The Forking Paths of Open Your Eyes and Vanilla Sky

Carolina Ferrer Université du Québec à Montréal (UQAM), Canada

Abstract

In March 1992, researchers from both sides of the Atlantic Ocean inaugurated in Paris the conference *Épistémocritique et Cognition*, thus giving official birth to epistemocriticism. This new branch of literary criticism incites us to make a re-appropriation of culture as a whole. Essentially, this perspective calls on us to explore the relations between literature and science. The purpose of my paper is to extend epistemocriticism to film studies. Thus, I analyse how bifurcation theory and Borges's story "The Garden of Forking Paths" operate as main interdiscoursive artefacts in Alejandro Amenábar's *Open Your Eyes* and in Cameron Crowe's *Vanilla Sky*. Accordingly, I believe that extending this perspective to film studies, we can achieve a better understanding of what happens in these forking-paths films.

[**Keywords:** epistemocriticism, bifurcation theory, *Open Your Eyes*, *Vanilla Sky*, literature, science, Alejandro Amenábar, Cameron Crowe]

I shall be telling this with a sigh Somewhere ages and ages hence: Two roads diverged in a wood, and I--I took the one less traveled by, And that has made all the difference. Robert Frost

In Prelude to a Dream, the documentary about the making of Vanilla Sky, the filmmaker Cameron Crowe tells us how Alejandro Amenábar's film Open Your Eyes captivated him. His fascination with the Spanish movie led him to create a new version of it, a Hollywood remake. In his words, the film is "a story, a puzzle, a nightmare, a lucid dream, a psychedelic pop song, a movie to argue over and, most of all, a movie that extends an invitation. Wherever you want to meet it, it will meet you there" (Prelude). Thus, I have accepted this invitation and asked the meeting to take place at a crossroad: I compare both films from the viewpoint of epistemocriticism.i Specifically, I will approach them using the lens of the mathematical theory of bifurcations.

At the beginning of the nineties,ii this new branch of literary theory and criticism was developed by a group of researchers from France, Canada and the US. Epistemocriticism incites us to "make a re-appropriation of our culture as a whole: the past and the present, the sciences with the literature." (Pierssens 1993, 7).iii According to William Paulson, "the epistemocritical project is a defence and an illustration of literature: it's about refusing that literature be pushed to the aesthetical, formalist or

ideological margins by highlighting that the texts, knitted with knowledge, know way more than the fields of study" (121).iv

In the particular case of this study, I have a double reason for proceeding this way. On one hand, in 1991, Thomas Weissert shows in his article, "Borges's Garden of Chaos Dynamics," how the Argentinean writer "anticipated the two essential characteristics of the bifurcation theory's method of modeling natural systems - i.e., the frequent occurrence of random splittings in a system's dynamic flow and the inexorable nonlinearity of nature" (237). Thus, through Weissert's analysis, we evidence that Borges's story is a jewel in terms of epistemocriticism, for it's not only pregnant with scientific principles but it forestalls them. Accordingly, I believe that extending this perspective to film studies, we can achieve a better understanding of what happens in these forking-paths films, a category where Open Your Eyes as well as Vanilla Sky belong.v

On the other hand, in "Film Futures" David Bordwell compares four films - Sliding Doors, Too Many Ways, Blind Chance and Run Lola Run – with Jorge Luis Borges's "The Garden of Forking Paths." In his analysis, Bordwell states that "the exfoliating tendrils of Borges's potential futures have been trimmed back to cognitively manageable dimensions, by means of strategies characteristic of certain traditions of cinematic storytelling" (91). He then proceeds to chart what he considers seven conventions on which these forking-path films rely. Accordingly, he concludes that "whatever films or novels or plays we choose, though, I suggest that we will find that the concept of alternative futures will be adapted to the demands of particular narrative traditionspruning the number of options to those few that can be held in mind, finding new uses for cohesion devices and repetition, relying on schemas for causality and time and space" (101-102). In "Nearly True: Forking Plots, Forking Interpretations" Edward Branigan responds to Bordwell by introducing an interesting comparison: he shows the closeness of Bordwell's analysis to Daniel Dennett's model of consciousness based on the concept of "multiple drafts." However, Branigan agrees with "Film Futures" in that "narrative is not built on principles of physics or philosophy, but with the use of folk psychology" (105).

