

The Heuristic Circle of Gameplay: the Case of Survival Horror

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Abstract: Based on a previous analysis of the cognitive interactivity of movie viewing, this paper examines the circularity at the core of the gameplay experience. Taking the survival horror genre, and more particularly the game *Cold Fear*, as a case study, it describes the activity as a heuristic circle. If playing a videogame is stepping into a magic circle as Huizinga phrased it, it is also engaging in a magic cycle of questions and answers, of analysis and implementation, of input and output.

Keywords: Gameplay, survival horror, perception, cognition, schema, skill, analysis, implementation, movie.

INTRODUCTION

As Tom Hansen, a U.S Coast Guard, you are sent at the beginning of *Cold Fear* (Darkworks/Ubisoft, 2005) on a rescue mission in a middle of a nocturnal storm. You board a Russian whaling ship. Having explored the main deck, avoided some heavy waves, killed two hostile soldiers upon your entrance inside (we'll come back to this later), and heard the voice of a woman behind a door locked with an unknown code, you go down a staircase to the "Portside Cold Rooms". You end up in a flooded hallway. At the far end, a corpse is floating. In front of it, an object glitters under the water (Figure 1).

What are you going to do? Or rather, what are you already doing? Of course, you are interacting with *Cold Fear*. But at what level? And how? Highlighting the interactions between a player and a game, and focusing on the player's actions, Tom Heaton has recently described a relevant circular model to understand gameplay experiences (2006). As this notion of circularity responds to a found cognitive view and to a cycle which I've previously introduced to explain the spectator's activity, I wish to cast more cognitive psychological light on Heaton's model, applying my thoughts to video games and to continue my analysis of the Survival Horror genre by using it as a case study, and more particularly *Cold Fear*. If the cognitive approach to film rests upon a general theory of perception and cognition as Bordwell demonstrated it (1985), it is even truer for the gamer's experience.

COGNITIVE INTERACTIVITY

Talking about horror movies in a paper entitled "Une machine à faire penser" (a thought-triggering machine), I underlined the fact that the notion of genre, seen as a prefabricated formula presupposing a set of conventions and expectations, was a great help in showing that the spectator was mobilizing (consciously or not) perceptual and cognitive processes during the viewing of a movie. More interested in the ludic ("entertainment with rules known to everyone" (Cawelti, 1971: 32)) than the ritual or oneiric cultural dimensions of genre, I asserted that

the fundamentally ludic space of genre (and of all narrative cinema) [was] always the scene of a confrontation between the filmmaker and the spectator. As the former tries to outsmart the public by foiling his generic and narrative expectations, the latter tries to see the trick and be shrewder (while enjoying being caught up in the game). This duel has to be played in the limits of conventions [1995: 81, freely translated].

A spectator going to see a horror movie has in mind that he is meant to be scared, frighten and/or horrified by someone and/or something monstrous and threatening (to remain with the example of the videogame, the zombie-like mercenaries and mutant creatures in *Cold Fear*) on the rampage in eerie times (at night and during in a storm for instance) and places (as the small rooms, narrow corridors and unsteady decks of an almost deserted ship or the just as austere spaces of an oil platform -- which is the second game set of *Cold Fear*). He has a horizon of expectation (Jaus) based on his generic memories. I theorized the spectator's activity by showing how the spectator was constantly engaged in a circular process while making sense and taking pleasure in genre.

Inspired by the perceptual cycle elaborated upon by Ulric Neisser in *Cognition and Reality Principles and Implications of Cognitive Psychology* (1976), I introduced a cycle (Perron, 1995) what I have called a heuristic circle in order to describe the process and explained in more detail the aforementioned circle in a later paper (Perron, 2002) (Figure 2).

