

Summary of the 2015 Minerva Meeting and Program Review

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Background

The Minerva Research Initiative is a social science basic research program initiated in 2008 by former Secretary of Defense Robert Gates. Its core goals were and are to build cultural and foreign area knowledge and insights to inform more effective strategic and operational policy decisions, and also to reinvigorate DOD connections with the academic social science community.

As of September 2015, the Minerva program was supporting 53 active DOD Minerva grants and 24 smaller awards at defense education institutions¹, spanning topics as varied as radicalization, energy security, and geopolitical deterrence theory. Individual grants are managed by Program Officer partners from the Army, Air Force, or Navy, but the program is managed as a cohesive whole from within the Office of the Secretary of Defense.

The **Minerva Meeting and Program Review** is held annually with the dual purposes of technical oversight of the Minerva program's social science research investments and to connect researchers to those in the government who might use or productively shape insights yielding from those investments. The 2015 Minerva Meeting was held 9–10 September 2015 at the Ronald Reagan Building in downtown DC. The event is held at the unclassified level under Chatham House rules (to encourage free and frank debate) and is open to the public. Registration is strongly encouraged but not required.

Minerva-funded research aims to develop deep understanding of the social and cultural context of U.S. strategic interests. Scholars, defense policy makers, and military operations personnel met throughout the two-day event, reporting on ongoing research and reflecting on the impact of the Minerva Initiative on social science fields. The group also discussed how to maximize the potential of applying that new understanding to more effective strategic decisions by policy and operational defense leadership.

Much of the Minerva Meeting consists of topical panels. During these sessions, Minerva grant awardees share research findings to date with defense research managers, policy makers, and military operations personnel and academic peers. Research overviews are complemented by perspectives and feedback from policy and operational representatives in related fields (e.g., researchers focused on the African Sahel coupled with the Director for North-West-Sahel Africa within OSD Policy). For government participants this is an opportunity to understand DOD social science research investments, to make connections to potential subject matter experts, and to shape future research by clarifying defense priorities.

The 2015 event also included poster and researcher networking sessions where many Minerva grantees, especially those not included on a panel this year, put together visual displays and live computer demos detailing their Minerva research as well as data and tools generated in the course of that research..

¹ The Minerva Research for Defense Education Faculty (R-DEF) program.

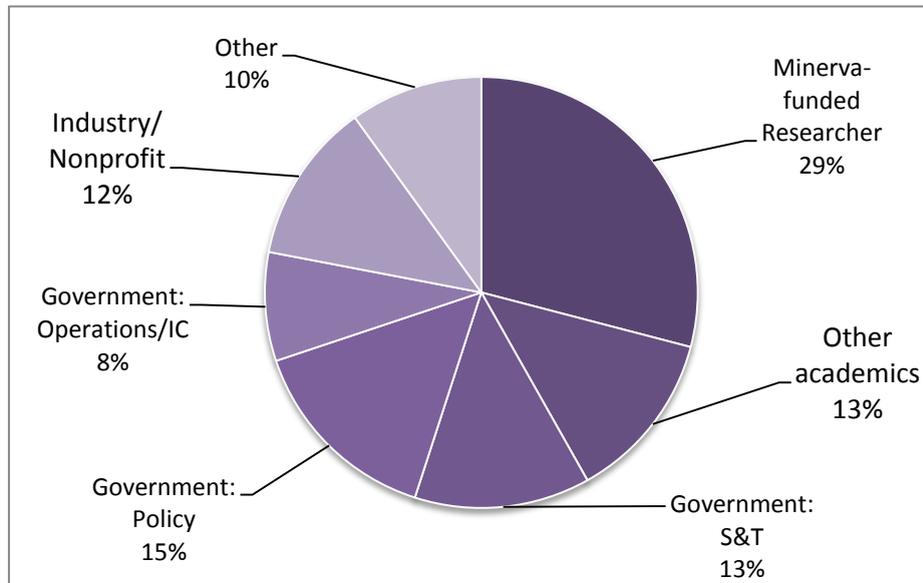


Figure 1: Affiliation composition of 295 registrants.

Who? The quality of Minerva research and the breadth of its research priorities are reflected in the diverse and large non-academic audience who register for this event every year. Nearly 300 participants registered for the 2015 Minerva event, with 90% checking in at the registration desk (including some walk-ins). As shown in **Figure 1**, around half of registrants were affiliated with defense and USG science and technology, policy, or operational organizations. These participants come to learn about and provide feedback for ongoing Minerva research and to build contacts with core experts working in their fields. Many of the government participants in particular attended targeted sessions and not the full event, as had been encouraged as an option when schedules did not allow for full participation.

Why? Holding this event fulfills a mission critical requirement for the Minerva Research Initiative. Without this annual program review:

- It would be difficult for the OSD program management to maintain technical awareness of all the research taking place in this Defense-wide research program executed in the three service research organizations;
- Researchers would not have the opportunity to learn about new Minerva-funded advances in the field and pursue corresponding opportunities for collaboration; and
- Government audiences would lose the opportunity to maintain situational awareness of Defense investments in social science research and to identify research advances with implications for their own areas of responsibility.

