

The Story of Louis Pasteur

José Ángel García-Rodríguez y María José Fresnadillo Martínez

Departamento de Medicina Preventiva, Salud Pública y Microbiología Médica. Facultad de Medicina.
Universidad de Salamanca (Spain).

Correspondence: José Ángel García Rodríguez. Facultad de Medicina. Alfonso X El Sabio s/n. 37007 Salamanca (Spain).
e-mail: jagarrod@usal.es

Received 13 december 2004; accepted 17 january 2005

Summary

The Story of Louis Pasteur is considered one of the first biopics – term that comes from the association of “biography” and “picture” – in the history of cinema. Directed by William Dieterle in 1936, it was distributed in Spain under the curious name of “*La tragedia de Louis Pasteur*” (*The tragedy of Louis Pasteur*). This tragedy is a consequence of the lack of understanding and culture, of the unfairness and ingratitude, which were all magnified in the figure of a man whose banner was the science and, according to him, the well-being of mankind depended on its application. The film is structured into three parts connected to events related to Pasteur’s studies in the field of Microbiology and infectious diseases: Microbial theory about the disease which was present all through the film and the main axe of the plot; studies in anthrax and research into rabies.

Keywords: History, Microbiology, Pasteur, Asepsis, Anthrax, Rabies.

Technical details

Title: *The story of Louis Pasteur*

Country: USA

Year: 1936

Director: William Dieterle

Music: Bernhard Kaun and Heinz Roemheld

Screenwriter: Edward Chodorov, Pierre Collings and Sheridan Gibney.

Cast: Paul Muni, Josephine Hutchinson, Anita Louise, Donald Woods, Fritz Leiber, Henry O’Neill, Porter Hall, Raymond Brown, Herbert Heywood, Akim Tamiroff, Halliwell Hobbes, Frank Reicher and Dickie Moore.

Genre: drama/ biographical

Color. black and white

Production company: Warner Brothers

Awards and nominations: Oscar 1937 for best actor in a leading role (Paul Muni), best original story and best screenplay, Oscar nomination for best picture. Venice Film Festival 1936, Volpi Cup for best actor (Paul Muni).

Runtime: 85 minutes

Synopsis: Biography of the father of the Microbiology: Louis Pasteur.

The story of Louis Pasteur is considered one of the first biopics term that comes from the association of “biography” and “picture” – in the history of cinema. It was one of the first biopics if we take into account the first time this term was used (1930s-40s); but, the biographic genre, that is, the life and works of real characters, was already a source of inspiration even when the cinema was starting its adventure. *Jeanne D’Arc* (1899) by George Melies, *Judith de Bethulia* (1914) by D.W. Griffith, *Joan the woman* (1916) by Cecil B. DeMille, *Napoleón* (1927) by Abel Gance, *Jesse James* (1927) by Lloyd Imgraham or *La passion de Jeanne D’Arc* (1928) By Carl Theodor Dreyder were all of them the very first films which belonged to this genre which, lately has still been to the liking of production companies, scriptwriters, directors and public in general.

Antecedents

Pasteur’s film history had started 14 years before “*The tragedy. . .*” was filmed. If we take into account the fact that in many occasions a biography is just an excuse to build up a story, it is easy to understand that France was the main place for cinematographic biographies of ITS national hero. In 1922 the first known film about Pasteur (*Pasteur*) was filmed

with the aim of commemorating the centenary of his birth. It is a silent film and it was co-directed by Jean Epstein and Jean Benoit Lévy; the script was written by Ed Épardaud and it was performed by Charles Mosnier, Jean Rauzena, Robert Tourneur and Maurice Touzé.

The film made in 1935, *Pasteur*, is also French; directed by Sacha Guitry and Fernand Rivers, the scripwriter was Sacha Guitry as well and it was performed by the versatile scriptwriter and director, Beuve, Henry Bonvaller, Gaston Dubosc and Armand Lurville. This film is a clear example of the realistic French cinema of the 1930s-40s. Nevertheless, it is also a tribute of Sacha Guitry to his father and both personalities, that of the father and the scientific's one, merged to try to make both personalities remain, by distorting the figure of the researcher. The long scenes and tedious monologues are frequent during the development of the film and it is worth pointing out the lack of female characters.

