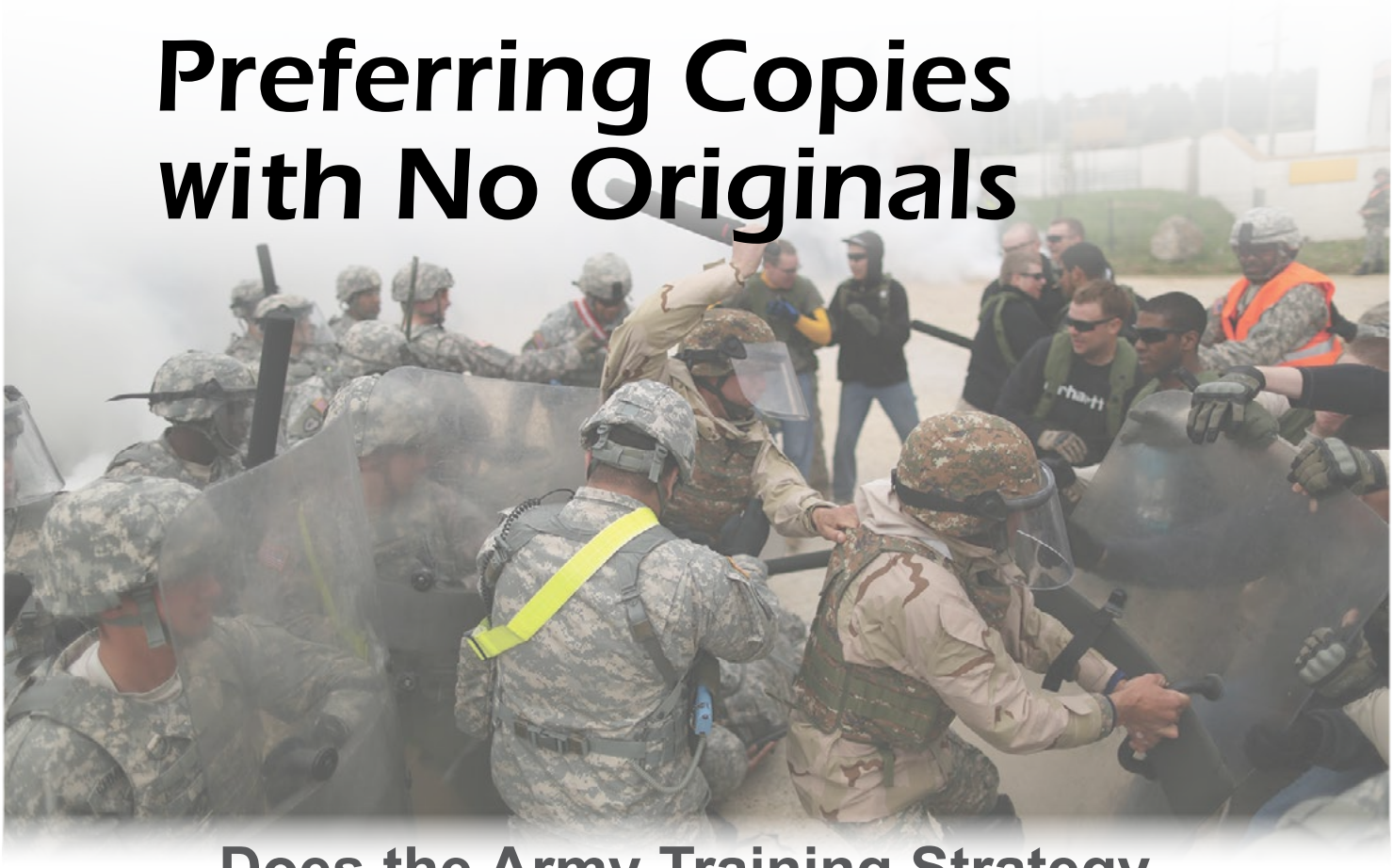
# Preferring Copies with No Originals



## Does the Army Training Strategy Train to Fail?

**Maj. Ben E. Zweibelson, U.S. Army**

*"You know, I know this steak doesn't exist. I know that when I put it in my mouth, the Matrix is telling my brain that it is juicy and delicious. After nine years, you know what I realize? Ignorance is bliss."*[1]

*—Cypher*

(From the motion picture *The Matrix*)

THE U.S. ARMY spends a vast amount of energy, resources, and time on training, perpetually seeking improvements to forge a better force. The latest Army Training Strategy (October 2012) tasks our Army to "hold commanders responsible for training units and developing leaders through the development and execution of progressive, challenging, and *realistic* training."[2] This implies a shared understanding of what training is realistic, and what is not. Although our training strategy employs the terms "training realism," "replication," "operational relevant training," and "adaptive" throughout the short document, it never defines or differentiates this lexicon. Without any contextual depth in these myriad concepts, is it possible that due to fundamental flaws in our training strategy we are unaware when we conduct *unrealistic* training instead? In other words, do we train to fail?

