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# Mind Reading as a Cultural Practice

*Edited by*  
Laurens Schlicht  
Carla Seemann  
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# Mind Reading as a Cultural Practice

Perspectives on its Epistemologies, Technologies, Modes of Subjectivization, and  
Cultural and Political Dimensions in the Twentieth Century

palgrave  
macmillan

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Palgrave Studies in Science and Popular Culture

ISBN 978-3-030-39418-9

ISBN 978-3-030-39419-6 (eBook)

<https://doi.org/10.1007/978-3-030-39419-6>

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Cover image: Hellwig, Albert 1929. *Okkultismus und Verbrechen*. Berlin: Hanseatischer Rechts- und Wirtschaftsverlag

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

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## Introduction

*Laurens Schlicht and Carla Seemann*

Most contemporary German encyclopaedias have recognized the shows of the American mentalist John Randall Brown (1851–1926) as the beginning of the phenomenon of “mind reading.”<sup>1</sup> In this specific sense, mind reading in its simplest form was considered “the art of finding a hidden object, in which the seeker, blindfolded, grasps a knowing ‘medium’ by the hands and guides him or her during the search. It is based on the observation of the muscle contractions of the medium, which occur when the right path is taken” as the German encyclopaedia *Brockhaus* tells us in 1911.<sup>2</sup> The explanatory scheme of the unconsciously exposed muscle contractions of the medium, provoked by mental images and thus also called “ideomotor movements,” was considered “proven” by William Preyer’s “palmograph”—an apparatus to detect the smallest muscle contractions of the hand—as a German philosophical dictionary puts it in 1907.<sup>3</sup>

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In 1886, William Preyer (1841–1897), professor of physiology at Jena University, formulated in “The Explanation of Mind Reading” (*Die Erklärung des Gedankenlesens*) the necessity to prove mind reading scientifically and therefore to transfer it from the context of popular entertainment to the realm of natural science.<sup>4</sup> Preyer wanted to demonstrate that mind reading was a simple and trainable technique and rejected its interpretation as “magnetic rapport” (*magnetischer Rapport*) or “mental radiation” (*psychische Strahlung*)<sup>5</sup> stemming from the rather spiritistic contexts of mesmerism. In his view, mind reading was simply a physical process during which a certain mental image of an object was unconsciously translated into an automatic muscular reaction which allowed the mind reader in the above-mentioned constellation to be guided to the hidden object.<sup>6</sup> He wanted to visualize the muscular contraction related to a specific mental image with his palmograph which “translated” involuntary movements of the arm—caused physically (by breath or pulse) or psychophysically (by mental images)—graphically into a curve. With his apparatus, he aimed to substantiate that “the muscle contractions occurring independently of mental activity have a uniform character, whereas the others do not.”<sup>7</sup>

There existed alternative interpretations of mind reading at the same time. For example, Max Dessoir (1867–1947), one of the leading figures of Berlin Psychological society, in the same year wrote “On the History of Mind Reading” (*Zur Geschichte des Gedankenlesens*),<sup>8</sup> in which he reported on observed phenomena which in his eyes could not be explained by the theory of ideomotor movements, that is, by the observation and measuring of unconsciously exposed muscle contractions. In contrast to this theory, Dessoir was only interested in a form of mind reading he called “supernatural thought transmission without bodily contact.”<sup>9</sup> He argued that the most desirable version of mind reading was a thought transmission which transferred mental pictures over any distance. Dessoir demarcated his own approach from two other categories of mind reading: firstly, the one practised by show masters who in his view just used trickery; secondly, the physiologist model represented by Preyer and others.<sup>10</sup> In contrast to both, Dessoir aimed at an experimental scene in which all conscious or unconscious transmission of thoughts through one of the bodily senses had to be excluded.<sup>11</sup> Therefore, he also had to slightly change the experimental setting: the subject functioning as receiver of the thought-image left the room while the name of an object was written on a piece of paper which was shown to the members



of the experimental group. The latter had to concentrate mentally on the object when the receiver came back into the room so that the receiver could see the image in his or her own imagination.<sup>12</sup> The reception of these mental images in Dessoir's sense could also be refined in order to extend the distance of transmission or the complexity of the objects to be transmitted (so, for example, in more advanced settings the attribute of the will [*Willensantriebe*] or more abstract impressions of the senses could be transmitted as well).

