研究速報

デジタルゲームにおける向社会的行動の動機付け

The Motives of Prosocial Behaviors in Digital Games

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デジタルゲームは双方的なメディアであり、その登場から暴力的または向社会的表現の影響に関する議論の対象になっていた。デジタルゲームの中の暴力や向社会的行動は現実でのそれらと同じなのか。本研究では動機付けの観点からデジタルゲームにおける向社会的行動と現実での向社会的行動を比較するため質問紙調査を行った。その結果、ゲームにおいてほかのキャラクターを助けるときは、動機付けとして目的志向の理由が多く、現実において人を助けるときは人道的理由が多くみられた。

The digital game is an interactive medium, and its effect on the player has been a major topic in game studies. What is the mechanism behind behaviors in digital games and their effects on players? This study attempts to look at prosocial behaviors in digital games from a motive perspective. A survey was conducted to see the motives of prosocial behaviors in in-game situations and in a real-world situation. Participants responded that they would help in the in-game situations mainly to achieve their goals rather than for empathic or moral reasons. In the real-world situation, people would help for many different reasons including moral and humane reasons.

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1. Introduction

The purpose of this study is to look at the motives of prosocial behaviors in digital games. Prosocial behaviors are intentional, voluntary behaviors that benefit others. Based on social cognitive theory, it is likely that depictions in digital games affect players' behaviors. However, there are mixed opinions about the effect of digital games on players (for examples of violence in digital games, see Ferguson[1] and Boxer, Groves, & Docherty[2]). In Lim[3], it is posited that there are depictions of six different kinds of prosocial behaviors in digital games with an average duration of over 20 minutes per hour of game play. However, their effects are only partially significant. One of the reasons for this may be that the motives of prosocial behaviors depicted or exhibited by players are different from those in the real world.

In Bar-tal & Raviv[4], it is noted that role-playing is an effective method of teaching prosocial behaviors, and digital games, which often require role-playing, may become an effective means of teaching prosocial behaviors. However, it is not clear that the motives of prosocial behaviors in digital games are sufficiently similar to those in the real world to simulate real-world situations for teaching prosocial behaviors appropriately. In digital games, players' behavior is based not only on their feelings but also on goals that are designed to drive players to behave in a specific way[5]. In the real world, empathy is considered to be the main motive of prosocial behaviors. However, in digital games, the game goal may be considered equally as important as empathy, regarding players' prosocial behaviors.

The current study conducts a survey to look at the motives of prosocial behaviors in digital games and to compare them with those in real-world situations. Specifically, it focuses on the role of empathy and the game goal on players' prosocial behaviors.

2. Methods

A survey was conducted to see the motives of prosocial behavior in digital games. The survey was conducted on paper. The participants were 62 undergraduate students (M = 40, F = 22, mean age = 19.12) who were enrolled in a course in the Faculty of Education in a national university in Japan. It was conducted during the last 10 minutes of a class. The students were given clear file folders as incentives for their participation. They were told that the participation was voluntary, and they were free to leave whenever they wished. It was made clear that they did not have to provide their name and that the responses were only for research purposes and would not be used to identify any person.

The survey included questions on participants' experience with digital games. Of the 62 participants, two answered that they had never played digital games, so their responses were eliminated from the analysis. Additionally, two of the participants did not finish the survey, so their answers were eliminated as well.

The survey first asked participants to imagine themselves playing a theoretical role-playing game with enemy characters and friendly characters, some of which were non-player characters (NPCs) and others were player characters (PCs). Three situations were given. The first situation was where there was a neutral NPC who was about to be attacked by an enemy character. The second situation was where there was a neutral PC who was about to be attacked by an enemy character. The third situation was in the real world, where a person was about to be attacked with a knife. The survey asked what the participant would do for each situation. It was a multiple-choice question. The choices were: "I would help", "I would help under some conditions" where those conditions were to be specified, and "I would not help". The

reasons for helping or not helping were to be provided.

3. Analysis and Results

As shown in Table 1, whether the other character was an NPC or a PC or a person in the real world, there were more participants who responded that they would help someone who was in danger than participants who responded that they would not help. Among those who responded that they would help, about half of them said that they would help under some conditions, which mainly concerned their own safety and whether the consequences were positive or negative.

