

Values Between Systems: Designing Ethical Gameplay

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1. Introduction

It all begins in the Middle East. Two militiamen drag me to an old car. I am powerless. I can only look around, wonder when my time for revenge will come. I am thrown in a car. I am hit. I think: my time will soon come. The car drives through narrow streets plagued with troops. It is clear I the aftermath of a recent uprising. The car stops. I am knocked out. I wake up in what seems a market place. I am being dragged to the centre of a square. There is a pole there. It is waiting for me. I can hear the roaring crowds. I see him, my enemy. I think: my time shall soon come. I am tied to the pole. Time slows down. He approaches. He shoots. I die.

The introductory sequence to *Call of Duty 4* (Infinity Ward, 2007) is a brief narrative masterpiece that combines player agency and a highly effective narrative. At all times, the player is free to look around while she is being driven around the fictional Middle Eastern city where part of the action takes place. However, looking around is the only possible action: players are unarmed and at the mercy of their enemies. Since the game is a conventional first person shooter, players may await eagerly the time where they are given weapons and a chance for revenge. But that time never comes: the intro sequence concludes with the execution of the character the players were controlling. After that, the game starts, but for many, what came afterward could not be played like any other FPS games.

Call of Duty 4 uses game design techniques to convey a gameplay experience of deep moral dimensions. The introductory sequence gives agency to players, but only so much that they can feel helpless and disempowered. This design breaks the conventions of the genre, suggesting a critical interpretation of the game itself. *Call of Duty 4* can be enjoyed as just an action game, but many of its design elements are encouraging players to take a critical stance toward what they see and experience. The critical experience of simulated modern warfare is what makes *Call of Duty 4* a moral game.

But, what constitutes a moral game? In this chapter I will explore the nature and design of ethical gameplay, understood as the moral experience of a computer game. Introducing an ethical dimension in computer games is not a new aspiration: *Ultima IV* (Origin Systems, 1985) already included a basic morality system as part of the core gameplay. Ethics-based decision making, however, has more recently become a unique selling point in many commercial titles, from *Neverwinter Nights* (BioWare, 2002) and *Knights of the Old Republic* (BioWare, 2003) to the *Fable* (Lionhead Studios, 2004, 2008) saga or *Bioshock* (2K Games, 2007).

Most of these titles understand ethical gameplay design as the elaboration of narrative-based decision trees that the player has to follow to complete the game. These decision trees are articulated accordingly to an often binary good/evil moral system. However, ethics is more than just taking choices (Tavani, 2004). Ethics describes the rationale for the moral systems with which we live. In the case of games, then, ethics should be

understood as the systems by which we take choices and experience the gameworld in which we are voluntarily immersed.

This understanding of ethics in computer games has already been introduced in the work of practicing game designers (Hocking, 2007) and in the field of **Value Sensitive Design** (Flanagan, Nissenbaum, Howe, Belman, 2007). In this chapter I am specifically looking at the tradition of design reflections on the ethical capacities of game design, or how to create games that convey ethical experiences. This chapter focuses on game design as a general practice, and in computer games as valuable means for creating mature moral experiences.

I propose a model that explains the structure of computer games as creative objects that can generate ethical experiences in their users. The model is based on game design research (Juil, 2005; Järvinen, 2008), adapting the concept of **Levels of Abstraction** (Juil, 2007) to provide a conceptual framework for the understanding of **ethical gameplay**. This model is an abstraction of the structure of a game system, deconstructed into the elements that are relevant for the design of **ethical gameplay**. With this model I suggest that we need to understand games both as systems and as gameworlds, and that each of these levels requires a different, yet complementary player model who experiences the game in a morally relevant way. Based on this model, I will define **ethical gameplay**, what will lead to the suggestion of a design principle for the creation of ethical experiences in players. This design principle should be understood as an ideal that should inform different design approaches that can be applied to the creation of **ethical gameplay**.

Even though this chapter should be read as a theoretical argument in the crossroads of philosophy and design research (Schön, 1983; Lawson, 2004; Cross, 2007), there is an immediate application of both the model and the general design principle for developing **ethical gameplay** in the context of concept development and game design. Practicing game designers will find in this chapter a source for inspiration, as well as a practical tool for formalizing their approach to the design of **ethical gameplay**.

2. All Games Are (Moral) Systems

Call of Duty 4 is a visceral experience that throws players into well-paced action and deadly modern warfare environments where death is a common outcome. Most of the missions are based around hectic maneuvers, ambushes, or panic-lead combat situations. Unlike many other contemporary games, **Call of Duty 4** succeeds in communicating the deadly pressure and chaos of modern warfare.

