Video Games for Prosocial Learning

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ABSTRACT

In this chapter, we consider the capabilities video games offer to educators who seek to foster prosocial development using three popular frameworks: moral education, character education, and care ethics. While all three of these frameworks previously considered literature and film as helpful tools, we suggest that video games are unique from these other media in the multiple levers through which they can influence the worldview, values, and behaviors of players. Similar to literature and film, video games possess content — plot, characters, conflict, themes, and imagery — with which participants interact. Unlike other media, however, video games scaffold players' experiences not only via narrative and audio-visual content but by the rules, principles, and objectives governing what participants do. Moreover, many video games possess an ecosystem that impacts players' interpretation of the game itself — for example, on-line hint guides and discussion groups as well as the opportunity to play in the company of peers in either physical or virtual proximity. We consider opportunities and challenges presented by each of these unique facets of video games for fostering the prosocial development of participants.

KEYWORDS

video games, computer games, prosocial development, moral education, moral reflection, character education, habit formation, procedural rhetoric, educational games, epistemic games, new media, online games

INTRODUCTION

Video games, writes linguist and educator James Gee, are "good for your soul" (2005, p. 1). This is a sweeping claim, not just because video games sometimes occupy a vulgar position in public perception, but also because edifying the "soul" is not something often investigated methodically. Gee's bold assertion motivates the present chapter. We consider what it might mean for video games to be "good for your soul," specifically from the perspective of learning and education. Video games, we believe, have the capacity to deepen moral reasoning, open players to new perspectives, shape or reinforce positive behaviors, and provide a field for practicing cooperation. To structure our exploration of these possibilities, we will draw upon the contemporary understanding of moral and character development as well as of video games as media and learning environments.

How can a video game—or any experience, for that matter—be "good for your soul?" This question has been central to teaching and learning across many cultures and epochs. The philosopher Socrates is said to have stated that the mission of education is to help people become both smart and good (Ryan & Bohlin, 1999). Likewise, civil rights activist Martin Luther King, Jr., asserted that, "Intelligence plus character—that is the goal of true education" (Carson & Shepard, 2001). At the risk of over-simplifying a complex issue, over the past several decades, American educators in agreement with Socrates and King have generally fallen into two camps: moral educators and character educators. Moral education

emphasizes reasoning and reflection, while character education focuses on providing models and shaping habits. For example, when Gee (2005) argues that "good video games are good for your soul when you play them with thought, reflection, and engagement with the world around you," he adopts the language of moral education (p.1). But he, and other game researchers also highlight how video games model behaviors by example. We will use the terms "moral education" and "character education" as shorthand for two modes by which people are believed to deepen their capacity for moral behavior as individuals and members of society. To prevent confusion between the broader concept of moral development and the specific approaches of moral educators, we use "prosocial learning" as an umbrella term that includes both moral and character education.

What, then, is a "video game?" For the purposes of this chapter, we stipulate that video games are games substantially instantiated through electronic computation. What constitutes a "game" is controversial (e.g., Salen & Zimmerman, 2003; Juul, 2005), and we are inclined to define the concept broadly as a human practice bounded by rules, requiring some human input, and with variable outcomes related to the inputs (such as, but not limited to, "win" / "lose" conditions). This definition of "video game" is broad and flexible enough to include the following phenomena:

- Commercial products such as *Peggle*, *World of Warcraft* and *Grand Theft Auto*, both single- and multi-player, whether played on a dedicated game console (e.g., Nintendo Wii), PC, mobile phone, or other digital device;
- Experiences and interfaces that reach outside the boundaries of the computer (e.g. "augmented reality games" like *World Without Oil*);
- So-called "serious games" deployed for non-entertainment purposes such as job training (e.g. Stone Cold Creamery's *Stone City* [1]).

Ultimately we are less interested in drawing lines around what constitutes a "video game" than we are in considering the possibilities that video games and video game-like experiences offer to prosocial learning. Because this chapter serves as a preliminary survey of the field, we prefer to leave our definitions open-ended so as not to overlook promising avenues for later research.

This chapter begins by describing in greater detail these two competing schools of thought — moral education and character education — within the general project of prosocial learning. We then consider various means by which video games might advance the goals of either or both approaches to prosocial development. Finally, we conclude with recommendations for researchers, game developers, and educators for utilizing video games to foster prosocial development among gamers.

KEY FRAMEWORKS OF PROSOCIAL LEARNING

In this section we offer synopses of three frameworks through which educators often approach the project of prosocial development, or what Socrates described as helping people become good. While we focus here upon the key differences among these frameworks, all three share the same fundamental belief that people's capacity to act in moral, ethical, and civil ways can be deepened or strengthened. And, in fact, even moral psychologists like Haidt (2001) and Greene (2003), who argue that moral judgments are largely based on intuition, do not suggest that these intuitions must be the final word on a particular moral or ethical issue. Rather, as K. Anthony Appiah (2008) has observed, even if our moral beliefs are a "fixed feature of our psychologies, then learning when and how they mislead us will help us to overrule them we should" (p. 99).

Moral Education

Building on the constructivist stage theory of Piaget, Harvard psychologist Lawrence Kohlberg (1981, 1984) developed a stage theory of moral development in the mid-1970s that asserted that individuals could deepen their moral reasoning skills (and thereby their moral actions) through both experience and education. Kohlberg assessed people's moral reasoning ability by gauging their reactions to a series of vignettes which described moral dilemmas. The most famous of these vignettes is the Heinz Dilemma. In this vignette, Heinz's wife is diagnosed with cancer and desperately needs a particular medication; unfortunately, Heinz cannot afford, and the local druggist will not sell it to him at a reduced price. Kohlberg questioned individuals about how Heinz should react to this dilemma and characterized participants' stage of moral development across a six-point scale based upon the reasoning they utilized in coming up with a response. Because Kohlberg believed that morality was a trait that could be nurtured and deepened through reflection and learning that engages individuals in higher order thinking, he also conceived of moral dilemmas as educational tools that could be used to engage individuals in reflection to promote prosocial beliefs and behaviors.

