Promoting Human Rights while Polarizing Political Perceptions with a Serious Game

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Abstract

This pilot study explores the impact of an online serious game named Safe Passage. The game, created by Gisha (2010) aims to raise awareness for Palestinian's right to travel within Israel. Twenty-seven participants were assigned to one of three conditions: 1) play *Safe Passage* and then read information relevant to the issue, 2) read information and then play the game, or 3) only read information along with the text presented in the game. Pre and Posttest measures of general interest and political attitudes were used along with participants' willingness to donate money to Gisha. Playing the game resulted in 1) an increase in interest with the subject matter and 2) a blanket shift in political attitudes toward a 'pro-Palestine' view. Finally, trends indicate that the order of game play matters.

Introduction

Garnering support for and encouraging engagement in political, social and humanitarian issues has long been the struggle for advocacy groups and educators alike. In the distracted and media-saturated society in which we live, how can we get individuals to focus on issues that matter? In this vein, Gisha (a multicultural Israeli human-rights organization) has created an online serious game, Safe Passage, intended to attract foreign attention, gain support and promote specific humanitarian causes (Gisha, 2010). Serious gaming is a growing field that attempts to fuse the attractive properties of videogames, that have captured the undivided attention of millions of people, with a particular topic or purpose that goes beyond pure entertainment (Susi, Johannesson, & Backlund, 2007). The last decade's advancements in videogame and telecommunication technologies have allowed organizations to produce more advanced simulations of real-world activity with the capacity for immediate and widespread dissemination. However, can a video game actually educate or motivate? Could it make a person change their mind? A growing body of evidence demonstrates the learning potential of serious games (Gee, 2004; Gee, 2007; Schank, 2002; Prensky, 2001), which has, in part, fueled the rapid market growth in the video game industry (Breuer & Bente, 2010). However, more research is needed to determine if and how serious videogames influence the player. Which of the numerous and complex properties inherent in these games change attitudes or motivate learning, and under what conditions?

In previous studies exploring games' effects on the Israeli-Palestinian situation, Nilsen (2008; 2011) reported significant decreases in bias and increase in hopefulness in participants who played the serious game PeaceMaker. In PeaceMaker, players try to achieve a two state solution by making strategic decisions from the perspective of the Palestinian President and the Israeli Prime Minister. PeaceMaker's positive effects on attitude have been related (Nilsen, LeDonne, Klemperer, & Olund, 2011) to Gordon Allport's contact theory (1954). Contact theory explains that direct contact between opposing groups can decrease intergroup hostility and increase positive intergroup attitudes. Furthermore, recent research concerning contact theory has

shown that observing or imagining positive group interaction can reduce prejudice (Crisp & Turner, 2009; Wright, Aron, Mclaughlin-Volpe, & Ropp, 1997). Finally, a meta-analysis of 515 contact theory studies showed a highly significant negative relationship between contact and prejudice (Pettigrew & Tropp, 2006). \

In the current study, we expand on the research concerning PeaceMaker and other serious games (Gee, 2007; Nilsen, 2008; Nilsen et al., 2011; Prensky, 2001; Schank, 2002) by exploring Safe Passage, an online serious game related to the Israeli-Palestinian conflict. Specifically, we control for, and measure, the effects of participants' level of *interaction* with the information. We hypothesize that participants who interact with the information by playing the serious game will display significantly greater changes in interest and attitudes than participants who are limited to a textual version of the same information. The nature of the interaction in Safe Passage is from a single perspective (Palestinian) rather than both perspectives used in Peacemaker. Therefore, we believe that the game play will increase political bias instead of decreasing it.

Method

Participants
The study consisted of 27 undergraduate students from Lewis & Clark College during the fall of 2010. Participants were acquired through an upper division psychology lab course.