*Maj. Ben E. Zweibelson is a squadron executive officer for 1/2 Cavalry Regiment, USAREUR, and a graduate of the U.S. Army School of Advanced Military Studies. He has served as a Joint Readiness Training Center rotational planner and opposing force company commander, and he has written extensively on design thinking and military planning. At the time of publishing, he is deployed to the Horn of Panjwai, Southern Afghanistan.*

This article does not suggest failure with respect to military trainers, tactics, operational or strategic level training objectives; one must look at an even bigger picture above all of these things.[3]

Our training centers are full of dynamic, dedicated military professionals who might take offense at the notion of "training to fail"; however if our overarching training philosophy is faulty, even the best efforts will not matter. To contemplate our training philosophy, can we consider on a holistic and ontological level how the Army approaches training, and how we "think about thinking" with respect to training?[4]

To bring some context to this abstract proposal, I introduce in this article several design concepts that draw from post-modern philosophical and sociological fields that help us consider whether our Army may inadvertently train to fail, and how it has effectively insulated itself from even questioning these institutionalisms.[5]

"Design" as it relates to military applications has a broad range of conceptual, holistic applications for dealing with complexity, although most services attempt to brand their own design approach for self-relevant concerns.[6] Army design methodology does not include any of these concepts in U.S. Army doctrine nor does our training strategy specifically reference design theory. However, critical reflection and holistic, systemic approaches might illustrate our training shortfalls.[7]

To conduct this inquiry, we draw from philosopher Jean Baudrillard's concept of *simulation* and *simulacra*. We also reference sociologists Peter Berger and Thomas Luckmann's collaborative concept of "social knowledge construction," to demonstrate how the Army potentially trains in an approach that is in conflict with what we expect our training to accomplish.[8] Are we spending our energies, resources, and time in training approaches that are detrimental to our overarching goals because they train us in the wrong ways? To return to the plot of the science fiction movie quoted at the beginning, shall we swallow the red pill and face uncomfortable truths, or swallow the blue pill and continue enjoying the false realities we create for ourselves through training the force toward national policy goals?[9]

The writers behind *The Matrix* were heavily influenced by Baudrillard's work on simulacra, which emphasizes a stark contrast between false "realities" that we as a society often prefer over the painful, bleak, and more challenging "real world" we tend to avoid. This proves useful in that while Baudrillard's work is relatively unknown, the Matrix movies are extremely popular in Western society and address the same existential concept. This article's introductory quote features a conversation between a treacherous character and an agent of the Matrix where the conspirator acknowledges his shared understanding that the steak he is eating within the Matrix is imaginary; it is "fake steak." The virtual program called the Matrix stimulates his brain, but there is no actual steak in his mouth. Yet despite knowing this, he wants to return to the Matrix and have his memory erased, so he can live an imaginary life full of delicious fake steak in complete bliss.

This article employs the "fake steak" metaphor as a vehicle to illustrate the differences between simulation and simulacra concerning our military training philosophy—one that encompasses our strategic, operational, and tactical applications. Again, this criticism is not directed at any military unit, organization, or strategic concepts in exclusion; rather this is a critical reflection upon the overarching core training philosophy we use daily. We all are dining on fake steak together.

Does our military prefer to train in blissful ignorance of the detrimental actions we perform at the expense of our overarching military strategies? We need to first frame what Baudrillard terms *simulation*, and how his concept of *simulacra* represents the fake steak that institutions crave instead of less enjoyable "real" meals.

## Defining Simulacra for Military Planning Considerations

Suppose a couple took a vacation to Las Vegas and stayed in a particular casino hotel that specialized in replicating Venice, complete with canals, gondolas, and many of the familiar visual cues associated with the great Italian city. The couple has such a good time that they decide to take their next vacation in actual Venice, Italy. However, upon their arrival to Venice the moldy smell of the real canals, the crowds of tourists, the formidable language barrier, and the lack of slot machines and readily available American food at every turn disappoints them. They crave the artificial Venetian

experience that the casino offers them over the real thing. Instead of enjoying the "real" Venice, the couple decides to return to Las Vegas to the artificial version for their next vacation. This is an example of how simulacra trumps reality.[10]

The casino version of Venice is not just a weak imitation of the real Italian city, but reflects an abstract fusion of Western societal values such as American entertainment concepts, buffet meals, opulent service, and localized aspects of "Sin City." This creates something entirely unlike Venice, despite superficial similarities. According to Baudrillard, a simulation pretends to have what one does not possess, whereas the progression of simulacra is to create a copy with no original; something entirely false, yet commonly misunderstood by a society or institution as "real."[11] This is the critical aspect of simulacra; that the society or organization accepts the false reality without critically questioning or realizing it. Thus, Cypher in *The Matrix* realizes his steak is imaginary while others around him remain blissfully unaware.

Sociologists Berger and Luckmann suggest that skepticism and innovation threaten the status quo of an institution's taken-for-granted reality, in that our organizations actively resist breaking this illusion.[12]

I propose that our military faces two significant hurdles with respect to our training philosophy—we may have created an entire false training reality that we refer to as *realistic training* that is actually a simulacra, and our own well-established institutionalisms prevent us from ever confronting this and changing them,.[13]

We continue the cycle by engaging with actual rivals in conflicts where we have questionable success, and then return to training to prepare again for future employment. Let us explore some accepted Army training components and processes and determine whether they simulate, or are simulacra with little to do with reality.

Romanian army soldiers of 1st Company, 22nd Battalion, conduct riot control operations with U.S. Army soldiers of 1st Battalion, 4th Infantry Regiment, replicating rioters, during a Kosovo Force (KFOR) mission rehearsal exercise (MRE) at the Joint Multinational Readiness Center in Hohenfels, Germany, 6 May 2013. (U.S. Army, SPC Bryan Rankin)

## Do We Fight a Simulated Enemy, or Merely Simulacra of Ourselves?

Consider the enemy we describe within our training doctrine and what it is supposed to represent. The new "hybrid threat" is a complex blend of guerrilla, insurgent, criminal, and near-peer conventional actors "woven into one dynamic environment."[14] While the past decade of counterinsurgency scenarios at Army national training centers focused exclusively on scenario-specific irregular threats reflecting the various factions within each theater, the recent shift to "decisive action training environment" focuses on a hybrid enemy threat with a blend of conventional forces, criminal actors, and irregular insurgent forces. On the surface, our opposing forces (OPFOR) are highly capable at making a visual replication of these myriad threats, whether conventional nation-state forces, irregulars, terrorists, or criminals.[15] However, a deeper investigation will illustrate a significant case of simulacra in our opposing force application. We do not train to fight our enemies as much as we train to fight ourselves.

