Chapter 6

The Aesthetic Idealist as Efficiency Engineer: Hugo Münsterberg's Theories of Perception, Psychotechnics and Cinema

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Hugo Münsterberg's book *The Photoplay* (1915/16) is justly regarded as the first major film theory by an academic. On first reading, one is struck by two interwoven, but contradictory tendencies. On the one hand, we encounter an advanced, modern understanding of the psychology of perception and film viewing, but on the other hand, we find a rather traditional concept of art, drawing upon ideas of nineteenth century idealist aesthetics. This inherent contradiction is heightened by the fact that as a psychologist Münsterberg not only worked in the field of perception, but was also one of the founders of applied psychology, specifically of so-called *Psychotechnik* ('psychotechnics'). He was full of optimism about the logic of the mechanised modern world and wanted to provide psychological services for the capitalist demands of his time. This background should be kept in mind when reading *The Photoplay*. Hence, in the following analysis, I will look into these three characteristic features – psychology of perception, psychotechnics and idealist aesthetics – of Münsterberg's theory and their interrelations, in order to explore the basis for his understanding of contemporary media change and perception. I will argue that his rather conservative stance regarding aesthetics in the specific combination with the two other aspects was not merely reactionary. In the cultural upheaval around 1900, where continuity and discontinuity reigned simultaneously, he was a *Versöhnungsgestalt* ('a figure of reconciliation'), who emphasised continuity.[1]

In his psychological theory of perception, from the impression of movement to comprehending images, Münsterberg highlights the mental activity of the perceiving subject:

> But psychologically the meaning is ours. In learning the language, we have learned to add associations and reactions of our own to the sounds which we

perceive. It is not different with the optical perceptions. The best does not come from without.[2]

This pre-semiotic idea is characteristic of Münsterberg, but extraordinary for a 1916 text on the subject of 'reading' images. However, Münsterberg did not conceive of this activity as spontaneous and independent, but as *induced and controlled by film*. This activity is to be understood as a mechanism that is ultimately reactive and whose effects unfold *involuntarily* (a point that is repeatedly and strongly emphasised). In other words, Münsterberg's understanding of activity does not imply any sovereignty of the spectator over the perceptual object. There is no modernistic notion of 'interactivity' between film and spectator (as James Monaco has claimed).[3] On the contrary, Münsterberg insisted that this activity was an indication of the power cinema exercised over its audience. In his view, the result of such activity was that the viewer was pulled even more strongly into a diegesis. Everything is geared to maximise immersion, to facilitate the entry into an imaginary space, the closed world of the film.

Thus, Münsterberg was the first to point out that cinema forestalls the spectator's mental activities and inscribes them into the film. Its specific techniques – such as close-ups, flash back/flash forward (which Münsterberg calls 'cut back' and 'cut forward'), distinctive camera movements, striking montage rhythms or unusual combinations of shots – trigger and guide mental functions – such as the focus of attention, memory and imagination – as well as activate emotional response. In Münsterberg's view, spectators can hardly avoid reacting to filmic forms and *involuntarily* experiencing their effects.[4] For example, when confronted with a close up, we have to focus on the enlarged detail; when watching a shot taken with a spinning camera, vertigo is (re-)produced in a process of somatic empathy.

Hence, the spectator's consciousness is encircled and an almost hypnotic immersion is achieved. Münsterberg thus established a concept of intense immersive experience that accorded with contemporary changes in filmic narration and its corresponding effects. Fittingly, Vachel Lindsay observed in 1917 that Münsterberg 'unintentionally wrote a guide-book to the newest photoplay experiment, *Intolerance*'[5] (a film released the same year, but months after *The Photoplay* had been published). Even half a century later, Münsterberg's concept of immersion was – implicitly – continued in the apparatus theory inspired by Jean-Louis Baudry.[6]

The fact that Münsterberg's psychological arguments were both timely and prescient may, on first glance, appear to contradict his second tendency, i.e. his affinity to idealist aesthetics. How can a theory based on such a traditional paradigm as idealist aesthetics, which has its roots in the nineteenth, even partly in the eighteenth century, point forward? How can such a theory do justice to contemporary cinema as a product of modernity, of profound change in media and culture? These questions become all the more pressing, when we consider the fact that Münsterberg's aesthetic premises were not specifically developed with film in mind, but long before in his more general theory on values.[7]

