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Can Games Really Change the Course of History?

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Les exercices de simulation sous forme de jeu de rôle (SJR), et les jeux sérieux en général, peuvent être des outils puissants de formation, dans des situations très diverses, qu'il s'agisse d'enseignement ou de négociations à très forts enjeux. Dans certains cas, elles peuvent avoir un impact sur le résultat de négociations réelles. Cependant, selon notre expérience, les exercices de simulation SJR ne peuvent avoir un tel impact qu'à certaines conditions : elles doivent être réalistes et refléter la dynamique des situations réelles ; un animateur compétent doit activement aider les participants à assimiler les résultats de la simulation ; les participants doivent avoir partagé des instructions générales qui établissent le contexte et des instructions spécifiques confidentielles leur permettant de jouer leur rôle de manière appropriée ; et surtout, les exercices de simulations doivent être joués par les participants aux négociations réelles. Même quand les exercices de simulation n'ont pas d'impact sur les négociations réelles, elles peuvent produire des enseignements cruciaux et transmettre des compétences importantes en matière de négociation.

Mots clés : Exercices de simulation sous forme de jeux de rôles ; jeux sérieux ; négociations ; négociations sur le changement climatique

Role-play simulation (RPS) exercises, and serious games in general, can be powerful educational tools in a wide range of situations, from the classroom to the high-stakes negotiating table. In some situations, they can even alter the outcome of real-world negotiations. However, in our experience RPS exercises can only have a direct impact on actual negotiations when certain conditions are met: They must be realistic and reflect the dynamics of the real-world situation; a skilled facilitator must be on hand to help the parties digest the outcomes; participants should have shared 'general instructions' that establish the context and role-specific 'confidential instructions' that help them play their roles properly; and, importantly, exercises should be played by the actual participants in parallel real-world negotiations. Even when RPS exercises do not impact real-world negotiations, they can convey critical insights and teach important negotiation skills.

Keywords: Role-play simulation exercises; serious games; negotiations; climate change negotiations

1. INTRODUCTION

At a conference at Sciences Po in Paris, scholars and practitioners from a number of countries heard about a very elaborate game in which more than 150 students

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played the parts of climate change negotiators from all over the world. Those present watched a video highlighting the students' intense and emotional interactions on the «last night» before their simulated version of the actual negotiations in Copenhagen when the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change came to an end. Some of the students who had participated were at the conference, recounting their frustration at not being able to reach an agreement that would demonstrate to the real climate change negotiators - one of whom was present in Paris - what they could and should have accomplished. The team behind this game from Sciences Po and the Institute for Sustainable Development and International Relations (IDDRI), led by Professors Bruno Latour and Laurence Tubiana, had convinced the students that their simulated success might influence subsequent rounds of actual climate negotiations. No wonder the students were frustrated.

In this paper, we make a case for when and how 'serious games' can and cannot influence real-world negotiations. We focus on what we call role-play simulation (RPS) exercises, but similar conclusions can probably be reached regarding other approaches to gaming. Substantively, the lessons we discuss are no doubt applicable beyond the issue of climate change.

In our experience, games can be extremely powerful tools. However, they are most effective when they are used by those who are, or will be, engaged in similar real world negotiations. We use examples from our own practice to demonstrate how RPS exercises can be designed and implemented to yield great value.

2. GAMES VS. REALITY

There are numerous ways in which games can be used to inform, and even alter, high-stakes policy negotiations. We describe several of them below. However, we assert that these methods only work when the actual negotiators take part in the exercises in advance of their own «real life» interactions. We are not convinced that the results of exercises involving students or other stand-ins will mean much to senior government representatives or have any impact on their decisions. There are three reasons for this.

First, real-world negotiators are under enormous pressure to stick to the positions worked out at their "back tables" before they engage on an international (or any other kind of) stage. Every word in the formal statements they present is carefully measured to satisfy competing constituencies "back home." Negotiators typically have limited authority to depart from their assigned scripts. Students, on the other hand, are under no such pressure. Even when games provide confidential role-specific instructions meant to mimic the 'back-table' demands of real constituencies, students do not face the same constraints that actual negotiators do. Complicating matters further, controlling all the variables involved in something as complex as greenhouse gas emissions requires layers of multi-scale negotiations and interrelated institutional webs that a game can not possibly simulate. As Elinor Ostrom

points out, actions to restrict climate change require a 'polycentric approach' due to their 'common pool' nature and associated 'free rider' problems (Ostrom, 2009). Even the most sophisticated games can only hint at these dynamics.