Plenary Sessions

The Minerva Meeting included several plenary sessions, including keynote speakers, two new awardee blitz sessions, and a discussion of translating social science research for education and operations.

The morning of September 9 included remarks by the Minerva Steering Committee Co-Chairs – DASD Strategy & Force Development Mara Karlin and Director for Basic Research Robin Staffin. Program Director Erin Fitzgerald welcomed the group and gave an overview of the current state of the DOD Minerva program. The event participants then heard a keynote address from LTG H.R. McMaster.

The program review also highlighted the eleven projects and one pilot effort selected for award in 2015, in the form of “Minerva Awardee Blitz Sessions”. These new projects have no results yet to report; instead, the Minerva Meeting included two short "blitz" sessions where representatives from the new Minerva teams had five minutes each to present motivations and plans for the research ahead. Audience members were then invited to give early feedback to help shape that research.

Keynote Address: LTG H.R. McMaster

Director, Army Capabilities Integration Center and Deputy Commanding General, Futures, US Army Training & Doctrine Command

In his keynote address, LTG McMaster highlighted some challenges faced by defense leadership and went on to reinforced defense interest in many of the problems Minerva researchers are working to address.

He first spoke of the four continuities of war: war is an extension of politics, human, uncertain, and a contest of wills. As such, the defense community is concerned with supporting military operations within complex political contexts; understanding the human dimension of war; assuring that interactions within war arenas are innovative and adaptive to the evolving dynamics of the conflict; and securing that military forces maintain their deterrence capacity in a changing world.

Lacking a solid understanding of these continuities of war emerge can lead to conventional wisdom that is fundamentally mistaken. Examples of such fallacies include the idea that: we can solve complex land-based problems by the application of firepower; that raiding and attaching enemy nodes is the answer to future war problems; that the US serves a merely advisory role while allies to our work; or that the US has the option of “opting out” of a land war when it comes.

To assure that sound arguments are not rooted upon fallacious beliefs, the future of war needs to be assessed through the lenses of threats, missions, technologies, and lessons. The contribution Minerva-funded social science researchers make including providing broader context for such perspective, allowing the defense community to: better understand the threats, enemies, and

adversaries in the operation environment; project the power dynamics across all domains of a mission; apply new technology to improve capabilities and more fully consider possible enemy counter measures; and integrate the lessons learned from a diverse set of factors salient to a particular conflict.

2015 Minerva Awardee Blitz Sessions

The 2015 Minerva grant awardees gave short overviews of their research plans. The goal of the session was to facilitate early connections between awardees and both the academic and potential government consumer communities to shape research in its early stages.

Plenary sessions of the Minerva program review featured the twelve projects most recently selected for award. While these projects have no results yet to report, each morning included two short "blitz" sessions sharing high level details of research plans ahead.

Principal investigators (or a representative) from the new Minerva teams had five minutes each to present motivations and plans for the research ahead. Audience members were then invited to give early feedback to help shape the research ahead.

Projects presented during the Day 1 and Day 2 blitz sessions are listed below. Slides are available at <http://minerva.dtic.mil/mm15.html>.

Day 1:

Principal Investigator	Project Title
Tony Lemieux Georgia State University	Mobilizing Media: A Deep and Comparative Analysis of Magazines, Music, and Videos in the Context of Terrorism
Noemie Bouhana University College London	The Social Ecology of Radicalization: A Foundation for the Design of CVE Initiatives
Zeev Maoz UC Davis	The Effect of Shocks on Overlapping and Functionally Interacting Social and Political Networks: A Multimethod Approach
Charles Glaser George Washington University	Spheres of Influence, Regional Orders: Assessing Approaches for Understanding China's Rise
Clare Sullivan & Eric Burger Georgetown University	Security Assessment Framework for E-Residency (pilot project)
Hasan Davulcu Arizona State University	New Analytics for Measuring and Countering Social Influence and Persuasion of Extremist Groups

Day 2:

Principal Investigator	Project Title
Dana Rovang <i>for PI Robert Pape, Univ Chicago</i>	The Social and Neurological Construction of Martyrdom
Kathleen Carley Carnegie Mellon University	Dynamic Statistical Network Informatics
Lawrence Markowitz, Rowan University <i>for PI Mariya Omelicheva,</i> <i>University of Kansas</i>	Trafficking/Terrorism Nexus in Eurasia
Tony Rivera Duke University	A Computational Model of Resources and Resiliency : Deploying the Elements of National Power for Strategic Influence
Paul Hensel University of North Texas	Identity Claims : Expanding the Issue Correlates of War (ICOW) Dataset

Panel Sessions: Combining Research and Defense

The panel sessions consisted of Minerva research discussed in the context of government areas of responsibility and current security issues, followed by community dialogue. Panels were organized around specific policy topics relevant to both specific Minerva-funded research efforts and critical policy issues faced in the defense community, each of which was binned within one or two of the following tracks.

