

Massimo Salgaro

The History of the Empirical Study of Literature from the Nineteenth to the Twenty-First Century

Abstract: This chapter sketches the history of empirical reading research. Although Theodor Fechner, the father of Empirical Aesthetics, lived in the nineteenth century, and experiments in literary reading had taken place in previous centuries, the beginning of the twentieth century can be considered the birth of empirical studies of literature. By that time, three conditions for the birth of the discipline had already been met: (a) The understanding of aesthetic phenomena, such as literary reading, in psychological terms; (b) the development of proper experimental tools; and (c) the recognition of literary texts as aesthetic objects. In 1914, the term “empirical literary science” (*empirische Literaturwissenschaft*), which is still in use, appeared for the first time in a written document. This chapter describes the evolution of the research field, beginning with its forerunners in the nineteenth century, moving to Robert Chenault Givler’s, Karl Girgensohn’s, and I. A. Richards’ first experiments in literary reading at the beginning of the twentieth century, and finishing in the twenty-first century with the field’s international diffusion, its institutionalization, and the ground-work it has laid for current trends.

Introduction

It is quite possible ... that we will always learn more about human life and human personality from novels than from scientific psychology. (Chomsky 1988, p. 159)

In “Distinction,” surely one of his fundamental works, Pierre Bourdieu condemned the “arrogant theoretician who refuses to sully his hands with empirical trivia and who remains too viscerally attached to the values and profits of Culture to be able to make it an object of science” (Bourdieu, 2013, p. 513). Scholars in the empirical study of literature, attempting to make literature an object of science, have taken Bourdieu’s implicit message as the core task of their methodologies.

Although the empirical study of literature has existed for more than a century, from an historiographic point of view its history has yet to be written. To

date, only a few pieces of this interdisciplinary puzzle, combining aesthetics, experimental psychology, and poetics, have found a place in two German miscellanies (Guthmüller & Klein, 2006; Müller-Tamm et al., 2014). Both volumes focus specifically on empirical research, beginning with German aesthetics: Kant (Guthmüller & Klein, pp. 95–112; 113–141); Georg Theodor Fechner (Guthmüller & Klein, pp. 325–351; Müller-Tamm et al., pp. 170–176); Friedrich Nietzsche (Guthmüller & Klein, pp. 309–325); Aby Warburg (Müller-Tamm et al., pp. 105–169); and Theodor Lipps (Müller-Tamm et al., pp. 45–105). In addition, both miscellanies show that such renowned writers as Hyppolyte Taine, Charles Baudelaire, Émile Zola, Gottfried Benn, and Max Bense found inspiration in the scientific understanding of literature (Guthmüller & Klein, pp. 169–193; 193–217; 403–427; 427–439), and they both take a philosophical and literary perspective on empirical aesthetics, rather than engage in actual experiments in literary reading such as Schmidgen (2014).

The impressive *Geschichte der psychologischen Ästhetik (History of Psychological Aesthetics)*, 1987) by Christian G. Allesch traces the prehistory of psychological aesthetics to ancient Greek philosophy, following its evolution through medieval philosophy, the Enlightenment, and into the twentieth century. The core of this scientific endeavor is Gustav Theodor Fechner (1801–1887), whose late work, *Vorschule der Ästhetik (Introduction to Aesthetics)*, 1876), is considered foundational to psychological aesthetics. In Allesch's panoramic view of the birth of psychological aesthetics, aesthetic and semiotic theories of literary texts deserve little space (pp. 455–462) and experiments in literary reading none at all.

With all of this as background, this chapter fills a gap in scholarship by reconstructing the history of empirical literary reading research at the intersection of aesthetics, literary theory, and experimental psychology. Its focus is on the history of empirical study of literary reading (a) in its chronological continuity; (b) in an interdisciplinary dimension, linking philosophical aesthetics with experimental psychology; (c) in its international dimension; and (d) in its institutionalization. My motivations are also methodological: the experimental sciences have often considered only contemporary research and neglected the historical perspective.

Before 1900: The Theoretical Foundation

The historiography of a research field implies the search for a birth date, i.e., the ascendance of a particular scientific framework, which in this case is the empirical study of literary reading. The birth of a discipline depends on the cir-

cumstances that permitted its emergence, the result of interconnections among historic, economic, scientific, academic, and sometimes biographical factors. The exploration of the constellation that gave birth to a research field always proceeds hand in hand with a precise definition of the research topic.

Thanks to the exploratory work of Henning Schmidgen (2014), we know that experiments in the study of (literary) reading started much longer ago than might be expected. As early as 1803, Johann Christoph Hoffbauer, a philosopher and semiotician, published *Untersuchung über die Krankheiten der Seele und der verwandthen Zustände* (*Analysis of the Diseases of the Soul and Related Conditions*) in which he described the human capacity to read in “75 seconds 900 written characters...In one second our reader is able to make 12 different recognitions” (Schmidgen, p. 29). The kinds of texts Hoffbauer was referring to are unknown, but it is known that experimental work in literary reading is even older than his research.

In 1762, the renowned Swiss philosopher and poet Albrecht von Haller measured the speed of reading of Virgil's *Aeneid* (pp. 30–31). To study the speed of the transmission of neural data in the human body, Haller observed that men could speak up to 1,500 letters per minute while reading the *Aeneid* aloud. Although Haller referred to the reading of a literary text, his focus was not the literariness of the text but the countable parts, i. e., the number of words and syllables and the time it took to read them.

Hoffbauer's and Haller's early scientific attempts certainly displayed an experimental approach to (literary) reading but, as Schmidgen (2014) admitted, they “point at the printed precision of the literary form, not on the emotions conveyed by its contents and meanings” (p. 42). As a matter of fact, these works are not the birth date of the empirical study of literature, because that requires three conceptual and methodological premises: (a) the understanding of aesthetic phenomena in psychological terms; (b) the development of proper experimental tools; and (c) the understanding of literary texts as specific genre and recognition of their status as aesthetic objects.

Aesthetic Phenomena in Psychological Terms. To understand an aesthetic phenomenon in psychological terms means to focus on the psyche of the “consumer” of art which, since the beginning of the twentieth century, has fallen within the domain of psychology. As Gerrig et al. (2011) defined it, “The subject matter of psychology largely consists of the observable behavior of humans” (p. 2). This means that the focus of analysis is not the artistic artefact – the picture, the statue, or the literary text – but observers or readers and their reactions.

In literature, this kind of perspective is currently called an “empirical approach” to differentiate it from theoretical or hermeneutic approaches that fo-

cus on literary texts themselves. But a discussion of empirical studies in literary reading from a historical point of view requires an important *caveat*. What is understood today as “empirical study” is synonymous with experimental study (laboratory and experimental analysis). In fact, “experimental” is a subcategory of “empirical.”¹ In keeping with this notion, Cooperstock (2009, p. 12) stated that “an experiment is an empirical procedure that arbitrates competing models or hypotheses.” The scientific method requires researchers to use experimentation to support or disprove hypotheses or theories and implies that the environment and the instruments used for measuring will depend upon the features of the observed activity.²

When the term “empirical” was used in relation to literature and literary reading before 1900, it meant “with reference to observable facts,” usually in opposition to an abstract, speculative, or normative concept of beauty. The creation of a research field in aesthetics called “empirical,” “psychological,” or “physiological” was a way to extract aesthetics “from the exclusive sphere of competence of philosophy” (Müller-Tamm et al., 2014, p. 13). In this context, empirical aesthetics meant based on “facts” and “experiences” that, after 1900, would fall into the sphere of competence of psychology. Not coincidentally, in 1903, Theodor Lipps appended a subtitle to his *Ästhetik: Grundlegung der Ästhetik* (“Psychologie des Schönen und der Kunst”; “Psychology of Art and Beauty”), corroborating the link between aesthetics and psychology.

Development of Experimental Tools. Experiments are an observation of empirical facts under controlled conditions, which exist mainly in laboratories. The experimental tools common to empirical aesthetics were developed around 1900 in the field of experimental psychology. Only from that point on, with the rise of experimental methods in psychology, did the birth of an empirical study of literature become possible. A lab was created in 1869 at the University of Leipzig, where, starting in 1890, experiments on aesthetic phenomena were run (Boring, 1950, pp. 339 ff). The laboratory was founded by Wilhelm Wundt, whose goal was to “explain mental processes through physiological changes” (Lück & Guski-Leinwand, 2014, p. 63). Wundt and his colleagues constructed

1 The field of empirical applications in literary studies can be much broader than this definition. It can include, among other elements, the instruments of Digital Humanities. Here, I have limited the definition of “empirical” to the instruments used in interdisciplinary work on the frontier between psychology, cognitive sciences, and literary studies; that is, I emphasize instruments used to understand the cognitive and emotional activities of actual literary readers.