In 1947, France pays a tribute, once again, to his national hero, by means of a short film, directed by Jean Painlevé (*Pasteur*). The figure of Louis Pasteur is just an excuse, as it perfectly fits with the scientific documentary character and the rebellious spirit, which is very characteristic of this director.

Almost 50 years afterwards, in 1995, the TV production *Pasteur, cinq années de rage* is released; it is directed by Luc Béraud, based on its own script and performed by Bernard Verley, Jacques Vincey, Nicolas Moreau, Julien Courbey and Hubert Saint-Macary. It shows the last years in the life of Pasteur and it is focused on the research into rabies. It is not considered a very good film due to the performance of the actor as well as to the fact that part of the film shows only endless medical discussions and it does not get deep inside the personality and psychology of the character¹.

The film

The story of Louis Pasteur directed by William Dieterle in 1936 is the “cinematographic BIOGRAPHY” of Pasteur. It was distributed in Spain under the curious name of “*La tragedia de Louis Pasteur*”, which does not come from his personal tragedies, that really existed, although they never appear on the film. The tragedy of Pasteur is directly related to the lack of understanding and culture, to the unfairness and ingratitude, which were all magnified in the figure of a man whose banner was the science and, according to him, the wellbeing of mankind depended on its application. In one sequence, after the experiment of Pouilly-le-Fort² (Arboix in the film, 400 kilometres

away from the first one), Pasteur says emphatically – in the same way he usually does in the film – to his wife: “*Marie, the benefits of science are not for scientists, but for Mankind*”. This statement summarises the spirit of Pasteur and the film itself. Moreover, the “tragedy of man of science” is related to the scientific archetype adopted in the Warner productions; the Warner insisted on the figure of him as a hero and martyr who was able, firstly, to survive and then to reach the glory just by means of his ethic and self-sacrificing behaviour. But this was not something new. Einstein himself said: “*Great spirits always find the violent opposition of those men of mediocre minds*” and this thought seems to have been tailor-made for Pasteur himself.

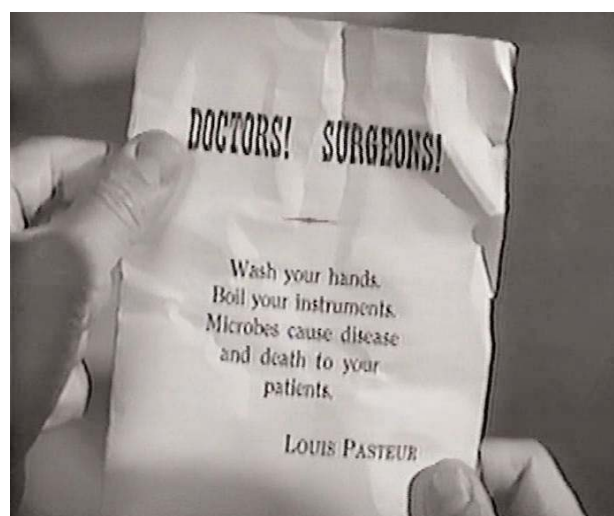


Figure 1: Leaflet that introduces the figure of Pasteur.

The story of Louis Pasteur was possibly released thanks to the conjunction of three elements: the Warner, whose main aim was to make films with a clear message; William Dieterle (1893, Ludwigshafe – 1972, Taufkirchen), specialised in progressive biographic stories which included high humanistic content [*The White Angel*, 1936, about Florence Nightingale, *The Story of Louis Pasteur* (1936), *The Life of Emile Zola* (1937), *Juarez* (1939), *Dr. Ehrlich's Magic Bullet* (1940), *The story of Richard Wagner* (1954) or *Omar Khayyam* (1957)]; and Paul Muni (Lemberg, Austria, 1895 – California, 1967) whose enthusiasm, capable of fighting against the reluctance of the Warner managers, made *The story of Louis Pasteur* be released just the way we know it nowadays.