I would like to suggest that if Bordwell had been aware of Wiessert's approach to Borges's story and hence had included such scientific principles in his viewpoint, his conclusions would have been more stimulating. Since Bordwell remains within the conventional scope of analysis, he can only complain that such films deceive him when compared to Borges's "Garden."vi

Therefore, the purpose of my analysis is to use the mathematical theory of bifurcation in order to shed light on Amenábar's creation, the American remake and finally, to show the pertinence of epistemocriticism in film studies.

A nightmare, a lucid dream

In order to avoid repetition, I will initially focus on the Spanish cinematographic production and present the correspondence of characters in both films in Table #1. Then, I will introduce the variations of Crowe's film.

Open Your Eyes is the story of a man, César, who wears a mask to hide his disfigured face. He is imprisoned in a psychiatric institution and after several encounters with a psychologist, Antonio, he tries to come to terms with the fact that he has been accused of murdering his fiancée, Sofía. However, according to him, Sofía was not Sofía for she had been supplanted by his former lover, Nuria.

The young man, the heir of a corporative empire after the death of his parents, had led a lustful and luxurious life until his best friend, Pelayo, arrived to his birthday's party in Sofía's company. César falls in love and, as he is corresponded by Sofía, they spend their first night talking in her apartment after running away from the insistent Nuria. When César walks to his car to return home, Nuria is waiting for him and invites him for a ride. In fact, she speeds up driving off a curve and smashing her car against a wall and instantly killing herself. César is disfigured. Although he finds himself at an endless road, he tries to recover his previous life. Seemingly, this life bifurcation has taken him nowhere: he is at a critical point where he is being accused of murder and has to face the impossibility of remembering what had really happened.

The story unfolds into an unexpected ending as none of the previous possibilities are real. In fact, César has been kept in cryogenic preservation after signing a contract with "Life Extension." This company has offered him the possibility to wait until surgery is developed so that he can have his face restored. Thus, after committing suicide, his body was frozen and the service offered by "Life Extension" has allowed him to experience a simulated life of his choice. However, this imagined life has taken a nightmarish turn due to malfunctioning, an error that will be corrected as a company representative offers César a new deal.

Having in mind the linear recount of the events to summarize what happens in the film, we may proceed to its analysis, by encompassing namely two stages: the different levels of reality and the bifurcations in the map. At the end, I will briefly compare the original film and the remake.

Levels of reality

Ana María Barrenechea, in her excellent book about Borges, presents the disposition of the different nestled levels that constitute his Garden's world as if they were Chinese boxes. Following this configuration – sometimes also called Russian dolls Amenabar's movie also plays with the different layers of reality. Moreover, the passage from one level to the other is not always clear as the cinematographic sequences frequently melt them, especially as César elaborates a Scheherazade style tale where he intertwines memories with imaginary scenes. For instance, the film opens up with a man woken up by a recorded message of a feminine voice: "Abre los ojos." The man, César, gets up - he showers, dresses, and gets in his car - and after a couple of minutes of car driving, he realizes that there is not a soul in the streets of Madrid. He stops in the middle of a wide avenue, gets out of the car and starts a frantic race. The feminine voice repeats "Abre los ojos" and César wakes up realizing he had been dreaming.vii

In Table #2, I have plotted the disposition of the different levels of reality that conform Abre los ojos. I consider that César's dreams are the film's first level. The second one is the physical world where events actually take place. However, the line that separates them is very thin, especially because we –just like the psychologist– have no direct access to the real world where things in fact happened to César and we have to conform ourselves with the storyline he builds up for the psychologist. Actually, the conversation that takes place in the closed space of the psychiatric institution with the therapist constitutes the third level of reality.