This circle transforms the successive model usually used by the cognitive film approach to explain the dynamic perceptual-cognitive activity of the spectator, namely the spatial metaphor of the bottom-up and top-down processes. The bottom-up process is data-driven. It examines the elementary characteristics of the audio-visual information, has a short-range effect and proceeds from the part to the whole, from the particular to the general. As for the top-down process, it is concept- and schema-driven². Flexible, it organises the data according to acquired knowledge, expectations and goals. It proceeds from the whole to the part, from the general to the particular. Since, as Neisser has stated, "we cannot perceive unless we anticipate, but we must not see only what we anticipate" (1976: 43), the two mental operations work in constant interaction. As in reality, it



Figure 1
Hallway of the Portside Cold Rooms
Cold Fear (Darkworks/Ubisoft, 2005)

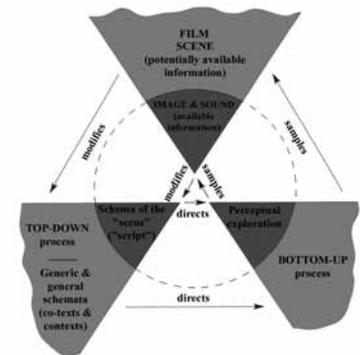


Figure 2
The Heuristic Circle of Movie¹

¹I'm modifying the figure slightly by leaving out the four processes characterizing the schema concept. It is also important to note that the two shades of grey correspond to the two last levels of the memory's architecture (as presented in Perron, 1994): the boldest grey inside the circle refers to the working memory, and the palest one outside refers to the long-term memory.

²The notion of schema has been introduced by Frederic C. Bartlett in his famous *Remembering. A Study in Experimental and Social Psychology* (1932). But I will give Neisser's definition since it's thought of in relation to a circular model: "A schema is that portion of the entire perceptual cycle which is internal to the perceiver, modifiable by experience, and somehow specific to what is being perceived. The schema accepts information as it becomes available at sensory surfaces and is changed by that information; it directs movements and exploratory activities that make more information available, by which it is further modified" (1976: 54).



Figure 3
Hallway of the Portside Cold Rooms
Cold Fear (Darkworks/Ubisoft, 2005)

³This knowledge might be acquired by the view of many films where a similar scene takes place. It could be through *Resident Evil - The Movie* (Paul W.S. Anderson, 2002). In a scene, although Spence Parks has been left quite smashed up by the attack of the licker, he jumps to Alice when she comes to get the antidote left by his side. Or by having seen *The Evil Dead* (Sam Raimi, 1981) which played with this differently. When Cheryl recovers her gentle voice for a moment and asks Ashley to unlock the chains of the trap door to let her out, she becomes silent in order to better let her evil side suddenly grab Ashley through the floor.



Figure 4
Cold Room 2
Cold Fear (Darkworks/Ubisoft, 2005)

is the familiarity with the object, place or event that determines which one of these will dominate. If the unfolding of a scene is new and it is difficult to predict what will come next, the spectator will rely more on the images and sounds in trying to make sense of such an event. The bottom-up process will be more activated. But if the beginning of the scene matches a general knowledge schema (context) or a generic narrative schema (co-text), the top-down process takes the lead and the spectator is looking for a confirmation of his expectation. It directs the way the information is sampled. It focuses the perceptual exploration on sounds and images relevant for the understanding of the situation while discarding the others (do you really notice the props in a scene if they are not used or referred to?). You engage yourself in a specific heuristic circle in order to maximise your perceptual-cognitive activity. For example, in *Cold Fear*, you already made a circle by seeing that what is floating is a corpse and not just, say, a safety water vest. Then, anyone familiar with the horror genre knows that the dead are not always totally dead, especially the living dead needless to say. Relying on generic memories which “persist even when the individual episodes that gave rise to them have been entirely forgotten” (Neisser, 1989 : 73), you’re in a good position to guess that the floating corpse will at one point jump out at you when you will attempt to get the glittering object in front of him³ (Figure 3).

You then keep your eyes on the corpse. However, you might be caught up in the game later when you’re coming back to explore the Cold Room 2. This time, a zombie-like mercenary lying on the floor attacks you immediately when you get close to the capsule where the corpse of the Captain is kept. Since you killed this enemy and looked around this part of the room, you take the captain’s quarters key and leave, only to see another ExoMutant springing out behind you from another capsule (Figure 4).

As in the previous case, a rapid change of camera angle enhances the surprise effect. Otherwise, since horror movies (and games) like to create startle effects, they often make sure top-down processing will not be of a great help by looming up in the face of the spectator monster lurking just outside the frame or by sending many monsters coming from everywhere into the attack.

