Leveraging Metaphor in Professional and Military Education

Linking Ideas to Experience via Story, Symbol, and Simulation

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Abstract

Metaphors are critical tools for human understanding, bringing to light ideas and relationships that might otherwise remain unseen. In this article, we discuss how faculty creativity can help to unlock student learning through the use of specialized artifacts like an ancient Roman sword, or even everyday items like a ball of yarn or a bowl of crackers. Additionally, the value of sharing popular culture references and playing games in class are discussed as innovative means to leverage metaphors and exemplify complex academic concepts. The article explores the use of story, symbol, and simulation to support professional and military education.

Word pictures like "billiard balls," "red lines," "pivot to Asia," "failed states," and "balance of power" are critical to how faculty understand and frame the profession: "They provide the narrative structure through which facts are sorted into categories, assumptions are made, hypotheses are derived, and theories are formulated" (Marks, 2018, p. 3). Educators, military professionals, and sociopolitical players all make use of metaphor to clarify and deepen their understanding of the actors "on the stage."

According to cognitive linguists Lakoff and Johnson (1980), "metaphors play a central role in the construction of social and political reality" (p. 159). Most English speakers use more than 3,000 metaphors each week and up to four metaphors per minute in everyday conversations (Hoffman, 1983). Metaphors and analogies—while critiqued by

classical political theorists like Hobbes (1996) for potential abuse—remain critical to how humans attempt to conceptualize and explain the world.[1]

For educators, metaphors serve a wide variety of purposes. Most important perhaps is the ability to bring to light ideas and relationships that otherwise might remain unseen. South African educator Botha (2009) defines a metaphor as "seeing, describing or interpreting some unfamiliar educational phenomenon, event or action" (pp. 431–432) in terms of something far more familiar.[2] Metaphors help us to draw out necessary connections, especially within a professional military education (PME).

Three modalities to leverage metaphors in the classroom are story, symbol, and simulation. Each offers promise for enhanced student engagement, and practical examples are provided from our broad teaching experience in traditional higher education environments (undergraduate and graduate) as well as diplomatic and PME settings.[3]

Leveraging Story in the Classroom: Personal Experience, Critical Reflection, and Popular Culture

"Story" is the first modality explored here. Stories can be utilized to unpack one's own experience, to catalyze students' critical reflection, and as discussed a bit later in this section, engage proactively with popular culture.

Personal Experience and Critical Reflection

Storytelling about personal experience may begin as an individual task. For example, "reflective essays" are a common writing assignment used to challenge students to explicitly link personal and professional experiences to the learning outcomes and "critically

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interrogate lessons learned in the context of assigned and complementary readings and other course activities and content" (Inter-American Defense College, 2018, p. 16). This type of essay allows students—especially military officers—to synthesize ideas from diverse sources of knowledge, increasing retention and the application of concepts.

Storytelling can also take place in groups, as participants reveal information about themselves and consider how it fits into a larger context. Storytelling exercises tend to contribute to stronger learning communities, facilitate group dialogue, and allow participants to uncover possible biases (Tilly, 2002). This is especially valuable in cross-cultural and diverse PME contexts, as participants may not be conscious of their own biases and cultural constructs.

Another powerful tool for storytelling is the "who am I" exercise associated with "red teaming" and alternative futures analysis.[4] Individuals are asked to share with their peers about intimate personal experiences and visualize their lives as a series of "peaks and valleys" (Burke, 2008). The exercise requires radical honesty from participants and may not be appropriate in all settings. Still, it offers opportunity for critical self-reflection and development of empathy, engaging events from the past.

Storytelling can involve exploration of not just the past but also the present and future. Thinking of the future as a counterfactual is a well-established scenario development technique in PME environments (Junio & Mahnken, 2013). Asking students to create future scenarios provides a safe place for them to discuss some of the most uncomfortable facts about the present. Techniques can range from "critical uncertainty" and "alternative futures methodology" to use of "pre-mortems" and "demonstration scenarios" (Clark, 2004; Schwartz, 1996). These scenarios work best when exploring counterintuitive pathways and weak signals, scanning the horizon for plausible and possible alternative futures as opposed to narrowing in only on the most likely outcomes. Two specific examples of our classes "storytelling the future" show the potential.

First, one of us worked closely with the U.S. Army Futures Command to mobilize diverse groups of students, including nonmilitary actors, to "imagine the future" (Hollenbeck & Jensen, 2017; Jensen, 2016; Norwood et al., 2016). Students started with a baseline study on the changing character of war and then were asked to test their core assumptions. Groups evaluated whether they thought the future was evolving in a given direction or if there might be alternative pathways. This collective storytelling project allowed students at multiple levels (both professionally and educationally) to apply research methods and core insights from international relations, while also connecting their work to a major external partner.

