Chekhov's BFG

The '90s classic video game DOOM II: HELL ON EARTH incrementally arms players with an arsenal that they need to put to good use in order to plow through the hordes of demons and zombies standing in their way. At the start of the game, players wield a handgun and later acquire a shotgun, then a double-barreled shotgun, a chaingun, a rocket launcher, and a plasma rifle. Two melee weapons are also part of the roster: a chainsaw and the player character's bare fists. The weapons can differ in several respects, including damage, range, rate of fire, and type (and availability) of ammunition.

DOOM II's final and most powerful weapon is the BFG9000. BFG stands for Big Fucking Gun, a fitting name for a massive metal cannon that fires oversized plasma orbs. After shooting the orb, the weapon additionally emits an invisible cone of 40 tracer rays that deal further damage (DOOM Wiki 2018). This gun can wipe out several of DOOM II's enemies with one single shot.

Enter the Cyberdemon—a towering, horned, goat-legged monster with cybernetic enhancements. According to data provided by the DOOM Wiki, two or three shots of the handgun are commonly required to take down the Trooper (Doom Wiki 2016), DOOM II's weakest enemy with twenty hit points. In contrast, around 388 gunshots are necessary to take down the Cyberdemon, the game's toughest enemy with four thousand hit points (ibid.). The first battle against a Cyberdemon occurs late in the game (stage 20 of 30), so the player will likely have the whole arsenal at their disposal.[1] But, even with a powerful weap-

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1   To be precise, the Cyberdemon does appear in one relatively early stage in the first third of the game—map number eight, called "Tricks and Traps." However, two factors make this encounter more of an intellectual puzzle than a battle: First, the monster is located in a room with several Barons of Hell (smaller goat-legged monsters). These are all facing the Cyberdemon, which is standing opposite to the entrance, looking back at them. When the player character walks in, the Cyberdemon detects it and

on like the rocket launcher, 45 direct hits are required to take down the behemoth. With the plasma rifle, which deals less damage but has a much higher rate of fire, the monster needs to be hit around 180 times.

Figure 3.8: The Cyberdemon in the original DOOM.

Source: http://doom.wikia.com/wiki/Cyberdemon (accessed January 24, 2018).

A blast of the BFG9000, which can dispose of several enemies at once, is not enough to defeat a Cyberdemon, who can withstand up to three *direct* shots from the weapon. The BFG does have a few limitations, which make it challenging to land a direct shot on the monster while dodging the missile barrage that it constantly hurls at the player. First, its firing rate is extremely slow. From the moment the fire button is pressed until the weapon fires, almost one second elapses.

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starts firing, damaging the Barons, who start attacking back. Thus, the player only needs to use the Barons as cover and let them take care of the giant beast. The second factor that facilitates this encounter is the presence of potent power-ups in the room: one Soul Sphere that grants the player an additional 100% of health, and an Invulnerability Sphere (or more, depending on the difficulty level), which renders the player-character invincible for 30 seconds. Playing these cards correctly renders the encounter rather unchallenging. Additionally, the BFG9000 can be acquired in this stage for the first time, albeit in a secret area.

Second, ammunition for this weapon is in limited supply, and it is shared with the plasma rifle. It consumes forty plasma cells per blast, of which the player can carry 300 (600 with a backpack). Thus, the player can shoot the weapon a maximum of seven times (15 with a backpack) before it runs out of ammunition. Once the plasma cells are expended, the plasma rifle is rendered useless as well. Therefore, as argued in the previous chapter, it is clever to save the plasma cells for challenging sections.

Following the principle of location and the linear stage structure described in section 1.2., difficulty in DOOM II gradually increases as the player advances through the gameworld. The game's progression is thus closely tied to the organization of objects in space and the linear sequence of stages. Correspondingly, the player character acquires more powerful weapons as time passes and more distance is covered. In multilinear games, players might encounter a challenge early on that requires better skills or abilities than those they possess, forcing them to explore other paths in search of the means to meet the challenge. In a linear game such as DOOM II, players obtain the tools to meet future, more demanding challenges in advance. In terms of the typology introduced in section 1.2: *character progression* antecedes *gameworld progression*. Once the player receives a weapon of such great power, an expectation is placed. The BFG9000 is an omen of things to come.