Perception is “the basic cognitive activity out of which all other must emerge” (Neisser, 1976: 9), and it is those other activities (transformation, manipulation, reduction, division, storage, recovery, elaboration, utilisation, etc.) that matter the most. As Edward Branigan wrote in *Narrative Comprehension and Film*:

How pictures acquire a narrative significance cannot be reduced to how surface features and techniques are delineated, or marked by bottom-up perceptual processing, but instead must be analyzed in terms of the top-down cognitive processes which drive us to offer descriptions and apply (macro)propositions to what is seen and heard and read (1992: 169).

Jerome S. Bruner has introduced an expression now seminal to define this phenomenon: “going beyond the information given” (1957). Comprehension doesn’t work without inference or anticipation. Looking at “G*M*PL*Y”, you’ll easily recognize the word “GAMEPLAY”. The more knowledge a person has about a particular field or an environment where he is, the more he will be able to go beyond the information given. Neisser has criticized this analysis. Referring to his perceptual cycle, he stated that since no one is removed from the world surrounding him, “[p]erceiving is a matter of picking up information, not of going beyond it” (Neisser, 1976: 182). It is through picking up as much relevant information as you can that you are able to make connections to prior knowledge. Unsophisticated perceivers turn to superficial features, as skilled ones can pick up subtle ones. You do not go beyond “G*M*PL*Y”, you apply it in relation to “GAMEPLAY”. However, in order to “go beyond” the “picking up information” while really considering the question of circularity, I advanced (2002) an expression that I consider even more suitable to explain the perceptual-cognitive activity, that is “going in circles around the question” (*faire le tour de la question* in French where the word circle is singular in the expression). An heuristic (alteration of Greek *heuriskein* «find») being a method of exploration that proceeds by successive assessments and temporary hypothesis and that doesn’t guarantee an answer or precise solution, the heuristic circle indeed makes explicit that the spectator must first sample the information that is provided to him (bottom-up process) to better infer the knowledge or behaviour that best suits the situations (top-down process). It is often necessary to consider a problem from all angles, to circle around a question many times. In a diachronic unwinding⁴, as the one of a movie (or of a

⁴As opposed to the synchronic view of a printed book.

videogame), you have to see if there will not have an “I” or “E” before to make sure that “G*M*PL*Y” does not lead to “GAMEPLAYING” or “GAMEPLAYER”. Time is therefore very important. You have to wait until the end of a scene or of a narrative segment to grasp its full significance. Noel Carroll’s notion of erotetic narration and its logic of question/answer (1988: 170-181) puts forward that this is akin to problem solving. Throughout a popular narrative movie, the spectator will be confronted with many micro-questions and will have to infer some sort of answers before encountering the one provided by the movie. He will have to «struggle to manage different and often conflicting interpretations of data» (Branigan, 1992: 38) before getting the final macro-answer/s (will the hero save the girl and preserve the world from the creation of powerful biological weapons?).

The precedent theorization of the heuristic circle dealt with what Eric Zimmerman has called a cognitive interactivity, or a comprehensive⁵ participation with a text (2004: 158). It is certainly applicable to study of the videogame, but it needs to be adapted. What has to interest us here is the explicit interactivity, or the participation with designed choices and procedures in a text. Playing a videogame might be stepping into a magic circle (Huizinga), but it is also engaging in a magic cycle of questions and answers, of analysis and implementation, of input and output.

THE MAGIC CYCLE

To refer to the title of one of Torben Grodal’s articles, whereas movies are story for eye and ear, videogames are story for eye, ear and muscles. They constitute an embodied story experience.

The interactive capability... raises a series of new problems that were absent in the earlier media, but are similar to those raised by interacting with real-life phenomena on a first-person basis. The reader/viewer of “traditional” mediated stories needs only to activate some general cognitive skills, including the ability to have some expectations. The story will proceed even without such expectations. The computer story, in contrast, is only developed by the player’s active participation, and the player needs to possess a series of specific skills to “develop” the story, from concrete motor skills and routines to a series of planning skills [GRODAL, 2003: 139].

Perception and cognition are, following embodied cognitivism⁶, not just operations in the head. They are transactions with the world, be it the real world or a virtual one, and lead to actions. Those transactions can be thought as ongoing cycles.

As Neisser’s thoughts demonstrate, such a notion of circularity is a found view. In video game studies, for instance, Grodal describes the video game playing by a flow⁷ model:

The basic story experience consists of a continuous interaction between perceptions (I see a monster approaching), emotions (I feel fear, because I know or feel that monsters are dangerous), cognitions (I think that I better shoot the monster), and an action (the actual motor act of shooting that changes the motivational emotion fear into relaxation) (2003: 131).

