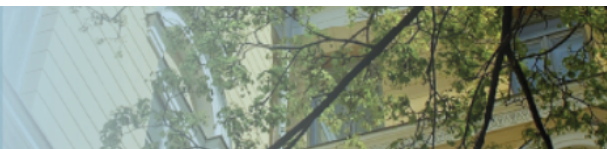


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“Penetrating the Secret of the Real:” Perceptions of the Humanities and the Sciences in the *Weltanschauung* Discourse at the *Fin de Siècle*

In an introduction to a 1911 anthology entitled *Weltanschauung. Philosophy and Religion*, the author bemoans the loss of a unified world view through the continuous subdivision of disciplines. The natural sciences in particular are to blame, the author submits. The nineteenth century saw the rise of the positive sciences and delved into experience as its basis, rejecting metaphysics, especially from the earlier part of the century. Now, at the Turn of the Century, there has been a movement to regain the lost unified view striven for earlier, even utilizing the natural sciences as one basis as well. The above quotation, “penetrating the secret of the real”, is the conclusion demanded by the author, which insinuates a melding of the natural scientific and humanistic perspective, the utilization of humanity’s tools to illuminate in a comprehensive and unified fashion natural scientific discoveries.¹ This anthology is one manifestation of the *Weltanschauung* discourse at the Turn of the Century, but simultaneously is a reflection of the anxiety and apprehension felt by many at this pivotal point in time.

Indeed, the time period around the year 1900, particularly beginning in the 1890s, was marked by a pervasive cultural pessimism brought on by accelerated industrialization, and by the swift advance in new scientific discoveries and their accompanying technological innovations. This phenomenon has been characterized variously as the

crisis or shock of modernization and it signaled to many a loss of cherished, established cultural values and norms. Intellectuals, along with significant segments of the middle class, were especially hard hit by these developments.

The origins of this phenomenon can be seen at mid-century, when science and all of its anticipated potential began to exert a strong influence on society and instilled in it the expectation that it, that is science, would find all the answers, resulting in a unified world view.

“It was the promise of a wholly unified, scientific account of all existence that underlay some of the most aggressively confident ‘materialist’ pronouncements of the 1850s and 1860s, scandalizing to some, exhilarating to others. To the latter the key to the universe seemed only just out of reach and the route to it, physical science and particularly experiment, already laid out.”²

As the century advanced, however, this belief or great hope would prove to be a chimera, since in many respects exactly the opposite occurred: With the increase in knowledge achieved by means of the experimental method and the ever-increasing number of specialties and sub-specialties within the natural sciences, the much hoped for realization of a unified scientific world view grew ever more distant. This apparent “antithesis” of

progress, which paradoxically accompanied the scientific and technological advances, fueled even more uncertainty and added to a sense of crisis and disillusionment.

The search for new meaning and a synthesis of conflicting views becomes the hallmark of the *Weltanschauung* discourse that flourished at the Turn of the Century. Implicit in this discourse is a grappling with the relationship between the humanities and the natural sciences and their points of intersection. First we need to define what is meant by *Weltanschauung* literature. One leading scholar, Horst Thomé, has defined this new text category as “a body of texts that explicitly claims to represent the ‘world view’ of the author in an argumentative fashion. In most instances broad analyses of scientific results are coupled with daring hypotheses, metaphysical theory fragments, autobiographical information, personal statements of belief, and instructions for ethical behavior, contemporary political diagnoses and societal organizational models.”³ This category thus represents a melding of the scientific and the personal/subjective, amassing a variety of information from a range of sources. What however provides the impetus for these works is their pre-occupation with the new scientifically-oriented world. The *Weltanschauung* texts typically contain one central/unifying idea or thought (*leitende Idee*) that then hierarchically subsumes a number of areas of knowledge around it (341). This format, albeit not one consciously followed by its practitioners, allows an author to expound upon a range of topics.