CHEKHOV'S GUN

The nineteenth-century Russian writer Anton Chekhov left a vast collection of letters behind after his death. Among everyday matters, his views on political issues, and comments on his main occupation as a physician, his epistolary exchanges include writing advice to friends and colleagues (Chekhov 2004). One of these pieces of advice came to be known as *Chekhov's gun*. In a letter of 1889 he wrote the following comment (my emphasis):

"I've read your farce. It's wonderfully written, but the structure is unbearably bad […] Dasha's first monologue is completely superfluous and stands out like a sore thumb. It might have been functional had you decided to give Dasha more than a minor role, in which case it would have had some relation to the rest of the play […] *One must never place a loaded rifle on the stage if it isn't going to go off. It's wrong to make promises you don't mean to keep*" (in Goldberg 1976, p. 163).

Chekhov's maxim is related to the literary device of foreshadowing (that is, elements in a story that hint at events to come), since the gun in question generates expectations, but it is rather an admonition of the inclusion of unnecessary elements in a story. All elements in a tale need to fulfill a narrative purpose or be removed. The gun stands for any salient object or event that might capture the audience's attention and generate expectations about the fictional world—in the above quote, it is a monologue that gives a minor character too much relevance. If these expectations are not satisfied in any way, the event or object that produces them ought to be left out of the story. However, Chekhov's advice should not be taken too literally. A table in a dining room need not fulfill any other purpose other than being a prop, since it is expected to be there—the absence of a table in a dining room would be more salient than the table itself. A gun, on the other hand, is an instrument that can be used to take someone's life, so it commonly attracts attention and signals the potential for death—or a character's intention to kill—, which is likely why Chekhov used one as an analogy.

Chekhov's gun can be applied to video games in two ways. The first one is, naturally, in narrative. While telling a story with the medium of the video game, this piece of advice is as useful as it is for theater, literature, or film. The second way pertains to game mechanics. *Chekhov's BFG* would then state that if you give a player a gun, then you need to give them a reason to fire it. Each ability or weapon acquired by the player character should be mirrored by a suitable challenge in the gameworld: For every BFG9000 there should be a Cyberdemon.

Unbalanced mechanics can make games too easy or unfairly hard and disrupt the sense of flow that an actual challenge can elicit (see section 3.1). They can thus lead to boredom or anxiety. But they can also lead to the disappointment produced by unfulfilled expectations.

VISIONS OF THE FUTURE

Expectations are events that are likely to occur from the perspective of an observer; they are the possible futures that players work with when they plan ahead. As argued in section 2.1, games are characterized by having uncertain outcomes, typically leading to two primary scenarios: player success or player failure. Players typically expect different possible outcomes from a situation and try to act in ways that will narrow the range of possible results to those that they consider desirable.

Jesse Schell (2008, pp. 26-27) and Salen and Zimmerman (2004, pp. 165-166) argue that surprise is a central component of games. From a simple set of

events that can occur on screen, a large number of combinations of events can *emerge*. Predicting which events will emerge is crucial for success, but not always possible. Through *emergence*, surprises commonly ensue. But the term "surprise," while correct, can be imprecise. After all, it is actually easy to design a surprise. Just make something completely unexpected happen, and players will certainly be surprised, since they could not anticipate it. When playing SUPER MARIO BROS., if I press the jump button and Mario suddenly explodes, I will be surprised. But that does not seem like a recommendable design feature. Some things in the gameworld need to remain constant, while others can change in expected or unexpected ways. The question is: How far should events in a game stray from the player's expectations? Introducing the concept of *suspense* in contrast to a *surprise* can help with the answer.

Time is the ingredient that marks the difference between an event being a mere surprise and a suspenseful development. The German writer and philosopher Gotthold Ephraim Lessing reflected on this distinction in the dramatic notes he wrote between 1767 and 1769:

"By means of secrecy a poet effects a short surprise, but in what enduring disquietude could he have maintained us if he had made no secret about it! Whoever is struck down in a moment, I can only pity for a moment. But how if I expect the blow, how if I see the storm brewing and threatening for some time about my head or his?" (Lessing 1890, p. 377).