Character Education

The character education movement took off in the mid-1980s led by policymakers such as Bill Honig and William Bennett and academics such as Kevin Ryan and James Wilson. The cornerstone of the character education movement — for which Bennett was perhaps the most public spokesman — was the teaching of virtue through inspirational stories, both fictional and biographical. Character education advocates criticized developmentalists like Kohlberg for overemphasizing moral reasoning and questioned Kohlberg's underlying premise that heightened moral reasoning would lead to heightened moral behaviors. Instead, the character educators conceived of morality (or, in their terms, "virtue") as a habit formed through modeling, direct instruction, and practice.

Care Ethics

Care ethics represents a third approach to prosocial development championed by philosopher Nel Noddings. According to Noddings (2002), "Care theorists rely more heavily on establishing conditions likely to encourage goodness than on the direct teaching of virtues" (p. 1). While moral educators utilize moral vignettes and character educators rely on fables and parables, care theorists advocate the use of powerful literature. As Noddings explains, great literature allows for "broader, more diffuse conversation—discussion that will locate problems, not just attempt to resolve dilemmas" (p. 2).

Philosopher Martha Nussbaum (1995, 2001) also recommends great literature as a powerful tool for prosocial development, particularly in its ability to foster and deepen an individual's capacity for empathy. Specifically, Nussbaum asserts in *Upheavals of Thought* that stories and novels "exercise the muscles of the imagination, making people capable of inhabiting for a time the world of a different person, and seeing the meaning of events in that world from an outsider's viewpoint" (p. 431). She asserts that literature can deepen an individual's identification, understanding, and empathy for others in a way that the mere presentation of facts or statistics cannot.

Clearly, there are substantive differences in the approaches to prosocial development of the moral educators, character educators, and care theorists. As noted above, however, all three frameworks assert that a person's prosocial development can be shaped and encouraged. The dissension across these three frameworks focuses, instead, on the most effective pedagogical mechanisms for doing so. In the section that follows, we consider the use of the relatively young medium of video games as a mechanism for prosocial development through the lenses of these various frameworks.

VIDEO GAMES AS PROSOCIAL INTERVENTIONS

If a person's prosocial capacity can be strengthened, how might video games play a role in that development? As a touchstone to ground this question, we begin with an observation recorded by Stevens, Saticz, and McCarthy (2008) that exemplifies a key puzzle facing video games as potential prosocial learning spaces. These researchers describe a teenager, Rachel, playing the video game *Zoo Tycoon*:

In her everyday life, Rachel and her family cared for stray and abandoned cats awaiting adoption through a local animal shelter. We often observed her readily pause her game play to monitor a cat's health or attend to its needs. In-game however, Rachel's decisions about the animals she was caring for as zookeeper were driven by monetary gain rather than the happiness or well-being of the animals. For example, while creating a zoo for different types of cats *(e.g., tigers, lions, and leopards), Rachel learned of a new birth in her zoo and responded by selling the newborn animals immediately. When queried about her actions, Rachel (age 15), responded, "In real life? I would not … manage a zoo like this. I would be much more caring. But in this game, I'm more greedy. But that's okay" (pp. 59-60).*

This vignette vividly illustrates one key dilemma facing video games as a potential prosocial intervention: the wall between a player's in-game actions and real-world values. A strict separation between the two seems desirable with video games that are rife with violence, sexual innuendo, and bigotry. However, such a separation would also block effective pro-social interventions. If gamers compartmentalize their in-game actions from their real-world values — if, in Rachel's words, it is "okay" to behave one way in the game and another way in real life — then maybe video games are actually a poor vehicle for prosocial learning. A similar divide between the real and the fictional prompted literary scholar Elaine Scarry (1989) to express her doubts about literature's capacity to shape readers' attitudes or beliefs, contrary to the care ethicists' claims.

We argue that video games do hold the potential to foster prosocial learning, whether by inculcating new habits as envisioned by the virtue theorists, by deepening moral reasoning per the moral educators, or by stimulating reflection and perspective-taking in the manner characterized by Nussbaum. However, Rachel's approach to *Zoo Tycoon*, and its seeming disconnect from her everyday life, demonstrates that promoting actual attitudinal and behavioral changes may be more complex than simply extrapolating from a player's in-game actions to her real-world behavior.

Learning by Seeing: Video Games as Message Transmitters

The most straightforward mechanism whereby video games might instigate prosocial learning is by conveying prosocial messages in their plot, character, graphics, sound, or some combination—in short, what can be called a game's "content." The basic conclusion might be, as Prensky (2001) suggests, that kids will learn whatever themes are embedded in the game. By this analysis, a game in which the player controls a mobster who shoots civilians for sport might encourage antisocial, violent, or even criminal behavior, while one in which the player portrays a doctor who saves lives might instead instill more noble attitudes. The game industry's own rating systems, such as that of the United States' Entertainment Software Review Board (ESRB), assumes games' direct-messaging power in its evaluation of the age-appropriateness of game titles. For example, realistic and bloody depictions of violence put games in ESRB's "Mature" (17 or older) category, while "cartoon mischief" can rate as appropriate for "Everyone."