Nevertheless, one of the most interesting missions in the game, “Death from Above,” is an absolute opposite to the game’s general design principles: it is not fast-paced, players are not outnumbered or in a hostile environment, and there is no “death.” “Death from Above” places players at the control of the cannons of an A-130 gunship, with the goal of clearing the way to a ground commando that needs to escape from a compromised location.

Players look through a computer screen at the geography of the space, and shoot at the underpowered enemy troops. It is a break in the pace of the game, a time to reflect on our actions, seeing them from above. The experience is completed by the graphics, inspired by footage from real A-130 gunships, and the background chatter of the other crewmembers. The level is experienced both as a break in the rhythm of the game, and as

a commentary on the clinical, professionalized aspects of modern warfare, where death comes from above, clean and precise and bodiless.

A much different experience takes place in Tempenny Tower, a key location in *Fallout 3* (Bethesda Softworks, 2008), the postapocalyptic role-playing game that takes place in the wastelands of a devastated Washington DC. When players first arrive there, they will meet a ghoul who is denied entry to the tower. The tower itself is a safe haven, a fossilized memory of a time long gone. In Tempenny Tower, a few human survivors enjoy pleasures while fearing the ghouls that surround the tower. The owner of the property has carefully created an atmosphere of fear around the ghouls. However, the player may have experienced that these ghouls are just like any other citizens of the wasteland, and that Tempenny's racist practices are, like everything else in his tower, vestiges of an old world.

The player is then given a quest with three possible outcomes: either killing the ghouls, killing the humans, or negotiating an uneasy truce by which everybody, ghouls and humans, can live in the Tower. Both initial options are clearly unethical on some degree, while the third one ought to be the moral one. However, the ghouls will exterminate all humans as soon as the player leaves, breaking the negotiated truce. Morals in *Fallout 3* are relative, and players have to learn to live with their own choices in a collapsed, amoral society.

Both *Call of Duty 4* and *Fallout 3* are examples of successful ethical gameplay, requiring players to ethically reflect about the meaning of their actions. These games can be enjoyed without reflecting on their meaning, but they are imbued with a layer of moral choices and discourses that appeal to the players' ethical capacities.

Since I will present the concept of ethical gameplay with more detail in the next section, for now it is sufficient to establish that both these computer games are designed to enhance the moral interpretations of their gameplay and gameworld. These elements can be described if we look at their structure from a game design theory perspective, that is, by applying a model of what a game is as relevant for the understanding of ethical gameplay. Even though the literature on game design is abundant (Rouse III, 2005; Rollings and Adams, 2003; Schell, 2008), there are only a handful of references focused on abstract modelling of game design as a process and practice (Hunicke, LeBlanc, Zubek, 2004; ; Björk and Holopainen, 2004; Koster, 2005; Cook, 2007). I will approach abstract modeling from a different perspective, appropriating key game research concepts such as rules, fiction, and levels of abstraction.

Subheads?

What make *Call of Duty 4* and *Fallout 3* ethically relevant are the relations between what Juul (2005) would call the fictional world and the rules. According to Juul, all games are half-real, that is, they have real rules communicated to the player by means of a fictional world. This distinction between the formal aspects of games and their fictional aspects is also present in the work of Järvinen (2007), for whom the fictional elements of games are means to translate to players the state of the game, as well as possible instructions as to how to proceed and what strategies are available. In this chapter, I adopt a similar approach: all games can be analyzed from two different perspectives, or levels of abstraction (Juul, 2007; Floridi, 2008): a semantic level, and a procedural level.

The procedural level of a game is the system of rules and game mechanics (Sicart, 2008), that is, the formal elements that constitute a game structure. The semantic level comprises

all those elements that require an **epistemic agent** (Greco, Paronitti, Turilli, Floridi, 2005) to be interpreted. I am using the term “semantic” in its semiotic meaning, as the “general study of the interpretation of signs” (Honderich, 1995, p. 820). More precisely, the semantic level of a game requires an agent that can translate the game world using both her history as player, or repertoire, and her own presence in the world, her cultural being outside of the game.

In the case of *Call of Duty 4*, the procedural level is a version of the classic First Person Shooter game as established by *Doom* (id software, 1993) and *Quake* (id software, 1996). The **semantic level** comprises the audiovisual and metaphorical elements that situate those rules in the context of modern warfare. The **semantic level** communicates to the player the state of the game, through game tropes such as energy bars or ammunition count, as well as those items that contextualize the game world in the late 2006s worldview on Middle Eastern conflicts.

