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Peacebuilding With Games and Simulations

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Abstract

Simulations and games can offer valuable insight into the management of conflict and the achievement of peace. This special symposium issue of *Simulation & Gaming* examines several such approaches, used in both educational settings and to prepare practitioners to deal with the concrete challenges of peacebuilding. In the introduction, the authors offer some brief thoughts on the how and why of simulations and games-based approaches, scenario choices (abstract, fictional, and real world), intended audiences, and design approaches. They also address the question of how games might (or might not) contribute to policy making in this field.

Keywords

audiences, conflict management, conflict resolution, design, experiential learning, peacebuilding, peacekeeping, policy making, scenario choices, simulation design, wargaming

Simulations and games have long been used to examine war-fighting. Chess—one of the world's oldest, and certainly most ubiquitous, games—has its origins some 1,500 years ago in India as a game of contemporary warfare. Since the invention of KRIEGSSPIEL in 19th century Prussia, professional wargames have been used to educate officers and train armies for battle (Perla, 1990).

Similar mechanisms can also be used, however, to examine conflict from another perspective: that is, how it might be avoided, reduced, managed, transformed, or resolved. Whether we focus on nuclear deterrence, provincial reconstruction in Afghanistan, tribal tensions in Sudan, or efforts to avert genocide in COUNTRY X,

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the games featured in this special symposium issue of *Simulation & Gaming* share a common interest the in building or maintaining of peace.

Our interest in this area comes from our own practical experience using games as an experiential teaching technique. One of us works as a senior economist at the World Bank, where he designed and implements the CARANA simulation, used to teach World Bank staff the skills necessary for assessment, strategic planning, prioritization, and program design in conflict-affected and fragile states (World Bank, 2012). The other uses a variety of games in teaching about development and war-to-peace transitions at McGill University, most notably the annual BRYNANIA civil war role-playing simulation (Brynen, 2010). Together, we also coedit the PAXsims (2012) blog on conflict simulation, which brings together game designers, users, students, and practitioners.

Why Use Games?

With regard to military matters, Philip Sabin (2012) has argued that the educational value of games can be substantial:

> The most important function of wargames is to convey a vicarious understanding of some of the strategic and tactical dynamics associated with real military operations. Besides learning about the force, space and time relationships in the specific battle or campaign being simulated, players soon acquire an intuitive feel for more generic interactive dynamics associated with warfare as a whole. . . . As variation in combat outcomes during the game creates unexpected threats and opportunities, players will be faced with other classic real world dilemmas such as whether to reinforce success or salvage failure. Actually grappling with such dilemmas at first hand rather than simply reading or hearing about them has enormous educational potential. (p. 31)

Much the same arguments can be made about the use of simulation and gaming techniques to enhance our understanding, not of warfare, but rather of the process whereby peace might be achieved and sustained. Through serious games, participants can gain a better sense of the dynamic relationships at work in complex environments, explore good fits and practical solutions, and understand how mistakes occur (often, by making them themselves). These are real skills needed in the real world: In recent decades, policy makers working on peacekeeping and peacebuilding have certainly been faced with the prospects of failure and have been forced to choose between "reinforcing success and salvaging failure." When games engage multiple participants, the games reproduce some of the political, coordination, communication, and coalition-building challenges that often accompany peace and stabilization operations, especially if a simulation is designed to reproduce some of the organizational silos and bureaucratic politics that exist in the real world.

The value of peacebuilding games is particularly evident in training and educational settings (Lantis, Kuzma, & Boehrer, 2000). However, they have other uses as well. Because simulations are inevitably built upon an explicit or implicit model of reality, their construction is essentially an exercise in social science theorizing. As a consequence, they can be used as a research tool to examine the implications of hypothesized relationships and conflict dynamics (Boyer, 2011). Advances in both computation power and conflict modeling allow this to be done with ever-greater degrees of sophistication (Yilmaz, Ören, & Ghasem-Aghaee, 2006).