Our opposing forces operate entirely as a conventional U.S. Army element once one moves beyond the symbolic costumes, antagonistic mission objectives, and enemy equipment.[16] Our OPFOR don enemy symbols to create the illusion within our training whereas their motives and methodologies remain the same. Their leadership functions within the same organizational patterns as any other Army unit, with a hierarchical chain of command that employs the same military decision-making process to produce operational orders and plans that are identical to conventional Army forces.[17] Despite having the props and key phrases that present an enemy force, there is little difference between opposing force and friendly conventional planning products or plans other than antagonistic mission statements and objectives. They forge their plans in precisely the same manner. Do our actual rivals operate identically to our own methodologies, or are we casting a reflection of ourselves in our training draped in symbols we associate with our enemies?[18]

From the small unit tactics to many of the simulated weapon systems and communication processes, the opposing forces imitation of the enemy is merely skin-deep. Under the costumes and props, conventional U.S. trained forces use the same language, planning methodology, values, and motives to fight the friendly force in the training scenario—thus we end up fighting a mirror image of ourselves *yet pretend that we are fighting a realistic representation of our enemy.* This is simulacra, and we as a military prefer to dine on imaginary steak instead of a real meal that tastes less enjoyable.[19]

Again, I do not direct criticism at our opposing forces, rather at our overarching training philosophy that tolerates simulacra and rewards units with succeeding against a mirror image force of itself in training. We are not successful against realistic rivals; rather we succeed in beating ourselves. As a military force, we live within the fantasy and perpetuate it continuously, potentially to our detriment when actual enemies demonstrate entirely different actions and adaptations than our opposing forces. Does this prepare us for success, or are we perhaps training to fail?

*We are not successful against realistic rivals; rather we succeed in beating ourselves.*

The Soviet model, still prevalent in many rival nations that developed under the influence of Moscow during the Cold War, remains dominant in today's myriad hostile or potentially hostile forces across the world. Centralized and highly dependent upon key leader decisions, they do not use a military decision-making methodology like ours.[20] The Chinese share similarities with Soviet approaches, yet they also consider many non-Western perspectives and fuse Eastern thought with a decidedly non-Western style of planning and execution that remains distrustful of an over-reliance on technology.[21] Although some rivals do use elements of our military methodology because we likely trained them in the past, their unique cultures, values, and worldviews transform

A U.S. Army soldier of 1st Battalion, 4th Infantry Regiment, replicating an enemy combatant, fires his M249G machine gun during a decisive action training environment exercise, Saber Junction 2012, at the Joint Multinational Readiness Center in Hohenfels, Germany, 28 October 2012. (U.S. Army)

their actual decision making into something different from the original.[22]

Terrorist elements with ideological motives are further divorced from our Western planning and control methodologies, as their overarching worldviews offer an incompatible position that is often categorized by us as "illogical" or "crazy." We base our sense of logical and illogical on the position that our Western world view is the logical or sane one against all others. The further away from our preferred perspective, the more apt we are to label something illogical because it makes no sense when filtered through our lens. However, there are other perspectives that build foundations in non-Western logics.[23]

What are some other world views that differ from the accepted Western one?[24] Games theorist Anatol Rapoport uses the term "divine messianic eschatological" for explaining non-Western conflict philosophies that disregard Carl Von Clausewitz and his position that human societies function through an endless cycle of politics and violence.[25] To paraphrase Rapoport, "eschatological" reflects a world view where a final, climactic battle occurs with a predetermined outcome versus Clausewitz's theory where either opponent might win and there is no "final" battle. Those with a "judgment day" ideology feature a divine or "God-chosen" position, with "messianic" implying that the chosen army is already here, fighting evil in a very non-Clausewitzian world. Rapoport introduces several other non-Western conflict theories, which might explain radical eco-terrorists, international and global conglomerates, totalitarian regimes, and international criminal enterprises differently than Clausewitz. All of these rivals feature prominently in the U.S. Army's new "decisive action" hybrid enemy threat.[26] Yet our decisive action concept shackles all of these actors under the preferred Western theory on conflict and motive.[27]

While one might argue that the wide spectrum of rivals, whether conventional state armies, criminal

cartels, or nonstate terrorist actors, remains decidedly non-Western in how they conceptualize, plan, and execute operations, a larger question remains. Should our opposing forces in training abandon our planning methodologies and utilize select aspects of rival ones *to achieve greater training realism*? Could our opposing forces become better replications if they adapt different philosophical structures, non-Western concepts, and other-nation military methodologies for executing all training exercises? Can literate operators develop *illiterate planning processes* to avoid simulacra and produce results that align with illiterate rivals in a conflict? If not, what is preventing this?

I do not suggest our opposing forces become criminals or convert to a radical ideology; however, they could implement many different processes that demonstrate at a philosophical level a new military training goal to abandon overt aspects of training simulacra in favor of improved simulation. Many actors in the entertainment industry spend months living with the person or environment to attain a better understanding for theatric value, which illustrates a similar principle.

While opposing forces cannot join Al-Qaeda training camps, we can immerse them in the information, motives, and values that generate enemy thought processes and make precise adjustments to how our opposing forces train.[28] We also can remove many of the non-Al-Qaeda processes out of their methodologies for the training event, which stimulates further critical thinking and reflection on our military institutions. For an Iranian modeled threat, we would tailor their methodologies and structure yet again. Each rival threat requirement necessitates a tailored, appropriate approach to avoid training simulacra. Army units need to train against threats that do not think the same. This stimulates our units to adapt, innovate, and reflect.

