

Aisthesis in Radical Empiricism: Gustav Fechner's Psychophysics and Experimental Aesthetics

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ABSTRACT. The purpose of this paper is to situate the work of Gustav Fechner within the tradition of radical empiricism in order to sketch the beginnings of a truly post-Kantian theory of empirical aesthetics. Although Fechner inaugurates this trajectory of radical empiricism, especially with his ideas on psychophysics and experimental aesthetics, he seems to naively disregard Kant by adopting the Platonic relation of *aisthesis* to pleasure and pain as well as the Wolfian relation of pleasure to beauty. Nonetheless, his work paves the way for other philosophers — most notably William James, Henri Bergson, and Gilles Deleuze — who to different degrees take into consideration the Kantian intervention. Fechner's work, considered as a whole, helps us to redefine aesthetics as the radical-empirical science of *aisthesis*. For radical empiricism, what is ultimately interesting is neither sensation, understood in its psychological or colloquial meanings, nor experience, including even aesthetic or religious experience. The real object of this science of *aisthesis* is, as Deleuze states, precisely that which is encountered in a psychophysical shock to thought: “not an *aistheton*, but an *aistheteon*... not a sensible being but the being of the sensible.”

In 1876, Gustav Fechner — a German physicist, philosopher of nature, and founder of experimental psychology — published a provocative two-volume work entitled *Vorschule der Aesthetik*. The premise of this “Pre-school” was that aesthetics must proceed, like any other science, from the bottom up, by utilizing empirical data to develop aesthetic concepts inductively. “Whoever is searching for light — and pursuing the path from

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below is such a search — cannot seek to illuminate this path with a light that is already given” (Fechner 1998, 635). This call for an aesthetics “from below” ran straight in the face of the tradition of speculative aesthetics in 19th century Germany. Against this tradition — which includes specifically “Schelling, Hegel, and even Kant” — Fechner claimed that “what is still missing is an empirical foundation; and for this reason all of our systems of philosophical aesthetics seem to me like mighty giants with feet of clay” (Fechner 1998, 634). Before discussing Fechner’s *Vorschule* as the starting point for a radically empirical aesthetics, I would like to briefly outline the context of his work generally. The complex progression of Fechner’s scientific career is significant in that it is punctuated by moments of philosophical tension and mental crises. He is precisely the type of scientist Deleuze and Guattari refer to in *What is Philosophy?*, one who, against the grain of the accepted dogma of their time, was able to plunge into the unknown, return “with bloodshot eyes,” and then — by establishing mathematical functions through “groping experimentation” — consolidate a plane of immanence by treating it as “a moveable and moving ground, a field of radical experience” (Deleuze and Guattari 1996, 105).

Though Fechner was born a son and grandson of church pastors, during his university years, in the midst of his medical studies and the burgeoning scientific positivism of the time, he became a staunch atheist. He spent more than seventy years at the University of Leipzig, first as a pupil, then as a docent, and finally as a professor of physics. All this time, he was engaged in unremitting scientific labor, covering nearly all fields in an encyclopedic frenzy of which, in our era of increasing specialization, we have no real example. Indeed Wilhelm Wundt and Sigmund Freud in psychology, William James and Alfred Whitehead in philosophy, as well as Ernst Mach and Ilya Prigogine in physics have all testified to his profound influence on and inspiration for their work. However, two events — one in 1820 and the other in 1840 — disrupted and then completely shattered his faith in positivism and perhaps, more than his scientific education, defined the trajectory of his investigations. The first was an introduction to Lorenz Oken’s philosophy of nature by a fellow classmate, which challenged his mechanistic world-view: “At once there shone for me a new light illuminating the whole world and the science of the world; I was as though dazzled by it ... in short, I have gained at once the point of view for a great unify-

ing conception of the world” (Fechner 1946, 26). Although he never fully subscribed to the speculative method of *Naturphilosophie* — and instead developed an empirical and inductive method adapted from his training in science to develop the vitalist philosophy of nature he called the “day-view” — his encounter with it forever imprinted upon his mind the need to challenge the dogma of mechanistic determinism. Around the same time, Fechner was also strongly influenced by another of his university friends, a roommate and fellow student of medicine who was seized by Romanticism and who relinquished his studies in favor of becoming a wandering poet and agitator. Fechner spoke of this encounter as “an epoch-making experience,” which undoubtedly influenced his subsequent interest in *belles-lettres* as well as the birth of his alter-ego, the rebellious clown “Dr. Mises.”

Dr. Mises was the pseudonym for Fechner’s satirical and philosophical rants — published alongside his properly scientific studies and translations — against the arrogant over-confidence of medicine, natural history, and positivism generally, as well as speculative metaphysics. The very titles give an indication of the humoristic tone of these publications: “Proof that the Moon is Made of Iodine,” “The Comparative Anatomy of Angels,” “Little Book on Life After Death,” and “Stapelia Mixta.” The latter is an uneven collection of fantastic tales and *Naturphilosophie* satirically named — following the Romantic obsession with bestowing floral names upon books — after a flower, which “emits such a stench that the carrion fly lays her eggs in it quite by mistake” (Fechner quoted in Marshall 1969, 41). His particular literary blend of rigorous science and humoristically absurd logic can be seen as a forerunner to the type of science *fiction* that would emerge at the end of the 19th century in the writings of J.H. Rosny and H.G. Wells. In fact, Dr. Mises’ satirical idea of time as the fourth dimension was appropriated by Wells in *The Time Machine* and Fechner himself figures in *When The Sleeper Wakes*. Additionally, the physicist and philosopher Kurd Lasswitz, who is considered the father of German science fiction, also wrote a biography of Fechner. His titles — for example his last book *Star Dew: the Plant of Neptune’s Moon* — sound remarkably close to something Dr. Mises might have penned. Perhaps this humoristic, yet rigorously philosophical, subset of Fechner’s *oeuvre* might give us some clues about Gilles Deleuze’s cryptic statement that “A book of phi-

losophy should be ... a kind of science fiction” (Deleuze 1994, xx).¹

By the beginning of 1840, after years of rigorous scientific experimentation and publication, Fechner’s growing insomnia and exhaustion became an acute crisis, forcing him to discontinue lecturing. The event that seemingly pushed him beyond the threshold of mental stability was the temporary eye damage — which amounted to prolonged retinal after-images and flickering, even when his eyes were closed — he incurred while staring at the sun through colored glass, apparently as part of his investigations into the phenomenology of vision. He became “so sensitive to light that he blindfolded himself and diagnosed himself as blind, ... lost all appetite and emaciated himself to the point that he could no longer stand upright.... In addition to the anguish of starvation and blindness, Fechner was afflicted ... by worry about a mental disturbance, namely, the ‘total destruction’ of his ‘mental energy’ — as he put it. A severe loss of thought caused him to break off all social contact. His main activity consisted in trying to control his thoughts. The scenario he had depicted in the *Little Book* now happened to his own mind” (Heidelberger 2004, 48). This condition lasted until his sudden recovery nearly three years later.

This traumatic ordeal is precisely the type of event that, according to Deleuze and Guattari, legitimates serious investigative work, whether it be in art, science, or philosophy. In all three cases, real thinking begins with a shock to thought which itself depends upon “a sort of groping experimentation and ... measures that are not very respectable, rational, or reasonable. These measures belong to the order of dreams, of pathological processes, esoteric experiences, drunkenness, and excess. We head for the horizon, on the plane of immanence, and we return with bloodshot eyes, yet they are the eyes of the mind. Even Descartes had his dream. To think is always to follow the witch’s flight.... But then ‘danger’ takes on another meaning.... This is because one does not think without becoming something else, something that does not think — an animal, a molecule, a particle — and that comes back to thought and revives it” (Deleuze and Guat-

¹ A few lines later Deleuze states: “This is the secret of empiricism. Empiricism is by no means a reaction against concepts, nor a simple appeal to lived experience. On the contrary, it undertakes the most insane creation of concepts ever seen or heard. Empiricism is a mysticism and a mathematicism of concepts, but precisely one which treats the concept as object of an encounter.”

tari 1996, 41-42). Recollecting on his experience, Fechner admitted: “I was mentally occupied, not with thinking, but with banishing and bridling thoughts. I sometimes felt like a rider on a wild horse that has taken off without him, trying to tame it” (Heidelberger 2004, 48). Furthermore, if we attempt to understand his mental collapse as a version of the “scenario he had depicted in the *Little Book*” — a book which concerns the experience of the soul, particularly with regard to the expansion of consciousness and perception, after death — the parallels with Deleuze and Guattari’s depiction of the dangers of thinking are even more pronounced, although Fechner’s language is steeped in the rampant Romanticism of his time:

Even in this world, at the approach of death (by narcotics, in imminent drowning, or in exaltation) there occur flashes of recognition of the spiritual meaning of things (Fechner 1943, 62).

To the subjective vision there comes a flash so unusually vivid as to bring to the earthly sense an impression rising above the threshold from an otherwise inaccessible distance. Here begins the wonders of clairvoyance, of presentiments, and premonitions in dreams.... They advance and surprise you with overpowering force ... really entering into you and bringing into your mind far more dismay than comfort (Fechner 1943, 83-85).

Subtracted from its theological resonances, Fechner’s account also sounds remarkably close to Bergsonian intuition:

Perception in you dissolves, and memory ascends from within you; your whole life of intuition dissolves in God, and a higher existence of recollection rises from it to God; and like memories in your mind, so the spirits of the other world communicate within in the divine mind (Fechner 1943, 88).

However we interpret Fechner’s traumatic experience, it unquestionably altered the trajectory of his career and, indeed, every aspect of his life. In 1846, he reported to the Ministry of Culture in Leipzig that, while his health had been restored, he felt unable to return to his previous post at the university — “because neither can my eyes tolerate keen observation,

nor my mind tolerate mathematical thinking” (Fechner quoted in Heidelberg 2004, 49) — and he requested permission to lecture on only philosophical topics. His appeal was granted and, although he was allowed to keep his title of professor of physics, as well as his salary, he was relieved of all lecture obligations. Fechner, free to pursue his own interests, began to publish in the creative vein of Dr. Mises, albeit now with a definite philosophical thrust: first with a short sketch on naturalistic, empirical ethics in which he politely disagreed with Kant’s categorical imperative followed by a satirical piece aimed to a great extent against the negativity of Hegel’s dialectic.² It could also be argued that Fechner’s two identities — which were artificially kept apart due to the necessity of maintaining his reputation at the university — now became integrated into a Mises-Fechner as he increasingly published works, which before would have been reserved for the pen of Mises, in his own name. The only difference is that, now, all traces of sarcasm are replaced with the sober tone demanded of scientific research. For example the hypotheses, originally put forward in jest by Dr. Mises in *The Comparative Anatomy of Angels* — that planets are living creatures and, following Oken, that angels must have a spherical form — were again proposed thirty years later, this time with a straight face, in Fechner’s *Zend-Avesta: Or Concerning Heavenly Things and the Hereafter, from the Standpoint of Natural Science*.

In 1848, Fechner published a long piece of *Naturphilosophie* entitled *Nanna, Or the Soul-life of Plants* in which he tried to demonstrate that plants have souls using scientific and philosophical methods, namely empirical observation coupled with the logics of induction, inference, and analogy. This was the method “from below” that he developed specifically against the speculative philosophies of Schelling and Hegel. William James, who repeatedly declared his indebtedness to Fechner for his own philosophical conversion, describes the day-view quite succinctly: “He was in fact a philosopher in the ‘great’ sense.... For him the abstract lived in the concrete, and the hidden motive of all he did was to bring what he called the daylight view of the world into greater evidence, that daylight view being this, that the whole universe in its different spans and wave-lengths,

² *On the Greatest Good* and *Four Paradoxes*, respectively, which were both published in 1846.

exclusions and envelopments, is everywhere alive and conscious... The original sin, according to Fechner, of both our popular and our scientific thinking, is our inevitable habit of regarding the spiritual not as the rule but as an exception in the midst of nature” (James 1977, 70).³ In pursuing this vitalist philosophy of nature, Fechner repeatedly insisted that he was not trying to provide hard scientific evidence concerning things beyond the realm of the given, but rather to philosophically relate these things to the observable. When no exact proof is available, Fechner argued, one must use substitute methods, but these methods must be consistent with empirical data. According to him, this is “the great art of inferring things beyond from things present, *not from final causes ..., nor from assumptions ..., but from facts*” (Fechner quoted in Marshall 1969, 47). James sums up the style of argumentation that emerges:

His earliest book was a vision of what the inner life of plants may be like. He called it *Nanna*. In the development of animals the nervous system is the central fact. Plants develop centrifugally, spread their organs abroad. For that reason people suppose that they can have no consciousness, for they lack the unity which the central nervous system provides. But the plant’s consciousness may be of another type, being connected with other structures. Violins and pianos give out sounds because they have strings. Does it follow that nothing but strings can give out sound? How then about flutes and organ-pipes? Of course their sounds are of a different quality, and so may the consciousness of plants be of a quality correlated exclusively with the kind of organization that they possess.... Truly plants can foresee nothing, neither the scythe of the mower, not the hand extended to pluck their flowers. They can neither run away nor cry out. But this only proves how different their modes of feeling life must be from those animals that live by eyes and ears and locomotive organs, it does not prove that they have no mode of feeling life at all (James 1977, 77-78).

In the end, whether or not Fechner succeeded in his task of convincing his reader of this day-view of the natural world perhaps has less to do with

³ Incidentally, James also wrote the “Introduction” to the first English edition of Fechner’s *Little Book*.

his methods of argumentation than with the reader's own philosophical vision. However, he approached the invisible world as far as was possible given his rule that philosophy, like science, must begin with empirical evidence. His task was not to prove that a realm beyond the normal functions of the senses existed — for this was already adequately known by the theories of electromagnetism of the mid-19th century — but rather to attempt to provide the philosophy of nature this new physics needed in order to create a coherent world-view.

William James claimed that “philosophy is more a matter of passionate vision than of logic ... logic only finding reasons for the vision afterwards” and Fechner, as a “great” philosopher, “is a man who doesn't live second-hand, but who *sees*” (James 1977, 81). Indeed, Fechner's rebirth as a philosopher literally began with a tremendous vision — what might be called, in the language of James, a mystical experience — from which he returned “with bloodshot eyes.” As he claimed in the preface to *Nanna*, the direct motivation for writing the book was the traumatic physical and mental breakdown that occurred after his prolonged staring into the sun. The first time Fechner walked through the garden after his recovery “he literally soaked in the beauty of the flowers. He saw everything in exaggerated clarity and believed to perceive that the plants' souls were ‘glowing’” (Heidelberger 2004, 54). Although the seeds of the late Fechner's philosophy were inherent in the works of Dr. Mises, the movement from the Humean empiricism of Fechner the scientist to the radical empiricism of Fechner the *Naturphilosoph* began with, and was arguably *dependent upon*, his debilitating but ultimately revealing “plunge into the chaos” (Deleuze and Guattari 1996, 202).

James describes radical empiricism — which he calls his *Weltanschauung* — as a “mosaic philosophy ... of plural facts, like that of Hume and his descendants.” As such it focuses on “the part, the element, the individual and treats the whole as a collection and the universal as an abstraction.” However, there is one key difference between the “ordinary” or “half-way” empiricism of Hume (as well as positivistic science) and James' version, which is signified by the epithet “radical.” His axiom is simple: “To be radical, an empiricism must neither admit into its constructions any element that is not directly experienced, nor exclude from them any element that is directly experienced. For such a philosophy, *the relations that connect*

experiences must themselves be experienced relations.” James claims that his empiricism differs from that of Hume insofar as he counts the connect- edness between parts — the “conjunctive and disjunctive relations” — as integral to the possibility of any experience at all. British Empiricism “has always shown a tendency to do away with the connections of things” but James’ attention to connection *and* plurality is meant to save empiricism from skepticism and the futility of attempting to piece things back to- gether from a set of disjointed particulars (James 1976, 22-23). The transi- tion between each seemingly discrete sense perception is not empty, but is made up of specific, if difficult to articulate, felt qualities of tendency and relationality. James makes it clear that this connectivity is not a ra- tionalist or supersensible concept but rather an *experience* of relations between terms, which was already expressed — in his chapter on “The Stream of Thought” in *Principles of Psychology* — as “a feeling of *and*, and a feeling of *if*, a feeling of *by*” (James 1981, 238). Pragmatically speaking, this feeling of relations has as much reality or “truth” as the weight of a stone in your hand. Another important consequence of James’ axiom of radi- cal empiricism is that it admits, not only the experience of connectivity, but also the experience of normally “hidden” mental states, including his own drugged hallucinations as well as Fechner’s quasi-mystical revelation. Deleuze takes radical empiricism one step further. While James attempts to level the playing field between parts and their relations — in effect find- ing a middle ground between an overly-optimistic rationalist unity and an overly-pessimistic empiricist disconnection — Deleuze elevates relations above their terms. He does agree with James’ move beyond Hume: “sub- stitute the AND for IS. A *and* B. The AND is not even a specific relation or conjunction, it is that which subtends all relations ... empiricism has never had another secret.” But he also moves beyond James: “In a mul- tiplicity what counts are not the terms or the elements, but what there is ‘between,’ a set of relations which are not separate from each other” (Deleuze and Parnet 2007, 57). Multiplicity is Deleuze’s word for the set of relations and their terms, precisely James’ “mosaic” or “pluralistic uni- verse.” However, favoring relations allows us to comprehend a multiplicity in its differential emergence, or becoming, rather than as a mere set of in- ert objects. Thus for Deleuze, radical empiricism becomes “transcendental empiricism” which, for him, “is the term I will use to distinguish it from ev-

everything that makes up the world of subject and object ... sensation merely cuts a slice in the continuous stream of absolute consciousness” (Deleuze 2006, 384). Incidentally, James’ own movement from his early research in quantitative, empirical psychology to the radical empiricism and pantheistic metaphysics of the final years began with his growing interest in abnormal states of consciousness and psychical research after the publication of his *Principles of Psychology* in 1890. These new interests were, in part, influenced by the work of Henri Bergson but, perhaps more than this, they were directly motivated by the hallucinatory visions he experienced during his infamous experimentation with nitrous oxide around the same time. A quick conclusion might suggest that, in the cases of both Fechner and James, empiricism became radical after a visionary shock to thought, an encounter with chaos which James referred to as a “painful hyperaesthesia of all the functions” (James 1977, 69).

In Fechner’s next major publication — *Elements of Psychophysics*, which remains his legacy today — the union of Fechner and Mises is completed, as evidenced by the equal weight he gives here to the ordinary empiricism of the scientific method and the radical vision of his day-view philosophy. What is even more remarkable about this text is that, with it, Fechner not only fulfills the role of a Deleuzian scientist who consolidates a particular section of chaos by establishing mathematical functions; the function he establishes is precisely one that attempts to make sense of the shock to thought itself. In this two-volume opus, Fechner supplied the theory and techniques of “psychophysics,” which effectively christened the burgeoning field of quantitative, experimental psychology and laid the foundations of modern neuroscience. By psychophysics, Fechner was really referring to the neural processes, as yet unobserved, that lie between stimulus and sensation. He did not consider the lack of knowledge concerning the precise nature of these processes to be an obstacle to his investigations since, ultimately, the shock of sensation is felt physically as a kind of vibration which could be quantitatively determined: “Whether one attributes nervous energy to a chemical or an electrical process, one must still regard it as the play of the vibration of the minutest atoms.... Vibrations, however, can only apparently expire by extending themselves into their environment ... according to the law of the conservation of energy” (Fechner 1943, 59). Unlike the positivists who reduced mental sensations to mere epiphenom-

ena of physical events, Fechner broadly followed Spinoza in treating mind and body as different attributes of the one and only substance. However, utilizing the positivists' scientific method, he attempted to establish an exact and direct relationship between them. In short, carrying on the tradition of Müller, Weber, and Helmholtz in sensory physiology — which sought to quantify anything and everything about the human brain — he sought to find a mathematical function that showed the precise relation between sensation and stimulus and, therefore, between mind and body that didn't simply reduce one to the other. In short, the main motivation for Fechner's investigations into psychophysics was to offer another scientifically-grounded piece of puzzle he called the day-view, rather than establish a positivist psychology. Regardless, this is how he is remembered today. The logarithmic function at the center of psychophysics — which is now known as Fechner's Law — basically shows that “equal relative increments of stimuli are proportional to equal increments of sensation” (Fechner 1943, 54). Central to Fechner's investigations was rigorous experimentation which related various directly measurable stimuli to increments and thresholds of sensation. For the first time, by mathematically correlating mental events with physical stimuli, subjectivity is made quantifiably determinable. “Vision, as well as the other senses, is now describable in terms of abstract and exchangeable magnitudes. If vision previously had been conceived as an experience of *qualities* (as in Goethe's optics), it is now a question of differences in quantities” (Crary 1992, 147). This “confusion of quality with quantity” (Bergson 2001, 74) is at the heart of Bergson's forceful critique of Fechner. Bergson's theory of duration — and by extension his entire philosophy — is built upon this critique, which was put forth in the first chapter of his first book. Ultimately, however, Bergson's philosophy has much more in common with Fechner's vitalist world-view and radical empiricist method than his critique would admit.

Fechner's *Vorschule der Aesthetik* offers, for the first time in the history of philosophy, a theory of aesthetics based upon an empirically-grounded *aisthesis*. This aesthetics “from below” was developed in direct contrast to the speculative and normative aesthetics dominant in Germany at the time, which was concerned mainly with those aesthetic forms that truly represented the metaphysical value of beauty and which therefore had to appear as beautiful to a cultivated and erudite mind. However, Fechner

was also unimpressed with the aesthetics of the British Empiricists who, although they pursued the path from below, remained “trapped in particularities, one-sidedness and viewpoints which possess only subsidiary value and compass” (Fechner 1998, 633-634). The Empiricists were not overly concerned with metaphysical investigations into the nature of taste and showed a much more relaxed attitude towards the *variety* of aesthetic experiences. For them, rather than being an objective or Ideal form, the beautiful was completely subjective. According to Hume, “Beauty is no quality in things themselves: it exists merely in the mind which contemplates them; and each mind perceives a different beauty” (Hume 1998, 136). This whimsical and utterly relativized definition of beauty belies the discussions concerning taste in 18th century England, since the standard of “refined taste” was ultimately determined by “true critics.” That is, what probably amounts to nothing more than social constructions — the true and the beautiful — are here morally, rather than metaphysically, justified. Therefore, aesthetics in both German Idealism and British Empiricism ultimately amounts to the same thing, despite the fact that the latter allows for differences in the experience of beauty: a given standard of taste can be used to make aesthetic *judgments* and, ultimately, philosophy remains nothing but a mouthpiece for the status quo.