In another instance, four classes of graduate and undergraduate students applied a similar methodology of "storytelling the future" to engage the new U.S. Space Force. Groups participated in seminars on research methods, larger questions in political science and sociology, and the evolution of space technologies in order to imagine alternative futures. Contrary to the headlines, these discussions allowed students to think critically about the implications for space economics,

law, piracy, and alternative actors as well as domains of interaction that could present new roles and missions.

One final narrative activity we employed is a "faculty confessional." It can be used to introduce difficult themes in class, mitigate foreseen cognitive dissonance, and humanize responses likely experienced by participants. For example, to stimulate student reflection and catalyze classroom discussion about systemic challenges and "durable inequalities" in a diverse educational environment, one of us—a tall, white male—tells personal stories about how he has benefitted and perhaps contributed (even unwittingly) over time to otherwise abstract mechanisms of "exploitation" and "opportunity hoarding," as explored by the late historical sociologist Charles Tilly (1998). Use of this type of faculty confessional, while potentially risky, opens the door for students to be more self-reflective about their own personal narratives and consider how their lives have been shaped by these otherwise "distancing" sociopolitical categories.

Popular Culture

Another means of storytelling in higher education and PME settings is via popular culture references. There is an emergent literature and academic community within the social sciences linking academic content and theory to popular film and literature (Buzan, 2010; Dixit, 2012; Freedman, 2000; Jackson, 2013; Neumann & Nexon, 2006; Weldes, 2003; Weldes & Rowley, 2015). According to international relations scholars Lobasz and Valeriano (2015), "Stories, whether written in books or projected onto screens, serve as compelling points of entry to our discipline. Fiction, perversely, makes the stakes of global politics appear real to our students" (p. 400).

We have explored popular culture-political science links in diverse writings and class engagements. For example, one of us uses science fiction television to analyze military, commercial, and identity tensions that influence modern space politics. "Sci-Fi offers policymakers and citizens a reflective lens to consider 'real world' events, a creative stage to explore every day and apocalyptic dilemmas, and a simulation to juxtapose alternative futures" (Hamilton, 2009, p. 208).

We also encourage students to engage popular culture cases in order to practice application of conflict analysis tools, including stakeholder mapping, "conflict as tree" problem analysis, and "conflict as fire" life cycle analysis (Hamilton, 2015; Neufeldt et al., 2002). Students enjoy the chance to tell stories and apply tools to a wide range of cases: from an interpersonal conflict pitting Harry Potter versus Voldemort to an intergroup conflict between the Rebel Alliance and the Evil Empire (*Star Wars*), from an intragroup "civil war" among the superhero Avengers (Iron Man vs. Captain America) to intrafamilial tensions in *Keeping up With the Kardashians*.

Whether personal or cultural, stories allow students to interact in a more deeply felt and empathetic way with the course content. Stories also provide a sense of con-

nection or shared experience, even if the actual experience or perceived importance is not exactly the same: "Metaphor and narrative reassure us that things hang together" (Berger, 2010, p. 275).

Leveraging Symbols in the Classroom: Artifacts and Physical Metaphors

Artifacts

While stories create entire contexts and imagined realities, some simple objects offer powerful connotations all by themselves. As physical symbols, "artifacts" often help students see larger connections. Beyond simple novelty, they invoke a particular configuration of forces across multiple levels of analysis. For example, a lecture on war and political conflict in a PME classroom may invoke a "war in society" perspective by focusing on an individual weapon. This invites students to consider some of the larger political, economic, and social factors in play (Citino, 2007).

One of us uses a roman sword, a "gladius," as an artifact to this end. Particularly in classes with military audiences, this weapon provides initial allure to draw students into the conversation. Their academic journey begins with several symbol-focused questions: "What is this?" "How was it used?" "When did people start using it?" "What types of formation did it support?" Such simple questions link to a common seminar learning and "red teaming" approach called the "Five Whys" (U.S. Army Training and Doctrine Command, 2019, pp. 81–82).

Asking "why" and "how" questions about a weapon's usage can transition to a much broader discussion about the economic logic of war in a particular historical moment and how this relates to political aims and strategy. This creates space to discuss war in society, its social and environmental characteristics, and how social attitudes and practices intersect with drill, ceremony and understandings across the military ranks.

