

## **Game Lab**

Connections US Wargaming Conference

National Defense University

July 19<sup>th</sup>, 2018

# **“How can we avoid risky and dishonesty shifts in seminar wargames?”**

## **Game Lab Chair**

Stephen Downes-Martin

## **Contributors**

Stephen Downes-Martin, Korene Phillips, Ken Shogren,  
Sorrel Stetson, Rosemary Tropeano,

**The content of this document represents the opinion solely of the contributors and does not represent the policy of any organization.**

**Any errors, misrepresentation or misinterpretation in this are the sole responsibility of Stephen Downes-Martin.**

## Game Lab Process and Participants

During the Connections Wargaming Conference a small group of interested people gathered for about an hour to discuss the question ***“How can design seminar wargames that avoid the risky shift and the honesty shift that occur in small group discussions?”*** This document is the edited combination of notes contributed by the below participants:

Stephen Downes-Martin  
stephen.downesmartin@gmail.com  
Research Fellow US Naval War College

Sorrel Stetson  
sorrelmae@gmail.com  
Hunter College

Korene Phillips  
korene.a.phillips.civ@mail.mil  
US Army RDECOM-ARDEC

Rosemary Tropeano  
rosemary.k.tropeano.vol@ndu.edu  
National Defense University

Ken Shogren  
ken.shogren@gm.com  
General Motors Company

## Table of Contents

1	Abstract.....	3
2	Two Behavior Shifts During Small Group Discussions.....	3
3	Potential Impact on Seminar Wargames.....	5
4	Proposed Methods of Dealing with the Shifts.....	6
4.1	Shift Accountability.....	6
4.2	Move Decision Makers out of their Comfort Zone.....	6
4.3	Force the Shifts to Occur.....	7
4.4	Invert Play Testing.....	7
4.5	Remove the Favored Alternative.....	8
4.6	Baseline and Track Shifts.....	8
4.7	Record the Shifts without Changing them.....	9
4.8	Remind the Group about Norms.....	9
4.9	Educate and Train Facilitators in Latest Shift Research.....	9
5	Conclusions and Recommendations.....	10

## 1 Abstract

Within the senior ranks of the US DoD seminar wargames are the preferred style of wargaming because they engage military officers and senior civilian executives in a wargame while requiring minimal gaming experience. The participants engage in small group discussions that emulate to some degree (depending on the details of the game design) staff and decision processes of their jobs, these discussion periods being embedded into the game schedule which is run and supported by staff from the wargaming organization. If seminar wargames are used normatively to inform decision making, then the known small group pathologies such as the risky shift and honesty shift must be controlled for. During the Connections US Wargaming Conference 2018 a small group of interested people gathered for about an hour to discuss the question:

*“How can we avoid risky and dishonesty shifts in seminar wargames?”*

The group identified three research questions and identified and discusses nine ways that the risky and (dis)honest shifts could be baselined, measured, controlled or mitigated.

## 2 Two Behavior Shifts During Small Group Discussions

### *The (Dis)honesty Shift*

Research indicates “that there is a stronger inclination to behave immorally in groups than individually”, resulting in group decisions that are less honest than the individuals would tolerate on their own. “Dishonest” in the context of the research means the group decisions break or skirt the ethical rules of the organization and societal norms, involve cheating and lying. Furthermore, the group discussions tend to shift the individuals’ post-discussion norms of honest behavior towards dishonest. First the discussion tends to challenge the honesty norm, then inattention to one’s own moral standards (during the actual discussion) and categorization malleability (the range in which dishonesty can occur without triggering self-assessment and self-examination) create the effect that “people can cheat, but their behaviors, which they would usually consider dishonest do not bear negatively on their self-concept (they are not forced to update their self-concept)”. The research indicates that it is the small group communication that causes the shift towards dishonesty that enables group members to

coordinate on dishonest actions and change their beliefs about honest behavior". The group members "establish a new norm regarding (dis-)honest behavior". Appeals to ethics standards seem to be effective in the short term [Mazar et al] but there is little evidence for long term effectiveness.<sup>1</sup>