Indeed, although we often separate emotion and cognition in the analysis, we should not forget that they work together. An intense emotional episodic experience can leave a deep mark in memory and be an important trigger for learning (anyone who has crossed a fence with the sign “Beware of Dog” and has subsequently been chased by the aforesaid dog does not trespass as freely afterward). In that perspective, the probing principle of learning, which is one of the thirty-six principles at work in videogames as distinguished by James Paul Gee, engages a four-step process:

1. The player must probe the virtual world (which involves looking around the current environment, clicking on something, or engaging in a certain action).
2. Based on reflection while probing and afterward, the player must form a *hypothesis* about what something (a text, object, artifact, event, or action) might mean in a usefully situated way.
3. The player reprobates the world with that hypothesis in mind, seeing what effect he or she gets.
4. The player treats this effect as feedback from the world and accepts or *rethinks* his or her original hypothesis (2003: 90).

⁵For the sake of my talk, I’m speaking about comprehension and not of “interpretative participation” as Zimmerman does. But we certainly should not oppose straightforward comprehension and interpretation.

⁶See for instance GRODAL, 2003 and GREGERSEN, 2005.

⁷Any use of the notion of flow cannot prevent anyone from making a link with Csikszentmihalyi’s famous psychology of optimal experience.

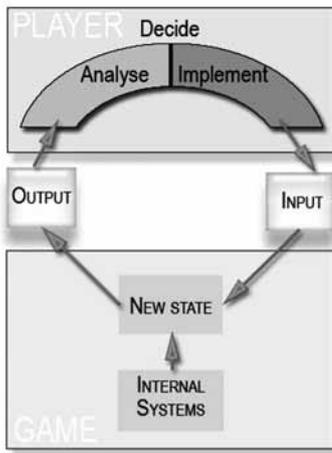


Figure 5
Heaton's Circular Model of Gameplay.

⁸To quote Greg Costikyan among many others: «A game is a form of art in which participants, termed players [or games], make decisions in order to manage resources through game tokens in the pursuit of a goal.» [(1994) 2006: 196].

⁹To show the application of the model, Heaton takes *Burnout 3: Takedown* (Criterion Games/EA Games, 2004) as an example.

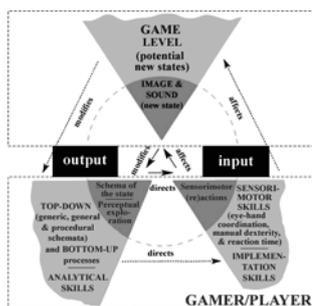


Figure 6
The Heuristic Circle of Gameplay

This process is not different from the model of gameplay proposed by Tom Heaton in his paper at *Gamasutra.com* (2006). Yet, Heaton relevantly decomposes the activity not just in relation to the player.

Since gameplay isn't, as the author of "A Circular Model of Gameplay" underlines, a "one-off action", his model cycles between the player and the game:

- The player must be able to get information about the state of the game.
- The player must be able to affect the game, creating new game states.
- New game states must be communicated to the player prompting further actions.
- The game creates new states without the player's input.

The possibility for the player to affect the state of the game is obviously what differentiates video game from film. And although the story of a film is unfolding, the upcoming events are fixed. The other important difference is that the game changes, and even through artificial intelligence, as for single player survival horror games, the game creates its own states which "offer a greater incentive to act than the new states created by the player" (facing restless monsters certainly prompts more action than the exploration of a place emptied of its creatures). However, what makes Heaton's model really apposite is that it both includes the interface in the cycle and pinpoints the basic and fundamental gameplaying activities (Figure 5).