In short, the **procedural level** comprises the game as system, while the **semantic level** communicates the state of the game to the player by means of culturally relevant metaphors. This distinction between a semantic and a procedural level should not be read as an absolute ontological position. I am using these two levels of abstraction to describe the fundamental aspects of a game design. This model is a tool for abstracting the most important creative concerns a game designer should have in mind when designing a game. In this sense, game design is the craft of coherently merging a balanced and engaging game system with a semantic domain that communicates both effectively and emotionally to the cultural being who plays the game.

Each of these levels of abstraction is matched by a player model, an idealization of the user that will interact with that level of abstraction, and to whom the design should appeal, inform, and engage. Player models should be understood here in the sense of literary theory and semiotics (Eco, 1978, 1989). A player model provides an insight towards a design type, that is, a foreseeable abstraction of a general user.

The player model dominant in the procedural level focuses on interacting directly with the rules of the game, experiencing the game as an exchange of inputs and outputs with the state machine (Juil, 2005). This player, whom I shall call the **reactive player** or **reactive agent** the author calls this “mechanical agent” in the illustration, so perhaps that should be made clear here -David Gibson 6/14/09 7:58 PM, focuses on understanding the game system and creating gameplay strategies. The reactive player is a strategist concerned with directly interacting with a system regardless of the actual meaning of her actions.

One example of the reactive agent can be found in *Quake III* players who, according to research by Retaux and Rouchier (2002), downgrade the quality of the graphics in order to gain advantage in multiplayer games. In the case of *Fallout 3*, the reactive player is concerned with gameplay elements such as leveling up, ammunition counts, the tear and wear of the combat gear, or even the allocation of resources to specific abilities. The reactive player is not directly interested in interpreting what the resources mean – managing them is a task enough to fulfill her expectations as a player.

The procedural layer and the reactive agent are not devoid of moral concerns. Theorists like Latour (1992) and Winner (1986) have argued that technologies can have embedded values, and thus we should take into consideration their technical construction as a source of value-creation. Postphenomenologists like Ihde (1990) and Verbeek (2005) have taken this position one step forward, claiming that the design of an object, as an initial

generation of both practices and modalities of being, can be claimed as moral. If we were to analyze the procedural layer of a game, we could find that a game as an object can have embedded values in its design. However, this approach is limited: it implies that players will mindlessly follow the morally charged instructions of the game, and will not question them. But players are moral beings (Sicart, 2009), and they will approach and appropriate these ethical affordances with their own values and goals. Hence, we need to understand the semantic layer of the game.

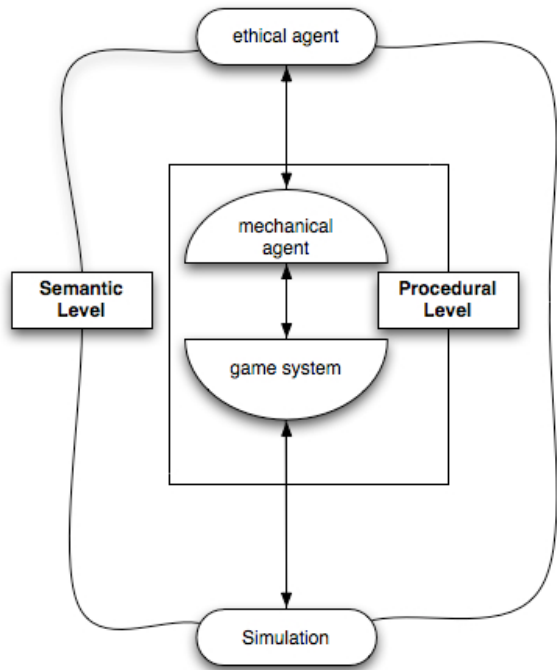
subhead

The semantic layer of a game can be defined as that level of abstraction that translates the formal system of the game into a series of metaphors (Lakoff and Johnson, 1980) designed to communicate the abstract system in a way that can be understood and emotionally adopted by a player. I am using the term metaphor here to convey the culturally based translation of meaning from the formal, abstract system of the game, to a form that is both easy to understand and adapt by players, and adequate for evolving into emotional outcome. This semantic level, constituted by metaphors, often takes the shape of a gameworld and/or a narrative, that is, a series of elements that need to be interpreted in light of cultural, historical, and logical frameworks.

The semantic level is comprised of units of meaning like health bars or scores, as well as by compound systems for interpretation like overarching narratives, or the architecture and geography of the simulated space. The semantic level is designed to communicate to the player the state of the game, as well as the need for emotional attachment to the outcome of her actions. In the case of *Fallout 3*, for instance, the semantic level comprises everything from the design of the Wasteland to the user interface of the PipBoy 3000. The semantic level of a game comprises everything we perceive with our senses, and everything we interpret with our cultural presence as players with a repertoire (Juul, 2005).