Researchers have attempted to validate popular worries that games can influence prosocial development through their messages, most of them focusing on clearly visible negative messages relating to violence, misogyny, and racism. Worries about games' antisocial messages are often heightened by the fact that

games enable players to not only witness but enact, at least virtually, violent behaviors. A prevalent concern, for example, is that "shooter" games teach children to become killers, a nostrum that became conventional wisdom after the perpetrators of the Columbine massacre were found to have played *Doom,* an early first-person shooter (FPS) game.[2] These accounts generally assume a causal mechanism involving a straightforward and literal transmission of ideas and values. For example, games that portray stereotypical characters within believable urban environments are hypothesized to transmit stereotypes or cultural assumptions about race and class (Everett and Watkins 2008). A multitude of studies suggest that playing violent games correlate with negative behaviors, both in the laboratory and in real life (Carnagey, Anderson, & Bushman, 2007; Anderson et al, 2004; Bushman & Anderson, 2002; Anderson & Bushman, 2001). Laboratory studies of video games have generally found that video games can have some small, short-term effect on subjects' affect (Giumetti and Markey, 2007). However, it is hard to validate research carried out in artificial settings to predict more lasting, real-life effects.

Kutner and Olson's (2008) research offers rare statistical analyses of the relationship between playing "Mature" or "M" rated games (containing "content that may be suitable for persons ages 17 and older") by the ESRB and actual "problem" behaviors among the 1,200 middle school students they surveyed. They found that children who regularly play M-rated games were "more likely to get into physical fights, to hit or beat up someone, to damage property for fun, or to steal something from a store" (p. 99). In addition, as the frequency of M-rated gameplay increased, so too did the correlation with aggression and bullying (pp. 101-2). These findings echo earlier, smaller-scale research that found a similar correlation between playing violent games and self-reported delinquent behaviors (Anderson & Dill, 2001). While these results are provocative, it is important to underline Kutner and Olson's statement that their research identifies correlation, not causation; it is quite possible that youth who already exhibit behavioral problems are attracted to M-rated games, or that the two statistics are co-morbid with some other root cause such as permissive or absent parents.

While researchers work to establish a more definitive link between game content and actual behavior or attitude change—and especially a mechanism for such—the preliminary findings we've summarized may provide some ideas to educators interested in video games for prosocial interventions. Social learning theory suggests that people—children in particular—imitate what they observe (Bandura, 1977). As we noted earlier, video games give players the opportunity not only to observe but enact behaviors, at least virtually. Character educators, who rely heavily on this mechanism of observed and imitated behavior, can look at video games as opportunities to condition desirable behaviors. *Nintendogs*, for example, demands that the player regularly walk, feed, and brush a virtual puppy to keep it happy and healthy. The experience shares much in common with high school health programs in which students nurture a doll as a lesson (or warning) about parenting. While one cannot really "win" *Nintendogs*, similar games might directly reward virtuous (albeit virtual) behavior, and indeed commercial games like *Fable* and *Fallout* do offer players "morality points" or "karma" for making "good" choices.[3] Such a point system might be considered analogous to a character education program that rewards participating students for behaving in ways that exemplify the "value of the week" or the good deeds upon which the program focuses.

Very little research has evaluated whether games can psychologically condition pro-social attitudes or behaviors. In one of the few studies on games' possible positive effects,[4] Narvaez and Mattan (2006) found that subjects who played a game involving a helping scenario were more likely to later offer prosocial responses to a narrative-completion test than subjects who played violent or neutral games. Consistent with dominant theories of character education, these researchers suggest that the prosocial game effects they found might stem from role adoption, exposure, and repeated practice. However, Narvaez and Mattan also reported that participants in their study who played the prosocial video game were just as likely to offer "aggressive" responses as "prosocial responses" on the ensuing narrative-completion test. Thus, the thin research that currently exists does not demonstrate that playing a video game with an obvious prosocial message reliably leads to a player's prosocial response.

Therefore, simply replacing violent content from video games with positive messages offers only limited value to prosocial learning. First, as we've noted, the behavioral effects of game content appear to be limited, whether that effect leans in the pro-social or anti-social direction, and we know little about validity out of the laboratory. Second, those in the moral learning tradition would assert that controversial subject matter may be vital to an effective educational experience, especially if the goal is moral reflection rather than behavioral inculcation. As Hogan and Strasburger (2008) point out in the context of television, "A less than savory adult-themed program may offer a key opportunity for coaxing a child or teen to think creatively about a controversial topic—if a co-viewing adult seizes the moment." And perhaps most importantly, games are not merely the sum of their narrative or visual messages. The story with which we introduced this chapter—Rachel playing *Zoo Tycoon*—reminds us that content, at least the way we've understood it in literature and film, is only part of the picture. Why would Rachel, who in real life is so devoted to the welfare of animals, behave so callously in a game that ostensibly involves the care of zoo animals? In the following sections we look at other theories that may better explain Rachel's game experience and better inform efforts to use video games as prosocial interventions.

Playing by the rules: video games as interactive systems

Video games, like film and literature, use "content" (story, characters, imagery, and audio, etc.) to engage their audience. But video games also feature another property that these non-interactive media lack: systems of rules. In other words, video games scaffold experiences not merely by presenting narrative and audio-visual content but also by the rules, principles, and objectives governing what participants do—that is, the gameplay. Gameplay analysis suggests that someone like Rachel might experience *Zoo Tycoon* as a collection not of lions and tigers, but of rules. Players may choose to completely abstract a game's underlying rules away from its imagery and story—what's colloquially known as "gaming the system." Indeed, some theorists have argued that narrative elements are largely exogenous to video games, much as the names of chess pieces add little more than flavor to an actual chess game (Aarseth, 2004; Juul, 2001). To go to the extreme position: if rules were all that mattered, Rachel's commodification of virtual animals would have as little to do with her real-life behavior as a chess player capturing an opponent's queen would have to do with a propensity for regicide.