Materials
Safe Passage is a serious game promoted by Gisha in order to gain awareness and support for the human right to travel in the Middle East. Specifically, Gisha aims to "protect the freedom of movement of Palestinians, especially Gaza residents (Gisha, 2010)." Gisha produced the serious game in order to integrate legal documents with Gazans' personal accounts of their attempts to travel within Israel.

At the beginning of Safe Passage, the players are prompted to choose a character to represent their attempts to travel. For our research, all participants played the game as a family attempting to travel from Gaza to the West Bank. The game consists of animated Palestinian characters and box-like Israeli officials. An Israeli official splits up the Palestinian family between Gaza and the West Bank and the player spends the rest of the game trying to reunite the family members. Though there are only two true decisions in the game, players are prompted to interact with the information (by clicking on icons) at seven different points. Six of these interactions result in pop-ups presenting paraphrased versions of Israeli documents with links to the full legal documentation.

The game consistently results in a divided family in which the father is in Gaza and the child and mother are in the West Bank. Thus, the player loses regardless of the decisions made. The serious game concludes with the explanation that this separation is a common occurrence for Palestinians in Israel and provides the player with the option to take action by donating to Gisha (the creators of Safe Passage.)

Dependent Variables
A well-established scale developed by the political scientist William Stover (2005; 2006) was used to assess changes in the perception of political behavior of Israel and Palestine. Furthermore, Stover goes on to explain the importance of these measures in understanding the effectiveness of simulating political dynamics. The scale informs participants to "consider your

perceptions about the political activities of Israel/Palestine in relationship to the Palestinian-Israeli conflict. As you think about the political activities of Israel/Palestine in relationship to the Palestinian-Israeli conflict, check the response that most closely corresponds to your perception of their political behavior in international relations." Participants are then instructed to rate each country on five different 5-point Likert scales with each question anchored by negative and positive adjective pairs. The adjective pairs used are 1) Friendly/Hostile, 2) Defensive/Aggressive, 3) Peace Loving/Warlike, 4) Satisfied/Expansionist, and 5) Trustworthy/Deceitful.

A behavioral measure lead participants to believe that they were, if they chose, able to directly and anonymously donate any portion of their $10 personal compensation to Gisha (2010). The lab did not, however, donate any of the compensation for the participants. Instead, at the end of the study participants were given Gisha's donation website in case they wanted to donate independently. The purpose and the details of the behavioral measure were thoroughly explained during the debriefing. Finally, participants were explicitly asked to measure how interested they were in the Israeli/Palestinian conflict.

Procedure

Each participant was assigned to spend one hour in one of three conditions. Nine participants were assigned to the game-first condition, nine were assigned to the game-second condition and nine were assigned to the reading only condition. All participants took a fifteen-minute online survey (SurveyMonkey) the day before their in-lab session. The primary survey included the political scale developed by Stover (2005; 2006) and an explicit question measuring participants' overall interest (described above in *Dependent Variables.*)

Participants in the game-first condition played Safe Passage as the "family" character and then viewed a PowerPoint presentation containing three documents concerning Israeli and international legal framework presented by Gisha (2010). The game-second group read the same documents and then played Safe Passage under the family settings. The reading only group acted as a control by reading Gisha's documents and all of the information presented in the game instead of playing the game itself. Finally, participants in all of the groups took another fifteen-minute survey (SurveyMonkey) that consisted of all of the measures described above in *Dependent Variables.* The session was concluded with a debriefing including an opposing point of view from Israel's government website, an explanation of the measures, and $10 compensation for each participant.

Results

The analyses reported below are based on comparisons between online surveys taken the day before and immediately after participants' in-lab session. The dependent variables examined here include 1) Stover's (2005; 2006) political scale used to measure attitude, 2) an explicit question measuring participants' overall interest in the Israeli/Palestinian conflict, and 3) a behavioral measure concerning participants' willingness to donate to Gisha (2010), the creators of Safe Passage.