2 Experiments might be categorized according to a number of norms and standards in different fields of study. For example, an experiment may be “laboratory” if it is carried out in an artificial context or can be “natural” if it takes place in the real world. The second case is also called “field experimentation.”

devices to measure precisely the reactions of their participants. After the Leipzig experiment, Wundt's disciples created similar laboratories in Zürich, Würzburg, and Siegen (Müller-Tamm et al., 2014, pp. 10–12). A short time later, in 1877, a psychology lab was established in Cambridge, England. Even before 1900, experiments in the perception of colours and forms were already being carried out (Boring, 1950, pp. 459 ff, 488 ff). These tools made it possible to “undermine the opacity of the black box” of the consciousness of the reader (Rieger, 2014, p. 190).

The different labs also used different methods, and sometimes the leading researchers became involved in pugnacious controversies. One of these was the conflict regarding introspection between Karl Bühler and Wilhelm Wundt (Lück & Guski-Leinwand, 2014, pp. 77 ff). Wundt, the founder of the Leipzig laboratory, criticized the experiments of the Würzburg school for their lack of precise description in reports of subjects' inner lives and for the fact that their experiments were impossible to replicate. This controversy was an important forerunner of debates on “quantitative” and “qualitative” methods that still take place today in the empirical study of literary reading: quantitative researchers gather numerical data while members of the qualitative group do not.

For the understanding of a complex and multi-dimensional activity such as literary reading, qualitative methods are as appropriate as quantitative ones (for their differences, see Morse & Richards, 2007). A qualitative method applied to literary research means collecting records of reading experiences. Qualitative observation has been the main method of the Gestalt school, which has been important in the psychology of art (Lück & Guski-Leinwand, 2014, pp. 215 ff). The more complex an activity is – and literary reading is surely among the most complex of intellectual activities – the more the instruments and methods used to understand it must be multidimensional, powerful, and constantly refined.

Specific Genre and their Status as Aesthetic Objects. The third premise for a historical conceptualization is that the empirical study of reading literary texts must account for the specific quality of such texts. In other words, the research has to recognize the aesthetic object as such. According to Fechner's “principle of the aesthetic threshold,” the perception of an aesthetic object goes hand-in-hand with the perception of pleasure (Müller-Tamm, 2014, p. 171). That is, the effect of an aesthetic object depended upon its characteristics but also upon the disposition of readers or observers: their tastes, their familiarity with the stimuli, and so on. At the beginning of the twentieth century, literary theorists suggested a new concept of literary language and a new status for literary texts. Shklovsky (1917/2017) and Mukařovský (1932/1964) proposed that defamiliarization occurred in response to foregrounding – that is, in response to the pho-

netic, semantic, and stylistic features that made literary texts different from everyday language.

With Fechner's studies as a foundation, empirical aestheticians studied artworks in relation to their aesthetic effects of pleasure or displeasure. This was a Copernican revolution in the understanding of aesthetics because it converted beauty from an abstract philosophical concept into an aesthetic experience and a measurable phenomenon.

After 1900, only empirical aesthetics met the three criteria mentioned above. In a historical perspective, however, it is important to consider the aesthetics of the eighteenth and nineteenth centuries, which created the conceptual and scientific premises for the rise of empirical aesthetics.

The Contributions of Gustav Theodor Fechner and Wilhelm Dilthey

An important foundation for the study of the pre-empirical study of literary reading is Sandra Richter's *A History of Poetics* (2010), which reconstructed the evolution of German Poetics from the eighteenth to the twentieth century. As Richter makes clear, poetics (in our current understanding, literary theory) became detached from literary history around 1800 as an ahistorical understanding of literature.

In this evolution, Richter (2010, pp. 129–176) shows that fostering of “*scientification*” of poetics through “pre-empirical and empirical Poetics” could be traced back (at least) to Christian Wolff's rational psychology in 1727 and to Alexander Gottlieb Baumgarten's *Aesthetica* in 1770 (Richter, 2010, p. 3). Indeed, the aesthetics and poetics of the eighteenth century offered a transdisciplinary approach to literature that took into consideration ordinary language as well as the psychological and neurological processes of emotions and their control (Bierbrodt, 2000, pp. 101–125; Müller-Sievers, 1997; Menninghaus, 2009). Several studies showed that the “aesthetics from below” proposed by Fechner had important precursors in philosophy and aesthetics from the eighteenth to the nineteenth century (Guthmüller & Klein, 2006, pp. 47–141).

Allesch considered Fechner the “Galilei of Aesthetics” (Allesch, 1987, p. 305) for his refusal of a normative concept of beauty and his attempts to counterbalance the deductive theories of idealistic aesthetic judgements with empirical findings. Fechner was a multifaceted scholar who studied medicine in Leipzig, received his qualification in physics, and eventually became a professor of physics in 1834. Besides publications in the natural sciences, he pub-

lished literary texts such as *Beweis, daß der Mond aus Jodine besteht* and *Gedichte von Dr. Mises*. In his speculative writings he engaged in philosophical reflection that resulted in vague and general concepts: "All our systems of philosophical aesthetics appear to me like giants on feet of clay" ("*so scheinen mir alle unsre Systeme philosophischer Aesthetik Riesen mit thönernen Füßen*") (Fechner, 1876, p. 4).

In contrast, his "aesthetics from below" (p. 6) proved clearer. He focused on the relationship between approval and disapproval and introduced new distinctions that concerned pleasure and beauty. He suggested six principles in relation to the quality and quantity, form and content of aesthetic objects: (a) the "aesthetic threshold" ("*ästhetische Schwelle*"); (b) "aesthetic assistance" ("*ästhetische Hilfe*"); (c) the "unitary combination of the manifold" ("*einheitliche Verknüpfung des Mannigfaltigen*"); (d) the principles of "truth," "contradictedness," or "unanimity" ("*Wahrheit*," "*Widersprüchlichkeit*" or "*Einstimmigkeit*"); (e) "clarity" ("*Klarheit*"); and (f) the "principle of association" ("*Assoziationsprinzip*") (pp. 49 ff). Fechner also imagined the reactions of the consumers of art to these principles, postulating, for example, that the sensation of ambiguity reduced pleasure. As a result of this theoretical groundwork, Fechner is commonly considered the "Father of Empirical Aesthetics."

In relation to the principle of association, Fechner (1876) underlined the common nature of art and only briefly mentioned poetry (pp. 136 ff). For him, the work of poetry, as the works of Homer and Goethe demonstrated, was to give an emotive depiction of reality. The only experimental works that Fechner quoted – mainly in relation to the golden section (pp. 184 ff) – were in the realm of visual art.

Essential precursors for experimental studies of literary reading can be found even in the literary field. During the eighteenth century in German poetics and in the educational system, a controversy erupted about the nature of literary texts: for some authors, literary texts were no more than an instrument to teach rhetoric, models that could be imitated in writing exercises (Weimar, 2003, pp. 101 ff, p. 148); others considered literary texts to be aesthetic objects meant for the literary reader. The nineteenth century witnessed an attempt at the "de-rhetorication" of literary studies, and the study of literary history and poetics became more and more autonomous realms (p. 102). Following this evolution, the history of literature dealt with the historical rise of literature and its conditions, while poetics sought general laws that could be found in psychological knowledge.

In line with this new direction of poetics in the nineteenth century, Wilhelm Dilthey expressed his aim to rebuild the humanities on the basis of empiricism and psychology. In his *Einleitung in die Geisteswissenschaften* (Introduction to

the Humanities, 1883), he tried to integrate the Humanities and the Natural Sciences into the science of man. He studied physiology, neuropsychology, and psychology, which led to innovative views on literature in his *Die Einbildungskraft des Dichters: Bausteine für eine Poetik* (*The Imagination of the Poet: Elements for a Poetics*) published in 1887. He aimed to establish an empirical and comparative poetics to study the creativity of the poet, who he believed differed from ordinary human beings by virtue of an “enormous vocabulary” and an extraordinary imagination that enriched “images of perception” (*“Einbildungskraft”*) (Dilthey, 1887, p. 342).

In Dilthey's eyes, the poet's psychology differed from that of the mentally ill because the poet had an urge to express experience and, therefore, produced pleasurable objects that were subject to the principles proposed by Fechner (Dilthey, 1887, p. 371). In his psychological poetics, Dilthey broke with idealized images of the poet and poetic creation, as well as with ethical ideals in poetry. Through a causal explanation of “empirical facts,” he wanted to put poetry on a “scientific-psychological” basis (p. 313) so that poetry would be the “the general science of the elements and laws” of literary production (p. 310). Following Dilthey's approach, Moritz Carrière (1817-1895) demanded, in his *Die Poesie* (*Poetry*, 1885) that poetics be considered a life science and that literature be integrated into the complexity of human life. In his scientific work, he criticized philosophical speculation and, taking as a model the natural sciences, built his theories on observation and the collection of data.