The player that interprets this semantic level of abstraction is an agent capable of reflecting upon the meaning of the content presented to her in terms of wider cultural concerns. The **reflective agent** interprets the semantic contents of the game and puts them into the perspective of an individual, social, and cultural domain. By doing so, the reflective agent becomes an ethical agent: playing is interpreting the world and who the agent wants to be in its context; playing is understanding the values of the gameworld and developing an ethical persona that is at the same time coherent with the in-game world, and with the external values of the player as an ethical being.

In abstract terms, then, the design of a computer game consists of two different levels of abstraction that communicate with each other with the use of metaphors and game-specific usability conventions such as health bars or particle effects. Each of these levels of abstraction has a dominant agent, a player model who engages in meaningful, ludic interaction with the system according to different epistemic requirements. This abstract model of a game design can be presented as follows:



From this design-oriented perspective, playing a game is both an act of interpreting a system (the procedural level as experienced by a reactive agent) and interpreting the meaning of that system as communicated to a reflective agent. Game design, then, would be the craft of creating a system that is engaging in terms of strategy and balance, and communicate it in an emotionally and ethically compelling way to a player who will experience the game as part of her culture.

It is in this dual perspective where understanding how games create ethical experiences is possible. As said, the design of a game should consist in the finding the harmonious equilibrium between the systemic needs of the game as explored by the reactive agent, and its communication by means of aesthetic elements to the reflective agent.

If the design of successful gameplay consists in the harmonious balance of the two domains – how can we define within the perspective of this model the design of **ethical gameplay**? In the next section, I will introduce the ethical domain to the model.

3. Designing **Ethical Gameplay**

To understand what **ethical gameplay** means, let's revisit the opening sequence of *Call of Duty 4*. Bound and subject to the will of his enemies, the player starts this action game in an absolutely powerless state. The memories of *Half-Life*'s (Valve Software, 1998) opening sequence appeals to the seasoned player, who expects a seamless transition into action. However, *Call of Duty 4* kills the player avatar before any action is possible. If we analyze this sequence under the perspective of the design model we can explain the ethical implication of this sequence. Reactive players wait for the gameplay cues that will trigger full agency in the world, even though their initial agency is limited to observing. The reactive player understands agency as a vital element for developing strategies, and voluntarily reconstructs ideal gameplay systems based on the hints given by the system. That full agency mode, however, is never completed, and we are punished with death

before we can even start playing the game. The game breaks the reactive players' expectations

The reflective agent will interpret this sequence and its gameplay implications, in the light of her cultural being. *Call of Duty 4* is a game developed and published during the Iraq war, and it is not adventurous to claim that the developers knew the game would need to relate to those events. The opening sequence appeals to the reflective player, who will place the meaning of her actions in a larger cultural framework, and it probably does so as a commentary on its own relation with actual modern warfare. *Call of Duty 4* stretches the relations between the reactive agent and the reflective agent, and in doing so it creates **ethical gameplay**.

Ethical gameplay can be defined as the moral experience created by games in which there is a conflict between the requirements of the procedural level and the information provided to the reflective agent. In other words, there has to be a contradiction between what to do in terms of gameplay, and the meaning and impact of those actions, both within the gameworld and in a larger cultural setting. **Ethical gameplay** forces the reflective agent to take strategic decisions based on the semantic information provided by the game. These decisions will be conflicting with the optimal patterns of behavior presented to the reactive agent.

In the case of the opening sequence of *Call of Duty 4*, the tension is generated by the manipulation of player agency: the reactive player is tempted with agency, only to be abruptly deprived of it. This deprivation appeals to the reflective agent, who will have to reflect about the meaning of not being able to play the game just yet, based on the cultural semantics of the game.

In terms of the model, **ethical gameplay** takes place in the semantic layer, as a resource to engage and challenge the reflective agent. This forces a reconsideration of what play is, and the role of the semantic layer in that activity. To play a game is to interact with a system communicated by metaphors that afford a certain interpretation of that system. The semantic layer of a game, then, should be understood as a facilitator for player interaction with the game system. If we abstract the semantic layer of *Call of Duty 4* we will find a complex system of actions and reactions designed to encourage agent competition by simulating a conflict. If we abstract chess we will find a formal system of possibilities, probabilities, and choices. The semantic layer is designed to communicate these abstract systems and make the dry emotionally engaging: it's the designer process from functional design (Norman, 2002) to emotional design (Norman, 2005).