But because video games comprise both content and rules, we find more persuasive Bogost's (2007) description of how video games' narrative and gameplay elements can support each other to make claims about how the world works. He terms this expressive marriage of content and rules "procedural rhetoric." The unique characteristic of computational media like video games, Bogost observes, is their ability to represent real or imagined systems that, properly coupled with content, describe real-world experiences in a metaphorical way. We can illustrate this concept using the familiar board game *Monopoly*. The game models capitalist economics largely through its rules, some explicit (investing in owned property enhances their revenue potential) and some implied (in the long run, owning rent-generating capital is more lucrative than earning a paycheck). The content enables *Monopoly* to assert its procedural rhetoric about a specific realm of human activity (the acquisition and development of real estate) through its Atlantic City names and iconic houses and hotels. To some degree, changing the content of the game, as in *Monopoly* editions set in other cities, does not change the game's basic activity of acquisition and investment.[5] If players garner insights about real estate investment through *Monopoly*, it is through making choices within and then experiencing the outcomes of rules, a very different way to learn about the subject than reading a book or watching a film.

The concept of procedural rhetoric underlines the importance of evaluating or designing prosocial games with attention to both content and gameplay / rules. For example, changing the symbolic content of *Space Invaders* so that players shoot litter rather than aliens does not convey a very powerful message about mindful disposal of trash, because the in-game action of shooting litter doesn't tell the player very much

about how to deal effectively with litter in real life. To exploit the full prosocial potential of video games, we need to look beyond gamers' assumed interactions with surface content and support those messages with well-executed procedural rhetoric. Rather than put a new skin on old game mechanics, developers of prosocial video games should build new models, paying attention as much to how the game is played as to what it portrays (Flanagan & Nissenbaum 2007). Rusch and Weise (2008) suggest that to offer these new experiences, games need to shift their focus away from physical actions like "jumping" and "shooting" to concepts like "hope," "love," or "sacrifice." We believe that a bottom-up re-thinking of video games' affordances will better serve practitioners of both the character education and moral learning traditions—the former by foregrounding better behaviors through gameplay, not merely content; the latter by creating the space possible for sophisticated and relevant reflection.

One specific way procedural rhetoric can support prosocial learning is by giving players the opportunity to play the role of a different person, as advocated by Nussbaum and other care ethicists. Many games enable players to take on personas different than they inhabit in daily life and thus make it possible to see the world from a different perspective. Shaffer (2007) calls certain role-playing opportunities "epistemic games" when they articulate a process for acquiring the "skills, knowledge, identities, values, and epistemology" of a particular professional practice. For example, Gee (2008) describes how one commercial game, *S.W.A.T. 4*, conveys both the goals and the norms of a particular profession, police officer, through coherent procedural rhetoric—not just by dressing the player's avatar in an appropriate outfit and putting him in law enforcement scenarios, but also through how the game rules work. While many of these rules describe physical affordances or limitations (characters cannot fly), others enforce *S.W.A.T. 4*'s interpretation of professional law enforcement values. For example, shooting a suspect when he poses no immediate threat to civilians or fellow officers results in lost points or even failure.

In epistemic games, players make their own choices, but within constraints set by the games' design. To succeed at games with powerful identity frames, a player must discern, understand, and act upon the game's values, merging their own goals with the choices the game affords them (Gee 2007). The player can choose to ignore those values, to varying degrees (in *S.W.A.T. 4*, the player can sometimes kill a suspect and still "pass" the mission). However, successful game play typically requires a player to at least be conscious of the game's implied values because these values serve as a "perspective and resource" for solving the game's problems and puzzles (Gee 2007, 79). In *S.W.A.T. 4*, understanding the circumstances under which it is acceptable to shoot a suspect is critical to advancing the game—shooting carelessly can trigger failure, but so too can not shooting when necessary to protect yourself or bystanders. While successful epistemic games like *S.W.A.T. 4* don't teach players to "be" any particular profession, they do articulate rules that reflect the values system attached to such identities (doctor, police officer, Japanese villager, etc.) that obligate the player to play within the rules or else consciously thwart them. One could quite easily imagine other epistemic games that articulate prosocial values embedded in other professions such as medicine and social work. Or, to hew more closely to the care ethicists' concerns, games like *Ayiti: The Cost of Life* can make poverty more visible to players by presenting the choices among competing values that struggling Haitian families face.

Understanding how procedural rhetoric can help instantiate a game's epistemic frame gives us yet another way to understand Rachel's choices in *Zoo Tycoon* and their contrast with her real-world behavior. While the surface content of the game appears to involve the care of animals, the dominant identity its rules articulate is that of a businessperson, as the title advertises.[6] *Zoo Tycoon* is predominantly a business simulation in which the player manages an enterprise with the implied goal of amassing wealth, or at least maintaining solvency. The player manages a pot of money with which to build exhibits and stores, purchase animals, or maintain the park; she replenishes that money when visitors buy admission tickets and concessions, or by selling baby animals. Whatever the subject matter of the game on the surface— amusement parks, railroads, or even prisons (as in other games within the "tycoon" genre)—the core gameplay remains investing capital in income-generating assets, and taking in more income than

expenses. Rachel happens to enjoy playing a title in which the assets are zoo animals rather than railroad lines.[7] One can see how the epistemic frame that structures *Zoo Tycoon*—and the values embedded within it—might influence how someone plays the game as much as the content of the game itself. (Contrast this, for example, a hypothetical game about being a zoo keeper).