A similar approach to poetry was proposed by Richard Maria Werner in his study *Lyrik und Lyriker: Eine Untersuchung* (*Lyrics and Poets: An Investigation*, 1890). Werner aspired to found an “aesthetics on the basis of natural science” (Werner, 1890, p. viii). He aimed to extract the laws of the lyrical experience – laws which, like those in natural science, had to be based on “empirical facts” (*“Tatsachen”*) – from the letters, diaries, and records of authors (p. 21). If correlations between biographical statements and lyrical texts could be observed, then “we may speak about a law in the sense of natural science” (*“dann dürfen wir vielleicht von Gesetz im naturwissenschaftlichen Sinne sprechen,”* p. 22). If poetics wanted to “deserve the appellation of science” (p. 22), moreover, it should not be responsible for the formulation of prescriptive books, but rather for books that analyzed rather than criticized literary works.

The Birth of “Empirical Literary Science” in the Nineteenth Century

Another good example of the “scientification” of literary science in the nineteenth century is Heinrich Viehoff (1804-1886) and his *Die Poetik auf der Grundlage der Erfahrungsseelenkunde* (*Poetics on the Basis of Empirical Psychology*), published posthumously in 1888. For Viehoff, poetics is part of an aesthetics that belonged to “empirical psychology” or “*Erfahrungsseelenlehre*” (Viehoff, 1888, p. 1). The anthropological premise of Viehoff’s aesthetics is that humankind aims at happiness and feelings of pleasure. These feelings are produced by the senses, but transported into the human brain and enriched by reason, other feelings, and experiences. Every feeling has an objective and a subjective side (p. 6): it is objective if something induces a feeling in an individual, and it is subjective when observers become aware of how they perceive the feeling and of whether it fosters the life instinct. Viehoff reflected on how the aesthetic artifact (the object) and the mindset of the observer or reader (the subject) should be formed and structured to maximize the pleasure of aesthetic experience. In his perspective, aesthetic works offer “an ideal picture of the beautiful” (“*Idealbild des Schönen*”) to the viewer or reader. Viehoff remarked that “beauty is contact” between the object and the observing subject (p. 69).

Commenting on a letter by Friedrich Schiller to Alexander von Humboldt, Viehoff (1888) criticized aesthetics’ “lack of a ‘way to the object’” (“*das Fehlen eines ‘Wegs zum Gegenstand hinab’*”; p. 72) that would bring philosophical abstraction to the level of individuality. He took as a model the natural scientist “who derives from observation, analysis and comparison hypotheses that he checks through related phenomena or through experiments” (p. 72). Just as the natural scientist must study natural phenomena, the researcher in aesthetics must study the laws of the works of the genius.

Viehoff (1888) also gave methodological suggestions on how to test reactions to literary texts by “annotating the passages that make one feel addressed” (p. 74) and trying to group them by similarity. Viehoff aimed to introduce empirical methods (e. g., statistics) to the derivation of aesthetic laws. As a professor, he had occasion to test the effects of poems “on a huge number of young people” (p. 74). The aesthetic laws that “gained much confirmation” (“*die probhaftesten*”) were used in his comments on Goethe and Schiller. Viehoff proposed twenty different principles, partly stemming from Fechner, to activate imagination in the field of poetry (p. 174).

Following the same scientific pathway, an almost unknown writer and lecturer, Richard Müller-Freienfels (1882-1942), published a small volume entitled

Poetik (Poetics) in 1914. The book was intended to provide a psychological understanding of poetry and its reception (Müller-Freienfels, 1914, p. iii). From Müller-Freienfels' perspective, as speculative aesthetics "went bankrupt" (p. iii), he wanted to explain styles of poetry from the poets' and the public's psychology (p. vii). Based on the biological knowledge of the time, he could not conceive of poetry as a gift from God. By quoting Schiller and Karl Groos, he indicated his notion that the function of literature was to train human qualities and skills that otherwise would be neglected.

For Müller-Freienfels (1914), style was the "unity of artistic effects" (p. 13), which was made up of four elements: the style of the poet, the content of the text, the art of representation, and the use of language itself (p. 14). Müller-Freienfels considered style from the point of view of the reader or observer. He believed his main task to be the study of reasons for the success of literary works because, as he wrote, their success showed "they have to fit well with the psychology of the audience" (p. 16). Openly referring to Darwin, he tried to understand the survival of genres, or, in Darwinian terms, their "struggle for existence" (*Kämpfe ums Dasein*, p. 16). He baptized this type of research "empirical literary science" (*empirische Literaturwissenschaft*, p. 17). As far as I know, this was the first time that the category of "empirical literary science," which is still in use, appeared in a written document. This neologism again highlighted the fact that the hour of birth of the research field would be dated to the beginning of the twentieth century. Müller-Freienfels' empirical study of literary reading focused on the effectiveness of literary texts, not on abstract aesthetic norms. Empirical research tried to elucidate the reasons for the evolution of the most successful works and the psychological conditions that permitted their creation.

It is interesting that Müller-Freienfels (1914) stressed the concepts of "effectiveness" and "quantification," underlining that "we care about these styles and literary texts that in general have proven their effectiveness" (*Und zwar nehmen wir solche Werke und diejenigen Stilformen vor, die möglichst allgemein ihre ästhetische Wirksamkeit erwiesen haben*, p. 18). Müller-Freienfels clearly tended to classify writers in broader categories. He built his system through such antipodes as poets of "expression and of figuration" (*Ausdrucks- und Gestaltungs-dichter*, pp. 26–27). Poets of expression were writers like J. W. Goethe and Hebbel, who expressed intimate experiences through symbols. Other classifications of writers were optimist vs. pessimist, subjective vs. objective, sensitive vs. active, model writer vs. fantasy writer, and popular poet vs. scholarly poet (pp. 28 ff). Intriguingly, he designed a similar distinction for the readers of poetry: the "teammate" (*Mitspieler*), who re-experienced what was depicted by

putting himself in the character's position, and the "spectator" (*Zuschauer*), who was always conscious of the fictional context and kept a distance (46).

These crucial distinctions seem to anticipate Bertolt Brecht's V-Effekt or estrangement effect. The V-Effekt is a series of dramaturgical techniques that impede the passive enjoyment of a drama by inducing critical and analytical thinking in viewers (Brecht, 1988, pp. 91–100). The distance between the artistic object and the observer calls into play discussion of the aesthetic attitude that was analyzed in historical terms by David Fenner (1996).

Besides his contribution to the theoretical foundation of empirical aesthetics, Müller-Freienfels was, from 1938 to 1942 (together with philosopher and psychologist, Max Dessoir), editor of the first journal of empirical aesthetics: the *Zeitschrift für Ästhetik und allgemeine Kunstwissenschaft* (*Journal for Aesthetics and General Art History*). Nor is it insignificant that he became affiliated with the Nazi party in 1933 and retired prematurely in 1938 because of "Jewish connections" (Düppe, n. d.).

Although Müller-Freienfels stressed the "empirical dimension" of his method, no experimental work is to be found in his insightful poetics. Around 1900, literary studies were born in Germany as a research field with scientific ambitions (Weimar, 2003, pp. 468–484). At that time, *Literaturwissenschaft* was heavily influenced by a psychology that demanded the "scientification" of the methods of literary study. According to Georg Streim (2003), scholars like Dilthey and Werner worked to reconceptualize poetics as an inductive and empirical poetics (p. 150) and to naturalize literary theory (p. 161). These authors were interested in reactions to literary texts and took the natural sciences as a model. It was precisely the tendency to "empiricism" in literary theory that laid the foundation for experimental reading research after 1900. Streim nevertheless accused empirical poetics of failing in its theoretical aims because of a lack of adequate instrumentation and experience in experimental psychology. According to Streim, the psychological instruments of Dilthey and Werner were based on introspection, and their claims could create neither a true inductive science nor empirical, stable, and replicable phenomena (pp. 168–170).

1900-1950: The First Experiments in Literary Reading

Around 1900, a number of literary critics and psychologists, inspired by Darwinism, Fechner's groundbreaking aesthetics, and positivistic thinking, developed a scientific understanding of literary reading. This scientific and cultural climate became the soil for the first experiments in literary reading.

Robert Chenault Givler. The first experiment that fulfilled the three parameters of empirical study of literary reading was published by Robert Chenault Givler in 1915. In his *The Psycho-Physiological Effect of the Elements of Speech in Relation to Poetry*, Givler reported the outcome of experiments he carried out at the laboratory directed by Hugo Münsterberg in Cambridge, England. Münsterberg was a German researcher who had been one of the founding fathers of “Applied Psychology” before moving to Cambridge. Some years earlier, Gertrude Stein had participated in experiments in Münsterberg’s lab (Schmidgen, 2014, pp. 37–38).

In his study, which “[lay] on the borderland between Esthetics (!) and Psychology” (Givler, 1915, p. 1), Givler gave his participants verses or strophes of poems by such well-known poets as Shakespeare, Rossetti, and Keats, and asked them to read the material aloud while keeping time. Givler used 18,000 lines of verse as stimuli for his fifteen experimental participants (p. 130). From his observations, Givler found that short vowels recalled a stronger “motor arousal” and a more intense emotional reaction than longer ones (p. 127). To explain the results of his experiments, he sometimes commented on the poems he used. In one example, he wrote:

Everyone will admit that Byron is a more oratorical poet than Keats, and that there is a power and vigor to Byron’s poetry which is not found in any other English poet. It would seem that the temperamental character of these poets had gotten into these experiments. (p. 62.)