Münsterberg, the German-American psychologist and philosopher who had been brought to Harvard by the precursor of pragmatism, William

James, was committed to German idealism. Münsterberg explicitly stated this, for example, as early as 1906 in his programmatic lecture at Yale University that – in keeping with his attempts at 'reconciliation' – was entitled *Science and Idealism*.[8] Therein he turned against pragmatism which 'spreads among our academic youth like a contagious disease'[9] and pleaded instead for the necessity to 'overcome the relativity of every historical point of view'[10] by committing to 'absolute ideals'[11] and eternal values. For Münsterberg, it was settled 'that our scientific time ought to ask once more: Is there anything in this world which is really valuable in itself, anything which justifies the idealistic belief in absolute values?'[12] He answered this rhetorical question by stating that the assumption of absolute values outside the realm of human subjectivity and historical relativity was a logical exigency:

> If there exist no absolute values, no one of us can justify his preferences[13] ... [T]he objective world must have a will of its own and its will must force itself upon me, and must become my own desire.[14]

According to Münsterberg, the aims of 'self-fulfillment' and 'self-realization'[15] belong to the eternally valid principles at work in the 'objective world', and in his thoughts on aesthetics, he particularly points out the idea of complete satisfaction through 'the self-fulfillment of art'.[16] Münsterberg characterises this understanding of art, these ideas that we typically associate with the pre-modern art of the nineteenth century, by two main features. Firstly, he refers to the notion of the harmonious totality of a work of art, an ideal order complete onto itself, in which each element has its justification within the overall structure. A work of art is independent of 'the amusement which tickles my senses',[17] rather following an eternal principle:

> Those tones [of a melody] seek one another. They have life of their own, complete in itself. We do not want to change it. Our mind simply echoes their desires and their satisfaction. We feel with them and are happy in their ultimate agreement without which no musical melody would be beautiful.[18]

Münsterberg expects the same principle of cinematic art. At the same time, the second feature that is constitutive for his aesthetics is already hinted at: *the remoteness of the inner world of a work of art*, separated from the spectator's everyday experience, detached from the *sphere of practical interests*:

> The genius of mankind had to discover ever new forms in which the interest in reality is conserved and yet the things and events are so completely changed that they are separated from all possible reality, isolated from all connections and made complete in themselves.[19] ... The work of art shows us the things and events perfectly complete in themselves, freed from all connections which lead beyond their own limits, that is, in perfect isolation.[20]

This 'aesthetics of isolation' echoes Immanuel Kant's *interesseloses Wohlgefallen* ('disinterested pleasure').[21] To Münsterberg, cinema as a new media technology seemed particularly suited for and devoted to realising art's eternal demand to materialise in new forms, precisely due to its immersive potential. Moreover, film, via camera and editing, had the ability to not only intensely engage with, but also transform objects and events. Filmic techniques inscribe an extraordinary subjectivity into the medium – in

Münsterberg's words: the 'play of the mind' – and thus distinguish the filmic from the profilmic. In sum, he attested that film was

> an entirely new esthetic development, a new form of true beauty in the turmoil of a technical age, created by its very technique and yet more than any other art destined to overcome outer nature by the free and joyful play of the mind.[22]

Undoubtedly, Münsterberg wanted to elevate film to the sphere of respectable art. At first glance, this aim seems paradoxical: avowing himself to cinema, which was the contemporary epitome of *modernity*, while at the same time describing it as a further form of the *eternal principles of art*; and while these principles were derived from idealist aesthetics, he also put modern psychology to the service of this argument.

This line of argument has its strong points, despite the fact that it understates the cultural rupture caused by the new medium. Firstly, the attempt to ennoble cinema by aligning it with high art and its established values was also an aim of the film industry itself, e.g. through filmic adaptations of noted literary works, such as *Cabiria* (1914), *The Birth of a Nation* (1915) and German *Autorenfilme*, and Münsterberg, who kept abreast of current developments, was fully aware of this. Furthermore, it remained a concern of many later film theories. For example, Rudolf Arnheim's *Film als Kunst* fifteen years later followed in line with this tradition, in which Arnheim argued that film worked with new techniques, but that they could be based on aesthetic principles known from established arts.[23] Secondly, the reference to idealist aesthetics furthered the theoretical interest in the *immersive experience* that the new medium provided, particularly the narrative cinema of the 1910s, since it was precisely this new form of experience that fit the idealist concept of aesthetic perception. Finally, Münsterberg on the basis of his aesthetic premises described the immersive experience more realistically than many later 'apparatus theories'. For him, *total* immersion is impossible, since aesthetic immersion never completely obliterates the essential difference between real experience and mediated experience.