We interact with a game by pressing buttons (alone or in combination) and moving around joysticks or a mouse (and soon by mimicking actual game actions at home with the Wii Remote and its attachments). The game responds by displaying images, sounds and sometimes vibrations. This can't be ignored. Be that as it may, playing a game is not just about those inputs and outputs. In its most accepted definition, it is about making choices⁸. That is why Heaton puts a player's decision at the heart of each gameplay cycle. Still more interesting is the interrogation that this raises. "[I]t is productive to ask what happens between the observation and the decision and between the decision and the action. The answer is that the player uses skills to support the decision" (Heaton, 2006). In the first interval, the player uses analytical skills to reflect upon his choice, while in the second he applies implementation skills to execute this choice. Those skills help to bring a single complete cycle to an end at an arbitrary point. Heaton calls a closed cycle a unit of interaction. "Each unit of interaction requires analysis, decision, implementation and change in game state".⁹

Revisiting Heaton's well-thought-out circular model of gameplay in accordance with my previous thoughts, I will name the cycle a heuristic circle of gameplay and convert the first cycle which I introduced for use in the analysis of movies (Figure 6).

To encompass the "eye and ear", I've joined together the top-down and bottom processes on the left side. Above all, given the fact that those processes take place right after the outputs, this highlights the fundamental perceptual-cognitive activity of gameplay, namely the analytical skills. The implementation skills are on the right side. Since they rely on the "muscles", I considered them from the angle of sensorimotor responses. They are embodied skills. At last, insofar as the gamer's decision is at the heart of each gameplay cycle, and since as Heaton has underlined that "the gameplay may not break down neatly into a series of regular decisions, or multiple decisions may be made at once, or the player may not formulate a clear decision" (2006), I did not include a decision point in the cycle. Apart from a few exceptions, a decision culminates at the input point. The gamer affects the game or waits to do so. Now, to cast a more cognitive psychological light on the circular model, I "want to enter into the player's head" a bit more than Heaton does.

The survival horror games rely on the conventions of the horror genre. Like Janet Murray has written, "in a horror story I will always enter the haunted house. I perform these actions not because I have read a rule book but because I have been prepared to do so by exposure to thousands of stories that follow these patterns" (1997: 192). But Murray has never been as right when she said that "[g]enre fiction is appropriate for electronic narrative because it scripts the interactor" (1997: 192, I'm underlining). Because we can talk not only about pre-scripted scenes from a design perspective, but also from a cognitive one. A script is then defined according to the schema framework. Whereas, in those terms, a scene is the cognitive representation that spec-

ifies the general proprieties of places (such as the “kitchen” to take the most commonly mentioned example), a script is an event schema which describes generalized knowledge about an event sequence, its units and their order (such as the famous script “going to the restaurant”).¹⁰ Once again, Neisser has made a noteworthy comment: “The schema is not only the plan but also the executor of the plan. It is a pattern of action as well as a pattern for action” (1976: 56). You just don’t expect that the floating corpse in the flooded hallway of the Portside Cold Rooms of *Cold Fear* will at one point jump out at you (knowing “what”), you know what to do. You call upon a procedural knowledge (knowing “how”). Since you have to obtain the glittering object, and depending on your favourite strategy, you might be very careful and go get it slowly. The designers are aware of this, and that’s why they make the corpse jump only when you’re turned around to move away, in order to more effectively create tension. Or, you might want to run back and forth to get it. The designers guessed that also and programmed a cut so you inescapably would have to be attacked (i.e. Figure 3). Otherwise, you can follow the guidelines set by George Romero’s movies and called into action since 1996 in the *Resident Evil* series. Familiar with the only way to really kill a zombie, you will shoot the corpse in the head before getting to close, in order to do so in total safety (Figure 7).

You will probably reiterate the exercise upon each encounter with every motionless or injured zombie-like mercenary in order to ensure that he does not rise up. Yet, the situation will not always be as easy as the flooded hallway. It will require good implementation skills, which entails aiming accurately and sometimes quickly. If the game mechanics allow it as they do in *Cold Fear*, it will also be a good thing to learn to shoot while moving, especially while moving backwards.

