

*Zweige eines einzigen Stammes*

**Hermann Broch's reflections on science and literature  
(1915 – 1935)**



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“Ach, wir wissen von unserer eigenen Zerspaltung und wir vermögen doch nicht, sie zu deuten, wir wollen die Zeit, in der wir leben, dafür verantwortlich machen, doch übermächtig ist die Zeit, und wir können sie nicht begreifen, sondern nennen sie wahnsinnig oder groß.“

- Hermann Broch, *Die Schlafwandler*<sup>1</sup>

“Taken outside the novel’s history, *Ulysses* would be no more than caprice, the incomprehensible extravagance of a madman. Torn away from the history of their various arts, there is not much left to works of art.”

- Milan Kundera, *The Curtain*<sup>2</sup>

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<sup>1</sup> Hermann Broch, „Die Schlafwandler,“ in *Kommentierte Werkausgabe 1*, edited by Paul Michael Lützeler, (Frankfurt am Main: Suhrkamp, 1981), 420-421.

<sup>2</sup> Milan Kundera, *The Curtain: an essay in seven parts*, (New York: HarperCollins Publishers, 2008, e-book), 105.

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## Abstract

The novels of Hermann Broch (1886 – 1951) are often subject of studies that discuss the relation between science and culture. These studies tend to approach his novels as examples of translations, metaphors, or popularizations of scientific knowledge. This thesis aims to counter these models by means of an in-depth study of the reflections by Herman Broch himself, which should lead to a new perspective on the role of science in modern culture.

Most scholars that discuss scientific references in e.g. *Die Schlafwandler* (1932) or *Die Unbekannte Größe* (1933) limit themselves to questions about Broch's scientific competence, his scientific agenda, or his eclectic style. What these studies ignore, is the fact that Broch and other novelists discussed a so-called *Krise des Romans* (Crisis of the Novel), which means that Broch himself had therefore already reflected on the relation between science and culture in his essays and personal letters. Whereas most scholars only use specific parts of his essays to suggest possible scientific influences, this thesis shows that an in-depth study of these essays provides a much more nuanced view on the relation between science and literature in the works of Hermann Broch. A central claim in his theory of the modern novel is that the scientific methodology did not necessarily influence the literary style: the comparison should show that scientific methods and literary methods both reflect epistemological premises that are actually at the core of modern life itself.



# Chapter 1 – Introduction: Hermann Broch and the History of Science

This thesis on Hermann Broch aims to close the gap between studies on science and literature and the history of science. Throughout this introduction it will be shown that the methodological toolkit from the history of science is a useful means to study the relation between science and literature. Whereas studies on literature approach their objects of research by means of hermeneutical and discursive methods, the history of science prefers a more actors-oriented approach. This study of Hermann Broch, who was a member of both scientific and literary communities, will show how the discussion about the relation between science and literature is not only a topic for contemporary scholars, but also a historical debate that gives a new perspective on the intellectual climate of the 1910s and 1920s in Austria and Germany. This chapter will introduce the most important methodological insights and debates, and will elaborate on the methodology and structure of this thesis.

## 1.1. Literature in the History of Science

The discussion about the relation between science and culture is fundamental to the field of history and philosophy of science. Typical history of science studies in relation to culture are for example Paul Forman's study of the relation between Weimar culture and quantum theory and James Secord's study of the publication and reception of *Vestiges*, and its relation to discussions about evolution.<sup>3</sup> In the past decades, the study of science and literature has become a respected field of research, which touches upon similar topics as the history of science. An example of such a literary-oriented study is Allen Thiher's *Fiction Refracts Science*, in which Thiher reflects on the reception of scientific ideas in modernistic novels.<sup>4</sup> In general, studies on science and culture try to emphasize the significance of culture for science, and vice versa that of science for culture. The difference between these two fields is that studies in

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<sup>3</sup> See Paul Forman, "Weimar culture, causality, and quantum theory, 1918-1927: Adaptation by German physicists and mathematicians to a hostile intellectual environment." *Historical studies in the physical sciences* 3 (1971), 1-115; James A. Secord, *Victorian Sensations* (London: University of Chicago Press, 2003). Secord emphasizes that he discusses the *reading* of the book, rather than the purpose of the author. The discussions about *Vestiges* are of more importance to Secord than modern-day interpretations of *Vestiges*.

<sup>4</sup> Allen Thiher, *Fiction refracts science: Modernist writers from Proust to Borges*, (Columbia: University of Missouri Press, 2005)

science and literature are often carried out by scholars of literature, and tend to discuss the literary novels from a more philological, hermeneutical, or discursive perspective, whereas figures such as Forman and Secord work from a strict historical perspective.

This thesis aims to overcome this difference of methodologies by taking a historical perspective on the discussion about the relation between science and literature. By means of an extensive case study, the works of the Austrian modernist Hermann Broch will be discussed. Hermann Broch was born in 1886 in a textile-manufacturing family. He studied mathematics and philosophy at the University of Vienna, published several novels, and worked for a short period of time at the University of Yale as a lecturer in German literature while he also worked on his sociological publications. Due to this rich and multi-disciplinary background, Broch is the perfect case study to learn about the relation between science and literature from a historical perspective.

By means of this case study, this thesis aims to show that the relation between science and literature was already topic of debate in the 1920s and 1930s in the German-speaking countries. Instead of speculating about possible intertextual connections between scientific theories and literary novels, this topic is treated as a so-called *members' question* in this thesis, which should add to our knowledge of the intellectual debates and climate of the 1920s and 1930s. Most debates about science and culture that will be discussed took place in the 1910s and 1920s, but Broch's reflections mostly come from the 1930s.

This introduction will explain the research topic and methodology in more detail. First, it will discuss the methodological toolkit of the literature and science studies. Second, it will discuss the method of the Forman-thesis, and how it can add to the method of this research. Thereafter, this introduction continues with a more detailed elaboration on Hermann Broch, and why he is the subject of this thesis. Finally, the research question, its main goals, and its relevance for the history of science in general will be discussed.

## 1.2. Science and Literature

The most famous contribution to the debate about science and culture is probably C.P. Snow's famous speech about the two cultures, which was published in 1959. Snow argued that the natural sciences and literary intellectuals had become two different cultures, who were no

longer able to communicate and understand each other.<sup>5</sup> Much has changed since then. Many contemporary scholars of literature disagree with Snow, as they argue that the sciences remained to be part of literary novels. Throughout the last decades, scholars of literature have developed several methodological tools to examine the relation of science to literature. John Cartwright, for example, identifies several methodologies that scholars of literature have applied to scientific references in literature. He shows that science is often understood in a metaphorical way, as subject of satire, as a cognitive dissonance, or as god-like knowledge. On the other hand, it is also argued that scientific language itself also invokes poetic language.<sup>6</sup> Whereas Snow focused on a gap between science and literature, contemporary scholarship emphasizes the intimate relationship between science and literature.<sup>7</sup>

### 1.2.1. Science & Literature: a methodological toolkit

This short overview shows that the relation between science and literature is a much-discussed topic in recent scholarship. An academic breakthrough was Gillian Beer's work, mostly because of her much acclaimed study *Darwin's Plots* (1983). Beer pleads for a focus on the role of the novel as a means of translation and a producer of metaphors. She argues that the domains of science and literature should be understood as being interrelated in a dynamic manner, instead of being fundamentally separated and static. This means that one should not try to trace back the scientific sources of literary texts, but instead focus on the manner in which scientific theories are fundamentally translated as metaphors and narrative structures in the novel. It is important, according to Beer, to take this new meaning and its context seriously, instead of seeing it as a derived version of the 'original source'.<sup>8</sup>

The latter argument is similar to what Roger Cooter and Stephen Pumfrey argue for in their article on the history of science popularization. They identify the focus on the relation between an original scientific source and the 'popular derivation' as a trickle-down approach to science popularization. Cooter and Pumfrey emphasize that this so-called 'trickle-down'

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<sup>5</sup> Charles P. Snow, "The Two Cultures," in *The Two Cultures*, edited by Stefan Collini, (Cambridge: Cambridge University Press, 2012), 4.

<sup>6</sup> John Cartwright, "Science and literature: towards a conceptual framework." *Science & education* 16 (2) (2007). 115-139.

<sup>7</sup> This section has only sketched the most relevant currents in science and literature studies. See for an alternative approach to science and literature for example Roslynn Haynes' work. She analysed stereotypes of scientists in western literature. Roslynn D. Haynes, "From alchemy to artificial intelligence: Stereotypes of the scientist in Western literature." *Public Understanding of Science* 12 (3) (2003). 243-253; Roslynn D. Haynes, *From Faust to Strangelove: representations of the scientist in Western Literature*. Baltimore : John Hopkins University Press, 1994.

<sup>8</sup> Gillian Beer, "Science and Literature," in : *Companion to the History of Modern Science*, edited by R.C. Olby et al., London : Routledge, 1990.

approach to science in (popular) culture is not sufficient to understand the specific relation between science and popular science. This approach does not do justice to the new knowledge that is established throughout the process of translation.<sup>9</sup> Therefore, one should not understand science in popular culture as derivatives of a proper scientific source. The use of science in popular culture has its own dynamics that should be investigated independently of the actual scientific theory it might refer to.

This idea is reflected in recent methodological discussions in literature and science studies. In her recent book *Gedeelde Kennis* (Shared Knowledge, 2011), Mary Kemperink argues that science and literature are both entangled in a dynamic movement that flows to both sides. Literature can be influenced by science, and science has to deal with language which makes science also a literary activity. One reason for writers to include scientific theories in their work, according to Kemperink, is the idea that science can underline a particular societal view of the author.<sup>10</sup> In an extensive literature review, Leonieke Vermeer and Mary Kemperink discuss this complex and dynamic relation between science and literature critically and in more detail. They argue that if scientific knowledge is used within a novel, it also generates a new kind of knowledge, because it is used in a different discourse, a different ideology, and a different sphere. In the slipstream of Beer, they claim that this type of knowledge should not simply be evaluated through a comparison with the original scientific source, but rather on the basis of its cultural relevance.<sup>11</sup>

In their article on methodology, Vermeer and Kemperink identify a lack of methodological reflection in studies on the relation between science and literature. They evaluate popular approaches in literary studies, such as 'discourse analysis' and 'New Historicism', and relate them to the field of science and literature. They signal several problematic issues, of which the question regarding the dynamic relationship itself is the most prominent one. How can one describe the dynamic relationship between science and literature without referring to the one as the origin of the other?<sup>12</sup> They state that it is inevitable to use concepts such as 'text' and 'context', even though they recognize that these concepts can be problematic when one tries to avoid a focus on 'original sources'. They state

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<sup>9</sup> Roger Cooter & Stephen Pumfrey, "Separate Spheres and Public Places: Reflections on the History of Science Popularization and Science in Popular Culture," *History of Science* 32 (3) (1994), 249.

<sup>10</sup> Mary Kemperink, *Gedeelde Kennis: Literatuur en Wetenschap in Nederland van Darwin tot Einstein (1860 – 1920)*, (Antwerpen : Garant, 2011) , 17.

<sup>11</sup> Mary Kemperink and Leonieke Vermeer, "Literatuur en wetenschap: een dynamische en complexe relatie. Enkele theoretische en methodologische overwegingen, " *Nederlandse letterkunde* 13 ( 1) (2008), 41.

<sup>12</sup> Mary Kemperink & Leonieke Vermeer, "Literatuur en Wetenschap," 45.

that the meaning of these concepts is not self-evident: what counts as a literary text is not a universal fact but historical determined. In the end, their approach is focused on *shared knowledge* within the complex network of science, literature, and culture.<sup>13</sup> Furthermore, they identify the *relation* itself as an object of research instead of the individual domains of science and literature, but did not apply their historical method to this issue. In conclusion, text and context are understood as concepts that need historical reflection, but the concept of *relation* is not yet historically problematized.<sup>14</sup>

Rüdiger Görner also focuses on these specific relations between science and literature, namely on the use of scientific analogy in literature, and the application of poetic metaphor in scientific writing. His contribution to the debate is that he takes a slightly more historical-oriented perspective on this issue than Vermeer and Kemperink. In his view, novelists in the early twentieth century, such as Proust and Broch, struggled to find a methodology that could represent scientific problems in an ad equare manner.<sup>15</sup> According to Görner, this struggle fitted into the overall demand for accessible explanations of modern science. For example the *Vossische Zeitung* (1919) and Bertrand Russell (1925) both published accessible explanations of the theory of relativity.<sup>16</sup> This indicates a specific relation between science, literature, and the public discussions about science. To understand this more public-oriented discussion about science in the 1920s, it is helpful to look at the methodological tools from the history of science. Therefore, the next section will discuss the Forman-thesis, which fits the time frame and historical context of this thesis. Furthermore, Forman explicitly takes the perspective of the historical actors into account. The next section will discuss how to apply the methodology of the Forman-thesis to the subject of science and literature, as this thesis aims to connect the methodology of historians of science with the field of literature and science studies.

### 1.2.2. The History of Science: Forman-thesis and German Literature

After the First World War, German scientists and intellectuals debated about a so called 'crisis' of their culture and their sciences. Most famous is Oswald Spengler's *Untergang des Abendlandes*, which was an attempt to historically account for the sense of crisis during the

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<sup>13</sup> Mary Kemperink & Leonieke Vermeer, "Literatuur en Wetenschap," 54.

<sup>14</sup> This section mostly relies on the article of Kemperink and Vermeer because it is fairly recent. Other books and articles on this topic are rather outdated. Rousseau, George S. "Literature and Science: the State of the Field." *Isis* 69 (4) (1978), p. 583-591; Schatzberg, Walter. *The Relations of Literature and Science. An Annotated Bibliography of Scholarship, 1880-1980*. (New York: Modern Language Association of America, 1987)

<sup>15</sup> Rüdiger Görner, "The Poetics of Science. Understanding Scientific Metaphor in 19th-and 20th-Century European Literature." *KulturPoetik* 3 (2) (2003), 174.

<sup>16</sup> Rüdiger Görner, "The Poetics of Science," 186.

1910s and 1920s in especially the Weimar Republic. This notion of a crisis was picked up by historian of science Paul Forman as a framework for his analysis of the development of the quantum theory. In his famous article *Weimar Culture, Causality, and Quantum Theory, 1918-1927: Adaptation by German Physicists and Mathematicians to a Hostile Intellectual Environment*, Forman reconstructed the debate among physicists, which was mostly about the usefulness of the concept of causality.<sup>17</sup> Forman explicitly focuses on the debate among the physicists and mathematicians, rather than on contemporary interpretations and speculations. By means of this approach, Forman claims that “substantive problems in atomic physics play only a secondary role” in the development of the quantum theory, and that “the most important factor was the social-intellectual pressure exerted upon the physicists as members of the German academic community.”<sup>18</sup>

Although Forman’s conclusions are contentious and much debated, it is clear that he puts a lot of emphasis on the intellectual climate within the Weimar culture, which he describes as ‘hostile’ towards causal physics. The topic of science and culture is not only a question regarding the content, but also about who is to answer this question. Central to Forman’s thesis is the evidence found in the correspondence and manifestoes from the community of physicists. Forman sets up a stage where the historical actors speak out about the relation between their theoretical work and the crisis of culture. Forman wants to show that physicists themselves were very conscious of the intellectual debate and also took part in that debate, and that the relation between Weimar Culture and the development of quantum mechanics was not an invention of present-day scholars, but a topic of debate of the 1920s. This is the methodological point of view that inspires this thesis.

Although Forman illustrates his argument richly with extensive quotations of physicists and mathematicians and references to Spenglerian philosophy, he lacks to provide this evidence when he touches upon the role of German literature. He states that “the ‘modernist’ academics (...) had an unusually close interest in, or contact with, contemporary literature.”<sup>19</sup> Unfortunately, Forman does not elaborate on this argument, and only refers to Ringer’s *German Mandarins*, which is a study that is focused on the humanities rather than on literature.

The fact that Forman does not elaborate on the role of German novelists does not mean that the relation of these novelists to the scientific developments of their era are not

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<sup>17</sup> Paul Forman, “Weimar Culture, Causality, and Quantum Theory, 1918-1927,” 1-115.

<sup>18</sup> Ibid. 110.

<sup>19</sup> Ibid. 115.

investigated at all. On the contrary, the role of science within the works of for example Thomas Mann and Robert Musil is much discussed. *Der Zauberberg* (1927) and *Der Mann ohne Eigenschaften* (1930) are commonly understood as novels that strongly reflect on the intellectual and scientific climate of that time. However, they are mostly discussed from the perspective of literary studies, not from a perspective that engages with the history of science.

Malte Herwig's study of Thomas Mann is a clear example of Kemperink's suggestion that novelists often used science to underline their own worldview, but also an example of the 'trickle-down' approach. Thomas Mann, who is well known for works such as *Der Zauberberg* and *Doctor Faustus*, has shown a long-standing interest in science throughout his career as a novelists. This interest and literary incorporation of science in his novels is thoroughly studied by Malte Herwig in his study called *Bildungsbürger auf Abwegen: Naturwissenschaft im Werk Thomas Manns* (2002). In this extraordinary study, Malte Herwig tracked down the specific sources of Mann's scientific references. According to Herwig, Thomas Mann is often seen as a representation of the German ideal of a 'Renaissance Man', a true 'Bildungsbürger'. However, Herwig shows by means of a strict analysis of both the novels of Thomas Mann and his library that was filled with popular scientific literature, that Thomas Mann devised an innovative method to directly and indirectly copy the popular scientific literature into his novel, and uses them for his own literary ambitions.<sup>20</sup> Herwig summarizes his argument as follows:

“Die naturwissenschaftlichen Theorien und Ideen bringen komplexe weltanschauliche Diskurse in den Beziehungszauber eines Romans ein und transportieren kulturelle, politische und soziale Intentionen.“<sup>21</sup>

This strongly recalls Kemperink's claim that science can be used to reinforce the views of the author. What is striking about Herwig's study, is that it was able to identify precisely where Thomas Mann probably got his information from: very often the sentences in Mann's novels were to a large extent similar to the sentences used in the popular scientific literature. Therefore, Thomas Mann can be seen as an example of Kemperink's argument that novelists sometimes use scientific knowledge to reinforce their own worldview.

However, Herwig's study also illustrates what is discussed above: in this case, the work of

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<sup>20</sup> Malte Herwig, *Bildungsbürger auf Abwegen: Naturwissenschaft im Werk Thomas Manns*, (Frankfurt am Main: Vittorio Klostermann, 2004), 5.

<sup>21</sup> *Ibid.* 8-9.

Thomas Mann is discussed in the context of literary studies, but not in the context of the history of science. Whereas scholars of literature seem to presume that they are the ones who have to interpret the relation between science and literature through hermeneutical or philological methods, historians such as Paul Forman show that historical actors themselves might also have something to add to the discussion. This change of perspective is at the heart of this thesis: what community should be consulted to interpret the relation between science and literature? Is it the community of intellectuals in the 1920s and 1930s, or the community of contemporary academics? By focusing on the historical actors, the relation between science and literature is understood as a *members' question*: the question about the relation between science and culture should be understood as a question that appeals to the historical actors, the members of the community of intellectuals in the 1920s and 1930s in the German-speaking countries, rather than be taken for granted as a question for contemporary scholars.<sup>22</sup>

### 1.3. Hermann Broch

In order to learn about the discussion about the relation between science and literature from an actor's perspective, this thesis analyses Hermann Broch's (1886 – 1951) relation to these debates. As the previous section has shown, this is not simply meant as a thesis on another novelist, but rather as an opportunity to apply a new methodology to the existing debate. The reflection on the *relation* between science and literature is at the heart of Broch's work, but remains to be a rather underexposed theme in studies of Broch. What makes Broch an interesting case study for this thesis is the fact that he had a background in manufacturing and was later educated in mathematics and philosophy at the University of Vienna, which was under influence of the *Wiener Kreis*. He had a relatively successful career as a novelist, especially because of his critically acclaimed trilogy *Die Schlafwandler* (1931) on the development of the European mind around 1900, and his later work *Der Tod des Vergil* (1945). In the United States, he got a position as a lecturer at the University of Yale.

This was not an unusual career path, as it is relatively similar to that of Elias Canetti and Robert Musil, as both of them turned to literature after obtaining their PhD in the sciences. This thesis about Hermann Broch is therefore an attempt to get a grasp of these scientist-turned-novelist figures, who one can label as 'cultural amphibians'. They easily

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<sup>22</sup> This approach is inspired by the discussions during the course *Science and the Public* about Michael Lynch's article wherein he discusses who the court has to trust in discussions about science in trials: Michael Lynch, "God's signature: DNA profiling, the new gold standard in forensic science," *Endeavour* 27 (2) (2003), 93-94.



switched to what are now understood as different fields and communities. But these communities were not so strictly separated in the 1920s and 1930s in Vienna.

In terms of network, Broch was actively engaged in the well-known coffeehouses of Vienna and had a lively network of friends, both in the sciences and the arts.<sup>23</sup> The University was not the only place where intellectuals could meet each other, as coffeehouses were of equal importance for their network. Especially Vienna is known for its longstanding tradition of coffeehouses that were often visited for breakfast, lunch, and evening meetings.<sup>24</sup> Pinsker describes the café as a 'third space', which should account for its popularity among the Jewish people (Hermann Broch was also Jewish). As the Jewish people were not commonly accepted in Vienna, the cafés were very attractive due to their public-private character.<sup>25</sup> Important venues were Café Central, Arkaden, Café Griendsteidl, Café Herrenhof, and Café Museum. Especially Café Museum, which was designed by Adolf Loos, and Café Herrenhof where popular residences among Robert Musil and Hermann Broch.<sup>26</sup> Visitors of these cafés were physicians, attorneys, journalists, critics, schoolteachers, factory owners, tradespeople, and artists.<sup>27</sup> This network payed off when Broch had to flee from Austria in 1933. When he came to the United States in 1938, Albert Einstein and Thomas Mann supported his visa application.<sup>28</sup>

### 1.3.1. Hermann Broch and Science

From 1925 until 1930, Broch visited the University of Vienna as a student, and was mostly interested in mathematics and philosophy, but also in cultural history and physics.<sup>29</sup> This was not his first contact with science: in 1904 and 1905, he already visited seminars and public lectures in mathematics and philosophy at the University of Vienna, i.e. from Ludwig

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<sup>23</sup> Shachar Pinsker, "Jewish modernism and Viennese Cafés, 1900-1930," in *The Thinking Space: the cafe as a cultural institution in Paris, Italy and Vienna*, edited by Leona Rittner, Scott Haine, and Jeffrey H. Jackson, (Burlington : Ashgate Publishing, 2013), 59 – 62; Paul Michael Lützel, "Hermann Broch und seine Zeit: Biographie," in *Hermann-Broch-Handbuch*, edited by Michael Kessler & Paul Michael Lützel, (Berlin, Boston : De Gruyter, 2015), 3; 7; Lützel, Paul Michael Lützel, *Hermann Broch: Eine Biographie*. (Frankfurt am Main: Suhrkamp Verlag, 1988), 98.

<sup>24</sup> Herbert Lederer, "Vienna Coffee House: history and cultural significance," in *The Thinking Space: the cafe as a cultural institution in Paris, Italy and Vienna*, edited by Leona Rittner, Scott Haine, and Jeffrey H. Jackson, (Burlington : Ashgate Publishing, 2013), 26.

<sup>25</sup> Shachar Pinsker, "Jewish Modernism and Viennese Cafés 1900-1930," 53-54.

<sup>26</sup> Ibid. 61-62.

<sup>27</sup> Harold B. Segel, *The Vienna Coffeehouse Wits, 1890-1938*, (Indiana: Purdue University Press, 1993), 12.

<sup>28</sup> Paul Michael Lützel, "Hermann Broch und seine Zeit," 26.

<sup>29</sup> Paul Michael Lützel, *Hermann Broch: Eine Biographie*, 97 – 98.

Boltzmann.<sup>30</sup> This scientific interest was not further pursued at that moment, as Broch was expected to work in the textile factory of his parents, and would succeed his father as the director of this factor (*Spinnfabrik Teesdork*).<sup>31</sup> However, he did try to improve his mathematical skills in the meantime. By means of private sessions with Ludwig Hofmann as his tutor, who regularly came to visit Broch in Teesdorf between 1920 and 1925, Broch tried to keep up with mathematics.<sup>32</sup> This turned out to be a prelude for his definitive enrollment as a student at the University of Vienna in 1925, after he had sold the factory. He studied at the University of Vienna until 1930. Teachers during these five years were, among others: Mortiz Schlick, Rudolf Carnap, Arthur Haas, Wilhelm Wirtinger, Hans Han, and Karl Menger.<sup>33</sup>

Although Broch had already written short stories and poems in his younger years, he preferred a career as a scientists in 1925. A career as a novelist was not his prime ambition back in those days.<sup>34</sup> This can be seen from his productivity in these five years: a review of Albert Spaier's *La Pensee et la Quantite* (1929) and an essay called *Die Sogenannten philosophischen Grundfragen einer empirischen Wissenschaft* (1928).<sup>35</sup> The latter is often understood as a preliminary work for his failed dissertation. The reason why he could not proceed with a dissertation was probably the fact that he lacked substantive knowledge of Latin, is suggested by Lützeler.<sup>36</sup> This, however, does not fully account for his reason to switch to the field of literature.

According to Paul Lützeler, there were several other reasons why Broch did not continue to work in academia. First, he was very critical on the increasing specialization within the sciences, and especially in the field of philosophy. Whereas Broch believed that philosophy should aim for a broader perspective on knowledge, including ethical and metaphysical topics, the University of Vienna was strongly oriented on specialized areas of research with an increasing anti-metaphysical attitude. Second, and this relates to the previous paragraph, Broch realized that he probably lacked the talent to pursue an academic career. Third, Broch's financial situation became problematic in 1929. Fourth, Broch slowly became more interested

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<sup>30</sup> Paul Michael Lützeler, "Hermann Broch und seine Zeit," 4.

<sup>31</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 62; „[M]it Rücksicht auf die textilindustriellen Unternehmungen meines Vaters hatte ich Textiltechnologie zu studieren (...).“ Hermann Broch, „Letter to Nani Maier – 05-12-1948,“ *KW 13/3*, 287.

<sup>32</sup> Paul Michael Lützeler, "Hermann Broch und seine Zeit," 10.

<sup>33</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 97.

<sup>34</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 99; „[D]aß ich unbedingt Mathematiker werden wollte.“ Hermann Broch, „Letter to Nani Maier – 05-12-1948,“ *KW 13/3*, 287.

<sup>35</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 99

<sup>36</sup> *Ibid.* 98-99.

in psychology instead of mathematics and philosophy.<sup>37</sup>

In 1929, Broch renewed his passport with the title 'manufacturer' as a description of his occupation. It was not until 1935 that Broch changed it into 'author'.<sup>38</sup> This reflects his changing position between several identities and disciplines.

### 1.3.2. Hermann Broch and Literature

Broch's reason to quit his study at the university is illustrated above, but why did he pursue a career as a novelist? Paul Lützeler suggests that Broch felt a philosophical necessity to start writing novels. The lack of metaphysical and ethical import in modern science and philosophy was Broch's main objection to modern academia, and he was convinced that he could overcome these problematic issues in the novel: a novel was able to combine all these different aspects of knowledge.<sup>39</sup>

This was not a unique point of view in this period. Among other writers, such as Musil and Kafka, Broch tried to revalue the intellectual status of the novel in modern society. In their view, literature should (re)claim a respectable 'Erkenntnisfunktion'.<sup>40</sup> This debate is also known as the crisis of the novel, and is subject of discussion in chapter four. How did Broch relate to these discussions? What were his own reflections on the epistemological status of the novel? These kind of questions will provide an insight in Broch's view on the role of the novel in relation to modern life.

It is shown above that Broch knew several intellectuals in the Viennese community. Next to the Cafés, the house of Broch's cousin Alice Schmutzer was also a popular place for figures such as Broch, Richard Strauss, Sigmund Freud, Robert Musil, and Franz Werfel.<sup>41</sup> This network shows that Broch was not only part of a community of scientists, but that he also remained in contact with leading artists of Vienna.

In 1928 it was Frank Thiess who encouraged Broch to pursue a career as a novelist. Broch had already started working on *Die Schlafwandler*, and Frank Thiess motivated him to continue to work on this project.<sup>42</sup> What remains a topic of discussion among scholars, which

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<sup>37</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 109-110.

<sup>38</sup> Ibid. 102.

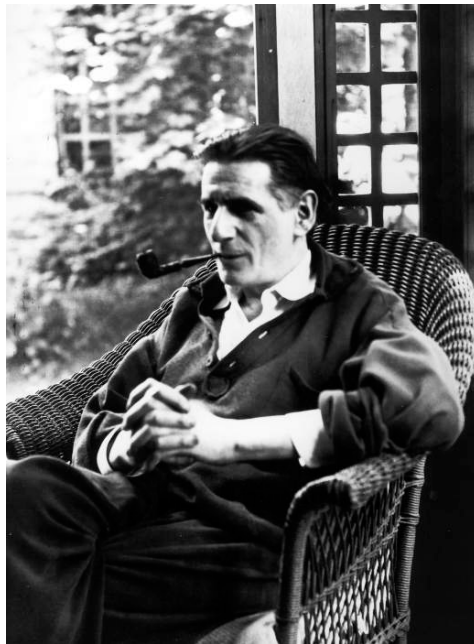
<sup>39</sup> Ibid. p. 111.

<sup>40</sup> Helga Mitterbauer, „Totalitätserfassende Erkenntnis: Hermann Broch im Spannungsfeld der Künste,“ in *Hermann Broch und die Künste*, edited by Alice Stašková and Paul Michael Lützeler, (Berlin : Walter de Gruyter, 2009), 233 – 235.

<sup>41</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 98.

<sup>42</sup> Ibid. 107-108.

will also be analysed this thesis, is to what extent Broch's novels reflect his scientific interest. Chapter two sketches Broch's scientific ideas, and analyses to what extent they are reflected in his novel *Die Unbekannte Größe*. On a more abstract level, this chapter will show that scholars have mostly focused on a reception-oriented analysis, and did not take Broch's novelistic and philosophical ideas into account. The next section will elaborate on how this thesis is going to present a new perspective by means of reflecting upon the relation between science and literature through an analysis of Broch's scientific, philosophical, and novelistic ideas.