The quoted actors can be regarded as exemplary figures in a network of practices of and reflections on mind reading. They illustrate the variety of topics dealt with by scientists, show masters or mediums related to this practice. Mind reading, thereby, presented itself as a new field of enquiry for disparate forms of practices and soon it became important for these actors to set their boundaries. In the above-described discussion, one of the central demarcation lines was the question as to what forces constitute our psychical universe. Mind reading stimulated exactly these questions of scientific ontology. We want to give only one example from the field of psychology: Karl Marbe, experimental psychologist and professor at Würzburg University.<sup>13</sup> As a relatively new academic discipline, at the beginning of the twentieth century, psychology had to protect its claim for scientificity and therefore was particularly vigilant with regard to any putative threat. Marbe wanted to show that indeed mind reading, the ability to know someone's thoughts without her or him telling explicitly, existed and even formed an integral part of our everyday life, but had nothing to do with any occult or spiritual ability or force. Therefore, Marbe conducted a number of experiments to test the ability of his students in mind reading, aiming to prove the superfluity of any occult or spiritist ability when it comes to literally "reading" people's minds; in other words, using any kind of resource outside the universe of known scientific techniques or objects was completely unnecessary because for him true mind reading was not supernatural, but a mundane, natural skill. Show masters, as Marbe claimed, have used either simple tricks to feign the ability of mind reading or, conscious or not, used simple predictive knowledge stemming from statistical inference.<sup>14</sup>

One type of experiments conducted by Marbe therefore basically consisted in testing if some types of events which appeared to occur randomly in effect showed some regularities. For example, he used an epidiascope (a kind of projector) to present his students a number of cards and invited each to remember just one of them.<sup>15</sup> He wanted to know if the

cards remembered were in fact distributed randomly or if there was some repeatable structure. The result of this experiment was that there indeed existed preferences for some cards. People would usually choose the ace to remember, then high numbers, then the jack, queen, king, etc., evidence for what he called the “*Gleichförmigkeit des psychischen Geschehens*,” the uniformity of mental events.<sup>16</sup> Marbe claimed that the effect of this uniformity could even be increased by the force of suggestion. With his theory of uniformity, Marbe challenged two fields of knowledge, which in his view had been harmful: theories of a collective “spirit,” like the spirit of the “*Volk*” or of an era, and any type of parapsychological or occultist explanation of the link between two individual spirits. For Marbe, stage performers presented “mind reading” using an array of different techniques, more or less simple tricks, like the statistical inference, a refined ability to detect the smallest muscle movements. With reference to the famous Albert von Schrenck-Notzing (1862–1929), Marbe tells in an autobiographical text of 1945 that he himself had successfully reproduced these show tricks of “mind reading” based on previously agreed secret signs.<sup>17</sup>

### MIND READING AS CONTEST ZONE

The previous examples may illustrate that through the concept of mind reading, seemingly separate fields of practice and knowledge became connected—for example, interrogation practices and occultist séances, statistical knowledge and stage magic, neuroscience and popular media. On a conceptual level, “mind reading” became a possibility for building a shared reference for a socially and epistemically heterogeneous group of actors and practices. The concept of mind reading was open enough to give the actors involved enough latitude to fill it with new content. At the same time, the concept was sufficiently clearly delineated to serve as a point of focus for epistemic and social controversies.<sup>18</sup> This conceptual fuzziness was the result of groups of very different social and epistemic reputation delineating the meaning of this concept each in their own way, in order to negotiate ontological, epistemological or social issues at stake (see below).

In history, sociology and philosophy of science, similar phenomena have often been analysed based on the work of Ludwik Fleck.<sup>19</sup> Inspired by historical epistemology, this kind of research posed the question of how actors with different backgrounds working on the same object can actually

communicate with each other. At times, this communication can be simplified by defining central joint interests or points of contention through a common conceptual reference. When the actors referred to mind reading, we assume that they referred to exactly such a weakly defined field of possible points of contention (like the legitimacy of breaking into the thoughts of others, the desirability of a widespread use of mind reading or forms of its technical realization).