- Track A: Radicalization and Mobilization
- Track B: Societal Resilience and Stability
- Track C: Regimes, Power, and Deterrence
- Track D: Analytical Methods for Security Research

Session 1-A: Calculating the Willingness to Fight
Session 2-A: Religion, State Collapse, and Jihad (co-listed as 2-D)
Session 3-A: Resource Control and Strategies for Violence
Session 1-B: Instability and Armed Conflict in South and Southeast Asia
Session 2-B: Efficacy of Foreign Interventions
Session 4-B: Afghanistan Stability, Post-Withdrawal (co-listed as 4-C)
Session 1-C: Perceptions of Russia from Its Neighbors and Within (co-listed as 1-D)
Session 2-C: Views of the US from Global Partners and Competitors
Session 3-C: Gray Zone Conflict: Aggression Below the Threshold
Session 4-C: Afghanistan Stability, Post-Withdrawal
Session 3-D: Computational Methods for Social Science (co-listed as 3-B)
Session 4-D: Neuroscientific bases for influence and identity (co-listed as 4-A)

In each 90-minute session, two Minerva scholars were given 20 minutes each to discuss their research, two government discussants were given 10 minutes each to discuss their office's area of responsibility (AOR), and the remaining time was left for questions and community discussion on the themes presented.

Community discussion prompts included a range of questions including:

- What research in this area is and is not likely to be important for the future?
- What are barriers to progress on research, policy, and operational fronts and how might they be addressed?
- How is this security issue likely to develop in the next year? 5 years? 10 years?

All discussions were held under Chatham House rules to encourage open dialogue. Therefore, this report will not directly attribute points made during discussions. Instead, the report includes key panel takeaways (and opportunities for future research) as provided by policy discussants.

In addition, slides for most speakers are shared online at <http://minerva.dtic.mil/mm15.html>.

Track A: Radicalization and Mobilization

Session 1-A: Calculating the Willingness to Fight

Panel Members:

- **Scott Atran**, ARTIS Research
Sacred Values and Social Responsibilities in Governance and Conflict Management
- **Maria Rasmussen**, Naval Postgraduate School
Who Does Not Become a Terrorist, and Why?
- **CAPT Todd Veazie**, Chief of Net Assessment, National Counterterrorism Center
- Discussant: **Lt Col PJ Maykish**, Senior Air Force Strategy Advisor, OSD Policy

Scott Atran described his team’s research aimed at understanding how political and advocacy groups manage values and responsibilities over time. Specifically, he discussed the relationship between perceptions of physical and spiritual formidability and an individual’s “will to fight”. This research draws upon interviews with Kurds, al-Nusra fighters, local ISIL fighters, and would-be European “foreign fighters” for ISIL. In ratings of formidability, al-Nusra fighters generally see Iran as being strongest, followed by the ISIL, the US, and the Syrian and Iraqi Armies being less formidable. The ISIL fighters considered the US to be the physically strongest and spiritually weakest of any group, but also considered Iran and the Shia the most dangerous. Atran described the process of radicalization among would-be European “foreign fighters” for ISIL as occurring primarily through friend relationship (3 of 4 people from the diaspora who volunteer to fight in Syria and Iraq do so through friends, about 1 in 5 through family, as with Al Qaeda before) and went on to note historical parallels between the late 19th century rise of anarchism and that of al-Qaeda in the late 20th century.

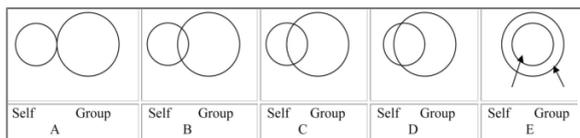


Figure 2: Pictorial Measure of Identity Fusion.

Participants were asked to circle the pictorial representation most closely resembles their relationship to their group.

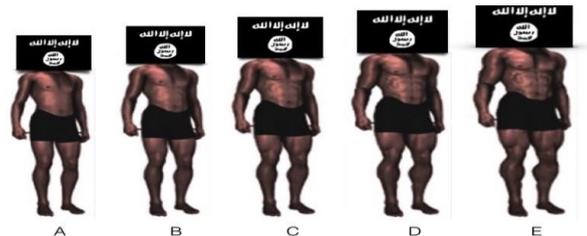


Figure 3: Static (paper-choice) formidability measure for Islamic State fighters.

Both physical and spiritual formidability was rated for various groups. From the battlefield al Nusra fighters saw generally saw Iran as very strong, Daesh as strong and growing, the US in mid-range, and the Syrian and Iraqi Armies at the lower levels for both measures.

Maria Rasmussen described her team’s research looking at why some individuals choose *not* engage in violence, even when exposed to all of the same environmental catalysts (and share similar cultural, ideological, psychological, religious, and/or economic backgrounds) as some militants. The aim of her work is to “describe the panoply of activities [terrorist supporters] are willing to undertake short of violence,” such as providing logistics, advice, act as go-betweens/negotiators, or aid in community organizational activities to assist the insurgents. Using

fieldwork-based case studies, her team is focusing on what are typically considered drivers for radicalization: ideology, grievances, rational choice, and socialization/kinship groups (which ties to Atran's identity fusion findings).

