Aurore Lüscher

Audiovisual Dispositives and Medicine around 1900. Case Study: Revue médicale de la Suisseromande

2013

https://doi.org/10.25969/mediarep/14619

Veröffentlichungsversion / published version

Sammelbandbeitrag / collection article

Aurore Lüscher

Audiovisual Dispositives and Medicine around 1900. Case Study: the *Revue médicale de la Suisse romande*

Abstract: This article exposes my methodology and the issues involved in the study of one specific archival source I researched for my doctoral thesis, the *Revue médicale de la Suisse romande* (*Medical Review of Romandy*). It thus mainly consists in a presentation of and comments on first results, within the framework of my study of the medical discourses and practices related to emerging dispositives of vision or audition at the turn of the 20th century.

* * *

In this paper, I shall present a specific primary source I am working with in the scope of my doctoral thesis, the *Revue médicale de la Suisse romande* (*Medical Review of Romandy*). This case study will enable me to set forth and question my methodology and approach to a specific archival source. First I shall put forward the key points of my work and address some important methodological issues regarding my study of archive material, and second, submit some of my findings in the *Revue médicale*. The focus here is on only one of the many sources I will have to look into for my thesis. Thus, this paper is mostly a presentation of the first results of my empirical survey, a kind of work in progress with no claim to completeness.

My current doctoral research concerns the emerging audiovisual dispositives closely or distantly related to medicine at the turn of the 20th century.[1] My approach mainly consists of the study of the medical discourses and practices

1 For a definition of the term dispositive and the methodology related to it, see Albera, François; Tortajada, Maria (eds.): *Cinema Beyond Film. Media Epistemology in the Modern Era*. Amsterdam: Amsterdam University Press 2010, pp. 10–13; Albera, François; Tortajada, Maria: «L'Épistémè ‹1900›». In: Gaudreault, André; Russell, Catherine; Véronneau, Pierre (eds.): *Le Cinématographe, nouvelle technologie du XXe siècle. The Cinema. A New Technology for the 20th Century*. Lausanne: Payot 2004, pp. 45–62; Tortajada, Maria: «Archéologie du cinéma: de l'histoire à l'épistémologie». In: *CiNéMAS* vol. 14, 2004, no. 2–3, pp. 19–51.

linked with these dispositives: I ask how these where apprehended and used at the time, which debates they caused, how they circulated between many spheres of knowledge variously legitimised, and what sort of representations of the body they could have created. The dispositives remaining in the realm of ‹possibilities›, even those completely utopian, are equally taken into account, for they were also part of a particular space of thought specific to the beginning of the 20th century and can therefore contribute to my analysis in a pertinent way.[2] Thus, as my research concerns any potential dispositive of vision and mechanical reproduction emerging around 1900 linked to the medical field of the period in some way, I consider the cinematograph one such dispositive, with the term ‹cinematograph› including, of course, the various sets of devices and practices related to moving pictures.[3] By focusing on the debates concerning these dispositives and their uses in many primary sources (mainly from the scientific field for the moment), I can on the one hand observe how and when the cinematograph has been part of the medical imaging of the time and, on the other hand, analyse the variations of conceptions and presuppositions about these instruments as well as of the paradigms in which they are inscribed.

As this epistemological project is quite large, I have chosen to start by studying specific cases, which will then enable me to move on to other cases or specific documents, so as to establish a sort of network surrounding the links these various instruments had with medicine and its popularisation around 1900.

The *Revue médicale de la Suisse romande* is an ideal starting point for such a project. In order to be as close as possible to the concerns of the medical field of the time and to avoid popular writings for the moment, a respected and mainstream medical review seemed the best choice for gathering information about the ‹standard› place these novelties were given. The fact that it is a periodical publication makes changes or continuities over a certain time noticeable, and because it is also generalist, it presents a broad range of dispositives in a large spectrum of medical fields, yet at the same time, it offers a precise determination of the areas in which these dispositives were important. Finally, I start from a local point not only for practical reasons, but also because Switzerland, and especially Romandy, in some ways mediated the French and German

2 See for example the work of Clément Chéroux about Louis Darget (1847–1923) who tried to photograph his thoughts during this era.