One argument of this research was that concepts too rigidly defined prevent rather than promote communication and innovation processes. For instance, Ilana Löwy analysed the case of immunology, wherein she proposed to analyse “loose concepts” that may even remain imprecise throughout their life cycle and thus enable the building of what Peter Galison has called a “trading zone”<sup>20</sup> or, as Löwy adds, a more stabilized “pidgin zone,” which unites different professional groups: “On the social level such ‘permanently imprecise’ concepts may moreover favour the development of ‘federative’ experimental approaches and may facilitate the long-term maintenance of loose coalitions of institutional alliances between pre-existing professional groups.”<sup>21</sup> We assume that, analogous to the description of experimental systems, the negotiation of political and social challenges is often grouped around such permanently imprecise concepts. They serve to define the political, social or epistemic differences that are at the centre of these debates.<sup>22</sup> Apart from the fact that mind reading was a concept that was referenced in order to enact such differences, it also fulfilled the function of transferring knowledge about the objects in question. In this way, these “loose concepts” build zones for trading knowledge but also take part in the struggle over the legitimacy of forms of knowledge and knowing, thereby creating what one could call “contest zones.” The case of mind reading is such a contest zone, creating a space of discourse and practice that was structured by disagreement over vital political, social and epistemic values. In this sense, as also Löwy emphasizes, the imprecise character of concepts is not a transitory phenomenon, at least as long as the kinds of disagreement connected to it continue to exist.

Different groups aimed at interpreting mind reading in line with their own political, social or epistemic aims. Starting from 1900, when Alfred Binet (1857–1911) had published his famous *De la suggestibilité*,<sup>23</sup> the works of other scientists following his research and, before that, the reception of the famous show masters of the late nineteenth century who staged mind reading, several elements came to be coupled in reflections

on mind reading. While the historical configurations of these elements continually changed, these elements themselves remained and continued to migrate through various societal fields. “Mind reading,” as the chapters of this volume show, is starkly connected to reflections on modern subjectivities and, connected to that, on technologies of protecting and reading other people’s minds. Consequently, the essential demarcation lines are grouped around: (a) these questions of the construction and organization of modern subjectivity, that is, how people conceived of themselves as parts of different national, regional, gender-related, scientific, or social groups; (b) a fascination for techniques of mind reading, either with or without instruments, and a reflection on the effects of such techniques on subjectivities; (c) a fear of the possibilities associated with mind reading and a reflection on the causes of such possible effects; (d) a deeper consideration of the nature of the individual and collective consciousness and of the kinds of forces that constitute the universe; (e) an attempt to distinguish science from non-science; and (f) a productive practical re-evaluation of technologies of mind reading.

We can find these aspects of mind reading in nearly all of the relevant fields of practice or knowledge: psychophysiology, statistics and psychology (including the prediction of human behaviour in behavioural sciences), criminology and criminal psychology, hypnotism, occultism, parapsychology, psychoanalysis, cinema and literature. When researching contemporary newspaper articles with reference to “mind reading,” one will find the same kinds of hopes and anxieties, with special emphasis from large corporations such as Facebook or Google on the development of “big data,” while in earlier times the fear of statistical surveys which possibly would cover all strata and aspects of the population was fixated rather on the knowledge of the state.

*Subjectivities:* Ever since actors from different fields of knowledge offered techniques to supposedly read one’s mind, people have been fascinated by them. They felt the powerful potential of techniques to know other’s intentions, fears or secret plans. On the other hand, today, these techniques are discussed in the medical realm as forms of treatment for people who cannot express themselves other than through technical devices that recognize their intentions through, for example, scanning their brain or eye movements.<sup>24</sup> Initially, the ability to read someone’s mind alluded to the fundamental prerogative of any subject of the bourgeois state to be the possessor of his or her own thoughts. Therefore, this