For example, U.S. Army soldiers role-playing narco-criminals should not view moving drug material the same as moving ammunition or supplies. Instead, we must motivate them in some way by profit and competition where the commanding headquarters rewards successful "criminals" in the training event. These personnel would approach training problems more like criminals and less like soldiers dressed as criminals. This takes time and requires delicate, thoughtful approaches to trigger decentralized, adaptive behavior where the criminals have the freedom to innovate and act in ways that soldiers tied to traditional military units would never consider.[29] With training, the usually negative term "going native" inverts to a positive–we want our opposing forces to move away from how we perform and think instead of thinking like American soldiers in costume. This requires an iterative, innovative process to avoid the pitfalls of sliding back into training simulacra.

Other soldiers role-playing a conventional non-Western force could adapt Chinese- or Iranian-style decision-making, command structures, and planning approaches instead of doing precisely what friendly forces do. Their "going native" would differ from criminals or other rival actors, and the native aspects need to be genuine, not simulacra.

U.S. Army soldiers of the 525th Battlefield Surveillance Brigade and Ukrainian army soldiers fend off role-playing rioters during a Kosovo force mission rehearsal exercise at the Joint Multinational Readiness Center in Hohenfels, Germany, 3 May 2013. (U.S. Army)

We do not want them building the "Las Vegas perversion" of Venice, rather to build smaller aspects of Venice within the training environment. This requires critical and creative thinking to recognize and then replace decidedly Western methodologies with appropriate rival ones for training. It requires an institutional change generated from the top of the military hierarchy, systemically applied across our entire training program. This also requires a highly professional, experienced training force instead of one featuring first-term recruits.

The following examples demonstrate several options where the U.S. Army's training philosophy could adapt an anti-simulacra approach for execution in national training centers, staff training events, simulations, home-station training, and professional military education at all levels.

- Opposing forces avoid the military decision-making process in favor of a methodology that the simulated rival prefers. Instead of merely using buzzwords in our own planning styles, they would adapt the foreign approach.
- Terrorist simulation operates independent of the conventional enemy force in all respects versus the traditional military command structure controlling all simulated actors.
- Criminal actors treat illegal commodity as a simulation—they are rewarded by successfully producing and smuggling it in training scenarios.
- Missions, objectives, and decision making of rivals with eschatological worldviews reflect this rather than extending Western methodologies into simulacra. The actors view the world differently and frame their decisions to match this. This takes mature, experienced professionals—not raw recruits.
- Scenarios with multiple rivals feature competition, cooperation, and distinct command and control functions to emphasize reality versus simulacra.
- OPFOR personnel undergo extensive preparatory training designed to deemphasize institutional preferences of the Western military and introduce rival concepts, language, methodologies, and symbols that break with how we operate as a force.
- Shift large-scale training events away from a highly centralized, top-down simulacrum toward a decentralized, adaptive simulation with competitive, nonaligned rival actors. To become more realistic, we must abdicate more control. This violates our military culture.
- All professional military education venues frame the Western approach, and commit class time and instruction on non-Western approaches in a fair, balanced process. Challenge our cherished views and values.

The sample options outlined above require a significant, potentially disruptive shift away from how the U.S. Army understands training at an ontological and philosophical level and will likely be met with significant resistance.[30] Challenging our institutionalisms, particularly deeply held ones, requires a level of critical reflection and disruptive creativity that our military often lashes out against to silence.[31] A significant factor in this resistance to substantial adaptation lies in our paradoxical stance on how to be adaptive while also obeying our doctrine.[32] As our doctrine is a driving force behind all training including virtual systems, how we approach virtual training scenarios requires a discussion on simulacra.

## Reliance on Virtual Systems: Generating Further Simulacra Two-Fold

From the highest strategic guidance and down, our military places a strong emphasis on virtual systems for training.[33] Virtual systems provide the opportunity for a highly sophisticated training environment while downsizing costs, resource requirements, and time. However, both the current Army training strategy and our tendency to create simulacra actually compounds when relying on virtual systems in training. Our simulacra creates another layer of simulacra; or—the fake Venice casino located in Las Vegas builds a virtual casino that maintains all of the same simulacra within the virtual system while adding yet another layer of virtual simulacra. The major tension present here is a matter of explanation and training context. Consider the following virtual and "live" training event in the physical world.

A criminal smuggling network, if placed into a virtual training environment, has the capacity to act digitally according to preconfigured rules where the physical actions such as movement, weapons effects, personnel, and equipment are observable to the Army unit. Digitally, a criminal icon may attack a checkpoint and cause virtual damage, with information pushed to the unit for

their analysis and reaction. All of this information, whether virtual or provided by a trainer, carries the explanation of simulacra because military professionals or closely related contractors create and manage all of the virtual systems and scenarios.[34] We encounter the same problem as the opposing forces problem in that identical planning methodologies, concepts, language, and values drive the virtual enemies. Within both, their explanation reflects our own institutionalisms. Thus, virtual criminals do what opposing forces criminals do in "live" training because we explain them as such. In other words, building a virtual casino that imitates Venice will still maintain the same simulacra that the actual Venice casino in Las Vegas has. Neither reflects the real thing, and both are copies with no original. However, virtual training simulacrum encounters yet another problem with context.