CAPT Todd Veazie commented on the importance of not only understanding why adversaries fight or do not fight, but also understanding why *we* fight. Grand strategies have helped anchor the motivation behind past conflicts—such as the Civil War, the Second World War, and the Cold War—in which the US has engaged. CAPT Veazie articulated hope that **Minerva research can help find the orientating rationale of not just how to fight, but also why to fight.**

Key themes and takeaways

- Rasmussen's central research question is critical, especially if the team accomplishes their goal of shaping radicalization theory around the understanding of a new but critical control group. Most insights to date have been somewhat intuitive, though with an interesting parallel to our understanding of how individuals succeed in difficult situations, e.g. how kids in poor neighborhoods can succeed.
- Atran finds that the messages of the jihadi movement resonate with many, but that actually **perception of ISIL's formidability** (both physical and spiritual, of themselves vs various competitors) **is most effective in inspiring potential fighters to take up arms and join ISIL.**
- These findings counter what many have treated as a foregone conclusion: that the primary reason behind ISIL's success in recruiting and elsewhere has been their highly effective messaging campaign. With this assumption, the U.S. and its allies have considered effectively countering that messaging as critical to their counter-ISIL strategy. But is it even *possible* for the USG to command and control effective counternarratives, given the many structural, logistical, and legal barriers which limit not only speed of response but the types of messaging and messages permissible? A group like ISIL does not encounter the same barriers in their use of social networking and other narrative construction.
- Atran's findings on perceptions of formidability indicates two paths to "victory": through full engagement on the group by the Kurds (also seen as highly formidable by ISIL fighters and the local populations) or by US.

Session 2-A: Religion, State Collapse, and Jihad

Panel Members:

- **Andrzej Nowak**, University of Warsaw
Motivational, Cognitive, and Social Elements of Radicalization and Deradicalization
- **Ibrahim Yahaya Ibrahim**, University of Florida
Political Reform, Socio-Religious Change, and Stability in the African Sahel
- **LTC John Gallagher**, Special Assistant to the Chairman of the Joint Chiefs of Staff
- *Discussant: Pauline Kusiak*, Director for North-West-Sahel Africa, OSD Policy

Andrzej Nowak discussed his team's research aimed at understanding radicalization as a social, cultural, and psychological process.

Ibrahim Yahaya Ibrahim discussed his team's research analyzing factors affecting stability and instability across the African Sahel.

LTC John Gallagher remarked that the U.S. seems to have repeatedly taken decisions that instigate similar chaotic outcomes to those explored by the two projects. Of course, greater understanding of the path toward state collapse and jihad will not necessarily stop the U.S. from making similar decisions again, but research scoping the set of decisions that lead to such outcomes or allow us to better anticipate when certain decisions might bring disaster can be useful.

Key themes and takeaways:

Despite the differences of form and methodological approach—Nowak's work heavily quantitative whereas Ibrahim's being more qualitative—both presented stories about the cascading social impact (and chaos) of political change at the head of a network or government. They both ultimately seemed to demonstrate each other's argument in a way that was unexpected.

Open questions and opportunities for future research

Raised but not answered in the panel discussion was a common understanding of the meaning of the term "religion" – whether it has been used consistently within individual research projects, let alone across them. At times researchers and policy makers appear to be talking about ideology and belief; other times ritual action or piety. Nowack's described concept of sacred values might come closest to an answer that could be made consistent. It also suggests that "spirituality" might be a better reference point for this research than "religion" per se.

Session 3-A: Resource Control and Strategies for Violence

Panel Members:

- **James Igoe Walsh**, UNC Charlotte
Natural Resources, Transnational Crime, and Armed Conflict
- **Philip Potter**, University of Virginia
Terrorist Alliances: Causes, Dynamics, and Consequences
- **LTC Kenny Kuniyuki**, Strategy Development Branch Chief, Joint Staff J-5
- *Discussant:* **Jim Alverson**, Director for Global Threats, OSD Policy

James Igoe Walsh discussed his team's research aimed at understanding how natural resources influence the likelihood, type, and duration of armed conflict in the developing world.

Philip Potter discussed his team's research to determine when and how terrorist groups ally with one another, states, and other non-state actors, including the impact of resource access to these decisions.

LTC Kenny Kuniyuki discussed the value research has for several DOD communities, including those that focus on counterterrorism, on peacekeeping and other post-conflict stability operations, and on DOD's efforts to help counter transnational organized crime and illicit trafficking, including illegal trafficking in wildlife and other natural resources.

Key themes and takeaways:

- Academic research provides important insight into the behavior of terrorists, insurgents, transnational criminal organizations, and other illicit actors. For example, such research reveals insight into relationship-forming: How and when terrorist groups and other violent actors choose to associate with each other, with other non-state actors, and with states. The research also can aid understanding of why the relationships break down (due to internal or external factors). This research is of potential high value to DOD and the USG, for several reasons. We gain greater insight into the nature and vulnerabilities of violent illicit organizations. Once we know why illicit actors form alliances, marriages of convenience, or other relationships, we can determine whether we can take steps to discourage or disrupt these relationships. Likewise, with an understanding of what causes illicit actors' collaboration to stop, or their relationships to dissolve, DOD and the USG could develop strategies that account for and encourage those factors.
- Terrorist and other violent illicit groups are not static; they follow life-cycles and evolve over time. If we know when and how such groups are likely to implode, and can assess whether a group is at the end of its life-cycle, we may be able to develop strategies that take advantage of that tipping point or alternately, focus our resources on other threats instead if we know the group is on a terminal downward spiral.
- There is a two-way exchange of resources and legitimacy between a lead terrorist organization and its affiliated groups. Understanding the details of this flow will provide a more accurate picture of the relationship dynamic among terrorist organizations.
- Control and illicit trade of natural resources affect the behavior of violent non-state actors. The presence of natural resources—and the type(s) of natural resources present—may influence the likelihood, type, and duration of armed conflict. They also affect illicit groups' behavior, including the level of violence they employ, and their relations with the