We conducted a 2 (Pre/Post test) x 3 (Presentation Condition) mixed model ANOVA in order to assess participants' change in political attitude toward Palestine given Stover's (2005; 2006) measure. For the following analyses we used the average rating from the five adjective pairs. Higher scores indicate a more positive perception on this 5 point scale. The analysis

reveals a highly significant main effect for time on all participants' change in attitude toward Palestine $F(1,25) = 16.37$, $p < .001$. Furthermore, descriptive statistics show that, in all conditions, participants rated Palestine more highly after the in-lab session ($M = 3.31$, $SD = .30$) than before they were exposed to the information ($M = 2.71$, $SD = .54$).

There is no significant main effect for presentation condition or interaction. However, post hoc t-tests show that participants who played the game-second (immediately before taking the final survey) had the most significant shift in political attitude towards Palestine $t(8) = 3.04$, $p = .016$. Those who played the game-first had a marginally significant shift $t(8) = 2.02$, $p = .078$. Finally, participants in the reading only condition had the least significant shift in political attitudes toward Palestine $t(8) = -1.97$, $p = .084$ The mean changes in average Stover rating of Palestine for the reading only, game-first, and game-second conditions were 0.24, 0.42, and 0.6 respectively.

We also conducted a 2 x 3 mixed model ANOVA to assess participants' change in political attitude toward Israel. The analysis revealed a highly significant main effect for time on all participants' change in attitude $F(1,25) = 12.71$, $p = .002$. Descriptive statistics show that, in all conditions, participants rated Israel as less favorable after the in-lab session ($M = 2.67$, $SD = .49$) than before they were exposed to the information ($M = 3.11$, $SD = .39$).

There is no significant main effect for presentation group or interaction. However post hoc t-tests reveal that participants who played the game-first displayed a highly significant shift in attitude $t(8) = 3.4$, $p = .009$. Those who played the game-second also had a significant shift in attitude $t(8) = 2.2$, $p = .05$. Participants who only read the information without exposure to the game did not shift in their attitude toward Israel $t(8) = .90$, $p = .39$. The mean changes in average Stover rating of Israel for the reading only, game-first, and game-second conditions were -0.15, -0.47, and -0.44 respectively.

In order to assess participants' interest in the situation, they were explicitly asked how interested they were in the Israeli/Palestinian conflict. A 2 x 3 mixed model ANOVA reveals a significant main effect for time on participants' interest in the situation $F(1,25) = 10.94$, $p = .003$. Furthermore, the analysis reveals a significant interaction effect $F(1,25) = 3.89$, $p = .034$. The largest increase in interest ($M=1.78$) was in the game-second group ($p = .009$), with a slight, but insignificant increase in interest for the game-first ($M=0.22$) and reading only groups ($M=0.44$).