In other words, if the story lets the audience know in advance that an event might occur, it creates suspense. A player or reader includes it as a part of their model of the world and comes to expect it. From that moment, all events are interpreted in association with this expectation. If, instead, the event happens abruptly, without warning, it is a surprise. Surprises force players or readers to hastily readjust their mental model to include this new event and make sense of it. Lessing makes his general preference for suspense clear when he states that "for one instance where it is useful to conceal from the spectator an important event until it has taken place there are ten and more where interest demands the very contrary" (ibid.). A sudden surprise is a fleeting experience, and it might come across as gratuitous or a mere shock effect in the context of storytelling. Suspense, on the other hand, opens the possibility for future events from an early moment and takes the audience for a ride with one or more possible destinations. The delight of a well-crafted story lies partly in the interplay between the audience's predictions and the unfolding of events.

Over a 150 years later, filmmakers Alfred Hitchcock and François Truffaut echoed Lessing's thoughts in a famed conversation.[2] Truffaut defined suspense as "the stretching out of anticipation" (Truffaut 1984, p. 72). Hitchcock illustrated the distinction between *suspense* and *surprise* with the following example:

"We are now having a very innocent little chat. Let us suppose that there is a bomb underneath this table between us. Nothing happens, and then all of a sudden, 'Boom!' There is an explosion. The public is *surprised*, but prior to this surprise, it has seen an absolutely ordinary scene, of no special consequence. Now, let us take a *suspense* situation. The bomb is underneath the table and the public *knows* it, probably because they have seen the anarchist place it there. The public is *aware* that the bomb is going to explode at one o'clock, and there is a clock in the decor. The public can see that it is a quarter to one. In these conditions this innocuous conversation becomes fascinating because the public is participating in the scene. The audience is longing to warn the characters on the screen: 'You shouldn't be talking about such trivial matters. There's a bomb beneath you and it's about to explode!'
In the first case we have given the public fifteen seconds of *surprise* at the moment of the explosion. In the second case we have provided them with fifteen minutes of *suspense*" (ibid., p. 73).

In linear, non-interactive media like film or literature, audiences can try to predict the flow of events that are out of their hands. Either Hitchcock's characters will notice the bomb or not. If they find it, they might either defuse it, run away from it, or still be caught in the explosion. Audiences that possess knowledge ignored by characters need to wait and see if events will unfold in the way they expect them (or want them) to. Expectations in linear media take the form of the question: "what are the characters going to do next?" In video games, this question can still shape expectations, but players additionally ask "what am I going to (have to) do next?"

The relation between player and character knowledge works differently in video games. Section 2.2, The Groundhog Day Effect, analyzed how players can act with knowledge that the player character does not have. If players know that there is a bomb under a table, they will control the player character differently and do whatever they can to avoid being caught in an explosion. Hitchcock's brand of suspense, which relies on an asymmetrical knowledge relation between viewer and character, is thus a futile exercise at the level of the mechanics. But suspense is certainly achievable in games. If the player is informed of the bomb

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2   The connection between Hitchcock's and Lessing's musings was noted by film scholar David Bordwell (2013).

under the table in a video game, then the suspense would arise from the player's own capacity to deal with the situation—not by wondering whether the characters will notice the bomb or not.

Schell (2008, p. 27) illustrates the importance of surprise with a study conducted by psychologist Gregory S. Berns and coworkers (2001). In this study, participants were delivered water or juice into their mouths through tubes, while their brains were scanned via functional magnetic resonance imaging. Some participants received water and juice at regular and others at irregular—and thus unpredictable—intervals. The study revealed that those participants that received the stimuli at irregular intervals experienced more pleasure than those who could predict if water or juice was coming next. Thus, Schell argues, surprise can enhance enjoyment. But the participants knew that they would receive either juice or water. There was no condition in which they could suddenly be delivered vodka without previous warning. The outcome was always within the range of the participant's expectations, and it never subverted them. Thus, by differentiating surprise from suspense, the conclusion should be that suspense enhanced enjoyment in this experiment, and not surprise.