local population. The type of territory and terrain these groups control also shapes their behavior. Understanding how violent non-state actors finance their activities (including what natural resources they sell) helps enable DOD, the USG, and international partners to devise plans for disrupting these actors' finances.

- The panel presentations reinforced the importance of viewing national security challenges through the lens of threat networks. We should not focus just on actors or groups, but also on the converging mechanisms and routes through which illicit actors exchange resources, information, and other forms of support. We can take steps to disrupt networks that will have a corresponding negative effect on the illicit groups that depend on those networks.

The government voices on the panel agreed that the research presented has broad importance for several DOD communities, including those that focus on counterterrorism, on peacekeeping and other post-conflict stability operations, and on DOD's efforts to help counter transnational organized crime and illicit trafficking, including illegal trafficking in wildlife and other natural resources.

Track B: Societal Resilience and Stability

Session 1-B: Instability and Armed Conflict in South and Southeast Asia

Panel Members:

- **Sarah Kaiser-Cross**, UT Austin
Complex Emergencies and Political Stability in Asia
- **Brandon Prins**, University of Tennessee
Political Reach, State Fragility, and Maritime Piracy: Explaining Piracy & Pirate Organization
- **LTC Scott Davis**, Asia strategist, Joint Staff J-5 Strategy
- *Discussant: LeeAnn Borman*, Director for Pakistan, OSD Policy

Sarah Kaiser-Cross discussed her team's research into how various insecurities converge to impact vulnerability in Asia, looking specifically at where and how insecurities develop into complex emergencies and the capacity of national governments and international actors to respond.

Brandon Prins discussed his team's efforts to develop systematic explanations and analyses of piracy globally and regionally.

LTC Scott Davis discussed how social science research could be applied and useful for policy-makers and strategists, and encouraged the audience to think through how their research might be applicable to future security challenges.

Government panelists saw value in the research but also noted that presentations focused largely on data collection/sorting mechanism and findings, rather than gravitate to the bigger picture of what the data represented or the national security consideration. The audience was divided in terms of interest in academic methodology versus a more defense strategic focus.

Session 2-B: Efficacy of Foreign Interventions

Panel Members:

- **Joseph Wright**, Penn State
Autocratic Stability During Regime Crises
- **Daniel Milton**, US Military Academy at West Point
How Invitations for Intervention Influence Political Violence
- **LTC Chuck Rush**, Army Planner, Office of the Chief of Staff, U.S. Army
- *Discussant: James Truran*, UK Exchange Officer and Strategist, OSD Policy

Joseph Wright discussed his team's work to understand the influence of different foreign policy tools on the behavior of military and security organizations in dictatorships during periods of domestic unrest. His data sets have potential value for researchers as well as government analysts seeking to better assess regime stability and factors that influence what future states nations may devolve to after the collapse of authoritarian regime.

Further, Wright's study of military engagement may help shape Theater Security Cooperation programs by identifying conditions in the strategic relationship between the U.S. military and a host nation that influence the will of a military to use force against their own citizens during crisis. This vignette illustrates the wider potential for empirical evidence to shape Defense engagement.

Daniel Milton discussed his research assessing how non-intervention affects the likelihood of transnational terrorism or how the decision to intervene impacts the termination of civil wars.

His work was framed to suggest how to assist analysis of the merits for military invention by assessing the historical consequences of inaction as well as action (helping policy makers appreciate the true opportunity cost). One natural limitation of this work is that the ultimate decision to intervene will be made in the context of strategic relationship between the requesting nation and the intervenor. It would also be helpful to understand the nature of the intervention (building capacity, peacekeeping, peace enforcement, etc.). He further proposed a potential follow-on study on the effectiveness of Executive Order 13224 [terrorist] designations in curbing individual terrorist behavior. This study would challenge whether this inter-agency program really works.

Attendees commented that one challenge would be determining a valid 'control sample' against which to test terrorist designation as a variable.

LTC Chuck Rush spoke about the complications of intervention, especially in places of ongoing conflict, like Iraq and Syria. We would prefer not to intervene, but there is value in having indicators of what makes intervention successful aids in the decision process. While the order to intervene will ultimately be a top-down, political one, we can constructively shape the debate through a ground-up assessment of whether intervention will deliver the effect that is intended.

Open questions and opportunities for future research

How should 'intervention' be defined? Are we considering only military intervention, and (even within that category) are we talking mil-mil capacity building, providing transitional public security, air strikes or boots on ground? Minerva is a DOD research program, but its goals are not only to inform defense policy but also to anticipate the security implications of non-military actions gone awry.