Gameplay for the reactive agent is a matter of strategies, of predicting the future feedback and behaviours of the system, and adapt to them with the possibilities afforded by that system. The reflective agent, on the other hand, will interact with the system as mediated by the semantic layer, taking into account both the need for strategy and the what that strategy means in a broader personal and cultural sense. Play is a hermeneutical process (Gadamer, 2004; Aarseth, 2003), an interpretative loop by which players create strategies and relate to them emotionally and ethically. Playing is the interpretation of the reactive agent by the reflective agent.

Designing successful gameplay requires making possible that interpretation process. The procedural and the semantic layers need to be coupled so playing is both strategically and culturally pleasurable. This process is often seen as easing the understanding of the procedural layer by creating a compelling semantic layer, comprised of metaphors that

are well known and understood by players. Any game that resorts to a story based on the hero with a thousand faces paradigm (Campbell, 2008) is using a well-known narrative to communicate both the system, and the reasons why the player should care about the action in the game.

In classic design theory, the need for harmony between the semantic and the syntactic justified the interest in usability aspects of objects (Norman, 2002). The goal of a good design, according to this perspective, is to communicate its use without breaking the practices of use, that is, to be coherent, concise, and precise in how the object should be interacted with. The goal of all good design is to avoid cognitive friction (Cooper, 2002), that is, the breakdown of the coherence between the actions and the way they are represented to the user. In terms of the game design model, cognitive friction takes place when the coherence between the procedural and the semantic layers of a game break down, and the player cannot bridge it by appealing to her knowledge as player or as cultural being. Good design reduces the cognitive friction of learning a new system by appropriately wrapping it up in a set of metaphors that afford player agency and emotional attachment. Good design seamlessly traverses the procedural and the semantic, creating a coherent experience of meaningful strategies.

Ethical gameplay operates on a different procedure. Since **ethical gameplay** arises from the tension between the procedural and the semantic, the design of **ethical gameplay** should not rely on the conventional approach to design based on reducing cognitive friction. If anything, **ethical gameplay** should *increase* cognitive friction, forcing a split between the actions of the reactive agent and their interpretation by the reflective agent. In order to design **ethical gameplay**, I suggest that the game should create a tension of meaning and actions between the procedural and the semantic layers.

Players are ethical agents whose experience of the game consists of interpreting the metaphors laid out by the semantic level of the game, which interpret what the purpose of the game system is, communicating it to the player. Players engage with a system that generates particular, morally relevant behaviours. But that engagement is mediated through a layer of semantic content that appeals to the ethical agency of the player. Players reflect about the meaning, significance, and degree of required emotional attachment that the semantic level requires.

In conventional computer games, there is synergy between the procedural and the semantic levels: the best strategies are often suggested and encouraged by a number of semantic metaphors, from sound effects to narrative developments. Players tend to be guided through the “correct” and optimal ways of playing a game. This synergy also implies ethical synergy: by convention, we empathize with the characters or actions we embody or perform, and their values and behaviors. In conventional games, players are encouraged not to doubt of the ethical meaning of their actions, and they are so by a design that merges the values of the procedural and the semantic levels of the game. However, ethically significant gameplay experiences tend to disconnect or directly contradict the procedural actions from their semantic meaning. **Ethical gameplay** is created by conflicting the two domains of the game, by breaking the convention by which players ought to be perfectly informed of the meaning of their actions, and ethically and emotionally attached to the behaviors that the procedural layer creates. The basic principle of successful **ethical gameplay** design is to insert values between systems, to pitch the player as ethical agent against the meaning of their actions in the game.

Conventional game design literature insists on a model of game design that aspires to eliminate cognitive friction so the player can always take informed choices to overcome challenges (reference). In this sense, conventional game design is suggesting similar requirements to those proposed by usability research. The goal of designing a game is challenging a player in appropriate ways, making sure that there is just enough challenge so they feel compelled to improve their skills while not giving up.

As a consequence of this approach, most game design literature suggests that players ought to be informed about the meaning and logic of their choices at all time. Not doing so is perceived as a poor practice (reference), since players ought to know why their actions have the outcomes they have. This principle has also informed the design of ethical decision making in games: *Knights of the Old Republic* and *Fable* present an interface element that translates the morality of the actions taken into an interpreted morality system. Since in these games ethical choices affects gameplay progression, it seems like designers felt compelled to inform the players about the ethical meaning of their actions. In other words, they eliminated cognitive friction by providing a computable morality system that evaluates the player, regardless of her own values or understanding of their actions.