Contextually, virtual systems can only create a narrow spectrum of simulation that orient largely on physical and quantifiable aspects.[35] A virtual enemy tank can move at the appropriate speed over accurate virtual terrain and fire weapons at a rate, range, and damage that quantifiably simulate a real enemy tank. Beyond the superficial layer that modern entertainment video games also achieve, our military trainers and contractors inject in all other motives, information, and relationships. Thus, the simulated criminal elements in the virtual game are entirely symbolic and divorced from any real criminal action or process. While a virtual enemy tank is relatively simplistic, a virtual suicide bomber or explosives smuggling network is not. Quantification works with bullets far better than human behavior, particularly when different societies interact.[36]

Most analysis or conclusions that the Army unit derives from the virtual system are entirely out of context, other than the quantifiable aspects of casualties and damaged equipment. The virtual suicide bomber attacks because we say he does. Unfortunately, our military has a strong preference for seeking understanding of complexity through metrics, categorization, and reductionism where descriptive statistics trump explanation.[37] This is why virtual systems are appealing to the military and how the two-fold training simulacra occurs without us realizing it.

All of the recommendations postulated earlier for the opposing forces also applies to virtual systems, in that the military professionals and contractors who build the virtual scenarios could adapt many of the non-Western concepts and thus depict simulated context in the virtual system. Their awareness of their own institutional preferences and the empowerment to shift to alternate methodologies, concepts, and approaches will require critical followed by creative thinking.[38] A criminal element, while digitally presented, would operate based upon motives and decisions that are foreign to how our Army prefers to think and act. This would require extensive preparation so that as the virtual criminals move and act, the contextual information would feed into the Army unit appropriately. While the metrics within the virtual system would remain the same, it would also be largely irrelevant to the Army unit seeking deeper understanding of a complex environment. Ultimately, it is simple to track suicide bomber statistics, but difficult to explain emergent trends and phenomenon on why the environment is transforming as observed.[39]

*Ultimately, it is simple to track suicide bomber statistics, but difficult to explain emergent trends and phenomenon on why the environment is transforming as observed.*

Since we exploit virtual systems for their ability to generate descriptive metrics and quantification that nourishes our institutionalisms at the expense of enabling our deep understanding, we need not change the hardware of our virtual training centers. To transform our Army training strategy, we again need to change our training philosophy and critically think about the simulacra we produce. At best, virtual systems remain a cost- and time-effective

approach with several potentially dangerous limitations. If we maintain a mirrored approach where those who input the virtual scenario use the exact methodologies, doctrine, and concepts as our Army, we will continue to fight copies of ourselves both in virtual and actual simulacra.

## Conclusions: Systemic Change Versus Systematic Adjustments

We do not need to start over. All of our existing training centers, resources, and many of our training products are flexible and require systemic adjustment. By "systemic," I mean that the overarching Army training philosophy must transform to reject training simulacra and embrace simulation where plausible.[40] By changing the overarching philosophy, this generates systemic transformation across the entire training environment. This is the opposite of a *systematic* approach, in which individual branches or sections make localized changes while the overarching logic that governs system behavior remains unchanged.[41]

Currently, our military professional education and training institution relies on systematic change, which cannot cure us of our simulacra. Thus, individual adjustments in doctrine, modifications in one school, or adjustments by one training center will not affect the overarching simulacra of our current training approach. We will continue to fight copies of ourselves conducting actions that are divorced from actual rival motives, behaviors, and methodologies. Systemic transformation requires the dismantlement of many deeply cherished structures, tenets, and concepts that maintain an illusion of identity and relevance for the U.S. Army.[42] Upsetting so many apple carts means that unless senior Army leadership implement systemic change starting with our training philosophy, the mob of angry apple vendors will overwhelm any localized or individual systematic attempts to reduce simulacra.[43]

I expect some contention over this article's thesis if one misconstrues the relationship between *effects* and *motives*. As stressed throughout this piece, our trainers, opposing forces, and support personnel perform an outstanding job, although at the expense of our flawed training philosophy. For instance, an enemy suicide bomber within any training center today demonstrates accepted symbolic signatures when they attack our Army units. They dress in appropriate costumes, use realistic props, and inflict replicated casualties upon the Army unit. This is not the point—the distinction between training simulacra and training simulation lies in the motives behind the opposing force suicide bomber, *why* he produced the effect in training, and *how* the Army unit might influence transforming the environment.

I directed countless opposing force suicide attacks in training environments where my soldiers successfully created the physical effect of a suicide bomber attack. However, if the Army unit attempted to investigate the attack or perform predictive analysis to attempt to mitigate future attacks, they encountered simulacra. Bombers conducted attacks based on opposing force plans tied to rigid training objectives, and reflect none of the true motives behind actual suicide bombers or the complex nuances within the conflict environment.

Even if an Army unit gains understanding of the phenomenon driving suicidal attacks, they cannot ever actually influence the training environment without the training center web of command and control artificially directing the opposing forces to stop or reduce attacks.[44]

Until the scenario is over, the opposing force will insert suicide bombers at a rate directed by the training center headquarters instead of reflecting the linkages within a conflict environment that motivates such behavior. These training actors become puppets tied to strings and are simulacra of actual adaptive, innovative rival actors in conflict.

Opposing force soldiers do not halt their actions due to successful actions of the Army unit, nor does the centralized control of how we train allow any system adaptation. In other words, the Army unit cannot sway my opposing force soldier to join the legitimate government because that soldier follows my orders to fight as a "bad guy." If he surrenders, he does so only on the orders of a superior in the opposing forces. He acts regardless of whether the Army unit successfully creates the conditions for enemy to surrender or not, although training observers may artificially drive this process by coordinating with the enemy unit.