In this post-Iraq, post-Afghanistan, post-Arab spring world, it is politically toxic to talk about intervention, yet the global context gives no confidence that the need to intervene has gone.

Accepting that the decision to intervene will ultimately be a top-down, political one, policy makers could constructively shape the debate given an evidence-based, ground-up assessment of whether intervention will deliver the intended effect. There would be value in future Minerva research examining indicators that a given intervening action might or might not be effective.

Session 4-B: Afghanistan Stability, Post-Withdrawal

(Co-listed as 4-C)

Panel Members:

- **Jacob Shapiro**, Princeton University
Terrorism, Governance, and Development
- **Ethan Kapstein**, US Institute of Peace and Arizona State University
Does Current Investment Predict Future Violence? Lessons from Afghanistan
- **LTC Colin Jackson**, U.S. Naval War College
- *Discussant*: **Scott Buchanan**, Foreign Affairs Specialist, OSD NATO Policy

Jacob Shapiro discussed his team's research to understand how to implement governance and development policies to more efficiently (re)build social and economic order in conflict and post-conflict areas.

Ethan Kapstein discussed his research investigating the relationship between domestic institutions and violence. His thesis was based in institutional theory and the value of institutions as predictors of internal violence. Investment institutions collect information that will help them predict the outbreak of violence, thus impacting the amount of domestic investment they make. Part of his work seeks to understand how much decline in domestic investment is necessary to be a real indicator of pending instability

LTC Colin Jackson noted that as the value of a given piece of territory rises, so too will the interest of the state in controlling it. Whether this leads to greater stability may be indeterminate, but thinking through investments that may raise the capacity of our proxies to take the actions we want. But it's often not about capacity but about will. Locals will have an information advantage relative to outsiders, but how far into the future the locals' insights can take us is an important empirical question to clarify.

Key themes and takeaways:

- **The implications for policy—and research—of a strategy based on value.** In some ways, this is a tautology--of course you are going to fight for what you value, and what a Principal values may differ from what an Agent values. In some cases, questioners seemed to believe that the only property of value was Kabul (clearly not the case).
- Session participants diverged on the question of why the U.S. and international forces would choose to conduct security force assistance, to develop “proxy forces”. The proxy model may not apply in an Afghan context, since ANDSF do not tend to directly counter al-Qaida (U.S. preference), but rather are designed to stabilize a region and counter the Taliban (the anti-government forces - GIROA preference). That said, Shapiro's research on this question promises interesting insights; the practical value for informing military planning and execution is to be determined.
- Shapiro's presented research aims to motivate the policy community to think about working through complementarities (vs. to inform military planning and execution), possibly represented as principals, agents, and the responsible actor in between. As the value of a given piece of territory rises, so too will the interest of the state in controlling it. Whether this leads to greater stability may be indeterminate. Malkasian's work on

Garmser suggests that the unintended consequence of irrigating the Helmand river valley was a multi decade conflict between traditional local elites and immigrant communities drawn to the newly irrigated land. Identifying the circumstances under which the provision of public goods or the development of assets increases or decreases stability would be a worthy area for additional research. Micro histories like Malkasian's may infer an array of hypotheses to test in this area.

- The Kapstein work has the potential to bring us a useful, coincident measure of instability – a welcome change to anticipating the near future using violence statistics alone. As state, locals do have an information advantage relative to outsiders. The session participants questioned though how far into the future the locals' insights can take us. This is an empirical question which Kapstein's future work may help clarify.

Open questions and opportunities for future research

Further exploration of **Kapstein's** argument may prove interesting -- the relationship between domestic institutions and violence is still not well understood, and this in itself could justify further research. But **what level/accuracy of information is required to make such an investment decision? What is the role of "risk" in domestic entrepreneurship?** Domestic investment as an indicator of potential instability (or violence) is likely one of many, but should not be discounted in the development of a theoretical framework.

How much decline is necessary to be a real indicator? The sensitivity of industry investment to future expectations of violence is likely to vary by industry. That's knowable in Afghanistan. Simple internet searches will give you the industry of lots of corporate account customers.

What level of information is necessary to make an investment decision in this model? This could lend itself to agent-based models to validate hypotheses.

Referencing **Shapiro's** argument about Principal-Agent dynamics and the problem of indirect control, working through a proxy is only effective when the goals of the two actors align. Another potential avenue of exploration is Pakistan's Principal-Agent problem reference the Taliban. President Ghani has strong views expressed through his public statements that Pakistan has a great degree of control over the Taliban. He has indicated that Pakistan should force the Taliban to the reconciliation negotiation table, and alternately (as a result of the violence in Kabul) force the Taliban to reduce the level of violence, neither to much effect. Ghani's expectations might be unrealistic, but lays out another basic question about the Principal - Agent dynamics of state sponsored terrorism and ability to control essential covert organizations.

Others in Shapiro's research team have been exploring Security Force Assistance as a Principal-Agent problem. More specifically, the broad theory is that SFA is a mechanism to depart war-torn countries, but fails in practical application. Research indicates that SFA ends up costing far more than most expect – as international forces depart, funds for indigenous forces doesn't necessarily also decline.