Having the monster at the center of the videoludic experience of fright, the gameplay experience of the survival horror genre revolved around a main event schema: “facing up to the monster”. This is not as much a narrative schema than a gameplay schema. In this script, you enter a space (normally through a door that necessitates a loading time), encounter a monster, evaluate and manage your resources (by scanning the space to assess your movement possibilities, choosing the right guns according to the size or strength of the monster, estimating the number of ammunition left or looking at your health condition), survive the monster (by killing it or escaping it), look for or use a valuable item (a key, a necessary object, a gun, some ammunition, a health pack, etc.), and exit the space. Another important gameplay schema (related to adventure games) is “getting to the next place”: you get to a place, carefully look around, discover or receive (via a radio message as in *Cold Fear*) information (a clue, an item) about another place you need to go and find your way to this other place by getting over obstacles. In a survival horror game, you’ll replay those gameplay scripts until your avatar escapes the isolated place where he ended up to start off with. In *Cold Fear*, you search the entire whaler and oil platform before leaving by helicopter with Anna, the woman you heard screaming behind a locked door at the beginning of the game. There are indeed, as Heaton argued, usually “a relatively small set of interactions that are repeated many times, each time slightly differently or combined in a different way” (2006). It can therefore be said that the notion of genre, with its formulas and variations, serves very well the aesthetic of the video game:

In several respects, video games provide an aesthetic of repetition, similar to that of everyday life. A film is mostly experienced as a unique sequence of events, and we do not learn the physical outlay of a given simulated world very well, we are carried from space to space. In everyday life, however, we repeat the same actions over and over in order to gain mastery. When we arrive to a new city or a new building we slowly learn how to move around, and if we want to learn to drive or bike, we exercise those skills until we have acquired the necessary procedural skills. The video game experience is very much similar to such an everyday experience of learning and controlling by repetitive rehearsal (Grodal, 2003: 148).

As for any genre (and the video game in general to relate to what I said for cinema), we have to analyze the survival horror genre in terms of the top-down cognitive processes. But compared to the spectator, and I’m referring back to Grodal’s comment that opened this part of the paper, the gamer has to get in the heuristic circle of gameplay. This magic cycle is the fun of the game. The generic, general and procedural schemata concern knowledge of the possible events, not the details of the particular situations. Decisions are made in action. To quote one final time Neisser’s

¹⁰ About scenes, scripts, events and story schemata, see MANDLER, 1984.



Figure 7
Hallway of the Portside Cold Rooms
Cold Fear (Darkworks/Ubisoft, 2005)



Figure 8
Main Deck
Cold Fear (Darkworks/Ubisoft, 2005)

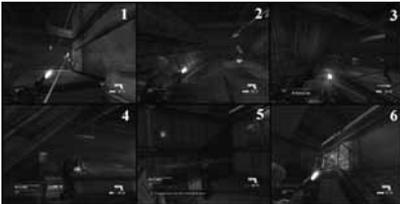


Figure 9
Propeller Shaft Room
Cold Fear (Darkworks/Ubisoft, 2005)

dialectical contradiction: “No choice is ever free of the information on which it is based. Nevertheless, the information is selected by the chooser himself. On the other hand, no choice is ever determined by the environment directly. Still, that environment supplies the information that the chooser will use” (1976: 182). It is one thing to be aware that many objects in *Cold Fear*’s environment can be used against your enemies (instruction guide), but another to use those objects. As easy it might be for a skilled gamer, you still have (in a third-person perspective) to scan the corridor to target the explosive barrel (seen in a cut-scene though) in order to maximize your action, that is to kill the two hostile soldiers hidden behind boxes and shooting at you to welcome you inside the main deck (Figure 8).

While you’ve learned bottom-up the basic skills of the genre by playing many survival horror games (Gee’s bottom-up basic skills principle (2003: 136-137)), you might also have to work from the part to the whole, to discover, step by step, the way to cross a specific place. For example, in the Propeller Shaft Room¹¹, you will find out that : 1) a first ExoMutant is waiting when you go up the stairs, 2) another one will break through the floor when you reach a certain point in the room, 3) raising the bridge to cross the pit calls three ExoMutants from the other side, 4a) crossing the bridge cues another one to break through the floor, 4b) a sixth ExoMutant drops from the ceiling when you walk on this side, 5) the required wheel for the fish hold door is at the far end of the room, and 6) the door to get out is locked by an electrical system that needs to be deactivated by shooting at it (Figure 9).

Once you are acquainted with this and have analysed the situation, you can decide on a procedure to maximize your actions (top-down process). But you also have to rely on the data (bottom-up process), because the game creates its own states. Actually, to start with, the first ExMutant does not always shoot at you right away. He may hide near the catwalk, or perhaps rush at you leaving you less time to react. And an ExoCel (a small parasite attacking with long tentacles) can at once be released from the defeated mercenary. The ExMutant’s actions entails you to strategically use your implementation embodied skills, which does better a gamer who has developed really fast moves and the capacity to shoot well in motion. The fact is that such an answer is not obvious. It demonstrates how pertinent it is to talk about heuristics. On the other hand, guaranteed results and pure algorithmic repetitions annihilate the carrying out of the cycle itself.