Hence, for the aesthetic idealist, aesthetic experience is constituted by the spectator's full awareness that he or she is entering a fictional non-reality. In this view, art should never transgress into complete illusion. German academic aesthetics around 1900 appreciated (sometimes with reference to Johann Wolfgang von Goethe) the oscillating state between the immersive experience of an artwork's content and the sovereign gaze on its form. As Münsterberg puts it: 'The fundamental condition of art, therefore, is that we shall be distinctly conscious of *the unreality* of the artistic production'.[24] In contrast to most contemporary theorists, Münsterberg believed that cinema was potentially capable of creating such an aesthetic experience.[25] Consequently, and again similar to Arnheim, he argued against enhancing film's reality effect with speech and sound (but he was not against the use of music, due to its abstractness). Just like the other arts self-reflexively display their categorical distinction from reality with their specific means, such as frames around paintings or pedestals for sculptures,[26] so cinema should also abstain from masking this distinction and not attempt to create a complete illusion.

It is remarkable that none of Münsterberg's German colleagues, most

of whom shared the same basic theories and values, managed to transfer their aesthetics to the new medium – on the contrary, they stressed the cultural rupture that cinema brought about and mostly regarded it as negative.[27] They interpreted cinema as a source of a disordered, incessant flood of stimuli, as a medium of a new, dynamic urban perception; the visual, popular medium stood for the end of the 'Gutenberg age'. German intellectuals in the 1910s cemented this rupture by the – in their eyes – irreconcilable difference between cinema and 'true art'. Popular film was regarded as the very opposite of everything that was expected from the established arts. While the film industry aspired to align itself with traditional art, not only conservative intellectuals, but also avant-garde artists stressed cinema's difference from it – and they valued it precisely for this reason. For example, Kurt Pinthus declared in the foreword of *Kinobuch*, a collection of expressionist film treatments that he edited in 1913/14:

> Thus, we younger poets and authors, who believe that elevating life (and perhaps also enjoying art) means being shaken to the core, arousing what is most human as well as metaphysical, cannot fight cinema (even though it is an enemy of high art). It enthrals the masses with movement. It excites us with things we have never seen before.[28]

A fruitful aspect of the German discourse was that it highlighted discontinuity and thus the cultural innovation and rupture that cinema represented. In this regard, the avant-garde's arguments were sometimes more original than Münsterberg's concept of continuity. On the other hand, his was the more realistic and optimistic view. His position held the benefit that it enabled him to acknowledge new phenomena and developments as realisations of widely shared and highly regarded values. Hence, he was disposed to analyse the new immersive quality and the narrative techniques of cinema in the 1910s in much more detail.

Nevertheless, Münsterberg's emphasis on continuity also had its drawbacks and produced tensions within his own work, particularly with a realistic and pragmatic view of media developments. This tension becomes particularly visible when studying the relationship between Münsterberg's aesthetic idealism and his psychotechnics. Today, Münsterberg is mostly remembered as one of the founders of applied psychology (in Germany and the USA), rather than in connection with an idealist philosophy of values. He explicitly called the field of applied psychology in which he worked *Psychotechnik* ('psychotechnics'). In his view, psychotechnics is not identical to applied psychology, but a sub-area of it, and it deals with the development of practical advice for everyday modern life on the basis of psychological knowledge. Whereas cultural psychology was devoted to the interpretation of mostly past psycho-social processes, psychotechnics applied and developed psychological knowledge to design current and future services for everyday life according to *Kulturaufgaben* ('cultural demands').[29]