Initially, the shadow of a fourth level of reality is foreseen with the mysterious irruption of a male character who appears on T.V. talking about cryogenic conservation. Later, this man appears in public spaces until he openly addresses César, revealing that the world that surrounds them is created and governed by César himself. Finally, César traces the link to the name he yells in his nightmares: "Eli." He convinces the psychologist to take him to the offices of the company named "Eli," therefore opening up a completely new level: upon the signature of a contract with this company and after committing suicide, César has been given the possibility of living in a dream world while awaiting the progress of medicine.

At this stage, César has to face the fact that 150 years have gone by and that he is actually alone in the world – a fact that somehow came to surface in his dream of the desert city. Everything we have previously seen, including the psychologist who brought him there, is nothing but a simulation. Eli has provided him with a dream world of his own; however, his subconscious has sabotaged his creation transforming it into a nightmare where he has killed the woman he loves. A last conversation with Eli's representative takes place at the top of a skyscraper and César is offered a new deal. After verifying Eli's version by causing the appearance of Antonio, Pelayo and Sofía by simply invoking them with his mind, César accepts the new contract. The world surrounding him, a century and a half older and emptied of human beings, constitutes the ultimate level of reality within the film. The cinematographic perspective from the top of the skyscraper confirms the postulate of the emptiness of the world indicating that dreaming is the only acceptable way of life under such circumstances. Thus, César jumps off the building.

Bifurcations maps

In Borges's story we read: "In all fictional works, each time a man is confronted with several alternatives, he chooses one and eliminates the others; in the fiction of Ts'ui Pên, he chooses – simultaneously – all of them. He creates, in this way, diverse futures, diverse times which themselves also proliferate and fork" (5). My purpose in sketching the alternatives faced by César in his nightmarish existence is to see how many diverse futures coexist in the film and if we can make sense out of all the apparent contradictions that configure the plot.

As Weissert states: "A bifurcation is a splitting, a decision point where the system must take one path or the other" (234). In Abre los ojos we don't observe directly the splittings César encounters but we can determine them through his conversation with the psychologist. Dreams and recalled or imagined scenes -some of them recurrent although not exactly the same- alternate each other and at a given moment no one not even César, nor Antonio, nor the spectators – can affirm with any certainty what the facts are: did César kill Sofía or Nuria? But wasn't Nuria already dead? Was César's face redone by the surgeons? Then, why does he still wear a mask? And other such features. The participation of Eli is disclosed, the events take an unexpected turn and the pieces begin to fit, although configuring a strange jigsaw puzzle.

I believe this situation can be more easily understood if we have in mind what happens in nonlinear models as they bifurcate, because César's life, with its different layers of reality and many forks, shows many characteristics of nonlinear systems. "Researchers have found that frequent successive bifurcations in the flow of a physical system indicate the system's transition to chaos. Similarly and somehow symmetrically, the flow may, at some later time, make the transition out of chaos into some ordered state via a succession of reverse bifurcations or convergences" (Weissert 234).

In order to observe the bifurcations that occur in the film, in Table #3 I have represented the forking paths of Abre los ojos. At each fork, the upward branch corresponds to a negative answer, whereas the downward one is a positive one. The first bifurcation depicted corresponds to the question "Does César stay with Nuria?" If he did, it would only be an affair, as the many short-term sex relationships that populate the young tycoon's life. If the answer is no, we then proceed to "Does he fall in love with Sofía?" If the answer is negative, Sofía would be just another of his multiple conquests. And so on.

On the chart, I have indicated in blue the path that César follows. Nevertheless, things swiftly change and after recovering Sofía's love and having his face redone by the surgeons, he seems to lose his mind, or else the world has. César finds himself in a maze where Sofía has transformed herself into Nuria whose name is now Sofía. He is also told that there was never another woman named Sofía and there are no traces of a car accident. Thus, the path seems to have jumped to options B or C shown in green: he either is mad or knowingly has killed his fiancée. However, according to César himself, he stands in front of the options E or F at the end of the blue track.