Track C: Regimes, Power, and Deterrence

Session 1-C: Perceptions of Russia from Its Neighbors and Within

Panel Members:

- **Theodore Gerber**, University of Wisconsin
Perceptions of Russian Soft Power in Four Post-Soviet Countries
- **Thom Sherlock**, US Military Academy at West Point
A New Cold War? Russian Public Opinion as a Key Determinant
- **Regina Faranda**, Acting Director, Office of Opinion Research, Department of State
- *Discussant*: **COL David Millner**, Country Director for the Baltics, OSD Policy

Theodore Gerber discussed his team's research on whether, how, and why homeownership—and other aspects of housing—affect societal stability in semi-authoritarian contexts.

Thom Sherlock discussed his research on Russian public opinion about Russia's future conduct in the crisis in Ukraine and how this might influence the formulation of Russian foreign policy.

Gina Faranda spoke about Russia's success in controlling the media message and the role of the State Department in calculating its influence on the people of Russia.

Key themes and takeaways

- Russia is "fighting" and winning in the information realm, and the lack of any viable, appealing alternative Russian-language information options essentially cedes the information sphere to official and semi-official Russian government messaging. This affects Russia and much of the former Soviet space.
- Russians understand that state-controlled media, which is virtually all that is available, is heavily propagandistic, but they trust it anyway. Russian speakers outside of Russia also consider Russian media more trustworthy than Western.
- Even in semi-authoritarian regimes, public opinion does matter, and the leadership will seek to maintain, and to shape, public support for policy, knowing that loss of popular support risks instability. Russia is unlikely to take deeply unpopular steps without at least preparing society for it with propaganda and information operations.
- Vladimir Putin's stellar personal popularity numbers are accurate, but Russians are much less supportive of the regime as a whole, which many view as illegitimate.
- "New media" news consumers are not inherently less supportive of Putin and his policies than average Russian citizens, but people who participate in new media are more Western-leaning.

Open questions and opportunities for future research

- Do people in NATO front-line member states feel confident that NATO would be willing and able to defend them from Russian aggression?
- (How) Can the West counter Russian dominance in the Russian-language information sphere?
- What type of international sanctions or incentives might affect Russians in a way that would build popular demand to become a reliable and constructive partner with the West?

Session 2-C: Views of the US from Global Partners and Competitors

Panel Members:

- **Craig Deare**, College of International Security Affairs, National Defense University
U.S.-Mexico Bilateral Defense Relationship 1988-2014: Continuity and Change
- **John Blaxland**, Australian National University
How the Thai Military Perceives the USA and China & Implications for a US Rebalance
- **LTC Rebecca Patterson**, International Organizations Bureau, Department of State
- *Discussant: Lori Abele*, Director of Southeast Asia, OSD Policy

Craig Deare discussed his research on the evolution of the U.S.-Mexican bilateral defense relationship to understand how and why this relationship has improved over the last 25 years.

John Blaxland discussed his research on the key determinants of Great Powers influence over strategic security choices to assess whether Thai military and political figures are amenable to such influence.

Key themes and takeaways

Awaiting input from panel discussant and members.

Session 3-C: Gray Zone Conflict: Aggression Below the Threshold

Panel Members:

- **Erik Gartzke**, UC San Diego and **Jon Lindsay**, University of Toronto
Detering Complex Threats: Asymmetry, Interdependence, and Multi-polarity
- **Eli Berman**, UC San Diego
Deterrence with Proxies
- **CAPT Philip Kapusta**, U.S. Special Operations Command
- *Discussant: Andy Goodhart*, Strategy and Force Development, OSD Policy

Erik Gartzke and Jon Lindsay discussed their team's research into how the increasing variety of means available for political influence—and the complexity of their interaction—affect deterrence in theory and in practice.

Eli Berman discussed his team's work developing a game theory model to analytically support an overacting doctrine of sub-state threat suppression through proxies.

CAPT Philip Kapusta spoke of “gray zones” as competitive interactions among and within state and non-state actors falling between the traditional war and peace duality. They are characterized by ambiguity in the nature of the conflict, the parties involved, or the relevant policy and legal frameworks. This implies that such spaces require a whole government response to address root causes, and create a comprehensive deterrence strategy around threats and opportunities these specialized zones create.

Panel discussion was in part shaped by the following open questions:

- How does gray zone conflict relate to deterrence and what insights can we draw from examples of cross domain deterrence?
- How does gray zone conflict match up to US strengths and weaknesses? In other words, is the US well-positioned to compete in the gray zone? If not, are there changes the US (but particularly DoD) should make to either make itself more competitive? Are we better off working to shift competition out of the gray zone?

Track D: Analytical Methods for Security Research

Session 3-D: Computational Methods for Social Science

Co-listed as 3-B.

Panel Members:

- **Markus Schläpfer**, Santa Fe Institute
Energy & environmental drivers of stress/conflict in multiscale models of human social behavior
- **Claudio Cioffi-Revilla**, George Mason University
Agent-based Modeling of Radicalization and Security Theory and Research
- **Jim Mitre**, Director for Strategic Analysis, OSD Policy
- *Discussant:* **Lisa Troyer**, SETA Contractor in support of the Army Research Office

Markus Schläpfer discussed his team's research into the relationships between energy and environmental change and crises in human social behavior in cities.