Thus, character educators need to consider not just how the content of a video game models desired values or behaviors, but also what values the rules of the game articulate. One limitation of the experimental games designed by Narvaez & Mattan (2006) we referenced earlier is that, despite their varying content (shoot bandits, gather gold, heal the sick), all three games seem to involve identical gameplay: click on target objects efficiently. None of these games appears to offer gameplay that capture the dynamics of greed or charity, rather than merely symbolizing each concept. In other words, beneath the games' surfaces, healing the sick is essentially the same activity as picking up a bag of gold. If, rather than merely portraying the action of "healing," a prosocial game dramatically modeled the actual mechanisms whereby someone (a doctor, a passerby) might administer aid to the injured, including the risks and costs such activity might entail, it would likely have a more profound impact on the player. Paying attention to both content and gameplay, character educators might find epistemic games an ideal way to instill "virtuous" behaviors through both modeling and practice.

Meanwhile, educators who emphasize moral reasoning would also do well to recognize that video games are more than story-deep. Instructors can encourage students to also consider whether a game's *rules*, and not just its plotline or characters, are fair or just. Stevens et.al. (2008) recorded several players reflecting on game rules in this way, on their own. Rachel, for example, criticized the fact that in *Zoo Tycoon*, the financial value of trees decline over time and cost nothing to clear-cut, contradicting her belief that there ought to be some ecological price to pay. Such an observation can become the basis of a rich discussion about why the game designers might create such a rule, and how she might change them to reflect her professed values. Thus, even procedural rhetoric that appears flawed to the player can become a prosocial learning opportunity.

It's also possible that gameplay can itself encourage reflection. *Grand Theft Auto IV* provides one illustration of how this might work. In one mission, the player directs the main character, Niko, to kill another character. After completing the mission, Niko verbally laments the murder, which breaks his vow to leave behind his old life and start anew in America. The player suddenly finds herself in the uncomfortable position of realizing that she has just participated in corrupting Niko. Through clever design, *Grand Theft Auto IV* encourages the player to confront the very values that the game itself has just obligated[8] her to enact. Moral educators in the Kohlberg tradition might explore how to take advantage of such opportunities for in-game reflection.

Using procedural rhetoric as an analytical tool can tell us a lot about the internal logic of video games and provide a powerful way to describe, critique, and reform that internal logic. Yet procedural rhetoric can only surmise actual impact on real players. Just because *Grand Theft Auto IV* offers a moment for reflection does not mean that players will make use of it or, even if they do engage in that reflection, change their beliefs or behaviors. We need empirical research to consider how the values and principles embodied within a particular game do (or do not) influence participants' beliefs about those same values and principles in real-world contexts. Such research will be crucial for understanding the extent to which any moral learning that happens within games—whether we believe the mechanism to be self-reflection or practice and modeling—transfers out of the gaming context into actual behavior.

This question of transferability is particularly important because ethical decision making appears to be highly contextual (Darley & Batson, 1973; Hartshorne & May, 1928). Darley and Batson (1973), for example, found that seminary students on their way to talk about the "Good Samaritan" Bible story were no more likely to stop to help a homeless person than seminary students on their way to complete a non-

related task. Rather, the factor that best predicted a student's likelihood of stopping to help a homeless person was how late that particular student was for his or her succeeding appointment. Thus, not even the act of explicitly reflecting upon and considering the Bible's lesson of lending a hand to a stranger in need changed the test subjects' response to that very same scenario presented in real life. Likewise, a major debate that surrounds Kohlberg's cognitive-developmental theory concerns the extent to which improving an individual's moral reasoning abilities results in heightened moral action (Hauser, 2006). It may be that Rachel's choices as a "zoo tycoon" only implicate her real-world behaviors should she ever become a real-world zoo director. Thus, future scholarship must consider whether moral lessons embedded in video games—whether they stimulate player imitation or reasoning—wind up sequestered from real-world beliefs and behaviors.

Structuring Holistic Experiences: Video Games as Social Practices

We believe it is critical to observe individual persons' actual rather than imputed interaction with the games they play. Until now we have been looking at games as objects, emphasizing their formal characteristics, rather than as activities involving an interaction between the player and the game, or among players (Juul 2005). Of course games aren't an inert medium for conveying ideas but also a negotiated practice. Rachel happens to embrace the procedural rhetoric—both content and rules system— of *Zoo Tycoon*, and with them the identity of businessperson that they together articulate. But players need not accept this identity; they may choose to follow alternative rules or principles offered explicitly by the game, create new ones by bending game rules, or subvert the game altogether. Stevens et.al. (2008) describe how Katarina, another girl of Rachel's age, actively resists the business identity suggested by *Zoo Tycoon*, embracing instead one more akin to an architect or designer:

Katarina was so unwavering in her focus on using the game as an aesthetic design medium that she actively occluded in-game instructions that recommended efficiency and point-maximizing behaviors, despite the chance this could lead to the failure of her zoo as a business. This, in turn, created the possibility that she'd no longer be able to extend her design, because if the business failed, her game would be over. She resolved this dilemma by using a cheat code that gave her extra money (p. 55).