### ***The Risky Shift***

Research into risky or cautious shifts during group discussion looks at whether and when a group decision shifts to be riskier or more cautious than the decision that the individuals would have made on their own.<sup>2</sup> One element driving the shift appears to be who bears the consequences of the decision – the group members, people the group members know (colleagues, friends, family), or people the group members do not know. There is evidence that individuals tend to be myopically risk averse when making decisions for themselves.<sup>3</sup> Research indicates however that "risk preferences are attenuated when making decisions for other people: risk-averse participants take more risk for others whereas risk seeking participants take less." Whether the group shows a risky shift or a cautious shift depends on the culture from which the group is drawn and the size of the shift seems to depend on the degree of empathy the group feels for those who will bear the consequences and risks of the decision.

---

<sup>1</sup> See these two papers for recent research in the area:

Nina Mazar, On Amir & Dan Ariely, "The Dishonesty of Honest People: A Theory of Self-Concept Maintenance", *Journal of Marketing Research*: December 2008, Vol. 45, No. 6, pp. 633-644, 2008.

(<http://journals.ama.org/doi/abs/10.1509/jmkr.45.6.633?code=amma-site>);

Martin Kocher, Simeon Schudy & Lisa Spantig, "I Lie? We Lie! Why? Experimental Evidence on a Dishonesty Shift in Groups", University of Munich Discussion Paper 2016-8. (<https://epub.ub.uni-muenchen.de/28966/>)

<sup>2</sup> See these two papers for recent research into the topic:

Eleonore Batteux, Eamonn Ferguson & Richard Tunney, "Risk Preferences in Surrogate Decision Making", *Experimental Psychology* (2017), 64(4), 290-297. (<https://doi.org/10.1027/1618-3169/a000371>);

Gabi Dodoiu, Roger Leenders & Hans Van Dijk, "A meta-analysis of whether groups make more risky or more cautious decisions than individuals", *Academy of Management Proceedings*, Vol 2016, No 1, 30 November 2017. (<https://journals.aom.org/doi/10.5465/ambpp.2016.194>)

<sup>3</sup> Richard H. Thaler, Amos Tversky, Daniel Kahneman & Alan Schwartz, "The Effect of Myopia and Loss Aversion on Risk Taking: An Experimental Test", *The Quarterly Journal of Economics* Vol. 112, No. 2, May 1997, pp. 647-661. (<https://doi.org/10.1162/003355397555226>)

Research into leadership shows that “responsibility aversion” is driven by a desire for more “certainty about what constitutes the best choice when others’ welfare is affected”, that individuals “who are less responsibility averse have higher questionnaire-based and real-life leadership scores” and do not seek more certainty when making decisions that are risky for others than they seek when making decisions that are risky for themselves alone.<sup>4</sup> However, this research says nothing about the starting risk-seeking or risk-avoiding preference of the decision making leader.

### 3 Potential Impact on Seminar Wargames

If a seminar wargame is meant to simulate or emulate real world staff behavior, then it is reasonable to leave the two shifts in place and we have a descriptive game. On the other hand, if the wargame is meant to inform decision makers then we want the decision making in the small group discussions during the game to be risk neutral and honest, i.e. we want a normative game. This Game Lab dealt with the latter case. However, in both cases we are faced with a number of research questions concerning how military officers handle risk:

1. Although leaders tend to be risk neutral, are military officers in general culturally risk averse (they understand better than anyone the consequences of warfare) or risk seeking (their job is to go into and lead others into harm’s way)?
2. What are the differences in the riskiness of group decisions or leader decisions in a research wargame (where the participants know it is a game and no one is at risk) and a planning wargame (where subordinates will bear the consequences of implementing the plan)?
3. How do we remove the risk and (dis)honesty shifts from seminar games or measure the shifts and take them into account during post-game analysis?