But Givler did not ask his participants to carry out mechanical exercises alone; he also asked them to express their individual impressions of the poems. He recorded their feelings, their sensations of pleasure and displeasure, and the inner images they experienced as they read aloud (pp. 84–85; 86–88; 91–92, etc.). His subjects’ introspection became a crucial factor in the design of his experiment. Thus, Givler made a fundamental methodological contribution by recognizing the active participation of his participants. He anticipated the protocols that were later used by Karl Girgensohn and I. A. Richards and even reported personality traits and demographic details for his fifteen participants (Givler, 1915, pp. 130 ff).

In the late nineteenth and in the beginning of the twentieth century, experimental sciences were confronted with the inaccuracy and inattention of their participants and began to be interested in their subjective impressions. For Schmidgen, Givler’s research highlighted the methodological paradox that characterized experiments in literary reading at that time – they represented neither exact instruments of experimental psychology nor emerging theories on

“Einfühlung” (empathy). Rather, the unreliability and the inattention of participants led experimenters to record their inner feelings and thoughts (Schmidgen, 2014, pp. 42–43). Through introspection and new protocols, they captured their subjects’ inner lives (see Schmidgen, 2005, pp. 205–206; pp. 214–118). In Givler’s study, the dichotomy already existed – typical for empirical aesthetics since its beginning – between objective physiological measures and subjective phenomenological introspection (Müller-Tamm et al., 2014, pp. 14–15), i.e., quantitative and qualitative measures. Givler showed interest, perhaps for the first time in psychology, in the genuine “esthetic consciousness” (Givler, 1915, p. 129) of the participants as they read (i.e., the imaginative potential and emotional power of literary texts).

Karl Girgensohn. Around the same time, in 1921 in Germany, Karl Girgensohn (1875–1925), a Lutheran theologian born in Estonia who had been professor in Greifswald and Leipzig, published a report of his experiments with readers of religious poems. At the beginning of his *Der seelische Aufbau des religiösen Erlebnisses. Eine religionspsychologische Untersuchung auf experimenteller Grundlage* (*An Investigation of Psychology of Religion on Experimental Grounds*, 1921), in which he published the results of experiments he began in 1911, he wondered whether it was even possible to analyze religious experience, which is so “subjective and loose,” from a psychological point of view (Girgensohn, 1921, p. 4). His answer was that one could not investigate the religious experience itself but that one could carry out an analysis of the people having such experiences. What attracted him in experimental psychology, which he had learned in Berlin by attending the courses of such important psychologists as Oswald Külpe, Theodor Lipps, and Carl Stumpf, was “its severe empiricism and its efforts to build all laws on exact observation of facts” (“*strenger Empirismus und ihr Bemühen, alle Gesetze auf exakter Beobachtung von Tatsachen aufzubauen*,” p. 15).

As Girgensohn’s (1921) fourteen participants read poems, their reading times were measured, and they subsequently reported their reading experiences through a subjective evaluation of the poems. The twenty-eight poems Girgensohn used described experiences of faith in God and were written by such canonical authors as Theodor Fontane, Friedrich Nietzsche, Friedrich Hebbel, Joseph von Eichendorff, Friedrich Rückert, and Eduard Mörike. Readers’ comments on the poems were recorded in writing, and Girgensohn included extended extracts of these records in his 700-page book. Although Girgensohn was more interested in the psychology of religion than in aesthetic experience of the literary text, he undoubtedly conducted an empirical form of aesthetics. Girgensohn himself pointed out that the material resulting from his experiments “could have been included in the experimental aesthetics as well as in psychol-

ogy of religion because very often in the protocols the readers' aesthetic experience appeared more than the religious one" (pp. 31–32).

Girgensohn used an experimental method to study the interaction between reader and text that, surprisingly, is still in use today. His original experiment was conducted over a span of ten years because participants were asked to complete many pretests and to participate in several meetings to discuss issues related to their faith.

I. A. Richards. The fact that Givler's experiments were published in 1915 and Girgensohn's in 1921, challenges David West's (2014, 2017) claim that the experiments included by I. A. Richards (1929/2014) in *Practical Criticism: A Study of Literary Judgement* "were the first large-scale experiments in psychology conducted to discover how real readers understand, interpret and evaluate literary texts" (West, 2017, p. 88). "Practical criticism" shifted appreciably in Richards' scientific path from principle to practice, from theory to experiment. In his work, Richards made use of the neurological and psychological paradigms that were available to him: the philosophical psychology of his teacher, James Wood; the stimulus-response psychology of behaviourism, derived from Pavlov; and Sherringtonian neurology (the study of interactions with literary texts; West, 2014, p. 127).

While working as a professor in Cambridge, England, Richards used his undergraduate students as experimental participants for several years (Schmidgen, 2014, pp. 25–26). They were asked to comment freely on four poems. He did not reveal the authors of the poems, which were such recognized "high-brow" poets as Rossetti and John Donne, as well as more "low-brow" poets like Ella Wheeler Wilcox (Richards, 2014, p. 3), but the poems used for the experiments were published in the appendix of Richard's book. Sadly, no information about the number and type of participants is mentioned; we know only that "he had amassed several hundreds of opinions upon particular aspects of poetry" (p. 8). As the students were not required to provide their reports, only 60% of them returned comments (p. 4). Another very significant measure was the approval ratings of the poems Richards used (p. 365). Richards' reactions to his students' comments were mentioned in a letter to his wife. He was shocked at how his students "prefer Mrs. Wilcox to Landor, Hopkins, Belloc, De Quincey and Jeremy Taylor at their very best!" (West, 2014, p. 111). He believed that the poems had intrinsic value and that the readers were wrong not to recognize it. Richards was surprised that university students showed no agreement in their interpretations of a set of poems.

Some seventy years later, Martindale and Dailey (1995) replicated Richards' experiment, using the same material that Richards had used. By adopting a mixed-method approach that combined qualitative and quantitative methods,

they showed that, contrary to Richards' findings, their participants agreed in their interpretations of the poems.

Richards was primarily interested in discovering the motives or mechanisms behind a literary judgement, and his research contained an extensive theory of the misreading of poems. He listed ten difficulties in managing poetic texts: for example, difficulty in making out the plain sense of poetry; difficulty in sensuous apprehension; and difficulty in handling visual imagery elicited by the poems (Richards, 2014, p. 13). After in-depth analyses of the motives for these misinterpretations, he proposed introduction of a new subject in universities: the theory of interpretation and training in reading and interpretation (p. 309).

The National Academy for the Arts in Moscow

The more or less contemporary experiments of Givler, Girgensohn, and Richards show that empirical aesthetics has had an international dimension. This dimension is not limited to Europe and the USA because, in 1921 the National Academy for the Arts (Russian acronym, GACHN), was born in Moscow, where it promoted an interdisciplinary and unifying perspective on the arts and study of the arts (Plotnikov, 2014, pp. 8–9). The institute consisted of philosophical, sociological, and physical-psychological sections and, in the institute's initial stage, its head was the distinguished painter, Wassilij Kandinsky. The point of reference for GACHN was German aesthetics and the science of art, as a paper by Gustav Spet, one of the founders of GACHN, makes clear: "Problems of Modern Aesthetics" (1923) (Plotnikov, 2014, pp. 371–401).

As early as 1912, the first psychological lab had already been built in Moscow using Wilhelm Wundt's laboratory in Leipzig as a model. The goal of the GACHN was not solely scientific, but was also targeted toward cultural and educational policy. Interestingly, part of the work of the institute was devoted to experiments on the consumers of art (Hansen-Löve et al., 2013, pp. 9 ff). The most prominent Russian psychologists of the time, such as Aleksandr Lurja and Lev Vygotsky, worked with the institute (Plotnikov, 2014, p. 311). Their experiments yielded not only reactions to art, but also to the production of art. In studying reactions to art, they focused on the difference between paintings and real-world images, rhythm and space in plastic arts and music, and on audience reactions to theatre (Plotnikov, 2014, pp. 322–323; 353–359; 369; 403) and cinema (Plotnikov, 2014, pp. 331–340; 351–352). Intriguingly, from a theoretical point of view, the institute's scholars proposed a performative perspective on the arts and literature in which the "object" in theatre, film, and rhetoric was

considered to be oriented toward the audience and the emotional impact of art upon the audience (Plotnikov, 2014, pp. 372 ff).