Katarina's radically different approach to playing *Zoo Tycoon* illustrates the autonomy that players can enjoy in playing video games. Even when the rules of *Zoo Tycoon* encourage players to assume the identity of "tycoon" and adopt the goal of amassing as much wealth as possible, a player such as Katarina might choose to focus, instead, on an alternative goal.[9] As Stevens et.al. point out, "What individual players bring to the game shapes not only how they play, but *what* they play" (p. 56; emphasis in original). The creativity of play—the "emergent" quality of games (Juul, 2005)—requires that we dig into the real experiences of game players playing games.

The paucity of research into how players really interact with video games poses an obstacle to evidence-based prosocial educational efforts. Character educators, for example, can't know whether players are enacting positive behaviors in the game as a genuine expression of a virtue or instead to maximize their points (again, "gaming the system"). Without observing gameplay, they cannot even know if players are following or undermining the game's intent. Neither can proponents of moral education know whether players are wrestling with and reflecting upon difficult moral choices, or picking the path of least resistance, or ignoring the narrative meaning of the game entirely. And this is to say nothing of the issues of transferability to real-life behaviors we've raised.

Perhaps, then, we should not rely only on video games' inherent potential for prosocial learning and additionally consider the ecosystem that surrounds actual gameplay—what Gee (2008) calls the "Game" (with a capital "G") that surrounds the technological artifact of the game. On the one hand, some internal features of games might themselves stimulate prosocial learning, as in the example we gave of *Grand*

Theft Auto IV's main character questioning the actions that the player has directed him to perform. On the other hand, learning can also take place within the larger setting of the Game, as when discussing *Grand Theft Auto* with peers or mentors. Ideally, as Gee advocates, the game design and the Game context combine to provide a complete experience that together reinforce prosocial learning goals.

Social scaffolds that create the conditions for a prosocial "Game" experience can take many forms. The most obvious and explicit would be a formal curriculum or lesson plan featuring group discussion. Educators can use video games as they do literature: sources for examples and reflection, especially around complex systems, alternative roles, personal choices, and other areas where games excel. Imagine, for example, if Rachel's parent or teacher noticed the contrast between the way she commodified animals in *Zoo Tycoon* and the way she cared for abandoned animals in real life. That dissonance can become a powerful springboard for discussion about whether personal and business ethics diverge, as well as for Rachel to imagine how she might handle conflicts between her own values and commercial interests in the real world.

There are other social practices that typically surround games: peer groups who work together in real time to "beat" a game (either in physical or virtual proximity); hint guides that suggest effective strategies; reviews that help people pick games to play in the first place; social discussion groups for players to share hints, interpret the experience, or critique the design (Squire, 2006). Some players go so far as to expand or modify the game to suit their own vision by tweaking the rules or graphics, designing scenarios, or even building new games. Most of these social practices do not intentionally revolve around moral or ethical issues, but online discussions do sometimes turn to such questions as whether it is possible to complete a game without killing anyone[10], how the rules might be changed to reflect players' views of the world, or which are the "right" approaches to morally vexing options within a game. For example, we recently ran across the following discussion about *Grand Theft Auto IV*:

Sp-o I just finished That Special Someone [a Grand Theft Auto IV *mission] and I decided to let Darko live. What choice did you make? I don't get sentimental with video games but a very good story culminated there, I think. Also, for anyone who killed Darko instead, what dialogue is different, and does it affect the rest of the story?*
- Baconography (Aug 1, 2008 6:56 pm PT)

If you kill him, Niko will confess that killing Darko did not solve anything or make him feel any better. Nothing will be affected after that though.

I spared him because Darko is really just a mirror of Niko. Killing for a price…
- Comix6190 (Aug 1, 2008 7:04 pm PT)

Killed him.

The dialogue seems more somber; it almost seemed like Niko regrets doing all the stuff he has done in the name of seeking revenge on some guy who doesn't even care about his life any more.

Other than the dialogue after the mission when you take Roman to Brucie's, I don't think it affects the story at all.
- TyphoonGT (Aug 1, 2008 7:05 pm PT)

excerpts from Gamespot discussion forum thread at
http://www.gamespot.com/xbox360/action/grandtheftauto4/show_msgs.php?topic_id=m-1-44630578&pid=933037 *(retrieved on April 20, 2009).*

The discussion quoted above, one of many on public discussion forums addressing the plot points of *Grand Theft Auto IV*, demonstrates at least some grappling with the moral dimensions of revenge.[11] While we do not claim that the discussion excerpted here is very sophisticated, it clearly presents an opportunity to deepen the experience and push more complex moral reasoning and discussion. Perhaps, for example, players at higher stages of moral development (to use Kohlberg's framework) can influence the development of less sophisticated moral thinkers participating in or reading the discussion. At the same time, the discussion also continues to illustrate the dual nature of games: these players are simultaneously addressing both the story and the game, expressing interest in both what the "right" choice is as well as whether that choice affects the game's outcomes.

Interpersonal interaction and dialogue is critical to many prosocial educational efforts. One way to create that social space is through discussion groups about particular video game experiences, which would be particularly suitable for formal settings such as schools and extracurricular programs. Such efforts, however, are difficult to manage and to scale in other settings due to their reliance on skilled discussion leaders. Another way prosocial educators might leverage the ecology of video games is through multiplayer games that encourage social relationships and interactions among players. Designed well, these games can make particular social interactions likely to happen without requiring an outside referee to bring them into being. For example, massively-multiplayer online games ("MMOs") like *World of Warcraft* and *Eve Online* give players strong incentives to form associations, or "guilds," to overcome challenges that individual characters cannot surmount. Many of these challenges are sufficiently difficult to require repeated practice, thus incentivizing players to form persistent guilds—with the resulting being that many MMO players gain the experience of participating in or leading long-term, close-knit, performance-oriented teams (Reeves & Malone 2007). Because these practices echo athletics, we hope researchers who specialize in the prosocial benefits of sport will evaluate whether MMOs foster similar outcomes such as persistence, sacrifice, leadership, and cooperation.