As the conversation with Antonio deepens, they discover the unsuspected branch shown in yellow. Sofía never accepted César after the accident. He recovered the control of the company but went into a profound state of loneliness. In despair, he found out about the cryogenic conservation firm, signed the contract, committed suicide and was frozen. Although he had signed to receive the services of a simulated dream life, apparently due to the intervention of César's subconscious, the dream turns into a nightmare: the blue path. Moreover, the simulation is contaminated by visions from the green path, and with images that correspond to even more remote branches, such as the ones in pink. For instance, in situation A. César meets Sofía in a park and tells her he had a nightmare of being part in a car accident and that he will never see her again. Another example is the situation depicted in D, where he and Sofía are together but he's still disfigured.

Now, had everything gone well with the life extension services, César would have reached the point I have marked with the sign of infinity -highlighted in light blue-, for it would be an endless love story with Sofía after having his face redone.

Hopefully, the correct path will be restored after César jumps off the building at the end of the film. This final scene sends us back to the beginning of the picture: once César's scream fades out, the screen turns black and we hear, just like at the beginning, the feminine voice "Abre los ojos."

Original vs. remake

Table #4 shows the bifurcations of Vanilla Sky. I will refer only to the aspects where the remake diverges from the original. I would say that basically, Cameron Crowe's remake of Abre los ojos differs from the former in its rhythm, the delineation of its characters, and the importance of the company owned by the young businessman in the development of the story.

Vanilla Sky opens up with a view of New York from the top progressively zooming in until entering into an apartment building and then fading into David being instructed "open your eyes" by the recorded voice. The perspective from the top -we will find at the end- corresponds to David's visions through his free fall from the skyscraper as he is committing suicide again to enter -hopefully- a new and satisfactory simulation of "Life Extension."

As the action moves from Madrid to New York, instead of the desert streets in the Spanish capital, David races alone in Times Square. Despite the absence of people, we see the screens flashing in the background, full of light and action. These fast moving images match very well the switch of the car: instead of the VW convertible, David drives a Porsche at high speed. In fact, once he awakens from this first dream and picks up his friend Brian, they almost have a car accident, scarcely escaping from being overrun by a truck. I have inserted the possibility of this accident as the first bifurcation of this movie.

In the remake, we come across characters with more outlined features: David doesn't only conquer every girl in town, his nickname is "citizen dildo;" once he leaves Sofía's apartment she doesn't stay in a state of wonder but jumps and yells with contentment; the car accident doesn't just disfigure David but also leaves him limping and with a rigid arm and enduring strong pains; David seems deeply affected by the actions of his father and the empire he inherited from him; the young businessman has decorated his luxurious apartment with musical artefacts as well as with huge photos from famous movies. This latter hobby will be used in his simulated dream by the superposition of film scenes.

The characters repeatedly utterstatements that refer to the multiple layers of reality: "Living in a dream," "I'll tell you in another life where we both are cats," "We created a whole world together: us versus them." As David has the impression that he has already been through certain events, people around him keep telling him "The subconscious is a very powerful thing." In the Spanish film these déjà-vu experiences are explained as malfunctioning of the brain. Moreover, the importance of bifurcations is clearly stated by Sofía: "Every passing minute is another chance to turn it all around."

A main variation of Vanilla Sky is the importance of the conflict between David and the board of directors who control 49% of the inherited company, a publishing empire. David is supposed to participate at the executive level although he's absolutely careless. He calls the board the "Seven Dwarfs" remitting us again to a fantasy-like situation.viii

In Crowe's film, the struggle for power is of significant consequence in the unfolding of the nightmare. Once David has reconquered Sofía and undergone surgery, he explains the resurgence of Julie, the vanishing of Sofía and the accusation of murder by a conspiracy theory, all of which would have been elaborated by the board of directors to get rid of him. I have depicted this aspect by adding another bifurcation in the map of Vanilla Sky.