**Figure 1.** Hermann Broch

## 1.4. Research Question & Structure of the Argument

### 1.4.1. Research Question

Intellectuals of the early twentieth century did not hesitate to discuss topics which would now be regarded as being beyond their own discipline. One can only do justice to this fluidity by means of a historical perspective, instead of a pure hermeneutical, philological, or discursive approach of this discussion. This thesis therefore aims to give a new perspective on this discussion by providing a historical insight into the debate about the specific *relation* between

science and literature, which is done from Hermann Broch's perspective. This should contribute to the understanding of Broch himself, his novels, and the intellectual climate of the 1920s and 1930s. The research question that guides this thesis is as follows:

“How did Hermann Broch reflect upon the relation between science and literature in *Die Unbekannte Größe* (1933), *Die Schlafwandler* (1931), and his essays, and how does this relate to the intellectual debates in the 1910s and 1920s in the German speaking countries?”

This question entails several elements that will be discussed separately in three chapters. The first key element is Broch's scientific background, and how his scientific views are related to his novelistic work. Therefore, chapter two will discuss Broch's position within discussions about mathematics and physics, and how his position is reflected in his most explicit science-oriented novel, namely *Die Unbekannte Größe* (1933). This provides an example of a novel that reflects on the discussions of the 1910s and 1920s, and it is also an opportunity to analyze the methodology of scholars who have discussed this theme.

Another element is the character of intellectual debates in the German speaking countries, which is the subject of chapter three. In order to say something about the understanding of the relation between science and literature, it is essential to understand debates about science and culture on a more general level. What were the topics that were being discussed, and how did Broch engage in these discussion? What was the *nature* of a relation at all, when they discussed the decline of European culture? Why was it that every element of society was related to a general sense of crisis? An analysis of Broch's novel *Die Schlafwandler* provides an insight into Broch's position within these debates.

These two chapters naturally lead to chapter four, wherein Broch's *own* reflections on the relation between science and literature will be discussed. Did Broch himself thought that he was translating his scientific agenda into a novelistic form? And how did his reflections relate to more general discussions about science and culture? Moreover, one of the many crises of that time was the crisis of the novel. Novelists forcefully discussed how the modern novel should account for modern life. What aspects should the novel include, and is science among them? Furthermore, how did science and literature relate on an epistemological level? Do they both have a knowledge-producing function, or is there a fundamental difference between the two of them? Chapter four will sketch Broch's position within these debates. Broch's novels and essays on this topic were mostly written between 1930 and 1935, but this

thesis argues that they strongly relate to the discussions of the 1910s and 1920s.

These questions and topics can be summarized by the following sub questions:

1: How is Broch's understanding of scientific discussions of the 1910s and 1920s reflected in his novel *Die Unbekannte Größe*, and what does this say about the relation between science and literature in Broch's work?

2: What were important intellectual discussions in the 1910s and 1920s, and how did Broch relate to them? And how is this reflected in his novel *Die Schlafwandler*?

3: How did novelist debated the relation between science and literature in the 1920s and 1930s, and what was Broch's position within this debate?

#### 1.4.2. Note on method and presentation

Through a discussion of primary and secondary sources, this thesis aims to focus on Broch's own *point of view*. This approach is partly inspired by Forman, who explicitly shares views of historical actors in his research. This is what is described as the *members' question* above: the question regarding the relation between science and literature is not solely a question that should be understood from the perspective of the present, but also as a discussion among the historical actors.

This does not imply that the hermeneutical approach is completely rejected. Characters in Broch's novels are often treated in secondary sources as representations of Broch's ideas. Therefore, these interpretations will be discussed in case they can add to the understanding of the novels and Broch's ideas.

Furthermore, it is important to note that this thesis is not structured in a chronological order, but is rather presented through a division of themes and topics. The aim of this thesis is to understand Broch's production between 1930 and 1935 in the light of discussions that aroused between 1910 and 1935. This thesis does not aim to analyze Broch's own development throughout these years and is not meant as an intellectual biography, but is rather a thematically-oriented research, which is an attempt to sketch Broch's views on the relation between science and literature. This thesis has therefore a strongly discussion-

oriented approach, which is a variation of what Oexle calls a 'Problemgeschichte'.<sup>43</sup> The idea of a Oexle's 'Problemgeschichte' is that several disciplines, for example sociology, physics, and the humanities, actually face the same problems in the 1920s. This thesis adds to this suggestion, by taking the perspective of literature into account.<sup>44</sup>

### 1.4.3. Structure of the argument

To show how an analysis of Broch's work in his own terms can contribute to our understanding of the intellectual debates of the 1920s and 1930s, this thesis is structured in the following order.

Chapter two will evaluate the most important debates about the suggested relation between science and literature in Broch's work, especially with regards to *Die Unbekannte Größe*. This approach provides insights on two different levels. First, these analyses of possible lines of influences between Broch and scientific debates of the 1910s and 1920s sketch a rich picture of the most important scientific debates in relation to Broch's own work and education. Second, it gives the opportunity to evaluate their main methodology and research questions. It will become clear that these studies are mostly focused on questions that debate Broch's scientific competence and his understanding of new theories in physics. This reception-oriented perspective on Broch's work ignores the fact that the intellectual debates compassed much more theme's than science only. Science was a rather fluid concept in these debates and easily related to common themes such as culture and politics. Therefore, chapter three will turn our attention to Broch's view on broader cultural developments.

Chapter three will show that when Broch's view on cultural developments are taken into account, which are expressed in *Die Schlafwandler* and several philosophical essays, one notes that there is a sense of a 'Zeitgeist' in Broch's work. Broch was very interested in German holistic approaches to historical developments, and wanted to portray the interconnectedness of historical events in several eras. This is a method that recalls Spengler's morphological approach to history. To understand Broch's view on the relation between science and culture, it is necessary to understand Broch's view on history as a development of epistemological

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<sup>43</sup> Otto Gerhard Oexle, „Krise des Historismus – Krise der Wirklichkeit. Eine Problemgeschichte der Moderne,“ In *Krise des Historismus – Krise der Wirklichkeit: Wissenschaft, Kunst und Literatur 1880 – 1932*, edited by Otto Gerhard Oexle, (Göttingen: Vandenhoeck & Ruprecht, 2007),22

<sup>44</sup> Dirk Niefanger, conducted similar research, but focuses only on relations between the humanities and the modern novel. Chapter three of this thesis does a similar attempt, but mainly from the perspective of Broch. Dirk Niefanger, „Die historische Kulturwissenschaft und der neue Roman der 1920er und 1930er Jahre,“ In *Krise des Historismus – Krise der Wirklichkeit: Wissenschaft, Kunst und Literatur 1880 – 1932*, 273 – 294.

premises, and to understand how this related to the German debates of the 1920s. This view on the historical developments in science, culture, politics, and all the other aspects of society had consequences for literature, which is discussed in chapter four. Why do different aspects of society in a specific era show so many similarities? And how should the modern novel represent this complex reality?

Chapter four functions as a synthesis in relation to chapter two and three. Chapter four shows how Broch engaged in the discussion about the crisis of the novel, and elaborated on his ideas on how the modern novel should be structured. It is the novel that should reflect on all these similarities in the specific eras. Furthermore, the novel itself is also subjected to shared epistemological foundations: this is the reason why Broch identifies similarities between James Joyce's *Ulysses* and Einstein's theory of relativity. Broch's theory of the novel shows an eloquent reflection on the relation between science and literature.

In chapter five, findings will be summarized and reflected upon, and related to historiographic and methodological issues. Examples of these issues are the typical dilemmas of modernity, such as the tension between the concepts of irrationality and rationality, the relation between the past, the present, and the future, but also methodological discussions about the scope of this research, and possibilities for future research.



## Chapter 2 – Science and Literature in *Die Unbekannte Größe* (1933)

In order to learn about the relation between science and literature, this chapter will discuss Broch's most explicit science-inspired novel, namely *Die Unbekannte Größe* (1933), as this novel is Broch's most explicit literary engagement with science in terms of scientific topics, debates, and characters.<sup>45</sup> Carsten Könneker, who is regarded as an authority on *Die Unbekannte Größe*, claims that despite the lack of literary quality, *Die Unbekannte Größe* is still of great importance to understand Broch's work in general, as it is a concise version of Broch's theoretical oeuvre.<sup>46</sup> Furthermore, Könneker argues that Broch's novelistic work was explicitly a continuation of his scientific ambitions by other means: "Keineswegs jedoch war der Abkehr von der akademischen Karriere ein Bruch in Brochs Weltanschauung vorausgegangen – er verstand seine nunmehr für über ein Jahrzehnt hauptsächlich auf das Schriftstellerische verlagerte Tätigkeit als Fortführung seiner wissenschaftlichen Ziele mit anderen Mitteln."<sup>47</sup> By means of a discussion of Broch's knowledge of mathematics and physics, and how this knowledge is presented in *Die Unbekannte Größe*, this chapter will show how Broch's scientific background plays a role in this novel. Furthermore, this chapter will show that most studies on the relation between science and literature in *Die Unbekannte Größe* come down either to analyses of the reception or translation of science in the novel, or to discussions about Broch's scientific competence. It will become clear that the scientific references should be understood within the context of broader intellectual and cultural debates, as the presented studies fall short to account for the meaning of the relation between science and literature.

### 2.1. Introduction

*Die Unbekannte Größe* was written in 1933, meant as an easy-to-read story about a scientist. Broch himself characterizes his intentions with *Die Unbekannte Größe* as 'leichter' and 'publikumsgeeigneter' than his other works.<sup>48</sup> His previous work was *Die Schlafwandler*, and therefore *Die Unbekannte Größe* might be understood as a more accessible version of the

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<sup>45</sup> Lützelers stresses that this novel would not have been possible without Broch's own experience at the University of Vienna. Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 169.

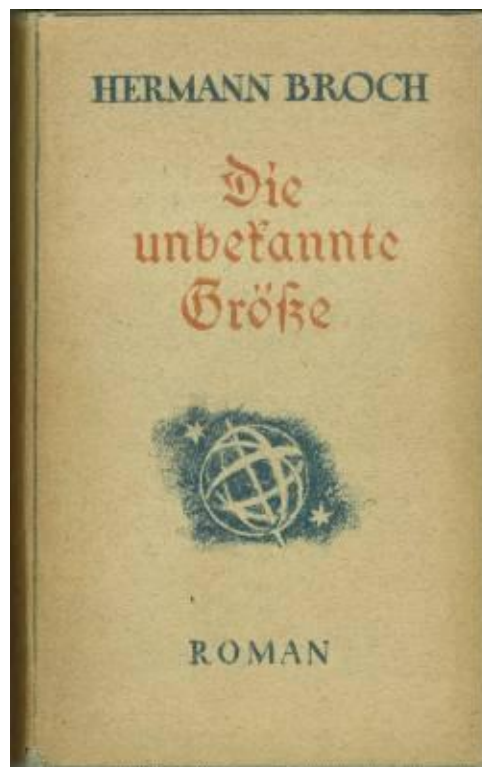
<sup>46</sup> Carsten Könneker, „Hermann Brochs *Unbekannte Größe*,“ *Orbis Litterarum* 54 (1999), 439.

<sup>47</sup> *Ibid.* 456.

<sup>48</sup> Hermann Broch, „Letter to Willa and Edwin Muir – 25-11-1933,“ *KW* 13/1, 264.

ideas that were presented in *Die Schlafwandler*. This accessibility was reflected in his financial deal with Fischer Verlag, as he had never made a deal so lucrative as with *Die Unbekannte Größe*.<sup>49</sup>

*Die Unbekannte Größe* tells the story of Richard Hieck, a mathematician and physicist who is working on his dissertation. As a scientist, he is increasingly recognizing certain connections between areas such as mathematics, physics, and astronomy. In his family life he is confronted with more religious, radical empiristic, and anti-intellectualistic ideas from his sister, his mother, and his younger brother Otto. Additionally, through a confrontation in the football stadium with the power of the masses, some political themes also play a role in the novel: the power of a leader ('Führer') is embodied in the football team's captain. Through discussions with his professors, a burgeoning love for a young student, and his brother's tragic death, science and life become increasingly intertwined for Richard Hieck. Because of his analytical attitude, the feelings of love are presented as the 'unknown quantity' of life. Therefore, the evolution of Hieck's feelings represents Broch's conviction that the analytical method can never account for irrational and intuitive experience. Hieck realizes that death and love cannot be understood through mathematical formulas, but demand a more mystical approach. That's what Broch calls the 'irreduzible Reste'.



**Figure 2.** Hermann Broch, *Die Unbekannte Größe* (1933)

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<sup>49</sup> Lützelner, *Hermann Broch: Ein Biographie*, p. 169.

The topic of this novel much reflects Broch's biography. Already in his younger years, Broch was aware of his talent and interest for mathematical work.<sup>50</sup> Because he was born in a family that owned a textile manufactory, he did not get the opportunity to develop this mathematical interest, but was initially trained to succeed his father at the factory.<sup>51</sup> However, he had never distanced himself from his fascination with mathematics. He enrolled at the University of Vienna in 1925, at the age of 41, after he had sold the factory to study mathematics and philosophy. When he failed to successfully finish his education, he switched to a career as a novelist, which started with the publication of *Die Schlafwandler* (The Sleepwalkers) in 1931 and *Die Unbekannte Größe* (The Unknown Quantity) in 1933. That Broch's novels also reflected his mathematical and broader scientific interests is commonly accepted among scholars, but what remains as subject of debate is how these scientific references should be interpreted.<sup>52</sup>

Broch was educated in the disciplines of mathematics and philosophy in a time of great upheaval within these disciplines. Especially the University of Vienna, the home of the Vienna Circle, was actively engaged in debates about the foundations of science in a time wherein the foundations of mathematics and physics were much discussed. Physics faced the upswing of the theory of relativity and quantum theory, which were theories that challenged the foundations of physics at that time.

Several scholars argue that these developments in mathematics and physics probably played a role during Broch's education at the University of Vienna, and are implicit and explicit referred to in *Die Unbekannte Größe*. The next section will show how scholars have analyzed the role of mathematics in both Broch's essays and in *Die Unbekannte Größe*.

## 2.2. Broch's relation to mathematics

The relevance of Broch's own background in mathematics was already reflected in some early reviews on *Die Unbekannte Größe*. For example, when the *The Times* published their review of *Die Unbekannte Größe*, they started their review by stating that Hermann Broch was a

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<sup>50</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 31; Hermann Broch, „Letter to Daniel Brody – 13-7-1934,“ *KW* 13/3, 287.

<sup>51</sup> Paul Michael Lützeler, *Hermann Broch: Eine Biographie.*, 31.

<sup>52</sup> Gunther Martens, „Zur Broch Forschung,“ in *Hermann-Broch-Handbuch*, edited by Michael Kessler & Paul Michael Lützeler (Berlin, Boston : De Gruyter, 2015), 534 – 537.

“business-man turned mathematician, psychologist, and philosopher (...)”.<sup>53</sup> This background remains to be one of the key issues in the Broch scholarship regarding the relation between his novels and scientific developments. Scholars discuss how to account for Broch’s scientific background in relation to *Die Unbekannte Größe*. In what follows, the foundational debate within mathematics will be introduced concisely, and thereafter, this section will show how several scholars approach Broch’s literary and essayistic work in relation to his mathematical background.

### 2.2.1. Grundlagenkrise der Mathematik

Reflections on modernity are strongly characterized by questions regarding the relation between knowledge and reality, which was also one of the central questions in the so-called foundational debate. For example, Ludwig Fleck’s essay *Zur Krise der Wirklichkeit* (1929) reflects on the epistemological problems regarding Quantum Theory, Complementarity Theory, and the Copenhagen interpretation. This was a reaction to Kurt Riezler’s essay from 1928 called *Die Krise der Wirklichkeit*.<sup>54</sup> In general, they were worried about the status of the ‘Absolute’ in modern science, which was also the case in mathematics.

In 1921, Hermann Weyl (1885 – 1955) published his essay *Über die neue Grundlagenkrise der Mathematik*, which was his diagnosis of the state of modern mathematics. This so-called ‘Grundlagenkrise’ reflected primarily the discussions between L.E.J. Brouwer (1881 – 1966) and David Hilbert (1862 – 1943). Brouwer defended what was called the intuitionistic position: the idea that mathematics is inherently connected to the human mind, and therefore bounded to the limits of the human mind. The formalist position of Hilbert reflects the conviction that in the end, every mathematical problem was solvable by means of mathematics only. Therefore, this crisis included the discussion about the *tertium non datur*: the law of the excluded middle.<sup>55</sup>

Herbert Mehrrens argues that this crisis should not too easily be understood solely as a crisis of mathematics, or as a crisis that was solely about the ‘foundations’ of mathematics, but rather as a general crisis about concepts such as ‘truth’, ‘meaning’, and ‘object’, and how

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<sup>53</sup> The Times, “New Novel” (Review of *The Unknown Quantity*) (September 6, 1935). [tinyurl.galegroup.com/tinyurl/4tdVy9](http://tinyurl.galegroup.com/tinyurl/4tdVy9) Accessed on 18 May 2017.

<sup>54</sup> Otto Gerhard Oexle, „Krise des Historismus – Krise der Wirklichkeit. Eine Problemgeschichte der Moderne,“ in *Krise des Historismus – Krise der Wirklichkeit: Wissenschaft, Kunst und Literatur 1880 – 1932*, edited by Otto Gerhard Oexle (Göttingen: Vandenhoeck & Ruprecht, 2007), 14.

<sup>55</sup> Herbert Mehrrens, *Moderne Sprache, Mathematik: Eine Geschichte des Streits um die Grundlagen der Disziplin und des Subjekts formaler Systeme* (Berlin : Suhrkamp Verlag, 1990), 290.

these concepts related to mathematics.<sup>56</sup> Mehrtens argues that these topics became especially relevant because of the tragic outcome of The Great War. The general sense of crisis reinforced discussions about the relation between meaning and order, which also appealed to mathematicians.<sup>57</sup> Mehrtens argues that this debate was generally focused on the question whether mathematics should remain to be related to cultural developments, or that it was a field that should be regarded as being independent of the cultural and political sphere.<sup>58</sup> Mehrtens summarizes this discussion as follows: “Was ‘Wahrheit’ in der Mathematik bedeutet, war umstritten, Offenbarung oder eigene Schöpfung, gültig auf dem Papier oder im Geist? Damit ging es in der Tat um die ‘Kultur’ die in Deutschland nach dem Ersten Weltkrieg eine höchst politische Frage war.”<sup>59</sup>

In what follows, Broch’s position within this debate will be discussed, which will also provide an insight into how other scholars try to locate Broch’s position by means of an analysis of his essays and novels.

### 2.2.2. Broch’s position within the debate

The discussion was still apparent during Broch’s time at the University of Vienna, which was mostly under influence of the *Wiener Kreis* in terms of their views on science and philosophy. Moritz Schlick, Rudolf Carnap, Hans Hahn and Karl Menger were considered to be part of the inner circle of the *Wiener Kreis*, and were prominent in the curriculum at the University of Vienna. As Broch joined many courses of these teachers, several scholars have shown their interest in the question whether Broch actively defended a position within the epistemological debate or not through his essayistic and novelistic work.<sup>60</sup>

In his evaluation of Broch’s essays *Kultur 1908/1909* and *Den sogenannten philosophischen Grundfragen einer empirischen Wissenschaft* (1928), Willy Riemer does not regard these essays as a serious attempt to contribute to the scientific knowledge of that time. Broch’s essays are eclectic and mostly driven by cultural ideologies and therefore not strictly subjected to a scientific method. In Riemer’s view, Broch does not elaborate on the concepts

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<sup>56</sup> Herbert Mehrtens, *Moderne Sprache Mathematik*, 8.

<sup>57</sup> *Ibid.* 289.

<sup>58</sup> *Ibid.* 294.

<sup>59</sup> *Ibid.* 297.

<sup>60</sup> See the biography of Paul Michael Lützel for an overview of Broch’s courses: Paul Michael Lützel, *Hermann Broch: Eine Biographie*, 97-98.

he uses, and Broch also does not take any kind of counterargument into account.<sup>61</sup>

As Broch did not explicitly showcase his scientific competence in his essays, Riemer switches to biographical details from Broch to observe to what extent Broch was interested in mathematics. The introduction showed that already during his youth Broch was interested in mathematics and philosophy, and that he had also attended some public lectures in 1904 and 1905.<sup>62</sup> From Broch's personal library, which is preserved in the library of Yale University, Riemer discovered that Broch had read Paul Natorp's *Die logischen Grundlagen der exakten Wissenschaften* (1910) and wrote a summary on algebra and differential calculus in 1919.<sup>63</sup> Furthermore, Riemer shows that during Broch's time at the University of Vienna (1925-1930), he attended approximately 51 lectures, of which most of them were focused on mathematics, for example on a subject such as the 'Mengenlehre' (Set theory). Based on this information, together with Broch's own notes on these lectures, Riemer concludes that Broch probably had a thorough introduction in mathematics, and was informed on the most recent developments, and therefore should have been able to actually conduct original research within the field of mathematics.<sup>64</sup>

Carsten Könneker explicitly reacts to Willy Riemer, and proposes a different approach to Broch's scientific competence. In the view of Könneker, Riemer was part of a debate about Broch wherein only two extreme positions were represented: either Broch was a competent mathematician, or he was not. Könneker wants to show that Broch himself was already more nuanced about his own mathematical qualities. In 1936, Broch stated in a letter to Egon Vietta that he had always been quite good with mathematics, but he also confessed that the modern developments were going too fast for him.<sup>65</sup> However, Könneker still wants to show that Broch devised a new position within the debate.

For his argument, Könneker turns to the following two essays of Hermann Broch: *Die sogenannten philosophischen Grundfragen einer empirischen Wissenschaft* (1928) and *Über syntaktische und kognitive Einheiten* (1946). On the basis of these essays, Könneker suggests

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<sup>61</sup> Willy Riemer, "Mathematik und Physik bei Hermann Broch," in *Hermann Broch*, edited by Paul Michael Lützel. (Frankfurt am Main : Suhrkamp Verlag, 1986), 265.

<sup>62</sup> Willy Riemer, "Mathematik und Physik bei Hermann Broch," 262; Hermann Broch, „Autobiographie als Arbeitsprogramm,“ *KW 10/2*, 195; 203.

<sup>63</sup> Willy Riemer, "Mathematik und Physik bei Hermann Broch," 265.

<sup>64</sup> Ibid. 266-267.

<sup>65</sup> Carsten Könneker, "Moderne Wissenschaft und moderne Dichtung. Hermann Brochs Beitrag zur Beilegung der ‚Grundlagenkrise‘ der Mathematik," *Deutsche Vierteljahrsschrift für Literaturwissenschaft und Geistesgeschichte* 73 (2) (1999), 320; Broch repeated this message to Anne Marie Meier-Graefe. Hermann Broch, „Letter to Anne Marie Meier-Graefe Broch – 14 -09-1948,“ *KW 13/3*, 242.

that Broch had sympathy for the intuitionistic premise, which stated that there will always remain a part of reality that escapes the rationalistic approach, what Broch called 'die irreduziblen Reste'. Despite this suggested sympathy, Könneker does not categorize Broch as being part of the intuitionistic school:

"Broch sieht 'Intuition' als gegebene Voraussetzung, nicht jedoch als bewußt einsetzbares Mittel beim Aufbau der Mathematik an."<sup>66</sup>

For Broch, intuition is a more general applicable concept, and the recognition of intuitionistic elements in the field of rationality is the only possible escape out of the crisis. Therefore, this should not be done through the intuitionistic program of Brouwer, but through a platonistic-idealistic view on mathematics. For Broch, the only plausible way to recognize a pre-existent continuum of numbers, which was currently subject of debate, is by means of idealism.<sup>67</sup> This view is reinforced by Gwyneth Cliver's perspective:

"In other words, the presence of a concept of 'number' reveals the existence of an ideal and the application of intuition in order to approximate this ideal. Only by means of an intuitive act can the human mind conceive of the Platonic ideal and with it the nature of such categories as 'number' and 'unit'."<sup>68</sup>

This ultimate goal of a combination of intuitionism and idealism should not be regarded as dilettantism or amateurism. According to Könneker, it is an attempt by Broch to establish a synthesis of formalism, intuitionism, and logicism:

"Er vereinte den Glauben des Formalismus an eine unabhängig von der empirischen Welt deduktiv konstruierbare Mathematik mit dem intuitionistischen Konzept eines Zahlenkontinuums sowie bestimmten Überlegungen der Logizisten zum Verhältnis von Logik und Mathematik zu einer ‚eigenen‘ Theorie."<sup>69</sup>

These examples show that Könneker explicitly tries to locate Broch's position within the foundational debate. He wants to present Broch as an original and independent thinker, a mathematician with his own system and contribution to the debate. However, Könneker also admits, just as Riemer did, that there is a complete absence of proof, equations, and

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<sup>66</sup> Carsten Könneker, "Moderne Wissenschaft und moderne Dichtung," 333.

<sup>67</sup> Ibid. 339.

<sup>68</sup> Gwyneth Cliver, "Landscapes of the Mind: The Spatial Configuration of Mathematics in Hermann Broch's *Die Unbekannte Größe*," *Seminar: A Journal of Germanic Studies*. 49 (1) (2013), 58.

<sup>69</sup> Carsten Könneker, "Moderne Wissenschaft und moderne Dichtung," 339.

calculations in Broch's work. Könneker's explanation for this absence is that Broch also wanted to engage in discussions that went beyond mathematics and would touch upon more general philosophical issues. Broch was attracted to the works of Johann Gottlieb Fichte (1762 – 1814) and Edmund Husserl (1859 – 1938), and he saw especially Husserl's phenomenological approach as a step towards the synthesis of all possible knowledge, which aims to achieve a reconciliation of the knowledge of everyday life and that of the sciences.<sup>70</sup> This interest in philosophy suggests that Broch should not simply be judged on the basis of his mathematical contribution, but also on the basis of a broader epistemological program.

Although Riemer's conclusions are slightly different from the conclusions of Könneker and Cliver, he does agree that it is rather unfair to judge Broch solely on mathematical grounds. Riemer concludes that Broch followed the foundational debate critically, and that he had chosen a specific position within the debate, namely the position that was very much close to that of Paul Natorp. Riemer also identifies the idea of an 'irreducible rest' in science as Broch's primary interest, which is understood as an aspect of reality that cannot be subjected to the scientific method. Intuitionist elements should not be erased out of mathematics, but understood on a more metaphysical level, was Broch's conviction.<sup>71</sup>

Despite the absence of a rigorous mathematical methodology, Könneker does identify Broch's essays as original scientific work. Riemer, on the other hand, suggests that Broch's knowledge of mathematics might have been sufficient to conduct original research, but argues that Broch simply chased a different goal:

“[D]aß es Broch in seiner Beschäftigung mit der Mathematik oder der Physik nicht um systematisch ausgearbeitete Beiträge ging, sondern um historisch orientierte, informierte Übersichtsstudien einerseits, und um die Auseinandersetzung mit der erkenntnistheoretischen Grundlagenproblematik andererseits. (...) war er außerordentlich konsistent in seinem Streben nach den großen Wahrheiten, sowie in seiner wissenschaftlich ungewöhnlichen Arbeitsweise.“<sup>72</sup>

With this quote, Riemer suggests that Broch was interested in a combination of history and epistemology in his approach to science, which did not fit within the regular academic

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<sup>70</sup> Carsten Könneker, "Moderne Wissenschaft und moderne Dichtung," 343.

<sup>71</sup> Broch was frustrated about the absence of ethical and metaphysical discussions at the University of Vienna: "Den Ethiker und Metaphysiker Broch vermochte nun im Kreis der Neopositivisten nichts mehr zu halten, hatten sie doch aufgegeben, nach Antworten auf die für ihn zentralen Fragen der Philosophie zu suchen." Paul Michael Lützel, *Hermann Broch: Eine Biographie*, 100.

<sup>72</sup> Willy Riemer, "Mathematik und Physik bei Hermann Broch," 270.



standards. Kuno Lorenz reinforces this interpretation as he argues that Broch's novels should be seen as a means to establish a unified epistemological program.<sup>73</sup>

As the discussed authors agree upon the idea that Broch probably aimed at a different goal than a plain mathematical goal with his essays, this chapter will continue by discussing Broch's novel *Die Unbekannte Größe* in the next section, and evaluate how these authors analyze the mathematical references within the novel. By means of this analysis, it will become clear how scholars have tried to understand the relation between mathematics and literature in this specific work of Broch.

### 2.2.3. *Die Unbekannte Größe* & Broch's position within the foundational debate

Gwyneth Cliver suggests that the novel is Broch's way to express his alternative approach to science and philosophy, and therefore this section will discuss how Cliver and others have approached Broch's use of science in *Die Unbekannte Größe* (1933).<sup>74</sup> The question that will be discussed in this section is whether the novel was a continuation of Broch's scientific goals by other means, and also what the analyses of *Die Unbekannte Größe* suggest about the relation between science and literature in this novel.

Cliver discusses several aspects of the novel, but pays special attention to the relation between Richard Hieck and doctor Kapperbrun, which she sees as a reference to actual historical discussions. When Richard Hieck elaborates on his ideal of mathematics, namely an ideal wherein reality can be completely understood in mathematical formulas and equations, Kapperbrun reacts as follows: "Da hatten Sie Dichter, aber nicht Mathematiker werden müssen."<sup>75</sup> Kapperbrun argues that if one wants to connect mathematics to reality, one should become a poet instead of a mathematician.

Cliver relates this discussion between Kapperbrun and Hieck to the debate about the ornament, wherein Adolf Loos argued in his *Ornament und Verbrechen* (1908) that architecture should focus on functionality rather than on 'useless kitsch'. Cliver compares Hieck with a proponent of the ornament, as Hieck rejects the idea that mathematics is something purely aesthetical. The aesthetical can be functional at the same time, as everything serves "some external goal".<sup>76</sup> Kapperbrun rejects Hieck's position, and Cliver identifies Kapperbrun's position therefore as an anti-ornamental view. According to Cliver, Kapperbrun

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<sup>73</sup> Kuno Lorenz, "Brochs erkenntnistheoretisches Programm," in *Hermann Broch*, edited by Paul Michael Lützeler. (Frankfurt am Main : Suhrkamp Verlag, 1986), 251.

<sup>74</sup> Gwyneth Cliver, "Landscapes of the Mind," 59.

<sup>75</sup> Hermann Broch, „Die Unbekannte Größe,“ *KW* 2, 39.