The concept of the heuristic circle adapts itself very well to video games. Even more than a spectator in front of a movie, a gamer enters into interaction with game in order to comprehend it, not so much as to interpret it. To solve it and progress until its end, he is thinking more in terms of heuristics than of a hermeneutic circle¹². As I’ve observed elsewhere (Perron, 2005), it’s appropriate to apply Carroll’s narrative model based on the logic of questions and answers to video games and to talk about erotic gameplay. The gameplay of the survival horror genre (and other genres as the first-person shooter and the stealth-based games) is about micro-questions that the gamer must answer. *Cold Fear* might not have an in-game map, nevertheless, it works by explicit micro-objectives that need to be attained¹³ (Figure 10).

It is not as much to know “what” to do that to know “how”. On his way to fulfill each of the objectives in order to, in this case, blow up the oil platform at the end of the game, the gamer will have to give moment-to-moment answers to the situations encountered, use memory to replay some sections and implement his decisions very well to succeed each test. Following the two gameplay schemata introduced earlier, getting the three charges will for instance ask him: 1) to find the supply room below the waterline, 2) to survive the assaults of monsters in the maintenance room and kill everyone of them to unlock the security system, 3) to succeed in crossing the supply room’s door protected by four laser trip mines, and 4) to exit alive from this supply room, a room filled with laser mines, explosive barrels and, to complicate things (nice question though), a monster (who can make itself invisible) attacking him after he puts his hands on the charges. The gamer will have therefore circled around the objectives many times.

CONCLUSION

The circularity is without doubt at the core of the gameplay experience. «It has to be, follow-

¹¹ You can save your game just before the entrance of the Propeller Shaft Room. But the next save point being further away, I replayed this section few times. One has also to note that there is a “good old shot gun” waiting for you at the top of the stairs besides a motionless ExoMutant sitting on the floor (of course, I followed the guideline and shot him the head). Otherwise, the confrontation with many ExoMutants in the storage shed of the oil platform would have been a better example. But it would have required much too long a description.

¹² Contrary to a heuristic circle limiting itself to referential and explicit meanings, the hermeneutic circle tries to (re)construct implicit, symbolic, symptomatic or repressed meanings.

¹³ I’ve previously used *Tom Clancy’s Splinter Cell* (Ubisoft/Ubisoft, 2002).

ing Heaton - the cycle is what the player is getting out of the game. In games the cycle is foregrounded - it's the reason for playing (2006). In continuity with the thoughts on genre and movie, and considering its specificities, there is no choice but to accept that the video game is a thought- and action-triggering engine.

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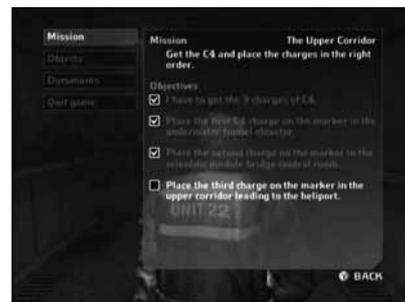


Figure 10
The Upper Corner
Cold Fear (Darkworks/Ubisoft, 2005)

