Long-Term Effects of Computerized Simulations in Protracted Conflicts: The Case of Global Conflicts

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Abstract

This article presents an experimental study examining the short term and long term effects of Global Conflicts on attitude change towards the Israeli-Palestinian conflict. Global Conflicts is a role-playing computer game simulating this conflict. 180 undergraduate students from Israel and Palestine participating in the study were divided into game intervention and no-game controls. The participants were required to fill in questionnaires measuring attitudes regarding long lasting historical issues in the conflict (i.e., Jerusalem, refugees, settlements, borders, security and water) immediately before and after the game intervention and 12 months following this intervention. Results suggested that all participants held ethnocentric and stereotypic attitudes toward the conflict before the game intervention. In addition, participants playing the game shifted towards a more balanced perspective, being able to look at the conflict from both points of view immediately after the game intervention, and retained this impartial perspective even one year after participation in this intervention, despite the serious clashes between Israel and the Palestinians that occurred during this time. Finally, compared with participants playing the game, participants who did not play it retained ethnocentric and stereotypic attitudes toward the conflict during the same period.

Keywords: Games for Change, Israeli-Palestinian Conflict, Attitude Change, Conflict Resolution, Long Term Effects.

Introduction

"I have a definite attitude toward the other side that`s interesting. I can`t say that my views have changed completely but this game has raised many questions…It is impossible to regard all Palestinians as one and the same, I suppose….once when I heard Arabs mentioned I became afraid, but now I remember the enjoyable game ...I have a dilemma." (Israeli-Jewish participant)

This article investigates the effectiveness of a computer based peace game called Global Conflicts that simulates the Israeli-Palestinian situation, in order to see whether this game enhances the taking of a balanced perspective regarding the conflict and if this learning outcome is retained 12 months following the game intervention. The study compares the short term and long term learning outcomes of Israeli-Jewish and Palestinian undergraduate students playing the game with those not playing it in order to examine whether this game-based intervention actually works. This study measures learning by exploring whether the participant's attitudes towards the conflict became more impartial or not (i.e., perspective taking ability).

Studies have already indicated the short term effects of game-based interventions like Global Conflicts (e.g., Cuhadar & Kampf, forthcoming; Kampf & Cuhadar, 2015), but no empirical studies, to my knowledge, have been conducted to evaluate the long term effects of game-based interventions in intractable conflicts like the Israeli-Palestinian situation. In general, the number of studies on the long-term effects of peace workshops in such protracted conflicts is extremely

limited (e.g., Berger et al., 2015; Rosen & Salomon, 2011, Schroeder & Risen, 2014), producing mixed results. Given that these studies used different face-to-face interventions and targeted different participants it is hard to point out which factors caused the mixed learning outcomes.

Compared to traditional methods (e.g., face-to-face interventions), peace games such as Global Conflicts may be more successful as tools for learning about the "other" for youth, particularly obtaining long term learning outcomes in protracted conflicts like the Israeli-Palestinian situation, for a few key considerations. First, such games are better than other intervention methods (e.g. face-to-face or textual) (Adwan & Bar-On, 2004; Maoz, 2011) in enabling people to be exposed to information about the other party to the conflict, because playful activities can reduce the tension and charged atmosphere around this issue (Amichai-Hamburger &McKenna, 2006; Ellis & Maoz, 2007; Hasler & Amichai-Hamburger, 2013; Weiss et al., 2011). Second, play is naturally conducive to learning, focusing on learning by doing and learning by experiencing, which were found preferable as inter-group intervention methods (Salomon, 2008; Walther, 2009). Third, games such as Global Conflicts are both engaging and interactive in a way that is fun for the players, so they can more easily and effectively generate new learning about the parties to the Israeli-Palestinian conflict (Kampf, 2014). Finally, young people are native to the online world, so they speak the digital language fluently (Palfrey & Gasser, 2008). Hence, young people may prefer new media technologies as a method of learning about political issues, and consume online content more efficiently (Gasser et al., 2012).

The Global Conflicts game

In the scenario of the Israeli-Palestinian conflict in Global Conflicts, the player is represented by an avatar of a Western reporter who arrives in Jerusalem representing one of the following newspapers: Israeli, Palestinian, or Western (www.globalconflicts.eu). The player is expected to produce a news report geared to the audience of one of these newspapers, based on the interviews she conducts with various Israeli and Palestinian characters at the checkpoint in the Palestinian territories. The player is challenged to keep her work objective while gathering important information to be used in the news report. The player has to form an opinion based upon her own actions and after meeting characters that represent different attitudes to the conflict, despite the fact that she writes for a specific newspaper.