<sup>76</sup> Gwyneth Cliver, "Landscapes of the Mind," 60.

understands mathematics as a means in itself, and rejects every opportunity for an external connection.<sup>77</sup> This internal understanding of mathematics is an example of modern fragmentation, according to Cliver. This is a topic that will also be touched upon in the next chapter. In his essay on the disintegration of value, Broch philosophically substantiated this idea of fragmented value-systems in *Die Schlafwandler*.

Kapperbrun represents the immoral and pure mathematician. Cliver labels this attitude as 'kitsch', as Kapperbrun only imitates the *form* of mathematics, without having any kind of interest in the aim for transcendence. Kapperbrun therefore embodies the negative side of modernity. Hieck, on the other hand, embodies the strive for transcendence, metaphysics, and platonic knowledge. Whereas Hieck's transcendental approach aims for a mystical experience that should reconcile the rational with the irrational elements, Kapperbrunn's 'kitsch' is 'the great evil of modernity' for Broch, as Broch argued against kitsch in his essay *Das Böse im Wertsystem der Kunst* (1933).<sup>78</sup> In short, Cliver's analysis is an attempt to understand the mathematical ideas in *Die Unbekannte Größe* as a reflection of general discussions in Vienna. Furthermore, Cliver argues that "the way in which Hieck spatially *conceives* or *models* mathematics (...) in order to understand it, results, at least substantially of not wholly, from a set of social norms drawn from a wide variety of sources."<sup>79</sup> Cliver thus admits that Hieck's view on mathematics is related to developments outside of mathematics.

Carsten Könneker takes a slightly different perspective on the novel. Könneker strictly focuses on the factual history of the foundational debate in mathematics, and aims to identify the different positions within the debate in the novel. Through the discussion between the different characters, the main protagonist (Richard Hieck) develops his own position. Könneker identifies Hieck and Kapperbrunn in a rather similar manner as Cliver: Kapperbrunn represents the formalistic approach towards mathematics, while Hieck seems to be more attracted to the ideas of the intuitionistic school.<sup>80</sup> Könneker argues that this relation represents the actual historical relation between David Hilbert and Hermann Weyl. Weyl, who argued for an intuitionistic point of view, was a student of Hilbert, who in his turn was in favor of the formalistic approach. However, Hieck also seems to be interested in a logicist approach, when he says: "Logik und Mathematik aber sind identisch."<sup>81</sup> Therefore, Hieck is not simply a

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<sup>77</sup> Gwyneth Cliver, "Landscapes of the Mind," 60.

<sup>78</sup> Ibid. 62.

<sup>79</sup> Ibid. 65.

<sup>80</sup> Carsten Könneker, "Moderne Wissenschaft und moderne Dichtung," 345-346.

<sup>81</sup> Ibid. 346-347. Hermann Broch, „Die Unbekannte Größe,“ 40

representation of a historical figure, but offers a more synthetic perspective. This synthesis is represented by the mystical position. Although the death of his younger brother Otto seems to be the direct cause for Hieck's conversions to mysticism in *Die Unbekannte Größe*, Könneker argues that Broch tried to make the point that opposed concepts such as the rational and irrational can only merge within an epistemological mystical position.<sup>82</sup>

In conclusion, Könneker states that despite Broch's professional switch from a scientist towards a novelist, one can notice a continuity in his ambition. His literary work is a continuation of his mathematical work, but by other means. The unification of all knowledge remained to be Broch's final goal.<sup>83</sup>

In this section, the most important contributions to the discussion about Hermann Broch's position within the foundational debate about mathematics have been discussed. Whereas Riemer strictly tries to evaluate Broch's mathematical knowledge, Könneker and Cliver focus on the unique position of Broch within the foundational debate. All three authors differ in their approach, as Riemer takes a more mathematical and philosophical approach, Cliver a more hermeneutic approach, and Könneker the most historical approach. However, together they seem to share the same conclusion: Broch did not conduct mathematics for the sake of mathematics, but as part of an overarching project. Riemer identifies this project as an epistemological project that aims at unified knowledge of mathematics. Cliver emphasizes the anti-positivistic sentiments: Broch wanted to (re)unify science and metaphysical philosophy. Könneker indicates Broch's work as a search for *Totalerkenntnis*:

“Das unvermittelte Hereinbrechen der idealen Seinsgehalte ins menschliche Denken ist es gerade, was Broch in der *Unbekannte Größe*, wie auch später in anderen Werken, literarisch, d.h. durch Sprache, zum Ausdruck bringen wollte. Er versuchte, mit dichterischen Mitteln plötzliche Totalerkenntnis darzustellen.”<sup>84</sup>

This section on Broch's use of mathematics has provided both an insight in Broch's affinity with mathematics and with three scholarly perspectives on Broch's qualities. What is remarkable, and therefore topic of discussion in the subsequent chapters, is that none of these scholars has taken any first-hand reflections from Broch himself into account. The relation between Broch's scientific background and his literary achievement is almost taken for granted: references are often interpreted from a purely scientific perspective. Cliver is the only one who suggests a

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<sup>82</sup> Carsten Könneker, "Moderne Wissenschaft und moderne Dichtung," 347.

<sup>83</sup> Ibid. 351.

<sup>84</sup> Ibid. 349.

relation to more cultural oriented discussions in Vienna. The next section will take the same approach to Broch's affinity with physics, which is a discipline Broch is also often associated with.

### 2.3. Broch's relation to physics

Whereas the previous section focused on Broch's work from the perspective of mathematics, this section will shift the perspective to that of physics. Although Broch had not written many essays on the development of physics in his time, it appears to be an essential part of his work. For example Einstein's theory of relativity is mentioned explicitly in his essay on James Joyce's modernistic novel *Ulysses*, and Broch suggested in his essay *Philosophischen Aufgaben einer Internationalen Akademie* (1948) that physics could lead the sciences to a reunification, because of its theoretical foundation.<sup>85</sup>

Broch's knowledge of physics has been subject of debate among several scholars for years. Most prominently is the discussion between Theodor Ziolkowski and Ernestine Schlant on the level of Broch's knowledge of physics. Whereas Ziolkowski praises Broch's knowledge as an important inspiration for his novels, Schlant raises some doubts about Broch's scientific competence. Especially this friction triggered Carsten Könneker to evaluate Broch's knowledge of modern physics in detail. Könneker evaluated this academic dispute and formulated a new point of view.

In what follows, Broch's scientific background regarding physics will be discussed, and also the manner in which scholars have approached this topic in their research will be evaluated. This section will show that the discussion about Broch's knowledge of physics is mostly limited to a discussion about his competence, and less about his specific position within scientific debates. This is a fundamental difference between the debates about mathematics and physics in Broch's work. Furthermore, it will become clear that *Die Unbekannte Größe* is again mostly treated as a translation of Broch's scientific interest.

#### 2.3.1. Broch's Knowledge of Physics

In his article *Hermann Broch and Relativity in Fiction*, Theodore Ziolkowski claims that Hermann Broch was probably the most modernistic writer among the avant-garde of the early

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<sup>85</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW* 9/1 (Frankfurt am Main: Suhrkamp, 1981), 77-78; Hermann Broch, „Philosophischen Aufgaben einer Internationalen Akademie,“ *KW* 10/1 (Frankfurt am Main: Suhrkamp, 1981), 87 – 89.

twentieth century, because Broch was able to combine a sufficient knowledge of modern science, and modern physics in particular, with modernistic tendencies in literature.<sup>86</sup>

Ziolkowski distinguishes four modern writers that were typical for modernistic tendencies in twentieth-century literature: C.P. Snow, James Joyce, Franz Kafka, and Hermann Broch. C.P. Snow represents the type of writer who uses modern physical knowledge but within a traditional form of storytelling. James Joyce represents the writer who relates to modern science in a modernistic form but only on a metaphorical level. This means that the theory of relativity can be used as a useful metaphor to explain Joyce's work, despite the fact that there is no explicit technical import of modern science in *Ulysses*. For Ziolkowski, Hermann Broch is the true *poeta doctus*, as he was able to combine the content of modern physics with a modernistic form of narration.<sup>87</sup>

Ziolkowski mostly derives this conclusion from Broch's essay *James Joyce und die Gegenwart*. In this essay, Broch presents James Joyce as a novelist who creates a style that is similar to Einstein's contribution to science:

“Die Relativitätstheorie aber hat entdeckt, daß es darüber hinaus eine prinzipielle Fehlerquelle gibt, nämlich den Akt des Sehens an sich, das Beobachten an sich, daß also, um diese Fehlerquelle zu vermeiden, der Beobachter und sein Sehakt, ein idealer Beobachter und ein idealer Sehakt, in das Beobachtungsfeld einbezogen werden müssen, kurzum daß hierfür die theoretische Einheit von physikalischem Objekt und physikalischem Subjekt geschaffen werden muß. (...) Immer schwingt bei ihm [James Joyce] die Erkenntnis mit, daß man das Objekt nicht einfach in den Beobachtungskegel stellen und einfach beschreiben dürfe, sondern daß das Darstellungssubjekt, also der ‚Erzähler als Idee‘ und nicht minder die Sprache, mit der er das Darstellungsobjekt beschreibt, als Darstellungsmedien hineingehören.“<sup>88</sup>

This is probably the most cited paragraph of Broch's essay among scholars that debate the relation of Broch's novels to science. It mentions both James Joyce and the theory of relativity explicitly, and relates them to each other, which makes it appealing to scholars who are looking for relations between science and literature. This quotation suggests a style of narration, wherein the *narrator as idea* is explicitly connected to the observation, which

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<sup>86</sup> Theodore Ziolkowski, "Hermann Broch and Relativity in Fiction," *Wisconsin Studies in Contemporary Literature* 8 (3) (1967), 368.

<sup>87</sup> Ibid. 367 - 368.

<sup>88</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW* 9/1, 77 – 78.

should be similar to the theory of relativity. This would be a radical break with traditional storytelling which was more focused on naturalistic or objective presentation of facts. In the words of Ziolkowski:

“It is a structural and stylistic innovation that emerged directly from Broch’s preoccupation with the theory of relativity and from his attempt to find a fictional means of representation for the ideal observer of relativity.”<sup>89</sup>

What is interesting is that Ziolkowski interprets Broch’s analysis of Joyce as an exposition of Broch’s own theory.<sup>90</sup> This is not an unusual approach to *James Joyce und die Gegenwart*, but it does raise the question what exactly the difference between Broch and Joyce is. Why should Broch be regarded as being more modernistic than Joyce? For Ziolkowski, the background of Broch’s approach seems to be decisive: Broch applied this method because he had a thorough training in science, Joyce did it out of aesthetical motivations, and lacked a thorough scientific training.

Ziolkowski therefore draws the conclusion that Broch was looking for a way to apply the epistemology of modern physics to the modern novel. It seems that according to Ziolkowski, Broch was the true modernist, because the reader can experience a literary variation of the theory of relativity.<sup>91</sup> It can be concluded that in Ziolkowski’s approach, there is a direct connection between Broch’s knowledge of physics and his literary style.

Ernestine Schlant, who reacts to Ziolkowski’s claim, doubts whether Broch’s literary contribution should be ascribed to his knowledge of modern physics, as she questions Broch’s actual level of scientific knowledge. Schlant refers to the same quote as Ziolkowski did, which is presented above. However, Schlant proposes a different perspective than most other scholars: she asks whether it is actually the theory of relativity that Broch referred to, or did Broch confuse the theory of relativity with the quantum theory?<sup>92</sup>

Schlant argues that Broch was much more interested in mathematics and philosophy than in modern physics during his time at the University of Vienna. He attended some courses

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<sup>89</sup> Theodore Ziolkowski, "Hermann Broch and Relativity in Fiction," 373.

<sup>90</sup> The topic of Broch’s self-representation through his identification with Joyce is topic of chapter four, and partly also of chapter five.

<sup>91</sup> Theodore Ziolkowski, "Hermann Broch and Relativity in Fiction," 375.

<sup>92</sup> “Yet nowhere would the theory of relativity regard such higher dimensionalities as ‘dissolutions’ in the sense Broch uses the word. The theory of relativity is inextricably linked to the ‘classical’ subject-object dualism which insists on the precise definition of physical properties within their relative frames. The ‘dissolution’ of the static into the dynamic belongs again properly to quantum theory.” Ernestine Schlant, "Hermann Broch and Modern Physics," *The Germanic Review: Literature, Culture, Theory* 53 (2) (1978), 70; 74.

in physics, but never with the same intensity and frequency as he did with mathematics.<sup>93</sup> Furthermore, the longer Broch was away from the university, the sloppier his knowledge of modern science got, Schlant argues. Therefore, Schlant suggests that “Broch’s references to quantum physics and to ‘modern physics’ in general lack the unifying vision which marked his relation to the theory of relativity.”<sup>94</sup> In the view of Schlant, Broch had a rather eclectic understanding of modern physics. Recently, Carsten Könneker also became involved in the debate and evaluated the discussion between Schlant and Ziolkowski. Könneker does not agree with Schlant’s suggestion that Broch had a more or less eclectic knowledge of physics. Whereas Schlant argues that Broch did not know much about modern physics, Könneker counters Schlant’s claim by stating that Broch had read the latest texts by physicists such as Heisenberg, a claim that is based on the archival research of Klaus Amann.<sup>95</sup> Therefore, Könneker is convinced that Broch knew a lot about both the theory of relativity and the quantum theory. Precisely because of this detailed knowledge, there is a need for a better explanation for Broch’s seemingly unorthodox use of the theory of relativity, Könneker argues. In Könneker’s view, it is much more plausible that Broch tried to establish a new position wherein he aspired to merge both theories, instead of the suggestion that he must have mixed up both theories.<sup>96</sup>

Although there seems to be a strong disagreement among scholars about the actual level of Broch’s knowledge of physics, they all seem to agree that it is the most important point of debate. Whereas on the topic of mathematics the discussion is focused on Broch’s position within the debates, they tend to focus on Broch’s actual capacities when they discuss his relation to physics. Carsten Könneker supports his view that Broch had a thorough knowledge of physics with an analysis of *Die Unbekannte Größe*. The next section will discuss how Könneker interprets the function of physical references in *Die Unbekannte Größe*. Afterwards, the approach of the discussed authors will be evaluated.

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<sup>93</sup> Ernestine Schlant, “Hermann Broch and Modern Physics,” 71.

<sup>94</sup> Ibid. 74.

<sup>95</sup> Klaus Aman catalogued the books that Broch owned, and probably read, based on Hermann Broch’s archive at Yale University. See Carsten Könneker, “Hermann Brochs Rezeption der modernen Physik: Quantenmechanik und ‘die Unbekannte Größe,’” *Zeitschrift für deutsche Philologie* 118 (1999), 209-210.

<sup>96</sup> Attempts to merge the theory of relativity with the quantum theory were not at all untypical in the (anti-) Einstein discussions in the 1920s. See Carsten Könneker, “Hermann Brochs Rezeption der modernen Physik,” 211.

### 2.3.2. *Die Unbekannte Größe* & Broch's position within the quantum debate

The previous section has shown that Könneker believes that Broch tried to establish a new position within modern physics. Just as with the relation between Broch and mathematics, Könneker tries to support his argument with an analysis of *Die Unbekannte Größe*. In contrast to the mathematical references, Könneker analyzes the physical reference in the novel both on the level of historical accuracy and on the level of philosophical content.

Könneker's first argument is the argument of historical chronology. The starting point of the novel's storyline is 1926/27, when the discussions about the quantum theory were already settled on a mathematical level, but not yet on a physical level, as there was not yet experimental proof for the existence of material waves, Könneker argues.<sup>97</sup> Könneker concludes that Broch had a thorough knowledge of these historical facts, and made sure to deliver a novel that was in accordance with the actual historical development of quantum theory:

“Beide Ziele wurden bis Herbst 1927 – hier endet die Handlung der ‘Unbekannten Größe’ – verwirklicht, und Broch thematisierte die entsprechenden wissenschaftlichen Großereignisse in seinem Roman; sich präzise an die historischen Fakten anlehnend, verarbeitete er außerdem die Vorgeschichte des Jahres 1927.“<sup>98</sup>

This historical congruence adds to Könneker's point of view that the novel is in line with the actual debates of that time. According to Könneker, Broch presents several aspects of the debates through his protagonists: every protagonist defends a different point of view. Könneker goes even further in his analysis: even the bookshelf of professor Weitprecht provides an insight in the historical accuracy of Broch's novel. In the following quote, Weitprecht explains the way he ordered his bookshelf to Richard Hieck:

“Es ist alles chronologisch bezeichnet. Die wellenmechanischen Arbeiten tragen außerdem in der rechten Ecke ein W. Und die quantentheoretischen tragen ein Qu (...).“<sup>99</sup>

This short description of Weitprecht's bookshelf leads to the following analysis of Könneker:

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<sup>97</sup> Carsten Könneker, "Hermann Brochs Rezeption der modernen Physik," 215-216.

<sup>98</sup> Ibid. 216.

<sup>99</sup> Hermann Broch, „Die Unbekannte Größe,“ 70. See also: Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 221.



“Broch zeigt hier explizit an, daß sich Weitprecht in der Vergangenheit an der Erforschung der zwischen Schrödinger und Heisenberg ausgetragenen Kontroverse um die korrekte Fundamentlegung der modernen Atomphysik beteiligt hatte.“<sup>100</sup>

Although this analysis seems very speculative, it is interesting how eager Könneker is to show to what extent the storyline resembles the actual historical development. By tracking down the relations between the storyline of *Die Unbekannte Größe* and the history of physics, Könneker tries to argue that Broch was more knowledgeable about physics than Ernestine Schlant suggested. He reinforces this view by pointing to a possible reference to an article by Niels Bohr. In the same conversation as referred to above, Weitprecht asks if Hieck had already read Bohr's latest publication:

“Haben Sie das schon gelesen? Die neue Mitteilung von Bohr. (...) ‚Sehr bedeutsam, sehr bedeutsam‘, sagte Weitprecht, von allen Seiten fgt es sich zusammen, es geht alles auf das gleiche Ziel los.“<sup>101</sup>

Although Broch does not give many explicit references to the paper that Weitprecht is referring to, it is again a slight reference to the actual discussion of the 1920s, as Bohr is obviously also a real historical actor, and not simply a literary protagonist made up by Broch. Könneker suggests that Weitprecht might be referring to an actual paper of Bohr, namely the ‘Komplementaritätstheorie’ from 1927, which would be in accordance with the historical narrative of both the novel and the actual discussions within physics. Könneker mentions in a footnote that although Bohr's article was not the final conclusion in the debate about quantum mechanics, it did provide a successful synthesis of the quantum and wave theories.<sup>102</sup> Könneker therefore concludes that Broch included Bohr's publication in an accurate manner in the novel, both on the level of content (synthesis) and the historical event (1927).

Könneker continues to signal some other similarities between the historical development of the quantum discussion and Broch's novel. For example, he notices similarities between Weitprecht's thoughts on the unification of the quantum and wave theories and an experiment on this topic that was conducted by American physicists Clinton Davisson and

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<sup>100</sup> Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 222.

<sup>101</sup> Hermann Broch, „Die Unbekannte Größe,“ 55; Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 222.

<sup>102</sup> See footnote 42 in: Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 222.

Lester Germer in 1927.<sup>103</sup> Furthermore, Könneker identifies the use of a popular mathematical journal on pure and applied mathematics, which was closely related to discussions in physics. In *Die Unbekannte Größe*, several protagonists use the abbreviation 'Crelle' or 'Crelles Journal' when they refer to a mathematical journal. According to Könneker, this was a common way to refer to the *Journal für die reine und angewandte Mathematik*, because the journal was established by August Leopold Crelle in 1826.<sup>104</sup>

For Könneker, these examples from *Die Unbekannte Größe* proof that Broch had a sufficient knowledge of modern physics, which counters Schlant's suggestion that Broch's eclectic approach was an inevitable consequence of his lack of understanding of modern physics. According to Könneker, Broch was well informed about the content, the debates, and the historical development of the quantum theory.<sup>105</sup>

Based on the debate between Ziolkowski, Schlant, and Könneker, it can be concluded that the scholarship on Broch's relation to modern physics is mostly focuses on Broch's capacities and knowledge.<sup>106</sup> Whereas his mathematical knowledge was much more accepted, and these scholars try identify Broch's position within the debate, there are serious doubts about his knowledge of physics. Especially according to Könneker's publications, *Die Unbekannte Größe* is mostly a historically accurate representation of several aspects of the physical debates, but not an attempt to establish a new position. This differs from Könneker's treatment of Broch's relation to mathematics, wherein Könneker was much more focused on Broch's specific mathematical and epistemological position.

Throughout this section, it has become clear that when it comes to the physical references in Broch's novel *Die Unbekannte Größe*, scholars tend to have a different focus than they have towards the mathematical references. Regarding his relation to physics, his actual

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<sup>103</sup> Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 226.

<sup>104</sup> See footnote 57 in Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 227. The abbreviation 'Crelle' is still commonly used, see: <https://www.degruyter.com/view/j/crll> (Accessed on 23 March 2017).

<sup>105</sup> Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 237.

<sup>106</sup> One of the most recent extensive studies on the relation between Broch's literary style and modern science, Ruth Bendels' *Erzählen zwischen Hilbert und Einstein* (2008), shows similar tendencies. Bendels explicitly mentions Broch's scientific knowledge, the literary structure of the novel is mostly analysed through a comparison with the scientific 'source'. "Basis dafür [the structure of the novel, ed.] ist eine detaillierte Auseinandersetzung (...) mit naturwissenschaftlichen Neuerungen.(...) Auf diesem Weg trifft sie sich mit modernen naturwissenschaftlichen und wissenschaftsphilosophischen Erkenntnis." Bendels' book is not discussed in this thesis, as it did not explicitly engage in this debate. See: Ruth Bendels, *Erzählen zwischen Hilbert und Einstein: Naturwissenschaft und Literatur in Hermann Brochs "Eine methodologische Novelle" und Robert Musils "Drei Frauen,"* (Würzburg : Königshausen & Neumann, 2008), 220-221; 224.

capacities are at the center of the debate, whereas his mathematical qualities are much more accepted. *Die Unbekannte Größe* is not seen as a novel wherein Broch developed a new position within the debate about quantum theory, but is analyzed as a demonstration of Broch's knowledge of physics.

## 2.4. Concluding remarks

By reconstructing and analyzing the scholarly debate about Broch's involvement in mathematics and physics, this chapter focused on three important issues: Broch's relation to science in the 1910s and 1920s, the representation of this relation in *Die Unbekannte Größe*, and the contemporary discussion among scholars about Broch's relation to science.

Despite the overwhelming amount of information that these scholars provided about Broch's scientific background, the question remains what this information actually says about the *relation* between science and literature in the works of Broch. Ziolkowski, Schlant, Riemer, Clever, and Könneker are among the few scholars that explicitly discuss the role of science in Broch's work, but most of them work within the same methodological framework. This is a framework that pre-supposes, consciously or unconsciously, a trickle-down model: they mostly analyze the sources of scientific references in Broch's work, but seldom analyze the meaning of these references within Broch's oeuvre. Cliver is the only one who seems to notice several connections between *Die Unbekannte Größe* and cultural debates, and Ziolkowski is the only one who tries to reflect upon the consequences for the *form* of the novel. The reasons for the scientific references remain unclear, although Könneker did touch upon this issue. He suggests that German culture in general was fascinated by science, which is shown by the popularity of popular science journals at the beginning of the twentieth century.<sup>107</sup> This only describes the popularity of scientific subjects in German society, but does not explain why the public was interested, nor does it give any insight in the motivation of Hermann Broch's approach to science and literature.

Könneker's attitude towards the scientific references in *Die Unbekannte Größe* can be characterized as one that tries to identify actual scientific positions within the novel. In an article that approaches *Die Unbekannte Größe* from a broader perspective, Könneker suggests that Hieck's mother represents a 'Radikalempiristin' and his father a mystic.<sup>108</sup> Könneker is also able to identify specific value-spheres in an article that approaches *Die Unbekannte Größe* from a broader perspective. These value-spheres are a theme that is much more connected to

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<sup>107</sup> Carsten Könneker, „Hermann Brochs Rezeption der modernen Physik,“ 237.

<sup>108</sup> Carsten Könneker, „Hermann Brochs *Unbekannte Größe*,“ 443.

*Die Schlafwandler* and relate to intellectual rather than to pure scientific discussions. According to Könneker, Richard represents science, his sister Susanne religion, his other sister Emilie sexuality, his brother Rudolf traveling, and his younger brother Otto represents anti-intellectualism.

*Die Unbekannte Größe* is also the story of Hieck who traces parallels between the decay of laws in general. Not only through the upswing of quantum mechanics, but also through the relativization of moral values in general. Otto is the example of moral decay.<sup>109</sup> According to Könneker, *Die Unbekannte Größe* was Broch's attempt to transfer his epistemological, philosophical, and historical theories to fiction, wherein all acting figures count as personifications of specific theories of the author.<sup>110</sup> This reminds of the discussion about the discussions about Broch's mathematical knowledge, as several scholars proposed that Broch's work should be understood as an epistemological enterprise.

Könneker admits that these theoretical goals are hard to grasp for readers who are not familiar with Broch's theoretical background. Due to time pressure, Broch was not able to finish the novel in a satisfactory manner, and therefore he was not able to combine his ambition to present his theoretical work with the ambition to make it accessible to a wider audience.<sup>111</sup> Könneker seems to be aware of the parallels that Broch sketched in his novel between scientific, cultural, and societal developments, although he did not take them into account accurately. In order to get a better understanding of the cultural developments that Broch may have referred to, the next chapter will focus on the cultural and intellectual discussions of the 1910s and 1920s, and show how Broch embraced these discussions in a more detailed manner in his trilogy *Die Schlafwandler*. This chapter suggested that Broch's scientific references should be interpreted in a more wider cultural and epistemological discussion about holism and 'Totalerkenntnis'. Chapter three will show how these discussions relate to Broch's first novel *Die Schlafwandler*, and chapter four will argue that Broch also devised a theory about the modern novel, as the modern novel should aim for this so-called 'Totalerkenntnis'.

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<sup>109</sup> Carsten Könneker, „Hermann Brochs *Unbekannte Größe*,“ 452 – 453.

<sup>110</sup> Ibid. 456.

<sup>111</sup> Ibid. 459.

## Chapter 3 – Hermann Broch & Intellectual Debates in Post-war Vienna and Germany: *Die Schlafwandler* (1932)

As shown in the previous chapter, *Die Unbekannte Größe* is often related to several scientific debates of Broch's age, such as the foundational debate in mathematics. It was suggested that the scientific references might represent typical Viennese debates. This chapter will sketch the debates around the 1910s and 1920s about the crisis of culture that Broch engaged in with his other novel, namely *Die Schlafwandler*. This chapter will show that Broch also engaged in debates that discussed the status of European culture in general, and the Austrian and German culture in particular. It will become clear that the scientific debates of the previous chapter should be understood as part of the intellectual and cultural debates, because they share the same object of discussion: the epistemological foundation. The longing for an epistemology that could account for a more holistic view on the relations between science, the humanities, and culture is most explicitly shown by the popularity of Oswald Spengler's *Untergang des Abendlandes*. Broch's involvement with science should therefore not be solely understood within the context of scientific debates in Vienna, but also within debates about rationality, holism, and 'Zeitgeist' in Germany. These discussions will show that it was a common practice to relate several aspects of society to each other, and that this behavior is not unique for the 'relation' between science and literature. It was a common practice to relate the 'subjektiv Besondere' to the 'epochal Allgemeine'.<sup>112</sup> In short, this chapter shows how complicated a concept such as 'relation' is in a climate wherein intellectuals tried to identify one explanatory principle for all modern crises.

### 3.1. Introduction

In her recent book *Edge of Irony* (2016), Marjorie Perloff argues that when scholars discuss modernism in German literature, they are too often inclined to align German modernism with Austrian modernism. In her view, Austrian modernism was unique in its style and multicultural environment: "The literary ethos of Austrian postwar writers (...) is curiously distinct from that

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<sup>112</sup> Paul Michael Lützeler, „Hermann Broch und Spenglers Untergang des Abendlandes: Die Schlafwandler zwischen Moderne und Postmoderne,“ in *Hermann Broch: Modernismus, Kulturkrise und Hitlerzeit: Londoner Symposium 1991*, edited by Adrian Stevens, Fred Wagner and Sigurd Paul Scheichl, (Innsbruck: Institute for Germanic Studies, 1994), 33.

of its German counterpart.”<sup>113</sup> The 1910s and 1920s in both Germany and Austria are characterized by forceful discussions about the state of culture and society, but especially Vienna was a metropole for artists, philosophers, and architects who criticized the current state of culture. For example Adolf Loos criticized the state of architectural design, Arnold Schönberg the state of music, and Ludwig Wittgenstein the state of philosophy. Especially Adolf Loos’ view on architecture, which rejects the ornament as a useless kind of decoration, is often used as a representation of the common opinion of Viennese intellectuals who questioned the foundations and structure of society.<sup>114</sup> Every aspect of society was subjected to cultural criticism.

According to Allan Janik and Stephen Toulmin, Loos’ criticism should not be understood as an attempt to vanish the ornament from architectural thought completely. The essential part of Loos’ view on architecture is that it represents a connection between the design of the ornament and cultural life:

“It was not that he was a counterrevolutionary, but that his was a revolution *against* revolutions in design which are not rooted in the demands of social life.”<sup>115</sup>

For Loos, the ornament should either have a functional goal within the overall design, or it should be connected to a broader cultural sphere. This is what Janik and Toulmin call the overarching goal of “re-establishing the proper relationship between design and life. (...) the demands of ‘style’.”<sup>116</sup> Peter Galison argues that these architectural ideas were connected to wider political and societal views: as there was a gap between the rich and poor population in Austria, socialist intellectuals argued that it was not justified to decorate the houses of the rich, but that the government should focus on the construction of functional houses for the masses instead.<sup>117</sup> This anti-bourgeois sentiment is also reflected in Schönberg’s innovative approach to classical music, according to Janik and Toulmin:

“(...) all of Schönberg’s compositions represent attacks on the pseudo-sophistication of bourgeois aestheticism.”<sup>118</sup>

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<sup>113</sup> Marjorie Perloff, *Edge of Irony: Modernism in the Shadow of the Habsburg Empire*, (Chicago, London: University of Chicago Press, 2016), xiii; p. 4.

<sup>114</sup> Allan Janik and Stephen Toulmin, *Wittgenstein’s Vienna*, (New York : Simon & Schuster, 1973), 97.