For the sake of historical research on the empirical study of literary reading, Vygotsky's experiments on "aesthetic reactions" at GACHN are the most relevant (Plotnikov, 2014, pp. 385 ff; Čubarov, 2006, pp. 369 ff). For Vygotsky, aesthetic reactions were difficult to grasp because they did not imply sensomotor responses but rather fed imagination and emotion in the observer's or reader's inner world. Vygotsky tried to find a synthesis between Fechner's "aesthetics from below" and his "aesthetics from above":

Aesthetics from above drew its laws and evidence from the "nature of the soul," from metaphysical premises, or from speculative constructions. It took itself for a somewhat special existential category...Aesthetics from below, on the other hand, concerned itself with extraordinarily primitive experiments in order to clarify the most basic aesthetic relationships. (Vygotsky, 1925/1971, p. 10.)

Despite his critical stance toward aesthetics from below, Vygotsky carried out experiments using pneumographic measurements to observe the emotional reactions of participants as they read Ivan Bunin's short story, "The Gentle Breath" (Sasse, 2013, p. 398). These experiments were intended to show the interrelation between breathing and the emotional involvement of the reader:

To determine the importance of the effect produced on our breathing by the language used by the writer, we have made experimental recordings of our breathing while reading excerpts of prose and poetry with different rhythms, in particular while reading Bunin's story...We can determine the emotional effect of a work of literature from the breathing that corresponds to it. When the author makes us breathe in short intervals, he creates a general emotional atmosphere corresponding to a sad and somewhat withdrawn mood. When he makes us exhale all the air we have in our lungs and then take another deep breath to refill them, he creates a completely different emotional mood for our aesthetic reaction. (p. 159)

To carry out these tests, Vygotsky analyzed, in depth, the relationship between material and form, *fabula* and *sujet*, in the story (pp. 150 ff). The analysis of the composition of the story showed that the author wanted to reduce suspense and psychological tension in the reader (p. 155) as well as to further the "destruction of content by form" (p. 156).

Even though the results of this experiment have never been published, Vygotsky's commentary makes clear that they confirmed his thesis:

It is significant, however, that the pneumographic recording made during the reading of the story under discussion shows a *gentle breathing*, which means that we read about the murder, the death, the troubles and the horrors [in "Gentle Breath"] as if every new sen-

tence brought us release from these horrors. Instead of painful tension and suspense, we experience almost pathological lightness. (p. 160.)

Vygotsky's conclusion shows insight into the emotional reactions of the literary reader that are still very up-to-date.

In spite of the loss of Vygotsky's experimental results, his contribution to the methodological reflections of researchers at GACHN deserves to be recognized: he was skeptical about measuring complex reactions, such as those elicited by aesthetic artefacts, through a focus on single elements (e. g., rhythm in language or lines and colours for paintings) (Čubarov, 2006, p. 359 ff; Sasse, 2013, p. 408). Vygotsky stressed three fundamental errors of experimental aesthetics: (a) the correspondence among aesthetic pleasure, aesthetic appraisal, and aesthetic behaviour; (b) the inability to detect the specifics that distinguish aesthetic experience from ordinary experience; (c) the assumption that the complexity of the aesthetic experience can be comprehended as the sum of individual perceptions such as colours, sounds, and lines (p. 18).

At GACHN, a precursor of another empirical method of literature developed – stylometry, the quantitative assessment of literary style that is widespread in current Digital Humanities. It was Boris Jarcho (1889-1942) who introduced “exact literary studies,” meaning the quantitative and statistical investigation of the stylistic, rhetorical, and content-based features of literary texts (Hansen-Löve et al., 2013, pp. 411–426; 442–452).

The international diffusion of empirical research on reading shows that these experiments in literary reading were “of the *Zeitgeist*” and that the birth of the empirical study of literary reading occurred 100 years ago.

1950-2000: Institutionalization

Almost fifty years after these first attempts to understand the aesthetic experience of actual readers, a number of empirical analyses of literary texts appeared in a completely different cultural and scientific context. The scientific projects of Givler, Richards, Girgensohn, and Vygotsky were mostly isolated and carried out by researchers working alone. In the second part of the twentieth-century, empirical reading research began to be more collaborative and structured and aimed at a shared dimension. This collaborative research fostered academic and scientific recognition of empirical studies of literature.

Empirical Study of Literary Reading in Literary Theory after 1950. After 1950, and especially during the 1970s and 1980s, literary theory boomed. Structuralism, New Criticism, Deconstruction, Post-Structuralism, Reader Response

Theories, Gender, and Post-Colonial Studies appeared, to mention the most important, and they controversially discussed the nature and function of literary texts. Thanks in great part to Reader Response Studies – *Rezeptionsästhetik* in German – the role of the literary reader was recognized. Such scholars of the Konstanz school as Wolfgang Iser and Hans-Robert Jauss, along with international scholars such as Umberto Eco and Stanley Fish, were the most prominent representatives of this critical school. In this theory of the nature of the literary reader, empirical and experimental reading research became relevant and nurtured controversies among different critical schools.

Within the structuralist approach, Michael Riffaterre (*Essais de Stylistique Structurale*, 1971) most closely approached the empirical concept of the literary reader. He introduced the concept of the “archireader” (“*archilecteur*,” p. 46), which denoted the average reaction to a literary text of a group of readers and helped in understanding the impact of literary style on the reader. The “archireader is a sum of readers not an average,” Riffaterre wrote (p. 46). The “archireader” was, in Riffaterre’s understanding, a product of the intersection of the reactions of a certain number of readers to the same text-stimulus. It was “just the first phase of a heuristic analysis and doesn’t eliminate the interpretation and the assessment of the value in the hermeneutic phase” (p. 47). For instance, if thirty readers marked the same verses of a poem as emotionally moving, this cumulative reaction was the archireader of the text. Riffaterre himself defined his methodology as semi-empirical.

At that time, researchers in the traditions of semiotic and structuralist studies carried out empirical studies on literary readers. One example came in the final pages of Umberto Eco’s 1979 *Lector in Fabula*. After discussing the role of his model reader, Eco engaged his students at the University of Bologna and the University of Urbino in a reading experiment, asking them to read, summarize, and interpret Alphonse Allais’s novel, *Un Drame bien Parisien*. This experiment produced quantitative data:

Only 4% were unable to capture the contradictions of the story, 40% tried to identify a semiotic mechanism, 20% tried to rationalize in various manners, less than 20% declared themselves totally lost. The rest provided imprecise and incomplete reports. (Eco, 1979, p. 230.)

Despite the limitations of this experiment – the small number of participants, the lack of statistics, and the amount of missing information regarding methodology – the attempt is relevant to literary criticism because it shows one of its major representatives attempting to combine his own theoretical claims with empirical data.

In the chapter “How to Recognize a Poem When You See One” by American literary scholar Stanley Fish in his famous *Is There a Text in This Class?* (Fish, 1980, pp. 322–338), Fish used empirical methods to show that interpreters did not decode poems; they made them. Fish advanced his social-constructivist argument on the nature of literature through an experiment carried out in 1971 while he was teaching under the joint auspices of the Linguistic Institute of America and the English Department of the State University of New York at Buffalo (p. 322). In the first example of Fish’s empirical method, he told a group of students of seventeenth-century English and religious poetry that the following list of names was a poem (p. 323):

Jacobs-Rosenbaum
Levin
Thorne
Hayes
Ohman (?)

The students started to unpack the poem, highlighting significances, looking for latent ambiguities and reporting on them, and working toward an understanding of larger structural patterns in the fake poem. “The first student to speak pointed out that the poem was probably a hieroglyph...It was noted that of the six names in the poem three – Jacobs, Rosenbaum, and Levin – are Hebrew, two – Thorne and Hayes – are Christian, and one – Ohman – is ambiguous” (p. 325).

The unwitting participants in the experiment represented for Fish (1980) an “interpretive community” that followed a preconceived reading “recipe.” Fish found confirmation for his social-constructivist theory of literariness, highlighting the replicability of the (not statistically confirmed) results: “I must report, however, that I have duplicated this experiment any number of times at nine or ten universities in three countries, and the results are always the same” (p. 327). At the same time, another American literary critic, Norman Holland (Holland, 1975/2011), also carried out experiments on literary readers, taking a psychoanalytic point of view. Like Fish, Holland intended to show that it was not the text that was crucial to the literary experience, but rather readers’ identities.

Siegfried S. Schmidt as Founder of the *Empirische Literaturwissenschaft*. Concurrently with Stanley Fish, but from the different angle of sociology, Siegfried S. Schmidt in his *Grundriß der empirischen Literaturwissenschaft (Compendium of Empirical Aesthetics)*, 1980) also proposed a conventionalist concept of literature. Schmidt found inspiration for his model in Niklas Luhmann’s *Systemtheorie* (1984/2012) and in Radical Constructivism. To him, literature was a system of communicative actions constituted by four elements: production, trans-

mission, reception, and elaboration (Schmidt, 1980, pp. 37 ff). In contrast to traditional hermeneutics, empirical research demanded attention not only to the text, but to the “system” of literature in its totality. Schmidt proposed a functional concept of literature that depended upon the approach, motivation, and skills of the reader. Thus, the literary text was imagined as “polyvalent” because it could be understood and experienced by readers in several ways (Schmidt, 1983, p. 28; Köppe & Winko, 2008, p. 295). Like Fish, Schmidt also believed that social conventions or expectations formed the basis for how readers approached and conceived of a literary text; this notion has been opposed by other writers who have focused on the cognitive dimension of literature and on “literariness” (Zwaan, 1993). The discussion of literariness, i. e., the nature of literary experience, has largely dominated discussion and empirical research on literature during the second part of the twentieth century (Salgaro, 2018).