---

<sup>4</sup> Micah Edelson, Rafael Polania, Christian Ruff, Ernst Fehr, & Todd Hare, “Computational and neurobiological foundations of leadership decisions”, *Science*, 03 Aug 2018, Vol. 361, Issue 6401, (<http://science.sciencemag.org/content/361/6401/eaat0036>).  
For a review of this article see “What makes a leader”, Nell Greenfieldboyce, NPR August 2, 2018 (<https://www.npr.org/sections/health-shots/2018/08/02/634639437/what-makes-a-leader>).

## 4 Proposed Methods of Dealing with the Shifts

### 4.1 Shift Accountability

General Motors Company (GM) use several techniques to disrupt the risk and honesty shift tendency of small groups. They assign a single individual to be “accountable” for the group’s decision. This assignment is done after the group is formed and is not a result of group dynamics – it is imposed.

This tends to make assigned individuals think harder about risk and the cost to themselves. As the research described above indicates, if the assigned person is a leader then any shift they make will tend to be towards the decision for which they originally argued as an individual. For others it becomes “roll the dice” moment. Some course of action with say an 80% chance of success might sound good when making the decision in a group, but when faced with bearing the consequences of failure the 20% chance of failure will loom large. This might be an interesting method to find real leaders able to make decisions for others with the same risk tolerance they use when making decisions for themselves.

Using this with military staffs during a wargame would be an interesting challenge, it would probably require each game cell to be composed of officers with the same rank and close to the same seniority. Alternatively, one could design the game in such a way that the senior officer present must leave before the decisions are made and who takes over is not known until that event.

### 4.2 Move Decision Makers out of their Comfort Zone

A second approach used at GM is to intentionally create sub-groups with people from different organizations and functions. This includes taking experienced decision makers away from their function or knowledge area (e.g. like having an admiral decide for the army, a general for the air force, etc.) The people making the decision are skilled decision makers – but now out of their comfort zone must rely on or challenge the SMEs and advisors who may or may not have the bias.

For wargames this might involve creating player cells with leaders who are not warfare experts in the topic being games, but which contain subject matter experts in those topics. This kind of structure is a familiar one to military officers.

#### 4.3 Force the Shifts to Occur

Accelerating the standard team building process (aka the classic forming-storming-norming-performing process) by intentionally forcing and allowing the group shifts to occur in such a way that the team norms around risk and dishonesty behavior that is within bounds acceptable to the organization might be a way to control the shifts.

One way to do this is to rapidly fire a series of “crisis” situations at the players that ultimately have no impact on the overall game but will feel as such to participants. It’s like a pre-game warm up – in media-centric language this is similar to “In Medias Res”<sup>5</sup> and in game-centric language this is equivalent to creating a Backstory<sup>6</sup>. The idea is to force the participants to unwittingly show their bias in situations where it doesn’t matter – thus providing a means to baseline and/or contrast participant (and group) behaviors. One possible example for a Naval Wargame is to have a false positive ping on an attack – or have a drill being conducting when an “accident” (real or otherwise) occurs that must be dealt with.

#### 4.4 Invert Play Testing

Sometimes in play testing it is necessary to request or instruct the players to take a particular tactic or disposition to try within the game to confirm if the design is robust to extremes and, if not, provide information on how to fix it. The suggested tactics are often boundary or edge approaches that reflect higher risks and/or perceived “cheats” (dishonesty). By identifying some of these tactics prior to the game, it is possible to “invert the testing” by comparing a group’s proposed course of action to play tested boundary tactics. The degree of

---

<sup>5</sup> “In Medias Res”, Encyclopaedia Britannica  
(<https://www.britannica.com/art/in-medias-res-literature>)

<sup>6</sup> Comment by Stephen Downes-Martin “In a seminar wargame this would be part of the road to war briefing that occurs before the sides or cells split for their initial tailored intelligence briefings which are then followed by Move 1.”

alignment between group COA and test tactics may indicate the level of shift a group is exhibiting.