While in general it is a wise design choice to eliminate cognitive friction, in terms of designing **ethical gameplay** it becomes a more problematic approach. In **ethical gameplay** situations, the player has to evaluate the morality of her actions and take decisions based not only on their strategic value, but on their moral value, or, more precisely, on the value those choices have in the development of the ethical being the player wants to be in that particular gameplay experience. Playing a game, and being a player, is not only being effective and efficient in overcoming challenges, it is also creating values and morals that affect the way the game experience is interpreted. By introducing system-driven, computed ethical feedback, game designers are reducing cognitive friction at the expense of blackboxing (reference) the system values, hence alienating the ethical capacities of players to reflect on the ethics of their actions. In this sense, designers are depriving players from ethical agency, treating their values as another element that can be computed by the system.

Ethical gameplay requires a different player model, one that is not based on the classic conceptions of players merely interested in the pleasures of play, regardless of the ethical meaning of their actions. There are values in play, and those need to be experienced by a player who is not a subject to a system that decodes morality and translates into yet another game subsystem. **Ethical gameplay** needs to be built from the assumption that players interpret their being in the game, the strategies and choices taken to overcome challenges, in a moral way. Players do so by creating in-game values that are harmonious with their values as cultural beings (Sicart, 2009). **Ethical gameplay** challenges the process of creating in-game relevant values. An ethically successful game pitches players against their own values, and lets them evaluate the morality of their actions and their influence on who they are in the game.

I am arguing here against a certain version of the procedural rhetoric paradigm (Bogost, 2007) that claims that the values of a game experience are first and foremost created in the procedural level of a game. I argue that the ethics, and politics, of a game, is created in the dialogue between the procedural and the semantic, between the reactive and the reflective agent. **Ethical gameplay** is a dialectic process of interpretations, a hermeneutics

of play in which a player examines their experience of a system in the perspective of their own cultural interpretation of that system as translated by an semantic set of operations. In order to trigger that interpretation, game designers need to make more explicit the need for players to apply their ethical thinking to the experience of the game. So far, the dominant design methods have been rather primitive: branching narratives or decision-making nodes evaluated by the game rules, with an embedded, computable morality system. I want to call here for a more nuanced, deep approach to creating **ethical gameplay**, one based in triggering the ethical capacities of players to reflect about the meaning of their actions.

The explicit, designed creation of cognitive friction between the choices given to the player, and their meaning and value in the game experience is the central element of this approach. In more formal terms: **ethical gameplay** arises from the cognitive tension between the game system and the game world, translated to their requirements to the reactive and reflective agents. This take on cognitive friction operates in a radically different fashion: players are informed about their state in the game, in terms of what information is required to take the appropriate choices, and build the required strategies to overcome challenges. However, there is no semantic interpretation of that status: the game is not translating the player's performance into a set of value-based feedback messages. The player only receives enough information to progress in the game, and the meaning of that progression is delegated to the interpretation of the reflective agent.

This approach, which I shall call ethical cognitive dissonance, does not mean a lack of value-based statements in the semantization of the game world – in fact, there is a translation, but it is up to the player to decide what those values mean as related with her understanding of the game world, and her own stances as ethical agent. The game world, like any other designed, aesthetic object, has ethical meanings; however, it is up to the player to translate those meanings and appropriate them to her own ethical being.

Designing a game with **ethical gameplay** implies a conscious breakdown of the metaphors used to convey the meaning of the game and in-game agency to players.

Players are informed about their state in the game, but they are not informed about the ethical meaning of that state: it is in the transition between levels of abstraction that the communication of the ethical meaning of the players' actions is obscured, so the player has to actively reconstruct and interpret the meaning of her role as agent in the game.

As I've already argued for, classic game design models tend to privilege the importance of the reactive over the reflective agent, providing sufficient information so that the actions of both overlap with no cognitive friction. This approach to **ethical gameplay** design operates in an opposite way: by breaking the mapping between the two levels of abstraction and creating an ethical cognitive dissonance, the meaning of the game as an ethical experience is no more a matter of computation, but a matter of the active interpretation of a reflective player.

This approach can be used to interpret successful instances of **ethical gameplay**. *Call of Duty 4*, for example, creates an **ethical gameplay** experience by applying the method to very particular instance of the game: the cut scenes that mark narrative transitions between landmark scenarios. The outcome of this design is, as seen from an interpretational perspective, to question the discourses regarding modern warfare as heroic. The ethical cognitive dissonance was applied to the dialectic between agency and storytelling: in conventional cut scenes, narrative is predetermined and players have no

agency – they are mere spectators of the actions that are happening. In *Call of Duty 4* players have limited agency in two critical cut scenes: the intro sequence I have already described and a mid-game narrative turning point. At that stage in the game, the player has already seen some action as an American soldier in the streets of a middle-eastern city where there is a nuclear device. While evacuating the city, the bomb is detonated. The player seems to be safe, then the helicopter crashes. It appears that, just like with the initial cut scene, death is also a part of what the player has to experience in *Call of Duty 4*. But there is an extra twist: the player's avatar awakes in the remains of the helicopter. The soldier is badly wounded, and can barely move, but it is still possible to crawl outside of the crash. There may be hope ... until the character dies shortly after witnessing the desolation of a nuclear blast. There is, again, only death awaiting the player.

Call of Duty 4 applies ethical cognitive dissonance to player agency and the usual game design conventions around it: in some cut scenes, players can move for a short period of time, but they have no influence over the outcome of the narrative. In the "Death from Above" scenario, players are given absolute power over the game – it is a level designed to be easy, almost trivial, so that the player can focus on the detachment that modern warfare technology can create by mediating between the action and its consequences through a computer representation. *Call of Duty 4* is a reflection about agency in modern warfare, and it is so not by telling a moral story, but by forcing players, with design tools, to ethically reflect about their role in the simulation.

Fallout 3, on the other hand, takes a different approach to ethical cognitive dissonance. We are told, by means of an in-game menu, that our actions have a certain moral value. However, players can never know, in the collapsed societies of the Badlands, what good or evil means. Of course, on occasions there are clear decisions to be taken, but most of the choices offered by *Fallout 3* fall in a grey zone, an area in which players have to decide what kind of heroes they want to be, and what the overall meaning of their actions will be. The quests the player has to complete are most of the times ethically ambiguous – in the world of *Fallout 3*, there are no absolutes, no moral compasses that guide what a good life may mean. The player is alone in her task of translating her choices into a coherent moral system.

Ethical cognitive dissonance is applied in *Fallout 3* to the gameworld design: instead of mapping actions, quests and characters to the requirements of a computable ethical system, *Fallout 3* creates a moral universe that has to be interpreted by the player. The evaluation of that universe by the game system is not clearly communicated to players – there are general intuitions about how some actions take a moral turn in either direction, but there are no overarching moral references the player can take. In this sense, the player is alone in a world with no other moral guide than herself, and her interpretation of her being in that world. By eliminating moral compasses from the world, *Fallout 3* succeeds in creating a complete moral universe to play in.

Shadow of the Colossus (Team Ico, 2006) took a significantly different approach. While *Call of Duty 4* and *Fallout 3* are games built around an idea of morality, thus setting the player's expectations (reference) regarding the experience of the game, *Shadow of the Colossus* proposes an oblique narrative, a story that is the player who has to interpret and give sense. In that process, its constitution as an **ethical gameplay** experience is revealed.

Shadow of the Colossus gives the player control of a young man in vast, empty land, where a god promises the resurrection of a young woman in exchange of the death of 16 wandering colossi. These colossi are phenomenal beasts, and the only living beings of that land. The player faces an overwhelming, classic challenge: to defeat 16 “bosses. However, killing these creatures is an ambiguous act: the colossi are not moral creatures, they are just animals who defend themselves against predators. And once they die, there is no success screen: when a colossus is killed, a non-interactive sequence is triggered, in which the player’s avatar is hit and rendered unconscious by what seems to be the dark souls of the killed beasts. When the avatar regains consciousness, he looks progressively sicker. The end of the game, the death of the last colossus, marks also the death of the player avatar: victory is death.

The ethical cognitive dissonance applied in *Shadow of the Colossus* operates not at a narrative level, and not at a procedural level, but precisely in the intersection of both. As said, every time the player kills a colossus, the avatar loses consciousness and wakes up to appear sick and dying. However, in terms of gameplay, there is a clear progression in the abilities of the avatar: the stamina meter that determines for how long a player can hold on while climbing, is slightly increased after each dead colossi. In terms of game design, the player has more power the more she progresses into the game. The cognitive dissonance at play here is clear: while the gameplay system is telling the reactive player that defeating the colossi is a good thing, since it increases her chances of overcoming challenges, that progression is interpreted by a metaphor of disease and death. It is an example of increasing cognitive friction to create **ethical gameplay**, based on the tension between the two levels of abstraction that constitute any game.

Finally, a last example can be drawn from the game *Braid* (NumberNone Inc, 2008).