Physical Metaphors

Closely related to artifacts is another symbol-focused teaching tool: the employment of physical metaphors, also discussed as "embodied learning" (Channon et al., 2018). Physical metaphors are more participative than artifacts per se, as students are asked to move around in class and manipulate everyday physical objects to engage abstract themes (Asher, 1969; Gardner, 2006; Kolb, 1984).

For example, Asal (2005) has shared a classroom exercise that brings to life the concept of Hobbesian Classical Realism. His "Survive or Die" activity uses the child-

hood game of "rock, paper, scissors." The game's objective is to survive, and participants must duel when challenged. Following the exercise, students explore why so many of them chose to "fight" their classmates to win (often against the odds) rather than to prioritize their survival. This simple exercise, which takes minimal class time, has been adapted in other classroom environments (including ours) to initiate discussion on the difference between "conflict" and "violence," among other themes.

As discussed in a prior article published in this journal, we leverage another exercise to exemplify the "Tragedy of the Commons" (Hamilton, 2019). This core concept in environmental security has been applied to cattle grazing, fisheries, and communal forests but tends to be unfamiliar to many PME students (Berkes, 1985; Buffam, 2012; Hardin, 1968). Using "physical metaphor," students are asked to manipulate everyday objects like goldfish crackers (representing fish), bowls (lakes/fisheries), cups (boats), and forks/spoons (fishing poles/nets) to simulate fishery management challenges in a relatively "dry" classroom environment (adapted from Szerlip, 2003). Students are challenged to think outside the box and seek creative and often cooperative means to avoid environmental tragedy and mitigate resource scarcity dilemmas, which are increasingly relevant (Feeny et al., 1990; McClintock, 2017; Ostrom, 1990, 2010).

Another physical metaphor uses strings to represent "Networks of Power" and their role in reinforcing systemic inequality (Hamilton, 2020). The activity, adapted from Ansoms and Geenen (2012), takes place in a large space (like a courtyard) and physically maps and reproduces mechanisms of "durable inequality" (Tilly, 1998). Students are handed five strings (tied together on one end) and are expected to strategically connect their loose ends to other players during the course of the game. Each player receives a different length of string (from one to five meters), with point values assigned to each connection corresponding to this length. The goal for individual players is to maximize the points they gain through "high-value" connections. Participants provided longer strings have some key advantages, as they can move more freely and are sought out by peers as a connection. Those with short strings are trapped as soon as they make one or two connections, often at the margins of the class network: they are unattractive to other players and unable to move to make all of their connections. Through participation in the activity, students experience some of the structural implications of inequality and can see the perverse incentives facing marginalized actors. The closing debrief for the "Networks" game is often both content- and reflection-rich, and it provides opportunities for students to engage other narrative tools described already in the context of "story."

A final example of physical metaphors is "Kinesthetic Mapping," incorporating the ideas of total physical response in a given physical classroom space (Asher, 1969). It can be used to engage competing theories for violent youth mobilization in militant and/or criminal organizations. One of us uses it to introduce theories of violent mobilization: a sociological/anthropological lens prioritizing "groups and identity" factors, a political science lens privileging "grievances and (perceived) injustices," and

an economics lens focused on "greed and incentives" (Hamilton, 2018). Students are given a moment to reflect silently on which of the theory clusters best explains why people join violent groups in cases relevant to their own experience. Next, they are asked to "take a stand" in the classroom: Those who claim Groups as a primary causal factor move to the front of the room, while advocates for Grievances and Greed shift to corners toward the back. To address combined causes, students seek out a location between extremes; however, no one is allowed to occupy the exact middle. Targeted faculty questions (while students are standing in place) allow them to share and reflect on the primary causes of "their" conflicts. During debrief, students discuss the value-added and relative limits of each theory, drawing on their experiences, which are especially rich in a diverse or multinational PME learning environment.

Symbol, through the use of artifacts or physical metaphors, can enhance the students' experience. It also can be incorporated into a final teaching modality—simulations—to fully unleash the power of metaphor in higher learning and PME environments.

Leveraging Simulations in the Classroom: Role-Play and Experiential Learning

Simulations are another valuable tool available to educators who are interested in using metaphors in the PME classroom. They offer participants "a sense of how things work in the real world" (Wiggins, 2011, p. 557) and a means to engage course content and practice relevant skills within a "safe" learning environment (Gee, 2005).

The value of incorporating simulations in higher and professional education is quite well explored in the academic literature (Asal, 2005; Burch, 2000; Glasgow, 2014; Greenblat, 1973; Hamilton, 2019; Lira & Beurskens, 2017; Richardson, 2003; Sawyer et al., 2017; Shaw, 2010; Thatcher, 1990; Westler & French, 2019). These activities "represent something which is abstract by simulating it as something that is accessible, known, and/or familiar" to participants (Wiggins, 2011, pp. 552–553).

One simulation we employed is a negotiation exercise developed by Leguizamon (2005). It has been adapted for classroom use in a multilingual, multicultural environment with security officials from across the Americas (Hamilton, 2016). The exercise allows students to role-play as voting actors in a controversial highway approval project. Actors include a private engineering firm, environmental nongovernmental organization, local community organization, state governor, local port authority, and national public works office. Students representing each actor are provided (privately) a quantitative breakdown of the points for varied outcomes across preestablished negotiation criteria. During the simulation, carried out via formal and informal debate sessions and subsequent debrief, participants hone their understanding of conflict resolution concepts like interest-based negotiation, BATNA (best alternative to a negotiated agreement), and "shadow of the future" (Axelrod, 1984; Fisher & Ury, 2011).

The exercise consistently rates well in student surveys for reinforcing course learning outcomes and is often referenced in subsequent oral and written products.[5]

In PME settings, simulations can range from foreign policy deliberations to operational decision games and "staff rides." These activities allow participants to experience decision-making dilemmas, often operating with incomplete information. Simulations draw on a long history in military preparation (Jensen, 2017). We have advocated for "sims" to consume more space in PME curricula and championed new societies, drawing volunteers from across forces (Hamilton, 2019; Jensen, 2019a, 2019b). Simulated settings, which usually involve dynamic interaction, help PME students to test assumptions about strategy, war, and decision-making. More often than not, they reveal limits of participants' own strategies, and thus tend to moderate hard-line views (Jensen & Van Echo, 2020).

Simulations can be employed in diverse classroom environments, allowing students to engage in a hands-on way with a wide array of complex concepts and scenarios. They also are more cost effective than military training situations that necessitate logistics and supply on a large scale.[6]

Conclusions

As discussed in the introduction, metaphors serve as a critical tool to support understanding. They frame everyday relationships and help people process complex sociopolitical phenomena. We have introduced three modalities—story, symbol, and simulation—to support active learning in PME settings and link abstract ideas to experience. Diverse classroom examples shared in the article, such as offering a faculty confessional, wielding a Roman gladius as symbol, or participating in a cyber-crisis exercise, demonstrate how metaphorical tools can support student comprehension and enhance their critical reflection.

The use of metaphors seems especially well-suited for today's PME sector, which faces diverse and ever-increasing challenges from within and without, targeting its relevance and effectiveness. Metaphors may serve as a sort of antidote to staid methods; they draw students' engagement with linkages to familiar concepts and experiences and, once engaged, can "transport" them to imagine new and often unexpected horizons.

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Notes

1. For Hobbes (1996), "Metaphors, and senseless and ambiguous words, are like ignes fatui; and reasoning upon them, is wandering amongst innumerable absurdities" (p. 36). Musolff (2004) challenges the view of Hobbes as a "metaphor-basher" and emphasizes a "critical attitude towards seemingly unproblematic analogies that lead to dangerous conclusions" (p. 171).

2. Some authors highlight the differences between metaphor and analogy (Aubusson et al., 2006; Harrison, 2006, etc.); however, the authors agree with Garner (2005): "An analogy, although technically distinct, is really only an extended metaphor" ("Analogy and Metaphor" section).

3. We adapted this article from a recent conference paper on the educational use of simulations and games (Hamilton & Jensen, 2020). The opinions, conclusions, and recommendations expressed or implied here are those of the authors and do not reflect the official policy of the Inter-American Defense College, Marine Corps University, American University, Inter-American Defense Board, Organization of American States, or Department of Defense.

4. Red teaming "uses structured tools and techniques to help us ask better questions, challenge explicit and implicit assumptions, expose information we might otherwise have missed, and develop alternatives we might not have realized" (U.S. Army Training and Doctrine Command, 2019, p. 3). Principles include development of soldiers' "self-awareness and reflection," "groupthink mitigation and decision support," "fostering cultural empathy," and "applied critical thinking" (pp. 3–5).

5. A similar simulation analyzed previously in this journal (Hamilton, 2019) highlights the value of interagency cooperation, relationship development, and clear protocols to respond to and mitigate cyberattacks. Developed in conjunction with tech professionals from the Organization of American States, the simulation allows students to experience some of the challenges and benefits of multisector collaboration.

6. This does not suggest that military training operations are unimportant to readiness but simply that simulations may be considered a supplemental component of considerable value.