All actions remain centralized within the Western decision-making models and hierarchical control where both the suicide bomber and the individual Army unit soldier are identical and follow orders within mirror organizations. Their only difference is

the costume, objectives, and equipment. In reality, the soldier and the suicide bomber are worlds apart; they think and behave based on entirely different processes and adapt in different ways. If we train our forces with the simulacra where opposing forces have identical motives to their own, how can we expect them to deploy to conflict environments and appreciate true rival adaptation?

For decades, our training strategy created copies without originals for training our military. We inevitably fight ourselves without realizing it, interpreting all aspects of training through our preferred frame.[45] Our frame uses the philosophies, methodologies, doctrine, and values that most of our rivals do not use. We subsequently deploy trained units into dynamic conflict environments with the expectation that their training prepares them for complex, adaptive rivals.

Yet when our organizations fail to accomplish objectives or the environment changes faster and in unexpected, novel directions, our own institutionalisms and adherence to our Western military paradigm sends those same military professionals back into training where once again, simulacra reigns. To shatter this paradigm, we require senior leadership discourse, critical reflection by military professionals, and subsequent creative transformation to a different training philosophy that avoids the perils of simulacra. ***MR***

## NOTES

1. Larry and Andy Wachowski, *The Matrix* (the Internet Movie Script Database, <http://www.imsdb.com/scripts/Matrix> (29 December 2012). This scene features Cypher and Agent Smith eating a meal inside the virtual world called "the Matrix" while discussing Cypher's betrayal of his crew. The computer program represented by Agent Smith will return Cypher's physical body to where he is permanently plugged into the virtual world and erase his memories of the harsher outside reality.

2. Department of the Army, *The Army Training Strategy; Training in a Time Of Transition, Uncertainty, Complexity, and Austerity* (Washington, DC: U.S. Government Printing Office [GPO], 3 October 2012), 7 (emphasis added by author).

3. Mats Alvesson, Jorgen Sandberg, "Generating Research Questions Through Problematization" (*Academy of Management Review*, vol. 36, no. 2, 2011): 255. "A key task is . . . to enter a dialectical interrogation between one's own and other meta-theoretical stances so as to identify, articulate, and challenge central assumptions underlying existing literature in a way that opens up new areas of inquiry."

4. By ontology, I seek in this article to apply a *meta*-question of how we understand the nature of "training"—and how all of our training endeavors might be categorized into what we validate as training, and what we might intend to do as training but misapply in practice. For more on meta-questions, see Gerald M. Weinberg, *Rethinking Systems Analysis and Design* (Boston: Little, Brown and Company, 1982), 65. "A meta-question is a question that directly or indirectly produces a question for an answer." Weinberg's meta-question continues with "why" instead of "what" processes of query.

5. Ori Brafman and Rod Beckstrom, *The Starfish and the Spider* (The Penguin Group, New York, 2006), 184-89. Brafman and Beckstrom discuss the differences between centralized and decentralized organizations. The U.S. Army clearly operates as a centralized or "spider" organization. Brafman and Beckstrom provide an example with General Motors in 1943. "GM's response was: Why should we change? We have something that works. Look, we're at the top of our industry—how dare you come in and make suggestions."

6. Design introduces a challenging series of concepts to incorporate into military fields; this article cites a variety of post-modern philosophy and other sources that serve as a good starting point for those interested in how design differs from traditional military planning and decision-making doctrine.

7. This article uses "design theory" to avoid institutional pitfalls of service-unique terms such as *Army Design Methodology*. See, U.S. Army Training and Doctrine Command (TRADOC) Field Manual (FM) 5-0, *The Operations Process* (Washington, DC: GPO, 2010), chap. 3, "Design." For examples of U.S. Army design doctrinal approaches, see also, TRADOC FM-Interim 5-2; Design (Draft) (draft under development-Headquarters, Department of the Army, 2009).

8. Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser (Ann Arbor: The University of Michigan Press, 2001). See also Peter Berger and Thomas Luckmann, *The Social Construction of Reality* (New York: Anchor Books, 1967). Berger and Luckmann make the case that all knowledge is socially constructed within groups and societies and over time are institutionalized into vast, complex, and expanding bureaucracies.

9. In the *Matrix*, the protagonist Neo is offered a symbolic choice between two pills on whether to remain trapped inside the Matrix or to leave and discover the real world. See also Michel Foucault, *Discourse and Truth: The Problematization of Parrhesia* (originally covered in six lectures given by Michel Foucault at the University of California, Berkeley, October-November 1983, online at <http://foucault.info/documents/parrhesia/> (20 November 2012).

10. Baudrillard, 152-53. "We will live in this world, which for us has all the disquieting strangeness of the desert and of the simulacrum . . . only the vertiginous seduction of a dying system remains . . . "

11. Ibid., 3.

12. Peter Berger, Thomas Luckmann, *The Social Construction of Reality* (New York: Anchor Books, 1966), 125.

13. Foucault. A "problematizer" threatens his institution by critically questioning it, and may be eliminated (figuratively or literally) even if he presents truth—if the truth is too painful for the institution or threatens core tenets.

14. Decisive Action Training Environment (U.S. Army, 8 March 2012), *Stand-To!* <http://www.army.mil/standto/archive/issue.php?issue=2012-03-08> (31 January 2013). This online article provides the official Army explanation of the Decisive Action Training Environment scenario.

15. I base my observations on my experience as an OPFOR Company Commander and subsequently a rotation scenario planner for the Joint Readiness Training Center from 2005 to 2009. As an OPFOR commander, I participated in over 12 brigade-sized training rotations, and as a rotational planner (Zulu Team), I was the lead planner for 5 brigade-sized rotations.