Braid’s main gameplay mechanic is time control: the player can control the flow of time, which behaves itself in different ways depending on which of the six playable worlds the player is in. *Braid* is a platform game in dialogue with the long history of computer games: the main character, Tim, is looking for a princess, who is always in another castle – and so the references to the Super Mario tradition, as well as Donkey Kong and other landmarks of game history influence the narrative and gameplay of the game.

Braid’s story, or semantic layer, is consciously designed to be obscure; it’s a tale that the player has to piece together, reflecting on how the game mechanic affects the interpretation of the different texts that constitute the main story. In this sense, *Braid*’s overall idea is to provide a constant feedback loop between the main mechanics of the game and how it interprets the narrative; or, in other words, how the procedural can inform the semantic. As an instance of **ethical gameplay**, *Braid* succeeds when that design goal is fulfilled, namely, when Tim finally finds the princess.

That gameplay sequence, close to the end of the game but not quite its conclusion, is a masterfully designed space and time puzzle: at the beginning of the stage, Tim sees the princess captured by a monster. Tim has to progress from left to right of the screen, helping the princess along her path away from the monster. However, when the end of that path is reached, and Tim is finally about to reunite with the princess, the game deprives players of controls, and rewinds the whole sequence, much like the player has rewind time throughout the game. At that moment, and using the dominant procedural rhetoric trope of the game, the meaning of the players’ actions is redefined: the princess is not running away from the monster, but from Tim.

Braid is a game about, among other things, the meaning and permanence of actions in time, about regret and impossible redemption. These themes, of unquestionable ethical depth, are also transmitted by means of **ethical gameplay**. That experience of the game is achieved by applying ethical cognitive dissonance to a system-oriented interpretation of the semantic level, a radically innovative take on creating ethical experiences by means of game design.

Ethical gameplay is the outcome of the interrelation between the procedural and semantic layers of a game, as well as the result of the different agency requirements that each layer imposes over players. In order to design **ethical gameplay**, the most successful approach is to focus on the presence of an ethical agent that interprets from a moral perspective the semantic meaning of the game, and by extension the procedural requirements that the game demands from her.

Conventional game design intends to reduce the difference between the two models of agency, and the two levels of abstraction, following the usability principle of eliminating cognitive friction by informing the player about her state and progress in the game in a coherent, comprehensive way. I claim that **ethical gameplay** is created by following the opposite procedure: by increasing cognitive friction, by creating what I called ethical cognitive dissonances, players become the bearers of the ethical experience of the game, unmediated by a game system yet related by the values embedded in that system. **Ethical gameplay** is, then, the outcome of a designed tension between actions and strategies and their meaning.

The design of **ethical gameplay** is, in this perspective, an unconventional approach to the dominant design discourses in game development, as well as a radical reinterpretation of the widespread understanding of players as limitedly creative agents. Designing **ethical gameplay** challenges conventional wisdom, requires a reinterpretation of design as an aesthetic process, and more importantly, puts players as the centre of a moral universe created with the sole intention of challenging who they are, and who they want to be, as players, but also as moral beings.

Creating **ethical gameplay** by increasing cognitive friction should be understood as a design technique, a form of inspiration for game designers who want to engage their players in morality-based experiences beyond the conventions digital games have already explored. However, there is still much work to do in order to consolidate this technique: there needs to be collected empirical data regarding the validity of some of the assumptions posed in this chapter. There is also a need to reflect about some of the implications of digital games as a medium in the perspective of **ethical gameplay** – for instance, how to design games that can be replayable, yet morally deep and unique. This chapter proposes a perspective, a way of looking at the potential of games and play to create ethical experiences. However, we as designers and scholars need to take advantage of this potential beyond what has been tried – we need to explore the values between systems, and contribute to the development of games that will appeal to players as ethical beings.

Conclusion

In this chapter I have outlined a way of understanding **ethical gameplay** as a consequence of game design choices. I have proposed a model that, starting from a new take on the structure of games and the role of agents, defines **ethical gameplay** as an experience that

stems from a particular set of game design decisions. These decisions have in common a design method that I have defined as ethical cognitive dissonance, based on the conscious creative clash between different models of agency in a game.

There is much work left to be done in this domain – the immediate step will be to identify in which aspects of a computer game, from the game world to the narrative, can the this technique be applied, and how it will affect our conventional knowledge of game design. But still, the method proposed in this chapter can already be used by game designers in their daily practice, since it can be used to question the meaning and effect of choices given to players, with a more nuanced and challenging approach than what wisdom and convention allowed.

The design method I have suggested here can be applied to different gameplay structures. The challenge is now to create games that systematically, and consciously, take advantage of the possibilities of games as a medium. Paraphrasing Kafka, if the games we play do not wake us, why then do we play them?

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