3 For the distinction between cinema and cinematograph, I refer to Gaudreault, André: *Cinéma et attraction. Pour une nouvelle histoire du cinématographe*. Paris: CNRS 2008.

medical school models.[4] Even if the *Revue médicale* was – and still is – a local publication, it was not an obscure regional review, but an essential publication for Romandy because it summed up all the cantonal societies' monthly sessions and maintained relations with the German-speaking part of Switzerland. In addition, the journal showed sustained interest in the developments of medicine, and in the publications and congresses in foreign countries (mainly the neighbouring ones), as can be observed through the numerous announcements and reviews of such matters. Furthermore, it is known that the Medical Faculty of Geneva received many foreign students and that its professors were considered honourable members of their profession in the European medical world, while the Lausanne school of medicine had gained international prestige mainly due to the personality of the surgeon César Roux. Furthermore, many contributors to the *Revue médicale* often wrote articles in foreign publications, so that by 1900, the review enjoyed a certain reputation.[5]

My inquiry covers the entire *Revue médicale* from January 1895 to December 1905.[6] The choice of this particular period leads me to clarify some methodological points. To select the archive material necessary for my project, I decided to start my search quite arbitrarily with the year of the presentation of the cinematograph Lumière and the discovery of X-rays, two important dispositives for my study. In order to go through the same amount of time before and after 1900, I equally arbitrarily stopped the investigation at 1905. This does not mean that I am not aware of certain instruments and more globally of the medical imaging preceding 1895 and all the continuities that it presupposes, so this time frame does not in any way imply a break.[7] The scope of my inquiry will mainly depend on the interesting discoveries I will make in other archive material or literature on the subject.

4 Cf. Rieder, Philip: *Anatomie d'une institution médicale. La Faculté de médecine de Genève (1876–1920)*. Lausanne, Genève: BHMS, Médecine & Hygiène 2009, pp. 42, 45.

5 Cf. Rieder: *Anatomie d'une institution*, pp. 139, 145–149, 240–244; Barras, Vincent: «Médecine et société: la *Revue médicale de la Suisse romande* dans l'histoire». In: *Revue médicale de la Suisse romande* vol. 124, 2004, no. 12, pp. 735–745. Concerning César Roux, see Donzé, Pierre-Yves: *L'ombre de César. Les chirurgiens et la construction du système hospitalier vaudois (1840–1960)*. Lausanne: BHMS 2007.

6 Each volume of this period corresponds to one year and has between 696 and 896 pages.

7 A central study of the early relations between medicine and cinematography is Cartwright, Lisa: *Screening the Body. Tracing Medicine's Visual Culture*. Minneapolis: University of Minnesota Press 1995. About the work of Étienne-Jules Marey and about other inscribing devices and the corporal ideals of modernity, one can look for instance into the writings of Marta Braun, François Dagognet, Laurent Mannoni, Christian Pociello, Anson Rabinbach.

A second crucial point – which is still quite problematic for me at present – is to determine which dispositives of vision and audition to take into account. For instance, I have chosen not to consider the microscope, since this widely used instrument was not an emerging dispositive at the turn of the 20th century, and because it does not record anything. And although it can be part of a scientific ideal typical of the 19th century, conceptualised by Lorraine Daston and Peter Galison as ‹mechanical objectivity›[8], technically there is no mechanical reproduction of what is seen. In a similar way, radioscopy does not involve recording what is on the screen. Nevertheless it is an interesting device for my research because of its ontological relation with radiography, but also due to the fact that the representation is situated on a screen and that it was soon coupled with cinematography, like the microscope later.[9]

In order to go beyond these problematic but interesting overlaps, I applied a number of basic selection criteria which are surely rather ‹cinematocentered› but nonetheless effective from my point of view. These criteria lead me to take into account the following dispositives: those emerging at the turn of the 20th century that are techniques of mechanical representation or reproduction of the visible (or invisible); those beginning to be used and discussed in the medical field during this era; those relating to the documentation, the exploration and the measurement of parameters regarding the human body; those having strong ontological links with cinematography.[10]

