding human behaviors—to some degree influenced by the loss of the binary view--we do not have a framework suitable to easily define and manipulate well- or ill-defined inputs, through an accepted, well-known, and broadly adopted process, to produce an output that is well-placed for immediate use.

Dick: The operational consequences were likewise significant. We misunderstood China's intentions for Korea and for Vietnam. We encircled the Soviet Union with arms to support "containment" and got wars of revolution and missiles in Cuba as a consequence. We failed to appreciate that intervention in Vietnam's civil war may have been a bridge too far. We structured our armed forces—organized, trained, and equipped them—to re-fight Kursk or dominate the Fulda Gap, giving them the gift of a garrison mentality. Even today we're willing to spend, and spending, hundreds of millions of

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[16] There were exceptions in our half of that binary world. For example, low intensity conflict has always been outside of the mainstream.

dollars per copy for fast, short-range, airfield-dependent air supremacy fighters. We were and are ill-prepared for the wars of revolution and insurgency. We didn't understand the threat of terrorist tactics. How can a transformational approach to learning help?

Zeke: The transformational approach to learning can help us achieve a full spectrum approach to all-source analysis—and, as you may be suggesting, all-source operations—for two reasons, one short-term and the other long-term. The short-term reason is that the imperatives of a changing world discussed above force us to go beyond the traditional conceptualizations of all-source analysis as "intelligence data" or "enlightened intelligence data" by factoring in contexts and the influences of the range of human motivators and behaviors. This introduction of new types of data as well as the understanding of human behavior is not connected in any obvious or formulaic way, which means we have no overarching framework to connect the data and knowledge. This means we need to go through the process of creating these connections, building hypotheses about the world and the way it works, testing these, etc. Thus, analysis is essentially a blend of a scientific process and tradecraft.

The long-term reason is that we may want to consider that it is best to not ever think that we will be in the situation where we think we have confidently mapped out observables to the strategic environment in a formulaic way. In this long-term view, the strategic environment will always be uncertain because we will always have, be creating, and be interacting with a changing environment.

How can we possibly have a transactional learning approach in an always-changing environment? We cannot. This second reason is more of a philosophy about analysis, while the first reason is a practical one. If one accepts the practical reason but not the philosophical reason, then there are plenty of opportunities to resist thinking differently since the logic is "we will eventually return to the same situation we were, i.e., a binary world or something like that which has a well-defined environment."

Why should we take the long-view, which really requires us to dismiss the notion that we will return to stability of some sort? There will always be actions by some and reactions by others in order to survive. Some of these adaptations will result from competition where a struggle occurs between those involved, of course, but other adaptations will result from cooperation. In either sense of adaptation, it is the actions that we seek to understand so that adaptations can be better prepared for, influenced, or preempted. Our strategy must therefore be based on the underlying dynamic that we must be competitive against unknown or unknowable adversaries and the best way to do that is to never assume we understand the strategic framework. The strategic framework is always a work in progress. This requires a continuous learning approach.

Dick: I agree and wholeheartedly endorse your quest; your mission to convert the brethren. All-source operations, then, become the blending of the right knowledge with the right action. The "action" could be viciously kinetic and pyrotechnic, it could be a subtle information operation, or a diplomatic or economic move. Even so, you intelligence professionals must understand that the tooth is usually disappointed by the tail, so don't raise our expectations unless you are serious about changing your profession. Operators must be poised to engage any enemy at any time. The armed forces are, but are diplomats and CEO's? True operators do not accept that friends will

remain friends or allies will remain allies. Operators believe that only operators tested by fire are sufficiently trustworthy to govern the processes of producing intelligence. If intelligence professionals got the fire in their bellies of what intelligence is *supposed* to be all about—and I believe you've got it right—and the fire spread, a new priesthood of intelligence professionals and operators of every stamp *could* be created.

What would that take? It would take moving intelligence *forward* with good reach-back to the big brains doing Bletchley Park kinds of work to inform every action and every type of action with knowledge. It is what happens forward that presents the gravest risks, and "forward" is determined not so much by us as it is determined by our adversaries. As you observed, the present and future battlespace surrounds us, engulfs us. All of us. Thus, I would end with an admonition to intelligence professionals: operators will not think you take them seriously until you understand the first principle of operations: in a predatory world there is only the quick or the dead. Operators would prefer that the enemy be the only ones among the dead.