Claudio Cioffi-Revilla discussed his team's research

Jim Mitre discussed how the DOD analytic community has benefited from the increased use of agent-based modeling and related efforts to better represent human decision making. Models are helpful in that they counter the idea that countries are homogeneous; there are factions and they can be fractious and complex. Social sciences shed light on how factors influencing factions (e.g., electricity, food), can affect their behavior. But models also risk becoming too complicated and confusing for non-experts to understand. Their quality is highly dependent on good data, which can be hard to find. Predictive models are not helpful for force planning; and it is unclear that we have helpful predictive models for sociocultural issues. It is most helpful to use models as a sandbox to explore issues, look at alternatives, and assess them relative to each other.

Key themes and takeaways: (built from contributions from Dr. Lisa Troyer)

- As more and more Big Data sets and methodologies for computational modeling become available, it is increasingly important to engage social scientists, because while models can be fit to the data, the meaning of the models remains elusive in the absence of basic scientific understanding of human and social behavior.
- Related to the first point, reliance purely on modeling strategies from non-social science disciplines (e.g., Physics, Mathematics, Computer Science) during the Iraq and Afghanistan wars led to inaccurate understandings that generated serious missteps in decision- and policy-making. The integration of social science with the models has significantly improved the utility of computational modeling and ability to more accurately guide and interpret models from an operational standpoint.
- Although computational models informed by social science theory and research have demonstrated considerable promise and have proven valuable to DOD policymakers and analysts, much more development and testing is needed to increase their utility and accuracy. At the same time, these models already provide useful training, test beds, and war gaming vales.

Session 4-D: Neuroscientific bases for influence and identity

Co-listed as 4-A.

Panel Members:

- **Matthew Lieberman**, University of California, Los Angeles
Neural Bases of Persuasion
- **Michele Gelfand**, University of Maryland
Strength of Social Norms Across Cultures
- **James Giordano**, Chief, Neuroethics Studies Program, Georgetown University and Sr Science Advisory Fellow, Strategic Multilayer Analysis Branch, Joint Staff, J-3
- *Discussant*: **Bill Casebeer**, Human Systems Optimization Research Area Manager for the Lockheed Martin Advanced Technology Laboratories

Matthew Lieberman discussed his team's research into the neuroscience of persuasion and influence.

Michele Gelfand discussed his team's research into the cultural differences in the neurobiology of social norm violation detection and the influence of societal threat on brain synchrony and behavioral coordination.

James Giordano spoke on the ethical consideration of applied neuroscience to our understanding – and potentially forecasting – sources of conflict and cooperation.

Key themes and takeaways:

(built from contributions from Dr. Bill Casebeer)

For 1) Both the audience and the panel enjoyed discussing the normative implications of the work on the neurobiology of influence. A few audience members expressed in questions and comments that the moral dimension of our work is not always foregrounded, and they appreciated that the issues were surfaced and discussed intelligently. I think some of the audience appreciated that when we discuss ethical or moral issues it is generally from the "what is impermissible or suspect" angle, rather than from the "moral issues actually demand that we engage in this type of work" angle that we also considered. Audience questions revolved around how interesting the findings from neuroscience and cognitive science were to think about, and about how much the experimental data discussed by our panelists Matt and Michele transferred across populations, and how closely the stimuli they used resembled those that actual populations we hope to influence might see or hear. We had lots of remaining hands raised when we ran out of time, so all three speakers and myself were swamped afterwards, which was great to see.

For 2) I think Matt (and Emily Falk's) findings about how neural measures can be better predictors of behavior post-media consumption than self-report are fascinating and have important upshot for how we think about things like socio-cultural modeling and simulation. Exploring cultural variability is an important topic, and both Matt and Michele talked about their plans for stress-testing their results in regions such as Southwest Asia (for Matt), or the larger Asia-versus-the-West comparisons Michele had already accomplished.

Open questions and opportunities for future research

There are many rich research questions that are still open which have important policy and strategy upshot, and could lead to the development of new technologies in the influence space. They include:

- (1) What is the interaction between emotion and cognition as people consume media or interact with others, and how does that interaction shape future behavior?,
- (2) Do results from WEIRD populations transfer to other geographic or socio-cultural regions?,
- (3) How do we translate these findings into new tools for information operations or for succinct policy and strategy advice?, and
- (4) Can we use non-invasive neural measures in a human-in-the-loop fashion to stress test and tutor messaging so that we achieve desired influence effects, and what would that testbed or process look like? (all agree focus groups by themselves are of limited usefulness).

Also, I think everyone acknowledged that it is important to bring along ethicists, and ethical/legal/social discussion, so the findings are leveraged by our security institutions in a productive fashion.

Warfighters spend more of their time shaping, influencing, deterring, compelling, persuading, and establishing trust when downrange than they do actually squeezing triggers or dropping bombs. The military's own doctrine and strategy are predicated around this empirical fact. Warfighters need to be able to project power in all these dimensions, not just phase three of conflict.