Research hypotheses

H1: All participants will hold ethnocentric and stereotypic attitudes toward the Israeli-Palestinian conflict before the game intervention.

H2: Participants playing the game will become more impartial toward the conflict immediately after the game intervention, while those who do not play it will retain ethnocentric and stereotypic attitudes toward the conflict during this time.

H3: Participants playing the game will retain impartial attitudes toward the conflict even one year after participation in the game intervention, while those who do not play it will retain ethnocentric and stereotypic attitudes toward the conflict during the same period.

Methodology

Participants

180 undergraduate students participated in the study. 100 Israeli-Jewish participants were from the Departments of Communication and Political Science at Tel Aviv University and 80 Palestinian students were from the Department of Political Science at Al-Quds University.

60 Israeli-Jewish students and 45 Palestinian students played the game (experimental group), while 40 Israeli-Jewish students and 35 Palestinian students did not play it (control group). The experimental and control groups did not differ in key characteristics that could provide alternative explanation for the results (Table 1).

Table 1. The key characteristics of the experimental and control groups

	Age	Male	Political Attitudes 1-10 Left - Right M(SD)	Religiosity 1-10 Religious - Secular M(SD)	Playing a digital game in the last 6 months	Interest in the conflict 1-4 Not at all - Very much M(SD)
Global Conflicts (experimental group)	23.1 (1.25)	36%	6.12 (2.45)	6.7 (1.17)	45%	3.5 (0.47)
No Game (control group)	22.9 (1.23)	34%	5.87 (2.29)	6.45 (1.12)	48%	3.46 (0.65)

Design and procedure

The data on students from Al-Quds University were collected in the end of January 2013, and the data on students from Tel Aviv University were collected in the beginning of March 2013. No major event happened during this period that could provide alternative explanation to the results.

The experimental condition took three hours and included four parts. First, participants were introduced to the Global Conflicts game and played a short demo. Second, they filled in a short questionnaire. Third, the participants played the Israeli-Palestinian scenario. They were divided to play a Western journalist representing either an Israeli or a Palestinian newspaper in the game. It should be noted that the game provides both Israeli and Palestinian perspectives to the conflict no matter which newspaper the player represents. Finally, after playing the game, the participants again filled in a short questionnaire. The questionnaires used before and after the game were almost identical in content with the exception of a few additional questions in the post-game questionnaire deliberating participants' experience with the game.

The control condition took three hours and included three parts. First, participants filled in a short questionnaire. They were then given a lecture about political aspects of digital natives (not related to the conflict). Finally, they again filled in a short questionnaire. The two questionnaires were identical in content and similar to those used in the experimental condition (besides questions deliberating participants' experience with the game).

Both participants who played the game and those who did not play it were told that they would be contacted by email a year later to answer a short questionnaire and they will receive credit for their participation. The experimental group was told that the questionnaire would examine what they remembered from the game and the control group was told that the questionnaire would examine what they remembered from the lecture about digital natives in order to learn about the effectiveness of the two classes.

Measures

The attitude measure examined the 'rightness' of each side on key issues in the conflict including water, refugees, borders, settlements, Jerusalem, and security, using the following scale: 1. Palestinians are absolutely right, 2. Palestinians are somewhat right, 3. Both sides are equally right, 4. Israelis are somewhat right, and 5. Israelis are absolutely right. After conducting a factor analysis, the average of answers given on the six key issues was used as a measure of attitude change regarding key issues in the conflict before and after playing the game. This measure has already been used in previous studies conducted with the games Global Conflicts and PeaceMaker (Cuhadar & Kampf, 2014; Kampf & Cuhadar, 2015).

Statistical procedures

A Repeated Measures ANOVA was used to test the research hypotheses, investigating the effects of playing the game (yes or no) and nationality (Israeli-Jewish or Palestinian) on attitude values at three separate time points: immediately before and after the game intervention and 12 months following this intervention. This paper only presents results concerning the short term and long term learning outcomes of the game without referring to national differences due to length limitations.

Results

Short term and long term effects on attitudes toward the conflict

Before the game intervention, Israeli-Jewish participants playing the game held a pro-Israeli view, while Palestinian participants playing the game held a pro-Palestinian view. Similarly, Israeli-Jewish participants who didn't play the game held a pro-Israeli view during this time, while Palestinian participants who didn't play the game held a pro-Palestinian view (Table 3). Therefore, hypothesis 1 is confirmed.