Another German scholar, Norbert Groeben, demanded a “scientification” of literary criticism when he introduced the new paradigm of “empirical literary science” (*empirische Literaturwissenschaft*) (Groeben, 1972). Groeben criticised Iser’s (1976) notion of the “implied reader” as overly abstract (Groeben, 1977, p. 44). In line with Allesch (1987, p. 463) and the Reader Response theories of Hans Robert Jauss and Wolfgang Iser, the study of the “model” or “implied” reader of literary texts had been rooted in the literary text and not in the consciousness and body of the reader. According to Allesch, the exclusion of Reader Response Theory from psychological aesthetics was provoked by Reader Response theorists themselves, who claimed (as Rainer Warning did) that the “empirical study of literary reading falls into the domain of psychology and sociology” (p. 463). According to Allesch, such positions not only widened the gap between natural and human sciences, but also condemned Reader Response Theory to remain a solely theoretical research field.

These lively debates about the literary reader show the attempts of *empirische Literaturwissenschaft* to become a branch or “school” of literary theory in the second half of the twentieth century. These efforts culminated in 1987 with Norbert Groeben’s and Siegfried Schmidt’s creation, in Siegen, of the “International Society for the Empirical Study of Literature” (in German, the *Internationale Gesellschaft für Empirische Literaturwissenschaft* or IGEL).

German scholars of empirical research on literature took a very critical approach to traditional hermeneutics. Because its theories were neither verifiable nor falsifiable and produced no socially relevant knowledge, hermeneutics was not, in their eyes, a real science (Groeben, 1972, p. 167; Schmidt, 1980, p. vi; Klein, 2005). German empirical aesthetics split into two schools: the “Siegen school” around Schmidt, whose approach was more sociological, and the “Heidelberg school” around Norbert Groeben (Köppe & Winko, 2008). In its initial

stage, the major effects of this theoretical framework were felt more on the methodological level than on the experimental one (Steen, 2003). The traditional and hermeneutic traditions largely ignored empirical studies because they found them to be too scientific and incapable of making any contribution to the understanding and interpretation of literary texts (Danneberg & Müller, 1979, pp. 179–181). Even when the German tradition was continued in Munich by such scholars as Willie van Peer, who wrote, with others, the first textbook on empirical literary studies (van Peer et al., 2012), the attempt of *Empirische Literaturwissenschaft* to induce a paradigm shift in literary studies failed (Köppe & Winko, 2008, p. 297).

The Spread of Empirical Study of Literature in an International and Interdisciplinary Dimension. In the course of the second half of the twentieth century, the institutionalization of empirical aesthetics spread outside Europe. In 1965, Daniel E. Berlyne founded the International Association for Empirical Aesthetics, with a special focus on the Visual Arts (Berlyne, 1971, p. vii). Berlyne became well-known for his theories on the “arousal potential” of aesthetic artefacts (p. 81). Based on Berlyne’s pioneering work, empirical aesthetics spread across North American universities. In Toronto, a cognitive-behavioural group grew up around researchers like Gerry Cupchik and the aforementioned Colin Martindale. A cognitive psychology group centered in Memphis, Tennessee (USA), was heavily influenced by Art Graesser, Peter Dixon, and Marisa Bortolussi. Dixon and Bortolussi later moved to Edmonton (Canada) where they formed, together with Don Kuiken and David Miall, the liveliest center for the empirical study of literature at the end of the twentieth and beginning of the twenty-first century. Another hub in the Canadian landscape was established in Toronto by Keith Oatley. Just as had taken place at the end of the nineteenth century, an international wave of Empirical Aesthetics was ushered in, and the Canadian institutions mentioned above were its main means of propulsion. Not coincidentally, Bortolussi and Kuiken both became presidents of the International Society for the Empirical Study of Literature.

In this context, it is useful to see the relation of the evolution of this research field with its institutionalization and to analyze the role of international journals that have offered publication venues for this kind of analysis of literary reading (*SSOL*, *Spiel*, *PACA*, *Poetics*). Transitions in research paradigms are sometimes marked by the advent of new journals, and the first journal for the empirical study of literature, *Poetics*, was founded in 1971 by the Dutch literary researcher, Teun A. van Dijk. van Dijk had played a major role in the discussion of literariness that characterized the second half of the twentieth century (Salgaro, 2018). In 1982, the journal *Spiel* was established at the University of Siegen, where Siegfried Schmidt was active (*Spiel* is an acronym for “Siegener Peri-

odicum zur Internationalen Empirischen Literaturwissenschaft” – the *Siegen Journal for the Empirical Study of Literature*). The history of these first publications shows that the roots of empirical study in Europe grew in the Netherlands and in Germany before spreading to North-America.³

With the decline of literary theory and its energetic controversies, the climate for the empirical study of literary reading also changed. Beginning in the 1990s, empirical studies of reading, and especially of literary reading, found new interest in Cognitive Poetics (Stockwell, 2002). Literary scholars in this field, who did not carry out experiments, integrated knowledge from psychology, neuroscience, and cognitive studies in their analyses of literary phenomena. An example is the work of Suzanne Keen (2007) on empathy or of Lisa Zunshine (2006) on theory of mind. In particular, empathy became a bridge concept between research areas (Sopčák et al., 2016; Pinotti & Salgaro, 2019). The interdisciplinarity implicit in the empirical study of literary reading became, after 2000, a synonym for high quality and innovative research.

Looking back on past centuries in which the institutionalisation and the international spread of the field took place, we can observe a complex and recurrent pattern: the “scientification” of literary theory (Richter, 2010, pp. 291–292). This trend is evident in the psychologizing of literary theory in the late nineteenth century as well as in literary theory of the 1960s and 1970s and in Cognitive Poetics, Biopoetics, and Evolutionary Poetics after 2000. Interestingly, in diverse and distant phases of the history of literary poetics, scholars have demanded a scientifically correct explanation for literary phenomena.

Empirical research on literature is surely one of the most radical attempts to bring together two cultures: the hard experimental sciences and the theory-oriented humanities. This touches on one of the biggest contemporary questions on the status and nature of interdisciplinary research. How does interdisciplinary research, influenced by psychology and neurosciences, affect the theoretical and methodological evolution of literary theory? This also raises the question of whether literary theory “evolves” or if something like “progress” can take place in literary research (Steen, 2003; Groeben, 1977, pp. 1 ff). Conversely, it would be worthwhile to study how traditional hermeneutics has perceived and integrated “scientification” trends into its methodological and theoretical framework (Koespell & Spoerhase, 2008).

³ In our historical sketch on the evolution of this research field, I have mainly focused on the temporal dimension, but this does not imply that a “spatial” perspective would not be possible. For example, it could be fruitful to identify national and cultural differences in the history of empirical reading research (Germany, Russia, Canada, USA, Netherlands, France, Italy) or to outline the institutionalization of the empirical study of literature in various national contexts.

Current Trends and Outlook

In recent years, the empirical study of literature has experienced, especially in Germany, an impressive emphasis: both the “Languages of Emotions” cluster at the FU Berlin (2007-2014) and the “Language and Literature” section of the Max-Planck Institute on Empirical Aesthetics (2012-present) in Frankfurt have focused on the cognitive and affective mechanisms involved in the reading of literary texts. These two institutions have brought together scholars from such different fields as literary theory and criticism, psychology, linguistics, and cognitive neurosciences to study aesthetic reactions to literary texts on the part of actual readers. At first glance, the research carried out in the “Languages of Emotion” cluster and at the Max-Planck Institute may seem to be a white elephant in academic research and literary theory. As is evident in previous chapters, however, this impression should be revised. In fact, the history of the empirical study of literature has important forerunners, especially in Germany.

Most researchers working on the empirical study of literature belong to *IGEL*, which brings this retrospective on the history of empirical research to its close. Groups of hundreds of scholars come to *IGEL* from diverse disciplines in order to focus on the cognitive and emotional aspects of literary reading (igel-society.org). Most of *IGEL*’s researchers are North American or European (universities in the Netherlands and Germany are particularly well represented), and the society publishes a journal, *Scientific Study of Literature* (SSOL), whose adherence to scientific rigor is clear from its title.