Second, real-world negotiators care a lot about their long-term careers and reputations. These are usually shaped by the reactions of those back home much more than by the reactions of those with whom they are negotiating. Actual negotiators are less likely to get caught up in the spirit of a last minute or all-night negotiating session. Students, on the other hand, are willing to throw out the rulebook in an effort to reward everyone's hard work, or to show their teachers that they can reach agreement. Experienced negotiators who have been down the same road many times are more realistic. They have to think in terms of subsequent acceptance and ratification by those who are not at the table. Larger principles - like national sovereignty and the obligations of the North to assist the nations of the South before asking the developing world to take on more responsibilities, as well as tangible competing interests - outweigh any short-term considerations or pressures of the moment.

Finally, particularly articulate and persuasive students can win over a crowd, regardless of the relatively less-politically-powerful role they may have been assigned in a game. In real-life negotiations, this is much less likely to happen. However novel the agreement might be that students are able to reach at the end of a RPS exercise, their rhetoric is not likely to be taken seriously by the real-life negotiators in such situations. Powerful actors typically garner much more attention in real negotiations than the less powerful, regardless of the quality of their contributions. Furthermore, real-world negotiators are much less likely to agree to anything that even slightly contravenes their interests for the sake of a good agreement. A good theoretical argument appealing to concepts like fairness rarely trumps the material interests negotiators are sent to vigorously defend, and is likely to be ignored.

3. GAMES TO PREPARE *FOR REALITY*

Our critique of using serious games with students or other stand-ins to understand how real-world negotiators might perform is not a wholesale rejection of the use of games. To the contrary, we continue to use RPS exercises in our teaching and, more importantly, in our work with negotiators and other decision-makers. We design context-specific games ranging from simple exercises that can be run in less than an hour to convey a general concept like the frequent instability of alliances, to complex multi-day exercises run as part of courses for senior decision-makers and practitioners³. For example, our four-part Indopotamia exercise teaches experts how to manage transboundary water conflicts using the Water Diplomacy Framework (Islam, Susskind and Ashcraft, 2012). Participants in these exercises consistently confirm their practical value.

3. Many of our exercises are available through the Program on Negotiation at Harvard Law School's Teaching Negotiation Resource Center (<http://pon.harvard.edu/store>); and the MIT Science Impact Collaborative (<http://scienceimpact.mit.edu>).

In our experience, RPS exercises can add great value when used in three ways:

First, games can be used to give actual negotiators a chance to experience situations in which they will soon find themselves, offering a quasi-realistic chance to see and hear what might happen. These same games work equally well as part of graduate or professional education. When used properly with the help of skilled instructors, case-specific RPS exercises can be a very effective means of “holding a mirror up” to what actual negotiators or soon-to-be professional negotiators need to know. They can serve as a prelude to teaching important negotiating skills to students who are eager to improve their capabilities. In such contexts, games are most effective when they revolve around a relatively discrete and predetermined set of negotiating challenges. For example, Harborco is a game we commonly use to portray coalitional dynamics in multiparty negotiation. The game is designed so that the proponents of the proposed infrastructure project spend their time trying to build support (i.e., foster a ‘winning coalition’) while an opposed party attempts to foster opposition (i.e., create a ‘blocking coalition’). Building and breaking coalitions are skills that are transferrable to most multi-party negotiation situations. Our expectation is that students leave such exercises with a greater appreciation for how they can effectively apply coalition-building or blocking skills in future negotiations. Participants in actual negotiations can enhance their appreciation of, and practice using, a set of skills that are likely to come into play. For professional trainees, the same is true, although they may be a bit less driven to master the relevant competences (Susskind et al., 2005).

Role-play simulations can also be used to pursue quasi-experimental research objectives in the negotiation field. In the same way that carefully structured laboratory experiments are often used to test psychological or economic hypotheses growing out of game theory, role-play simulations can be run repeatedly with similar sets of players, some of whom are instructed behind-the-scenes to try different negotiation tactics or techniques. These experiments help to determine the efficacy of various negotiating strategies. In our own work, we are using role-play simulations in coastal communities to see whether a particular approach to adaptation planning is likely to change public perceptions about the best ways of responding to climate change risks (Susskind et al., forthcoming 2015). We are also using role-play simulations with infrastructure planners to test what happens when multiple possible futures (i.e., scenarios) are introduced, rather than single forecasts of future conditions (Aldrich, 2012; Schenk, forthcoming 2015).