<sup>115</sup> Ibid. 99.

<sup>116</sup> Ibid. 101.

<sup>117</sup> Peter Galison, "Aufbau/Bauhaus: Logical positivism and architectural modernism," *Critical Inquiry* 16 (4) (1990), 714 – 715.

<sup>118</sup> Allan Janik and Stephen Toulmin, *Wittgenstein’s Vienna*, 111.

For Schönberg, all the useless sophisticated decoration should be repelled from music. His twelve tone approach to music should represent a less bourgeois kind of music.

Whereas Loos and Schönberg represent this view for respectively architecture and music, Wittgenstein represents a similar conviction for philosophy. In Wittgenstein's view, philosophy was veiled by metaphysical 'decoration', which should be dismissed from philosophy.<sup>119</sup> Therefore, Wittgenstein proposed a philosophy that could endure the demand for verification, which was not possible with metaphysical-oriented philosophy.

Although all three examples debated the concept of functionality, it is Loos' view in particular that was very appealing to many intellectuals. It is his metaphorical formulation of the connection between the ornament and the social life that provides an interesting view on the relation between art and daily life in general. Hermann Broch was among the intellectuals who commented on this idea, especially in his essay *Der Fall Loos* (1911).<sup>120</sup>

Loos' statement did not come out of the blue. His view on architecture has a specific history, as it was part of a broader discussion about history, aesthetics, and socialism. One of the causes of the discussions was the reconstruction of the *Ringstraße* in Vienna at the end of the nineteenth century. The tension between historical appraisal and modern developments became the subject of a discussion among architects, as the new *Ringstraße* was meant as an appraisal of the glory of the Habsburg Empire.<sup>121</sup>

Among the critics were Otto Wagner and Camillo Sitte, leading architects of that time, who evaluated the *Ringstraße* as a failed combination of historical aesthetics and modern rationality. A different countermovement that argued for a focus on the historical aesthetics of the street was also formed, but later on a countermovement against this aesthetic movement also engaged with the debate. Adolf Loos, evidently, became a spokesman of the latter group: he insisted that architects should prefer a radical focus on rationality and utility.<sup>122</sup> Schorske argues that in Loos' view, the attempt to synthesize aestheticism and rationality is a façade, as most users of the *Ringstraße* could not relate to the so-called higher culture that was reflected on the aesthetical side of the *Ringstraße*. It only made sense to the bourgeoisie.<sup>123</sup>

In his book *Ornament und Verbrechen* (1908), Adolf Loos argues for simplicity,

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<sup>119</sup> Peter Galison, „Aufbau /Bauhaus,“ 725 – 726.

<sup>120</sup> Hermann Broch, „Ornamente (Der Fall Loos),“ *KW 10/1* (Frankfurt am Main: Suhrkamp, 1981), 32-33.

<sup>121</sup> See for an elaboration: Daphne M. Gerzabek, „Die Winer Ringstraße – Skizze einer bauintensiven Zeit,“ *Österreichische Ingenieur – und Architekten-Zeitschrift* 157 (2012), 167 – 176.

<sup>122</sup> Carl E. Schorske, *Thinking with history: Explorations in the passage to modernism*, (Princeton University Press, 2014), 163.

<sup>123</sup> *Ibid.* 160.

modesty, and unobtrusiveness. His criticism of objects such as the ornament was a criticism of Austrian society in general. The aesthetical aspects of objects in the bourgeoisie houses symbolized society's ignorance about social reality of the working class. Schorske summarizes Loos' views as follows:

“Artists who add ornaments to give poetic status and meaning to useful objects violate the tendency to economy and rational function that is the mark of civilized man.”<sup>124</sup>

In short, this rational and functional view on architecture was a reaction against the historical and aesthetical oriented architecture from the nineteenth century. This signifies the problematic relation between history and modernism. However, this was not the end point of the debate. As pointed out above, Broch did not hesitate to commentate on the architectural discussion, which he most explicitly did in his essay on Loos, but also in his famous trilogy *Die Schlafwandler*, on which will be elaborated later on. In his essay on Loos, Broch's critically ridiculed Loos' guidelines for a more functional view on architecture: “Sie sollten in jedes Lehrbuch der Baukunst, des Handwerkes aufgenommen werden; sie sind die einzige Richtschnur für den *mittelmäßigen Architekten*.”<sup>125</sup>

This emphasis on mediocre architects is an explicit form of criticism, although the sentence as a whole might appear as an appraisal of Loos' view. Both interpretations can be sound, as the quotation is both an ironical statement about Loos' work and a suggestion that for practical oriented architecture, Loos' views were actually not so unacceptable. They were simply inadequate on the level of ideas (philosophical content), but seemed practical when purely applied to the houses it produced. This reflects what Vollhardt also argues for: Broch occupied more or less a nuanced position within the debate about the ornament.<sup>126</sup>

This interpretation is reinforced by Broch's essay *Kultur 1908/1909*. Broch does not appear to be completely negative about Loos' architecture, as he noted: “[I]ch schreibe hier nicht gegen die Loosschen Häuser, die besser sind als manche anderen, ich schreibe gegen die Beschränktheit der Schule, der er angehört” when he commentated the goal-oriented view of Loos and many others, whom he calls “die Zweckmäßigkeitapostel, [mit] Adolf Loos an der

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<sup>124</sup> Carl E. Schorske, *Thinking with history*, 166.

<sup>125</sup> Hermann Broch, „Ornamente (Der Fall Loos),“ 32.

<sup>126</sup> Friedrich Vollhardt, "Hermann Brochs Literaturtheorie," in *Hermann Broch*, edited by Paul Michael Lützeler, (Frankfurt am Main : Suhrkamp Verlag, 1986), 273.



Spitze".<sup>127</sup> Broch's criticism focuses on the hypocrisy of this movement, because it rejects and ignores the idea that the functional is also aesthetical:

"[N]och immer werden Ringe getragen, noch immer betont die Frau die Nackenlinie mit einer Perlenschnur und noch immer trägt Herr Loos einen Scheitel, statt sich den Kopf zu rasieren, und schmückt sich mit einer Krawatte."<sup>128</sup>

Thus, in the view of Broch, Loos himself was not even able to consistently apply his own philosophy: nothing is completely functional without being aesthetical at the same time. The idea of getting rid of aesthetics and to focus on the functional aspects is thus ill founded and hypocritical, in Broch's view.

Although Broch seems to be less critical about Loos' views when it comes to the architecture of houses, he strongly disagrees on the philosophical level, and disagrees with Loos that art in general should be subjected to the command of functionality. Loos' view fitted all too easy in the cliché-view on the contemporary society as being a 'Ingenieurskultur'.<sup>129</sup> In Broch's view, this overvaluation of rationalism was dangerous for their understanding of culture.

In his essay *Die Kunst am Ende einer Kultur* (1933), Broch diagnoses that it was actually this focus on practicality and rationality that had excluded the idea of a platonic soul from society:

"Wer in der geistigen Erkenntnis – und auch das Kunstwerk ist geistige Erkenntnis –, wer in dieser wahrhaft platonischen Haltung noch immer das eigentliche Lebensziel begreift, sieht plötzlich, das er damit den Kontakt mit den eigentlich drängenden Problemen der Zeit verloren hat, weil die Zeit mit praktischen Fragen derart beschäftigt ist und diese so übergroß geworden sind, daß die platonische Idee, auf die es letzten Endes doch immer wieder ankommt, zu etwas Unscheinbaren und Grauem verblaßt."<sup>130</sup>

The focus on rationality and practical problem-solving ignored the importance of art in the sense of platonic knowledge, which goes beyond utility, but reflects upon truth, beauty, and goodness.

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<sup>127</sup> Hermann Broch, „Kultur 1908/1909,“ *KW 10/1* (Frankfurt am Main: Suhrkamp, 1981), 23.

<sup>128</sup> Ibid.

<sup>129</sup> Hermann Broch, „Ornamente (Der Fall Loos)“, 33.

<sup>130</sup> Hermann Broch, „Die Kunst am Ende einer Kultur,“ *KW 10/1* (Frankfurt am Main: Suhrkamp, 1981), 54.

By means of these statements, Broch diagnosed the fundamental problem behind all the different crises that were so apparent in the German-speaking countries at that time: they suffered from a lack of metaphysical inspiration, which is opposed to the philosophy of the *Wiener Kreis*, who wanted less metaphysics. This diagnosis was part of Broch's intellectual development in the 1920s, and served as the basis for his novel *Die Schlafwandler*, in which this cultural and intellectual development was explicitly articulated in the form of his essay on the disintegration of values.

This introduction shows that Broch seemed to be remarkably different from his Viennese contemporaries. Vienna in the 1910s and 1920s is often associated with *The Wiener Kreis* and the focus on Loos' view on architecture; movements that wanted to get rid of useless decoration such as metaphysics and the ornament. The next section will elaborate on German debates, and show why Broch's view on historical development puts him more in line with historical and philosophical debates in Germany, rather than the cultural debates in Vienna. Through a discussion of Broch's essays and *Die Schlafwandler*, it will become clear how Broch reflected on these debates.

### 3.2. German debates about the philosophy of history: '*mitlaufenden Schwätzern*'

As shown above, Broch did not seem to be very positive about the movement that surrounded especially Loos' view on modernity. In this section, the debates that Broch probably reacted to will be discussed, as they provide a necessary context to interpret the theory that is presented in *Die Schlafwandler*. How did Broch's thoughts relate to these debates, and to what extent do they differ from the common view on the coffeehouse culture of Vienna? It will become clear that the humanities were confronted with an epistemological crisis, just as the sciences did in the previous chapter. The shared goal can be characterized as some kind of holism, although the actors suggested different epistemological solutions. Theories about historical developments and methodology invoked a historical approach that searched for similarities between historical events.

#### 3.2.1. Neo-Kantian thought: Heidelberg School and Historical Development

It is tempting to focus on the importance of The Wiener Kreis and the University of Vienna for Broch, because he lived and studied in Vienna. The Wiener Kreis is commonly understood as a philosophical movement that was inspired by Neo-Kantian thought. However, The Wiener Kreis is only one outcome of Kantian and Idealistic thought, namely that of the epistemological and mathematical outlook of Kant's philosophy. The other line of Neo-Kantian thought, which

is represented in the South-West Baden or Heidelberg School, was much more focused on historical and cultural development. Both lines of thought were concerned with the problem of *principles of knowledge*, but approached it from different perspectives. Monika Ritzer, who studied the works of Broch from a cultural-historical perspective, emphasizes the importance of this Neo-Kantian school for a sufficient understanding of Broch's philosophy of history.<sup>131</sup> Furthermore, scholars generally agree that Broch wanted to add to the discussions about philosophy of history.<sup>132</sup> Broch himself explicitly noted that he wanted to engage in this debate.<sup>133</sup> According to Manfred Durzak, Broch worked on two manuscripts called *Grundriß zur Werttheorie* and *Methodologie der Geschichtserkenntnis*.<sup>134</sup> Ritzer adds that Broch also worked on a manuscript called *Ausdrucksformen der Moderne in der Theorie der historischen Epoche*.<sup>135</sup>

The most prominent representatives from this Baden-School school were Wilhelm Windelband (1848 – 1915) and his student Heinrich Rickert (1863 – 1936). Wilhelm Dilthey (1833 – 1911) is also well known for his contribution to the debate about the foundations of the humanities, which was a key debate at that time. Both Windelband and Rickert discussed the differences and boundaries of the human and natural sciences. Dilthey's approach is probably most famous. With his distinction of 'Verstehen' and 'Erklären' he differentiated between the disciplines on the basis of their objects of research instead of their methodology, which is a more essentialist approach. The humanities ('Geisteswissenschaft') focused on things that had to do with the mind. Psychology should therefore be regarded as part of the humanities, according to Dilthey. Rickert, on the contrary, focused on methodology, just like his mentor Windelband. They argued that the humanities should focus on individual events, whereas the natural sciences should focus on laws. Therefore, psychology should be regarded as part of the natural sciences, in their view.<sup>136</sup> Windelband called this the difference between

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<sup>131</sup> Monika Ritzer, *Hermann Broch und die Kulturkrise des frühen 20. Jahrhunderts*. (Stuttgart: Metzlersche Verlagsbuchhandlung, 1988), 75.

<sup>132</sup> Friedrich Vollhardt, *Hermann Brochs geschichtliche Stellung: Studien zum philosophischen Frühwerk und zur Romantrilogie 'Die Schlafwandler' (1914-1932)*, (Tübingen : De Gruyter,1986), 10; Hartmut Steinecke, *Hermann Broch und der polyhistorische Roman: Studien zur Theorie und Technik eines Romantyps der Moderne*, (Bonn : Bouvier, 1968), 190.

<sup>133</sup> „Es ist ja doch eine ganze und vielfach neue Geschichtsphilosophie, die hier untergebracht zu werden hatte.“ Hermann Broch, „Letter to Frank Thiess – 06-04-1932“, *KW 13/1*, 185; „daß die Schlafwandler die erste große Geschichtsphilosophie darstellen, die die heutige Zeit erklärt.“ Hermann Broch, „Letter to Daniel Brody – 19-07-1932“, *KW13/1*, 202.

<sup>134</sup> Manfred Durzak, *Hermann Broch, Dichtung und Erkenntnis: Studien zum dichter. Werk*, (Stuttgart : Kohlhammer, 1978), 61.

<sup>135</sup> Monika Ritzer, *Hermann Broch und die Kulturkrise*, 75.

<sup>136</sup> Hans J.L. Bakker, "The Life World, Grief and Individual Uniqueness: 'Social Definition' in Dilthey, Windelband, Rickert, Weber, Simmel and Schutz," *Sociologische Gids* 42 (3) (1995), 192.

a *nomothetic* and an *idiographic* approach.

This debate was an essential part of what Troeltsch would later call 'Die Krise des Historismus'.<sup>137</sup> By defining the humanities as a research enterprise that is solely focused on particular events in the past, one loses the connecting with the present, which would give rise to a relativistic attitude towards important values. A purely contextual approach cannot account for absolute values, as it can only show the historical situation 'as it is'. The study of history had to find a method that could add to the understanding of the present. According to Gerhard Oexle, there were three quintessential modern phenomena at the heart of the 'crisis' of historicism: the question regarding the objectivity of knowledge, the historicity of institutions such as the university itself, and the problem of the system of values.<sup>138</sup>

Rickert's view on historical research can be seen as a solution for this problematic situation in the philosophy of the humanities. Rickert believed in the existence of ahistorical values, which Charles Bambach identifies as a transcendental approach.<sup>139</sup> For Rickert, it is not simply *truth* that is the most powerful concept, it is the *value* of truth that is part of every act of judgment. This value is transcendental, and independent of individual acts of judgment. The subject is always located in between the transcendental value and the empirical act. Rickert's research mostly discusses how various aspects of reality relate to these transcendental values.<sup>140</sup>

Rickert, who was strongly against the 'Lebensphilosophie' movement in Germany, argued that philosophy should focus on logic and science. 'Lebensphilosophie' was a current in philosophy that is often understood as an anti-rationalistic movement, as it argued that rationality should not be overestimated, and the proponents admired the irrational aspects of life. History was a common subject of life-philosophers, and Rickert therefore thought that the study of history should proclaim a more systematic approach. To overcome the division between a purely scientific approach and the approach of the 'Lebensphilosophie', Rickert devised a methodology that would combine a philosophy of values with scientific rigor.. Bambach describes Rickert's method as follows:

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<sup>137</sup> Allan Megill, "Why Was There a Crisis of Historicism? A review of Heidegger, Dilthey, and the Crisis of Historicism by Charles Bambach," *History and Theory* 36 (1997), 420.

<sup>138</sup> Gerhard Oexle, „Krise des Historismus – Krise der Wirklichkeit,“ 13.

<sup>139</sup> Charles R. Bambach, *Heidegger, Dilthey, and the crisis of historicism*, (New York : Cornell University Press, 1995), 85.

<sup>140</sup> Allan Megill, "Why was there a crisis of historicism?," 417.

“These values, which are transcendental and absolute, without existential or historical ground, cannot be known in themselves; they can be approached only through the objects that attach to them, objects that Rickert finds in the sphere of culture.”<sup>141</sup>

This creates a situation wherein values are in principle transcendental, but can only be known through concrete historical investigation.

Although it will be elaborated on in section 3.3, it is already important to note that Broch actually felt a similar frustration as Rickert. Broch was frustrated about the incompetence and amateurism of nineteenth century so-called philosophers and historians. In 1920, in his essay *Theorie der Geschichtsschreibung und der Geschichtsphilosophie*, philosophers of history were strongly criticized: “Unzweifelhaft ist die Geschichtsphilosophie das spezifische Gebiet alles Dilettantismus in der Geschichte und jedes Feuilletonismus in der Philosophie.”<sup>142</sup> According to Broch, the field of historical research was entered by ‘mitlaufenden Schwätzern’.<sup>143</sup>

Broch was frustrated about the fact that these ‘Geschichtsphilosophen’ still lacked a scientific and objective approach to history, but he also criticized Rickert and Windelband. Broch believed that true ‘Geschichtsphilosophie’ would encompass both historical and scientific knowledge. Broch criticized every „Flucht in den ‘Intuitionismus’ einerseits, (...) eine dogmatische und leere Wertkategorie andererseits“.<sup>144</sup> Broch searched for the unity of knowledge, instead of the strict distinction of the humanities and the sciences. Despite his critique on Rickert and Windelband, it was Rickert’s methodology that inspired Broch the most, as Friedrich Vollhardt argues, which will be discussed in section 3.3. The following section will first discuss another important subject of debate of the 1910s and 1920s, namely Oswald Spengler’s *Der Untergang des Abendlandes*. Rickert and Broch both criticized the rise of dilettantism in historical research, and Spengler is a prime example of their concerns.

### 3.2.2. Oswald Spengler and *Die Untergang des Abendlandes*

Oswald Spengler was probably one of these so-called dilettants were Broch’s quotation refers to. In his letter to Ea von Allesch, Broch noted that Spengler „hält eben das für Geschichtsphilosophie, was alle dafür halten. Und diese Meinung zu widerlegen bedarf es eben

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<sup>141</sup> Charles Bambach, Heidegger, Dilthey, and the Crisis of Historicism, 102.

<sup>142</sup> Hermann Broch, „Theorie der Geschichtsschreibung und der Geschichtsphilosophie,“ *KW* 10/2 (Frankfurt am Main: Suhrkamp, 1981) 94.

<sup>143</sup> Ibid. 97.

<sup>144</sup> Ibid. 110.

meines Buches. Ansonsten ist nur seine ignorante Präpotenz widerlich.”<sup>145</sup> This quote illustrates that Broch regarded Spengler’s view on the field of history just as weak as many others’. A typical German phenomenon of the 1910s and 1920s was the upheaval of popular philosophers with a pessimistic tone, who would try to explain the contemporary crisis by tracing down historical developments.<sup>146</sup> Oswald Spengler is the most famous example, but among them was also a figure as Ernst Jünger, who was also an exponent of the *Konservative Revolution*.<sup>147</sup> Another one was Arthur Moeller van den Bruck, who wrote a history of the German people and shared the pessimistic tone (*Die Deutschen, unseren Menschengeschichte*, 1905).<sup>148</sup> The following sketch of Spengler and Spenglerism will show that he touched upon similar epistemological issues as Heinrich Rickert.

Although Spengler is now known as a popular philosopher and historian, he was originally educated in mathematics and physics during his study at the University of Halle.<sup>149</sup> Before he published his major work *Der Untergang*, he was a private science teacher in several cities in Germany, such as Düsseldorf, Hamburg, and Munich.<sup>150</sup> What is interesting about Spengler’s thought is not only his works itself, but also the reaction in Germany that followed the publication of his two volumes of *Der Untergang des Abendlandes*, and especially the first one in 1918. The publication of the first volume of *Der Untergang des Abendlandes* in 1918 aroused a heated debate about German culture among intellectuals. The resulting discussion, which is often referred to as *Spenglerism*, tempted Stuart Hughes to describe 1919 as ‘the year of Spengler’.<sup>151</sup> Spengler’s work remained popular over a rather long period, until public interest declined around 1930. Philosophical pessimism in general lost popularity, and by 1936, the influence of Spengler had almost disappeared.<sup>152</sup> The following paragraphs will sketch Spengler’s most important topics to the extent that they are relevant for an understanding of Hermann Broch and the discussion about historicism.

With *Der Untergang*, Spengler had two goals in mind: first, the book was meant as an attempt to explain the progress of world history by means of one foundational principle.

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<sup>145</sup> Hermann Broch, „Letter to Ea von Allesch - 4- 07-1920,“ *KW 13/1*, 44.

<sup>146</sup> Christoph Eykman, *Geschichtspessimismus in der deutschen Literatur des zwanzigsten Jahrhunderts*, (Bern: Francke Verlag, 1970), 30-41.

<sup>147</sup> Thomas Koebner, „Die Erwartung der Katastrophe: Zur Geschichtsprophetie des ‚neuen Konservativismus‘ (Oswald Spengler, Ernst Jünger),“ in *Weimars Ende*, edited by Thomas Koebner (Frankfurt am Main: Suhrkamp, 1982), 348 – 359.

<sup>148</sup> *Ibid.* 350 – 354.

<sup>149</sup> Stuart H. Hughes, *Oswald Spengler: a critical estimate*, (Connecticut : Greenwood Press, 1975), 4.

<sup>150</sup> *Ibid.* 5.

<sup>151</sup> *Ibid.* 4.

<sup>152</sup> *Ibid.* 137.

Second, it was his attempt for a methodological goal of „die Entwicklung einer Philosophie und der ihr eigentümlichen, hier zu prüfenden Methode der vergleichenden Morphologie der Weltgeschichte.“<sup>153</sup> A key feature of this methodology is to look for similarities and analogies within certain time frames. This means that certain historical events are understood as symbols of a ‘Zeitgeist’ rather than as plain historical facts within a chain of causality. Spengler’s ambition to establish a new approach to history should be understood as a reaction to positivistic approaches to history by his contemporaries: “Man glaub Geschichtsforschung zu treiben, wenn an den gegenständlichen Zusammenhang von Ursache und Wirkung verfolgt.”<sup>154</sup>

Through his criticism, it also becomes clear that Spengler wanted to present himself as an intellectual descendant of J.W. Goethe. Spengler noted that it was Goethe who tried to interpret world history from a more holistic perspective. Furthermore, Goethe also emphasized on things ‘becoming’ instead of ‘being’, which resembles Spengler’s analogy of world history as an organic entity.<sup>155</sup> Although this can be seen as an acknowledgement of intellectual debt to Goethe, it is also plausible to see it as an effort from Spengler to place himself within a tradition, therefore it can also be seen as a manner of self-representation: an attempt to present himself as a credible intellectual.<sup>156</sup>

Opposed to positivistic concepts such as causality and rationality, Spengler proposed the following Goethean qualities and methods as central elements of historical research:

“Nachfühlen, Anschauen, Vergleichen, die unmittelbare innere Gewißheit, die exakte sinnliche Phantasie – das waren seine Mittel, dem Geheimnis der bewegten Erscheinung nahe zu kommen. Und das sind die Mittel der Geschichtsforschung überhaupt. Es gibt keine andern.”<sup>157</sup>

This method, which strongly focuses on intuition and the popular ‘Lebensphilosophie’ of the 1910s, was typical for that period, according to Broch.<sup>158</sup> This is also the type of history that was criticized by Heinrich Rickert, as shown in the previous section. Spengler himself compared

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<sup>153</sup> Spengler, O. *Der Untergang des Abendlandes: Umriss einer Morphologie der Weltgeschichte*. (München: C.H. Beck, 1998), 70.

<sup>154</sup> Ibid. 9.

<sup>155</sup> Ibid. 35.

<sup>156</sup> It was a common practice for intellectuals around the turn of the century to identify themselves with the heritage of Goethe. Chapter four and five will elaborate on this topic.

<sup>157</sup> Spengler, O. *Der Untergang des Abendlandes: Umriss einer Morphologie der Weltgeschichte*. (München: C.H. Beck, 1998), 35.

<sup>158</sup> See for example Hermann Broch, „Theorie der Geschichtsschreibung und der Geschichtsphilosophie,“ 95.

his method with Goethe's method. What then, did Spengler add to the debate of his time what made him so popular and notoriously famous? What was new and exciting about his approach? An English commentator of the Times Literary Supplement wrote the following statement in 1920, about *Der Untergang*:

“Looking around, he [Spengler] saw a multitude of problems in art, politics, economics, philosophy, with which many minds were busy, but all mistaken in treating them as wholly unconnected.”<sup>159</sup>

What distinguished Spengler from most of his contemporaries, according to this commentator, was the fact that he was able to connect the multiple crises of his time, which was one of Spengler's primary goals. Instead of discussing the previously mentioned crisis in mathematics and the crisis in architecture as separate topics, Spengler had found a method of morphology to understand these phenomena as symptoms of the same development. In Spengler's own words: “Hier lagen nicht unzählige, sondern stets ein und dieselbe Aufgabe vor.”<sup>160</sup> It was a common practice in the 1910s to counter the ongoing specialization within the sciences by proposing a holistic approach to contemporary problems.<sup>161</sup> For Spengler, studying historical developments became a tool to understand the present:

“[M]it den Augen (...) aus zeitloser Höhe, den Blick auf die historische Formenwelt von Jahrtausenden gerichtet – wenn man wirklich die große Krisis der Gegenwart begreifen will.”<sup>162</sup>

### 3.2.2.1 Spenglerism

Hermann Broch was not the only intellectual that commented on Spengler's theories. Already in 1922, Manfred Schröter published a study called *Der Streit um Spengler*, which was later

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<sup>159</sup> The Times, “The Future of Western Civilization,” *The Times Digital Archive*. (28 June 1920). [tinyurl.galegroup.com/tinyurl/4tdMuX](http://tinyurl.galegroup.com/tinyurl/4tdMuX) Accessed on 13 July 2016.

<sup>160</sup> Spengler, O. *Der Untergang des Abendlandes: Umriss einer Morphologie der Weltgeschichte*. (München: C.H. Beck, 1998), 67.

<sup>161</sup> See for an elaborate view on this development, especially the conclusion of the first chapter: Anna Harrington, *Reenchanted science: Holism in German Culture from Wilhelm II to Hitler*, (Princeton: Princeton University Press, 1996), 31-33; and chapter four “Hunger for Wholeness, Trials of Modernity” in Peter Gay, *Weimar culture: the outsider as inside*, (Middlesex : Penguin Books Ltd, 1968), 73 – 106. A more philosophical example of this frustration with the specialization among the sciences is Husserl's *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie* (1936). Whereas a philosopher such as Edmund Husserl proposed the phenomenological method to combine science and the everyday life experience as a possibility to overcome the specialized scientific knowledge, Spengler followed a historical approach.

<sup>162</sup> Oswald Spengler, *Der Untergang des Abendlandes: Umriss einer Morphologie der Weltgeschichte* (München: C.H. Beck, 1998), 47.



republished as a chapter in *Metaphysik des Untergangs* (1949).<sup>163</sup> This book entails a summary and evaluation of the most prominent critics of Spengler's work. Schröter's study indicates that Spengler's critics came from a variety of backgrounds. Among them were physicists, biologists, historians, philosophers, and also novelists. This was not very surprising, as Stuart Hughes noted that it seemed as if everybody had read Spengler in 1919.<sup>164</sup> In his more positive view of Schröter, figures such as Spengler, but also Thomas Mann and Arthur Möller, picked up the task that professional historians had failed to fulfill: they actually provided tools to understand the complexity of modern life.<sup>165</sup> It is clear that both critics and admirers took part in the public debate about Spengler.

Especially the Viennese philosopher Otto Neurath was, not surprisingly, very critical on Spengler's theories. According to Neurath, who was member of the *Wiener Kreis*, Spengler's book fitted perfectly in the "contemporary yearning for a complete world view."<sup>166</sup> Whereas proponents felt that Spengler liberated them from the rational and scattered worldview, Neurath felt that Spengler violated every epistemological principle of scientific inquiry. In his view, Spengler's theory lacked clarity, precision, and empirical observations.<sup>167</sup>

Among the critics were also some notable novelists.<sup>168</sup> Figures such as Thomas Mann and Robert Musil both read and criticized Oswald Spengler, although they both took a different stance to Spengler's work. For Mann, Spengler was a difficult case. Throughout his career, he both admired and rejected Spengler's book, which makes it complicated to some contemporary scholars to pinpoint Mann's overall attitude towards Spengler.<sup>169</sup> Mann's rather inconsistent stance towards Spengler is reflected in his essay *Über die Lehre Spenglers* (1924).

On the one hand, Mann understands *Der Untergang* as a profoundly philosophical work, a book that underlines the idea that one could only sufficiently understand contemporary problems if they were presented as inherently related. Furthermore, Spengler

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<sup>163</sup> Manfred Schröter, *Metaphysik des Untergangs: eine kulturkritische Studie über Oswald Spengler* (München: Leibniz Verlag, 1949).

<sup>164</sup> Stuart Hughes, *Oswald Spengler: a critical estimate*, 89.

<sup>165</sup> Ibid. 93.

<sup>166</sup> Otto Neurath, "Anti-Spengler," in *Empiricism and sociology*, edited by Marie Neurath & Robert S. Cohen, (Dordrecht : Springer Netherlands, 1973), 162.

<sup>167</sup> Ibid. 163.

<sup>168</sup> Barbara Beßlich, "Untergangs-Mißverständnisse: Spenglers literarische Provokationen und Deutungen der Zeitgenossen, " in *Spengler—Ein Denker der Zeitenwende*, edited by Manfred Gangl, Gilbert Merlio, and Markus Ophälders, (Frankfurt am Main : Peter Lang Verlag, 2009), 31 – 33.