Final loop

Although the differences introduced by Crowe place his version closer to the mainstream cinema than the original movie, ix both films include puzzling scenes. When David says to Sofía "I am frozen and you are dead," the world depicted - and its multiple branches- is nothing but the outcome of a simulation. Thus, we should not be too surprised by the adequacy of using bifurcations theory to analyse these films for, in nonlinear dynamics, rerunning computer models to replicate nature constitutes a central practice. After all, the hibernating character is building his reality by playing with the different options he had initially been given until chance played a bad trick on him. In his tentative to build himself a world, we just see how one particular reconstruction probably one among many- fails. Moreover, the end clearly indicates its feedback movement into the beginning, confirming the nonlinearity of the movie and indicating the possibility of entering into another loop of the services provided by Eli, where new paths -hopefully more satisfactory ones- can be followed.xi

Amenábar's film shares two main features with Borges's "Garden": the Chinese boxes and the forking paths. As Weissert has shown in the case of Borges's story, the text contains many ideas that refer to mathematics, mainly bifurcations theory. As Bordwell has shown, if we stay with folk reasoning, we fail to grasp the complexity of forking paths films. However, I believe I have been able to demonstrate that if -following Weissert's idea— we take the epistemocritic turn and we relate these cinematographic productions to bifurcations theory, we can achieve a better understanding of these puzzle-type films.

Table #1 **Characters and actors** in Abre los ojos and Vanilla Sky

Abre los ojos		Vanilla Sky	
Character	Actor	Character	Actor
César	Eduardo Noriega	David Aames	Tom Cruise
Sofía	Penélope Cruz	Sofía Serrano	Penélope Cruz
Antonio (psychologist)	Chete Lera	Dr. Curtis McCabe	Kurt Russell
Pelayo	Fele Martínez	Brian Shelby	Jason Lee
Nuria	Najwa Nimri	Julie Gianni	Cameron Diaz

Table #2 Levels of reality in *Abre los ojos*

	nic conservation services provided by the company
Conv	ersation with Antonio at the psychiatric institution
	Actual events
	Dreams

Table #3
Bifurcations map of *Abre los ojos*

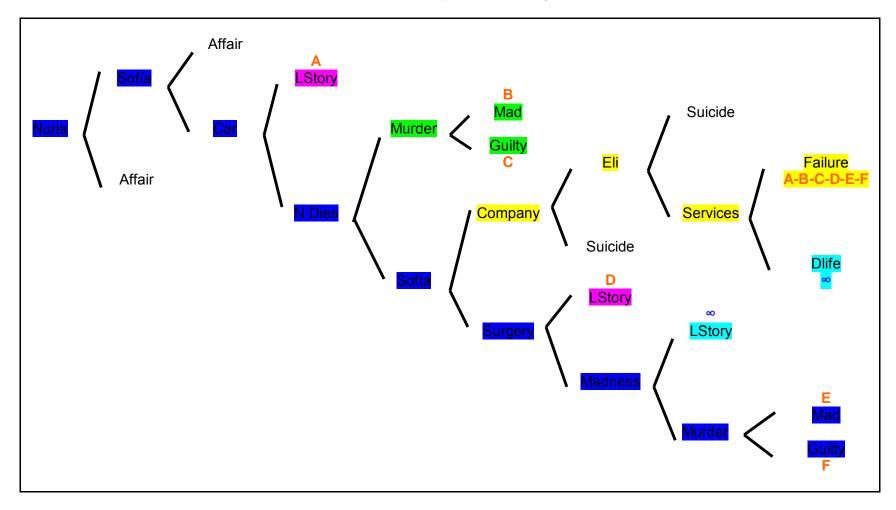
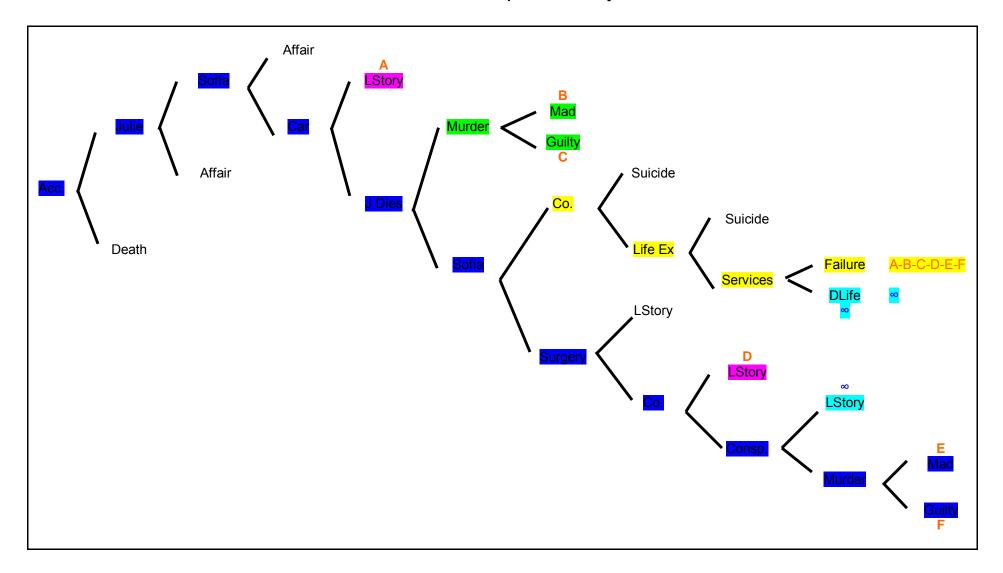


Table #4 Bifurcations map of Vanilla Sky



Notes

^vMarina Martín, in her analysis of *Abre los ojos*, uses the term "bifurcations" in its ordinary meaning, without incorporating its mathematical definition.

- vi In Simerka and Weimer, the authors compare *Abre los ojos* and *Vanilla Sky* in terms of postmodernism. This approach seems quite adequate since the relations between Borges and postmodernism have been thoroughly studied. See, for instance, Fokkema, Douwe W. *Literary History, Modernism, and Postmodernism*. Amsterdam: J. Benjamins, 1984.
- vii Of course, the name of the movie does not only refer to this awakening but also to the urgency of actually looking at reality.
- viii If they are the dwarfs, David is the empoisoned Snow White waiting for the love kiss that shall wake him up.

ⁱ The name epistemocriticism is introduced by Michel Pierssens in his book *Savoirs à l'œuvre*. *Essais d'épistémocritique*. Lille: Presses Universitaires de Lille, 1990.

ii In March 1992, researchers from both sides of the Atlantic Ocean inaugurated in Paris the conference *Épistémocritique et Cognition*, thus giving official birth to epistemocriticism. The articles presented at the conference were published in two volumes: *Épistémocritiqueet Cognition 1. Théorie, Littérature, Enseignement.* 10. 1992 and *Épistémocritique et Cognition 2. Théorie, Littérature, Enseignement.* 11. 1993.

[&]quot;nous réapproprier notre culture comme un ensemble: le passé et le présent, les savoirs avec la littérature" (Pierssens 1993, 7).

[&]quot;' "le projet épistémocritique est une défense et illustration de la littérature : il s'agit de refuser la marginalisation esthétique, formaliste ou idéologique des études littéraires en soulignant que les textes, tissés de savoirs, en savent plus long que les disciplines" (121).

ix Namely I would relate them to Hitchcock's *Vertigo* and David Fincher's *The Game*. Also, we can see that Amenábar's creation has already been taken into account in movies such as *The Matrix*.

^x In his analysis of *Vanilla Sky*, Wilson states that the character has no choice to make, that David can only re-enter the hyperreality of capitalism.

xi An interesting shift in the film is the last question asked by David's lover as she speeds out of the road. In *Abre los ojos*, Nuria pushes César to respond: "Do you believe in God?" whereas in *Vanilla Sky* Julie urges David: "Do you love me?" As they fall off, we hear the man yelling: "No! God! God!" while David franticly says, "I love you, I love you!" Beyond the cultural differences that might be found in this swap, Amenábar's version is deeply related to the possibility of man as a creator of the reality – a subject which again sends us back to another of Borges's stories: "Circular ruins."