FALSE EXPECTATIONS

In video games, players commonly control a player character who can equip different items. Players need to figure out what events these items can initiate and what effects these events have in different contexts. Sometimes the use of an item is patent because it is a digital counterpart of a real-world object. If a player finds a gun in a gameworld that is portrayed as having very similar characteristics to the real world, then there is little need to ask what the object is for. In CALL OF DUTY: MODERN WARFARE 3, the use of weapons is straightforward. Practice is needed to learn the exact way each firearm works, but their purpose is clear: They shoot bullets, which are used to take down enemies. In the case of the BFG9000, it is clear that it is a weapon, but the player needs to fire it at least once in order to understand its capabilities.

Other times, when the use of an item is less obvious, games give instructions through text or other forms of exposition. The video game PORTAL, for instance, puts players in the shoes of Chell, a woman in charge of testing a portal gun in an experimenting facility. The first minutes of the game are designed to progressively teach new players how the game's main mechanic works and introduce them to the logic of test chambers. During the first section, players are guided by an artificial intelligence called GLaDOS (Genetic Lifeform and Disk Operating

System). However, before giving players a fully-functioning portal gun, the game walks them through a couple of easy puzzles where orange portals are opened by the AI on specifically marked walls. Only after a few puzzles, the player encounters the portal gun rotating on a pedestal, automatically shooting blue portals. Blue portals connect to orange portals, and there can only be one of each open simultaneously. At this point, the player can pick up the portal gun and start shooting blue portals. Orange portals, however, are still opened by GLaDOS. The following puzzles teach the player the complexities of manipulating portals in different test environments, but only by having them open one of the two portals. After learning how to work with pressure-sensitive buttons, companion cubes, energy pellets, and moving scaffolds, the player obtains a new portal gun that shoots both blue and orange portals.

Figure 3.9: PORTAL.
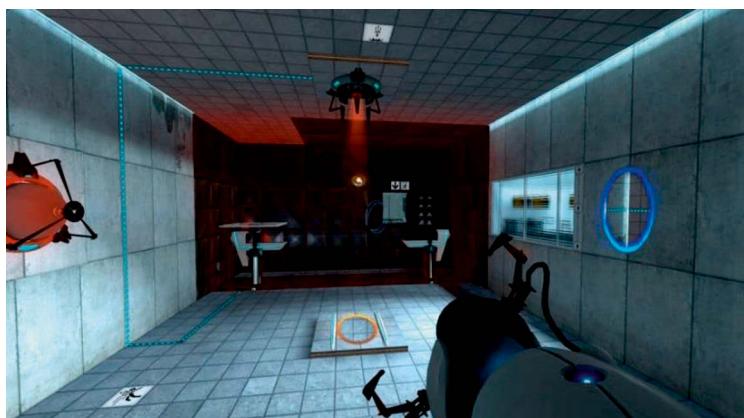
One of the game's early test chambers. The yellow orb at the center of the image traveled from the spherical contraption that fired it to the left of the screen, through the blue portal on the right, to come out from the orange portal on the floor. The orb will hit the light-emitting device on the ceiling, activating the moving platform located in the background.

In yet other cases, games leave players in the dark as to what the function of an entity is or what effects it can have on other entities. MINECRAFT, for example, is an intricate game that tells players remarkably little about how to play it. The game's survival mode primarily consists of garnering resources and surviving in a vast procedurally-generated world. Players need to obtain raw materials to cre-

ate tools, build shelters, cook food, and craft weapons to fight the game's monsters. There is no main objective other than staying alive and exploring the enormous gameworld. The game also has a complex system of crafting that starts with the creation of a set of items (swords, axes, chests, doors, ladders) with basic materials (wood, stone) and gradually advances until the player can mine and use more valuable and durable resources (iron, diamond) that allow for the crafting of more powerful tools. But MINECRAFT does not tell the player how to create these items or garner resources, or even what items can be crafted and to what ends. Players need to either find out by themselves or resort to the numerous online sources of information, such as the official MINECRAFT Wiki (2018), which contains a compendium of knowledge garnered by the game's community.

There is another truth to creative work: rules are made to be broken. Once a medium's conventions are established, subverting them can yield interesting results. For all its obscurity, MINECRAFT is a game that makes sense once its logic is learned. It has a clear progression, stable rules, and every element plays a function in the system. Other games are not so systemically coherent. The expectations generated by a game's progression can lead to false assumptions, and even some entities might be placed just to confuse or mislead players.