The game presented by Latour, Tubiana and their colleagues in Paris falls somewhere between these two categories. Our concerns with it are two-fold: First, there was no control group, nor clearly defined treatment (i.e., independent variable) varying across separate groups of students playing the same game that might confirm or shed light on the influence that various factors had on the outcomes. Second, as outlined above, the students that played are too different from the real-world negotiators to legitimately deduce much from the results they achieved. In our experience, role-play simulations work best as research tools when the game creates a context that can be held constant while carefully instructed

participants try different negotiation strategies or are provided with different instruments or information in carefully paired (and matched) groups. That is, treatment and control groups are held constant, with the exception of a single independent variable that is varied across groups to explore its impact. Furthermore, this kind of experiment is most effective when the participants closely approximate those who will operate in the real-world context being appraised. This is not to say that students can never be useful research subjects, but they may not be the most appropriate participants when we are trying to understand the dynamics of international climate change negotiations. Since we have run serious games with the actual negotiators in global climate negotiations, we have some evidence to suggest that RPS exercises can help the parties improve their joint problem-solving capabilities in the real negotiations that follow (Chayes et al., 1997).

The third use of role-play simulations is as tools for intervening directly in and contributing to the advancement of real-world negotiations. While there is some overlap with the first two uses, interventions of this sort explicitly engage stakeholders involved in a specific negotiation or set of negotiations to show them a new way of proceeding. Difficulties in engaging the relevant actors, and the fact that these exercises are typically one-off and involve enormous amounts of work to organize, creates challenges. Nevertheless, we feel that the richness this kind of interaction offers, and the opportunities to intervene in and genuinely alter the course of real-world negotiations make them well worth the effort. An exercise of the sort we are talking about was used as part of a workshop with senior climate change negotiators and associated experts from around the world in Germany in 1997. While the group did not directly resolve any major policy questions, they benefitted from the opportunity to informally test different ideas, improve relationships, and engage in collaborative problem-solving (Chayes et al., 1997). This is the kind of intervention we focus on in the rest of this article offering five more examples of this kind of RPS exercise, drawing from our own work with stakeholders in various contexts.

4. EXAMPLES: ROLE-PLAY SIMULATION EXERCISES IN PRACTICE

4.1 Gaming for Negotiated Rule Making in the U.S.

In the 1980's, the United States Environmental Protection Agency decided to experiment with a new way of involving stakeholders in the process of drafting regulations called Negotiated Rule-making or «Reg-Neg» (Harter, 1982). The basic idea, which is still in play, is to recruit a cross-section of relevant stakeholders, with the help of a professional mediator, and see if all the parties likely to respond negatively to a new environmental regulation can reach agreement on what they think the new regulation should require. After quite a few successful experiments, the U.S. Congress decided to change America's Administrative Procedure Act so that negotiated rule making is now a widely accepted approach across all parts of the federal government (Freeman and Langbein, 2000).

An open question from the beginning was how to effectively introduce participants in these Reg-Neg processes to more collaborative ways of making decisions. A game called Dirty Stuff was developed through the Program on Negotiation at Harvard Law School for participants to play the day before their first actual negotiating session.⁴ The game revolves around a fictitious situation somewhat analogous to many Reg-Neg processes. Various stakeholders are at the table with competing interests; they have different interpretations of the science in question, and they have conflicting interests regarding what the new regulation should require. The exercise is a simplification of reality, but still takes several hours to play. Participants are asked to begin by reading both *general instructions* that set the stage and *confidential instructions* unique to the role they are assigned (to ensure that they understand how to play their assigned part in a way that a «real» participant would). While stakeholders similar to those in the game are often in the room, participants are typically asked to play roles quite different from the ones they fill in real-life. This way, no one has to worry that they might inadvertently reveal what they intend to do when the actual negotiations begin the next day. Dirty Stuff and games like it are always followed by facilitator-led debriefings. These sessions give participants an opportunity to reflect on what happened and consider how they might apply what they learned in the upcoming real negotiation (Verdini, 2013).

Over the course of its twenty years of use, the impact of playing Dirty Stuff with newly created Reg-Neg groups has been profound. During the debriefings of the game, participants almost always note the opportunities for cooperation (and not just competition) they now see on the horizon (Verdini, 2013). During the actual negotiations, participants often refer to what happened in the game. They do this when they want to chide their real-life negotiating partners to work harder to reach mutually advantageous outcomes. The game provides a common language. It allows newcomers to get a sense of what lies ahead, thereby increasing their comfort level. It hints at a range of possible options that the parties might never discover under normal circumstances, in much the way that Bruno Latour was hoping the Climate Change game would. The key, though, is that the actual negotiators must play the game and talk together about the results with the help of a trained facilitator for there to be a direct effect on real negotiations.