Although the project was adapted to their plans, the Warner and Dieterle himself were somehow reluctant to the filming due to the low budget and to the fact that it could be foreseen that the project was not going to be supported by institutions nor by the

critic. Nevertheless, it turned out to be a great success and the main actor, Paul Muni, was awarded that year with the Oscar to the best leading actor because of his recreation of Louis Pasteur; this Oscar came to reward, apart from his performance, his effort to make the project be successful. And he also won the Oscar for the best screenplay and the best original story. The Warner thought, at the beginning, that there could be two different stories: that of the scientific and that of the man. The second one was finally chosen and they even thought about the possibility of building a love story: the student fell in love with the daughter of the University of Strasburg Rector³. In order to keep on making films of the same kind as his previous ones, that is, films with a clear message, and in order to help people know more deeply the figure of the scientific Pasteur, they thought about the possibility of using a voice-over to give an end to the film saying: *“And until these days, housewives from all around the world thank this man for having invented the pasteurized milk”*. Fortunately, this version was not released and the original script prevailed, showing the Pasteur “scientific”, more adapted to reality. It is believed that Paul Muni himself had some influence with this wise decision of the company. The antagonism between the romantic version and the director chosen to make the film was also possibly an influence. Dieterle hated the sentimentalism and that is why in the definite version of the film the private life is just insinuated. Apart from a few occasions - Pasteur’s birthday, conversation with his wife, his daughter’s proposal of marriage – his feelings are polarized towards Science and they just reflect the advance of his research. His family is always present, but they are not an interference in the narration and they have two fundamental aims: to humanise the genius making him more approachable for the spectators and to provide coherence for the character. The Pasteur “man” can be observed due to incorporation not only of data, facts, and dates but also of odds and ends of his daily life and, those details helped Dieterle to build a complete, complex and predictable personality; after the first sequences, the spectator can understand Pasteur, his ethics, his way of understand the world.

The characters

Dieterle’s *Pasteur* is rude and cold and it provokes ambivalent feelings among the spectators. Apart from the dramatic quality of many situations, his caring spirit and intention to help mankind – which are repeatedly reflected even on overwhelming stills- he lacks the necessary humanity to make the spectator vibrate. This can be due to the fact that the way Muni

played his role appeared to be “excessive” and his characterisation “unnatural”. The spectator does not identifies himself with Pasteur but with the ill people or even with supporting characters, such as Roux or Martel.

Nevertheless, we cannot despise Muni’s performance; with a great dramatic capacity, he reproduces magnificently the hard expression and the look of a man who was tried to be overshadowed by the scientific society of his times. And the most important feature Dieterle’s film shows: Pasteur has a great film virtue: coherence. And this coherence of attitudes makes him believable despite the fact that there exists a lack of “human” details and emotions.

The rest of the actors play the role of real characters (Emile Roux, Pasteur’s collaborator and director of Pasteur Institute from 1904 to 1933; Rossignol, a veterinarian involved in the Pouilly le Fort experiment; Lister, father of asepsis and antisepsis) as well as invented ones (Charbonnet, Martel); they all, especially the last ones, represent all the virtues and defects which are necessary to delimit the figure of Pasteur in a general scheme of contrasts. It is worthwhile pointing out the role played by Fritz Leiber, Dr. Charbonnet in the film; this is an elegant, vain doctor who is ferociously against Pasteur and represents unfairness, ignorance, fanaticism and superstition.



Figure 2: Pasteur in the laboratory

Halliwell Hobbes is Dr Lister. Chronologically this is a late character but its importance in the narration is worthwhile being observed. He is a key character to restore the figure of Pasteur and he is present whenever Pasteur achieves a personal success: Pouilly-le-Fort, last scenes in the Academy. The affability, cordiality, humanity and nearness of this character determine his being used by Dieterle in

one of the few funny moments of the film; and it is precisely in this moment when the role of his wife is discovered: the link between Pasteur and the external world. This task has been defined by many biographers as “diplomacy and defence”.

The political characters (Napoleon III – played by Walter Kingsford-, Adolphe Thiers –played by Herbert Corthell-) not only establish the historical framework but also determine the narration and direct Pasteur’s life. Napoleon III rejected all his theories and that is why Pasteur leaves Paris; Thiers decides to research into the reason of the absence of anthrax in Arboix: these two facts introduce the part focused on this disease.

His family is represented by his wife, Marie (Josephine Hutchinson) and his daughter Annette (Anita Louise). According to the biographic data (Dubos), Pasteur did not have any daughters with that name and none of his daughters could be that young in 1860 because Jeanne died in 1859 at the age of 9, Camille died in 1865 at the age of 2 and Cecile died when she was 12 years old (this fact may appear on a scene: Pasteur’s birthday after his visit to the Palace where he is advised to devote himself to wine and beer and leave Paris). In 1858 Marie Louise is born, his only alive daughter⁴⁻⁷. This fact or inaccuracy is worthless but it clearly reflects the tension between loyalty and creativity, which is a plot necessity in every biography.

Structure of the film

It can be said that the structure of the film is circular: the beginning and the end are similar regarding the narrative structure, but they are very different regarding their meaning (rejection at the beginning, recognition at the end). This dichotomy is frequent in the film and, in a way, it is the essential structure of the film. Alberto Elena says: “*the narration is structured around a series of basic contrasts (success/failure, freedom/authoritarianism, individual/society) which build up the plot which defines the conflicts*”⁸.

It is divided into three parts which are perfectly defined and established by some events related to the studies of Pasteur in the field of the Microbiology and infectious diseases:

- 1.- Microbial theory of the disease: antiseptis, puerperal fever. This theory is present all through the film as the main axis of the plot.
- 2.- Anthrax
- 3.- Rabies

1st Part: Microbial theory of the disease

Initial scene. The Academy.

The action starts in 1860 in Paris. A doctor is murdered. The cause of the murder is revealed in the trial: the lack of hygiene of the doctor when he delivers the baby of the accused man’s wife. The murder is considered a question of justice by the accused man – and also by Pasteur’s followers who were still unknown –. The prosecution refutes the argument as he considers that a doctor can never be considered guilty due to such a reason (?) and here is when the figure of Pasteur appears for the first time, a leaflet that says: “*Doctors, surgeons! Wash your hands, boil your instruments. Microbes cause diseases and death to your patients. Louis Pasteur*”(figure 1). In that very moment, the figure of Pasteur starts to be controversial and from the beginning he is believed to be irritable, irrelevant, an enemy of doctors. His development is pictured ironically and contemptuously, showing antagonism towards him: he is accused of intrusion (“*. . . he is not even a doctor, he is a chemist*”), they talk about his studies about fermentation (“*he was the centre of the controversy about sour wine and said that he had discovered animals in wine!*”) and his germinal theory of infection is refuted (“*microbes are the result, not the disease*”). It is said, as a joke, that Pasteur wants to cure sepsis by boiling blood. Eugenia de Montijo (Iphigenie Castiglioni) – more intelligent? or more ingenuous? – says that the instruments have to be boiled.



Figure 3: Dr. Charbonnet (Fritz Leiber)

The beginning is frenetic, with reminiscences of film noir, establishing clearly who are the good and the bad (microbes?, the other doctors?, ignorance?). The situation is set out powerfully, with simplicity. The scenes are dense, in order to make the spectator familiar with the situation: scientific controversies, previous studies, profession, Pasteur’s prestige and status in those years, etc.

The laboratory:

The first time Pasteur appears “physically”. The scene is almost a monologue, a declaration of principles: he talks emphatically about the situation of hospitals and births; he mentions Semmelweiss and his contributions and he is still looking for the “germ” (images of microscopic visualisations, as a “scientific” resource). The film presents a charming and constant character, Emile Roux, and one of Pasteur’s personality features is pictured, his perseverance and effort: *“Let’s try again... Remember our objective!”* (figure 2).