There are, of course, good reasons to be doubtful about the ability of games to work as predictive tools, as social and political processes are complicated things and the particular dynamics of peace and conflict are often highly context dependent; they are "wicked problems" (Rittel & Webber, 1973). However, games can certainly serve as useful heuristic devices, helping practitioners and policy makers to think in new and creative ways about challenging issues or simply to compare worldviews for a better shared understanding of these complex challenges. The use of games as problem-solving spaces and as exercises to better understand complex problems are explored in all the articles in this issue; the reader is directed to the contributions by McMahon and Miller and by Bartels, McCown, and Wilkie for more substantial discussion.

Such games can take a variety of forms. Abstract games can be used to highlight particular issues that arise in conflict resolution, or to build key communication, mediation, coordination, or other skills. Role-playing exercises are also quite common, in which participants explore either historical and contemporary conflicts (for example, Kumar, 2009; Public and International Law Policy Group [PILPG], n.d.) or fictional ones (such as Gamson & Peppers, 2000, or Tessman, 2007). Such games may involve rule sets that govern interaction and resource management, or simply focus on processes of discussion, debate, and negotiation. The REACTING TO THE PAST series of books and role-play resources, although aimed more at history courses than at the development of conflict resolution skills, is a particularly successful version of this approach (Barnard College, 2012). In some cases, such educational simulations have been taken a step further, in the form of digital implementations of these traditional approaches. In such cases (such as the Open Simulation Platform or the ICONS Project), software serves to facilitate customizable player briefings, interaction, and debriefs (Brynen, 2012; ICONS Project, n.d.; United States Institute of Peace [USIP], n.d.-b). In still other examples—such as the USIP's Strategic Economic Needs and Security Exercise (SENSE) simulation, or the GEMSTONE counterinsurgency wargame at National Defense University (NDU)—players may interact with a digital model of the political, social, and economic model of the society in conflict, which provides a focus for broader discussion and negotiation (NDU, n.d.; USIP, n.d.-a). Although there remain relatively few traditional boardgames that have peacemaking as an educational (as opposed to entertainment) focus, recent years have seen the development of serious video games that serve this purpose, such as

Table 1. Articles and the Simulations Covered in This Symposium

Article	Simulations introduced or discussed
Bartels, McCown, and Wilkie	WATER CONFLICT RUSSIA EXERCISE
Harding and Whitlock	COUNTRY X
Landwehr, Spraragen, Ranganathan, Carley, and Zyda	THE SUDAN GAME
Mason and Patterson	AFGHAN PRT GAME
McMahon and Miller	CAMP DAVID SIMULATION
Powers and Kirkpatrick	TAKE A CHANCE CONCENTRIC CIRCLES THE BIG WIND BLOWS MRS. MUMBLY NEW COMMONS GAME DRAMA TRIANGLE GROUP, GRIPE, GROPE UNFAIR GAME RAISING CANE
Schofield	SUPERPOWER CONFRONTATION MULTIPOLAR ASIAN SIMULATION

PEACEMAKER, in which participants seek to achieve a negotiated outcome to the Israeli–Palestinian conflict (Kampf & Gürkanyak, 2012).

Inside This Issue

The contributions to this special issue of *Simulation & Gaming* examine a wide variety of different types of learning games and simulations (Table 1). In drawing out the many lessons that the contributors have to offer, it is useful to think about both the similarities and differences in their approaches to the topic.

Beginning at the broadest dimension, the articles in this symposium could be divided into the *How* or the *Why*. The first group—Landwehr, Spraragen, Ranganathan, Carley, and Zyda (THE SUDAN GAME), Mason and Patterson (AFGHAN PRT GAME), Harding and Whitlock (COUNTRY X), Schofield (SUPERPOWER CONFRONTATION, MULTIPOLAR ASIAN SIMULATION), and McMahon and Miller (CAMP DAVID SIMULATION)—introduce particular games used to explore specific scenarios of peacebuilding. Each describes a game, often including the phenomena they are modeling, the choices they made in designing the simulation, and, where possible, evaluations of the game as a learning or modeling tool. Within this group, the underlying motives for using a simulation vary. Landwehr et al. see value in *crowdsourcing* complicated social relationships through making a game accessible on a Massive Multiplayer Online (MMO) platform, whereas Mason and Patterson and Harding and

Whitlock are interested in the teaching benefits of an immersive scenario. Schofield is interested in the teaching value of the scenario, and also tests some hypotheses in the broader literature on deterrence and escalation.