The three authors I have chosen were major contributors to the *Weltanschauung* discourse at the Turn of the Century. They represent three different standpoints or at

least variations of the *fin-de-siècle* debate on the role of the natural sciences and the humanities, as well as their relations to one another. Each arrives at a different conclusion with respect to the natural science/humanities divide around 1900.

Ernst Haeckel (1834-1919) was a well-established and highly respected biologist, initially a professor of anatomy within the medical faculty in Jena before being named Professor of Zoology and joining the philosophy faculty. He was at the same time an ardent Darwin popularizer, as well as a dedicated monist. Monism is any belief system that denies any duality or plurality within reality. The early twentieth-century version of monism, espoused by Haeckel and his supporters, is a form of materialistic monism, since it recognizes matter as the sole reality. At the same time, it attempts to transcend this materialist viewpoint by seeking to unite matter and mind into another, unspecified, yet higher something. Its lack of specificity is a major drawback to this view. Haeckel's main work, *Die Welträthsel (The Riddle of the Universe)* is a clear example of the turn-of-the-century *Weltanschauung* literature.⁴ It is divided into four sections: an anthropological, a psychological, a cosmological and a theological. In the first part, the anthropological section, Haeckel critiques the absence of any meaningful science curriculum in the schools, but also makes the following pronouncement with respect to the humanities: "The natural sciences, which are so much more important than all other sciences, and which, properly understood, really embrace all the so-called humanities, are still regarded as a mere accessory in our schools, if not treated as the Cinderella of the curriculum" (10). It is clear that as a natural scientist, Haeckel shares many of his contemporaries' predilections to view the natural science perspective as the predominant paradigm, subsuming all viewpoints, including the humanities, under its umbrella. At the

same time, however, Haeckel does not entirely dismiss all other non-scientific views. In the psychological section of his work, he cites metaphysical speculation as one distinct and useful point of view. In addition, he does include aesthetics as part of his monistic vision, connecting art and science through his own work and revealing a deep appreciation of the aesthetic element in nature. Notwithstanding these digressions, however, Haeckel still ultimately regards the natural sciences as predominant, surpassing the humanities in all respects.

Wilhelm Bölsche (1861-1939), a writer both of literary works and popular “*Sachbücher*”, that is, works on specialized subjects for a general audience, is a well-known monist as Haeckel and popularizer of evolutionary theory. Bölsche can be viewed as more of a mediatory figure. Though clearly a monist, his use of poeticized language as a scientific popularizer and his early commitment to aesthetics, albeit a natural scientific one, point to this mediatory role. His literary credentials include a prominent role in the *Friedrichshagener Dichterkreis* (Friedrichshagen poet’s circle), a loosely formed group that propagated German Naturalism. Bölsche’s ideas on the role of the natural sciences in the new literature of Naturalism are laid out in his 1887 work *Die naturwissenschaftlichen Grundlagen der Poesie* (*The Natural Scientific Bases of Poetry*).⁵ In the foreword to this book, he lays out his expectations for the new generation of poets/writers: “...what I demand and hope from the rising generation of poets is an adept implementation of better knowledge in the area of psychology, of better observations, and of more healthy perceptions; the basis for this is contact with the natural sciences” (1). Bölsche’s work, though a clear manifesto of German Naturalism, is

hardly a call to arms or a work filled with inflammatory rhetoric. Instead, from the perspective of the natural science/humanities divide, it strikes a more conciliatory tone. Indeed, its first chapter is entitled “The Conciliatory Tendency of Realism” (Realism was the initial designation of the movement, later christened Naturalism.). Bölsche does negate the purely metaphysical standpoint, as he describes it, favoring a realistic aesthetic based upon “impartial research” (1), yet his goal is to raise art along with the natural sciences and not get bogged down in a perpetual struggle between both sides (11). He envisions more of a melding of poetic practice and scientific experiment (7). This new poetic creation, as he sees it, should not go beyond the natural and possible and allow everything to develop logically but done within the framework of poetic fantasy. Thus, this newly defined ‘poetic experiment’ benefits from its use of the natural scientific perspective. Bölsche ends his treatise on this new aesthetic as follows: “Poetry thus preserves its long standing role as educator of humanity. In so doing, it may hope to encounter the natural sciences on friendly ground. Both shall extend their hands to one another in an effort to make humanity healthy” (65). Turning briefly to Bölsche’s second work under consideration here, *Das Liebesleben in der Natur. Eine Entwicklungsgeschichte der Liebe (Love-life in Nature. The Story of the Evolution of Love, 1898)*,⁶ was, similar to Haeckel’s work, a great success at the Turn of the Century. Bölsche is credited with being the originator of the so-called *Sachbuch*, as previously mentioned, a work on a specialized subject for the general public. He typically wrote on natural scientific topics and this is considered his first major *Sachbuch*. This book also clearly belongs in the category of *Weltanschauung* literature, which he himself explicitly alludes to in the foreword. At the same time, though the book treats a natural scientific