<sup>169</sup> Ibid. 33.

fitted into a honorable list of authors who faded the strict border between science and art.<sup>170</sup> On the other hand, Mann's comments can also be understood as rather critical. For example, Spengler's complete rejection of civilization is not appreciated by Mann. The same goes for Spengler's manner of self-representation with Goethe. In Mann's opinion, such a comparison is rather inappropriate, as Goethe would have succeeded in the task of *Der Untergang*, but Spengler failed, because he is more of a snob than of true Goethian quality.<sup>171</sup>

Roger Nicholls shows that in 1919, Mann was rather positive about his first experience with *Der Untergang*: "[Ich] habe das wachsende Gefühl, hier einen grossen Fund gethan zu haben, der vielleicht in meinem Leben Epoche machen wird."<sup>172</sup> Barbara Beßlich argues that at first instance, Mann admired Spengler's thought, even though Spengler was already heavily criticized by many historians and scientists at that time. A popular opinion among scholars is to understand Mann's fascination for Spengler more or less as an accident: he mistakenly understood *Der Untergang* as a kind of novel, an ironic play of thoughts about the contemporary state of European and German society. It is said that Mann's views changed during a meeting with Georg Merz, who is believed to have made the argument that Mann was wrong in his ironic conception of Spengler.<sup>173</sup> Despite the fact that Mann's views on Spengler had changed relatively early in his career, Beßlich argues that influences of Spengler's work in Mann's *Der Zauberberg* (1927) can be traced nonetheless. In the discussions between Naptha and Settembrini, who mostly debate worldviews through enormous 'Wissenmassen' and 'abenteuerlichen Analogien', Beßlich identifies Mann's literary translation of what he admired in Spengler's work: "Damit läßt Thomas Mann Spenglers Stil, der die Geschichtsspekulation in Axiome und Direktiven zu verwandeln wußte, im Roman Gestalt annehmen."<sup>174</sup>

Robert Musil was a more critical reader of Spengler, which is mostly demonstrated in his essay *Geist und Erfahrung* (1921).<sup>175</sup> Musil's critique had much in common with Neurath's remarks regarding the lack of scientific rigor. Musil identified the tendency of an intuitive and pessimistic approach among the intellectuals as being objectionable, and saw Spengler as the

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<sup>170</sup> Thomas Mann, "Über die Lehre Spenglers," in *Große kommentierte Frankfurter Ausgabe: Essays II: 1914-1926, Bd. 15.1* (Frankfurt am Main: S. Fischer Verlag, 2002), 735-737.

<sup>171</sup> Ibid. 742-744.

<sup>172</sup> Cited via: Roger A. Nicholls, "Thomas Mann and Spengler," *German Quarterly* 58 (3) (1985), 362.

<sup>173</sup> Barbara Beßlich, „Untergangs-Mißverständnisse,“ 39 – 40.

<sup>174</sup> Ibid. 51.

<sup>175</sup> Robert Musil, „Geist und Erfahrung,“ in *Gesammelte Werke II: Prosa und Stücke, Kleine Prosa, Aphorismen, Autobiographisches Essays und Reden, Kritik* (Hamburg: Rowohlt, 1978), 1033 – 1042.

most important representation of this current.<sup>176</sup> This is most explicitly stated in his essay mentioned above: “Wenn man Spengler angreift, greift man die Zeit an, der er entspringt und gefällt, den seine Fehler sind ihre.“<sup>177</sup> What Musil criticized mostly were the following four aspects of Spengler’s approach: his lack of precision in style, the problematic dualism of reason and intuition, a skewed picture of historical causality, and a combination of anti-empiricism and regressive answers.<sup>178</sup> The most fundamental problem was the critique on Spengler’s style. Musil parodies Spengler’s approach by stating that one could say that Chinese people and butterflies are similar in morphological terms, because they both share their ‘yellowness’.<sup>179</sup> Musil was not only highly critical of Spengler, but also of Mann, because Musil believed that they were not the leaders of the masses, but that they only gave voices to already prevailed opinions.<sup>180</sup> They neglected their responsibility as public intellectuals.

For Musil, the case of Spengler was of much importance, according to De Cauwer and Fielding. They argue that Musil had never felt the urge to attack such a popular book, but that he made an exception for Spengler, for it was an opportunity to reveal the most important failures of his era (‘Zeitfehler’).<sup>181</sup> Musil disagreed with the anti-intellectual and anti-rationalistic tendencies in Spengler’s work: “Die Intellektualität läßt uns im Stich. Aber nicht, weil der Intellekt seicht ist – als ob uns nicht auch alles andre im Stich ließe! – sondern weil wir nicht gearbeitet haben.“<sup>182</sup> Furthermore, he disagreed with the underlying idea of Spengler’s approach. Although science is a dynamic and cultural colored activity, Musil rejected the idea that science is completely culturally determined. Spengler gives too little credit to the objective principles of science.<sup>183</sup>

### 3.2.3 Max Weber: Rationalization & Disenchantment

Topics that were related to the crisis of historicism and Spenglerism, also popped up in sociology. Next to Spengler and the Southwest Baden School, there appears another intellectual in the works of Hermann Broch who is essential to understand Broch’s theories. When Broch writes about processes of disintegration, rationalization, and Protestantism, one

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<sup>176</sup> Stijn De Cauwer, *A Diagnosis of Modern Life: Robert Musil's Der Mann ohne Eigenschaften as a Critical-Utopian Project*. (Brussel: Peter Lang Publishing Group, 2014), 81.

<sup>177</sup> Robert Musil, „Geist und Erfahrung,“ 1048.

<sup>178</sup> Stijn De Cauwer, *A diagnosis of Modern Life*, p. 82.

<sup>179</sup> Robert Musil, „Geist und Erfahrung,“ 1044.

<sup>180</sup> Stijn De Cauwer, *A diagnosis of Modern Life*, 83.

<sup>181</sup> Stijn De Cauwer and James M. Fielding, “Robert Musil's Symptomatology: Oswald Spengler and the Clinical Picture of Society,” in *Symposium: A Quarterly Journal in Modern Literatures* 69 (2)(2015), 75.

<sup>182</sup> Robert Musil, “Geist und Erfahrung,“ 1057

<sup>183</sup> Stijn De Cauwer and James M. Fielding, “Robert Musil's Symptomatology,“ 76.

cannot but think of the renowned sociologist Max Weber (1864 – 1920). Just as in the field of history, sociology was struggling with its methodology at this time. German sociology was described in 1936 by Raymond Aron in his book *La sociologie allemande contemporaine* as follows:

“In this tradition it seemed natural to set emotion against reason, community sentiment against technological change, and to protest, either directly or by implication, against capitalism and the rationalized society.”<sup>184</sup>

This German sociology was opposed to the French sociology of Emile Durkheim, who is mostly understood as more positivist-oriented sociology. In between these two traditions stood Max Weber, who, as Stuart Hughes describes him, was strongly interested in the methodology of sociology and wanted to merge the French and German view on sociology.<sup>185</sup> Weber’s rethinking of methodological concepts such as ‘causality’ and ‘intuition’ can also be understood within the same discussion among historians such as Rickert, Windelband, and Dilthey. Weber was not fully against historical or sociological methods that invoked concepts such as ‘intuition’, ‘verstehen’, or ‘ideal types’, but he was highly critical of these methods. Weber insisted that these kind of methods should be accompanied by empirical tests and evidence.<sup>186</sup>

So far, Weber was part of methodological discussion, just as Spengler was. However, he also made a contribution on the content of sociology, for which he is probably known best, e.g. his analyses of capitalism and bureaucracy, phenomena that he saw as specifically European and as manifestations of rationalization.<sup>187</sup> Weber tried to find a historical explanation and concept that could give an insight into the upswing of these developments, just as Spengler did. Furthermore, he is known for his analysis of European life, which suffered from soullessness, also known as ‘Entzauberung’ (disenchantment).<sup>188</sup>

Weber’s historical approach with a focus on an all-inclusive explanatory principle is not the only resemblance between Weber and Spengler. These similarities between the general methods are fundamental to understand the intellectual debates of early twentieth century, as

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<sup>184</sup> Cited via Stuart H. Hughes, *Consciousness and society*, (New Brunswick: Transaction Publishers, 2008), 287.

<sup>185</sup> Especially his article ‘Objectivity in Social Science and Social Policy’ (1904) is an example of this aim. Stuart H. Hughes, *Consciousness and society*, 287.

<sup>186</sup> Stuart H. Hughes, *Consciousness and society*, 313.

<sup>187</sup> *Ibid.* 322.

<sup>188</sup> *Ibid.* 323.

it is a general tendency among the intellectuals that have been discussed throughout this chapter. Intellectuals were looking for concepts to identify a development that transcended particular discussions, and could account for the general sense of crisis. The next section will discuss Broch's engagement with these debates.

### 3.3. Zerfall der Werte: Broch's theory on the decline of values

Broch's *Die Schlafwandler* is first and foremost his intellectual contribution to these debates about historical methodology, the problem of rationality and irrationality, and the decline of European culture. Vollhardt, among others, argues that Broch wanted to contribute to these debates by means of a theory in the form of a literary novel.<sup>189</sup> The fact that Broch was interested in philosophy of history was very clear in this period. Between 1917 and 1919 he also worked on an extensive essay called *Zur Erkenntnis dieser Zeit*. In this essay, he discusses figures such as Husserl, Kant, Windelband, Rickert, Dilthey, Ranke, Trendelburg, and several others. This adds to the argument that the German debates on historicism should be taken into account to understand Broch's position.<sup>190</sup> This section will present several examples from *Die Schlafwandler*, accompanied by several essays from Broch, to show how Broch tried to contribute to the debates about historical methodology and European culture.

The previous section showed the importance of *Der Untergang des Abendlandes*, as it touched upon all the three topics mentioned above. Broch himself did own a copy of Spengler's *Untergang des Abendlandes*, although many scholars doubt whether Broch had read much of it. It is commonly accepted that Broch had some affinity with Spengler's work, but that his relation to Spengler was full of contradictions. Lützelers argues that although Broch explicitly criticized Spengler's work, he implicitly had much in common with Spengler.<sup>191</sup> Especially on the level of methodology, they share some similarities. Contentwise, however, there are clear differences.

Broch used the concept of parallel developments when he discusses relations between art and science, and explained it by means of an overarching theory of style, which can be summarized as his 'Stiltheorie'.<sup>192</sup> In style, this looks similar to Spengler's morphological approach, although Broch rejects the idea of biological analysis, which was fundamental for

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<sup>189</sup> Friedrich Vollhardt, *Hermann Brochs geschichtliche Stellung*, p. 10; Hartmut Steinecke, *Hermann Broch und der polyhistorische Roman*, 190.

<sup>190</sup> Hermann Broch, „Zur Erkenntnis dieser Zeit,“ *KW 10/2* (Frankfurt am Main: Suhrkamp, 1981), 12-16.

<sup>191</sup> Paul Michael Lützelers, „Hermann Broch und Spenglers *Untergang des Abendlandes*,“ 26-27.

<sup>192</sup> See the following pages in *Die Schlafwandler*, where Broch elaborates on the idea of 'Stil einer Epoche' Hermann Broch, „Die Schlafwandler“, *KW 1* (Frankfurt am Main: Suhrkamp, 1981) 444 – 445; 621

Spengler when he used the metaphor of an organism to describe the development of European thought. Instead of a biological metaphor, Broch wanted to provide an epistemological foundation for such an historical theory, which he found in a theory of values and styles. This idea of style, and how it relates to everyday life, is illustrated in the following passage:

“[W]enn es Stil gibt, so sind alle Lebensäußerungen von ihm durchdrungen, dann ist der Stil einer Periode ebensowohl in ihrem Denken vorhanden, als in jeder Handlung, die von den Menschen dieser Periode gesetzt wird.“<sup>193</sup>

In this quotation, Broch connects the concrete decisions of everyday life to a general theory of style: all concrete decisions are in accordance to the overarching style. Broch noted in his essay *Geist und Zeitgeist* (1934) that all individuals share a similar behavior, as they are ‘Kinder einer Zeit’, which is understood as a ‘Zeitgeist’.<sup>194</sup> Every era has its own style, but throughout history, Broch identifies a decline of values, which is also a decline of style. On the level of content, Broch and Spengler differ in their analysis of this decline. Broch situates the beginning of the disintegration at the end of the Middle Ages, whereas Spengler situates the beginning of the European ‘Wintertime’ around 1800.<sup>195</sup> Their general ideas about specialization and disintegration of values are understood to be rather similar, according to Lützeler.<sup>196</sup>

Furthermore, they both identify the death of the ornament as a symbol for the death of European culture.<sup>197</sup> This critique on the anti-ornamental movement indicates Broch’s sense of the style of the early twentieth century, according to Vollhardt. When the ornament is no longer regarded as a particular expression that represents the general culture, the rejection of the ornament is simply the destruction of decoration, which implies the total absence of style, according to Vollhardt’s analysis of Broch.<sup>198</sup> Broch calls this lack of style the ‘Unstill’ or ‘Stillosigkeit’.<sup>199</sup>

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<sup>193</sup> Hermann Broch, „Die Schlafwandler,“ 444 – 445.

<sup>194</sup> „Was hat der Boden der Tatsachen, auf dem der Mann des praktischen Lebens steht (...) was hat dieser Mann mit dem geistigen Menschen zu tun? (...) Und doch ist es so – schon weil Gangster, Kaufmann, Militär und Wissenschaftler, weil sie Kinder einer Zeit sind.“ In: Hermann Broch, „Geist und Zeitgeist“ *KW 9/2* (Frankfurt am Main: Suhrkamp, 1981), 180.

<sup>195</sup> Paul Michael Lützeler, „Hermann Broch und Spenglers *Untergang des Abendlandes*,“ 27-28.

<sup>196</sup> Ibid. 29.

<sup>197</sup> Ibid. 33.

<sup>198</sup> Friedrich Vollhardt, *Hermann Brochs Geschichtliche Stellung*, 219.

<sup>199</sup> Paul Michael Lützeler, "Die Kulturkritik des jungen Broch: Zur Entwicklung von Hermann Brochs Geschichts- und Werttheorie," *Deutsche Vierteljahrsschrift für Literaturwissenschaft und Geistesgeschichte* 44 (2) (1970), 348; Broch probably borrowed this term from Friedell. See: Manfred Durzak, *Hermann Broch: Der Dichter und seine Zeit*, (Stuttgart : Kohlhammer, 1968), 161.

Broch himself was rather critical of Spengler in his correspondence. In 1920, he called him 'arrogant' ('Präpotenz') and 'ignorant'.<sup>200</sup> He elaborated on Spengler's historical methodology in his essay *Denkerische und Dichterische Erkenntnis* (1933). Broch argued that Spengler's methodology did not fit the twentieth-century style: "Aber so berechtigt solche Parallelisierungen und Analogieschlüsse auch sein mögen, man spürt dennoch, das sie gefährlich oder zumindest nicht mehr Zeitgerecht sind (...)." In short, Broch agrees upon the similarities Spengler identified, but remains to be very critical of his methodology. He continues as follows:

"[U]nd das liegt wohl daran, das die aufweisbaren rationale Parallelismen zwar stimmen, das sie aber nicht das *Wesentliche* herausheben, mit andern Worten, das die Parallelität tiefer begründet sein muß und daß es nicht mehr genügt, *formale Übereinstimmungen* aufzuweisen, die für das 19. Jahrhundert vielleicht noch ausgereicht hätten, heute es aber nicht mehr tun."<sup>201</sup>

This fundamental critique on the lack of an epistemological foundation in Spengler's theory is not surprising. Broch already criticized many so-called historians of the nineteenth century for being rather amateuristic.<sup>202</sup> This critique on a skewed methodology is where Rickert's relation to Broch becomes important. Friedrich Vollhardt characterizes the type of 'Geschichtsphilosophie' around the turn of the century as "Weltanschauungs- und Epochentypologien".<sup>203</sup> These types of history, however, were influenced by intuistic and 'lebensphilosophische' approaches, which were rejected by Hermann Broch. Broch himself favored the method of Heinrich Rickert, whose neo-Kantian approach is for Broch an: "Instrumentarium einer 'Weltanschauungslehre', die eine Erfassung sinnhafter geschichtlicher Vorgänge ermöglichen und eine materiale Geschichtsphilosophie rational begründen sollte", as Vollhardt describes it.<sup>204</sup>

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<sup>200</sup> Hermann Broch, „Letter to Ea von Allesch – 04-07-1920,“ *KW* 13/1, 44.

<sup>201</sup> Hermann Broch, „Denkerische und Dichterische Erkenntnis,“ *KW* 9/2, 48.

<sup>202</sup> Cf. 54

<sup>203</sup> Friedrich Vollhardt, *Hermann Brochs Geschichtliche Stellung*, 4.

<sup>204</sup> *Ibid.* 5.



Figure 3. Hermann Broch, *Die Schlafwandler* (1931)

Broch's theory on the history of European thought is mostly represented in his essay in *Die Schlafwandler*. This essay is divided into several themes: it touches upon epistemological, historical, and theological discussions. In the epistemological chapter, the narrator discusses how the concept of 'values' makes knowledge about history possible, which evokes the previous excursion on Rickert. The first thesis goes as follows:

“[D]ie Geschichte besteht aus Werten, weil das Leben bloß unter der Wertkategorie zu erfassen ist, - aber diese Werte können nicht als Absoluta in die Wirklichkeit eingeführt werden, sondern können bloß im Zusammenhang mit einem ethisch handelnden wertsetzenden Wertsjekt gedacht werden.”<sup>205</sup>

Although this might be interpreted as if the narrator is arguing for a view on 'Zeitgeist' as something that is established bottom up, this sentence can also be interpreted differently.<sup>206</sup> This quotation should be understood in an epistemological sense, rather than a historical one: a certain value can only be recognized in everyday life, but is not fully rooted in everyday life. This is indicated by Broch's idea of style: style precedes action. This idea also strongly resonates Rickert's view on the relation between actual history and ahistorical values. The narrator continues:

<sup>205</sup> Hermann Broch, „Die Schlafwandler“, 620.

<sup>206</sup> Based on Broch's *Zur Erkenntnis dieser Zeit* (1917-1919), Monika Ritzer argues that Broch was neither in favour of a philosophy that presupposes a deterministic 'Logos', nor in the complete individuality of the individual actor. In her view, Broch's philosophy is about „die Geltung des Wertes und damit die Selbstverpflichtung des Individuums.“ This claim can be refuted by Broch's letters and essays from the 1930s, as will be shown on the next page. Monika Ritzer, *Hermann Broch und die Kulturkrise*, 106.



“Jede geschichtliche Einheit hängt von dem effektiven oder fiktiven Wertzentrum ab; der ‚Stil‘ einer Epoche, ja die Epoche selber als historisches Ereignis wäre nicht vorhanden, wenn nicht in ihren Mittelpunkt das einheitschaffende Ausleseprinzip gesetzt werden würde, ein ‚Geist der Epoche‘, dem die wertsetzende und stilbildende Kraft zugemessen wird.“<sup>207</sup>

Thus, in the view of the narrator, an idea of a ‘Geist der Epoche’ is necessary for an understanding of a specific time frame. But the narrator adds: “Aber so sehr diese Eigengesetzlichkeit in der Zeit wirkt, also zeit- und stilbedingt ist, es kann solche Stilbedingtheit immer wieder nur Abschüttung des übergeordneten Logos sein (...).“<sup>208</sup> This belief in a preceding Logos, which partly determines the style of an era, is also representative for Broch’s own view on historical developments. In a letter to Willa Muir, Broch’s English translator, he explains his view on historical development as follows:

“Ich bin ziemlich überzeugt, daß alles, was geistige Leistung ist, eine Funktion der Zeit darstellt. D.h.: es gibt eine überpersönliche, überindividuelle Logik der Tatsachen, und der Fortschritt der geistigen Leistungen ist eindeutig determiniert. Mit einem gewissen Spielraum von ein paar Jahren *mußte* die Lokomotive um etwas 1820, *mußte* das Automobil um 1890 erfunden werden. Ich sehe dies am deutlichsten in der Wissenschaft (im Grunde bin ich nämlich Mathematik), und mit dem dichterischen Ausdruck ist es nicht anders.“<sup>209</sup>

This quotation shows that the idea of a ‘Geist der Epoche’ is not only a tool used by historians, but also represents Broch’s view on historical development. In his view, there is an meta-individual logic that determines historical events, which is illustrated by the invention of the locomotive and the auto mobile. Furthermore, Broch suggests that this logic also determines the development of science and literature. Chapter four will touch upon that topic, and elaborate on Broch’s view on the development of the novel.

### 3.3.1 European history: rationality and the decline of values

Now that the most fundamental epistemological principles in Broch’s philosophy of historical development are identified, this section will continue with his historical elaborations. The

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<sup>207</sup> Hermann Broch, „Die Schlafwandler“, 620 – 621.

<sup>208</sup> Ibid. 621.

<sup>209</sup> Hermann Broch, „Letter to Willa Muir - 19-07-1931“, *KW 13/1*, 142 – 143.

previous section discussed Weberian and Spenglerian views on rationality, disenchantment, and a general sense of decline in European thought. In Broch's *Zerfall* essay, the narrator claims that specific historical era's follow each other up through a period of revolution, which is described as a 'Revolution des Denkstils.'<sup>210</sup> The most important revolution was the period of the Renaissance, as it caused radical changes regarding science, religion, and society in general. Mathematics became the language of science, Protestantism became the form of Christian religion, and money became the dominant 'language' in society. This represents a shift from Platonism to positivism, from the word of God to the word of 'things'.<sup>211</sup> In *Geist und Zeitgeist*, Broch calls this the battle for what is perceptible, instead of a battle for truth. Whereas religion aimed for truth, positivism aimed for what is perceptible.<sup>212</sup> Broch identifies this new period as a period of 'disparaten Wertgebiete', which reflects the title of this literary essay: the disintegration of values.<sup>213</sup>

The suggested link between Protestantism and a more mathematical approach to science recalls Weber's analysis of Protestantism, which Weber saw as fundamental for the development of modern rationality and modernity in general. A general loss of coherence, which is the final consequence of the shift towards positivism and the shift towards 'things' instead of God, reflects a similar analysis as Weber's notion of 'disenchantment'. Anna Harrington argues that similarities between Weber and Broch are not mere speculative, but can be substantiated through a more strict analysis. Rickert was not the only prominent intellectual on Broch's bookshelf, as Broch owned several books and essays from Weber.<sup>214</sup> Harrington argues that Broch regarded Weber's more scientific approach as a useful alternative for the increasing popularity of 'Lebensphilosophie'.<sup>215</sup> In *Die Schlafwandler*, stages of the decline are represented by the figures of Pasenow, Esch, and Huguenau. Broch commented that the subtitles of each book represent the specific 'Zeitgeist' of each stage: Romanticism, Anarchism, and Realism.<sup>216</sup> Huguenau, 'the realist', resembles the Weberian ideas about modernity, rationality, and ethics most prominently. Huguenau seems to be focused on personal advances only, in terms of ownership of property by misleading his closest

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<sup>210</sup> Hermann Broch, „Die Schlafwandler,“ 533.

<sup>211</sup> Ibid. 536 – 538.

<sup>212</sup> Hermann Broch, „Geist und Zeitgeist.“ In *Kommentierte Werkausgabe 9/2: Schriften zur Literatur 2: Theorie*, edited by Paul Michael Lützeler, 183 – 184.

<sup>213</sup> Hermann Broch, „Die Schlafwandler,“ 539.

<sup>214</sup> Anna Harrington, "Hermann Broch as a reader of Max Weber: Protestantism, rationalization and the 'disintegration of values'," *History of the human sciences* 19 ( 4) (2006), 4.

<sup>215</sup> Ibid. 5.

<sup>216</sup> Hermann Broch, „Letter to Willa Muir – 21-05-1931,“ *KW* 13/1, 133.

companions.<sup>217</sup> According to Harrington, this behavior represents the ultimate consequence of a process of rationalization: "Each pocket of the total system becomes rational in relation to itself and entirely irrational in relation to another."<sup>218</sup> Vollhardt adds that these 'pockets' ('einzelnen Wertsysteme') are not only disconnected, they also have the will to destroy each other.<sup>219</sup> Huguenau embodies this paradoxical tension between the 'überraionale' society and the danger of irrationality: the murder of Esch is an irrational act of crime, but it is profitable for Huguenau as an individual.<sup>220</sup>

As being the embodiment of the last title of Broch's trilogy, the figure of Huguenau plays an important role in Broch's view on historical development. As Bartram and Payne have noted, writers such as Musil, Broch, and Thomas Mann mostly interpreted their own era as an age of transition:

"Their historical vantage-point is one suspended between a 'nicht mehr' (no longer) and a 'noch nicht' (not yet), between the end of one era and its values and the beginning of the next, whose contours can be but dimly perceived."<sup>221</sup>

Most characters in Broch's trilogy seem to be confronted with the collapse of the old world, but remain inadequate in their understanding of this event. This lack of intellectual understanding is reflected in the metaphor of 'sleepwalking'.<sup>222</sup> A figure such as Huguenau is in a sense the embodiment of this endpoint in terms of moral values. Jaretski's reflection resembles Huguenau's moral emptiness: "Und jeder der allein ist, muß einen andern töten."<sup>223</sup> Stephen Downden has interpreted the rape and murder, committed by Huguenau, as a moment that reflects the end of the old order, which creates the possibility of a new one.<sup>224</sup> The most apparent difference between the characters of Jaretski and Huguenau seems to be

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<sup>217</sup> Anna Harrington, "Hermann Broch as a reader of Max Weber," 8.

<sup>218</sup> Ibid. 14.

<sup>219</sup> Friedrich Vollhardt, *Hermann Brochs geschichtliche Stellung*, 223.

<sup>220</sup> Ibid. 225-226.

<sup>221</sup> Graham Bartram and Philip Payne, "Apocalypse and utopia in the Austrian novel of the 1930s: Hermann Broch and Robert Musil," in: *The Cambridge Companion to the Modern German novel*, edited by Graham Bartram, (Cambridge : Cambridge University Press, 2004), 93. See also: "[E]ine Art Schwebezustand zwischen Noch-nicht-Wissen und Schon-Wissen (...), Schlafwandeln, das ins Helle führte." In: Hermann Broch, „Die Schlafwandler," 635.

<sup>222</sup> Graham Bartram and Philip Payne, "Apocalypse and utopia in the Austrian novel of the 1930s," 100.

<sup>223</sup> Hermann Broch, „Die Schlafwandler," 563.

<sup>224</sup> "The combination of this rape and murder is the allegorical representation of the moment in history – or, more precisely, in Broch's *theory* of history's cyclical progress – in which the old order is razed. It is an act of nihilistic violence that simultaneously implants the seeds of the new. Huguenau, the new 'father' is not a mover of history. He is only the tool of historical progress." Stephen D. Downden, *Sympathy for the Abyss, A Study in the Novel of German Modernism: Kafka, Broch, Musil, and Thomas Mann*, (Tübingen : Max Niemayer Verlag, 1986), 55.

the former's capacity to reflect on the modern 'condition humaine'.<sup>225</sup>

The question that arises is whether Broch signalled an endpoint of European culture, or a moment of transition. In other words: did Broch foresee an apocalypse or a revolution? Figures as Spengler were often understood as fatalists or pessimists.<sup>226</sup> Vollhardt suggests that in the midst of fatalists and pessimists, Broch might be seen as part of a small group of semi-optimistic intellectuals.<sup>227</sup> In his article *Die Schlafwandler: Revolution and Apocalypses*, Heinz Osterle stresses that Broch's tone had much in common with contemporaries such as Rickert and Spengler.<sup>228</sup> In 1932, Broch seems to be rather sympathetic towards a reviewer who interprets *Die Schlafwandler* as a story of an apocalypse:

“[D]aß die Schlafwandler die erste große Geschichtsphilosophie darstellen, die die heutige Zeit erklärt. Wir haben es ja bereits gelesen: ‚Apocalypse du temps moderne‘, usf.“<sup>229</sup>

Reviewer Wolfgang Roth also described Broch as the “Österreichischen Apokalyptiker”.<sup>230</sup> Certainly, *Die Schlafwandler* offers reflections and descriptions that seem to share much of the pessimistic tone of the previously discussed intellectuals. However, Broch himself gave rise to the interpretation that the novel prefigures a ‘revolution’, as Broch talks in terms of a ‘Wende’ (turning point) in his commentary on *Die Schlafwandler*.<sup>231</sup>

According to Bartram and Payne, it is the figure of Gödicke that represents this possibility of a ‘Wende’: “he (a bricklayer in civilian life) embarks on the painful process of reconstructing his identity, visualizing himself perched on his mental ‘scaffolding’ and fixing the haphazardly returning building blocks of personal memory into their proper places.”<sup>232</sup> Gödicke, therefore, represents a figure that has overcome the point zero. According to Durzak,

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<sup>225</sup> Manfred Durzak, *Hermann Broch, Dichtung und Erkenntnis*, 68.

<sup>226</sup> Arne De Winde & Oliver Kohns, „Pessimismus, Kultur, Untergang: Nietzsche, Spengler und der Streit um den Pessimismus,“ *Arcadia* 50 (2) (2015), 298.

<sup>227</sup> Friedrich Vollhardt, *Hermann Brochs geschichtliche Stellung*, 10.

<sup>228</sup> Heinz D. Osterle, "Hermann Broch, *Die Schlafwandler: Revolution and Apocalypse*." *Publications of the Modern Language Association of America* 86 (5) (1971), 952-953.

<sup>229</sup> Hermann Broch, "Letter to Daniel Brody - 19-07-1932," *KW* 13/1, 202; The review that was called 'Apocalypse du temps moderne' was written by Wladimir Weidlés. See: Manfred Durzak, *Dichtung und Erkenntnis*, 62; Hermann Broch, „Letter to Willa and Edwin Muir - 17-07-1932,“ *KW* 13/1, 198.

<sup>230</sup> Manfred Durzak, *Dichtung und Erkenntnis*, 62.

<sup>231</sup> Hermann Broch, „Der Wertzerfall und die *Schlafwandler*,“ *KW* 1, 734.

<sup>232</sup> Graham Bartram and Philip Payne, "Apocalypse and utopia in the Austrian novel of the 1930s," 101.

Gödicke's 'resurrection' embodies the last words of the trilogy: "Tu dir kein Leid! denn wir sind alle noch hier!"<sup>233</sup>

### 3.4. Concluding Remarks

The first two chapters have shown how Hermann Broch was engaged in scientific debates of his time, and how he was part of a network of acclaimed scientists and philosophers. Chapter two has shown that up until now, most scholars have tried to understand Broch's view on science from the perspective of Broch as a former scientist. This third chapter on Broch's engagement with historical and cultural discussions is meant to broaden this view: scientific references should not only be understood exclusively from the perspective of the scientific debates, but are also part of a broader debate about culture, history, and the epistemological foundations of historical research.

From the analysis of Viennese discussions about functionality and architecture it became clear that Broch did not fit within the general view on Viennese intellectuals. Broch's cultural reflections were much more focused on debates that were typical for German intellectuals, most prominently the crisis of historicism. Within these discussions, science was often connected to other cultural developments. This was not an exclusive task of novelists. Richard Staley argues that mostly historians, philosophers, political economists, sociologists, as well as physicists touched upon this debate. For example, acclaimed scientists such as Wilhelm Ostwald, Ernst Mach, and Walter Rathenau published between 1909 and 1915, shortly before Spengler's *Der Untergang*, books that touched upon the relation between science and culture.<sup>234</sup> The underlying assumption in this period, according to Staley, is that "sciences reflect the character of the specific epoch in which they found expression."<sup>235</sup> Oswald Spengler is the most famous representation of this tendency in German thought. Staley summarizes Spengler's claim by stating that for him certain scientific developments had "more in common

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<sup>233</sup> Manfred Durzak, *Dichtung und Erkenntnis*, 78; Hermann Broch, „Die Schlafwandler,“ 716. The possibility of a revolution in a more theological sense is reinforced by Broch's own commentary on his novel, as he uses words such as 'Erlösung', 'Rettung', 'Lebenssinn', and 'Gnade' to describe the process of sleepwalking: Hermann Broch, „Problemkreis, Inhalt, Methode der *Schlafwandler*,“ *KW 1*, 723.

<sup>234</sup> Richard Staley, "Culture and Mechanics in Germany, 1869-1918: A Sketch," In *Weimar Culture and Quantum Mechanics: Selected Papers by Paul Forman and Contemporary Perspectives on the Forman Thesis*, edited by Cathryn Carson, Alexei Kojevnikov, and Helmuth Trischler et al., (London: Imperial College Press, 2011), 279.

<sup>235</sup> *Ibid.* 278.

within a given period than with their successors across periods.”<sup>236</sup>

By means of the analysis of Broch’s philosophical essay in *Die Schlafwandler*, this chapter shows that these tendencies of German debates were at the heart of Broch’s argument. To understand Broch’s view on the relation between science and culture, one needs not only to understand the foundational debates in mathematics, but also the ones in the humanities. They reflect a more general discussion about epistemology and rationality. Spengler based his conclusions on a morphological approach, but Broch wanted to provide an epistemological groundwork. This recalls the conclusion of chapter two, namely that Broch had primarily an epistemological ambition, which he was able to present in *Die Schlafwandler*. With *Die Schlafwandler*, he wanted to add to the knowledge about the complexities of modern times. The cultural crisis and the decline of European thought also account for the positivistic tendencies in science, and the lack of metaphysical philosophy.

Both *Die Unbekannte Größe* and *Die Schlafwandler* reflect Broch’s epistemological ambition, but it remains unclear *how* and *why* Broch incorporated scientific references in his novels. An epistemological novel might also be possible without specific scientific topics. This relation between science and culture can be understood from a deterministic perspective, as one of intellectual exchange, but also as the outcome of a more organic development (Spengler). As shown above, Broch believed in a determined development of history. At the end of this quotation, he stated that this also affected the novel: “[De]r Fortschritt der geistigen Leistungen ist eindeutig determiniert. (...) Ich sehe dies am deutlichsten in der Wissenschaft (im Grunde bin ich nämlich Mathematiker), und mit dem dichterischen Ausdruck ist es nicht anders.”<sup>237</sup> The next chapter will present and analyse Broch’s theoretical views, and show how Broch himself reflected upon the relation between science and literature.

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<sup>236</sup> Richard Staley, "Culture and Mechanics in Germany, 1869-1918: A Sketch," 291.

<sup>237</sup> Hermann Broch, "Letter to Willa Muir - 19-07-1931," *KW* 13/1, 142 – 143.

## Chapter 4: Hermann Broch's Reflections on the Relation between Science and Literature: „Zweige eines einzigen Stammes“

In the previous chapters *Die Unbekannte Größe* and *Die Schlafwandler* were discussed in a scientific and cultural context. In chapter two it was suggested that Broch's scientific background was essential to *Die Unbekannte Größe*, but it was also shown that many scholars presuppose a relation that is based on the idea of 'intellectual exchange' between science and literature. It is argued in chapter three that it was exactly the idea of a *relation* between several aspects of modernity that was subject of discussion in the 1910s and 1920s. This chapter will show that the relation between modernity and the modern novel was a much-discussed topic among novelists towards the end of the 1920s and the early 1930s, and that Hermann Broch also reflected upon this theme. By means of an analysis of Broch's essays and letters, it will be shown that Broch devised a theory of the modern novel. Broch's essay *James Joyce und die Gegenwart*, for example, is often cited by scholars as a proof of Broch's intentions to absorb science into the novel, but a close-reading of this essay gives a more nuanced view on Broch's position. Broch's reading of Goethe (1749 – 1832), James Joyce (1882-1941)), and other contemporaries in his essays and letters should be seen as a manner of self-representation. This chapter will conclude that the relations between science, culture, and scholarship in Broch's work were not accidental or an expression of his scientific background, but fitted within his own theory of the modern novel.

### 4.1. The crisis of the novel

In the first decades of the twentieth century, the word 'crisis' was used in almost every context, as shown in previous chapters. There was a sense of crisis in culture, politics, and several disciplines of science. The novel did not appear to be an exception: several novelists discussed the 'Krisis des Romans'. It is difficult to pinpoint the exact outbreak of this crisis, but it is evidently that it was discussed among the most well-known modern novelists, such as Alfred Döblin, Thomas Mann, Robert Musil, and also Hermann Broch.<sup>238</sup> Dietrich Scheunemann signals the beginning of these discussions already in the 1880s, when writers started to 'revolt'

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<sup>238</sup> Helmuth Kiesel, *Geschichte der literarischen Moderne: Sprache, Ästhetik, Dichtung im zwanzigsten Jahrhundert*, (München : CH Beck, 2004), 316; Helga Mitterbauer, „Totalitätserfassende Erkenntnis,“ 233 – 250.

against the old writing habits through pamphlets and essays in upcoming journals.<sup>239</sup>

In short, this literary modernism protested against the idea that the narrative should represent a stable reality and claim an objective point of view. According to Stephen Dowden, this modernism consisted of three central elements: modernism rejects the idea of a stable and objective reality as such, it rejects the possibility of an accurate representation by means of language, and as a counterpoint, modernism prefers to focus on subjectivity instead of objectivity as the most important point of view.<sup>240</sup> Furthermore, novelist discussed whether there was a justification for the modern novel at all, when it could not relate to stable values anymore.<sup>241</sup>

Stephen Dowden explains this upswing of modernism by concentrating on the circumstances in the 1920s, mostly through examples from the humanities, the sciences, and politics. First and foremost, it was the catastrophe of The Great War that stimulated the sense of the end of an 'old order' among the German-speaking people. Second, the aftermath of Friedrich Nietzsche's philosophy was very important for the new ideas about the ontology of reality and the way reality should be represented.<sup>242</sup> Moreover, the developments in physics had a strong appeal to the novelists regarding their convictions about external reality, a discussion touched upon in previous chapters.<sup>243</sup>

Within the context of these developments, novelist shifted their focus from the outer world to the inner world of 'the self'. The inner experience gained popularity: reality itself was no longer what fascinated the novelist, but the way their protagonists made sense about reality. By means of an example, this section will concisely discuss how Benjamin, Döblin, and Musil reflected on the phenomenon of a 'crisis' in literature.

In his essay *Bau des Epischen Werks* (1929), Alfred Döblin discusses the history of the novel in relation to the history of knowledge in general. What is at stake in his essay, is the role of the author and the epistemological consequences of a more explicit representation of the voice of the author. Whereas in nineteenth century the absence of the author created a sense of objectivity, modernists started to question this relation between reality and representation around the turn of the century. Should the author participate in the novel or not? Döblin is

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<sup>239</sup> Dietrich Scheunemann, *Romankrise: Die Entstehungsgeschichte der modernen Romanpoetik in Deutschland*, (Heidelberg : Quelle und Meyer, 1978), 9.

<sup>240</sup> Stephen D. Dowden, *Sympathy for the Abyss*, 11.

<sup>241</sup> Helga Mitterbauer, „Totalitätserfassende Erkenntnis,“ 247.

<sup>242</sup> Stephen D. Dowden, *Sympathy for the Abyss*, 13.

<sup>243</sup> Ibid. 15-16.



quite clear on this issue: "Ja, er darf und er soll und muß."<sup>244</sup> Although Döblin admits that he had once believed in the method of 'the message', which represents the objective position of the author, he later started to propagate the opposite: the author should signify his own position. Döblin argues that the development of the novel was one that started with complete freedom, but throughout history authors started to feel the need to express reality 'as it is'. Modernism for Döblin means a combination of these two point of views.<sup>245</sup> Walter Benjamin also takes this theory of the novel of Döblin into account in his review of Döblin's *Berlin Alexanderplatz* titled *Krisis des Romans. Zu Döblins 'Berlin Alexanderplatz'*.<sup>246</sup> It appears that Döblin himself was not yet actively engaged within the discussion about a crisis of the novel, as Benjamin suggests:

"Der Theoretiker Döblin, weit entfernt, mit dieser Krisis sich abzufinden, eilt ihr voraus und macht ihre Sache zu seiner eigenen. Sein letztes Buch zeigt, daß Theorie und Praxis seines Schaffens sich decken."<sup>247</sup>

Benjamin tries to contextualize the role of Döblin's novel within the modernistic developments. He identifies, for example, André Gide as Döblin's counterpart, as Gide was more in favor of "der reine Schreibroman", a more traditional novel instead of experimental.<sup>248</sup> It was often suggested that James Joyce was the most important inspiration for Döblin, but Benjamin counters this suggestion by pointing out that Döblin's primary stylistic principle is that of 'montage', whereas James Joyce was mostly known for his 'internal monologue'.<sup>249</sup>

Döblin did an attempt to write a response to Benjamin, but never published it. What is left is a manuscript titled *Krise des Romans?*, which is published in his collected works.<sup>250</sup> The suggestion that there was a crisis in literature, was rejected by Döblin. A crisis only exists if there is insecurity among the majority of the involved authors, Döblin argues. The sense of a crisis was only felt among a small and special community of authors:

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<sup>244</sup> Alfred Döblin, „Bau des Epischen Werks,“ in *Schriften Zu Ästhetik, Poetik und Literatur*, (Olten und Freiburg im Breisgau: Walter-verlag, 1989), 226.

<sup>245</sup> Ibid. 227-228.

<sup>246</sup> Walter Benjamin, „Krisis des Romans, Zu Döblins ‚Berlin Alexanderplatz‘,“ in *Gesammelte Schriften III* (Frankfurt am Main: Suhrkamp, 1972), 230-236. Originally published in *Die Gesellschaft* 7, Bd. 1, 1930, p. 562 – 566.

<sup>247</sup> Walter Benjamin, „Krisis des Romans, Zu Döblins ‚Berlin Alexanderplatz‘,“ 231.

<sup>248</sup> Ibid. 231.

<sup>249</sup> Ibid. 232.

<sup>250</sup> Alfred Döblin, „Editorische Nachweise und Kommentar: Krise des Romans,“ In *Schriften Zu Ästhetik, Poetik und Literatur*, (Olten und Freiburg im Breisgau: Walter-verlag, 1989), 670-672.

“Eine kleine Zahl Autoren ist besonders fein, hat Spezialitäten, etwa besonderes Naturgefühl oder Sinn für Technik, Sinn für Soziales, Sinn für Seelisches.“<sup>251</sup>

The crisis is triggered by a feeling of incompatibility between the nineteenth-century novelistic style and modern life of the twentieth century. The crisis reflects the discomfort in the literary community, according to Döblin. Among these authors were ‚ein jüngerer Autor‘ and ‚ein älterer Autor‘, which are understood as hints towards respectively Hans Henny Jahnn and Robert Musil, who both published groundbreaking novels; Jahnn with *Perrudja* in 1929 and Musil with *Der Mann ohne Eigenschaften* in 1930. Through their essayistic style, they mixed philosophy with literature.<sup>252</sup> This demand for philosophical import into the novel, instead of entertainment, was already argued for by Otto Flake in 1919 in his prelude to *Die Stadt des Hirns* (1919).<sup>253</sup> This uncertainty about the form of the novel is what Döblin identifies as a typical symptom of a crisis.

Robert Musil himself also touched upon this topic. In his essay *Die Krisis des Romans* (1931), he discusses the history of the novel in the context of the epic and the lyric.<sup>254</sup> He argues that whereas the transition from the epic to the novel was the first period of transformation, the novel had now entered a new phase of transformation.<sup>255</sup> This essay was partly a reaction to Ludwig Winder’s review of Musil’s novel *Der Mann ohne Eigenschaften*, and partly a reaction to tendencies in contemporary literature.<sup>256</sup>

This introduction shows that the ‘crisis’ was an explicit topic of debate among these novelists. What is noticeable, is that a recurring theme in the crisis of the novel is the relation between the novel and reality. These discussions also touched upon epistemological debates. Should the novel present a chronological narrative, or fragmented? Should it include the voice of the narrator, or not? These themes touch upon the epistemological framework of the novelist: what responsibility does the novel have regarding the representation of the structures of reality?

As discussed in the previous chapters, Hermann Broch was actively engaged in debates

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<sup>251</sup> Alfred Döblin, „Krise des Romans?“ In *Schriften Zu Ästhetik, Poetik und Literatur*, (Olten und Freiburg im Breisgau: Walter-verlag, 1989.), p. 274.

<sup>252</sup> Alfred Döblin, „Editorische Nachweise und Kommentar: Krise des Romans,“ 671.

<sup>253</sup> „Ihr sollt nicht mehr lesen um euch zu unterhalten (...) ihr sollt indem ihr den Kosmos eines Hirns anschaut in die denkende rührende Sphäre der Anschauung, den philosophischen Zustand, gehoben werden.“ Otto Flake, „Vorwort zum neuen Roman.“ In *Weimarer Republik: Manifeste und Dokumente zur deutschen Literatur 1918 – 1933*, edited by Anton Kaes, (Stuttgart: Metzler, 1983), 377.

<sup>254</sup> Musil, „Die Krisis des Romans,“ in *Gesammelte Werke II*, 1408 – 1412.

<sup>255</sup> Ibid. 1412.

<sup>256</sup> Musil, „Anmerkungen“, in *Gesammelte Werke II*, 1844.

about philosophy of science and the philosophy of history. It became clear that Broch's engagement in these topics is mostly understood from the perspective of a model that distinguishes the literary form, the scientific content, and the historical relevance. However, there is not yet reflected upon Broch's *own* views regarding the relation between these topics, although there are reasons to believe Broch had specific views on these discussions. Scheunemann notices that in Yale's archive on Broch, there remains a manuscript titled *Aufgaben des neuen Roman*.<sup>257</sup> Although the actual content of this essay remains mere speculative, the next sections will show that it is still possible to distill a theory of the modern novel from Broch's other essays and letters, which might hint towards the theory Broch was after. The following sections will discuss his view on the status of the novel, his own reflections on the philosophical and scientific relevance of the novel, and his criticism of contemporary novelists who he criticized for misusing science in their novels. An analysis of these reflections provides a more comprehensive perspective on Broch's view on the relation between science and literature within the context of the 'Crisis of the Novel'.

#### 4.2. Broch's sources of knowledge: James Joyce and the task of the novel

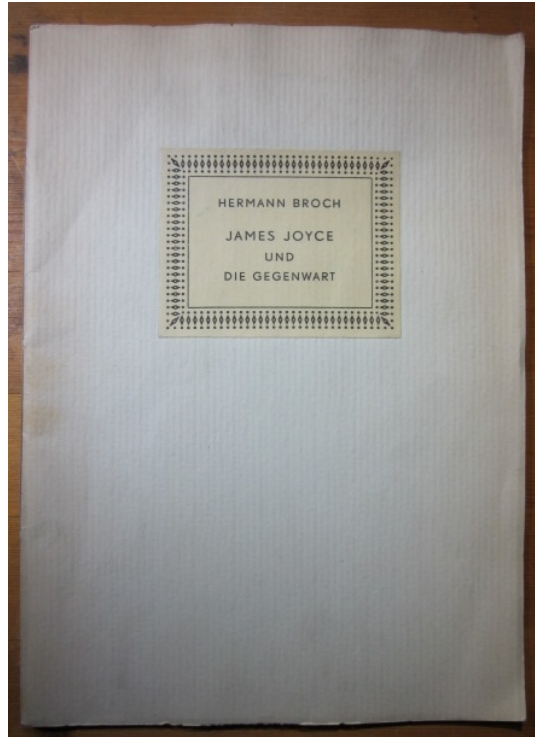
Broch also engaged in the discussion about the crisis that is described above. At first sight, Broch seems to have the most in common with the position of Alfred Döblin. Both of them were often associated with the works of James Joyce, both reflected on the history of the novel, and both experimented with new novelistic styles. In 1936, Hermann Broch was invited to hold a lecture in honor of James Joyce's 50th birthday in Vienna, which is published as *James Joyce und die Gegenwart*. Hermann Broch's thesis about Joyce's work, which mostly focussed on *Ulysses*, is summarized by Lützel as follows: "[Daß] Joyce mit modernen Mitteln (Technik der Simultanität) in seinem *Ulysses* erreicht habe, was Goethe auf andere Weise im *Wilhelm Meister* – besonders in den *Wanderjahren* – bereits gelungen sei; die Totalität der Epoche im Kunstwerk einzufangen."<sup>258</sup>

This statement about Joyce was contentious at that time, as Joyce's book caused a forceful discussion among writers such as Alfred Döblin, Ernst Bloch, and Berthold Brecht. Broch, however, was supported by Stefan Zweig, enthusiastic readers, and James Joyce

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<sup>257</sup> Dietrich Scheunemann, *Romankrise*, 152; in his letter to Daniel Brody, Broch wrote that Frank Thiess suggested that he should write an essay on 'Die Aufgaben des Neuen Romans': Hermann Broch, "Letter to Daniel Brody – 06-04-1932," *KW* 13/1, 188.

<sup>258</sup> Paul Michael Lützel, *Hermann Broch: Eine Biographie*, 139.



**Figure 4.** Hermann Broch, *James Joyce und die Gegenwart* (1936).

himself.<sup>259</sup> This essay on Joyce is an example of Broch's admiration for James Joyce, but also an example of Broch's own view on the modern novel. The next section will show that Broch's essay on Joyce should also be understood as a manner of self-representation. Through his review of Joyce, Broch illustrates his own position within the debate about the modern novel. This section will discuss Broch's relation to Joyce, his view on the history of the novel, and the task of art in general. Whereas this section will have a more analytical character, section 4.3. will provide a more programmatic outline of Broch's theory. The analytical part is based on Broch's self-identification with James Joyce, the programmatic part is based on Broch's idea of the polyhistorical novel, which he propagated through his self-identification with Goethe.

#### 4.2.1. Relationship between Broch & Joyce

In the second chapter, the most prominent interpretations of Broch's use of science by the were sketched. These scholars refer to Broch's essay on Joyce to show how Broch translated

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<sup>259</sup> Joyce himself commented that he 'liked' Broch's essay; Stefan Zweig sent Broch an enthusiastic letter; and Broch received letters from enthusiastic readers according a letter to his translator. Paul Michael Lützeler, *Hermann Broch: Eine Biographie*, 229; Hermann Broch, „Letter to Willa Muir - 16-05-1936,“ *KW* 13/1, 420.

scientific knowledge into his literary style. Especially the quote on the similarities between the theory of relativity and James Joyce's method in *Ulysses* attracted the attention of scholars who are interested in the relation between science and literature.<sup>260</sup> This strict focus on the scientific knowledge that Broch displays in his essay does not explain the role of modern physics in Broch's work, and also invokes a trickle-down model of knowledge.<sup>261</sup>

Broch, however, did not invoke this model himself in his essay. *James Joyce und die Gegenwart* is much more an essay about the relation between the artist and his own era than an essay about a specific translation of science in the modern novel. In his letter to Willa Muir, Broch commented that his essay was also about the justification of the novel in modern times: "[I]m Grunde handelt es sich ja um die Frage nach der Existenzberechtigung, nach der Existenzmöglichkeit des Romans und des Dichterischen überhaupt."<sup>262</sup> For Broch, every artists should acknowledge that only a true piece of art has comprised 'den Geist seiner Epoche'.<sup>263</sup> A piece of art, being a novel or a painting, should represent the historical spirit. For Broch, it is the task of the artwork to be the focal point ('Brennpunkt') of anonymous powers of his era (Epoche), to order the chaos and to put the 'Zeitgeist' in service of the artwork.<sup>264</sup>

According to Broch, James Joyce was very successful in describing the spirit of an 'Epoche' because of his focus on everyday life, the 'Welt-Alltag'.<sup>265</sup> In this sense, James Joyce was an inspiration for Broch. Broch's admiration for Joyce is displayed in many of his letters. In 1930, he wrote to Frank Thiess that he needed a break during the writing process of *Die Schlafwandler*, because of the impact that *Ulysses* had on him.<sup>266</sup> However, these letters also show how Broch developed his thoughts on Joyce. Whereas he first characterizes Joyce's method as a *psychological* one, he later argued that Joyce was the example of an *epistemological* novel.<sup>267</sup> The position of Joyce in Broch's virtual hierarchy of modern novelists is shown also in his commentary on Dos Passos' *The 42<sup>nd</sup> Parallel*: "Kein Joyce, aber virtuos."<sup>268</sup> James Joyce had become the model through which Broch reviewed other works, even his own

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<sup>260</sup> See the discussion between Ernestine Schlant and Theodore Ziolkowski in chapter two.

<sup>261</sup> For example Ruth Bendels sketches the modern developments in literature as a manner of 'absorbtion'. Ruth Bendels, *Erzählen zwischen Hilbert und Einstein*, 15.

<sup>262</sup> Hermann Broch, „Letter to Willa Muir - 25-04-1932,“ *KW 13/1*, 191.

<sup>263</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW 9/1*, 63.

<sup>264</sup> *Ibid.* 64.

<sup>265</sup> *Ibid.* 69.

<sup>266</sup> Hermann Broch, „Letter to Frank Thiess - 06-04-1930,“ *KW 13/1*, 84.

<sup>267</sup> Compare for example his letter to Daisy Brody from 16-07-1930 and his essay *James Joyce und die Gegenwart* from 1933. From this letter: "[W]as in den Schlafwandlern erst angedeutet ist, ist ja doch etwas, das nicht in der Richtung Joyce liegt (...), nämlich der ‚*erkenntnistheoretische Roman*‘ statt des psychologischen (...).“ Hermann Broch, „Letter to Daisy Brody – 16-07-1930,“ *KW 13/1*, 92.

<sup>268</sup> Hermann Broch, „Letter to Daisy Brody – 27-09-1930,“ *KW 13/1*, 102.

work. This admiration for Joyce proves to be more than a critical observation for Broch. It also related strongly to Broch's own identity as a writer. Vollhardt describes *Ulysses* as Broch's paradigm for the modern mythical novel, and this paragraph reinforces this interpretation.<sup>269</sup>

This can be seen from Broch's engagement with the promotion of his novel *Die Schlafwandler*. From several letters, it becomes clear that Broch personally insisted that his publisher should advertise *Die Schlafwandler* explicitly in relation to James Joyce, although publisher *Fischer* rejected this strategy, because it would give *Die Schlafwandler* immediately the connotation of being unreadable.<sup>270</sup> In his letter to *Rhein-Verlag*, Broch stated that he would agree upon every promotional strategy, as long as it related him to James Joyce: "Zum Erfolg nun die Propaganda: ich bin mit jeder Propaganda einverstanden, die mich [an] Joyce koppelt."<sup>271</sup> Broch wanted to be associated with Joyce desperately.<sup>272</sup>

Contentwise, Broch felt that he and Joyce shared the aim for an 'architektonische Vielstimmigkeit'.<sup>273</sup> Broch emphasized that it was important that he would be associated with other novelists who were regarded as the 'avant-garde', such as Huxley, Proust, Gide, or Lawrence, but most importantly Joyce and Gide.<sup>274</sup> To Daniel Brody, he was even very explicit about this ambition: "Die Reputation des Rhein-Verlags ist auf dem absoluten Kunstwerk Ulysses begründet; die Schlafwandler müssen dieses Niveau halten: sonst wäre ich nie zu Ihnen gekommen, wenn ich nichts diesen Ehrgeiz gehabt hätte."<sup>275</sup> He repeated this statement to Frank Thiess, but with an important addition. He wrote that when he tried to choose a publisher for *Die Schlafwandler*, the *Rhein-verlag* was an option, mostly because of its relation to James Joyce: "Eine gewisse Neigung hätte ich zum Rhein-Verlag, einfach deswegen, weil mein schriftstellerisches Über-Ich Joyce dort erschienen ist."<sup>276</sup> As Broch calls

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<sup>269</sup> Friedrich Vollhardt, "Hermann Brochs Literaturtheorie," 284.

<sup>270</sup> Hermann Broch, „Letter to Rhein-Verlag – 19-07-1930,“ *KW 13/1*, 94; „Letter to Rhein-Verlag – 05-10-1930,“ *KW 13/1*, 104. Broch writes that nine out of ten costumers returned their copy of *Ulysses*. This seems to be rather contradictive to the positive selling-rates Mitchell provides. Breon Mitchell, *James Joyce and the German Novel, 1922-1933*, (Ohio : Ohio University Press, 1976), 51; 76.

<sup>271</sup> Hermann Broch, „Letter to Rhein-Verlag – 05-10-1930,“ *KW 13/1*, 104.

<sup>272</sup> Financial reasons or vanity might also have been reason for Broch to suggest this PR-strategy. Mitchell shows that James Joyce was immensely popular among the German intellectuals. This might have been an incentive for Broch's ideas about the PR-strategy. Breon Mitchell, *James Joyce and the German Novel*, 51; 76.

<sup>273</sup> Hermann Broch, „Letter to Rhein-Verlag – 05-10-1930,“ *KW 13/1*, 104.

<sup>274</sup> Hermann Broch, „Letter to Georg Heinrich Meyer - 15-10-1930,“ *KW 13/1*, 107; „Letter to Georg Heinrich Meyer - 17-10-1930,“ *KW 13/1*, 108.

<sup>275</sup> Hermann Broch, „Letter to Daniel Brody - 21-12-1930,“ *KW 13/1*, 120.

<sup>276</sup> Hermann Broch, „Letter to Frank Thiess – 06-04-1930,“ *KW 13/1*, 85.

Joyce his 'Über-Ich', it is made quite explicit that he identifies himself with James Joyce.<sup>277</sup> These ongoing appraisals of James Joyce are summarized in a letter to his English translator Willa Muir:

„Über mein Verhältnis zu Joyce kann ich bloß eines sagen: hätte ich den *Ulysses* gekannt, ehe ich die *Schlafwandler* geschrieben hatte, so wären diese ungeschrieben geblieben, da ich im *Ulysses* ein vollkommenes Realisat dessen sehe, was im Roman überhaupt ausdrückbar ist. Dasjenige, was mir bei meinen Büchern vorgeschwebt ist: ‚unter der Haut zu schreiben‘, das finde ich bei Joyce restlos erfüllt, und ich bin überzeugt, daß die Literatur, so weit sie überhaupt Ausdruck des modernen Lebens bleiben wird, sich immer mehr und mehr unter den Joyceschen Einfluß begeben wird.“<sup>278</sup>

This quotation again shows Broch's fascination with Joyce: if he had read *Ulysses* before he started to work on *Die Schlafwandler*, he probably would not have written *Die Schlafwandler* at all. This underlines Broch's respect for James Joyce. This interesting relation between Broch and Joyce did not remain unnoticed. Most scholars have tried to pinpoint direct influences from Joyce on Broch's work in their attempt to understand Broch's structural development.<sup>279</sup> This chapter proposes a different perspective. In the following sections, Broch's essays and letters are understood as methods of self-profiling. It is interesting to see how Broch tried to present his own theory of the novel with reference to other authors, such as James Joyce and J.W. Goethe. Manfred Durzak argues that when Broch discusses Goethe, he does so through a 'Brochschen' (Brochian) perspective.<sup>280</sup> The same argument goes for Broch's treatment of Joyce, as shown above. Broch's evaluations of other novelists do not only give an insight into his opinions of other authors, it also reveals his own position in the debate. The fact that Broch wanted to be associated with James Joyce, and that he even called Joyce his "Über-Ich" adds to the claim that much can be learned about Broch's position through his comments on Joyce.

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<sup>277</sup> To what extent Broch's use of the concept of 'Über-Ich' relates to his interest in Freudian theories of the self is beyond the scope of this thesis, but it is certainly an interesting topic for future research.

<sup>278</sup> Hermann Broch, "Letter to Willa Muir - 21-06-1931," *KW* 13/1, 139-140.

<sup>279</sup> See for example: Manfred Durzak, *Hermann Broch: Der Dichter und seine Zeit*, 76-113; Breon Mitchell, *James Joyce and the German Novel*, 151 – 168.

<sup>280</sup> Manfred Durzak, *Broch: Dichter und seine Zeit*, 41.

#### 4.2.2. "Zeitgerechtheit" & The reception of James Joyce

The first issue Broch touches upon in his essay on Joyce, is the relation between the novel and the 'Zeitgeist'. The task of the artwork is to represent the spirit of the era, which is called 'Zeitgerechtheit' by Broch.<sup>281</sup> In a literal translations, you could say that a novel should 'honestly represent its era'. This concept, according to Alice Stasková, entails that: "ein Kunstwerk zur Erkenntnis der gegenwärtigen Situation beiträgt."<sup>282</sup>

„Zeitgerechtheit' should therefore be understood as a concept that demands an artwork to reflect the spirit of an age, and this reflection could add to the knowledge about the contemporary situation. In his essay, Broch also takes the perspective of the spectator into account: does a spectator always understand what the artwork is about? In normal situations the answer is 'yes', according to Broch, because both the spectator and artwork are related to the same 'Zeitgeist'. However, the 1920s were far from normal in his opinion, as it suffered from the disintegration of values. This created an 'organic unfamiliarity', which made it impossible for the spectators to understand anything that reflected on their own era. Therefore, Broch argues that it was not until the generation of 1930 that James Joyce's *Ulysses* was understood, and not in 1922, when it was first published.<sup>283</sup>

For Broch, there were several reasons why *Ulysses* was not accepted in first instance. Most importantly, *Ulysses* is an example of 'Rationalitätsekel', a revolt against rationalism. Broch argues that especially in an 'übrational gewordenen Zeit', language that confronts these rational standards is difficult to accept and to understand, which is the case with *Ulysses*. Thus, in Broch's theory, a true piece of art can be both 'Zeitgerecht' and 'Zeitlos', as the critical reflection on a specific period might be too unfamiliar for contemporaries.<sup>284</sup> In the case of Joyce it led to a cultural lag of almost twenty years between the publication and the acceptance of the novel. In Broch's view, Joyce probably ran twenty years ahead of the 'Logik der Entwicklung'. For his own novel, *Die Schlafwandler*, Broch estimated that he might have

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<sup>281</sup> "Denn wenn es überhaupt so etwas wie Zeitgerechtheit gibt, (...) sondern muß aus einem bestimmten Zustand des Bewußtseins, aus einem bestimmten Zustand der Logik, kurzum einer bestimmten Technik des Denkens herkommen, aus einer Logik, die für die betreffende Zeit verbindlich ist und die damit automatisch zu ihren Themen und den ihr eigentümlichen Inhalten hinführt." Hermann Broch, „James Joyce und die Gegenwart,“ *KW 9/1*, 76.

<sup>282</sup> Alice Stasková, „Schriften zur Literatur, Kunst und Kultur,“ in *Hermann-Broch-Handbuch*, edited by Michael Kessler & Paul Michael Lützel. (Berlin, Boston : De Gruyter, 2015), 325.

<sup>283</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW 9/1*, 65-66. Mitchell confirms this lag. Before 1930, the reception of Joyce in Germany was characterized by a lack of understanding, despite the abundant and enthusiastic reactions. Mitchell, *James Joyce and the German Novel*, 86.

<sup>284</sup> Helga Mitterbauer, "Totalitätserfassende Erkenntnis," 234.



been only two years ahead of his time.<sup>285</sup>

Broch explicitly uses the concept of 'Zeitgerechtheit' in relation to James Joyce, but he also refers to his own novel. Although it is only a short reference, it does indicate that this essay is not only about James Joyce and other authors, but touches upon a more general theory that is also relevant for Broch's own work. The next sections will elaborate on the possibility to distill a more general theory of the novel from Broch's essays.

#### 4.2.3. Parallelism & Science: An analysis of James Joyce und die Gegenwart

The view on art and its reflective and knowledge-producing role in society as presented above is essential to understand Broch's view on literature. Furthermore, it provides a different perspective on Broch's famous remark on the theory of relativity. Precisely the importance of the concept of 'Zeitgerechtheit' has been overlooked by many scholars when they discuss the relation between the theory of relativity and Hermann Broch's work. As has become clear, the novel should not primarily be a proper reflection of a scientific theory. Broch is much more interested in reflecting on his own era, which naturally includes elements of science and epistemology.

Chapter two has shown how scholars have tried to understand Broch's comparison between the theory of relativity and the literary style of *Ulysses*. Those interpretations are not far-fetched, as Broch interprets the theory of relativity as follows:

„[D]aß (...) der Beobachter und sein Sehakt, ein idealer Beobachter und ein idealer Sehakt, in das Beobachtungsfeld einbezogen werden müssen.“<sup>286</sup>

In short: Broch suggests in this comment that the theory of relativity is in principle a theory that discusses the relation between the object and the observer, which was the popular conception of the theory of relativity. A similar idea of the relation between object and observer can be found in *Ulysses*, Broch argues:

„Immer schwingt bei ihm [Joyce] die Erkenntnis mit, daß man das Objekt nicht einfach in den Beobachtungskegel stellen und einfach beschreiben dürfe, sondern das das Darstellungssubjekt, als der Erzähler als Idee“ und nicht minder die Sprache, mit der er das Darstellungsobjekt beschreibt, als Darstellungsmedien hineingehören.“<sup>287</sup>

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<sup>285</sup> Hermann Broch, „Letter to Willa Muir - 19-07-1931,“ *KW* 13/1, 143.

<sup>286</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW* 9/1, 77.

<sup>287</sup> *Ibid.* 78.

The fact that these remarks on the theory of relativity and *Ulysses* have been interpreted as an proposal to translate scientific theories to the modern novel is not completely surprising. Broch does suggest that the spirit of scientific thought was yet to enter the poetical work.<sup>288</sup> However, Broch nuances this view in an explicit manner. *Ulysses* and the theory of relativity shared similarities regarding their methods, but Broch does not want to suggest that Joyce included specific scientific knowledge on purpose:

“Aber die Gelehrtheit wird niemals Selbstzweck, sondern bleibt immer nur Darstellungsmethode, hat mit dem sogenannten wissenschaftlichen Inhalt überhaupt nichts zu schaffen.“<sup>289</sup>

With this quote, Broch emphasizes that he is interested in the method of presentation (‘Darstellung’), and not in the scientific content only. He elaborates on this point with an example from psychoanalysis. When Joyce uses the method of ‘stream of consciousness’ he is not imitating the recent developments in psychoanalysis. The resemblances between Joyce and psychoanalysis underline Broch’s argument that the literary novel develops in accordance to the epistemological premises of the ‘Zeitgeist’:

“[E]s ist ein Beweis dafür, daß die Gemeinsamkeit zwischen seinem Denken und dem der Psychoanalyse bloß eine methodische ist, Funktion einer überindividuellen methodischen Logizität, der sowohl der Roman als auch die Psychologie unterworfen sind, Gemeinsamkeit des methodischen und des Ziels, die der Zeitgeist ist und die den Menschen zwingt, in das Metalogische des Unbewußten und Irrationalen hinabzusteigen (...)“<sup>290</sup>

Only after this elaboration on the relation between *Ulysses*, psychoanalysis and the ‘Zeitgeist’, Hermann Broch starts to illustrate the resemblances between modern physics and the modern novel. The famous quotation on the similarities between the theory of relativity and *Ulysses*, however, is immediately followed by the following statement:

“Es ist keine Beleidigung für die Relativitätstheorie, wenn wir eine Parallele zur Dichtung ziehen (...)“

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<sup>288</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW* 9/1, 76.

<sup>289</sup> Ibid.

<sup>290</sup> Ibid. 77.

What is essential in this quotation, is the use of the word 'Parallele' (parallel). This word indicates that Broch rejects the idea that literature is directly influenced by physics. It should therefore be understood as an argument for a theory that goes beyond traditional studies of influence and trickle-down approaches. It is similar to Broch's use of 'Gemeinsamkeit' (common ground) in the previous quote. Broch's letter to Frank Thiess in 1930, which is mostly about *Ulysses*, is even more explicit about this idea:

“[E]s ist eine Art Parallele zum idealen Beschauer, der als Argument in die Relativitätstheorie eingegangen ist (damit auch beweisend, das es keine isolierten geistigen Erscheinungen gibt, und daß das, was auf einem Gebiet, z.B. Physik gilt, auf anderem Wege auch in der Ästhetik und überall anderswo gefunden werden muß).“

What Broch is arguing for, is that the parallel developments in several aspects of society should be understood as the result of a shared epistemological premise, which is founded in the 'Zeitgeist'. Broch illustrates this point by analyzing the developments within the fine arts:

“Aber für jene, die den Indizienbeweis für die Zeitgerechtigkeit Joyces noch nicht erbracht sehen, sei noch ein weiteres Parallelphänomen herangezogen, nämlich die bildende Kunst, nicht zuletzt, weil deren Sichtbarkeit eben immer eine Art Stillebnz für die Geistesituation der Kulturepothen abgegeben hat.“<sup>291</sup>

Broch argues that it is commonly accepted that the fine arts have always reflected the spirit of an era. In this line of thought, one can say that those who are able to recognize the similarities between Joyce and contemporary fine arts should conclude that Joyce's work is 'Zeitgerecht', and therefore not specifically influenced by Einstein's work. For Broch, Einstein's theory is a means to devise his own theory, but Einstein's theory is explicitly not presented as an influence on modern novelists.

This close reading of Broch's essay shows that one should not let himself be misled by the scientific references in Broch's work: Broch himself already thought about the relation between science and culture, which is a perspective that is much ignored by current scholars. The perspective of the scholars should therefore not always get priority. Especially in this case, it is interesting to see that Broch has a fundamental different view than contemporary scholars. Broch's view on the relation between science and literature seems to be even more nuanced than the view of many current scholars, as these scholars have subjected Broch's

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<sup>291</sup> Hermann Broch, „James Joyce und die Gegenwart,“ *KW* 9/1, 79.

work to a model that is based on the assumption of causality, influences, and a trickle-down approach. Broch's model is based on parallels and a shared epistemological foundation, and avoids explicit claims about influence between science and literature. Furthermore, Broch's discussion about the relation between the observer and the act of observation should be understood as a manner to engage in the modern discussion about the role of the author that Döblin also commented on. This

was a sketch of the more analytical view of Broch on the relation between the theory of relativity and James Joyce's *Ulysses*, but Broch also had a more programmatic theory, which is the theme of the next section. Broch treats historical examples as an imperative for the modern novel. Furthermore, both his historical and theoretical analysis will show that essay on James Joyce is not an exception, but rather an illustration of a general theory. Towards the end of the chapter, it will become clear that Broch is constantly reflecting upon his own position through the discussion about the work of others.

### 4.3. „Die Zeit des polyhistorisches Roman ist angebrochen „

Whereas the previous section was rather analytical in its attempt to locate Broch's position within the debate, this section will turn to a more programmatic side of Broch's theory. An examination of Broch's view on the history of the novel will show that in Broch's view, the novel has always reflected upon the epistemological style of an era, without simply providing a sum of scientific insights. The novelist should aim for 'Totalerkenntnis', Broch proclaims. It is precisely the novel that is able to combine scientific theories with the particular events of daily life, which creates the opportunity to take a reflective stance towards modern life.

Moreover, this discussion will also show how Broch thought that this ideal novel could be established in modern times. Through critique on other novelists, it becomes clear that Broch argues for an important role for science in the modern novel. Just as in the previous section, Broch uses a critically acclaimed author as the model for the ideal novel. Whereas James Joyce is used as a contemporary model, Goethe is used to argue that Broch's ideas about the polyhistorical novel fitted into a specific tradition and the ideal of knowledge. The discussion of these topics will provide a better understanding of Broch's own theory of the novel, and how this theory related to the 'Krise des Romans'.

#### 4.3.1. „Zweige eines einzigen Stammes“: history of the novel

When Broch argues in *James Joyce und die Gegenwart* that *Ulysses* shows similarities with Einstein's theory of relativity, it is not only meant as an appraisal of James Joyce. When taking

other essays into account, it appears that Broch had a theory on the relation between knowledge and literature in general, although it was not always a coherent theory. Broch's essay on Joyce is an indirect tool to explain his own view on literature in general. In his essays *Denkerische und Dichterische Erkenntnis* (1933), *Das Weltbild des Romans* (1933), and *Das Unmittelbare in Philosophie und Dichtung* (1932) Broch elaborated on his view on the history of the novel.

For Broch, James Joyce was not an exception, as he identifies a development towards a new structure of the novel among modern novelists. Broch formulates this observation in *Denkerische und dichterische Erkenntnis* as follows:

„Und wenn es eine der Tendenzen der neuen Erzählungskunst ist – hier muss vor allem James Joyce genannt werden -, die alte Guckkastenmanier der Darstellung aufzugeben und statt dessen den Beschauer und Erzähler, und zwar in seiner abstrakten Funktion, nicht etwas als handelnde Person, in die Erzählung einzufügen, wenn die Tendenz dahin geht, die *Erzählung als Erzählung vor dem Leser aufzubauen*, zu einem *Work in Progress* zu machen, wie Joyces neues Werk auch tatsächlich heißt, so wäre es immerhin gestattet, diese Bestrebungen in Parallele zu setzen mit jenem Grundsatz der physikalischen Relativitätstheorie, der im Gegensatz zur klassischen Physik sich nicht mehr begnügt, die physikalischen Vorgänge der Außenwelt einfach und möglichst genau zu registrieren, sondern gleichfalls die Gestalt des Beobachters an sich – gewissermaßen die ‚platonische Idee des Beobachters‘ – als integrierende Mitfaktor in das physikalische Beobachtungsfeld projiziert.“<sup>292</sup>

This quotation contains elements that are similar to Broch's analysis in *James Joyce und die Gegenwart*. Again, Broch suggests that the shift from a peepshow box perspective towards a perspective that explicitly reflects on the position of both the storyteller and the reader is a tendency in literature that parallels the development of modern physics, and the development of the theory of relativity in particular. Broch recognizes this most explicitly in Joyce's work, but also identifies this as a tendency in literature in general. What this quotation adds to the previous section, is that Broch identifies James Joyce as an example of a general development.

What this quotation also indicates, is that the modern novel entails a new style of narration. As discussed in the previous chapter, Broch argued that values and epistemological premises change over time. Therefore, every era has its own specific novelistic style. For

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<sup>292</sup> Hermann Broch, „Denkerische und Dichterische Erkenntnis,“ *KW* 9/2, 47-48.

Broch, the shared epistemology of science and literature is not only a modern phenomenon, but a principle phenomenon. Both science and literature have a knowledge producing and reflective role, and the modern novel is not unique in this sense:

“Denn wissenschaftliche und künstlerische Erkenntnis sind Zweige eines *einzigsten* Stammes, und der ist die Erkenntnis schlechthin.”<sup>293</sup>

Again, this is a statement that emphasizes that science and literature should not be understood as derivations of each other, but as descendants of the same source, which is implied by the metaphor of the ‘Zweige’ (twigs) who descend from the same ‘Stamme’ (stem). Therefore, both have the same task when it comes to their relation to knowledge, as both have to reflect upon epistemological foundations of an era.<sup>294</sup> Furthermore, Broch also sketches the reason why he believes that novels and science have a similar character:

“[E]s ist immer ein gemeinsamer Lebensstil, der beiden Erscheinungen zugrunde liegt, es ist in jeder Epoche der Geschichte und des Lebens die Einheit eines gemeinsamen Stils, eine Einheit, hinter der die Einheit des Logos steht.”<sup>295</sup>

This is the essential point of Hermann Broch’s analysis: novels and science both reflect on the knowledge that is produced in an era, and naturally take the shape of the epistemological foundation of that specific era.<sup>296</sup> The next section will discuss how Broch saw the relation between science and literature in previous eras.

#### 4.3.2. A history of the novel

Broch’s ideas about the epistemological function of the novel are reflected in his view on the historical development of the literary novel. The previous section showed that Broch believes that science and literature reflect a certain ‘Zeitgeist’. This also raises the question what the exact differences between science and literature are. If they both reflect the epistemological premise, do they also provide the same kind of knowledge?

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<sup>293</sup> Hermann Broch, „Denkerische und Dichterische Erkenntnis,“ *KW* 9/2, 48.

<sup>294</sup> Broch emphasizes the task of the novelist: “Pflicht der Dichtung zur Absolutheit der Erkenntnis schlechthin.” Hermann Broch, „James Joyce und die Gegenwart,“ *KW* 9/1, 85.

<sup>295</sup> Hermann Broch, „Denkerische und Dichterische Erkenntnis,“ *KW* 9/2, 49.

<sup>296</sup> This is in line with Durzak’s analysis, which says that for Broch, the novel was not simply a literary form of a philosophical or scientific theory, but rather a synthesis of these disciplines. Manfred Durzak, *Dichtung und Erkenntnis*, 62.

In his essay *Das Weltbild des Romans* Broch explores both topics. Through a historical analysis of the novel, Broch discusses the task of the novel:

“Beginnen wir mit dieser [ethische Forderung], man könnte wohl sagen, Alltagsaufgabe des Romans, und da sehen wir, daß er die ganz einfache Aufgabe hat, die Welt oder ein Stück der Welt so zu schildern, wie sie ist.“<sup>297</sup>

This quotation reflects the epistemological premise of the naturalistic era: presenting the world as an objective fact. As mentioned in his essay on Joyce, the novel should reflect the world as it is, by means of a story about daily life. The task to present facts, to show the world as it is, is summarized in the following quotation:

“Gut arbeiten heißt innerhalb des Romanschreibens, ein Stück Außen – oder Innenwelt oder beides zusammen so zu schildern, wie es ist.“<sup>298</sup>

‘Wie es ist’ means that the writer should show the world in a novel exactly as it is in reality, being it the inner – or outside experience. Examples of this task given by Broch, are Balzac, Zola, and Dostoyevsky, as they satisfied this ‘Tatsachenhunger’. With their works, they presented a cross section of reality. Zola and Balzac represent a cross section of the outside world, Dostoyevsky that of the inner world.<sup>299</sup> Zola (1840 – 1902), Balzac (1799 – 1850), and Dostoyevsky (1821 – 1881) published during the nineteenth century, which is commonly referred to as a naturalistic period with in literary scholarship.<sup>300</sup> Naturalism in nineteenth century science had much in common with the literary style that Broch calls ‘reportage’:

“Gleichwie der einzelne Wissenschaftler innerhalb der Forschung verschwindet und es völlig gleichgültig ist, wer beim Mikroskop sitzt, so soll der Dichter eliminiert werden: das Objekt als solches, seine realen Tatsachen sollen sprechen, sonst nichts.“<sup>301</sup>

The idea of eliminating the author to create a sense of objectivity is typical for a naturalistic approach, which was a point of discussion that the introduction to this chapter has also touched upon. This discussion of the nineteenth century naturalistic style shows how Broch tried to support his idea of ‘parallels’ by means of historical examples. However, Broch also suggests that there is a demarcation between science and literature:

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<sup>297</sup> Hermann Broch, „Das Weltbild des Romans,“ *KW* 9/2, 96.

<sup>298</sup> *Ibid.* 97.

<sup>299</sup> *Ibid.* 99.

<sup>300</sup> Helmuth Kiesel, *Geschichte der literarischen Moderne*, 20. Stephen D. Downden, *Sympathy for the Abyss*, 8; Helmut Koopmann, *Handbuch des deutschen Romans*, (Düsseldorf: Bagel, 1983), 11-30.

<sup>301</sup> Hermann Broch, „Das Weltbild des Romans,“ *KW* 9/2, 101.

„Inwieweit dies dem Roman oder der Dichtung, etwas im Gegensatz zur Wissenschaft, gelingen mag, werden wir noch zu untersuchen haben.“<sup>302</sup>

Science and literature both deal with the issue of ‘knowledge’ and are based on the same premises, but are not completely identical. Whereas the novel is able to treat a topic in a holistic perspective, science has to use “höchst komplizierter Transpositionsmittel, unter anderem z.B. der Umsetzung in mathematische Formeln.”<sup>303</sup> In a letter to Egon Vietta, Broch states that science is focused on the concrete reality, whereas art is focused on the idea ‘as such’.<sup>304</sup> Despite the shared epistemological groundwork, science and the novel still present their own specific form of knowledge.

#### 4.3.3. The polyhistorical novel & the heritage of J.W. Goethe

This difference between science and literature is an essential part of Broch’s understanding of literature. Among many intellectuals of the 1920s, the dilemma of reconciling rational and irrational knowledge was subject of debate. How can one include irrationality in a theory without rationalizing it? How to deal with irrationality with respect to the irrational essence? It appears that the figure and works of Goethe provided much inspiration to Broch.

Broch argued that within the sciences, there was no room for irrationality, as shown in the analysis of *Die Unbekannte Größe* in chapter two. Irrationality is a central aspect of life, but is not reflected in the sciences. Therefore, Broch favored the form of the novel: a novel is able to combine scientific rationality with the irrationality of everyday life. However, not every type of novel fits this purpose. This purpose demands a very specific kind of novel. When Broch wrote to Daisy Brody in 1930, the wife of Broch’s publisher Daniel Brody, that he wants to clarify the difference between a psychological and an epistemological novel, he is arguing for a new paradigm for the form of the novel. Whereas philosophy at the end of the nineteenth century had to get rid of the influences of ‘psychologismus’, it was also the community of novelists that had to overcome this psychologism, and focus on the ‘erkenntnistheoretischen Roman’ instead.<sup>305</sup> This does not mean that Broch rejects any use of psychological analysis, but he wants to emphasize that it should always be subjected to an epistemological goal.<sup>306</sup>

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<sup>302</sup> Hermann Broch, „Das Weltbild des Romans,“ *KW* 9/2, 96.

<sup>303</sup> Hermann Broch, „Das Weltbild des Romans,“ *KW* 9/2, 102.

<sup>304</sup> “[D]aß die Wissenschaft – und dies sei ihr unendlicher Regressus – bloß dem Konkreten zugewendet sei und so zur Idee sich vortaste, während die Kunst unmittelbar eben an die Idee sich wende.“ Hermann Broch, “Letter to Egon Vietta - 20-04-1936,“ *KW* 13/1, 407.

<sup>305</sup> Hermann Broch, “Letter to Daisy Brody - 16-07-1930,“ *KW* 13/1, 92.

<sup>306</sup> Hermann Broch, “Letter to Daisy Brody - 26-07-1930,“ *KW* 13/1, 96.



The new novel that would be able to combine these several aspects is the polyhistorical novel, according to Broch. Polyhistorical means that a novel should touch upon several aspects of modern life. For example, a novel can combine a love story with reflections on politics, society, or science. The combination of these different stories should account for a more accurate representation of modern life. Steinecke describes Broch's polyhistorical ambition as follows: „Der polyhistorischen Roman will Spiegel und Deutung seiner Epoche sein, indem er, mit starker Tendenz zur Verwissenschaftlichung, ihr Wesen in einer Totalität der Stoffe bei Vermischung aller dichterischen Formen in einer rationale Gesamtarchitektonik zu erfassen sucht.“<sup>307</sup> Steinecke identified the following key elements of the polyhistorical novel: a totality of content, form, and presentation; a strongly reflective character; and a merge of science and literature.<sup>308</sup>

This idea of a polyhistorical novel was a reaction to modern tendencies, but was at the same time presented as part of being in line with the tradition. For Broch, it was J.W. Goethe who was the first to experiment with the idea of a polyhistorical novel with his *Wilhelm Meisters Wanderjahre* (1821), and it was James Joyce who most accurately understood this task in the early-twentieth century. In his letter to Egon Vietta, Broch explicitly states that he attributes his 'Totalitäts-Begriff' to Goethe, when he wants to justify his philosophical essay in *Die Schlafwandler*.<sup>309</sup>

Several scholars, such as Leppmann and Durzak, touch upon this relation between Broch and Goethe. Leppmann argues that Broch used Goethean motives and references in his work.<sup>310</sup> Furthermore, Leppmann suggests that Broch was mostly interested in Goethe, instead of his contemporaries such as Kafka and Joyce.<sup>311</sup> Durzak, on the contrary, notes that in comparison with Broch's discussion of modern novelists, Broch pays relatively little attention to more classical figures such as Goethe and Schiller in his essay.<sup>312</sup> Despite these contradictory analyses among scholars, it is still remarkable how important Goethe is in Broch's essays, although it is indeed correct that he is not mentioned very often. For example, Durzak noted that whenever Broch discusses *Faust* or *Wilhelm Meister*, it is always from a strong 'Brochean' perspective:

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<sup>307</sup> Hartmut Steinecke, *Hermann Broch und der polyhistorische Roman*, 10.

<sup>308</sup> Ibid. 50 – 77.

<sup>309</sup> Hermann Broch, „Letter to Egon Vietta - 20-04-1936,“ *KW 13/1*, 407.

<sup>310</sup> Wolfgang Leppmann, "Zum Goethebild bei Robert Musil, Hermann Broch und Ernst Jünger." *Monatshefte* 54 (4) (1962), 151.

<sup>311</sup> Wolfgang Leppmann, "Zum Goethebild bei Robert Musil, Hermann Broch und Ernst Jünger,“ 149.

<sup>312</sup> Manfred Durzak, *Dichter und Seine Zeit*, 35.

“Aber auffällig ist bereits hier, daß *Faust* und *Wilhelm Meister* unter einer sehr Brochschen Perspektive erblickt werden, das Brochs Goethe-Sicht eigentlich bereits auf einer bestimmten Interpretation aufbaut.“<sup>313</sup>

What is interesting about Broch's interpretation of Goethe, is that it much resembles the manner in which he discusses James Joyce: he tries to relate their works to his own ideas, namely the idea of a polyhistorical novel. From this perspective, it is interesting to have a look at Broch's discussion of Goethe in his essay *Neue Religiöse Dichtung?*, which was published in 1933. Not only does Broch sketch Goethe's work as 'Dichtung der Totalität', he also comments on Goethe's heritage:

“Es war von der Nach-Goetheschien Zeit weder zu verlangen noch zu erwarten, daß sie das Erbe des Genies antrete. Die Goethesche Aufgabe war vorhanden, aber sie war keine Rezeptur, und die Zeit war überhaupt nicht imstande, sie zu erkennen, denn das Genie hatte sie übersprungen und war hundert Jahre vorausgeeilt. Und wenn heute die Erbverpflichtung für den Geist auftritt, so geschieht dies sicherlich nicht in Besinnung auf Goethe, sondern weil die eigene Logik der Zeit, freilich von Goethe vorausgeahnt, es verlangt.“<sup>314</sup>

In short, Broch suggests that whereas James Joyce's reception faced a lag of several years, Goethe's approach took almost 100 years to be fully appreciated. It was not until the early decades of the twentieth century that the Goethean novel would become fashionable again, in Broch's view. It is important to emphasize that it is not about the reception of the actual works of Goethe, but about his ideas about the novel. Broch noted a tendency towards a more 'Goethian' novel among his colleagues. Scheunemann argues that Broch felt the responsibility to continue the Goethian tradition, and fashioned himself with Goethe's heritage.<sup>315</sup> This shows that Broch actively tried to relate the Goethean tradition to himself and his era.

#### 4.3.4. Broch on his contemporaries: the place of science in the modern novel

As the introduction to this chapter showed, Broch was not the only novelist who struggled with an accurate representation of modern life. It is argued in research on Musil that his literary work was an extension of his academic interest: to find a rational method that is

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<sup>313</sup> Manfred Durzak, *Dichter und Seine Zeit*, 41.

<sup>314</sup> Hermann Broch, „Neue Religiöse Dichtung?“, *KW* 9/2, 56.

<sup>315</sup> Dietrich Scheunemann, *Romankrise*, 154; 159.

applicable to daily life.<sup>316</sup> Despite Broch's general admiration for Musil's *Mann ohne Eigenschaften*, it is an example of a failed approach to irrational elements for Broch. Broch understands Musil's novel as an attempt to make the irrational harmless, as Musil tried to catch it 'ins rationale Netz'.<sup>317</sup> This section will show that this is typical for Broch's attitude towards his contemporaries. In Broch's view, other novelists shared this feeling for a polyhistorical oriented novel, but they fell short according to Broch's criteria. *Der Mann ohne Eigenschaften* is only one of the several books that Broch criticized. Broch holds the book as a very important book, as he sent it to his English translators to stimulate the reception of Musil in England. However, Broch did not fully agree with Musil's literary method:<sup>318</sup>

“Ich muß sagen, daß ich Musils Methode als abseitig empfinde – sie ist sozusagen das rationale Gegenstück zu Joyce und seiner Methode -, und das ich wenig Perspektiven für die dichterische Ausdrucksmöglichkeit in Weiterverfolgung dieser Methode sehe.“<sup>319</sup>

Broch argues that despite Musil's scientific background, Musil did not succeed to integrate 'productive science' into the novel.<sup>320</sup> Musil only used parts of science by means of 'Bildungselemente', which is an approach that Broch strongly opposes. Musil is not the only one who fails to integrate science in a proper way, in Broch's reflections. He is among Andre Gidé, Thomas Mann, and Aldous Huxley:

“So sehr Gidé, Musil, der Zauberberg, in letzter Derivation Huxley als Symptome des kommenden polyhistorischen Romans auch zu werten sind, so sehr finden Sie bei allen diesen die fürchterliche Einrichtung der ‚gebildeten‘ Rede um den Polyhistorismus unterbringen zu können. Bei den meisten dieser Autoren steht die Wissenschaft, steht die Bildung wie ein kristallener Block neben ihrem eigentlichen Geschäft, und sie brechen einmal dieses Stückchen, ein andermal jenes Stückchen davon ab, um ihre Erzählung damit aufzuputzen. Musils Methode wird allerdings in gewissem Sinne wieder legitim – aber das führt zu weit; zu sagen ist bloß noch, das der Polyhistorismus Joyces auf ein andere Blatt gehört. Immerhin sehen Sie bei Joyce *im Gegensatz zu allen anderen!* die Tendenz, das Rational-Intellektuelle vom Psychischen abzutrennen, den

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<sup>316</sup> Cf. Allen Thiher, *Fiction refracts science*, 67 & p. 77.

<sup>317</sup> Hermann Broch, „Das Weltbild des Romans,“ *KW* 9/2, 112.

<sup>318</sup> Hermann Broch, „Letter to Willa Muir - 19-07-1931,“ *KW* 13/1, 143; „Letter to Daniel Brody - 25-07-1931,“ *KW* 13/1, 146.

<sup>319</sup> Hermann Broch, „Letter to Willa Muir - 19-07-1931,“ *KW* 13/1, 143.

<sup>320</sup> Hermann Broch, „Letter to Willa Muir - 03-08-1931,“ *KW* 13/1, 148.

Romanfluß aufzuheben und eine völlig andere Betrachtungsweise einzuschieben. Joyce hat mit dem Bildungs-Unwesen der anderen nichts zu tun – aber weder seine Methode, noch seine souveräne Virtuosität sind nachzuahmen, ganz einfach, weil es einmalig ist.“<sup>321</sup>

This quotation touches upon two important points: the first is Broch’s critical reflection of his contemporaries, the second is, again, an appraisal of James Joyce’s achievement. Broch’s criticism of other authors is that these authors use science in a superficial manner. Science in modern novels is reduced to ‘aufputzung’, as it is only included in the novel to make the novel look more sophisticated.<sup>322</sup> It summarizes several of the elements that were noted above, as Broch again tries to distance himself from a psychological novel, and proclaim the polyhistorical novel. As Broch refers now more explicitly to the actual effectuation of polyhistorical ideas, Joyce is more strongly emphasized as being an exception instead of a representation.

Broch provided a more elaborate review of his contemporaries in his essay *Das Unmittelbare in Philosophie und Dichtung* (1932). A concrete example Broch provides is the case of André Gide, who used his characters as spokespersons for recent scientific findings. Broch criticizes this method of presentation, because it solely focuses on scientific content, and ignores the form or method.<sup>323</sup> Alexander Nebrig points out that this is somewhat hypocritical, as the main characters of *Die Unbekannte Größe* are scientists, and the narrator of *Die Schlafwandler* is officially called dr. Phil. Bertrand Müller, which at least implies an academic background.<sup>324</sup>

Broch is more generous towards Thomas Mann’s *Der Zauberberg*, as science has a ‘Bildungsfunktion’ within this novel, in contrast to Gidé’s approach: “Wo dies nicht der Fall ist, wo wie bei Gidé die Neurosenlehre bloß als Gesprächsthema eingeflochten wird, wirkt sie sinnlos.“<sup>325</sup> Furthermore, Mann integrated an epistemological perspective in almost every chapter, which adds to the polyhistorical value, although Mann still lacks a fundamental polyhistorical structure. Therefore, Broch remains critical on Mann.<sup>326</sup>

This difference is emphasized in his comment about Joyce: Joyce is the only one who

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<sup>321</sup> Hermann Broch, „Letter to Daniel Brody - 05-08-1931 KW 13/1, 151.

<sup>322</sup> See also: Hermann Broch, „Letter to Willa Muir - 03-08-1931,“ KW 13/1, 148.

<sup>323</sup> Hermann Broch, „Das Unmittelbare in Philosophie und Dichtung,“ KW 10/1, 185.

<sup>324</sup> Alexander Nebrig, *Disziplinäre Dichtung: Philologische Bildung und Deutsche Literatur in der ersten Hälfte des 20. Jahrhunderts*, (Berlin: De Gruyter, 2013), 297.

<sup>325</sup> Hermann Broch, „Das Unmittelbare in Philosophie und Dichtung,“ KW 10/1, 186.

<sup>326</sup> Ibid. 185 – 186.

understands that the rational-intellectual observations should not be mixed up with psychological observations, in the view of Broch.<sup>327</sup> These reflections on contemporary authors, and especially James Joyce, should be understood as methods of self-representation. Through his reviews of other novels, Broch reflects upon his own methodology. As shown in the first section of this chapter, Broch was highly enthusiastic about James Joyce, to say the least. Broch understands his own novel, *Die Schlafwandler*, as strongly polyhistorical, as the 'philosophical' chapters are connected to all the other chapters. Therefore, these reflections are not mere decoration, but fit within the overarching architecture of the novel. Broch describes the structure of *Die Schlafwandler* as follows:

“[D]iese rationale Sinnggebung des Ganzen, zusammen mit den vielen rein dichterischen Sinnggebungen auf den anderen Schichten, schließt es aus, daß das ‚Wissenschaftliche‘ als kristallener Block *neben* dem Roman steht; es *entsteht* vielmehr fortlaufend aus dem Roman selber (...).“<sup>328</sup>

When Broch tried to convince his publisher Daniel Brody of the importance of the incorporation of the philosophical essay in *Die Schlafwandler*, he suggested that the time is right for such a literary experiment: “[D]aß eben dieses Wagnis jetzt gewagt werden kann, gewagt werden soll, gewagt werden muß, *weil die Zeit dafür reif ist*.“<sup>329</sup> Broch concluded that “[D]ie Zeit des polyhistorischen Roman ist angebrochen.“<sup>330</sup>

#### 4.4. Concluding Remarks

This chapter started with the question about Broch's own view on the relation between science and literature, within the context of the *Krisis des Romans* in the 1920s and 1930s. Although there are no specific correspondences between Broch and other novelists on this topic, it is clear that Broch noticed a certain development in literature and reflected on this development with regards to his own theory of the novel. It was suggested that Broch might have worked on a coherent theory of the modern novel, but never published it. Despite this lack of a coherent and definitive publication, it turns out to be possible to sketch the outlines of what might have been Broch's theory of the novel. Whereas the previous chapters have

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<sup>327</sup> Hermann Broch, „Das Unmittelbare in Philosophie und Dichtung,“ *KW* 10/1, 187 – 188.

<sup>328</sup> Hermann Broch, „Letter to Daniel Brody - 05-08-1931,“ *KW* 13/1, 152.

<sup>329</sup> *Ibid.* 150.

<sup>330</sup> *Ibid.* 151.

shown that Broch's novels can be fruitfully interpreted from the perspective of history of science, this chapter tried to transcend these discussions. This chapter has shown *why* Broch thought that he had to incorporate references to scientific debates. In an over-rationalized and specialized society and academic community, only the novel was left as a medium that could provide knowledge about reality that transcended positivistic science. The modern novel provided the opportunity to understand, reflect, and transcend the issues that intellectuals dealt with in the 1920s and 1930s.

Several methodologies to conduct research on the relation between science and literature were presented in chapter one and two. Some of them saw the novel as tool that could absorb and represent modern science, others have proposed that the translated knowledge in the novel should be understood as equally important from a cultural perspective. All of these approaches rely on methodologies that prioritize the interpretation of the scholar. This chapter has shown that for an understanding of the relation between science and literature, one should also take the reflections of the actors themselves into account.

This chapter has shown that the novelists discussed the manner in which the novel should represent reality. A stable presentation of modern life would not do justice to the complexity and fragmentation. This is also touched upon in Döblin's essay, who discusses the role of the author. It is this discussion that relates to Broch's analysis of the role of the observer in the theory of relativity, and this analysis should therefore not directly be interpreted as an attempt to translate science into the novel. Broch also used scientific examples to sketch the style of the nineteenth-century novel. It is therefore clear that science has an important function in Broch's reflections on literary theories. Broch propagates his idea of the polyhistorical novel mostly by means of critique on the use of science by other novelists.

Broch's view on science and literature is therefore more complicated than some scholars have suggested. This also goes for the status of science and literature. Whereas the phrase 'Zweige eines einzigen Stammes' can be interpreted in the sense that science and literature are simply the two sides of the same coin, Broch explicitly rejected this line of thought. As shown, Broch insisted that science and literature remained different from each other, despite their shared source. What the word 'Stammes' refers to, is the suggestion that both twigs have to reflect the same epistemological foundation. This recalls the idea of a 'Zeitgeist' and 'Stil des Epochen', which was subject of chapter three. The difference between science and literature, for Broch, was the idea that the novel could transcend concrete reality.

In his attempt to sketch his ideas on the modern novel, Broch's reviews of other

novelists turned out to be very helpful, most explicitly those on James Joyce and Goethe. Concept such as 'Zeitgerechtheit' and the relation between modern physics and modern literature became more clear, which were key elements of Broch's justification for the modern novel. This justification was founded in the idea that literature could do what science and philosophy cannot, namely reflect upon modernity in a manner that outreached the methodological possibilities of positivistic science.

## Chapter 5 – Concluding Remarks

This last chapter will discuss the answer to the main research question: In the first section, outcomes of this research will be presented through a short recapitulation and discussion of the sub questions. Thereafter, the second section aims to transcend the specific research questions of this thesis, and connect the outcomes to more general themes that reflect the dilemmas of modernity in the early twentieth century. Themes that will be reflected upon are the relevance of figures such as James Joyce and J.W. Goethe and the complex discussion about rational and irrational elements in modern society. The last two sections will reflect upon several methodological decisions that have been made throughout this thesis, and on the possibilities of future research.

### 5.1. Research Outcomes

In the introduction the following research question was formulated:

“How did Hermann Broch reflect upon the relation between science and literature in *Die Unbekannte Größe* (1933), *Die Schlafwandler* (1931), and his essays, and how does this relate to the intellectual debates in the 1910s and 1920s in the German speaking countries?”

This section will discuss whether this question is answered satisfactorily throughout this thesis, which also serves as a summary of this thesis. The three sub questions will be discussed first, which precludes the discussion about the main research question.

#### 5.1.1. Broch’s relation to scientific discussions of the 1910s and 1920s: *Die Unbekannte Größe*

The first sub question, which was the subject of chapter two, is about Broch’s relation to scientific discussions of the 1910s and 1920s and how Broch touched upon these debates in *Die Unbekannte Größe* (1933). As shown in chapter two, Broch’s scientific background and network of scientists is an important framework for scholars to interpret Broch’s novel *Die Unbekannte Größe* in a manner that should account for Broch’s scientific qualities. This chapter served a twofold goal: it gives insight into the relation between the work of Broch and scientific discussions, and into the most prominent research methodologies that are used in this type of research. The first is necessary for the primary research aims, the second for the structure of this thesis.

Scholars argue that Broch’s knowledge of mathematics played an important role in the



narrative of *Die Unbekannte Größe*, together with some slight references to developments in physics. His novel is not only a representation of historical debates, but also an attempt to add to these debates by establishing a rather mystical position through the figure of Richard Hieck. This shows that Broch related to science in both an active and passive manner, as he was able to present the discussion, but also tried to add to the discussion. The relation between science and literature in Broch's work is therefore described as one of exchange: Broch's knowledge of the content of physics and mathematics is translated into the narrative of *Die Unbekannte Größe*. However, it is exactly the status of Broch's knowledge that remains topic of debated: some scholars argue that Broch tried to devise a new mathematical, physical, or epistemological position, others argue that Broch only translated existing debates into his novel.

As noted in the introduction, many scholars tend to historicize concepts such as literature and science, but fail to historicize the idea of a relation between the two of them. Chapter two is an explicit example of this tendency. The reception- and translation-oriented approach provides interesting insights, but is also merely speculative and arbitrary. However, the suggestion of Broch's aim for an new epistemological position that aimed for 'Totalerkenntnis', the reconciliation of the rational and irrational and science and everyday life, hints towards an engagement in more general cultural and intellectual debates. This suggests that the meaning of Broch's use of science in the novel should not solely be understood on a purely scientific level. New insights can only be found by examining Broch's position within the debates that discussed exactly the *nature* of the relation between the particular elements of society and the general developments.

#### 5.1.2: Broch's relation to cultural and intellectual debates of the 1910s and 1920s: *Die Schlafwandler*

Chapter two has shown the limitations of this reception-oriented approach: to analyze scientific references in Broch's novel does not answer the question *how* the novel related to scientific discussions, and is therefore methodological unsatisfactorily. In the 1910s and 1920s, precisely the nature of the relation between the particular and the whole was subject of discussion, partly because of the publication of Spengler's *Untergang des Abendlandes*. This book related to questions about the connection between science and culture, in the sense that discussions about science can be understood as a reflection of a broader development. This field of research is identified as the philosophy of history.

Chapter three has shown that Broch was involved in the discussions about philosophy of history and saw his novel *Die Schlafwandler* as an addition to this discussion. Broch reinforced the idea that particular elements in society share a common denominator, which appeared to be in line with Spengler's *Der Untergang des Abendlandes*. Through Broch's critique on *Der Untergang* it became clear that Broch was probably not completely negative about Spengler's project, but that he disagreed on an epistemological and methodological level. Broch applied a theory of values to the history of European thought: every era is characterized by a specific value, which is reflected in all social, political, or scientific aspects. Therefore, modern science and Christian religion do not share specific characteristics because they influence each other, but because they reflect the same fundamental values. The development of values throughout history is characterized by Broch as a deterministic supra-individual logos. This development can be traced through concrete human interaction, but not be influenced by it. *Die Schlafwandler* was explicitly meant as an addition to the debates of the 1910s and 1920s, as it presented a new theory that should account for the interconnectedness of several modern developments.

The analysis of Broch's view on the philosophy of history has provided two insights. The first is that one should be cautious in determining one's position based on their geographical location and personal network. Despite the fact that Broch studied in Vienna and knew several members of the Vienna Circle, he proclaimed a rather atypical Viennese point of view. Whereas the Vienna Circle was oriented on an anti-metaphysical and functional philosophy, Broch held almost an opposite position, which is reflected in his critique on the anti-ornamental view of Loos. The second insight is that the meaning of the concept of 'relation' should not be presupposed in studies on this period, as exactly this concept was at the heart of the debate. Therefore, a discussion about the relation between science and literature should not focus solely on the exchange or translation of knowledge, but also focus on the concept of the relation itself, and how it was debated in the historical period.

### 5.1.3: Broch's relation to the crisis of the novel in the 1920s and 1930s: *Zweige eines einzigen Stammes*

Chapter four has shown how Broch's view on the modern novel recalls his philosophy of history: tracing parallels in order to show a shared style, without claiming any lines of influence, is the only epistemological justified method to make sense of similar developments in a certain time frame. Broch explicitly distanced himself from methods that invoke concepts

such as 'influence' or 'relations'. By means of this approach, Broch subtly avoids Musil's critique: Broch compares the modern novel with modern physics not because of shared *characteristics*, but because of a shared *style*. This formal parallel is fundamental to understand Broch's view on the relation between science and literature. Broch emphasized that the novel was the medium *par excellence* to reflect modern life by means of a reflection upon modern epistemology and values, instead of only absorbing scientific discussions into the novel.

The idea of a reflection on the foundation of a 'Zeitgeist' is conceptualized in Broch's idea of 'Zeitgerechtheit': the demand to reflect a certain era, and to add to the understanding of an era is essential for a true piece of art. His concept of a polyhistorical novel entails the idea of a gathering of different forms, styles, and sources. These two concepts are at the core of Broch's theory of the modern novel. Broch argues for a specific approach to the relation between science and literature, namely one that is focused on parallels instead of influences. Science and literature share a specific style, which should be reflected in the polyhistorical novel. To avoid suggestions about lines of influence, Broch emphasized that the similarities between science and literature should be attributed to their rootedness in the same 'Zeitgeist', and not to exchanges of knowledge or the scientific background of the author. Specific scientific interest may be shown through explicit scientific references, but such an approach would lack a reflexive quality as long as the novel does not also take formal similarities into account.

#### 5.1.4. Towards a synthesis

By means of this approach, this thesis has provided several perspectives on the main research question. The second chapter focused on the importance of scientific discussions for Broch's *Die Unbekannte Größe*, and the third chapter on the importance of philosophical debates for *Die Schlafwandler*. Chapter four presented Broch's own view on the relation between science and literature, which functions as a means to synthesize the insights of chapter two and three. This has indicated a serious gap between the scholarly interpretations of Broch's scientific references and Broch's own view. Whereas scholars presuppose some kind of exchange of knowledge through a dynamic relation between science and literature, Broch explicitly avoided the use of 'exchange' and 'influence'. This shows how the change of perspective has provided new insights.

Taken together, these chapters provide an answer to the research question of this

thesis, namely how to understand Broch's view on the relation between science and literature. First, it can be concluded that Broch was very conscious of the relation between science and literature. Chapter four has shown that Broch noted that this relation is something debatable. Second, Broch also actively engaged in this debate, namely by means of his essays and letters, and indirectly also in his novels. This recalls the hints that were given in chapter two: Broch tried to connect science and literature on a more abstract level in *Die Unbekannte Größe*. Next to Broch's competences and scientific ambitions, his reflections on historical developments seem to be essential to understand his view on the relation between science and literature.

Milan Kundera says that without the history their arts, the work of art loses its meaning.<sup>331</sup> What this study adds to Kundera's conviction, is that the history of the novel should be understood from a broader perspective, and that the history of the novel and the history of science cannot be seen as independent histories. The relation between science and literature should therefore also take a broad definition of science into account. In the case of Broch, his novels included debates about history, philosophy, theology, sociology, and natural sciences. Together, these insights are fundamental to understand Broch's position within the intellectual debate.

Broch's theory of parallels between the development of literature and physics fits within the tendency to relate different aspects of society to each other. For Broch, the development of literature should not only be understood as a parallel to general developments, but literature should also function as the prime medium to show these parallels, and to reflect upon them. Furthermore, his search for an explanatory principle also suggests some affinity with his contemporaries. Many of them tried to explain particular developments through a theory of a general development, being it rationalization, disenchantment, or a morphological theory of the organic development of cultures in general. Broch's literary representation of the disintegration of values fits within this tendency.

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<sup>331</sup> "Taken outside the novel's history, *Ulysses* would be no more than caprice, the incomprehensible extravagance of a madman. Torn away from the history of their various arts, there is not much left to works of art." Milan Kundera, *The Curtain*, 105.

## 5.2. Hermann Broch and the History of Science: Dilemmas of Modernity

This thesis does not only add to the scholarship on Hermann Broch, but also adds to more general themes in the history of science. The early-twentieth century is an era full of contradictions and paradoxes, which are also touched upon in this thesis.<sup>332</sup> The development of the European society into what was understood as ‘modernity’ also aroused a contra-movement, which is often referred to as ‘modernism’. Typical issues that will be discussed in the following sections are the status of rationality and irrationality and the complex relation between the past, the present, and the future.

### 5.2.1. Goethe & Joyce: Self-representation between tradition and modernity

Chapter three sketched the discussion about apocalypses and revolutions in the works of Hermann Broch, which reflects two different perspectives: one that is oriented on the downfall of tradition and one that sees possibilities for a new beginning. This tension between modernity and tradition is also reflected in Broch’s discussion of the modern novel. Broch’s view on the modern novel is presented through his self-representation with mostly Goethe and Joyce. Modernists in general, and Broch in particular, are often framed as artists who wanted to break with the traditional rules and methods. For example Breon Mitchell argues in *James Joyce and The German Novel* that Broch did not care about literary conventions.<sup>333</sup> Judged on a short historical scale, this seems to be a legitimate claim. Broch definitely used *Die Schlafwandler* as a literary experiment. Hannah Arendt for example referred to *Die Schlafwandler* as a ‘literary laboratory’.<sup>334</sup> However, seen from a broader historical time frame, Broch seems to justify his own choices by means of an appeal to the literary tradition. Broch may not show a strong indebtedness to nineteenth-century novelists, but he did often refer to Goethe and James Joyce; novelists from respectively the eighteenth and twentieth century.

In his book *Hermann Broch: Dichter und seine Zeit*, Durzak mentions that when Broch discusses Goethe’s work, it is obvious that it is treated from a ‘Brochschen’ (Brochian)

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<sup>332</sup> Van Lunteren and Hollestelle identify modernity as a concept and period that is full of contradictions in the conclusion of their study of Paul Ehrenfest. Frans van Lunteren and Marijn Hollestelle, “Paul Ehrenfest and the Dilemmas of Modernity,” *Isis* 104 (3) (2013), 532-536.

<sup>333</sup> Breon Mitchell, *James Joyce and the German Novel*, 161.

<sup>334</sup> „The significance of *The Sleepwalkers* trilogy (...) is that it admits the reader to the laboratory of the novelist in the midst of this crisis so that he may watch the transformation of the art-form itself.” Hannah Arendt, ‘The Achievement of Hermann Broch,’ in *The Kenyon Review* 11 (3) (1949), 477.

perspective.<sup>335</sup> Broch's specific interpretation of Goethe, an interpretation that fits remarkably well into his own conception of the polyhistorical novel, combined with Broch's unrelenting appraisal of Goethe and his explicit belief that the Goethean novel resurrected in the 1920s, leads to suggestion that Broch mostly used Goethe in a manner of self-representation.

Daan Wegener shows that associating yourself with Goethe was not an unusual practice among early scientists and intellectuals around the turn of the century. Scientists such as Du Bois-Reymond (1818-1896) and Hermann von Helmholtz (1821-1894) placed themselves in the tradition of Goethe, and the same goes for a novelists such as Thomas Mann.<sup>336</sup> Spengler's comments on the relation between his theory and Goethe's work also recalls this manner of self-representation. Broch's self-representation fits within this tendency among scientists and intellectuals, and therefore reinforces Wegener's sketch of German intellectual culture. This counters Mitchell's suggestion that Broch did not care about the literary conventions. Broch explicitly placed himself within a literary tradition, but only in a tradition that fitted his own convictions and beliefs. Therefore, Broch's appraisal of Goethe should be understood as a manner to historically justify his own theory of the novel.

Next to Goethe, Broch also showed substantial interest in James Joyce's work. In this sense, Broch's self-representation is stretched between two extremes: the tradition of Goethe and James Joyce's modernism. In Broch's view, Joyce should be understood as a descendant of Goethe's literary style. Broch's manner of self-representation is therefore complicated. Not only does it seem to be a bit contradictive, it also invokes some factual problems. From Broch's letters to his publisher Daniel Brody, it becomes clear that Broch wanted to let himself be advertised in relation to James Joyce. However, his publisher feared that the relation to James Joyce could have a negative influence on the selling rates of *Die Schlafwandler*, as *Ulysses* was commonly regarded as being highly unreadable. This does not seem to be compatible with Mitchell's view, as he argues that both the edition of 1927 and 1930 of *Ulysses* were highly successful, both in terms of commercial and critical success.<sup>337</sup> Despite the fact that this success soon declined, *Ulysses* became a hot topic in 1933 in academic and intellectual circles, where Broch was part of. Therefore, regardless of the positive selling rates, it seemed to be

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<sup>335</sup> Durzak, Hermann Broch: Dichter und seine Zeit, 41.

<sup>336</sup> Daan Wegener, *A True Proteus: A history of energy conservation in German science and culture, 1847-1914*, (Utrecht University, 2009), 11-13; 194-202

<sup>337</sup> Breon Mitchell, *James Joyce and the German Novel*, 51; 76. Broch, however, wrote that nine out of ten costumers returned their copy of *Ulysses*. In that sense, selling rates can be misleading. Hermann Broch, „Letter to Rhein-Verlag – 19-07-1930,“ *KW* 13/1, 94; „Letter to Rhein-Verlag – 05-10-1930,“ *KW* 13/1, 104.

common practice to refer to *Ulysses* as something highly abstract and complicated. As Franz Blei noted: "(...) studying *Ulysses* will destroy their courage."<sup>338</sup>

Broch perfectly fits within this image sketched by Blei, as Broch explicitly noted in a letter that he would not have dared to start with *Die Schlafwandler* if he had known about *Ulysses* before.<sup>339</sup> In his effort to reconcile tradition and modernity, Broch does not only remain faithful to his own ideas, as presented in *Die Schlafwandler*, he also represents the dilemmas of modernity. Furthermore, one could suggest that the figures of Goethe and Joyce embodied several important *virtues*, and the discussion about their importance in the early twentieth century can therefore also be understood within the discussion about *scientific persona*.<sup>340</sup> Broch himself definitely used these figures to argue for specific methodologies and approaches to the modern novel. In that sense, one could question how strictly separated *scientific*, *novelistic* or more general *cultural* virtues are, as especially the figure of Goethe was appropriated by people from different backgrounds.

### 5.2.2. Rationality and Irrationality

Another typical dilemma of modernity is the struggle with concepts such as rationality and irrationality. As the irrational aspects of human existence became topic of discussion, it was also discussed how to deal with irrationality in an adequate manner. The lamentations about the over-rationalization of European society went hand in hand with the upswing of research on irrationalism: a rational approach to irrational behavior. Exactly this contradiction is a theme in Broch's novels, but also in his critique on Robert Musil. As discussed in chapter four, Broch criticized Musil for using rational methods to understand the irrational. In *Die Schlafwandler*, the figure of Huguenau represents this tension: radical individualistic rationalism leads to irrational behavior towards other individuals. On the one hand, one could try to understand the irrational by rationalizing it through a scientific approach. On the other hand, one could also try to understand the irrational 'as it is' by means of a method of description, for example in the novel.

Broch dealt with exactly this issue in his work. The 'irreduzible Reste' is a concept that is discussed in chapter two. It reflects Broch's conviction that there will always remain a

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<sup>338</sup> Cited via: Breon Mitchell, *James Joyce and the German Novel*, 76.

<sup>339</sup> Mitchell's chapter on Broch and Joyce also includes the chances Broch made to his trilogy after he had read *Ulysses*. Breon Mitchell, *James Joyce and the German Novel*, 159 – 166.

<sup>340</sup> See for example Daston and Galison's discussion of *scientific persona*. Lorraine Daston and Peter Galison, *Objectivity*, (New York: Zone Books, 2007), 191 – 252.

irreducible part that is ungraspable by means of formal methodology. Broch's discussion of Musil's *Der Mann Ohne Eigenschaften* indicates that Broch was not in favour of the purely rational approach, as he accused Musil for grasping the irrational in a rational framework. Broch, in his turn, tried to present both the rational and irrational in *Die Schlafwandler*. The story of the *Heilsarmeemädchen* functions as the irrational counterpart to the rational approach of the essay on the disintegration of values. The fact that Bertrand is presented as the writer of both storylines adds to the mutual connection of the rational and irrational, but at the same time indicates how Broch struggled to reconcile these concepts.<sup>341</sup>

### 5.3. Methodological Discussion

This section will reflect upon some methodological issues. First, the pros and cons of the decisions to approach this topic as a *members' question* will be discussed. Second, scope and validity of the presented claims is topic of discussion. This section precludes the suggestions for future research, which is the topic of section 5.4.

#### 5.3.1. A switch of perspective: the relation between science and literature as a members' question

One of the key characteristics of this thesis is the new perspective it provides in the debate about the relation between science and literature. Instead of hermeneutical exercises, it focused on Broch's own reflections on the relation between science and literature. Chapter two and three mostly rely on secondary sources to sketch the current state of research, and paved the way for the new perspective presented in chapter four. Therefore, this thesis is a mix of an actor's perspective and analytical observations through secondary sources.

A thesis that is completely focused on actor's categories would lack analytical power, but an exclusively discursive approach to this debate is unsatisfactorily in terms of historical evidence. Therefore, this thesis tries to add to both disciplines, by showing that a historical approach to a literary author both adds to the knowledge of the intellectual climate and to the ideas about the relation between science and literature. This thesis does therefore not try to prove the methodology of literary scholars wrong, but only claims that a historical perspective can provide new insights. It creates the opportunity for reflection upon disciplinary methodological presumptions, and tries to understand the content of the novel within the

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<sup>341</sup> Graham Bartram and Philip Payne, "Apocalypse and utopia in the Austrian novel of the 1930s," 99.



historical debate.

This focus on the perspective of Broch also has some problematic side effects, both on the level of analysis and translation. The translation of concepts such as 'Stil des Epochen' and 'Wirklichkeitsformungen' to more general concepts such as 'epistemological premises' is justified by the principle of clarity. Broch himself did not claim that he had provided a coherent theory, but this thesis is an attempt to sketch the outlines of what could be understood as Broch's theory. Therefore, analytical generalizations sometimes gain priority over strict actor's categories. Another central concept is that of 'Zeitgeist'. This concept stems from romantic philosophy and was used by historians in the nineteenth century. For the sake of clarity, it is important to note that this idea of a 'Zeitgeist' is not used as an explanatory concept. On the contrary, it is only used as a so-called actor's category. The concept of 'Zeitgeist' is only used to get a better understanding of the intellectual debates.

Although this historical perspective on the relation between science and literature provides a great deal of new insights, it also has a negative side effect, namely on the level of historiographical reflection. As this type of research is seldom applied to modern novelists, it is difficult to formulate a more general view on the relation between science and literature throughout the twentieth century, which makes it difficult to analyze Broch's position. To what extent Broch reflects a continuation or a break with the past, or functioned as an inspiration to other novelists, remains a question for future research.

### 5.3.2. Scope & Validity

These methodological reflections also relate to more general issues regarding the scope and validity of this research, namely in terms of time, actors, context, and topics. As this research should be considered as a 'history of a problem', namely the relation between science and literature, it took a relatively broad scope, namely the period from roughly 1910 until 1935. This period entails Broch's switch from the manufactory to the university, and his shift towards a literary career. However, these developments are not treated in a chronological order, but rather thematically. Broch's literary work between 1930 and 1935 is understood within the context of important discussions between 1910 and 1935, namely the foundational debate in mathematics, the new developments in physics, the crisis of the novel, and Spengler's *Untergang*. With a smaller scope, it would not have been possible to understand that these discussions are central to understand the crisis of the novel. One can

also choose to discuss the crisis of the novel solely within the context of the 1930s, but such an approach would ignore the historical roots form this discussion.

Another characteristic of this thesis is the absence of the political situation of the 1930s. The main reason for the absence of the political situation is that Broch seldom refers to the political situation in his discussions about the modern novel. However, on a more broader level, one could suggest that the discussion about the 'Daseinsgerechtigkeit' of the modern novel related to the lack of impact the novels seem to have on political reality. In this sense, the scope of time goes hand in hand with the scope of context: this thesis is focused on the discussion about a specific problem, not on the role of this discussion in relation to the 1930s in general. Only specific intellectual discussions are connected to each other in this thesis.

For a more comprehensive view on the crisis of the novel, it would be preferable to extensively discuss other involved novelists, such as Döblin and Musil. This, of course, is impossible within the scope of this thesis. This thesis tries to overcome this problem by explicitly referring to the involvement of these other authors. The similarities and differences between these novelists are regarded as fruitful starting points for further research.

#### 5.4. Future Research

This thesis has shown that one cannot rely on monodisciplinary methods to get an adequate understanding of the intellectual discussions from the 1910s until the 1930s. A solely literary perspective tends to reflect contemporary disciplinary boundaries instead of those of the historical situation.

As the sections above already indicated, this research has opened up a variety of future research questions. One of them is the question regarding the use of Goethe and Joyce as methods of self-representation. The idea of *scientific persona* has become a popular topic in recent years, which discusses the ideal types and characteristics of scientists throughout history. One could ask to what extent these kind of idealizations also apply to novelists who aim to work on a project that should encompass all kind of knowledge ('Totalerkenntnis'). It would be interesting to compare ideal types of scientists with those of novelists. What are the key similarities and differences regarding the moral and epistemological virtues between modern novelists and scientists?

Furthermore, it would be interesting to connect the perspective of different writers to Broch's perspective. Although Broch had the most interesting background in terms of variation, he was definitely not an exception in his era. Both Musil and Canetti, for example,

share the scientific background, and even succeeded to complete a dissertation. Due to limitations of time and in favour of coherence, only Broch's stance towards the debate among novelists is discussed, but Musil, Mann, or Canetti are not treated in a similar manner. For a more extensive understanding of this typical intellectual climate, it would be interesting to see to what extent Broch is representative for this group of modernistic novelists with a specific interest in science and its relation to literature. In addition, Broch's self-representation is only touched upon in relation to discussions about science and literature. For a more coherent and representative understanding, one could also take a more general approach to Broch's understanding of his identity, for example by taking his *Psychische Selbstbiographie* (1942) into account. Moreover, this thesis does also not account for a specific development in Broch's thought from the 1910s until the 1930s, as it is much more focused on themes rather than on the intellectual biography of Broch. Throughout this thesis, Broch's identity is presented as fluid and versatile, mostly with regards to the years between 1925 and 1935. As Broch also got a position at the University of Yale, there is much more to be learned about Broch's understanding of his intellectual identity.

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