After this phase of selection, other questions arise. At the content level I ask how these dispositives (and their visual productions) are mentioned or presented in medical discourses. What uses are reported, what are the debates surrounding the instruments, their visual productions, and their utilisation in medical practice? At the level of form, it is possible to consider the *Revue médicale* itself as a kind of dispositive of presentation: what place is globally accorded the new instruments in the *Revue*? Is it significant? And in what way are illustrations displayed in the *Revue*? At the moment, my work on the archive material has not yet reached this point of analysis. Nevertheless, I hope that

8 This theory will be discussed further below.

9 Radioscopy was coupled with cinematography at the end of the 1890s, and the microscope with cinematography in the 1900s. See Bonah, Christian; Laukötter, Anja: «Moving Pictures and Medicine in the First Half of the 20th Century: Some Notes on International Historical Developments and the Potential of Medical Film Research». In: *Gesnerus. Swiss Journal of the History of Medicine and Sciences* vol. 66, 2009, no. 1, pp. 124–125.

10 This explains why I include photography in my research, even though it was developed long before my target period.

my findings in the *Revue médicale* can illustrate the interesting research areas this type of source material may open up.

One way of linking the various dispositives is to study the vocabulary and concepts used to refer to them. The medical field of 1900 did not have the same boundaries it has now. For one thing, today's specialised fields weren't autonomised at the turn of the 20th century.[11] What is more, even a crucial concept like ‹objectivity› encompassed different historical ideals. As Lorraine Daston and Peter Galison demonstrate, in the 18th century ‹objectivity› was what was considered true to nature; drawings made from many models thus showed a reconstructed ideal, supported by the idea that if nature is full of diversity, science can't be. This conception was strongly condemned one century later. Scientists progressively became distrustful and anxious about the implicit subjectivity inherent in reconstructions of a type. The medical world sought to eradicate all interpretation by using mechanical devices and documenting each case specifically. It thus developed a new ideal of ‹mechanical objectivity›.[12]

In the *Revue médicale*, it is particularly interesting to see how these two quite antithetic conceptions actually coexisted late in the 19th century! The ideal of mechanical objectivity is of course dominant, nonetheless there are some interesting variations on this point, particularly in the debates on the pertinence of X-rays, but also in more specific cases. For instance, in a review of an atlas of anatomy (January 1895), there is an insistence on the exactitude of the drawings. But further, there is the indication that the artist «has established an ideal skeleton […] whose every part has been drawn from natural pieces and whose proportions have been established by calculation of the average dimensions of a large number of prepared bones». At the end of the review, we read that this «superb work» is of equal importance to both scientists and artists.[13] A more surprising observation can be found in the issue of October 1899:

11 Concerning X-rays and radiology, see Dommann, Monika: *Durchsicht, Einsicht, Vorsicht. Eine Geschichte der Röntgenstrahlen. 1896–1963*. Zürich: Chronos 2003, pp. 10–14.

12 Cf. Daston, Lorraine; Galison, Peter: «The Image of Objectivity». In: *Representations*, no. 40, 1992, pp. 81–128. My presentation of their work here is a very brief summary of a complex development.

13 All translations from the French *Revue médicale* into English are mine. Original text: «il a donc établi un squelette idéal […] dont toutes les parties ont été dessinées d'après des pièces naturelles et dont les proportions ont été établies par le calcul des dimensions moyennes d'un grand nombre d'os préparés […] Cette œuvre superbe et dont l'utilité est si grande, non seulement pour les médecins, mais aussi pour les artistes.» *Revue médicale de la Suisse romande* vol. 15, 1895, no. 1, pp. 69–70.

«The illustrations of this atlas are of great exactitude, because the art of the painter will always surpass […] the passive truth of direct photography, even if coloured».[14] There are many commentaries about the beauty of illustrations and books of the time, but this last example is of another kind, implying that the reign of mechanical objectivity was not absolute.