#### **4.5 Remove the Favored Alternative**

Changing the narrative during the game to remove a favored Course of Action (COA) and monitor the resulting decision-making behavior may be a technique to understand the shifts taking place in a group during a game. What is of interest is whether the group push back to maintain the COA or select another. The arguments they make for doing so will give some indication of how much they believed their first choice (along with the risks associated with both), their risk tolerances and the level of honesty being exhibited.

#### **4.6 Baseline and Track Shifts**

Voting procedures could be used to baseline and then track group polarization, and to identify the direction (if any) of risk shift. The group would vote privately on initial recommendations before discussion, then discussion and decision would occur, and then a second private vote taken. The first vote would be the baseline, and differences between the two votes and the decision might indicate polarization and shifts. Hidden voting is a common method used in GM decision groups to avoid group polarization.

After the first or second vote or the decision one could remove the winning option, engage the participants in a discussion about what the decision should now be and record the strength of arguments for or against their second choice to determine the level of strategic voting that may have occurred.

This would be relatively easy to implement in a seminar wargame. Stephen Downes-Martin reminded the group of the Impossibility Theorem which applies when using ordinal voting schemes applied to three or more alternatives.<sup>7</sup> For most complex and qualitative wargame related problems cardinal scoring schemes lack credibility. He recommended collecting the ranking of all alternatives from each player and analyzing them after the game to determine a

---

<sup>7</sup> Michael Morreau, "Arrow's Theorem", Stanford Encyclopedia of Philosophy October 13 2014 (<https://plato.stanford.edu/entries/arrows-theorem/>)

possible Condorcet Ordering of alternatives and any intransitive loops between alternatives. The players would live with their decision as made and that decision would flow forward through the game.

#### **4.7 Record the Shifts without Changing them**

Even where dishonesty in the representation of participants' preferences exists, it may be enough to make sure that it is honestly recorded. For instance, if a participant sticks to their proverbial guns on an option not because they personally think it is good but because their boss or organization has directed them to do so, having that fact recorded can be its own kind of valuable information.

#### **4.8 Remind the Group about Norms**

A short-term mitigation of the (dis)honesty shift can occur when the group is strongly reminded of the organization's norms about honesty and ethics. This can be included into the Game's in-brief as part of the Sponsor's Objectives. One must be careful not to irritate the players by inadvertently and wrongly implying they are unethical. Perhaps one can point out that the game conclusions will be challenged by competing interests who will be looking for ethical and logical weaknesses in the decisions made in the game?

#### **4.9 Educate and Train Facilitators in Latest Shift Research**

Normally the wargame director has little control over selecting players by personality trait. However, there is an established body of literature on red teaming techniques designed to mitigate group think which might offer guidance or strategies. More active or engaged facilitation techniques can also help keep participants from clustering around a dishonest, overly risky, or overly conservative answer as a function of natural social gravity. Facilitators must be educated in group dynamics and the research around shifts, and in the Red Team techniques for mitigating group think.

## 5 Conclusions and Recommendations

The existence of group polarization, risky/cautious and (dis)honesty shifts in small group discussions is well established along with the effect of leadership on the risky shift. Although these will apply to military officers during wargaming the following research questions must be addressed:

1. Are military officers culturally risk averse (they understand better than anyone the consequences of warfare) or risk seeking (their job is to go into and lead others into harm's way)?
2. What are the differences in the riskiness of group decisions or leader decisions in a research wargame (where the participants know it is a game and no one is at risk) and a planning wargame (where subordinates will bear the consequences of implementing the plan)?
3. How do we remove the risk and (dis)honesty shifts from seminar games or measure the shifts to take them into account during post-game analysis?

The Game Lab identified nine methods – some of which are in use at General Motors Company – for baselining, measuring, controlling or mitigating the shifts:

1. Shift Accountability
2. Move Decision Makers out of their Comfort Zone
3. Force the Shifts to Occur
4. Invert Play Testing
5. Remove the Favored Alternative
6. Baseline and Track Shifts
7. Record the Shifts without Changing them
8. Remind the Group about Norms
9. Educate and Train Facilitators in Latest Shift Research