16. By symbols, I refer to the work of Mary Jo Hatch and Ann Cunliffe, *Organization Theory,* Second Edition (New York: Oxford University Press, 2006) 210-11. Hatch adapts her model from Pasquale Gagliardi and uses a cycle of assumptions, values, artifacts, and symbols where a society rotates through each of the processes and eventually changes them.

17. Joint Multi-National Readiness Center (JMRC) Mid-Point After-Action-Review presentation for Rotation 13-01 provided to our unit as an example. These unclassified products on slides 14-20 lay out the 1st Battalion, 4th Infantry "OPFOR" unit's mission, intent, and major operations. All of their material demonstrates absolute adherence to common military terms and structure; they use the same concepts on end-state, concept of operation, graphic control measures, and methodology as the friendly force. Author's personal printed copies provided by JMRC as unclassified "take-away" products. This is no different from OPFOR plans I developed as an OPFOR company commander as well.

18. Peter Berger, Thomas Luckmann, *The Social Construction of Reality* (Anchor Books, New York, 1967). See also Hayden White, *Tropics of Discourse; Essays in Cultural Criticism* (Baltimore: The Johns Hopkins University Press, 1978), 6. "Rational or scientific knowledge was little more than the truth yielded by reflection in the prefigurative modes raised to the level of abstract concepts and submitted to criticism for logical consistency, coherency, and so on."

19. Carl H. Builder, *The Masks of War; American Military Styles in Strategy and Analysis* (Baltimore: The Johns Hopkins University Press, 1989), 11, 17. Historian Carl H. Builder argues, in *The Masks of War,* that military institutions are generally motivated toward institutional survival, evoking "golden eras" of past wars, and the continued idolization of self-defining behaviors, traditions, and structures. Thus, the Army prefers to dine on the fake-steak of fighting conventional large-scale land battles rather than the less appealing gruel of decentralized counterinsurgency operations.

20. Benjamin S. Lambeth, *How to Think About Soviet Military Doctrine* (Santa Monica, CA: Rand Corporation, February 1978), 2. "Soviet military doctrine, in marked contrast to prevailing U.S. strategic orthodoxy, is highly systematic in formulation, unambiguously martial in tone . . ." Lambeth addresses strategic nuclear doctrine, however his observations relate to overarching strategies and philosophies.

21. Qiao Liang and Wang Xiangsui, *Unrestricted Warfare* (Beijing: People's Liberation Army Literature and Arts Publishing House, February 1999). See also Francois Jullien, trans., Janet Lloyd, *A Treatise on Efficacy Between Western and Chinese Thinking* (Honolulu: University of Hawai'i Press, 1996). See also David Lai, *Learning From the Stones: A GO Approach to Mastering China's Strategic Concept, SHI* (Strategic Studies Institute, U.S. Army War College, May 2004).

22. A Pakistani field grade officer, educated in the U.S. Army Intermediate Level Education programs, explained to me in personal correspondence that "we use stuff like Intelligence Preparation of the Battlefield and that's about it. Our planning process is called military appreciation, which again is extremely deterministic and unimaginative." Another correspondence with an Indian Air Force field grade officer reaffirmed that they used checklists and some aspects of MiMDMP, but they diverged and injected their own interpretations.

23. I postulate that the West embraces a world view that uses Clausewitz, Jominiand other theorists who do not espouse an end of the world or other ideological constructs. Time is unending, in that human society continues forward in cycles of politics and violence, where several general principles appear to resonate across all applications of violence regardless of technology, location, or time. See: John L. Romjue, *American Army Doctrine for the Post-Cold War* (Fort Monroe: Military History Office, TRADOC, 1997) p. 11.

24. John Shy, Jomini, Peter Paret, ed., *Makers of Modern Strategy; From Machiavelli to the Nuclear Age* (Princeton: Princeton University Press, 1986) 164-65. "By isolating strategy from its political and social context, Jomini helped to foster a mode of thinking about war that continues to haunt us . . . central to Jomini's argument that there are immutable "principles" of war . . . is his emphasis on "lines of operations." See also Francois Jullien, trans. Janet Lloyd, *A Treatise on Efficacy Between Western and Chinese Thinking* (Honolulu: University of Hawai'i Press, 1996) 11. "Clausewitz set about thinking through warfare . . . according to a "model" form, as an ideal and pure essence, "absolute warfare" . . . limitless use of force."

25. Anatol Rapoport, ed., *Editor's Introduction to On War,* Carl Von Clausewitz, *On War* (New York: Penguin Books, 1968). A games theorist, Rapoport takes a decidedly non-Western approach by framing Clausewitzian logic as a political theory of war and introduces numerous non-Western conflict theories to demonstrate that Clausewitzian conflict theory is not as universal as the West presumes.

26. Ibid. I interpret Rapoport's eschatological approach breaks into human (messianic), natural, and/or divine, which can adapt to explain radical ideological groups, environmental terrorists, or "end of the world" global or antihuman extremists. He introduces "cataclysmic" for another variation of the "end of the world" through conflict, breaking those into ethno-centric and global cataclysmic. Rapoport offers the Soviet world view as ethno-centric, which today translates to the Chinese threat, whereas the UN's position on general human conflict is associated with the "global cataclysmic."

27. Refer to *Decisive Action Training Environment* Version 2.0 (TRADOC G2, Contemporary Operational Environment and Threat Integration Directorate, Fort Leavenworth, KS, December 2011).

28. Berger and Luckmann, 120-30. Berger and Luckmann offer the process of how rival definitions or reality might translate, modify, or battle with the dominant social construction. Some are integrated; others form deviant subuniverses with counter-definitions, counter-language, and counter-societies.