4.2 Simulating agreement at home on a position to take into international climate negotiations

As noted previously, the positions negotiators bring to the table internationally are typically the result of long and contentious negotiations in their home countries. It is rare that all constituencies within a country will agree on what the nation's position should be – in fact, the intra-country disagreements on any given policy issue are often as strong as the inter-country disagreements. This is certainly true in climate negotiations. Domestic environmental interests often lobby their respective

4. The Dirty Stuff instructions and a supporting Teacher's Package are available through the Program on Negotiation's Teaching Negotiation Resource Center at www.pon.harvard.edu/shop/dirtystuff-ii/.

governments to adopt strong emissions reduction commitments, while industrial and energy interests warn of how such agreements could harm the economy, putting the country at an unfair disadvantage.

Yet, stakeholders at home often lack a clear understanding of how their conflicting interests might translate into a cohesive national position that can be presented at an international negotiating session. Opportunities can be created to help domestic stakeholders understand how their conflicting views might be translated into a position their country might take on the international stage. Because many countries face similar sets of competing domestic interests, a well-crafted national position that satisfactorily balances conflicting views is all the more likely to gain traction internationally.

In 2011, we prepared an exercise called *Setting Noohor's position on Agricultural Emissions for COP17: Building national consensus for international negotiations* for the Arab Water Academy. Government officials from across the Middle East and North Africa participated, grappling with how to develop national positions on agricultural emissions for upcoming climate negotiations in the fictitious country of Noohor. None of the participants were international climate negotiators in real life, but many either directly or indirectly influenced their respective countries' national stands. During the debriefing of the game results, participants indicated that the exercise helped them appreciate the conflicting interests that need to be taken into account in shaping their own countries' positions, and recognized that they had been introduced to a potentially powerful new way to convene stakeholders and more explicitly reconcile their interests (Schenk, 2011).

4.3 Simulating interconnectedness to foster global collaboration

The Rim Sim exercise was originally developed for the high-level Crowding the Rim summit hosted by Stanford University in 2001. This event brought Pacific Rim leaders and experts from both the public and private sectors together to talk about regional environmental and social risks, and how they might be anticipated, mitigated, and responded to in collaborative ways (Barrett et al., 2003). It is an RPS exercise with eight roles that takes approximately six hours to play. It illustrates the 'ripple effects' that natural disasters can have and explores the role of scientific information in disaster management (Barrett et al., 2003). Playing the RPS exercise not only provided high-level participants from more than a half dozen countries with new insights regarding uncoordinated international disaster response efforts, but also improved relationships and increased mutual understanding.

Rim Sim was so well received that various participants, including the Chinese delegation, had it translated for internal training purposes in their respective countries. Most of our exercises are developed for specific groups. They are intended to illustrate the dynamics likely to arise in parallel real-world situations. However, exercises have currency beyond their original use. This is why we distribute most of our exercises at low cost through the Program on Negotiation at Harvard Law School's Teaching Negotiation Resource Center. In this way, groups that have

the resources to commission customized exercises gain the advantage of a tailored learning experience, while others can benefit from the materials developed.

4.4 Preparing for a global treaty on persistent organic pollutants

Role-play exercises can help those directly involved in international negotiations. In 1995, the participants in a global treaty negotiation concerning Persistent Organic Pollutants (POPs) were convinced by one of their members to meet before the official opening of their formal talks to play an RPS exercise. This is not typical in international negotiations, but participants were willing to give it a try. An MIT team designed the *Global Management of Organochlorines*, otherwise known as the *Chlorine Game*, simulating a treaty-making effort a lot like the upcoming POPs negotiation.⁵ Among other accomplishments, the game helped those unfamiliar with the dynamics of global treaty-making to get their footing. It also made clear that the negotiators, even those under strict orders from their home countries, could find room to maneuver if they shifted into an informal problem-solving mode prior to making formal demands or commitments. These lessons have borne out in various environmental treaty-making processes (Susskind and Ali, 2014). Negotiators might possibly have reached these insights without the game, but RPS exercises uncover such possibilities relatively quickly, saving time and allowing for greater progress in the actual negotiations.

4.5 Using games to introduce new climate change-related threats

The previous three examples revolved around the use of serious games to teach new collaborative problem-solving skills, and as a means of anticipating the various interests present among stakeholders in each case. RPS exercises can also be used to introduce emergent challenges, like climate change. The threats posed by climate change are - for the most part - not being addressed by planners and decision-makers around the world. Yet, they appear to be increasing, necessitating a rapid ramping-up of institutional capacity for both understanding and responding to them. RPS exercises can provide opportunities for participants to grapple with potential climate change-related challenges they have not yet addressed in practice, but might have to confront in the near future.