modern subject also had the right to keep his secrets, and the distribution of competences between the state and, since the eighteenth century, its citizenry became increasingly defined by the stabilisation of a space called the “private sphere.” Already at the beginning of the twentieth century, sociologist Georg Simmel (1858–1918) offered reflections on this topic, arguing that in modern societies citizens define their power through the possibility, ability and legitimacy of possessing and keeping secrets.<sup>25</sup> Conversely, techniques to pilfer the secrets of both individuals and organisations are threatening within this scheme of subjectivity and, on a societal level, destabilizing, like, for example, the detective skills of the protagonist of Arthur Conan Doyle’s detective stories, Sherlock Holmes.<sup>26</sup> In Simmel’s view, one could literally define different types of societies through the lens of the collective treatment of secrets.<sup>27</sup> Furthermore, he believed that he was witnessing a development towards an ever more rigidly defended private sphere, while the publicity of the public was becoming ever more mandatory: “In fact, it seems as if the affairs of the general public are becoming more and more public, those of individuals more and more secret.”<sup>28</sup>

In contexts within which constructions of free and self-determined human beings form the hegemonic layer of subject constructions and within which possessing one’s own thoughts is a constitutive element of this “self,” techniques of “mind reading” must appear as particularly threatening and precisely for this reason fascinating. Thus, one can say that in these constellations “mind reading” always touches on the fragile figure of the modern subject. On the one hand, it evinced the possibility of forming bonds of empathy between subjects; on the other, exactly these bonds could entail the possibility of losing control over oneself. While this is true on the level of the individual, it becomes even more pressing on the level of the political and collective subject.

Connected to this anxiety with regard to the integrity of the individual subject was a fear concerning the integrity of the political subject. Here, the question of mind reading was very closely linked to that of mind control. Well-known motion pictures treated this kind of concern regarding political collectivity, like *The Cabinet of Dr. Caligari* directed by Robert Wiene (1920). These filmic interventions addressed what modernity had formulated as a challenge for any political organisation that aimed at fulfilling its two goals to, on the one hand, create a home for the liberal subject and, on the other hand, form administrative schemes to control and predict the behaviour of these subjects.<sup>29</sup> The figure of the mind

reader and/or mind controller embodies the fear of the possibility that the subject might not be free, or that there might exist uncontrollable forces enabling people to intrude on one's private thoughts. Thus, an implicit discursive possibility of any of these modern governmental systems was that reading and predicting people's minds would also lead to controlling them, a thesis which Siegfried Kracauer strongly advocated in *From Caligari to Hitler* by equating Adolf Hitler with Caligari, the figure from the famous motion picture.<sup>30</sup>

Connected with this imagination of the almighty mind reader and controller was the concern for the integrity of being human. In response to this concern, many texts from the beginning of the twentieth century contain attempts to create other concepts of being a subject, to which Kracauer also contributed. In his essay on the detective story (*Der Detektiv-Roman*), he even went so far as to render the secret a constitutive element of really and fully being human. For him, the secret constituted a metaphysical or even mythical, religious experience which could not fully be described or explained. The fact that Kracauer made the secret such a central part of his social ontology shows that it was precisely this experience that he felt was necessary for a truly humanistic society. On the other hand, the disappearance of the secret was a fundamental danger of modernity itself. For in Kracauer's view, the disappearance of the secret prevented people from maintaining their necessary connection with the higher sphere of being (*Seinssphäre*). The figure of the detective occupied an intermediate position and was able to mediate between the different spheres. For Kracauer, however, the secret remained the essential key to real humanity. The detective was able to illustrate that within the sphere of law secrets could be uncovered with the help of a mechanical rationality. This made it all the more clear that secrets that were more existential in nature remained which could not be solved in this way. The detective thus became a melancholic figure, as he could only solve problems he had understood to be not existential. In Kracauer's reading, the fascination of mind reading based on the reading of bodily traces would thus make visible merely the emptiness of modernity, which withdrew itself from the real essence of human being, highlighted by the detective's work through its profound absence.<sup>31</sup>