29. Brafman and Beckstrom. The authors demonstrate the weaknesses of centralized organizations when confronting decentralized threats. If our replicated criminals and terrorist actors do not think decentralized, they will continue to use MDMP and operate like American soldiers in costume.

30. Alvesson and Sandberg, 257. Alvesson and Sandberg identify "field assumptions" and "root metaphors" as unquestionable theoretical concepts within an organization's preferred manner of viewing the world that are "difficult to identify because "everyone" shares them, and, thus, they are rarely [questioned] in research texts." This inability to question prevents genuine innovation.

31. Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (Illinois: University of Chicago Press, 1996). Kuhn warns of how during a paradigm shift within a field, those who cling to the old system will either strike out against the new transformation or attempt to continue in old methods. See also Foucault.

32. Berger and Luckmann, 123. Although they use religious organizations as an example of doctrine-centric institutions, the military shares similar issues of being conservative "once they have succeeded in establishing their monopoly . . . ruling groups with a stake in the maintenance of the political *status quo* are . . . suspicious of all innovations."

33. U.S. Army, *The Army Training Strategy; Training in a Time of Transition, Uncertainty, Complexity, and Austerity* (Washington, DC, 3 October 2012).

34. Many of the available contracted and civilian employment opportunities to support Army training require security clearances, prior military experience, and military-specific education that limit many of the employment options to former military personnel.

35. James J. Schneider, *Theoretical Implications of Operational Art; On Operational Art* (Washington, DC: Center of Military History, 1994) 25-29. "The future of operational art depends on today's officer corps understanding the historical and theoretical basis of the concept. Only by knowing what has gone before can it hope to build a doctrine for the future, which takes full advantage of the fruits of technology." See also Qiao Liang and Wang Xiangsui, *Unrestricted Warfare* (Beijing: People's Liberation Army Literature and Arts Publishing House, February 1999) 19. "We still cannot indulge in romantic fantasies about technology, believing that from this point on war will become a confrontation like an electronic game, and even simulated warfare in a computer room similarly must be premised upon a country's actual overall capabilities . . . ."

36. Shimon Naveh, Jim Schneider, and Timothy Challans, *The Structure of Operational Revolution: A Prolegomena* (Leavenworth, KS: Booz, Allen, Hamilton, 2009), 30. Naveh distinguishes between physical paradigms and social ones and stresses that there are extreme differences. The virtual system relies on the physical paradigm built upon mathematics, the scientific method, and regimented procedures. See also Nassim Nicholas Taleb, *The Black Swan* (New York: Random House, 2007), 16. "Categorizing always produces reduction in true complexity." See also Fritjof Capra, *The Web of Life* (New York: Doubleday, 1996), 29. "In the analytic, or reductionist approach, the parts themselves cannot be analyzed any further, except by reducing them to still smaller parts."

37. Gerald M. Weinberg, *Rethinking Systems Analysis and Design* (Boston: Little, Brown and Company, 1982), 121. "Reduction is but one approach to understanding, one among many. As soon as we stop trying to examine one tiny portion of the world more closely and apply some close observation to science itself, we find that reductionism is an ideal *never* achieved in practice." See also Gary Jason, *Critical Thinking: Developing an Effective System logic* (California: San Diego State University, Wadsworth Thomson Learning, 2001), 337. "People tend to compartmentalize: they divide aspects of their lives into compartments and then make decisions about things in one compartment without taking into account the implications for things in another compartment." See also Valerie Ahl and T.F.H. Allen, *Hierarchy Theory: A Vision, Vocabulary, and Epistemology* (New York: Columbia University Press, 1996), 1. "In all ages humanity has been confronted by complex problems. The difference between then and now is that contemporary society has ambitions of solving complex problems through technical understanding."

38. Alvesson, Sandberg, 256. "Problematization cannot be reduced to a mechanical or even strictly analytical procedure, since it always involves some kind of creative act." To problematize requires significant critical thinking—one that challenges core institutionalisms.

39. Naveh, Schneider, and Challans, 88. Naveh postulates that military officers "reduce the operational inquiry of potential opposition into a mechanical discussion." By "potential opposition," he refers to enemy course of action in planning and decision making.

40. Baudrillard, 6. Baudrillard clarifies "simulation" as a faithful copy, whereas further stages degrade into simulacra where the artificial is a copy with no original or "hyper real" that a society views as actual.

41. Ervin Laszlo, *The Systems View of the World: A Holistic Vision for Our Time* (New York: Hampton Press, 1996), 16. "Systems thinking gives us a holistic perspective for viewing the world around us, and seeing ourselves in the world." Laszlo is a proponent of systemic thinking.

42. John Nagl, *Learning to Eat Soup with a Knife; Counterinsurgency Lessons From Malaya and Vietnam* (Illinois: The University of Chicago Press, 2002), 9. "Military organizations often demonstrate remarkable resistance to doctrinal change as a result of their organizational cultures. Organizational learning, when it does occur, tends to happen only in the wake of a particularly unpleasant or unproductive event." See also Carl H. Builder, *The Masks of War; American Military Styles in Strategy and Analysis* (Baltimore: The Johns Hopkins University Press, 1989).

43. Berger and Luckmann, 118. "This means that institutions may persist even when, to an outside observer, they have lost their original functionality or practicality. One does certain things not because they *work,* but because they *are right*." The experts in power define what is right instead of reality.

44. Virtual systems used in training scenarios use "injects" that help drive the digital process and augment some of the limitations of the digital system. These injects are scripted by scenario writers and methodically implemented to move the training event forward and accomplish predetermined objectives.

45. Berger and Luckmann, 147. "Every viable society must develop procedures of reality—maintenance to safeguard a measure of symmetry between objective and subjective reality."