The range of psychotechnical fields of activity included psychiatry, pedagogics, criminology, politics, business, advertising and industrial psychology. For example, Münsterberg developed psychological principles for the establishment of truth in trials (thus he is called the father of the concept of the lie detector). He drafted assessment tests for vocational selection,

such as of switchboard operators at American Bell or drivers in New York's public traffic. The latter is particularly interesting in our context, because it involved a driving simulator for measuring the reaction time of the candidates that was based on a film apparatus.[30] As diverse as these areas were, psychotechnics aimed to provide them all with means to fulfil required tasks, based on knowledge that, in Münsterberg's view, could not be acquired spontaneously. It had to be gained through psychological research, often via experiments. Since a science that fulfilled practical tasks was generally called a 'technical science', Münsterberg regarded the term psychotechnics as appropriate: 'It may be considered as psychotechnics, since we must recognize any science as technical if it teaches us to apply theoretical knowledge for the furtherance of human purposes'.[31]

How strongly Münsterberg's way of thinking was linked to contemporary industrial technologisation and the technologically supported pursuit of efficiency is expressed in his remark that psychotechnics stood in the same relationship to psychology as engineering to physics. In his book *Psychology and Industrial Efficiency* (1913), he suggested that industry should employ groups of qualified psychotechnicians as 'psychological engineers'[32] to increase efficiency:

> Some of these psychological engineers would devote themselves to the problems of vocational selection and appointment; others would specialize on questions of advertisement and display and propaganda; a third group on problems of fatigue, efficiency, and recreation; a fourth group on the psychological demands for the arrangements of the machines; and every day would give rise to new divisions.[33]

The analogy between Münsterberg's 'psychological engineers' and 'efficiency engineers', who were at the time employed in the US industry (including the film industry)[34] in the wake of Taylorism, is striking. In fact, he was thinking of nothing less than psychological efficiency engineers.

One of these 'new divisions' would be taking care of the presentation of goods. But in this context, it is characteristic of Münsterberg as an idealist philosopher that he stressed the distinction between the realm of the beautiful (*das Schöne*), which served art, and the sensuously pleasant (*das sinnlich Angenehme*), which served economics:

> If the display is to serve economic interests, every line and every curve, every form and every colour must be subordinated to the task of leading to a practical resolution, and to an action [to sell the product], and yet this is exactly the opposite of the meaning of art. Art must inhibit action, if it is perfect. ... The aesthetic forms are adjusted to the main aesthetic aim, the inhibition of practical desires. The display must be pleasant, tasteful, harmonious, and suggestive, but should not be beautiful, if it is to fulfill its purpose in the fullest sense.[35]

William Stern, who originally coined the term *Psychotechnik*, labelled this basic dualism as Münsterberg's 'two-world theory'.[36] It reflects Münsterberg's contradictory doubling as psychotechnician and idealist. As Münsterberg wrote in *Psychology and Industrial Efficiency*:

> We must understand that every technical science says only: you must make use of this means, if you wish to reach this or that particular end. But no technical science can decide within its limits whether the end itself is really a desirable one.[37]

Whether purposes 'are desirable or not is a question which does not concern the technical scientist, but which must be considered from ... other points of view'.[38] According to Münsterberg, the philosophy of values and aesthetic theory can give answers regarding cultural desirability. Conversely, psychotechnics can offer assistance to an artist who tries to 'elicit an effect on the mind of the listener or spectator, in order to evoke certain aesthetic emotions'.[39]

Hence, one can read central thoughts of Münsterberg's film theory as clearly emanating from a psychotechnical perspective. Nonetheless, his main interest lay in cinema as art and not as amusement that 'tickles the senses',[40] so he abstracted his concept of film from its everyday existence as a commodity of mass entertainment. The two perspectives, idealist aesthetics and psychotechnics, modified each other: on the one hand, the idealist concept of beauty, Kant's 'disinterested pleasure', was transformed into an effect that was efficiently realisable only by means of psychotechnics; on the other hand, the idealist understanding of art limited the potential application of psychotechnical principles to film.