While Kracauer's contribution to the issues of modern selfhood is only one of many, it illustrates the conceptual efforts to create for the subject an inviolable centre which would remain intact even when famous mind readers like Sherlock Holmes attempted to invade the boundaries of the

subject. Another option was to accept and even embrace the entanglement of any member of the organism of the state, thereby giving up on and contesting the safe space of modern individuality. Notably agents of the state themselves had to offer some legitimising discourse sanctioning their acts of intrusion. Sometimes, these attempts at legitimisation took the form of the foundations of a new political ontology. In *Police and People* (*Polizei und Volk* [1926]), a highly ranked police officer, Ernst van den Bergh (1873–1963), to cite just one example, argued for his theory of the “people” (*Volk*) as an organism with different functions, one of which was the police. In his view, in order to work smoothly, these functions had to be integrated into a “*Volksstaat*” (people’s state), within which the police function would then organically be integrated. A “mental link” (*seelischer Zusammenhang*) would connect all functions of this people’s state.<sup>32</sup> Within schemes like this, the necessity of keeping one’s own thoughts secret and to define oneself as a possessor of one’s own thoughts appeared to be less important; it was deemed more important to be integrated into a community defined by a common “spirit.”<sup>33</sup>

In the narrower sense, mind reading has always offered options to reflect on the question of what kinds of forces could actually exist; could there, for example, be some hitherto unknown force or connection between two spirits? Already during the Scientific Revolution scientists referred to these new and fascinating possibilities as “occult” forces,<sup>34</sup> and also in the discourse on “mind reading,” people were interested in these “occult” aspects of the universe, for the most part focusing on accounting for these forces in a scientifically valid way.<sup>35</sup> And today, institutions like the *Institut métapsychique international* in Paris (its motto being: “*Le ‘paranormal,’ nous n’y croyons pas. Nous l’étudions*”) are interested in these kinds of questions.<sup>36</sup> In addition to being a reflection on social cohesion and on individual liberty, different experiments carried out by those institutions address the question of what kinds of objects we can expect and conduct research on. At the turn of the twentieth century, the discussion about the types of things that existed in the world was the order of the day. In a period in which new kinds of forces had been discovered, like the X-rays by Wilhelm Röntgen, and old kinds of forces were questioned, like the gravitational force, and radio waves started to conquer the world, ontological openness was normal.<sup>37</sup>

In addition, these ontological considerations were also part of a struggle over a legitimate understanding of the world. Some would use experiments in “mind reading” as arguments against what they called “materialism” and thus to prove that there exist more entities in the world than in the allegedly materialist world view. For example, Max Lustig published experiments on mind reading in which he claimed that they would prove that materialism was wrong, that there existed more kinds of connections between human beings than mere physical forces.<sup>38</sup> For writers like Lustig, the “occult” forces presented a way to counter the fear of materialistic emptiness by revealing a universe of still unexplored ontological possibilities.

While these kinds of reflections had multifaceted reverberations in many fields, they created new spaces of agency for some actors. One of these fields where “occult” phenomena were discussed vividly was the legal sphere, especially in the prosecution of crimes, because there, jurists or police officers had to decide positively whether the alleged occult practices were to be taken seriously. Uwe Schellinger and Michael Schetsche have shown for the case of “psychic detectives” in Germany that the relation of the police to these actors was persistent and ambivalent, since in some cases, the police did not evidently exclude the possibility of some kinds of inexplicable or as yet unknown forces. One of the fields of interest for the police was criminal telepathy, which has been explored in various forms by the police and legal experts since the 1920s onwards. Schellinger and Schetsche quote one of the main figures of Vienna’s “Institute for Criminal Telepathic Research,” which existed for some months in 1921, Ubald Tartaruga, who said that telepathy has always been an important factor “in criminology and forensic services, and that we have to regard it as the imperative of our time to collect these experiences, to sift them, to bring them into a logical system and to turn them into a branch of criminology to be called ‘criminal telepathy.’”<sup>39</sup> Judges like Albert Hellwig developed expertise with regard to exactly these cases and one can follow his cautious scepticism with regard to the indicted telepaths, mind readers, palmists, etc.<sup>40</sup> Indeed, it was a matter of cautious scepticism, for Hellwig did not want to exclude the possibility of criminal telepathy, mind reading and other marginal practices from the outset either. Mind reading was defined by police officers as a gift of empathy on the one hand, while on the other hand always maintaining a connection with possible supernatural forces.<sup>41</sup>