topic, he views the external form of the work as “essentially an aesthetic one” (VIII). The bridge between the rigorous scientific area to the consciousness or individual seeking out general principles or themes is by way of art, according to Bölsche. And it is by this means, utilizing aesthetics in order to illuminate science’s achievements, that he in his own way unites the sciences with the humanities. Indeed, his work, this proto-*Sachbuch*, does not read like some dull scientific tract. In its place, he uses a fictionalized one-on-one personal conversation as the basis for his sweeping review of the evolution of love in nature, starting with the cellular level, advancing through a series of animals, both simple and complex, culminating of course with the human species. As is illustrated by both these works, Bölsche is mindful of the dichotomous nature of the relations between the natural sciences and the humanities, but attempts to quell the conflict through his own form of mediation, attempting to unite the aesthetic with the natural scientific.

The work of Wilhelm Dilthey (1833-1911), the noted philosopher, can be viewed as an attempt to place the humanities on an equal footing with the natural sciences at a time when they clearly have the upper hand. Indeed, in many respects Dilthey places the humanities, or perhaps more fitting the human sciences or studies, above the natural sciences, as he sees a greater need in society for their findings. Dilthey’s *Einleitung in die Geisteswissenschaften (Introduction to the Humanities/Human Sciences)*,⁷ first published in 1883, delves into the distinct characteristics of the humanities, in search of a fitting methodology for the humanities, and draws clear distinctions to the natural sciences. Dilthey makes the following classifications with respect to the natural science/humanities divide: The natural sciences deal with the outer world, as perceived

through our senses (sensation), whereas the humanities concern themselves with the inner world by means of the inner perception of psychic events and activities (8). His most well-known distinction is however the difference between the two German verbs *erklären* and *verstehen*. The natural sciences have nature as their object of study and their intent is to explain (*erklären*) nature. Nature is examined and observed and assumptions are made with respect to the causes of natural events and processes. Natural processes are viewed as specific examples of general laws of nature. The products of the human mind and intellect are the object of investigation for the humanities. In contrast to the natural sciences, these can be understood (*verstehen*), as they are created by humans. The natural sciences cannot understand nature, simply explain it. However, natural scientific explanations are verifiable, whereas those of the humanities are not. Dilthey admits that it is unclear whether anything can be completely understood. Yet experience, in particular inner experience, is at a higher level than anything the natural sciences can offer. For Dilthey nature is, as one scholar expresses it “merely appearance, an outer shell and the attire of that which cannot be experienced”.⁸

To further add to this perspective, especially as it relates to the concept of *Weltanschauung* and the notion of experience, I turn to Dilthey’s later essay “The Types of *Weltanschauung* and their Formation in Metaphysical Systems”.⁹ Though not directly concerned with the natural science/humanities discourse, it does shed some light on his views. Dilthey’s introduction speaks of the divergence of views and multiplicity of viewpoints brought on by the historization of the world; it is an anarchy of perspectives and stands in stark contrast to philosophy that strives for universal validity (although here

too there have been conflicts and divergences among the many philosophical systems). Still, he sees the main culprit as historical consciousness that has created a relativist point of view. Life he sees as the unifying principle that will help abolish the contradiction between the demand of philosophy for universal validity and historical anarchy. Life is regarded as the ultimate root of *Weltanschauung*. And it is *Lebenserfahrung*, life experience, that emerges from reflecting on life (8). From this same introduction, there is a telling statement that differentiates between what the scientific can accomplish, noting its limitations, and what it cannot with respect to the formation of knowledge:

“The kind of certainty and the character of its formulation are always completely dissimilar with respect to scientific universality. Scientific thinking can check again the procedure, upon which its certainty rests, and it can precisely formulate and substantiate its theorems. The formation of our knowledge of life cannot be re-checked in this way and definite formulas cannot be articulated” (8-9).

Although it would appear that the non-scientific perspective lacks definitiveness and concreteness and therefore its results questionable, yet it is the non-scientific perspective alone that can delve into life and life experiences, the central focus of *Weltanschauung*. This perspective makes clear once again that Dilthey sees the humanities as more worthwhile in gaining knowledge about life and the world.

To conclude, each of these individuals brings their own nuanced perspective to the natural science/humanities discourse at the Turn of the Century. They represent the range of possible responses, from those such as Haeckel, who wish to usurp all authority for the

natural sciences, to Bölsche, who is truly seeking a middle ground, leading ultimately to Dilthey, who really views the humanities as holding far more promise with respect to its potential than the natural sciences. It is no surprise that such a subtext is present within the *Weltanschauung* debate at the Turn of the Century, as it forms a central focus of concern for many at the time.

Thomas L. Buckley

Dept. of Foreign Languages and Literatures

Saint Joseph's University

5600 City Avenue

Philadelphia, PA 19131 USA

buckley@sju.edu

¹ *Weltanschauung. Philosophie und Religion*, ed. Max Frischeisen-Köhler (Berlin: Verlag Reichl, 1911), XVIII.

² J. W. Burrows, *The Crisis of Reason. European Thought, 1848-1914* (New Haven, London: Yale University, 2000), 35.

³ Horst Thomé, "Weltanschauungsliteratur. Vorüberlegungen zu Funktion und Texttyp," in *Wissen in Literatur im 19. Jahrhundert*, ed. Lutz Danneberg and Friedrich Vollhardt (Tübingen: Max Niemeyer 2002), 338.

⁴ Ernst Haeckel, *Die Welträthsel. Gemeinverständliche Studien über Monistische Philosophie (The Puzzle of the Universe. Popular Studies on Monistic Philosophy)* (Stuttgart: Alfred Kröner, 1906). This book, Haeckel's most popular work, was a bestseller at the Turn of the Century and was translated into 25

languages. Other popular works by Haeckel include *Natürliche Schöpfungsgeschichte* (*Natural History of Creation*, 1868), which had nine editions and was translated into 12 languages until the Turn of the Century, and *Kunstformen in der Natur* (*Art Forms in Nature*, 1899-1904).

⁵ Wilhelm Bölsche, *Die naturwissenschaftlichen Grundlagen der Poesie. Prolegomena einer realistischen Ästhetik*, ed. Johannes Braakenburg (Tübingen: Max Niemeyer, 1976).

⁶ Wilhelm Bölsche, *Das Liebesleben in der Natur. Eine Entwicklungsgeschichte der Liebe* 2nd ed. (Jena: Eugen Diederichs, 1909).

⁷ Wilhelm Dilthey, *Einleitung in die Geisteswissenschaften*, in *Gesammelte Schriften I*, (Stuttgart: Teubner; Göttingen: Vandenhoeck & Ruprecht, 1959).

⁸ Hellmut Diwald, *Wilhelm Dilthey. Erkenntnistheorie und Philosophie der Geschichte* (Göttingen: Musterschmidt 1963), 43.

⁹ Wilhelm Dilthey, "Die Typen der Weltanschauung und ihre Ausbildung in den metaphysischen Systemen," in *Weltanschauung. Philosophie und Religion* ed. Max Frischeisen-Köhler. (Berlin: Verlag Reichl, 1911), 3-51.