References

- Abre los ojos. Dir. Alejandro Amenábar. Act. Eduardo Noriega, Penélope Cruz. Sogetel. 1997.
- Barrenechea, Ana María. La expresión de la irrealidad en la obra de Borges. México: Centro Editor de América Latina, 1984.
- Blind Chance. Dir. Krzysztof Kieslowski. Act. Boguslaw Linda, Tadeusz Lominicki, Zbigniew Zapasiewicz. Kino, 1981.
- Bordwell, David. "Film Futures." SubStance. 31.1. 2002. 88-104.
- Borges, Jorge Luis. Ficciones. New York: Grove Press, 1962.
- Branigan, Edward. "Nearly True: Forking Plots, Forking Interpretations. A Response to David Bordwell's 'Film Futures'." SubStance, 31.1, 2002, 105-114.
- Fokkema, Douwe W. Literary history, modernism, and postmodernism. Utrecht publications in general and comparative literature v. 19. Amsterdam: J. Benjamins, 1984.
- Martín, Marina. "Entre lo real y lo soñado en el cine de Alejandro Amenábar: Bifurcaciones de Abre los ojos." In Daniel Balderston et al. (comp.). Literatura y otras artes. Actas del XXXIV Congreso del Instituto Internacional de Literatura Iberoamericana. Iowa: University of Iowa, 2004.
- Matrix, The. Dir. Andy and Larry Wachowski. Act. Keanu Reeves, Laurence Fishburne, Carrie-Ann Moss.Warner Bros. 1999.
- Paulson, William. "Épistémocritique et écologie culturelle." In Épistémocritique et Cognition 1. Théorie, Littérature, Enseignement. 10. 1992. 121-30.
- Pierssens, Michel. "Présentation." In Épistémocritique et Cognition 2. Théorie, Littérature, Enseignement. 11. 1993. 5-7.
- Run Lola Run. Dir Tom Tykwer. Act. Frank Potente, Moritz Bleibtreu, Herbert Knaup. X-Filme Creative Pool, Westdeutscher Rundfunk, Arte, 1998.
- Simerka, Barbara and Christopher Weimer. "Tom Cruise and the Seven Dwarves: Cinematic Postmodernisms in Abre los ojos and Vanilla Sky." American Drama. 14.2. 2005. 1-15.
- Sliding Doors. Dir. Peter Howitt. Act. Gwyneth Paltrow, John Hannah, John Lynch. Miramax, 1998.
- The Game. Dir. David Fincher. Act. Michael Douglas, Sean Penn, Deborah Unger. PolyGram,
- Too Many Ways To Be Number One. Dir. Ka-Fai Wai. Act. Ching Wan Lau, Francis Ng, Tat-Ming Cheung. Golden Harvest, 1997.
- Vanilla Sky. Dir. Cameron Crowe. Act. Tom Cruise, Penélope Cruz, Cameron Diaz. Artisan Entertainment, Cruise-Wagner, Summit Entertainment, Vynil Films. 2001.
- Vertigo. Dir. Alfred Hitchcock. Act. James Stewart, Kim Novak. Alfred J. Hitchcock Productions and Paramount Pictures, 1958.

Weissert, Thomas P. "Representation and Bifurcation: Borges's Garden of Chaos Dynamics." In Chaos and Order. Complex Dynamics in Literature and Science. Ed. N. Katherine Hayles. Chicago: The University of Chicago Press, 1991. 223-243.

Wilson, D. Harlan. "Terminal Constructedness and the Technology of the Self in Cameron Crowe's Vanilla Sky." Extrapolation. 47.2. 2006. 259-279.

Carolina Ferrer is Assistant Professor at the Department of Literary Studies of the University of Quebec at Montreal (UQAM), Canada