Immediately after the game intervention, Israeli-Jewish and Palestinian participants playing the game got closer to thinking that both Israelis and Palestinians are equally right regarding key issues in the conflict. In contrast, Israeli-Jews and Palestinians who did not play the game retained their ethnocentric attitudes toward the conflict during this time (Table 3). Therefore, hypothesis 2 is confirmed.

12 months following the game intervention, Israeli-Jewish and Palestinian participants playing the game retained their impartial perspective regarding the conflict. In contrast, Israeli-Jewish and Palestinian participants who did not play the game retained their ethnocentric perspective regarding the conflict during this time (Table 3). Therefore, hypothesis 3 is confirmed.

Table 2. Nationality and game-playing effects on attitudes toward the conflict

Effects	MS	*F*	Partial eta squared
Time	87.02	92.68***	.35
Time * Nationality	16.11	17.16**	.09
Time * Game Playing	6.14	6.54*	.04
Time * Nationality * Game Playing	15.12	71.03***	.36

***p<.0001 **p<.01 *p<.05

Table 3. Descriptive Statistics of Nationality and game-playing effects on attitudes toward the conflict

	Pre-Game Intervention M(SD)	Post-Game Intervention M(SD)	12 Months following Game Intervention M(SD)
Israeli-Jews			
Game	3.92(.59)***	2.91(.31)***	2.93(.26)***
No-Game	3.71(.53)***	3.62(.53)***	3.52(.47)***
Palestinians			
Game	1.07(.09)***	1.44(.34)***	2.07(.36)***
No-Game	1.06(.12)***	1.07(.11)***	1.14(.16)***

***p<.0001

Conclusions and discussion

By using the Global Conflicts game, which is a simulation of the Israeli-Palestinian conflict, the study assessed whether participants could develop an impartial perspective and whether these learning outcomes persisted 12 months after the game intervention. Results suggested that all participants held ethnocentric and stereotypic attitudes toward the conflict before the game intervention. In addition, participants playing the game developed more impartial attitudes toward the conflict immediately after the game intervention, while those who didn't play it retained ethnocentric and stereotypic attitudes toward the conflict during the same time. Finally, participants playing the game retained their impartial attitudes even 12 months following the game intervention, while those who didn't play it retained ethnocentric and stereotypic attitudes toward the conflict during this time.

This study has implications for the scholarship on pedagogy and teaching assessment in the context of peace building. Considering the mixed results obtained so far with regard to the effectiveness of simulations (e.g., Druckman & Ebner, 2013; Movius, 2008), this study's findings favor computerized simulations as an effective learning method. They improved perspective taking in the short term and in the long term, despite the serious clashes between Israel and the Palestinians that occurred during this time. Computer games like Global Conflicts facilitate the gaining by the participants of a conceptually complex view of the conflict as opposed to the simplistic and polarized view of the conflict often presented in collective narratives and mainstream socialization agents in a conflict environment (e.g., Wolfsfeld, Frosh, & Awabdy, 2008). By achieving this, computer games can thus be a tool, as indicated by pedagogy and teaching scholars in the context of conflict resolution, for legitimating the other's narrative in a way that events are seen from both perspectives (Bar-Tal et al., 2014). This is an important step towards increasing learning about the "out-group" and the conflict dynamics as indicated by social and political psychologists working on inter-group conflict (Bar-Tal et al., 2014); a necessary step towards attitude change and reducing inter-group tensions.

The findings suggest that computer games like Global Conflicts can serve as an effective tool for peace education trainings for two key reasons, which require additional future study. First, peace games are uniquely suited for illustrating complex issues such as the Israeli-Palestinian conflict in a very engaging and interactive way when compared to other more passive and linear media (e.g., Gee, 2008). Second, by facilitating role-taking from both sides, Global Conflicts intends to provide a unique opportunity to teach people of the issues in the conflict and influence their attitudes toward the other side. In fact, previous studies have indicated that playing a game eliciting role-taking resulted in greater attitude change than reading a text conveying the same information (Bogost, 2007; Peng et al., 2010).

Further research can isolate different dimensions of computerized simulations like Global Conflicts to understand how such games achieve their short term and long term effects in the shadow of intractable conflicts such as the Israeli-Palestinian situation.

References

Adwan, S., & Bar-On, D. (2004). Shared history project: A PRIME example of peace-building under fire. *International Journal of Politics, Culture and Society*, *17*(3), 513-521.