Fechner was too committed to the rigors of his scientific method “from below” to subscribe to either “-ism” and, therefore, his empirical aesthetics represents a clean break with the aesthetic tradition in its entirety. He relied upon psychophysics, as well as analyses being developed in positivist psychology and sociology at the time, to establish empirical and statistical proof concerning that which is pleasurable and displeasurable. From this empirical ground, he thought that a meaningful aesthetic theory could be developed by “increasingly generaliz[ing] these laws thereby arriv[ing] at a system with the greatest possible universality” (Fechner 1998, 633).⁴ This

⁴ His aesthetic research consisted in collating psychophysical data from people of different ages, educational backgrounds, and characters specifically avoiding “those persons whom we thought capable of having good taste.” In one experiment, the subjects were asked to report on “the pleasantness of proportions among ten different quadrangles. The peak of pleasingness was found with the golden section rectangle (35%)” (Fechner 1997, 123). What has been deemed a standard, and even Ideal, form beauty throughout history has thus been reduced by psychophysical aesthetics to a mere percentage.

is the sense in which Fechner's empirical aesthetics can be thought of as a "preschool:" "There can then be a philosophical aesthetics of a higher order in relation to empirical aesthetics, just as there can be a philosophy of nature which is higher than physics and physiology... However, what is still missing is just this empirical foundation; and for this reason all of our systems of philosophical aesthetics seem to me like mighty giants with feet of clay" (Fechner 1998, 634). To Fechner's mind, the discipline of aesthetics needed the same empirical and inductive approach as did his vitalistic philosophy of nature. He was not interested in contributing to the endless debates — whether metaphysically or morally motivated — concerning the correct determination of art, genius, the beautiful, the sublime, the agreeable, or the good. The precise definition of these terms must be decided only after careful consideration of the empirical evidence, which had yet to be fully established. He did however adopt a pragmatic concept of beauty — as an "auxiliary term" useful only in "the linguistic sense" — the working definition of which was everything that "has the property of *immediately* causing pleasure, not only after reflection or through its consequences" (Fechner 1978, 15). Here, pleasure should be understood not as a reflective judgment in the Kantian sense (including the sensory judgment of the agreeable) but rather as an immediate psychophysical affect, a shock to the brain beyond judgment and indeed beyond thought itself. As the case of Fechner clearly shows, this shock is not always pleasurable, thus his pragmatic concept of beauty must remain secondary to the larger project of defining the parameters and potential uses of psychophysical aesthetics. In short Fechner's work, considered as a whole, helps us to re-define aesthetics as the radical-empirical science of *aisthesis*. For radical or transcendental empiricism, what is ultimately interesting is neither sensation, understood in its psychological or colloquial meanings, nor experience, including even aesthetic or religious experience. The real object of this science of *aisthesis* is, as Deleuze states, precisely that which is encountered in a psychophysical shock to thought: "not an *aistheton* but an *aistheteon*... not a sensible being but the being *of* the sensible. Something in the world forces us to think. This something is an object not of recognition but of a fundamental *encounter*.... It is not the given but that by which the given is given. It is therefore in a certain sense the imperceptible. It is imperceptible precisely from the point of view of recognition

— in other words, from the point of view of a [simple] empirical exercise of the senses” (Deleuze 1994, 140-141). Deleuze, especially considering his appropriations of Bergson and James, allows us to transform Fechner’s hasty and ultimately un-Critical experimental aesthetics — which seems to naively disregard Kant by adopting the Platonic relation of *aisthesis* to pleasure and pain as well as the Wolffian relation of pleasure to beauty — into a rigorous *transcendental* aesthetics which takes into full consideration the Kantian intervention. Nonetheless, Gustav Fechner must be remembered as the polymathic, if eccentric, grandfather of this tradition.

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