Table 1 Responses of participants

	NPC	PC	Person
Help	22	24	20
Help under conditions	21	21	28
Not help	15	13	10

Table 2 shows the details of participants' responses. The responses of helping and conditional helping were both counted as "Help", and not helping was counted as "Not help." Over half of the participants (n = 33) responded that they would help in all three situations. The second most common response was only helping a person and not an NPC or a PC (n = 7). However, the number was about the same as the number of participants who answered that they would help an NPC or a PC but not a person (n = 6).

For the motives of prosocial behaviors, the collected responses were coded and categorized into 19 categories. The 19 categories were further grouped into three groups: empathy, goal-orientation, and others. The three categories and 19 subcategories are presented in Table 3.

Table 2 Details of responses

		NPC			
		Help		Not help	
	PC	Help	Not help	Help	Not help
Person	Help	33	3	5	7
	Not help	6	1	1	2

Table 3 Motives of prosocial behaviors

Empathy	Because I feel sympathy for the character/person
	Because I do not want to see the character/person being attacked
	Because the character/person is in trouble
	Because I cannot let such a situation pass
	Because the character/person is an enemy of my enemy (which means that he is on my side)
Goal orientation	Because the character/person may become useful later
	Because the character/person is important in advancing the game
	Because I may gain something from helping
	Because something may happen after I help the character/person
	Because I want to win
Others	For no reason
	Because it is a game
	Because it is an NPC
	Because I have an ability to help the character/person
	Because he/she is a human
	Because it is a kind thing to do
	Because I want to save a life

	Because it is a humane thing to do
	Others

Table 4 shows the number of responses belonging to each category of motives of prosocial behaviors. Only the responses of those who would help or help conditionally were analyzed. The motives for helping other characters differed between NPCs and PCs, and between the game world and the real world. There were more prosocial behaviors motivated by goal orientation toward NPCs than those toward PCs, and none for those toward persons. Most prosocial behaviors toward persons were motivated by reasons other than empathy and goal orientation. Some popular motives were based on morality and humanity. However, there were various unique reasons. For example, a participant responded that it was a human instinct to help the other person, so he would act automatically.

Table 4 Differences in motives

	NPC	PC	Person
Empathy	11	13	10
Goal-oriented-ness	22	14	0
Others	7	14	33
Not answered	3	4	5

4. Discussion

For prosocial behaviors toward NPCs in digital games, the responses mainly consist of empathic and goal-oriented motives. Among 40 valid responses, over half of the responses indicate goal-oriented motives. Many of them concern the possible gain from the action. From a game design perspective, goals are what drive players' behavior in the game[(5)]. From the results, it is clear that goals are in fact prioritized by players when they take actions. Empathic motives are the second most common responses. About a quarter of respondents would help NPCs because they empathized with the character. Empathy is the main motive of prosocial behavior in the real world. Players may feel the same way in the game world and may feel emotions toward characters in a way similar to the way that they do in the real world.

Fine[(6)], in his study on analog role-playing game players, notes that there are two types of gamers: gamers who role-play by playing as the characters assigned to them, and gamers who self-play by playing as they would in the real world. Role-players may become involved in the game, and they may act and think as if they are the characters living in the game world. However, self-playing gamers are more concerned about achieving their own goals in the game. From the role-playing perspective, digital gamers are similar to analog gamers. Even though the games are mediated by game consoles, some players may become involved in the game world and act and feel as if they are in the game world. Others may be more concerned about gains and achieving goals.

For prosocial behaviors toward PCs and persons, the motives are different. Compared with those for helping NPCs, many motives concern the fact that the other person is a living human, even when he is not visible. In the real-world situation, participants are more concerned about the other person's perspective and life as well as the safety of their own life; however, there is no concern about any possible gains from the behavior. Prosocial behaviors in digital games and in real life may differ regarding priority.

In this study, there are some limitations. First, the author tried to maintain consistency between the in-game situations and the real-world situation, but they were not equal regarding direness. Additionally, no actual behavior was observed, and the analysis was only based on self-reported responses. Further study with empirical

evidence is needed to clarify the mechanism of prosocial behaviors in digital games. This study may provide a framework for future studies.

References

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