The latter restriction becomes particularly clear when comparing Münsterberg's thoughts on the functioning of 'certain standard forms of communication'[41] in business life. Like Frederick Winslow Taylor or Frank Bunker Gilbreth, Münsterberg explained the necessity of his explorations as follows: 'The single individual can never find the ideal form of motion and the ideal process by mere instinct. A systematic investigation is needed to determine the way to the greatest saving of energy'.[42] However, while Taylor and Gilbreth were concerned with *physical* working processes, which were to be researched, developed and implemented according to the principles of rationalisation and efficiency, Münsterberg was concerned with the *psychological* efficiency of business communication. Hence, he regretted that, for example, in sales talk or advertising people mostly acted on spontaneous impulses, and that such communication was not yet touched by contemporary processes of mechanisation. In his view, such unstandardised communication was as outdated as craftsman's work in relation to factory products.[43] Such a statement was typical of Münsterberg. His solution, which he claimed was an obvious one, was to transfer the concept of scientifically optimised standardisation of working processes to the sphere of communication: 'As soon as the accurate form for a suggestion or argument is found, it needs to be secured and then practised, if both psychological economy and effectiveness are to be achieved'.[44]

Münsterberg described the profit of using standardised phrases under four aspects.[45] *Firstly*, we gain psychological economy when using the accurate argumentative form: the speaker will experience a positive effect of automation, since the application of standardised phrases requires less effort and thus provides mental relief. *Secondly*, by using the appropriate suggestive form, effectiveness is increased, because the phrase is optimally adapted to the addressee. *Thirdly*, on the customer's side, a training and recognition effect will be achieved, which creates familiarity; the more frequent the repetition, the better its retention and thus the greater its effect. *Fourthly*, this finds its completion in the pleasure experienced in repetition as such.

This pleasure is based on the warm feeling elicited by being familiar with something, a positive emotion: 'The pure value of memorising is all the more important ... because, according to a well-known psychological law, the pleasure of repetition as such is easily transferred onto the recognised object'.[46]

Interestingly, these four aspects of Münsterberg's business psychology later periodically re-emerge in the thinking of film theorists, whenever they explore the reasons of standardisation in filmic narration and the phenomena of serials and genres.[47] Münsterberg, without referring to film in this context, indirectly prefigured the repertoire of concepts and arguments in these areas. Indeed, a look at cinema around 1916 reveals that genres, serials and all kinds of visual and narrative stereotypes were already firmly established.[48] Furthermore, with the *pleasure of repetition*, Münsterberg addressed a subject that he also investigated in the context of his experimental aesthetics of form, obsessed with quantification, in the vein of psychotechnical service for the arts. In his laboratory, he researched 'the question of how much liking is owed to the repetition of forms and the conditions under which true pleasure can still be achieved by only partial repetition'.[49]

Taking all this into account, we might assume that Münsterberg's interest in the standardisation of communication would also have entered into his theory of film, especially since he exhibited a sense of the practical demands of cinema and even actively collaborated with the film industry.[50] For example, he attributed the lack of interest in newsreels among contemporary US film producers to the fact that 'the accidental character of the events makes the production irregular and interferes too much with the steady preparation of the photoplays'.[51] While Adorno, decades later, attributed the schematisation he diagnosed in the 'culture industry' (including Hollywood's film industry) to *psychotechnics* (which for him was a term with purely negative connotations),[52] Münsterberg, the dedicated psychotechnician, who was very interested in the standardisation of forms, stereotypes and the pleasure of repetition in general, did not address such issues in his study on film.

The reason for this paradoxical neglect may once again be found in Münsterberg's idealist aesthetics, which left no space for economic contemplations. Hence, in the realm of art, Münsterberg downplayed modern standardisation of form and instead championed the continuity of eternal values. Here we encounter the lapses into inconsistency of which Münsterberg's Harvard colleague, the pragmatist John Dewey, wrote in 1910, when reviewing *The Eternal Values*. Dewey claimed that such blind spots could be found in any philosophy 'that professes Ultimates, Absolutes, and Eternals'.[53] Hence, at certain critical points of Münsterberg's theory, the idealist dominated and restricted the psychotechnician.

Notes

1. On Münsterberg and his general attempt to reconcile traditional and modern values see e.g. Matthew Hale, *Human Science and Social Order: Hugo Münsterberg and the Origins of Applied Psychology* (Philadelphia, PA: Temple University Press, 1980); on vitalism vs. mechanism in his film theory in particular see e.g. Bernard M. Timberg, 'E=mc^2 and the Birth of Film',

Texas Studies in Literature and Language 22, 2 (Summer 1980): 263–285. Translations are mine unless otherwise indicated.