In relation to this, it is also interesting to observe various preconceptions and debates around the self-evidence and objectivity of images or, on the contrary, the need to interpret them. The expression «shows that» («montre que») is omnipresent in studies or presentations of graphs, photographs and X-rays. Even though radiography, for instance, was received quite enthusiastically upon the first presentations of the images to the medical societies, there are, even in the first report, some reservations about the practical applications of this novelty, mainly due to the flatness of the representation.[15] Most of the first discussions and published papers about the uses of radiography in 1896 and 1897 are about errors of diagnosis and the problems this poses, and the need for improvements to this instrument.[16] Thus, this new dispositive seems to be most dazzling at first, but in fact proved to be of little use to practitioners. A comment at the end of the report on the International Congress of Medicine of 1897 – a Congress which took place every 3 years – gives us an idea of the particular perception of this new instrument: «no remarkable epoch-making discovery like those of antisepsis or the antidiphteric serum will stay in the annals of the Congress of Moscow of 1897.»[17]

Interesting to notice is the perpetual and paradoxical balance between the rhetoric of evidence, on the one hand, and the importance of interpretation by the practitioner, on the other. But this does not happen by way of a strictly binary articulation or linear progression. For instance, in the July 1898 and December 1899 issues, while the phrase «shows that» is widely used, some writers insist on the need for interpretation.[18] A few months later, in April 1900,

14 Original text: «Les planches de cet atlas sont d'une grande exactitude, car l'art du peintre dépassera toujours […] la vérité passive de la photographie directe, même coloriée.» *Revue médicale* vol. 19, 1899, no. 10, p. 653.

15 The very first presentation, reported in the March 1896 issue, took place on 1st February 1896. See *Revue médicale* vol. 16, 1896, no. 3, pp. 156–157.

16 As for example in a session of the medical society of Geneva that took place in May 1897, reported in the June issue: *Revue médicale* vol. 17, 1897, no. 6, p. 463.

17 Original text: «aucune découverte remarquable faisant époque comme celle de l'antiseptie ou du sérum antidiphtérique ne restera dans les annales du Congrès de Moscou de 1897.» *Revue médicale* vol. 17, 1897, no. 10, p. 682.

18 Cf. *Revue médicale* vol. 18, 1898, no. 7, p. 362, and vol. 19, 1899, no. 12, p. 768.

the topic of evidence is emphasised by some of the expressions used: radioscopy «allows to observe very distinctly», it «confirms», it is a contribution to the comprehension of a phenomenon.[19]

Such observations can and will be applied to the other dispositives I found in the *Revue médicale*: the ergograph, the esthesiometer, the algesiometer, stereoscopic devices, and even the phonograph.[20] I shall also carefully examine an extensive study published in two parts in December 1898 and January 1899, presenting a new technique of X-ray examination by stereoptical radiographies.[21]

As this book collects papers devoted to cinema and television, the big question about my research is: what about cinematography? It is, in fact, quite absent from the *Revue médicale*! In June 1905, concerning an exhibition linked to an international congress of anatomy, «projection devices» («appareils de projection») are mentioned among other medical devices.[22] This is really vague and may refer to magical lanterns, photography projections on glass, or cinematography. In any case, it suggests that such a phrase was sufficiently common not to need any special explanation. The only other occurrence – anterior to the one just mentioned – is far more surprising. In the review of a book called *Synoptical tables of obstetrics* in the May 1900 issue, the cinematograph is mentioned, but the specificities of the dispositive are used as a comparison:

> What makes the originality of these new tables, are the figures, 312 in all, which illustrate each of the 100 synoptical tables, it is above all the process used to represent the mechanical and operating part of obstetrics, the various moments, the various moves, the various interventions; to be sure of the exactitude, photography was used and the authors themselves made all the shots, either based on the living, or based on the mannequin; the multiplicity, the succession of these

19 Original text: «La radioscopie permet d'observer très nettement […] L'examen radiographique confirme en somme les déductions tirées de l'observation des modifications des phénomènes stéthoscopiques ; il contribue à démontrer que […]». *Revue médicale* vol. 20, 1900, no. 4, pp. 179–181.

20 Cf. *Revue médicale* vol. 25, 1905, no. 3, p. 217. The medical purpose of the phonograph mentioned here is to make audible the patient's pronunciation before and after the operation of a harelip.