In some form or other, reflections on and practices of mind reading also stimulated a debate on the frontiers of the mind. If some extrasensory contact between two or more minds was possible, was it, then, not the case that indeed the borders of the individual mind had been drawn too narrowly? Was the individual mind nothing other than the expression of a more general phenomenon, a world spirit? On the other hand, if an apparatus could help to read our minds, was then the mind more than a simple machine? The complex machinery and tools of deception developed to perform mind reading thus fulfilled also the task of drawing a demarcation line between man and machine, to reserve a place for the inexplicable and therefore to open up a space within which a “mind” could still exist, at least through its definition as the negation or privation of all positive propositions. Romanist Winfried Wehle has aptly called this an effort “to form a centre, but not to occupy it,” the “affair of the heart” of the “modern subject.”<sup>42</sup>

Finally, it is a striking phenomenon that mind reading tended to generate a passion for new technological objects or new applications of familiar ones. From the nineteenth century onwards, this phenomenon has on the one side inspired working instruments to help or to literally read minds. We know from the research of Melissa M. Littlefield, Ken Alder and Cornelius Borck that the development of mind reading, of the EEG and of lie detectors is strongly interconnected.<sup>43</sup> Partially inspired by the ability of skilled mind readers to discern the slightest muscle contractions, physiologists, psychologists and other scientists continually developed and improved experimental set-ups to detect and record bodily expressions. One central tool developed in this context was the self-writing machine of Étienne-Jules Marey (1830–1904). As Lorraine Daston and Peter Galison have shown, this self-writing machine marked a specific understanding of objectivity, according to which human evaluation should ideally be eliminated.<sup>44</sup> Also Christian Kassung has demonstrated that these apparatuses were, more or less explicitly, defined by the attempt to reproduce, objectify and improve the human capabilities of mind reading.<sup>45</sup>

The development of the discourse and practice of mind reading is characterized by a remarkable stability of the contest zone. With regard to the development of technologies for mind reading, actors continually referred to this bridge concept and then developed tools for registering more or less reliable data to make statements about the content of the mind. In

this way, the concept of “mind reading” has kept its spectacular dimension and, as a “loose concept” in Löwy’s sense, still opens up the social, ontological, epistemic and political issues described above.

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By focusing on the concept of “mind reading,” we want to offer a contribution to the study of the complex interactions between epistemic, political and social ideals. We want to thereby contribute to the ongoing discussion about the margins of science and the processes that help to shift, fix or put into question these boundaries. The following chapters stem from an interdisciplinary discussion held in Berlin in March 2018 and are enriched by contributions that we are happy to have attracted for the volume.

The first section deals with the wider societal functions, meanings and techniques of mind reading. *Melissa M. Littlefield* offers a reflection on the collaborative aspects of mind reading based on the “Brainwave Symphony” project (2015) and another by the company Multimer, related to city planning. *Roger Luckhurst*, focusing on the BBC TV drama *The Omega Factor*, investigates the revival of mind reading in the 1970s, alongside new forms of parapsychological research. *Anthony Enns* investigates the use of images, photography of the mind and corresponding ideas of objectivity in neuroscience and neurology. *Christine Mohr* and *Gustav Kuhn* offer a reflection based on their own psychological experiments as to how far the experience of stage magic can have an impact on the belief in magical phenomena.

The section “Reading and Interpreting the Criminal Mind” is devoted to means of mind reading in the juridical sphere and in the sphere of policing. *Larissa Fischer* investigates contemporary German discourses on and practices of lie detection. *Christian Bachhiesl* focuses on the rather theoretical aspects of early criminology, with an emphasis on the Austrian school and the practices of making the mind visible. *Laurens Schlicht* analyses the interrogation techniques of Germany’s Female Criminal Police in the 1920s and 1930s and the psychology of testimony. The last three contributions relate the discussion of mind reading to the problem of political control and totalitarianism. *Annette Müllberger* delves into the Spanish case and analyses the practices of mind reading which unfolded

against the background of the reception of Cesare Lombroso. And *Martin Wieser* studies the so-called “operative psychology,” a branch of psychology explicitly developed for the Ministry for State Security of the GDR. In his contribution, *Michael Pettit* examines the mind-reading practices of American political psychologists from the Cold War to the present day. He begins with an analysis of the New Look movement of the 1940s and then explores the revival of the New Look approach in the digital age.

## NOTES

1. *Kirchner's Wörterbuch der philosophischen Grundbegriffe*, 5th ed., s.v. “Gedankenlesen” (Leipzig: Dürr, 1907).
2. *Brockhaus' Kleines Konversations-Lexikon*, 5th ed., s.v. “Gedankenlesen” (Leipzig: F. A. Brockhaus, 1911).
3. *Kirchner's Wörterbuch der philosophischen Grundbegriffe*, 5th ed., s.v. “Gedankenlesen” (Leipzig: Dürr, 1907).
4. William T. Preyer, *Die Erklärung des Gedankenlesens nebst Beschreibung eines neuen Verfahrens zum Nachweise unwillkürlicher Bewegungen* (Leipzig: Grieben, 1886), v.
5. *Ibid.*, 4.
6. *Ibid.*
7. *Ibid.*, 4.
8. Max Dessoir, “Zur Geschichte des Gedankenlesens,” *Sphinx* 1, no. 4 (1886): 253–259.
9. *Ibid.*, 258.
10. *Ibid.*
11. Max Dessoir, “Übersinnliche Gedanken-Übertragung nach den Untersuchungen der Society for Psychological Research,” *Sphinx* 1, no. 2 (1886): 107.
12. *Ibid.*, 107–108.
13. Karl Marbe, “Über das Gedankenlesen und die Gleichförmigkeit des psychischen Geschehens,” *Zeitschrift für Psychologie und Physiologie der Sinnesorgane. I. Abteilung: Zeitschrift für Psychologie* 56 (1910): 241–263. For an overview of Marbe’s work see Annette Mülberger, *La Aportación de Karl Marbe a La Psicologia* (Universitat Autònoma de Barcelona, 1994).
14. See Marbe, “Über das Gedankenlesen”.
15. *Ibid.*, 244.
16. Karl Marbe, *Die Gleichförmigkeit in der Welt. Untersuchungen zur Philosophie und positiven Wissenschaft* (München: Beck, 1916), 41.

17. Karl Marbe, *Selbstbiographie des Psychologen Geheimrat Prof. Dr. Karl Marbe in Würzburg* (Halle: Buchdruck des Waisenhauses, 1945), 23.
18. In this sense, it is comparable to the “boundary object” of Leigh Star and James Griesemer, which are described as “objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites,” Susan Leigh Star and James R. Griesemer, “Institutional Ecology, ‘Translations’ and Boundary Objects. Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology,” *Social Studies of Science* 19, no. 3 (1989): 387–420, here 393.
19. Ludwik Fleck, *Genesis and Development of a Scientific Fact* (Chicago: University of Chicago Press, 1979).
20. Peter Galison, *Image and Logic. A Material Culture of Microphysics* (Chicago [u.a.]: University of Chicago Press, 2000).
21. Ilana Löwy, “The Strength of Loose Concepts—Boundary Concepts, Federative Experimental Strategies and Disciplinary Growth: The Case of Immunology,” *History of Science*, no. 30 (4): 371–396, here p. 373.
22. Similar analyses have been offered for the political sphere. Chantal Mouffe and Ernesto Laclau have used the phrase “empty signifier” to point to concepts that are at the centre of political struggles but for exactly that reason cannot be clearly defined, because the goals of different interest groups referring to that concept are so contradictory. See Ernesto Laclau, and Chantal Mouffe, *Hegemony & Socialist Strategy. Towards a Radical Democratic Politics* (London and New York: Verso, 1985).
23. Alfred Binet, *La Suggestibilité* (Paris: Schleicher Freres, 1900).
24. There are a lot of publications in that field; as an example for the connection between functional imaging and “mind reading” see Helen L. Gallagher and Christopher D. Frith, “Functional Imaging of ‘Theory of Mind’,” *Trends in Cognitive Sciences* 7, no. 2 (2003): 77–83.
25. Georg Simmel, “Das Geheimnis. Eine sozialpsychologische Skizze,” *Der Tag* 626 (December 10, 1907).
26. See Siegfried Kracauer, *Der Detektiv-Roman. Ein philosophisches Traktat* (Frankfurt am Main: Suhrkamp, 1979).
27. Georg Simmel, *Soziologie. Untersuchungen über die Formen der Vergesellschaftung* (Leipzig: Duncker & Humblot, 1908), 343.
28. *Ibid.*, 276.
29. Peter Wagner, “Certainty and Order, Liberty and Contingency. The Birth of Social Science as Empirical Political Philosophy,” in *The Rise of the Social Sciences and the Formation of Modernity. Conceptual Change in Context, 1750–1850*, eds. Johan Heilbron, Lars Magnusson, and Björn Wittrock (Dordrecht: Springer, 1998), 241–263.
30. Siegfried Kracauer, *From Caligari to Hitler. A Psychological History of the German Film* (Princeton, NJ: Princeton University Press, 1947).