In the Palace

Napoleon III arranges to meet Pasteur, establishing a dialectic fight between Charbonnet and Pasteur, who carries his microscope and tries to show the evidence, to fight against ignorance. He does not achieve his purpose. You can feel Pasteur’s helplessness before the conservatism of doctors and leaders. Pasteur’s reaction before the rejection is violent and he accuses the doctors of the situation at hospitals.

Charbonnet (figure 3) takes advantage of his chance: he gets the Emperor involved in the dispute making him surreptitiously decide who was to support. *“My God!, men destroyed by tiny creatures!, it is as if an army of ants takes possession of the Emperor’s army”*, the answer is predictable - the Emperor’s Army can never lose! ? – and Pasteur is told to leave Paris if he does not take his own conclusions back and abandon his studies. But Pasteur does not give up and he accuses Charbonnet of a murder that has not still taken place but will happen if he keeps on his negative praxis.

There is another human feature that gives coherence to the figure of Pasteur: his loyalty. The first time Martel appears on a scene, he is before Pasteur telling him his curriculum presumptuously; Martel, trying to be on good terms with Pasteur, makes a critic of Charbonnet, his boss. Pasteur does not admit this critic, although he thinks it is justified, and he goes away angrily.

2nd Part: Anthrax

Link and introduction: the French-Prussian war of 1870. The beginning of the scene is solemn, with a masterly proclaimed sentence that emphasises the idealism and ethics of Pasteur: *“While men are fighting and killing among themselves, Pasteur was fighting against microbes, the real enemy of mankind”*

Here we have the second topic: the president of the 3rd Republic, Adolph Thiers, talks about the economical difficulties of France and the problem of Anthrax for the whole country. And he says that in Arboix animals are not affected and he orders an investigation. From the moment Pasteur left Paris,

nothing was known about him but, as an intrigue clue, the spectator thinks that Pasteur has something to do with this situation. Radisse (a member of the Academy) and Jean Martel (who has left the court and he is now working for the Government) travel to Arboix and find out the reason: this livestock has been vaccinated by Pasteur. Radisse seems to be reluctant, he mentions the “dark” past of Pasteur, he tells Pasteur about his prohibition to practice the medicine and he goes away. Martel stays there and he is “used” to teach the spectator about the agent that produces anthrax and its vegetative and spore shapes.

Radisse has seen that the livestock is really healthy but he does not accept that the reason is the immunity nor that the responsible person is Pasteur; he thinks that the reason of this healthiness is the security of the pasture and the land of Arboix. So, he sends all the flocks of sheep to Arboix.

The Academy of Medicine talks about this situation. Pasteur is again accused by Charbonnet of being a trickster (he has not been able to prove his theories about the aetiology of puerperal fever) and he accepts to make an experiment (the famous Pouilly-le Fort experiment) in order to prove the efficiency of his vaccine with the anthrax: a group of vaccinated sheep and another group which is not vaccinated (this last one was “led” by Rosignol) are both inoculated with blood of ill sheep. After some time, (How long? apparently one day) the result of both groups will be compared (figure 4) The experiment is a complete success and Lister and Rosignol congratulate Pasteur.

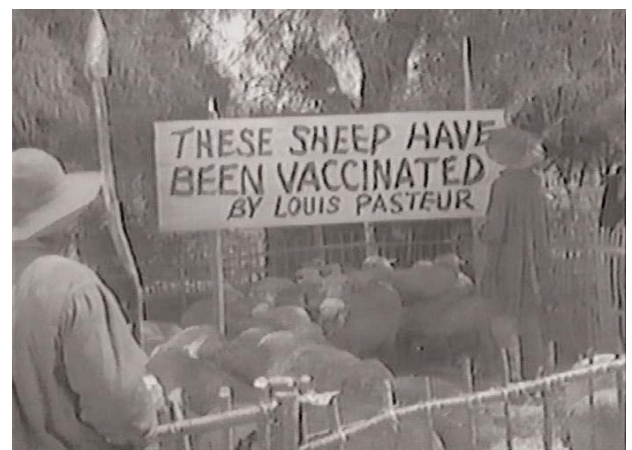


Figure 4: Pouilly le Fort experiment (Arboix)

The third part of the film, rabies, is introduced with no narrative rupture; the puerperal fever and its causes are taken up again.

During the celebration of a popular fiesta after the Pouilly-le Fort experiment, somebody is bit-

ten by a rabid dog. As the doctors feel helpless before this disease, the only solution is talking to sorcerers/quack doctors. In a conversation with Lister (in the same scene), Pasteur “promises” to find a treatment for rabies.

Paris, one year later (1971? there is not a temporal “feeling”). Charbonnet goes to Pasteur’s laboratory and he gives himself an injection of rabies culture in order to refute Pasteur’s germinal theory. A month passes by and Charbonnet does not get ill; he makes fun of Pasteur all around Paris. Pasteur’s psychology is shown once again: “*Louis does not care, if he thinks he is right, that is enough for him*” and, ironies of fate!, Charbonnet himself gives him the answer: He has given himself an injection of an old, weakened culture!

In this moment, the film shows some of the most famous moments in the life of Pasteur: he cures Joseph Meister and the treatment of a group of Russians who had been bitten by a wild wolf. It is worthwhile pointing out the scene where Pasteur boils the syringe with which he is going to give an injection to Joseph. Nowadays, this can go unnoticed, but it is a detail that confirms the documentation and coherence of the script and film.



Figure 5: Charbonnet defers to Pasteur’s ideas

The microbial theory of the disease keeps on being polemic when Pasteur’s daughter is going to deliver a baby. Pasteur takes charge of the birth and looks for a doctor that follows his precepts. He does not find anybody. By chance, he meets Charbonnet, who, following Pasteur’s guides –he tells him to boil his instruments and to wash himself (humour and drama)– helps Pasteur in the birth (figure 5). Charbonnet becomes reconciled in a way with Pasteur and his science, but now life sends Pasteur a trial: he suffers a brain haemorrhage –it really took place in 1868 –.

Some years later (how many?) Marie makes Pasteur go to the Academy where Lister pays tribute to him: “*Dr Pasteur, I thank you on behalf of mankind*” (figure 6).



Figure 6: “*Dr Pasteur, I thank you on behalf of mankind*”

Final comments

The film in general is an act of contrition, an act of compensation to the ingratitude of a whole life devoted to science, to mankind. The film shows magnificently the titanic fight of a man against ignorance, in favour of knowledge.

Dieterle builds a narration which sticks to the essence of Pasteur and he masterly uses the contrasts he likes in order to make a good film: fanaticism/freedom, ignorance/knowledge, darkness/light. Nowadays, taking into account the pass of time and the change of commercial parameters predict that this film would not be a success or, are we immerse in a period of change towards traditional values?

And, we must not forget that biographic films let our parents know in depth the life of figures such as Pasteur, and, from this point of view, they are really jewels that, due to their documentary importance, should be shown to students.



References

- 1.- The Internet Movie Database (IMDb) [database on the Internet]. The Story of Louis Pasteur (1935) [cited 2004 Dec 5]. Available from: <http://imdb.com/title/tt0028313/>
- 2.- Schwartz M. The life and works of Louis Pasteur. J. Appl. Microbiol. 2001; 91: 597-601.
- 3.- Ligon BL. Louis Pasteur: a controversial figure in a debate on scientific ethics. Pediatric Infect. Dis. 2002; 13: 134-141.
- 4.- Bordenave G. Louis Pasteur (1822 - 1895). Microbes Infect. 2003; 5: 553-560.
- 5.- Yount, L.. Louis Pasteur. San Diego: Lucent Books; 1994.
- 6.- Holmes, S. J. Louis Pasteur. New York: Dover Publications Inc; 1961.
- 7.- Dubos RJ, Brock TD. Pasteur and modern science. Washington: ASM Press; 1998.
- 8.- Elena A. La tragedia de Louis Pasteur. In Elena A, editor. Ciencia, cine e historia. De Méliès a 2001. Madrid: Alianza Editorial; 2002. p. 95-101.

Translated by: Euros Traducciones
Salamanca (Spain)