The RESIDENT EVIL HD REMASTER analyzed in the previous chapter gives players a handgun and a combat knife as starting weapons. Both are weak weapons that do not deal much damage to enemies and, especially in the case of the knife, can prove challenging to use. Later in the game, players can acquire a shotgun. This weapon is more powerful than the initial two and can take out zombies efficiently. The problem with RESIDENT EVIL is that it is not always clear which enemies one should engage and which not. Zombies can be defeated, but sometimes it is best to run past them and save the ammunition. Boss fights usually require eliminating the enemy with gunfire, but this is not always the case. The first of two encounters against Yawn, a giant snake, can be ignored entirely. With Chris, the player can enter the room where the snake is located, pick up an important item, and then head back out again. With Jill, the player can get help from a non-player character, which will shoot at the snake until it leaves. Only in the second fight against Yawn players need to fire at it until it is defeated. Shooting Yawn during the first encounter is an exercise in wastefulness, but the game does not inform the player of this. Thus, players might be tempted to waste shotgun shells on the snake to no effect. Shooting at Yawn will make it leave, but at the cost of resources that could have been saved for later.

At a later point in the game, the player will come across a character called Lisa Trevor. She is a victim of experiments that have left her highly deformed

and attacks the player character every time she gets a chance. Lisa's attacks are slow but powerful. There are three encounters with Lisa in total, and she can only be defeated in the last one. During the first two, the player should simply avoid Lisa, given that she is completely impervious to attacks. Once again, the game does not inform the player of Lisa's invulnerability. In the first encounter, players might squander shotgun shells, as they did with Yawn. Ammunition does not damage Lisa, but shots can make her recoil. During the third and final encounter, the player can fire at her until she falls off the platform on which the fight takes place. But an attentive player would notice that there are four boulders on every corner of the platform. The boulders connect to chains, which are attached to a stone grave on the other end, where Lisa's mother is buried. Dropping all the rocks off the platform reveals the remains, a sight that overwhelms Lisa, who grabs her mother's skull and drops off the edge of the platform. Lisa can thus be beaten without spending a single round of ammunition.

Figure 3.10: Resident Evil HD Remaster.

Lisa Trevor approaches Chris Redfield.

Red herrings are devices used in storytelling to misdirect the audience. They are typical of crime or mystery stories. For example, an innocent character might become the suspect of murder if they come back from the woods with a shovel and mud on their boots after the disappearance of another character. Both Lisa Trevor and the first encounter with Yawn are *mechanical* red herrings. The encounters can be entirely avoided, but players might still fire at the threatening monstrosities with everything they have, losing valuable resources that would be

useful in other encounters. Players might be prone to thinking that Lisa and Yawn are the Cyberdemons to their shotgun.

A further example of misdirection in video games is DARK SOULS (From Software 2011), a decidedly challenging action role-playing game. As RPGs usually do, it starts with a character-creation screen. Here, players can equip a gift to start out with. These gifts vary from very useful items, such as a key that opens closed doors, to not-so-useful items, like a pair of binoculars. One of the gifts is a mysterious pendant, whose description reads: "Trinket. No effect, but fond memories comfort travelers." This item was the object of much speculation among DARK SOULS enthusiasts, who spent considerable amounts of time and energy in trying to elucidate its real function.

Figure 3.11: DARK SOULS.
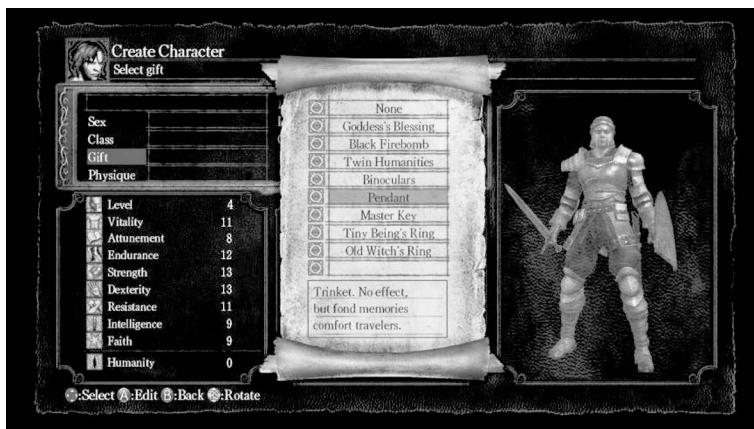
The menu in the character creation screen where the gift can be selected. The option "Pendant" is highlighted.