31. Siegfried Kracauer, *Der Detektiv-Roman. Ein philosophisches Traktat* (Frankfurt am Main: Suhrkamp, 1979).
32. Ernst van den Bergh, *Polizei und Volk. Seelische Zusammenhänge* (Berlin: Gersbach, 1926), 10–11.
33. A good overview with an interesting discussion about the restructuring of the German cultural landscape is given by Johann Chapoutot, *La révolution culturelle nazie* (Paris: Gallimard, 2017).
34. Keith Hutchinson, “What Happened to the Occult Qualities in the Scientific Revolution?,” *Isis* 73: 233–253.
35. Ibid.
36. “We do not believe in the paranormal. We study it”, <https://www.metapsychique.org/bulletin-metapsychique-nouvelle-serie/> (seen 30th July 2019).
37. See for example Falk Müller, “Zur Medialisierung von Geist und Materie in der viktorianischen Wissenschaft,” in *Medialisierungen des Unsichtbaren um 1900*, eds. Susanne Scholz and Julika Griem (München: Fink, 2010), 79–100, <https://brill.com/view/book/edcoll/9783846747872/B9783846747872-s007.xml>.
38. Max Lustig, *Das Gedankenlesen. Das Zweite Gesicht* (Leipzig: Verlag für Kunst und Wissenschaft Albert Otto Paul, 1914), 3.
39. Quoted in Michael Schetsche and Uwe Schellinger, “Psychic Detectives? auch in Deutschland? Hellscher und Polizeiliche Ermittlungsarbeit,” *Die Kriminalpolizei* 25 (2007).
40. See Albert Hellwig, *Okkultismus und Verbrechen. Eine Einführung in die kriminalistischen Probleme des Okkultismus für Polizeibeamte, Richter, Staatsanwälte, Psychiater und Sachverständige* (Berlin: Langenscheidt, 1929).
41. See for example Hans Schneickert, *Kriminaltaktik, mit besonderer Berücksichtigung der Kriminalpsychologie*, 5. umgearb. Aufl (Berlin: Springer, 1940), 246.
42. Winfried Wehle, “Kunst und Subjektivität. Von der Geburt ästhetischer Anthropologie aus dem Leiden an Modernität – Nodier, Chateaubriand,” in *Geschichte und Vorgeschichte der modernen Subjektivität*, eds. Reto Luzius Fetz, Roland Hagenbüchle, and Peter Schulz, vol. 2 (Berlin and New York: De Gruyter, 1998), 901–941, here 931.
43. Borck, *Hirnströme*; Melissa M. Littlefield, *The Lying Brain. Lie Detection in Science and Science Fiction* (Ann Arbor: University of Michigan Press, 2011); and Ken Alder, *The Lie Detectors. The History of an American Obsession* (New York: Free Press, 2007).
44. Lorraine Daston, and Peter Galison, “The Image of Objectivity,” *Representations* 40 (1992): 81–128.
45. Christian Kassung, “Self-Writing Machines: Technology and the Question of the Self,” *Communication +1* 4, no. 1 (2015): 1–17.