The World Resources Institute commissioned us to develop RPS exercises to introduce stakeholders in two different places, and sectors, to the threats posed by climate change, and to get them thinking about how they might address them. *The Bepo Dam Plan: Managing Climate Risk in Energy Sector Planning* was used with stakeholders involved with hydroelectricity production in Ghana (Plumb, Fierman and Schenk, 2011). The scenario suggests that a new dam is in the late stages of planning when new climate research raises doubts about the long-term availability

5. The Global Management of Organochlorines game is also available through the PON Teaching Negotiation Resource Center at www.pon.harvard.edu/shop/global-management-of-organochlorines.

of the water supply. Participants must balance the clear need for electricity with the danger of building an expensive hydroelectric facility that cannot be used to full capacity. *Prioritizing Climate Change Adaptation Measures: Agricultural Planning in the Bien Gio River Delta* was used with agriculture-related officials and stakeholders in Vietnam (Plumb, Fierman and Schenk, 2011). In the Vietnamese context, participants have to decide where to allocate donor resources as they grapple with the impacts that sea level rise and saltwater intrusion may have on a fertile delta.⁶

These exercises were used to prod the stakeholders to think about how they might address emerging threats posed by climate change. Participants reported in the debriefings that the interactions with other key players forced them to weigh uncertain climate change threats against current needs (Plumb, Fierman and Schenk, 2011).

5. OTHER GAMES USED TO INSTIGATE CHANGE

These represent only a few of the many games we, and our colleagues, have developed and facilitated over the past three decades. The Consensus Building Institute, the not-for-profit mediation organization Professor Lawrence Susskind founded twenty years ago, has run RPS exercises for many local, national and international agencies and organizations preparing to engage in energy facility siting negotiations and global treaty negotiations (Consensus Building Institute, 2013; Plumb, Fierman and Schenk, 2011). Susskind's new book with Shafiqul Islam (2012), entitled *Water Diplomacy: A Negotiated Approach to Managing Complex Water Networks*, includes four linked games used each year to train senior water professionals about more collaborative ways of resolving transboundary water allocation conflicts.⁷ The *Mercury Game* has been run with numerous negotiators and scientists around the world to help them better understand the role of science in international treaty making (Stokes, Selin and Susskind, 2011).

6. CONCLUSION

RPS exercises can be very powerful tools for teaching and learning in a wide range of contexts. Serious games played by graduate students can convey the importance of critical negotiation skills and expose participants to new ways of approaching problems and using information. Such games can also be used for research purposes to explore the impacts of different variables, but only when properly arranged with adequate controls. Serious games can have an impact on real-world negotiations when "parallel informal negotiations" or joint training for the actual negotiators can be arranged.

6. Both RPS exercises are available via the PON Teaching Negotiation Resource Center at www.pon.harvard.edu/shop/bepo-dam-plan and www.pon.harvard.edu/shop/prioritizing-climate-change-adaptation-measures.

7. Information on the Water Diplomacy Workshop may be found at: www.waterdiplomacy.org/workshop.

Games can only be used to intervene in real-life negotiations if they meet certain criteria. They must be: (1) Crafted in a very realistic way, reflecting the dynamics of the relevant real-world situation; (2) presented by a skilled instructor who can help the participants reflect together on what they have learned; (3) played by the participants engaged in parallel real-life negotiations; and (4) include both general and confidential instructions to ensure that participants feel strong pressure to stick with the scripts (and constraints) they would face in real life. To be effective, real-world negotiators must participate in RPS exercises because they see them as a chance to explore policy options that might otherwise never get considered, and as an opportunity to learn more about the views of their counterparts. Such exercises can open windows for collective learning, but the actual participants must take advantage of this learning if they are to generate positive results. It is rare that students or other outsiders can convey the outcomes and insights generated by a game in a way that will have a tangible impact on a real negotiation process or outcome.

This is not to say that the Sciences Po game was run in vain. On the contrary, the students involved learned a great deal about international treaty negotiation in general, and climate change negotiation in particular. We regularly use RPS exercises to help students hone their negotiation skills and introduce them to complex decision-making processes (Susskind et al., 2005). Students consistently reflect very positively on these experiences. However, their expectations must be managed. RPS exercises offer windows into real negotiations and can be powerful for developing skills and fostering reflection. But, they rarely, if ever, alter real-world negotiation results unless the principals in those processes are directly involved.

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