According to the game news site IGN, DARK SOULS' creator Hidetaka Miyazaki fueled this intrigue in an interview with the Japanese site Famitsu, where he stated that he either plays the game with the pendant or nothing (Stanton 2012). Later, in an interview with Game Informer, when asked about the pendant, he exhorted players to look for answers: "I cannot tell you here how you use the item. I still want people to try investigating the meaning of the item. Please find it out on your own!" (Kollar 2011). Players tested several theories, always to no avail, and shared their attempts on venues like Reddit (2011). Finally, in conversation

with IGN, Miyazaki confessed that the pendant was actually a prank, and that it had no special function whatsoever (Stanton 2012).

DARK SOULS is famous for its extreme difficulty.[3] Mastering the game requires a significant amount of practice and patience. The mechanics, much like in MINECRAFT, are not clear to beginners. The workings of the game need to be uncovered through painstaking trial and error or by consulting online sources, such as Wikis and video tutorials.[4] Furthermore, the history of DARK SOULS' stunning medieval-fantasy world is shrouded in mystery, and its different locales hide countless secrets, inviting constant exploration. The story of the game needs to be pieced together from snippets of information that are scattered throughout the intricate architecture of its castles, crypts, and churches. Taking these facts into account, it is understandable that players expected the pendant to possess some secret use or meaning. Miyazaki may have anticipated as much when including this mysterious item in the game and locating it in a menu where players can choose from a variety of useful items.

Both DARK SOULS' pendant and RESIDENT EVIL'S unbeatable encounters with Yawn and Lisa Trevor transgress the principle of Chekhov's BFG. If the player expects certain items to have a particular function within a game's system, they will look for signs that confirm these expectations. DARK SOULS includes a mysterious but useless item in a world teeming with secrets to uncover. RESIDENT EVIL gives players a powerful weapon in a world where resources are scarce, only to slyly confront them with enemies that cannot be defeated. DARK SOULS' pendant is a practical joke that led players to take unnecessary risks and squander their time in the search for a meaning that was never there. In the case of RESIDENT EVIL, the red herrings are designed in a way that can trick the player into wasting valuable resources. Both are challenging games in which the obscurity of the mechanics contributes to their steep difficulty. They create false expectations, like mirages on the temporal landscape, which misdirect players into making the game even harder for themselves.

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As chapter three has shown, video games take different approaches to the temporal landscape. Genres like strategy or survival horror require players to maintain a future-oriented time perspective in order to succeed. Action games, like

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3   The Guardian, for example, listed DARK SOULS under "the 25 hardest video games of all time" (Stanton and Freeman 2016). IGN editors included it among "the hardest games we've ever played" (IGN 2014).

4   See for example the DARK SOULS REMASTERED Wiki (2018).

platformers or first-person shooters, demand a more present-oriented perspective. Privileging one time frame over the others has an impact on the players' behavior and their experience of time. Video games can also make players move faster through the landscape by eliciting the state of flow, the phenomenon that explains why hours go by like minutes while playing. While video games can somewhat slow down the player's experience of time (recall the giraffes in THE LAST OF US), the most extreme cases of slow-motion perception are out of bounds for them—these cases only occur during sudden, life-threatening situations. Video games, as safe activities, can only simulate these experiences (in a rudimentary way, at least so far), as exemplified by the bullet time mechanics popularized by MAX PAYNE. Towards the landscape's horizon lie the players' expectations, which influence the paths players choose as they approach the future. This final section has argued that expectations are a key ingredient in the generation of suspense, which contributes to our enjoyment of video games (and numerous other forms of entertainment). But expectations are a double-edged sword, since game designers can use them to point players in the wrong direction and increase a game's challenge.