At the end of the study participants were given the opportunity to anonymously donate any amount of their compensation to Gisha (2010). A one way ANOVA revealed no significant effect of $F(1,25) = 0.172$, $p = .84$. This is likely due to high variability with four people in each condition choosing to donate nothing and at least one person in each group choosing to donate the full amount ($10). The trends support our initial hypothesis. Participants who played the game-second had the highest donation amount ($M = 4.11$, $SD = 4.70$). The participants who played the game-first requested to donate the second most ($M = 3.33$, $SD = 4.09$) while participants in the read only condition donated the least ($M = 3.00$, $SD = 3.50$). The trend in our small sample pilot study (displayed in figure 1) is suggestive of a greater impact of the game, especially when it is played immediately before the request for donations.
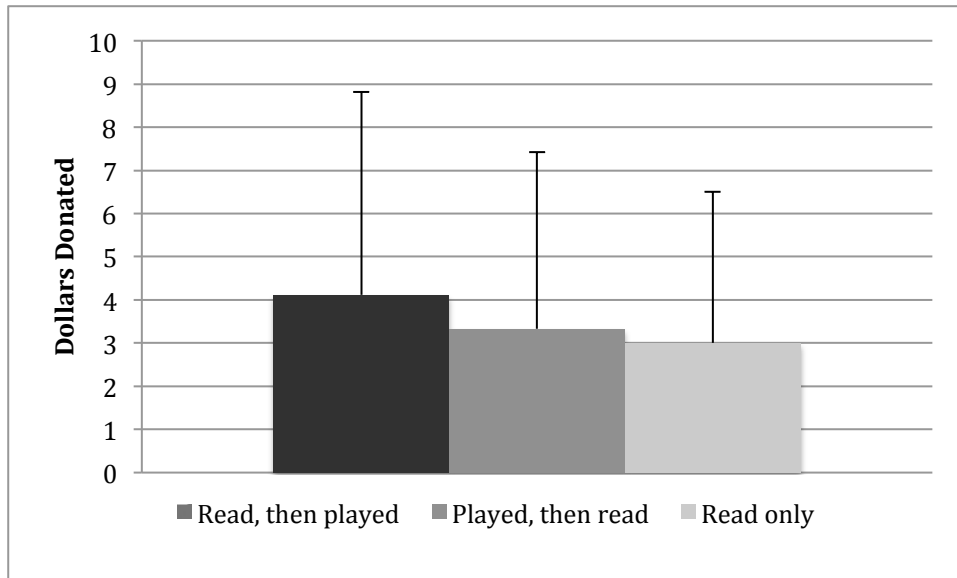
Figure 1. A behavioral measure in which participants are given the option to donate any portion of their compensation to Gisha (2010), the creators of Safe Passage.

Discussion

Our results provide clear evidence that reading information combined with playing Safe Passage changes political perceptions of Palestine and Israel and participants' interest more than merely reading about the humanitarian issues presented on the Gisha (2010) website. Playing the game leads to a more positive perception of Palestine, a more negative perception of Israel, and greater interest in learning about the conflict, while reading exactly the same information alone produced insignificant changes in each of these measures. There is also evidence that playing the game after reading the material may have a slightly stronger impact than playing the game-first. This advantage of recency effect of game play is shown most strongly for increasing interest in the conflict and in the increase in positive perception of Palestine. It is also suggested by the highest (though non-significant) level of donations among those who played the game just before a request for donations was made. In contrast, the negative shift in perceptions of Israel was found regardless of when the game was played.

In order to further contextualize these findings, it helps to compare these results to past work with the serious game PeaceMaker (Nilsen, 2008; Nilsen et al., 2011). After playing PeaceMaker participants displayed a significant decrease in bias between Palestine and Israel on Stover's political measure (2005, 2006). That is, in two separate studies (Nilsen, 2008; Nilsen et al., 2011) participants reported decreased positive feelings towards the nation that they initially favored (Palestine or Israel) and increased positive feelings towards the nation they initially opposed. In contrast, the present findings indicate an increase in bias as a result of playing the game Safe Passage in that they displayed consistent increase in positive attitude toward Palestine and decreased positive attitude toward Israel. This trend is most dramatic in participants who played the game (as opposed to those who read the equivalent text.) Consequentially, we propose that interaction with the serious game Safe Passage acts as a catalyst to increase political bias in the Israel/Palestine conflict. This effect can be seen in the widening attitudinal gap for the two game playing conditions displayed in figure 2 below.