According to Gerard Steen, who has studied the birth of *IGEL*, the biannual conference of the association in 1987 in Siegen was like a battle with “a temporary victory of the theory-driven Siegen school of Siegfried Schmidt over the method-driven Cologne school of Norbert Groeben” (Steen, 2003). The tendency toward more method-driven research observed by Gerard Steen in the 1980s and 1990s is still in place. As it was at the beginning of the twentieth century, the start of the twenty-first century has also been crucial for the empirical study of literature. After the “decade of the brain” in the 1990s, a neuroscientific paradigm also entered the understanding of literary reading (Turner & Pöppel, 1983), and the empirical study of literary reading led to development of the “Neurocognitive Poetics Model of literary reading” (NCPM; Jacobs, 2015). The standards of experimentation have changed with the use of such methods as eye tracking, EEG, and fMRI; and physiological measures such as Skin Conductance Response (SCR), goosebumps, and heart rate have become more and more frequent. In very recent times, the notion of the empirical study of litera-

ture has been further challenged by the Digital Humanities, which also experiments with textual material and on readers' reactions to them.

This brief history of *IGEL* shows that the empirical study of literature is multiparadigmatic and interdisciplinary. Gerard Steen described it this way:

Empirical poetics is not just one paradigm, and it can never be one if it relates to such diverse areas of the social sciences as psycholinguistics and anthropology, or cultural sociology and social psychology. Each of these fields has its own paradigm or paradigms, and literary theorists wishing to relate to them engage with different paradigms. This is no surprise and reflects the complexity of literature as an object of study, involving parameters of language, discourse, psychology, sociology, culture, economy, and history, to name only the most obvious ones. (2003, p. 66.)

Just as at the beginning of the twentieth century, when more phenomenological and instrument-driven methods were common in empirical studies of literature, complementary approaches such as Steen has mentioned still characterize the field. Most researchers strive for a combination of qualitative and quantitative methods (Martindale, 2009). As Jacobs commented,

These questions reflect the methodological and theoretical pluralism of this splendid area of research, which is not only a strength, but a necessity given the diversity of epistemic interests of the players and the complexity of their object(s) of scientific inquiry. (Jacobs, 2016, p. 165.)

This description of an open paradigm – that is, a methodological and theoretical pluralism that combines aesthetics and psychology with qualitative and quantitative research and which is in ongoing evolution – may be the best (open) conclusion for this historiographical outline.

References

- Ajouri, P., Mellmann, K., & Rauen, C. (2013). *Empirie in der Literaturwissenschaft*. mentis Verlag. <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=848179>
- Allesche, C. (1987). *Geschichte der psychologischen Ästhetik: Untersuchungen zur historischen Entwicklung eines psychologischen Verständnisses ästhetischer Phänomene*. Hogrefe.
- Barsch, A., Rusch, G., & Viehoff, R. (Eds.). (1994). *Empirische Literaturwissenschaft in der Diskussion* (1. Aufl.). Suhrkamp.
- Berlyne, D. E. (1971). *Aesthetics and psychobiology*. Appleton-Century-Crofts.
- Bierbrodt, J. (2000). *Naturwissenschaft und Ästhetik, 1750–1810*. Königshausen & Neumann.
- Boring, E. G. (1950). *A history of experimental psychology*. D. Appleton-Century.
- Bourdieu, P. (2013). *Distinction: A social critique of the judgement of taste*. Taylor and Francis.

- Brecht, B. (1988). *Brecht on theatre: The development of an aesthetic*. Methuen.
- Carrière, Moritz. (1885). *Asthetik: Die Idee des Schönen und ihre Verwirklichung im Leben und in der Kunst*. F. A. Brockhaus.
- Chomsky, N. (1988). *Language and problems of knowledge: The Managua lectures*. MIT Press.
- Cooperstock, F. (2009). *General relativistic dynamics: Extending Einstein's legacy throughout the universe*. World Scientific.
- Čubarov, I. (2006). Das Projekt einer Synthese von Philosophie, Psychologie und Kunst an der Moskauer Akademie für Kunstwissenschaften (GACHN). In M. Guthmüller & W. Klein (Eds.), *Ästhetik von unten: Empirie und ästhetisches Wissen* (pp. 351–381). Francke.
- Danneberg, L., & Müller, H.-H. (1979). Verwissenschaftlichung der Literaturwissenschaft Ansprüche, Strategien, Resultate. *Zeitschrift Für Allgemeine Wissenschaftstheorie / Journal for General Philosophy of Science*, 10(1), 162–191.
- Dilthey, W. (1883). *Einleitung in die Geisteswissenschaften. Versuch einer Grundlegung für das Studium der Gesellschaft und der Geschichte*. Duncker & Humblot.
- Dilthey, W. (1887). Die Einbildungskraft des Dichters: Bausteine für eine Poetik. In *Philosophische Aufsätze. Eduard Zeller zu seinem fünfzigjährigen Doctor-Jubiläum gewidmet*. (pp. 303–482). Fues.
- Düppe, T. (n. d.). Die Geschichte der Wirtschaftswissenschaften an der Humbolt-Universität zu Berlin. http://hicks.wiwi.hu-berlin.de/history/start.php?type=person&name=M%C3%BCller-Freienfels_Richard (25.08.2020)
- Eco, U. (1979). *Lector in fabula: la cooperazione interpretativa nei testi narrativi*. Bompiani.
- Fechner, G. T. (1876). *Vorschule der Aesthetik*. Breitkopf & Härtel.
- Fenner, D. E. W. (1996). *The aesthetic attitude*. Humanities Press.
- Fish, S. E. (1980). *Is there a text in this class? The authority of interpretive communities*. Harvard UP.
- Gerrig, R., Zimbardo, P., Campbell, A., Cumming, S., & Wilkes, F. (2011). *Psychology and Life eBook*. P. Ed Australia. <http://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=5220584>
- Girgensohn, K. T. (1921). *Der seelische Aufbau des religiösen Erlebens. Eine religionspsychologische Untersuchung auf experimenteller Grundlage*. S. Hirzel.
- Givler, R. C. (1915). *The psycho-physiological effect of the elements of speech in relation to poetry*. Psychological Review.
- Groeben, N. (1972). *Literaturpsychologie: Literaturwissenschaft zwischen Hermeneutik und Empirie*. Kohlhammer.
- Groeben, N. (1977). *Rezeptionsforschung als empirische Literaturwissenschaft: Paradigma durch Methodendiskussion an Untersuchungsbeispielen*. Athenäum Verlag.
- Groeben, N. (1994). Der Paradigma-Anspruch der Empirischen Literaturwissenschaft. In *Empirische Literaturwissenschaft in der Diskussion* (pp. 21–38). Suhrkamp. <http://ub-madoc.bib.uni-mannheim.de/17354>
- Guthmüller, M., & Klein, W. (Eds.). (2006). *Ästhetik von unten: Empirie und ästhetisches Wissen*. Francke.
- Hansen-Löve, A. A., Obermayr, B., & Witte, G. (Eds.). (2013). *Form und Wirkung: phänomenologische und empirische Kunstwissenschaft in der Sowjetunion der 1920er Jahre; [Beiträge der Konferenz 'Die vergessene Akademie. Interdisziplinäre Kunstwissenschaft, phänomenologische und psychologische Ästhetik in Russland 1920–1930' vom 4.–6. Dezember 2009 an der Freien Universität Berlin]*. Fink.

- Holland, N. N. (2011). *The nature of literary response: Five readers reading*. Transaction Publishers.
- Iser, W. (1972). *Der implizite Leser*. Fink.
- Jacobs, A. M. (2015). The scientific study of literary experience: Sampling the state of the art. *Scientific Study of Literature*, 5(2), 139–170. <https://doi.org/10.1075/ssol.5.2.01jac>
- Jacobs, A. M. (2016). The scientific study of literary experience and neuro-behavioral responses to literature. *Scientific Study of Literature*, 6(1), 164–174. <https://doi.org/10.1075/ssol.6.1.08jac>
- Keen, S. (2007). *Empathy and the novel*. Oxford UP.
- Klein, W. (2005). Wie ist eine exakte Wissenschaft von der Literatur möglich? *Zeitschrift für Literaturwissenschaft und Linguistik*, 35(1), 80–100. <https://doi.org/10.1007/BF03379414>
- Koepsell, K., & Spoerhase, C. (2008). Neuroscience and the study of literature. Some thoughts on the possibility of transferring knowledge. *Journal of Literary Theory*, 2, 363–374. <https://doi.org/10.1515/JLT.2008.024>
- Köppe, T., & Winko, S. (2008). Empirische und kognitionswissenschaftliche Ansätze. In T. Köppe & S. Winko (Eds.), *Neuere Literaturtheorien: Eine Einführung* (pp. 293–312). J. B. Metzler. https://doi.org/10.1007/978-3-476-00915-9_14
- Lepper, M., & Müller, H.-H. (Eds.). (2018). *Interdisziplinarität und Disziplinenkonfiguration: Germanistik 1780–1920*. Hirzel.
- Lipps, T. (1903). *Ästhetik: Grundlegung der Ästhetik*. Voss.
- Lück, H. E., & Guski-Leinwand, S. (2014). *Geschichte der Psychologie: Strömungen, Schulen, Entwicklungen*. Kohlhammer.
- Luhmann, N. (2012). *Soziale Systeme: Grundriss einer allgemeinen Theorie*. Suhrkamp.
- Martindale, C. (2009). Response: Psychological foundations of literary theory. *JLT Articles*, 1(2). <https://doi.org/10.1515/JLT.2007.027>
- Martindale, C., & Dailey, A. (1995). I. A. Richards revisited: Do people agree in their interpretations of literature? *Poetics*, 23(4), 299–314. [https://doi.org/10.1016/0304-422X\(94\)00025-2](https://doi.org/10.1016/0304-422X(94)00025-2)
- Menninghaus, W. (2009). ‘Ein Gefühl der Beförderung des Lebens’: Kants Reformulierung des Topos lebhafter Vorstellung. In A. Avanesian (Ed.), *Vita aesthetica: Szenarien ästhetischer Lebendigkeit* (pp. 77–94). Diaphanes.
- Morse, J. M., & Richards, L. (2002). *ReadMe first for a user's guide to qualitative methods*. Sage.
- Mukařovský, J. (1976). *On poetic language*. J. Burbank & P. Steiner (Trans.). Lisse, The Netherlands: Peter de Ridder Press.
- Müller-Freienfels, R. (1914). *Poetik*. Teubner.
- Müller-Sievers, H. (1997). *Self-generation: Biology, philosophy, and literature around 1800*. Stanford UP.
- Müller-Tamm, J. (2014). Ästhetische Schwellen. Zur Rezeption eines experimentalästhetischen Prinzips um 1900. In J. Müller-Tamm, H. Schmidgen, & T. Wilke (Eds.), *Gefühl und Genauigkeit: empirische Ästhetik um 1900* (pp. 169–185). Fink. <https://books.google.de/books?id=Nyz5nAEACAAJ>
- Müller-Tamm, J. (2016). Goethe und Schiller ausgezählt Farbstatistik in der Philologie um 1900. In D. Martin, J. Müller-Tamm, & S. Friedrich (Eds.), *Die Farben der Klassik: Wissenschaft – Ästhetik – Literatur* (pp. 313–325). Wallstein.

- Müller-Tamm, J., Schmidgen, H., & Wilke, T. (Eds.) (2014). *Gefühl und Genauigkeit: Empirische Ästhetik um 1900*. Fink. <https://books.google.de/books?id=Nyz5nAEACAAJ>
- Pasternack, G. (1994). Empirische Literaturwissenschaft und ihre wissenschaftsphilosophischen Voraussetzungen. In A. Barsch, G. Rusch, & R. Viehoff (Eds.), *Empirische Literaturwissenschaft in der Diskussion* (pp. 55–81). Suhrkamp.
- Pinotti, A., & Salgaro, M. (2019). Empathy or empathies? Uncertainties in the interdisciplinary discussion. *Gestalt Theory*, 41(2), 141–158. <https://doi.org/10.2478/gth-2019-0015>
- Plotnikov, N. (2014). *Kunst als Sprache – Sprachen der Kunst. Russische Ästhetik und Kunsttheorie der 1920er Jahre in der europäischen Diskussion*. Meiner.
- Richards, I. A. (2014). *Practical criticism*. Routledge.
- Richter, S. (2010). *A history of poetics: German scholarly aesthetics and poetics in international context, 1770–1960*. De Gruyter.
- Rieger, S. (2014). Parapsychophysik. Die technischen Oberflächen der Emotion. In J. Müller-Tamm, H. Schmidgen, & T. Wilke (Eds.), *Gefühl und Genauigkeit: empirische Ästhetik um 1900* (pp. 185–203). Fink, Wilhelm. <https://books.google.de/books?id=Nyz5nAEACAAJ>
- Riffaterre, M. (1971). *Essais de stylistique structurale*. Flammarion.
- Rosenberg, R. (2001). Die Semantik der Szientifizierung. Die Paradigmen der Sozialgeschichte und des linguistischen Strukturalismus als Modernisierungsangebote an die deutsche Literaturwissenschaft. In Georg & C. Knobloch (Eds.), *Semantischer Umbau der Geisteswissenschaften nach 1933 und 1945*. Winter.
- Rothschuh, K. E. (1953). *Geschichte der Physiologie*. Springer.
- Salgaro, M. (2018). Historical introduction to the special issue on literariness. *Scientific Study of Literature*, 8(1), 6–18. <https://doi.org/10.1075/ssol.00005.sal>
- Sasse, S. (2013). Ästhetische Reaktionen. Lev Vygotskijs künstlerische Reaktologie. In A. A. Hansen-Löve, B. Obermayr, & G. Witte (Eds.), *Form und Wirkung: phänomenologische und empirische Kunstwissenschaft in der Sowjetunion der 1920er Jahre; [Beiträge der Konferenz 'Die vergessene Akademie. Interdisziplinäre Kunstwissenschaft, phänomenologische und psychologische Ästhetik in Russland 1920–1930' vom 4.–6. Dezember 2009 an der Freien Universität Berlin]* (pp. 385–411). Fink.
- Scherer, W. (1888). *Poetik*. Weidmann.
- Schmidgen, H. (2014). Literatur im Labor. Die Entwicklung psycho-physiologischer Praktiken, 1800/1900. In J. Müller-Tamm, H. Schmidgen, & T. Wilke (Eds.), *Gefühl und Genauigkeit: empirische Ästhetik um 1900* (pp. 25–45). Fink.
- Schmidgen, H. (2005). Das Experimentelle und das Pathologische: Zur Geschichte physiologischer Zeitmessungen, 1880–1900. In C. Borck, V. Hess, & H. Schmidgen (Eds.), *Maß und Eigensinn: Studien im Anschluß an Georges Canguilhem* (pp. 197–219). Fink. <https://epub.uni-regensburg.de/27158/>
- Schmidt, S. J. (1980/1991). *Grundriß der Empirischen Literaturwissenschaft*. Suhrkamp Verlag.
- Schmidt, S. J. (1983). The empirical science of literature ESL: A new paradigm. *Poetics*, 12(1), 19–34. [https://doi.org/10.1016/0304-422X\(83\)90003-7](https://doi.org/10.1016/0304-422X(83)90003-7)
- Shklovsky, V. (2017). Art as device. In A. Berlina (Ed.), *Viktor Shklovsky: A reader* (pp. 73–96). Bloomsbury.
- Sopčák, P., Salgaro, M., & Herrmann, J. B. (2016). Transdisciplinary approaches to literature and empathy: A special issue. *Scientific Study of Literature*, 6(1), 2–5. <https://doi.org/10.1075/ssol.6.1.02sop>
- Steen, G. (2003). A historical view of empirical poetics: Trends and possibilities. *Empirical Studies of the Arts*, 21(1), 51–67. <https://doi.org/10.2190/Q28L-WXD1-W3GY-PR2A>

- Stockwell, P. (2002). *Cognitive poetics: An introduction*. Routledge.
- Streim, G. (2003). Introspektion des Schöpferischen. Literaturwissenschaft und Experimentalpsychologie am Ende des 19. Jahrhunderts. Das Projekt der 'empirisch-induktiven' Poetik. *Scientia Poetica. Jahrbuch für Geschichte der Literatur und der Wissenschaften* 7, 148–170.
- Turner, F., & Pöppel, D. (1983). The neural lyre: Poetic meter, the brain and time. *Poetry*, 142 (5), 277–309.
- van Peer, W., Hakemulder, J., & Zyngier, S. (2007). *Muses and measures: Empirical research methods for the humanities*. <https://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=5622409>
- van Peer, W., Hakemulder, J., & Zyngier, S. (2012). *Scientific methods for the humanities*. Benjamins.
- Viehoff, H. (1888). *Die Poetik auf der Grundlage der Erfahrungsseelenlehre in zwei Bänden*. (Vol. 1). Fr. Lintz'schen Buchhandlung.
- Vygotsky, L. S. (1971). The psychology of art (Scripta Technica, Inc., Trans.). MIT Press.
- Weimar, K. (2003). *Geschichte der deutschen Literaturwissenschaft bis zum Ende des 19. Jahrhunderts*. Fink.
- Werner, R. M. (1890). *Lyrik und Lyriker: Eine Untersuchung*. Voss. <http://archive.org/details/lyrikundlyriker00werngoog>
- West, D. (2014). *I. A. Richards and the rise of cognitive stylistics* (NIPPOD). Bloomsbury.
- West, D. (2017). Practical criticism: An early experiment in reader response. *Language and Literature*, 26(2), 88–98. <https://doi.org/10.1177/0963947017704725>
- Wilke, T. (2014). Empirische Ästhetik um 1900. Zur Einführung. In J. Müller-Tamm, H. Schmidgen, & T. Wilke (Eds.), *Gefühl und Genauigkeit: empirische Ästhetik um 1900* (pp. 7–25). Fink. <https://books.google.de/books?id=Nyz5nAEACAAJ>
- Zunshine, L. (2006). *Why we read fiction: Theory of mind and the novel*. Ohio State UP.
- Zwaan, R. A. (1993). *Aspects of literary comprehension: A cognitive approach*. Benjamins.