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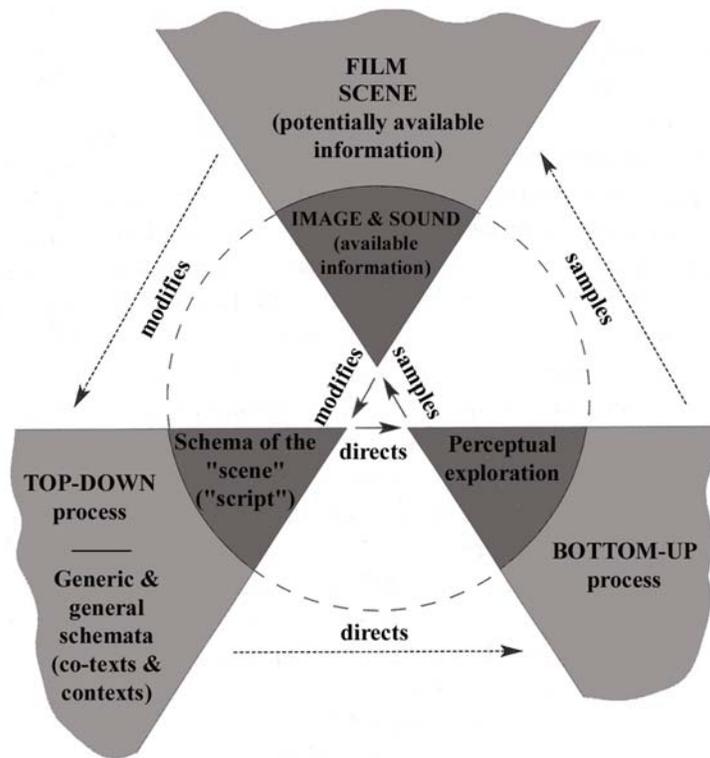


Figure 2: The Heuristic Circle of Movie

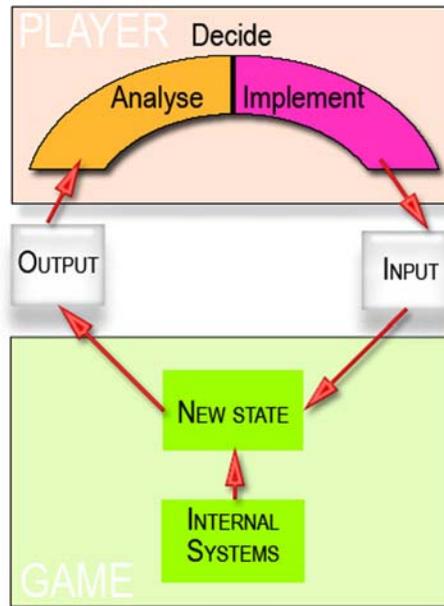


Figure 5: Heaton's Circular Model of Gameplay.

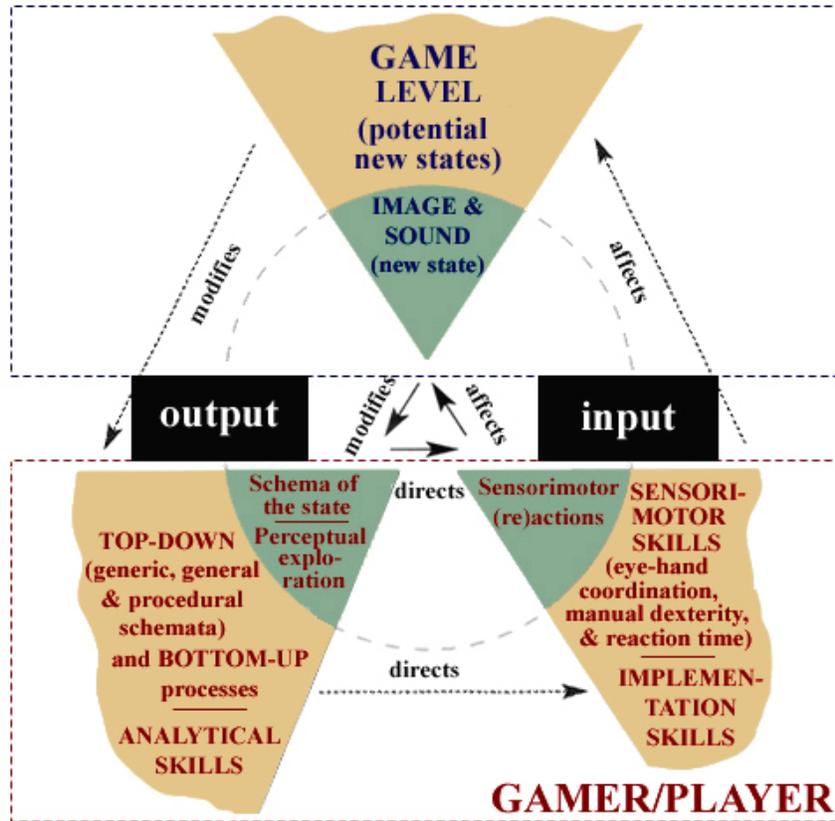


Figure 6: The Heuristic Circle of Gameplay