21 Cf. Sechehaye, Adrien: «Étude sur la localisation des corps étrangers au moyen des rayons Roentgen, contenant l'exposé d'une méthode nouvelle». In: *Revue médicale* vol. 28, 1898, no. 12, pp. 653–694, and vol. 19, 1899, no. 1, pp. 5–27. It should be noted that «stereoptical» doesn't necessarily imply the illusion of depth; here two radiographic takes were superposed on the same plate in order to calculate the exact localisation of the foreign body by its slight shift on the radiography.

22 *Revue médicale* vol. 25, 1905, no. 6, pp. 435–436.

> images, presented, like the text, in tables the whole set of which can be taken in at a single glance, makes of it a real *cinematography*.[23]

It is of interest to note that the dispositive to which the anonymous reviewer alludes is a crossing between the Cinematograph Lumière and Marey's chronophotography. Indeed, the French word *temps* in this case indicates frozen moments, and it is followed by other indications suggesting frozen moments, a description that perfectly suits the idea of fragmentation; it is thus no surprise that this segment leads to the mention of photography. Such a description of frozen moments of single movements through photography refers of course to the widely known sets of chronophotographies by Marey or Muybridge. At the end of the sentence, however, the reviewer insists on the «multiplicity», the «succession» and the final conjunction of all these images by writing that the whole set can be taken in at a single glance,[24] and ending with an explicit reference to the process of cinematography – which is precisely not to decompose movement with the aim of analysing it, but to animate this decomposition through the succession of images in order to recreate the illusion of movement.

These are the only references to cinematography in over eight thousand pages. At this point, the question arises: why is there no debate about it, like in the case of the X-rays, no eventual dismissal, not even a mention of a new instrument which has been experimentally used in medicine all over Europe since the end of the 1890s?[25] It is improbable that practitioners in Romandy had not heard of it. In the June 1897 issue of the *Revue*,[26] I found that Auguste Reverdin, one of the important professors in Geneva,[27] had direct links to the French surgeon Eugène-Louis Doyen, a brilliant and influental practitioner whose experimental methods and self-publicity, however, were regularly criti-

23 «Cinematography» is in italics in the original text: «Ce qui fait l'originalité de ces nouveaux tableaux, ce sont les figures qui, au nombre de 312, viennent illustrer chacun des 100 tableaux synoptiques, c'est surtout le procédé auquel on a eu recours pour représenter la partie mécanique et opératoire de l'obstétrique, les divers temps, les diverses manœuvres, les diverses interventions ; afin d'être sûrs de l'exactitude, on a employé à la photographie et ce sont les auteurs eux-mêmes qui ont exécuté tous les clichés, soit d'après le vivant, soit d'après le mannequin ; la multiplicité, la succession de ces images, présentées elles-mêmes, comme le texte, en tableaux dont l'ensemble peut être embrassé d'un seul coup d'œil, en fait une véritable *cinématographie*.» *Revue médicale* vol. 20, 1900, no. 5, pp. 276–277.

24 The word «synoptical» in the book title suggests this aim from the start.

25 Cf. Bonah et al.: «Moving Pictures and Medicine», pp. 124–126.

26 Cf. *Revue médicale* vol. 17, 1897, no. 6, p. 463.

27 Cf. Rieder: *Anatomie d'une institution*, pp. 74, 99–100, 136, 189–190.

cised.[28] Doyen had some of his operations filmed since the end of the 1890s, with the problematic circulation of the films creating some scandals; he also theorised the use of medical cinematography in respected periodicals at the very beginning of the 1900s, and he even applied for patents for dispositives of his own invention. The silence of the *Revue médicale de la Suisse romande* on cinematography is thus really surprising and needs to be studied further.

I am very grateful to the Swiss National Science Foundation which sponsors this research project. Many thanks to Marianne Pithon for her careful reading of the English manuscript, and to Thérèse Lüscher and Manuel Ryan for their previous help.

28 Among the author's various studies of this historical figure, see especially Lefebvre, Thierry: *La Chair et le celluloïd. Le cinéma chirurgical du docteur Doyen*. Brionne: Jean Doyen 2004.