Regardless of political interpretations, these findings have important implications for persuasive use of games. Serious games have been shown to effectively utilize the underlying mechanism in contact theory (Allport, 1954; Crisp & Turner, 2009; Nilsen, 2008; Nilsen et al., 2011; Wright et al., 1997). However, Safe Passage's effective increase in participants' bias demonstrates serious games' potential negative effects from a single-perspective simulated contact with another culture. Though the information is factual and crucial to humanitarian aid, Safe Passage serves as a medium through which participants witness a one-sided and imbalanced relationship between two cultures. The result is consistent with contact theory's premise (Allport, 1954; Crisp & Turner, 2009; Wright et al., 1997) in that attitudes are shifted in concordance with the cultural contact (the serious game.)
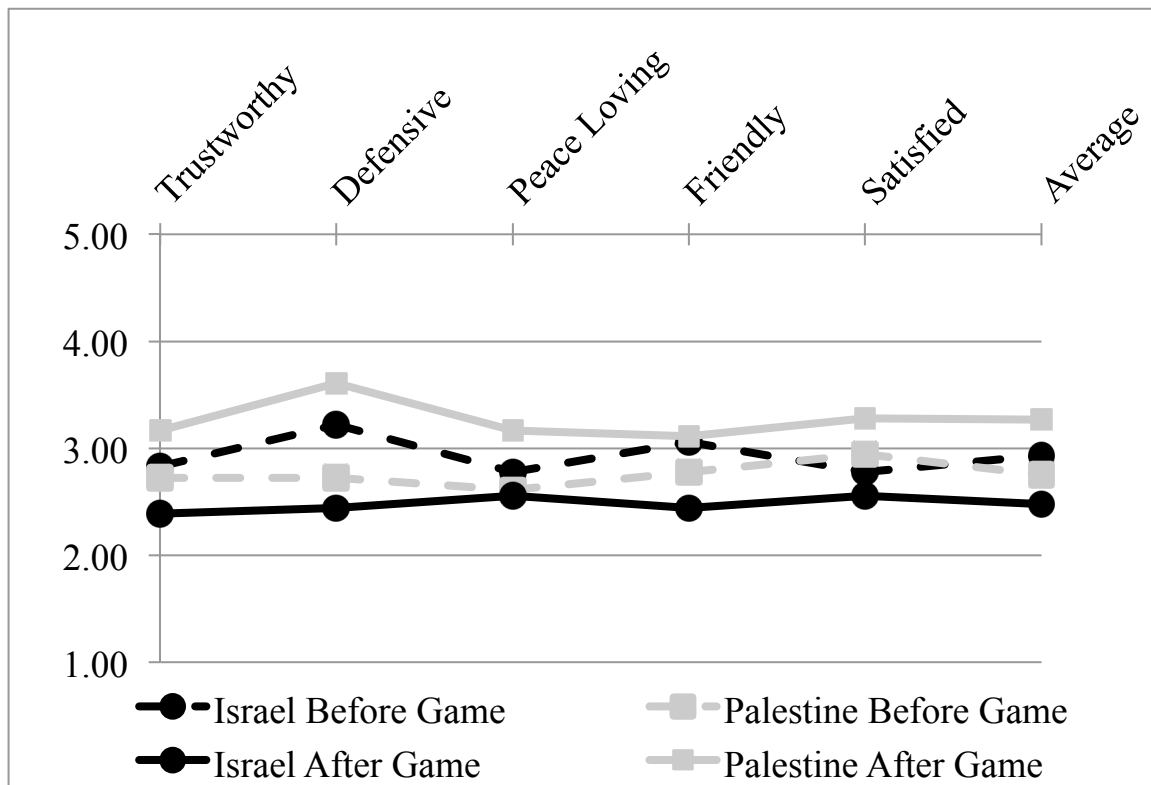

Figure 2. **Participant reports on Stover's (2005; 2006) political measure for Safe Passage study. All items across both game play conditions are displayed although only averages were analyzed.**

Future research will try to isolate the underlying mechanisms responsible for the effectiveness of serious gaming. The Perspective taking found in Safe Passage and Peacemaker have opposite impact on changes in political perceptions. Is this difference due to the one sided, vs. balanced role playing experienced in the games? Other differences between the games include length of play, style of interaction, use of strategy in game play, performance feedback and scoring mechanisms.

In conclusion, Safe Passage demonstrates the significant persuasive effects that a simple online game may have. Information presented through an interactive medium changed attitudes significantly more than reading the information alone. Thus, though typical internet users spend

relatively small quantities of time on a website (Fulloux & Gassee, 2009) viewers' interaction with a website may dictate the effects of the information far more than the information itself.

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