Amichai-Hamburger, Y and McKenna, K YA (2006). The contact hypothesis reconsidered: Interacting via the Internet. *Journal of Computer-Mediated Communication*, *11*(3), 825-843.

Bar-Tal, D., Halpern, E., & Pliskin, R. (2014). Why is it so difficult to resolve intractable conflicts peacefully? A socio-psychological explanation. In M. Galluccio (Ed.), *Handbook of international negotiation: Interpersonal, intercultural, and diplomatic perspective* (pp. 73-92). New York, NY: Springer.

Berger, R., Benatov, J., Abu-Raiya, H., & Tadmo, C.L. (2015). Reducing prejudice and promoting positive intergroup attitudes among elementary-school children in the context of the Israeli-Palestinian conflict. Unpublished manuscript under review.

Bogost, I. (2007). *Persuasive games*. Cambridge: MIT Press.

Cuhadar, E., & Kampf, R. (forthcoming) A cross-national inquiry into the Israeli-Palestinian and Guatemalan scenarios in Global Conflicts. *Negotiation and Conflict Management Research*.

Cuhadar, E., & Kampf, R. (2014). Learning about the Israeli-Palestinian conflict and negotiations through simulations: The case of PeaceMaker. *International Studies Perspectives*, *15*(4), 509-524.

Druckman, D. & Ebner, N. (2013). Games, Claims, and New Frames: Rethinking the Use of Simulation in Negotiation Education. *Negotiation Journal*, *29*(1), 61-93.

Ellis, D G and Maoz, I (2007). Online argument between Israeli Jews and Palestinians. *Human Communication Research, 33*(3), 291-309.

Gasser, U., Cortesi, S., Malik, M., & Lee, A. (2012). *Youth and digital media: From credibility to information quality*. Berkman Center for Internet & Society. http://ssrn.com/abstract=2005272. Accessed April 8, 2015.

Gee, J. P. (2008). Learning and games. In Salen, K. (Ed.), *The ecology of games: connecting youth, games, and learning* (pp. 21-40). Cambridge, MA: MIT Press.

Hasler, B S and Amichai-Hamburger, Y (2013). *The social net: Understanding our online behavior*. Oxford: Oxford University Press.

Kampf, R. (2014). Playing Singly, Playing in Dyads in a computerized simulation of the Israeli-Palestinian Conflict. *Computers in Human Behavior*, *32*, 9-14.

Kampf, R., & Cuhadar, E. (2015). Do computer games enhance learning about conflicts? A cross-national inquiry into proximate and distant scenarios in Global Conflicts. *Computers in Human Behavior*, *52*, 541-549.

Maoz, I. (2011). Does contact work in protracted asymmetrical conflict? Appraising 20 years of reconciliation-aimed encounters between Israeli Jews and Palestinians. *Journal of Peace Research*, *48*(1), 115-125.

Movius, H. (2008). The Effectiveness of Negotiation Training. *Negotiation Journal*, *24*(4), 509-531.

Palfrey, J., & Gasser, U. (2008). *Born Digital: Understanding the first generation of Digital Natives*. New York: Basic Books.

Peng,W., Lee, M., & Heeter, C. (2010). The effects of a serious game on role-taking and willingness to help. *Journal of Communication*, *60*(4), 723-742.

Rosen, I., & Salomon, G. (2011). Durability of peace education effects in the shadow of conflict. *Social Psychology Education, 14*, 135-147.

Salomon, G. (2008). Peace education: Its nature, nurture and the challenges it faces. In de Rivera, J. (ed.), *Handbook on Building Culture of Peace* (pp. 107-122). New York: Springer.

Schroeder, J., & Risen, J.L. (2014). Befriending the enemy: Outgroup friendship longitudinally predicts intergroup attitudes in a coexistence program for Israelis and Palestinians. *Group Processes & Intergroup Relations*, 1-22.

Walther, J.B. (2009). Computer-Mediated Communication and Virtual Groups: Applications to Interethnic Conflict. *Journal of Applied Communication Research*, *37*(3), 225-238.

Weiss, P., Stock, O., Fondazione, B., Eisikovitz, Z., & Koren C. (2011). Co-narrating a conflict: A technology to facilitate attitudinal shifts. *Transactions on Computer-Human Interactio*n, *19*(3), 1-30.

Wolfsfeld, G., Frosh, P., & Awabdy, M. (2008). Covering death in conflicts: Coverage of the Second Intifada on Israeli and Palestinian television. *Journal of Peace Research*, *45*, 401-417.