2. Hugo Münsterberg, *The Photoplay: A Psychological Study* (New York and London: Appleton, 1916), 73.
3. James Monaco, *How to Read a Film: The World of Movies, Media, and Multimedia: Language, History, Theory*, 3rd edn (New York et al.: Oxford University Press, 2000 [1977]), 394.
4. See Münsterberg, *The Photoplay*, Chapter 4: 'Attention', 72–91.
5. Vachel Lindsay, 'Photoplay Progress', *The New Republic* 10, 120 (17 February 1917): 76–77, quote p. 77.
6. See Jean-Louis Baudry, 'The Ideological Effects of the Basic Cinematographic Apparatus', 302–312 and 'The Apparatus: Metapsychological Approaches To the Impression of Reality In Cinema', 690–707, both in Gerald Mast, Marshall Cohen and Leo Braudy (eds), *Filmtheory and Criticism: Introductory Readings* (New York and Oxford: Oxford University Press, 1992 [1970]); see also Teresa de Lauretis and Stephen Heath (eds) *The Cinematic Apparatus* (Basingstoke: Macmillan, 1985).
7. Hugo Münsterberg, *Philosophie der Werte: Grundzüge einer Weltanschauung* (Leipzig: Barth, 1908); English version *The Eternal Values* (Boston and New York: Houghton, Mifflin & Co, 1909).
8. Hugo Münsterberg, *Science and Idealism* (Boston and New York: Houghton, Mifflin & Co, 1906). To 'cement the friendship' (p. v) between Harvard and Yale University Yale invited some professors of Harvard University to speak at Yale every winter.
9. Ibid, 29.
10. Ibid, 20.
11. Ibid, 71.
12. Ibid, 6–7.
13. Ibid, 20.
14. Ibid, 32.
15. Ibid, 62.
16. Ibid, 45.
17. Ibid, 31.
18. Münsterberg, *The Photoplay*, 166–167.
19. Ibid, 165.
20. Ibid, 150.
21. Münsterberg was closely connected to the Baden school of Neo-Kantianism, which was founded by Wilhelm Windelband and continued in Münsterberg's generation by Heinrich Rickert. Max Weber, a friend of Münsterberg's, was also rooted in this philosophical tradition.
22. Ibid, 233.
23. See Rudolf Arnheim, *Film als Kunst* (Berlin: Rowohlt, 1932), 11. English translation: *Film As Art* (Berkeley, CA: University of California Press, 1957).
24. Münsterberg, *The Photoplay*, 161 (my emphasis).
25. See Jörg Schweinitz, 'Psychotechnik, idealistische Ästhetik und der Film als mental strukturierter Wahrnehmungsraum: Die Filmtheorie von Hugo Münsterberg', in Hugo Münsterberg, *Das Lichtspiel: Eine Psychologische Studie und andere Schriften zum Kino*, ed. by Jörg Schweinitz (Wien: Synema, 1996), 21–24.
26. See Hugo Münsterberg, 'Why We Go To the Movies' [1915], reprinted in *Hugo Münsterberg On Film: The Photoplay: A Psychological Study and Other Writings*, ed. by Allan Langdale (New York and London: Routledge, 2001), 171–190.
27. For a collection of examples, see e.g. Jörg Schweinitz (ed.), *Prolog vor dem Film: Nachdenken über ein neues Medium 1909–1914* (Leipzig: Reclam, 1992).
28. Kurt Pinthus, 'Einleitung: Das Kinostück', in Kurt Pinthus (ed.) *Das Kinobuch* (Frankfurt am Main: Fischer, 1983 [1914]), 24.
29. See Hugo Münsterberg, *Grundzüge der Psychotechnik* (Leipzig: Barth, 1914), 6.
30. See 'Der Kinematograph als Prüfstein für Chauffeure', *Lichtbildbühne* 5, 38 (21 September 1912): 38–39.
31. Hugo Münsterberg, *Psychology and Industrial Efficiency* (Boston and New York: Houghton, Mifflin & Co., 1913), 17.
32. Ibid, 307.