If video games can reach out into the social context of their players to organize their relationships, then we can also imagine tying those interactions back into the content of the game itself. Can an MMO confront teams with vexing moral dilemmas? Can disagreements over values and moral judgments themselves become the basic mechanism for a video game, as it is in the board game *Scruples*? Shaffer (2006), for example, describes a game in which players negotiate with each other over whether to allow risky biomedical procedures. As in debate clubs or mock trials, the players begin to discern and articulate their own values vis-à-vis the particulars of the subject, not just generic principles. We can imagine formalizing negotiation or debate into a multiplayer video game that gives players the chance to reflect upon and crystallize their moral and ethical values based on specific, tangible situations. In this way, video games possess the capability to instantiate a version of Kohlberg's "just community"—a social space where individuals have the opportunity to debate, discuss, and resolve challenging moral issues relevant to themselves.

Next steps and recommendations

In this chapter we have attempted to synthesize two separate strands of research and scholarship: first, the various theories of prosocial development, and second, the burgeoning study of video games and learning. Up to now, intentional merger of the two research agendas has largely been confined to applying media-effects theories and methodologies to violent video games—an approach generally consonant with the character/virtue strand of prosocial education research, albeit from the negative direction. Unfortunately, very little research has focused on prosocial learning, and especially from perspectives other than analyzing content from a media effects framework. We believe that this chapter provides a useful first draft of a more holistic agenda for prosocial video games.

Looking forward, we see at least two main avenues for further action. For video games to aid teachers and parents in achieving prosocial aims, there must be better prosocial games in the market and better-informed consumers (whether players, parents, or schools) demanding them. We believe that such a market must rest on a research-based, empirical understanding of how games can offer powerful prosocial experiences. Otherwise, unfounded prejudices and assumptions might drive the market down ineffective or even counterproductive paths. Toward this end, we conclude here with a number of suggestions for future research and development.

Empirical Research on Prosocial Video Games' Prosocial Influence

There exists little empirical research on the impact of video games on actual behaviors outside of the subject of violence and aggression—and even in that one area the research remains largely lab-bound. We advocate significant investment in such research to assess more fully what prosocial affordances video games might offer. Vital research questions include the following:

1. **What prosocial ideas, attitudes, or behaviors do players learn from existing game titles?** In this chapter we've mentioned existing games with potential prosocial value, such as *Nintendogs* or *Fable*. We believe these are promising starting-points for solid empirical research, and their authenticity gives them an advantage over the games researchers can themselves develop. We hope that researchers will reach beyond "shooters" to a wider range of game types and possible emotional responses, including curiosity, compassion, pity, or even affection.
2. **How do games raise moral and ethical issues in the context of real-world settings?** Laboratory studies provide valuable information by isolating key variables, but as we've discussed, real-world experiences can offer quite a different picture. We've derived significant insight from the rich findings of Stevens, et.al. We need significantly more research in the same vein, observing real gamers of all types playing games of their own choosing in natural environments.
3. **What prosocial ideas, attitudes, or behaviors do players learn from multiplayer video games, and how are they different than single-player games?** This chapter paid scant attention to multiplayer games, perhaps one of the most vibrant areas of video game play. The implications of computer-mediated human-to-human interactions strike us as dramatically different than human-to-computer engagement. Prosocial theories we skimmed over, such as sportsmanship or civic association, may offer a very different set of conclusions about what players are learning in these games than, for example, content analysis.
4. **How do different cultures and practices outside of gameplay influence the prosocial value of video game experiences?** Even when the controllers are down and the console off, game players may still be processing and interpreting the meaning of their game experiences. As Squire (2006) has described, they may be looking online for walkthroughs, criticism, interpretation; they could be chatting with friends and family about the game; they might even be modifying elements of a game title that they find inaccurate or unjust. All of these are potential prosocial development opportunities.

New interventions

Along the way throughout this chapter we identified possible ways that video games can play a role in prosocial development. Because our discussion largely focused on games that already exist, we wanted to mention briefly novel opportunities for prosocial engagement that existing games do not, or very rarely, exhibit.

1. **Expand the range of vicarious experiences video games offer.** Rusch and Weise (2008) describe "blind spots" where game developers have not ventured such as emotional impacts beyond aggression and dominance. A broader emotional range encompassing "hope," "love," or "sacrifice" would offer more depth for serious prosocial education to plumb.
2. **Highlight the moral dimension of system-impacting choices.** The "moral intuition" school of psychology posits that our moral senses evolved to suit smaller and simpler settings than today's complex society (Greene 2003, Haidt 2001). One consequence of this heritage is that people tend to privilege "identifiable victims" over those who are unseen, even when the latter are more numerous and in more desperate need (Singer, 2009, p. 47). Perhaps the gravest challenge facing a prosocial learning agenda is to help us bridge the cognitive gap between our moral intuitions and the increasingly complex and global social, economic, and environmental challenges we face today. If so, then perhaps video games can play a central role because of their capacity to model complex systems (Salen & Zimmerman 2003). It remains an open question whether games can help players grasp the contours of these systems not just intellectually, but also morally.
3. **Use video games to shape behaviors directly.** This chapter has focused almost exclusively on educational interventions, but we believe that games also suggest interventions that directly promote prosocial behaviors without a strong learning component and the risk of failing to transfer that learning to action. The interface embedded in the dashboard of the Toyota Prius, for example, shows trees and flowers growing when fuel efficiency is high— essentially a video game that "players" control by driving an actual car. My.BarackObama.com, a website central to Barack Obama's 2008 Presidential campaign, awarded supporters points for hosting or attending meetings or making phone calls to voters. (Early in the campaign, high scorers were even eligible to win a meeting with Mr. Obama).[12] And *Wii Fit* has participants actually perform yoga moves and other exercises. These games directly influence behavior, bypassing the transference problem, by feeding real-world actions (e.g., driving, campaigning, exercising) into a video game. As we interact with more of our world through digital interfaces, designers can look to video games to learn how to "nudge" people toward better decisions and away from harmful psychological biases (Thaler and Sunstein, 2008).

CONCLUSION

Our recommendations for future research and development reflect our belief that video games do indeed possess an enormous and largely untapped potential for fostering the prosocial development of people who play them. Games that can successfully foster such development, however, must do more than appear socially positive on the surface. As we've suggested in this chapter, true prosocial games need to underlay appropriate messages with rules and gameplay that reinforce those core values. Parents, teachers, and other concerned citizens also need to surround the gaming experience with an environment that fosters real-world practice, discussion and reflection.

We conclude with significant hope that video games can be "good for your soul" in the ways we've described, many of which are unique to the medium. We have reason to be optimistic. For one thing, the video game industry is still young and capable of change; it took many decades, too, after Newt Minow's "vast wasteland" speech for the television medium to respond with *Sesame Street*. Second—speaking of *Sesame Street*—respected entities like the Joan Ganz Cooney Center at Sesame Workshop have begun to rise to the new challenge. While many of these efforts focus explicitly on literacy and critical thinking, they often implicate prosocial concerns, as when the Cooney Center looks to digital media as a way to "Know about other countries and cultures" (Shore, 2008). Finally, video games like MMOs have already shifted popular attention away from the passive broadcast mentality of television towards communal,

participatory engagement. With so many ways to make a difference in how people experience video games, the time is now for prosocial educators to seize the opportunity.

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[1] See Bogost (2007) pp. 279-282.

[2] See testimony of Henry Jenkins, http://www.voxygen.net/cpa/speeches/jenkinstxt.htm. The belief that video games cause gun violence is so firmly rooted in popular imagination that pundits immediately assumed that Cho Seung Hui, perpetrator of the Virginia Tech shootings, played violent video games. In fact, evidence suggests that, quite unlike his roommates, Cho played no games at all – consistent with research that suggests that boys who play *no* games, alongside boys on the other end of the spectrum who play games in great quantities, demonstrate more social problems than other boys their age (GTC).

[3] Note that, at least in the case of the two games cited, the system is symmetric, also rewarding immoral behavior with "evil" points.

[4] See also Moshe Sherer, The Effect of Computerized Simulation Games on the Moral Development of Junior and Senior High-School Students, Computers in Human Behavior, Vol. 14, No. 2, pp. 375-86 (1998), which showed some growth of moral reasoning / moral development, albeit in a very small sample size. The "video game" in Sherer's study is better described as a computerized board game in which subjects discussed and posited moral dilemmas.

[5] However, changing the properties to national parks (as in one official edition of the game) does change the procedural rhetoric of the game, because public parks are not normally thought of as properties to be purchased,

monopolized, and "improved." That *Monopoly* cannot accommodate any arbitrary content illustrates that coherent procedural rhetoric requires game rules and content to work in concert.

[6] As a matter of taxonomy, *Zoo Tycoon* is not a role-playing game but rather an open-ended or "sandbox" game. Squire (2008). It nonetheless articulates a set of rules that encourages adopting a particular way of looking at and interacting with that "sandbox."

[7] We are oversimplifying to some degree. In *Zoo Tycoon*, the expenses and income attached to animals have some relation to their real-life maintenance costs, while *Railroad Tycoon* has a different set of expense and income statistics related to real-life railroad systems. There may be additional rules specific to the asset (for example, zoo animals have some risk of escape, and some animals are incompatible with others). These details can give each game realism, but almost all of them ultimately factor into a final bottom-line calculation of profit or loss. Bogost would point out – and we would agree – that at the level of "unit operation," the nature of the content does modify the game's procedural rhetoric – for example, in asserting a general claim that prisoners are assets for generating profits, or a specific one that providing entertainment for prisoners prevent riots. But here we are focusing on the cumulative rather than constituent ideas in the game.

[8] While the *Grand Theft Auto* series are well-known for their open-ended play, recent titles in the series all have some linear storyline that cannot proceed until the player accomplishes some task, such as the murder we describe in this passage.

[9] Seen from this perspective, "cheat codes" are not so much ethical temptations as they are sanctioned mechanisms that allow players to set their own goals rather than accept the developers' pre-fabricated ones. Developers offer these alternatives to expand the market more than if they dictated all the terms of play.

[10] Sometimes known as the "pacifist challenge." Note that, as the term implies, the pacifist challenge is often employed as a way to make the game more difficult, not necessarily as a moral statement. See, e.g., http://www.gamespot.com/xbox360/action/grandtheftauto4/show_msgs.php?topic_id=m-1-43484799&pid=933037

[11] We don't want to misrepresent the prevalence of these discussions on the public forums. Most of the discussion about this topic are far more focused on gameplay ("What do I get if I do X?").

[12] See more in-depth analysis from the first author here: http://blogs.law.harvard.edu/games/2008/11/16/mybarackobamacom-as-augmented-reality-game/