The second group of two articles guide the reader through some considerations for designing a simulation (Bartels, McCown, and Wilkie) or designing a course about conflict mediation (Powers and Kirkpatrick). Of course, the *How* cannot be separated wholly from the *Why*—Authors in the first group in the course of describing their game design often reflect on the teaching environment for which the game was designed, and those in the second group use specific games as examples to support their arguments.

The articles in this symposium can also be contrasted among those reflecting on simulations and games of real-world phenomena (THE SUDAN GAME, AFGHAN PRT GAME, CAMP DAVID), those that simulate conflict environments in the abstract (TAKE A CHANCE), and those that explore hypotheticals somewhere in between (SUPERPOWER CONFRONTATION, MULTIPOLAR ASIAN SIMULATION, and COUNTRY X). Good reasons exist for each possible location of a simulation on this spectrum. In some of the cases, the authors are interested in exploring hypotheticals and what-ifs, and hence alternative scenarios that might constructively inform current peacebuilding exercises in these conflicts. Indeed in some cases, these simulations have been used to conceptualize other solutions to complex problems with the decision makers themselves or it is expected that the simulation will inform future policy making. In other cases, the simulation may be intended as a teaching tool, to introduce students to a particular historical or current event. In this context, accuracy in modeling is important. In still other cases, the learning is in the experience itself and less in the specifics. Indeed, historical detail can actually be distracting, especially in the event that experts are sitting in the room who know the case and spend more time on "what was" rather than "what could be."

Another cut at the issue, this time from the perspective of game design, is inspired by the scholarship of Peter Perla and McGrady (2007). They suggest a threefold typology of wargame design that is equally applicable to games that focus on issues of conflict management, transformation, and resolution. In their typology, *Analyst* approaches are those that focus on modeling reality, usually in an effort to determine what sorts of effects a given course of action might have. *Artists*, by contrast, focus on creating an immersive and engaging emotional and intellectual game environment. *Architects* focus on presenting players with choices and trade-offs in a simplified depiction of the decision-making environment. Although many of the games described herein share characteristics of more than one of these approaches, a palpable difference remains between those who emphasize immersive engagement and trade-offs (such as the AFGHAN PRT GAME, COUNTRY X, or our own CARANA and BRYNANIA simulations), and those who hope that their exercises might generate greater analytical insight into real-life cases (THE SUDAN GAME) or current theoretical debates (SUPERPOWER CONFRONTATION and MULTIPOLAR ASIAN SIMULATION)—a difference that we have elsewhere referred to as being between *sages* and *seers* (Milante, 2010).

The games and simulations in this issue vary by intended audience as well. Powers and Kirkpatrick discuss the formulation and design choices involved in weekend long course on conflict resolution for graduate- and undergraduate-level students. Schofield presents two simulations used to teach arms race theory to college students (as well as test theories about student behavior). McMahon and Miller also aim their simulation at a university student audience. Meanwhile, the intended audience for Harding and Whitlock or Mason and Patterson is the policy maker or practitioner preparing for the field, although their games can also be used in an academic classroom context too. As a result, the metrics for impact presented by each of these authors varies as well, ranging from course/class engagement and measures of learning to self-reporting on impact and application from practitioners.

The question of games and simulations as a substantive guide to policy making is a contentious one. As many of the contributors point out, simulations simplify reality. Like models, philosophies or worldviews, games reduce extremely complex phenomena to tractable problems with limited numbers of stakeholders (players), solutions (end game results or conditions), and limited scope of action (rules). Similarly, policy makers attempt to understand and reduce complex problems and challenges to the key stakeholders and end results (often limited to those objectives the policy maker would like to achieve). Because both processes (simulations and policy making) simplify the world, it can be very tempting to ascribe *prescriptive* policy-making power to simulations. This is often a mistake because it misleads policy makers into believing that they have explored the options space that they need to dutifully explore in order to make informed decisions, when they have really only explored the limited action space defined by the simulation design. This phenomenon is particularly pernicious when the simulation is sponsored by an entity (government, military, international organization) that has objectives, interventions, or outcomes that it would like to achieve and, under the guise of simulating an open environment, drives particular agendas through a constrained simulation design. In their professional capacities, both guest editors of this symposium have been involved in experiences where it quickly became clear where the simulation sponsor wanted us to end up and to whom we were supposed to be reporting our *solutions*.

Because of this, we had considerable discussion between us about one of the pieces that we have included, precisely because we believe it risks overstating the contribution the simulation would make to policy makers. In THE SUDAN GAME, the authors suggest "we will consider [successful results from simulation play] to be good suggestions for consideration in formulating a policy approach towards issues in Sudan." THE SUDAN GAME has a great many interesting merits, including crowdsourcing of complex problems, an interactive application of CONSTRUCT and an engaging interface for learning about stakeholders, tribal relationships, and recent history in Sudan. However, given the much wider action space available to policy makers working on peacebuilding in Sudan and Southern Sudan (ranging on the entire spectrum from public information campaigns to negotiations and sanctions), we find it unrealistic to suggest that policy making will be improved by knowing

which tribes should talk to each other on what issues and in what order. Furthermore, we would be concerned with any policy recommendations that came out of historical relationship information (newspaper data from 2003 to 2008) and static tribal relationships to inform current policy making in a politically fluid environment like the two Sudans. Indeed, recent intertribal violence and political developments in Southern Sudan since independence are the product of stakeholders and policy makers changing the tribal relationships, forming new alliances, and adapting to new political conditions, which are assumed static in THE SUDAN GAME. Despite these differences, we felt it important to include the paper by Landwehr et al. so as to open the discussion on the tricky issue of using simulations to inform policy making.

Finally, the art of simulation continues racing forward on the backs of two horses: traditional tabletop and computer-based modeling. We certainly have our own biases, but we have endeavored to include a sufficient mix to reflect the diversity of approaches in the peacegaming industry. Landwehr et al. use a virtual, online approach, which they hope will engage many participants in exploring a complicated action space, and provide a platform for virtual discussions on the games, strategies, and outcomes. Likewise, Harding and Whitlock use an online interface to allow users to engage with each other in game remotely, conceal hidden information (allowing for simultaneous turns), and automate responses for games at different nodes on a complex tree of interactions. Meanwhile, Mason and Patterson, McMahon and Miller, and Schofield all describe simulations run in person that are more akin to the traditional BOGSAT (Bunch of Guys/Gals Sitting Around a Table) exercises that are more similar to tabletop wargaming. As the authors suggest, the form that a simulation takes will often be contingent upon what is being taught, the audience, scale and scope of the scenario (Bartels, McCown, and Wilkie), and resources available.

Final Thoughts

We love games. When designed, facilitated, and debriefed well, they can be imaginative and immersive tools for engaging people who are learning a complicated concept or understanding a complex environment. Because we love games, we tend to be quite demanding, and at PAXsims (2012) and elsewhere we have often been quite critical of games that we think miss their mark. When simulations and games are executed or debriefed badly they threaten to undermine the use of simulations and gaming elsewhere. In this issue, we have been particularly difficult on our contributing authors, asking for multiple revisions, clarifications, and pestering them about why they have made particular design choices or how they really know that their simulations are effective teaching/learning tools. As a result, we think we have produced an interesting and thoughtful issue of *Simulations & Gaming*. This symposium contains a variety of methods and approaches, which on their own demonstrate lessons learned, but, also, given the broad scope of multiple dimensions described above, provide depth in their contrast. Whether you agree or disagree, we hope to continue the conversation, whether at the PAXsims website (http://www.paxsims.org) or elsewhere.

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