33. Ibid.
34. See David Bordwell, Janet Staiger and Kristin Thomson, *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (New York: Columbia University Press, 1985), 85–153.
35. Münsterberg, *Psychology and Industrial Efficiency*, 273.
36. William Stern, 'Hugo Münsterberg: *in memoriam*', *Journal of Applied Psychology* 1, 2 (June 1917): 186–188.
37. Münsterberg, *Psychology and Industrial Efficiency*, 17.
38. Ibid, 17–18.
39. Münsterberg, *Grundzüge der Psychotechnik*, 6.
40. Münsterberg, *Science and Idealism*, 31.
41. Münsterberg, *Grundzüge der Psychotechnik*, 435.
42. Münsterberg, *Psychology and Industrial Efficiency*, 297–298.
43. See Münsterberg, *Grundzüge der Psychotechnik*, 435.
44. Ibid.
45. See ibid., 423–424.
46. Ibid, 423.
47. To name just one example: Peter Bächlin *Der Film als Ware* (Frankfurt am Main: Athäneum Fischer, 1975 [1947]).
48. See Jörg Schweinitz, *Film und Stereotyp: Eine Herausforderung für das Kino und die Filmtheorie – Zur Geschichte eines Mediendiskurses* (Berlin: Akademie, 2006), specif. 127–137.
49. Münsterberg, *Grundzüge der Psychotechnik*, 650. See also Hugo Münsterberg (ed.) *Harvard Psychological Studies*, Vol. 2 (Boston and New York: Houghton, Mifflin & Co., 1906), specif. 31–39 und 193–268.
50. For example, in June 1915, Münsterberg visited the Vitagraph studios for research. The film company, who was very proud of this attention, arranged a photo session to have the Harvard mandarin's picture taken with their star Anita Stewart. Later, Münsterberg worked for Paramount as an advisor, on an installment of the popular science series *Paramount Pictograph* that dealt with psychological tests. See Jörg Schweinitz, 'Psychotechnik, idealistische Ästhetik und der Film als mental strukturierter Wahrnehmungsraum', 13–14.
51. Münsterberg, *Science and Idealism*, 10.
52. Max Horkheimer and Theodor W. Adorno, 'Dialektik der Aufklärung: Philosophische Fragmente' [1947], reprinted in Theodor W. Adorno, *Gesammelte Schriften*, ed. by Rolf Tiedemann, Vol. 3 (Frankfurt am Main: Suhrkamp, 1981), 7–298, specif. p. 187. English translation available online at http://www.marxists.org/reference/archive/adorno/1944/culture-industry.htm: 'Advertising and the culture industry merge technically as well as economically. In both cases the same thing can be seen in innumerable places, and the mechanical repetition of the same culture product has come to be the same as that of the propaganda slogan. In both cases the insistent demand for effectiveness makes technology into psycho-technology ['Technik zur Psychotechnik'], into a procedure for manipulating men.'
53. John Dewey, 'Hugo Münsterberg, *The Eternal Values* [Review]', *Philosophical Review* 19 (1910): 188–192, quote p. 190.

Chapter 7

Between Observation and Spectatorship: Medicine, Movies and Mass Culture in Imperial Germany

Scott Curtis

Between 1895 and 1918, motion pictures endured a difficult and very public transition between their good standing as a scientific tool and their growing notoriety as an instrument of mass culture. This is not to imply, however, that motion pictures during this time were either one or the other; from the very beginning, film has been many things to many people, from scientists to educators to entrepreneurs. Film continued to be a manifold object and experience even after it was associated primarily with entertainment. But during the early period, and particularly in Germany, there was a strong contrast between the enthusiasm for motion pictures as a scientific or pedagogical tool and the simultaneous condemnation of its incarnation in mass culture. To a certain extent, this is unsurprising: the German debates about cinema follow more or less the same pattern that we can find in nearly all countries at this time. There seems to be no reason to think that the German discussions in the scientific community and those in the public sphere are exceptional or even related. But if we look closely, we find that the scientific and public debates about cinema are indeed related: the reasons scientists and physicians accept film as a scientific instrument are rooted in the same logic that prompts them and others to reject cinema's public manifestation. This logic concerns, to put it too simply, the perceived difference between *observation* and *spectatorship*. That is, the participants in both discussions seem to agree on the advantages and dangers of the moving image, but many of these advantages and dangers appear to stem from *different ways of viewing the image*. This essay will explore this difference by comparing the German-language discussion of motion pictures as a medical research tool with the debates about cinema's threat to public health.

To illustrate this divide, we need only look to some representative quotations. The first is from a 1919 survey of the use of motion pictures in medicine: