Reassessing Neo-Kantianism. Another Look at Hermann Cohen's Kant Interpretation

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1. Introduction: The Historical Background of the Marburg School and Hermann Cohen's Contribution

The life and works of Hermann Cohen are on various levels symbolic for many aspects of Western intellectual history, being a Jew, a philosopher, and living in a critical time on the European continent, Germany more precisely, and being more than an observer but instead someone who made a significant mark on this epoch. Though largely forgotten today, he was one of the most outstanding intellectuals in Europe around 1900. Studying his life and his thought helps us reconstruct a fascinating epoch in Western history. A brief historical consideration will be useful to approach his specifically *philosophical* contribution.

Hermann Cohen was born in 1842 in Coswig (State of Anhalt) into an orthodox Jewish family. Besides attending the German *Gymnasium* he also went to a Hebrew school and maintained his Jewish ties over the years, until at the end of his philosophical journey he even attempted to reconstruct the origins of Enlightenment moral philosophy out of the sources of Judaism.[1] His Jewish identity was woven into his life as well as his philosophy.[2] However, he felt very much as a Jewish German and came to be a vehement opponent of assimilation and, an energetic, irritable personality, despised converts who neglected or even denied their Jewish origins (such as, e.g., Edmund Husserl[3]). Dismayed

[1] For historical details about Cohen's life, cf. Holzhey's works in Holzhey 2004 and *Politisches Denken*, pp. 15-36. One should mention that Cohen's views on Jewish identity changed over the years. In his early years, he was rather indifferent to his Jewish origins but was forced to take a stand on this issue. Especially after his involvement in the Treitschke affair, he shifted from the idea of assimilation to promoting a proliferation of Jewish customs and traditions within a society that was not allowing Jews to assimilate.

[2] Especially Cassirer makes this point in his writings on his teacher, also increasingly in Cassirer's later writings. Cf. Cassirer 2001.

[3] There is evidence for this in some letters from and about Cohen, where he speaks unfavorably about Husserl. In a letter to Natorp of August 23, 1914, he writes: "Der oesterreichische Konvertit ist auch so eine geschwollene Eitelkeitsfigur, ohne Aufrichtigkeit & Wahrhaftigkeit." (Quoted in: H. Holzhey, *Cohen und Natorp*, Vol. 2, p. 430). Cohen makes this statement in the context of his fight against anti-Semitism on the part of the Jewish community, which has to become, he believes, more "positive" (ibid.), instead of, as the Husserls, denying their Jewish origins (Husserl and his wife had converted to Christianity and were overall quite secular). According to Karl Schuhmann, with whom the author discussed this passage, there can be no doubt that it is Husserl that Cohen is referring to in this passage. Cf. also ibid., pp. 369 f. (Cohen's letter to Natorp of December 1908), where he warns Natorp of Husserl

and frustrated by anti-Semitic experiences both as a citizen as well as an academic throughout his lifetime, he came to ponder, and ultimately reject, Theodor Herzl's idea of a Jewish State. The Jewish cause became so dear to him that, upon retiring from Marburg in 1912, Cohen moved to Berlin where he taught at the School of the Study of Judaism, where he was influential for a young generation of Jewish theoreticians such as Franz Rosenzweig and Martin Buber. Being critical of the idea Zionism,[4] he always felt a part of German intellectual life, to which he made an invaluable contribution with his philosophical works.

Yet Cohen was also an outspoken public intellectual who commented publicly on issues pertaining to his religion. He became known to a larger audience in Germany when he took a stance against Heinrich von Treitschke in the famous "*Judenstreit*."[5] The tragedy of so many Jews of his generation was the realization that they were simply not allowed and welcome to assimilate themselves in a country they loved and to which they felt a strong sense of belonging. Cohen died in 1918 amidst the rubble of the Great War, poring over the proofs of his great work on the philosophy of religion (*Religion of Reason out of the Sources of Judaism*, published posthumously in 1919, edited by Rosenzweig and Cassirer) and with the plans in his mind to finish his philosophical system culminating with a work on psychology, conceived as a science of the "unity of cultural consciousness" ("*Einheit des Kulturbewusstseins*"), the topic that was at the heart of his philosophical endeavors. One late and tragic irony is that his wife, Martha Cohen, who survived her husband by more than two decades, was deported to the Concentration Camp in Theresienstadt in 1942, where she fell victim to the Nazi regime within days of her arrival.

Cohen was not the first neo-Kantian in Marburg, though he is, and with good reasons, considered the founder of the "Marburg School." He was lured to Marburg in 1873 by his predecessor Friedrich Albert Lange, who had become famous through his *History of Materialism* (*Geschichte des Materialismus*, 1866) that was considered one of the found-

and suggests "einige Reserve und nicht vollkommene Vertrauensseligkeit" (p. 370). Husserl, on his part, conspicuously ignored Cohen, while he was exceptionally friendly with Natorp.

[4] The idea that was floated at the time was the British suggestion to offer Uganda, a former colony, for Jews to settle. This idea was rejected especially by the Zionists like Herzl, to whom the only site of a Jewish State could be Palestine.

[5] In his anti-Semitic pamphlets, Treitschke claimed that the Jews could never be a part of German culture. More specific hate speech was later directed at Jewish neo-Kantians such as Cohen himself, who was attacked by the main editor of Kantstudien, Bruno Bauch, for being unable to understand Kant as a non-German. The fight that ensued after this attack—the counter-attack came from Cassirer—led Bauch to resign from his editorship of Kantstudien. However, he later, after Hitler's seizure of power, became an avid Nazi. All of these connections are laid out in great detail in Sieg's definitive historical study on the Marburg School.

ing works of the neo-Kantian movement.[6] Due to Cohen's first major work, entitled *Kant's Theory of Experience* (*Kants Theorie der Erfahrung*, 1st ed.1871), which was well-received at the time and quickly became a classic of Kant scholarship, Cohen gained a reputation for being a penetrating and profound Kant scholar, but also an original thinker. Publishing a number of works on Kant, but also on other philosophers (ancient and early modern) quickly and in short succession, he was subsequently offered a permanent position in Marburg in 1876 and soon gained a nationwide reputation as a philosopher succeeding in Lange's footsteps, although with an entirely different philosophical agenda.[7] Cohen's reputation grew enormously within the next decade and, with the younger Paul Natorp receiving a funded position in 1882, was seen as the founder as well as the head of the emerging "Marburg School." It is fair to say that he was one of the most influential and well-known academic philosophers in Germany at the end of the 19th Century.[8] The Marburg School as a complex philosophical movement with a clear philosophical agenda reached its peak around 1900 as well.[9]

Cohen's reputation mainly owed to his personal aura and powerful classroom persona. Also in his writings, one gets the impression of an original, deep thinker who moves quickly from seemingly minute details to raising the most fundamental questions and who writes in a deeply passionate, committed manner that is at all times highly captivating.[10] Analogies to Martin Heidegger's classroom presence, incidentally also first displayed in Marburg, have been drawn.[11] He

[6] More famous than the actual content of the work was the fact that each chapter, by laying out the importance of Kant's philosophy, ended with the passionate expression "*Daher muss zu Kant zurückgegangen warden!*" ("This is why we must go back to Kant!"). Again one can draw the analogy to the phenomenological movement in its "battle cry" "*Zu den Dingen selbst!*" ("To the things themselves!").

[7] To be precise, Cohen took over Lange's chair that had become vacant due to Lange's death in 1875.

[8] It is clear that we are talking here about the philosophical scene within the academe. Arguably more famous at the time were "popular" non-academic philosophers such as Kierkegaard, Schopenhauer and Nietzsche. Willey (1987) has made the interesting connection between Nietzsche's and Cohen's philosophical intentions. For an historical account of the development of the Marburg School, cf. also Sieg 1994.

[9] Sieg (1994, p. 190) has called the time between 1900 and 1910 the "golden era" of the Marburg School.

[10] As of ca. 1900, Cohen suffered from an eye disease that made him unable to read and write on his own. His wife, Martha, read things out loud for him and also penned down what her husband dictated to her. One immediately notices this "spoken language" style in his later writings and the passion with which these texts must have been dictated is very explicit.

[11] Cf. Brandt, 1992. One could speculate that the fact that Heidegger was able to build such a strong reputation in Marburg was (in part at least) due to the fact that there was a fertile ground in the student body for him to launch his career. After all, by the time Heidegger came, Marburg as a whole (not just the Philosophy Department) was still considered a very active university, bustling with students from as far away as Russia and Japan. Moreover, Natorp, who was by all accounts a very modest, quiet and

soon attracted many students, also from abroad, in what was to become one of the centers of neo-Kantianism, next to the two university towns in Southwest Germany, Freiburg and Heidelberg. Neo-Kantianism had at that time (around 1900), as Jürgen Habermas puts it, an "imperial stance" in the philosophical scene of Germany (as well as, to a lesser extent, France, Italy and Spain). In this outstanding role, Cohen also attracted philosophers who would join him in his cause, most importantly the already mentioned Natorp, who arrived in Marburg in 1881. Ernst Cassirer came to Marburg as a student from Berlin in the 1890s and, though he never taught at Marburg, nevertheless was considered—and considered himself—an offspring of the Marburg School.[12] It was as of the 1880s that one has spoken of the "Marburg School of neo-Kantianism"—an image that the Marburgers were keen on promoting.[13] With Cohen's departure to Berlin after his retirement in 1912 and Natorp's passing away in 1924, the character and image of a *Schulgemeinschaft* had vanished. As has been asserted[14], however, the Marburg School of neo-Kantianism was one of the most "compact" philosophical schools ever to exist in Germany. Whether this school was a typical phenomenon of the *Kaiserreich* and was "obsolete" by the time the Weimar Republic was established, is a question for historians, not philosophers, who attempt to take their thoughts seriously. No matter how timely neo-Kantian thought might be today, it is undoubtedly the case that this movement paved the way for most tendencies to emerge in the 20th Century. Simply in terms of history of effects, one cannot ignore neo-Kantianism when one is committed to historically responsible scholarship.

Neo-Kantianism arose as of the 1870s in Germany with the battle cry "Back to Kant!" Interestingly, this call was first issued not by philosophers who were still, as it were, in a state of shock after the much-quoted "col-

shy person, was never able to fill the vacuum that the ebullient Cohen left behind upon his departure from Marburg in 1913. Another "Marburger" was Nicolai Hartmann, who had at that time also broken with the main tenets of the Marburg Method. So perhaps the students were waiting for a new "prophet"?

[12] Though the most famous members of the Marburg School were these three thinkers upon which I focus here, there were at least another dozen philosophers in this context that have become forgotten today but who were active within this movement. The character of this school becomes clear in its workings, if one sees it almost as a big factory with a clear division of labor. The member of this school worked on items ranging from theoretical, practical and aesthetical philosophy to philosophy of law and, last not least (and representing one of the staples of neo-Kantianism), Kant commentary and Kant scholarship in the form of Kant philology (editions of Kant's works) and journals (Kantstudien and Logos).

[13] While Natorp staid put for the most part in Marburg and worked in quiet solitude, Cohen went on extensive travels during the semester breaks. Holzhey has also spoken of Cohen as the "Minister of the Exterior," Natorp as the "Minister of the Interior" of the Marburg School.

[14] Cf. Holzhey, 1986/I.

lapse of German Idealism." Instead, the call came from cutting-edge scientists such as Helmholtz[15] who, in the midst of the sciences' impressive achievements through novel experimental methods, sought guidance in questions concerning the epistemological foundations of scientific cognition. In this quest, they turned to the founder of critical philosophy, bypassing the overly speculative *Naturphilosophie* of the German Idealists (esp. Schelling). As is known, Kant's theoretical philosophy rephrased the question of cognition in terms of subjective conditions of possibility of knowledge by proposing the notion that we can only know of things what we ourselves put into them. This new foundation of epistemology after the Copernican turn, so it seemed, could be utilized in principle but had to be transformed so as to be adequate to assess the problems of the day. Most importantly, it was Kant's transcendental a priori that was the main source of inspiration; yet Helmholtz transformed and interpreted it in a physiological, essentially psychologistic, manner. This was Helmholtz's reading of Kant, namely that the way of the human being's experiencing contributed to that which was perceived: But forms of intuition were no longer of a transcendental nature in Kant's sense (as conditions of possibility of objective knowledge), but were now seen as physiological traits of the human being with its bodily sensorial apparatus.[16] This brings about the specter of psychologism that seemed to occupy much of philosophers' efforts in the latter third of the 19th century. In a general sense, psychologism was the view that cognition depended on the human being's psyche in its particular form of hardwiring. This has consequences for the role of philosophy itself; whatever it may be, it is clear what it can no longer lay claim to: to be a first philosophy with the function of providing a foundation for the sciences as second philosophies. Retrospectively, we now see mainly Husserl as involved in this battle; however, Husserl was actually rather "late" in this general battle that was waged over philosophy's character as scientific. As Natorp laconically comments in his review of Husserl's *Prolegomena* of 1900, the neo-Kantians enthusiastically welcome Husserl's refutation of psychologism—another refutation will hopefully help us to finally overcome this wrong-headed understanding of epistemology's task—but that the Marburg School actually "could not learn much" from this. Husserl had merely, through his own trials and tribulations, come to see the light from his angle.[17]

Ironically, thus, the origins of neo-Kantianism lie in a "materialistic" (Lange),

[15] On the side of academic philosophy one would also have to mention Herbart, Fries and Beneke, cf. Stolzenberg, p. 24.

[16] The text that one refers to in this context is Helmholtz's talk "Ueber das Sehen des Menschen" ("On Man's Seeing"), delivered in Königsberg in 1855. Cf. Hatfield, who explores and reconstructs Helmholtz's transformation of Kant's transcendental philosophy into a psychologistic reading.

[17] Natorp notes this several times, esp. in his review of Ideas I.

psychologistic rendering of Kant's theoretical philosophy. Cohen himself in his early works contributed to this reading in articles where he expounds his psychological research (in a journal dedicated to studies in "Folk Psychology"[18]). It is not until his theoretical work on Kant after entering the debate concerning the famous "third alternative" debate between Kuno Fischer and Adolf Trendelenburg[19] that Cohen overcomes this psychologistic reading, being highly critical of his earlier stance. As of 1871, thus, Cohen in his "critical" reading wages a vicious battle against psychologism. The "objective" and "logical" tendency—or over-emphasis, as has been asserted—of neo-Kantianism can be explained through the opposition against any form of psychologism. This is the origin and distinctive trait of the Marburg School in which it soon found allies in the Southwest as well as in Dilthey and the arising Phenomenological Movement.[20] Yet, the close ties to the sciences of their day—psychology and natural science—were to become a trademark of the Marburg School, to the extent that the Marburg Interpretation was even perceived by some as a mere "theory of science." This is echoed in the harsh verdict in the famous critique of, e.g., Heidegger, who claimed that in neo-Kantianism philosophy was demoted to "the handmaiden of the sciences."[21] This critique proved devastating for the reputation of neo-Kantianism and has since been repeated like a mantra in philosophical historiography.[22] The way in which I will present the Marburg School inaugurated by Cohen will reveal this verdict to be wrong as well as wrong-headed on several counts. Criticizing this erroneous view of the Marburg School makes way for a crucial understanding and appreciation of this school.

[18] The full title of this journal was "Zeitschrift für Völkerpsychologie und Sprachwissenschaft" (Journal for Folk Psychology and Linguistics); cf. Holzhey 2004, p. 44.

[19] In short, the "third alternative" reading that Trendelenburg proposes makes the point that Kant did not rule out that between an "idealistic" and "realistic" reading of Kant's doctrine of the appearances in space and time (as forms of intuition) and the thing in itself there could be a third alternative. This alternative is the idea that one cannot rule out that the thing in itself actually conformed to our way of thinking, that space and time are equally forms of intuition as well as categories of the thing in itself. For a summary of this argument and its consequences, cf. Gardner, 1999, p. 107-111.

[20] It is interesting to note that Husserl underwent the same development as Cohen. In his first publication, the *Philosophy of Arithmetic* in 1891, Husserl took a psychologistic attitude with regard to the "constitution" of mathematical entities, only to harshly refute his own psychologism in the famous first volume of the *Logical Investigations*, the *Prolegomena*.

[21] Historically, this is actually an echo of Max Scheler's earlier critique of neo-Kantianism in his habilitation thesis (and first book), entitled *Phenomenology and Epistemology*. There, Scheler comes to the conclusion that the neo-Kantians consider philosophy as merely an "owl of Minerva." Cf. Scheler, and Edel, pp. 120 f., esp. 121, fn. 11. For Heidegger's view of neo-Kantianism, cf. the Davos Debate in Heidegger 1997, pp. 193 f.

[22] See, e.g., (Gardner 1999, p. 342), where this verdict is again repeated almost as a matter of course and without any reference.

Cohen's philosophical development as of his first "critical" work on Kant hence centered upon an elucidation of Kant's Critiques, proceeding with a rather sophisticated, yet highly reflected, approach as a mix of elucidation and interpretation. As he says already in the first edition of *Kant's Theory of Experience*, he sees his work as a "combination of the systematic and historical task,"[23] while being true to the "letter of Kant" and not shying away from the "dirty work" (*Kärrnerarbeit*) of Kant philology. This approach elevated Kant scholarship to a new level. By the 1870s, more than half a decade after Kant's death, Kant could be seen as a *classic* and the neo-Kantians introduced a new style of dealing with Kant, witnessed also by emerging Kant commentaries and critical editions of Kant's works.[24] Being true to the spirit as well as the letter, however, could mean acknowledging that Kant was clearly mistaken on certain accounts and needed to be corrected or overcome, precisely by remaining true to the *spirit* of Kant. In all of his interpretations of Kant, Cohen applies the hermeneutical principle, to be found in the First Critique, of understanding the author better than he understood himself. But this has consequences for the interpreter as well; dealing with Kant *philosophically* required taking a stance (*Parteinahme*) on Kant. Remaining true to Kant could mean refuting his claims, while remaining within the horizons of his philosophy. Yet such a stance will be telling with respect to the critic as well: "One cannot pass judgment on Kant, without revealing in each and every line which world one carries around in one's own head."[25] A combination of such a historical and systematic inquiry renders Cohen's critical-interpretative work on Kant, as he calls it, a "Metacritique."[26] Thus it is clear that from the outset Cohen engages in a highly reflected methodology of dealing with Kant and the accomplishments of his philosophy that are seen in the light of contemporary problems, e.g., in the sciences. As Gadamer would later say, a successful interpretation of a classical author means an *application* to one's own understanding and one's own time. This principle is already applied with explicit consciousness by Cohen.

Soon after Cohen's work on the First Critique followed one on the Second and, somewhat later, on the Third Critique. Especially the works on the first two Critiques have become classics in Kant scholarship and at the same time have been, rightfully, considered highly difficult and complex works. Especially *Kants Theorie der Erfahrung* underwent extensive expansion. While the first edition was a booklet of 270 pages, the second edition of 1885 was blown up to more than 600 and the last edition of 1918 nearly 800 pages! These works are difficult to assess in their systematic content, as they present the reader with an intricate mixture of a line-by-

[23] KTE1, p. X.

[24] The commentaries on Kant that were published in this time are to this day classical works on Kant. I mention only the works by Hans Vaihinger and Kuno Fischer.

[25] KTE1, p. XI.

[26] Ibid., p. XII.

line interpretation of the Critiques as well as critical reinterpretations of Kantian doctrines that quickly depart from the interpretative passages. It is sometimes not clear where Cohen paraphrases Kant and where he goes beyond him, yet while remaining close to the text and offering a barrage of quotations in support of his point. At the same time, all of Cohen's writings display a superb grasp of the totality of Kant's oeuvre. As Cassirer recounts anecdotally, when he first heard the name Cohen mentioned in the lectures that he followed with Georg Simmel in Berlin, Cohen was mentioned as an author whose works on Kant were recommended as being of exceptional depth and originality. Simmel went on to mention their difficulty and pointed out that, thankfully, there were commentaries on these books, namely Kant's three Critiques![27] Increasingly, however, Cohen moved away from Kant and developed his own philosophical system that he also conceived in analogy to Kant's three major works, while in his latest phase he focused on the philosophy of religion, in which he worked on a philosophical interpretation of Judaism's import for moral philosophy.

Regardless of Cohen's own philosophical system and its merits, it is the Kant interpretation itself that has become the trademark of the Marburg School as a whole. This interpretation goes beyond Kant to the extent that some even referred to the Marburg reading as a "neo-Fichteanism."[28] The main thesis of Cohen's interpretation is stated boldly in the title of Cohen's book on the first Critique, that is, Kant's transcendental philosophy is a novel *theory of experience*, with experience being mainly—though not exclusively—that experience ascertained in the natural-mathematical sciences. From the standpoint of transcendental philosophy, the nature that we experience is given in natural science. "What nature may really be does not matter to us as long as we want to philosophize, not write poetry."[29] Secondly, what is crucial and of highest importance in this theory is Kant's *method*. This method Cohen calls the *transcendental method*, a term actually not itself utilized by Kant himself[30]. The way Cohen interprets this allegedly Kantian method soon

[27] Cf. Cassirer, 2001.

[28] There was a plethora of other designations for the neo-Kantian tendency as a whole (including the Southwest School), but none of these really "stuck." On the other hand, the neo-Kantians very much conceived of themselves as a "school" and unified "movement," which explains that the global label "neo-Kantianism" came to be used by themselves and was clearly intended as a form of self-promotion, whereas a closer look reveals quickly how each of these highly original thinkers was working on his own project. In view of the diversity within the neo-Kantian movement, however, the Marburg School was indeed the most "compact" to the point that differences were deliberately suppressed. See Holzhey's *Cohen und Natorp* (Vol. I), where these differences are clearly indicated and spelled out.

[29] Quoted in Holzhey 2004, p. 47 (from Cohen's programmatic preface to his edition of Lange's *History of Materialism*). The phrase is difficult to translate, thus here the original: "*Was Natur sei, das geht uns nichts an, sofern wir philosophieren, nicht dichten wollen*."

[30] Cf. Baum, 1980.

reveals an original understanding of it that is both a radical reading of Kant as well as it ultimately departs from Kant's scope, with the intention of "fixing" what in Kant was only darkly anticipated. What Kant means by experience is something more fundamental, or more encompassing, than the two elements that make cognition possible, sensibility and understanding.

Moreover, part of this method—which was in fact highly contested—is to take the analytical path of the Critique that Kant presents in the *Prolegomena*, taking one's point of departure from already established *facts*. And there is a reason for this. One needs to start from an already presupposed factum because this factum is not simply *given* but given as a problem or task that critical philosophy deals with. The factum is not *gegeben*, but *aufgegeben*. The factum that presents us with the most problems is the factum of the sciences. This is the systematic reason why the Transcendental Method starts out with the *factum of the sciences*, *not* as something simply given but as a problem to be explained. Or as Cohen likes to say, the factum is not a *terminus ad quem*—something that we must arrive at ultimately—but as a *terminus a quo*—something from which philosophy must take its point of departure. It is the *explanandum*, not the *explanans*. The "hand maiden" critique refers to this opening move, and thereby already misunderstands it completely. It is not that critical philosophy contents itself with coming after the fact, the factum; rather, this is the starting point of the whole enterprise. The factum is not left unquestioned, to the contrary: it is an endless task.

Yet, taking the point of departure from scientific cognition also secures the scientific character of philosophy itself. Philosophy itself can only have a scientific character if the object it deals with is scientific as well. There is an internal connection between philosophy's role as first science and the natural sciences as of Newton. The overall bold claim is that experience, in the way it is understood by Kant in the First Critique, is to be found in *mathematical natural science* and as such *constructs* reality, while taking its cue mainly from experience and cognition in the positive sciences. Reality, in the sense that Cohen understands it, is ultimately a construction in pure thought. Reality that we are to deal with, if we philosophize and not indulge in poetry, is purely logical and structured by laws. It is for these reasons that the Marburg School has also been characterized as a "panlogism" or "logical idealism."[31] The transcendental method developed by Cohen by way of his Kant interpretation is the guiding clue to the Marburg School as a whole. While it has been modified and applied in different aspects by Natorp and Cassirer; their philosophical efforts are incomprehensible without this methodological groundwork laid by Cohen.

This "logical" reading of Kant is inconceivable, however, without first understanding how Cohen views the purpose and concept of philosophy and its role both vis-à-vis,

[31] Cf. Holzhey, as well as Gadamer, 1954.

as well as within, cultural life at large. Thus, before I present Cohen's theoretical philosophy focusing on the transcendental method as it arises from his Kant interpretation, I will first lay out his broader of what philosophy is to accomplish. In this understanding, he has a remarkably broad view; critical philosophy might have been invented by Kant, but Kant is merely reformulating philosophy's task in light of the new developments in modern science following Newton's innovations. The transcendental method that Kant develops, the way Cohen reconstructs Kant's intentions, is incomprehensible without first clarifying *Cohen's* own understanding of critical philosophy. Only then is the systematic framework provided within which the transcendental method can be couched.

2. Cohen's Concept of Philosophy as "Foundational Science" ("*Grundlegungswissenschaft*")

To appreciate the impetus of Cohen's philosophy one has to expound first his concept of philosophy and, conversely, what view he is battling, philosophy as psychologism. After overcoming the psychologistic reading of transcendental philosophy, he wants to give philosophy back its original meaning of metaphysics as first philosophy, but in a new guise and as standing on the ground laid by Kant's Copernican turn. Kant merely rephrases the spirit of Western philosophy at the zenith of the Enlightenment. Already in Antiquity and reborn in the Renaissance, philosophy stands in the midst of a culture, thereby in culture's center. Yet within cultural activities, the *sciences* are culture's pinnacle, the highest and most dignified achievement of a cultural humanity. Philosophy, as first science, has an inherent connection to culture and its science and cannot be understood without it. So how can one reconstruct the emergence of philosophy and science within a culture?

Culture comes out of nature, but as such arises first *as* a study of nature. This is possible because the fascinating discovery in Greek Enlightenment is that our mind, e.g., in doing mathematics, conforms to nature. As Cohen says, "the first direction of culture is the science of nature. The latter begins with mathematics: in astronomy we have the combination of mathematics and nature."[32] But by establishing itself as such a study of nature, culture arises as a world of its own, parallel to the world of nature, with its own forms of life in distinction from nature: religion, law, art. Consequently, there arise studies (sciences) of the cultural world as well: study of religion, of law, of politics, even of art. This is the broad understanding of science as episteme—study in its basic sense—which Cohen presupposes here as well as in his reconstruction of modern philosophy. Thus, parallel to natural science, a novel concept of science is created, sciences of and within culture. In flourishing cultures, such as the Greek, ever new

[32] "Die vornehmlichste Cultur-Richtung ist die Wissenschaft der Natur. Diese beginnt mit der Mathematik in der Astronomie liegt die Verbindung von Mathematik und Natur vor." (Beinecke, Cassirer papers, B 56, F 1107)

sciences arise of ever new cultural formations. It is now the task of the philosopher[33] to reflect upon these manifold forms of science—of *episteme*—and find their common traits as actions that are of the highest dignity in humanity, for otherwise there would be no unity, no focus in a given culture. "This one basic factum—the multiplicity [*Vieldeutigkeit*] of the concept of science in culture—proves the necessity of philosophy. This is the meaning of philosophy, that it overcomes this multiplicity, that it brings the concept of science to a principal definition, that it determines the constant factor of science in all its different directions. That means that philosophy is the reconstruction of culture in all its directions from out of this constant factor of science."[34]

Philosophy as "reconstruction of culture" is the guiding clue that runs through the Marburg School as a whole. If one does not understand this approach as the most important aspect of Cohen's philosophy, one cannot but grossly misunderstand his overarching intentions, his and that of the rest of the Marburg School. Thus, philosophy needs to provide a unifying basis for the sciences as cultural activities as well as, thereby, clarify its own position *vis-à-vis* the sciences. Yet even natural sciences are *cultural* activities. The transcendental question, hence, is, 'how is culture possible?' This is the basic question that philosophy addresses. Yet culture is understood from the very start as standing in connection to science. Science as a study of a region of reality is precisely to find the *rational elements* in and with which man can penetrate these regions to ascertain *knowledge* about reality. Yet this reality that is found is thereby a reality based and founded on the knowledge with which it is cognized. As Natorp says, in view of Cohen's achievements, philosophy has to ascertain "the creative ground of all such deed of object-formation, … the primal law [*Urgesetz*] that one terms as that of *logos*, of *ratio*, as *reason*."[35]

To provide such a basis, one needs to start from a privileged science. The obvious question is, if philosophy is the reconstruction of culture, why then focus on the *mathematical natural* sciences and not some other cultural formation, such as art or religion? Answering this question leads immediately to Cohen's focus on Kant's critique of reason that he sees as having developed most importantly through Kant's study of Newton.[36] Kant was

[33] In this context, Cohen mentions Socrates' famous saying that nature had nothing to teach him and that he preferred going into the marketplace to converse with his fellow citizens. Cohen interprets this as Plato's shift from science as natural science to science as a study of human culture.

[34] "Diese eine Grundfactum – die Vieldeutigkeit des Begriffs der Wissenschaft in der Cultur – beweist die Notwendigkeit der Philosophie. Das bedeutet die Philosophie, dass sie diese Vieldeutigkeit aufhebt, den Begriff der Wissenschaft zur prinzipiellen Bestimmung bringt, den constanten Factor der Wissensachaft in allen verschiedenen Richtungen auszeichnet.
Damit ist Philosophie die Reconstruction der Cultur in all ihren Richtungen aus diesem constanten Faktor der Wissenschaft." (Beinecke, op. cit.)

[35] Natorp 1912, pp. 196 f.

[36] Cf. the famous apodictic statement (KTE3, 94): "Die transzendentale Methode [Kants] ist in dem

intrigued by Newton's sketch of mathematical science because he saw this as a remedy against Skepticism. There *exists* truth, and this is found in pure mathematics, and, *a fortiori*, in natural science modeled on the former. Indeed, science of nature the way Newton sketched it is of the utmost exactitude due to Newton's focus on mathematics as the methodology of the science of nature. However, this is possible for Newton because there is a fundamental correlation between mathematics, as an operation of human reason, and nature as object domain of cognition, a domain that conforms to reason. Reason has to do with establishing *laws*, and these are most immediately available in mathematical natural science. Kant's guiding question was, 'how is this possible?' More precisely: How is it possible to have objective, exact knowledge of something that is external to us? How are we able to ascertain laws of nature? Purifying reason of any empirical elements is parallel to Newton's attempt to strip nature of any intuitive qualities or subjective impressions and reduce it to its pure elements: mathematical laws.

Therefore Kant's philosophy was the ultimate attempt to not only provide a philosophical *foundation* and justification of science, but thereby to determine the scientific character of philosophy *itself*. Kant's system as an attempt at this marks the world-historical importance of Kant. As Cassirer asserts, commenting on Cohen, "in the system of Kant the actual vital question [*Schicksalsfrage*] of philosophy as such becomes decided: the question as to the relation of philosophy and science."[37] Thus it is clear what philosophy can *not* be: it cannot be another science; to let philosophical questions be taken over by particular sciences is a sellout of the purpose and task of science. As scientific philosophy it must provide the basis and foundation for culture, a culture, however, that becomes manifest *as* culture in its cultural activities of which mathematical natural science is the highest, since it provides us with *exact knowledge* of the world as we experience it. But laying the foundations of culture as such, in turn, brings philosophy back into the position of being the mother of all sciences. However, based since Kant on the Copernican turn, this role is carried out in critical fashion as clarifying the conditions of possibility of scientific cognition.

In this sense, philosophy must come forth as a foundational science, and that means, as laying ultimate foundations. Philosophy's function as "foundationalism" (*Letztbegründung*) has also been misunderstood for the most part. Philosophy, according to Cohen, must come forth as a critical idealism, as foundational discipline for these cultural activities, starting with mathematical natural science, but thereby observe the character of the respective science. Philosophy must be foundational — *letzt-begründend* — but in a critical way as for the first time *laying the*

Nachdenken über die *Philosophiae naturalis principia mathematica* entstanden." In the following, *Kants Theorie der Erfahrung* will be quoted as "KTE" and I will be quoting from the third edition.

[37] Cassirer, op. cit., p. 120.

foundations of science, and that means in scientific cognition itself. As opposed to metaphysics as a science of foundations (*Grundlagenwissenschaft*), where these foundations are fixed and unquestioned axioms or principles, critical idealism must be a science of *laying foundations* (*Grundlegungswissenschaft*) by providing the critical justification for the cognition that is accumulated in science. These foundations are expressed in basic judgments that express synthetic a priori principles of cognition. These foundations are, however, in constant reinterpretation and re-grounding, since the sciences progress and deepen their knowledge of the world, while also constantly testing and revising their own foundations. This is why philosophy, the way Cohen sees it, is a method of laying foundations, not a discipline of first unshakable principles, but a reflection establishing basic concepts that ground and strengthen the sciences, thereby providing a launching pad for further inquiry. This is the genuine philosophical aspect of science; the moment the scientist reflects on the foundations of her science, she is no longer merely a scientist. Yet the scientist needs help from the philosopher who provides a transcendental critique of these scientific findings. Philosophy as a discipline of laying foundations is hence a *methodological justification* of the sciences' results by laying the grounds that make possible the types of cognition that are ascertained in the multitude of scientific inquiries as disciplines that ascertain truths about the world as we know it (as cognized). However, only in mathematical natural science do these truths have the character of laws, not just empirical rules. Hence, what renders mathematical natural science different from other cultural activities, and which is the reason why Cohen favors them, is that the latter purports to ascertain *truth* of *general and universal* character; these laws are valid a priori. Laying the grounds for these rigorous scientific activities is, hence, of the highest value for culture as such.

Critical philosophy is thus not simply epistemology—*Erkenntnistheorie*, theory of cognition—but, as Cohen calls it, *Erkenntniskritik*, epistemic critique of the cognition gained in science, and it is directed "exclusively at the *content of cognition*"[38] that is purely logical (a priori) and not the psychological means of attaining it. This marks Cohen's clear anti-psychologistic bent that is maintained to the point that he deems any investigation into the subjective elements involved in science as a sign of "immaturity."[39] This marks the path of Kant's own maturation process from the A to the B Deduction, the latter of which increasingly eliminates subjective elements. Philosophy's task is to scrutinize the truths of science as they have been constituted by the scientists in their laboratories. These are, to Cohen, the most salient aspects of culture.[40] This is why, based

[38] Infinitesimalmethode, p. 53.

[39] KTE, p. 103.

[40] In Natorp's text on the Marburg School from which was already quoted, Natorp continues: philosophy has to "zum Faktum den Grund der 'Möglichkeit' und damit den 'Rechtsgrund' nachzuweisen, das heisst: eben den Gesetzesgrund, die Einheit des Logos, der Ratio in all solcher schaffenden Tat der Kultur aufzuzeigen und zur Reinheit herauszuarbeiten" (Natorp 1912, pp. 196 f.).

on Cohen's overall view of culture and philosophy's position in culture, the factum where philosophy begins its work cannot be the mere factum of prescientific experience but the factum of *science*. The slogan "the factum is the factum of the sciences" ("*das Faktum ist das Faktum der Wissenschaft*"), however, must be understood in this broad understanding of science. Science is not just *natural* science, but science is cognition of the world, *both* that of nature *and* culture, and philosophy must make its beginning from the multitude of scientific activities, while taking its specific point of departure in the reconstruction of theoretical cognition from the natural-mathematical sciences, and unify them into a general interpretation of what goes on in these edifices. As such, philosophy does not come *after* the fact and, as it were, clean up the mess that the scientists have left after doing their work (as their handmaiden). Instead, it first of all *lays the foundations* that *make possible* scientific cognition: these are the foundations of cognition itself. In clarifying the conditions of possibility of cognition in the sciences, critical philosophy first of all provides the basis for scientific deed. This task, however, can only be achieved in constant interaction with the sciences. The factum is accepted—Cohen has the highest admiration for the impressive work of the scientists—but it is thereby anew turned into a task for philosophy. In Cassirer's words, Cohen "accepts without restrictions the factum of science as foundation; but he transforms this factum, with Kant, again into a problem."[41]

Philosophical questioning in general, hence, must commence from an already existing, established science. In developing his critical method Kant started out from the cutting edge of natural science of his day, Newtonian physics. It is here where Kant found an exactitude and rigor that was found in no other science. "The transcendental method came about in [Kant's] reflections on the *Philosophiae naturalis principia mathematica*."[42] This was the factum of science that marked the outset of Kant's system. Newtonian physics is not the only type of cognition, but it is the most exact one, and it is here where Kant formed his concept of the a priori in the two notions that Cohen emphasizes: universality and generality.[43] That is why theoretical philosophy must focus on the conditions of possibility of cognition of the type of universal and general character. In Holzhey's words,

[41] Cassirer, op. cit., p. 120.

[42] KTE, p. 94.

[43] Cf. Stolzenberg 1995, p. 29, who explains this move succinctly: "[N]un wird [in Cohen] die kantische Bestimmung der Apriorität als Herkunft eines Begriffs aus Quellen der Vernunft aufgrund der psychologischen Konnotationen preisgegeben und auf die Charaktere der Notwendigkeit und Allgemeinheit bzw. auf den Charakter der Gesetzlichkeit einer Erkenntnis reduziert. *Daher* kann Cohen sagen, daß *aprioriische* Prinzipien *Teile der Bedeutung* des Begriffs der naturwissenschaftlichen Erkenntnis bzw. *Erfahrung* sind, und daher ist es auch verständlich, daß Cohen diejenigen Bereiche, in denen diese Prinzipien enthalten sind, die Mathematik und reine Naturwissenschaft, als *Teilbestimmungen* des Begriffs der *Erfahrung* aufgefaßt hat."

"what is at stake under the title of a transcendental theory of experience, for Cohen, are the conditions of validity of *a priori* cognition."[44] And this is why Newtonian physics is Kant's model and paradigm. Yet depending on the type of transcendental inquiry—and the theoretical is but one—other sciences will serve as points of departure. Each direction of critical philosophy must hence choose a scientific discipline as its factum. As Cohen declares in his interpretation of Kant's *Second* Critique, practical philosophy must take as its factum the established discipline of jurisprudence (*Rechtswissenschaft*) to reconstruct ethical norms that function as conditions of possibility for the former. This does not render a given jurisprudence authoritative, but is the starting point for reconstructing the ethical norms and values that underpin and factor into it. Theoretical philosophy, which is about universal and general truths, must choose that scientific discipline where cognition of the highest "quality" and dignity is gained: and this can only be cognition of mathematical rigor.[45] To justify this knowledge is the task of epistemic critique and the result in addressing this task is the *transcendental method*.

3. Kant's Novel Concept of Experience and the Transcendental Method

As has become clear, the thesis that Cohen boldly puts forth is: the factum that we have to contend with in theoretical philosophy is the factum of natural mathematical science. Hence, the object of experience is not "brute" nature but the nature experienced in natural science. Experience, the way Kant understands it, is not primitive sensation or perception; rather, the content and the object of judgments of experience are the general truths of science in the form of synthetic judgments a priori. This notion can be backed up with reference to the original meaning of the word "*Erfahrung*," which was historically introduced into philosophical terminology in the 18th century (presumably by the Wolff School) and means originally at no point "mere experience" as in contemporary usage, but rather something like investigation or scrutiny (cf. also Spanish *experiencia*, but the verb derived from it is *experimentar*).[46] Cohen is not saying that such "simple perception" (as sensation, *Empfindung*) does not exist. Rather, if we are to take our point of departure from mathemati-

[44] Holzhey 2004, p. 48.

[45] Cohen makes it very clear in KBE that, while theoretical philosophy deals with *knowledge* in the sense of theoretical cognition, practical philosophy with "moral knowing" (*moralisches Erkennen* vs. *theoretisches Wissen*). In other words, Cohen clearly recognizes the difference in the cognitive functions involved in these respective disciplines as well as the type of philosophical treatment they demand. Cf. KBE, p. 321.

[46] Cf. *Duden*, *Das Herkunftswörterbuch*, Duden-Verlag: Mannheim/Wien/Zürich, 1963, p. 141. The original cognates of *erfahren* were "erforschen, kennenlernen, durchmachen" (investigate, get to know, going through). Cf. also the adjective "*erfahren*" which can also mean "smart, intelligent, educated." On Kant's understanding of *Erfahrung* cf. also Kambartel 1972, pp. 609f., who reminds us that *Erfahrung* is primarily a translation of Greek *empeiría*, which in Aristotle is closely linked to *epistéme*.

cal natural science, this is what is experienced as nature: "Not the stars in the sky are the objects that this method teaches us to contemplate, but the astronomical calculations; those facts of scientific reality are, as it were, the real that is to be accounted for, as that at which the transcendental gaze is directed. What is the basis of this reality that is given in such facts? Which are the conditions of this certitude from which visible reality derives its reality? Those facts of laws are the objects, not the star-objects."[47] This is what reality is, or tersely put, "the law is the reality" ("*das Gesetz ist die Realität*").[48] The realities that we are talking about in mathematical science are the lawful relations ascertained in scientific cognition. They are available in "printed tomes,"[49] not objects of sensual perception. "*Erfahrung*," hence, refers here to the object or content of cognition, not the thought-process in which it is created. In this sense, if we are talking in the context of natural scientific experiencing, there is no difference between experience and cognition. What is experienced *is* not the object as pre-scientific thing, but what this thing stands for: an idealized object of mathematical science.

This has yet another consequence. If the object that we experience is of law-like character, then experience cannot be completely intuitive, but is "shot through" with cognitive, rational elements. Husserl's phenomenology will later make a similar point that further clarifies Cohen's intentions: what is experienced is not the life-world pure and simple, but it is "shrouded over" by science. The object of experience is always at least to a minimal extent "idealized." Pure experience is something that can only be reached by a systematic "unbuilding" ("*Abbau*") of higher layers. Hence, the two stems of cognition—Kant's canonical distinction—between sensibility and understanding is in Cohen's reading a mere methodological abstraction; they can become separated only when one pursues different scientific spheres within pure cognition. Cohen claimed, famously and influentially for Kant future scholarship, that Kant's transcendental aesthetic is a remnant from the precritical period that has systematically been "ingested" into the transcendental logic by the time Kant has developed his critical system.[50] Logic is the dominant focus in Kant.

What Kant's philosophy is truly about is establishing the sovereignty of thought over being. This is the meaning of critical idealism, as Cohen sees it: *thought creates being*, but being in the sense of the reality as just specified. If it is true that the First Critique talks of experience as experience of scientific objects of law-like fashion, this conclusion makes sense. Intuition and understanding are, as Cohen says, "epistemic-critical [*erkenntniskritische*] abstractions" or "abbreviations of scientific methods"[51]. There is but one process of cognition in which knowledge is gained. But

[47] KBE, pp. 20 f.

[48] Ibid., p. 21.

[49] KBE, p. 27.

[50] Or, which says the same, had Kant understood himself correctly, he should not have had the architectonics of having a transcendental aesthetics prefaced before the transcendental logic.

[51] Princip der Infinitesimalmethode, p. 59.

what counts, what advances science, is the increase of knowledge itself, that is, the *construction of new reality*. There might be different psychic dispositions in our way of progressing knowledge, but these are irrelevant with respect to the furthering of knowledge that science aims at. In Cohen's reading, the transcendental method of explaining the conditions of possibility of the cognition of scientific objects is inherently *monistic*, with the focus on logic—establishing laws—as its trademark. This is why Cohen increasingly refers to his project as "logic of cognition" ("*Erkenntnislogik*") as opposed to the Kantian title of critique of reason, which still implies an investigation into subjectivity or conscious processes that are involved in bringing about cognition.[52] Reason is first and foremost scientific cognition that reaches its results through pure thought and crystallizes in a priori laws. What distinguishes us as rational creatures from non-rational beings is that our reason allows us to establish ever new lawful connections and relations in the world we live in. It is reason that makes us conscious, not vice versa. W. Marx has also spoken of a "*methodological holism*" with an inherently dynamic character: "The totality [of reality …] is the product of a theoretical construction that remains in principle open."[53] The a priori is not a fixed set of laws, but is revealed step by step. The a priori itself is *dynamic* with essentially open horizons.[54]

This is the *constructive* character of the transcendental method. As a logic of cognition, it is interested in the constitution of cognition and the object that is constituted in this cognition. But note that the object of cognition is an entity of the type of a law of nature. The law, however, is discovered only over time in the process of scientific inquiry. This means, the scientist cannot *assume* the object of her activity as something that is given. Rather, consciousness in its scientific activity of establishing new laws *constructs* the object, thereby unfolding new elements of a law. In a characteristic phrase, Cohen says, the object of science is not *gegeben* (given) but *aufgegeben* (a task). There is no "myth of the given" if one interprets Kant's First Critique as a theory of scientific cognition. Rather, it is thought that *produces* concepts in the form of pure rational judgments that conceptualize laws of nature. Hence, over and above the rejection of Kant's intuition-thought distinction Cohen also rejects as artificial any distinction between the realms of understanding and reason.[55] Purely rational judgments are the way in which scientific principles are formulated, specifically in the synthetic principles.[56]

[52] This development in Cohen beginning with the first edition of KTE via the systematically important *Prinzip der Infinitesimalmethode* to his own system in the *Logik der reinen Erkenntnis* is traced in exquisite detail in Edel 1986.

[53] Marx, in *Politisches Denken*, p. 125.

[54] Cf. also the presentation in Holzhey 1986/I.

[55] Marx, op. cit., p. 124.

[56] Cohen's own *Logic of Pure Cognition* ultimately takes on the form of a doctrine of judgments (*Urteilslehre*), as this is the place in which pure cognition becomes "objective" as crystallization points of reason's constructive activity. Cf. also Stolzenberg 1995.

Thought in this totalizing sense is *productive* and expresses its findings in principles that formulate laws (the synthetic principles). The process of scientific discovery is that of a *construction* of ever new laws of nature. As Natorp says it in an oft-quoted slogan-like manner, the factum is, in truth, a *fieri*, the factum is something that is *being made*, produced by the constructive activity in pure thought, i.e., in a priori thought having the character of lawfulness, i.e., of the type of generality and universality.[57] In Holzhey's words: "The Marburgers set themselves the task of integrating the dynamics of experience into the a priori foundation of experience, at least in the realm of theory of science, where the progress of cognition has already rendered obsolete many a rigid theoretical foundation"[58]. What Holzhey here calls "integration" clarifies Cohen's concept of philosophy as the science of *laying foundations* in "cooperation" with the scientists.

Reality is hence not something purely given or that can ever be *assumed* as given, but a *task* that is given to us to discover and in which we can cognize nature. Reality is itself a "means of thought" (*Denkmittel*) that constructs *itself* in pure thought. Philosophy's task is about the justification involved in making such claims about nature of the type of general and universal laws.[59] Experience in the simple sense, prior to philosophical scrutiny, might be something "entirely accidental," but what it constructs in its cognitive activity is of general and universal character: a law of nature. This is the enigma that critical philosophy needs to give justification for by laying a foundation for these truth claims and by establishing the limits of the latter. Cohen asserts, "the transcendental method, by directing its deductions at the factum of mathematical natural science, thus does not proceed from some somehow assumed absolute, but from experience as something 'entirely accidental,' and in this approach lies the pride and the modesty of critical philosophy, its striving for scientific truth and the insight into its limits."[60]

The factum is therefore not something absolute, but in constant revision as science continually progresses. This is why science is not dealing with absolute truths and, conversely, why philosophy cannot make a claim to absolute foundations, but instead contents itself with laying foundations that are constantly to be revised as well. The dynamics of scientific progress have a correlative dynamics in the laying of foundations *for* the sciences, which are equally constantly flexible and bound to change.[61] In all of this, cognition is an open-ended process in which science progresses over time, by covering new ground, thereby

[57] Cf. Natorp 1911.

[58] Holzhey 1986/I, p. 57.

[59] As Holzhey says, "The problem of reality hence pertains to the *legitimization* of the positing of a something as such." (Holzhey 2004, p. 48, italics added).

[60] KTE, p. 637.

[61] Of these foundations, Cohen says: "This fundament is not given objectively; yet it is the unavoidable *task* of reason; it is the covering up of the abyss that is uncovered by intelligible arbitrariness." (KBE, p. 34).

creating this very ground, and thereby constantly opening up new horizons to be penetrated, thereby making the object of science a problem anew. Pure cognition constructs the path on which it travels. One scientific finding is merely the incentive for further questioning. What is achieved in this endless process is a constant gathering of new information in the form of new a priori laws. The object of science, hence, is not arbitrary but is, as law, something necessary and universal. This is the character of the law as being universally valid and Kant's philosophy addresses this problem, how it is possible to have *precisely this type of* knowledge, by clarifying the conditions under which it is possible to have such a priori knowledge. Following Kant's famous phrase, we can know only of that in objects which we ourselves lay into them. Cohen's interpretation of this Kantian tenet is that a priori knowledge is possible because we *construct* this knowledge in pure thought. Cohen summarizes these affairs in the following passage:

> Nature is experience, that is, mathematical natural science, whose possibility lies in the 'general natural laws' of the synthetic principles. In this possibility of experience lies therefore all necessity of nature. This is the sum of all transcendental insight into the a priori conditions of experience. And this insight satisfies the scientific mind, to which nature is not a thing given to the senses, but rather is the great question mark that the senses present and that understanding has to solve step by step.[62]

[62] KTE, p. 638.

In accordance with this reading, Cohen presents an original interpretation of Kant's thing in itself. If the object of the sciences is produced and in constant flux of refinement, verification, augmentation, then there can no longer be a strict distinction between appearance and thing in itself. Consequently, the thing in itself is interpreted by Cohen as a "limit concept" (*Grenzbegriff*), as the ideal limit of an object of complete determinations. The thing in itself is the systematic unity and the "totality [*Inbegriff*] of all scientific cognitions"[63], as science moves from the accidental to the necessary in pure thought, thereby constantly fleshing out further our knowledge of the thing in itself. Pure thought *is* nothing but thought purely in its lawful form. The thing in itself is never attainable, but ever more determinable in scientific progress; knowledge gets ever more "fleshed out" and "filled in" by scientific progress.[64] Science is a teleological progression of ever new "experiences" in this sense of ascertaining new and more refined laws about nature. In pushing the

[63] KTE, p. 660.

[64] As an aside, this concept of a limit idea also crops up again in Husserl's account of perception, with the object being an indeterminable X that is ever more filled in by additional experiences. Though Husserl focuses on the intuitive elements in perception, what becomes increasingly known as abiding knowledge of that object follows the same structure of construction as in Cohen. The difference to Cohen is that Husserl speaks of constitution, not construction, and the reason for this is that Husserl is not talking of constructions of laws but of the constitution of objects *in consciousness*. Still, the similarity is striking.

boundaries of scientific cognition, however, the foundations of basic concepts become equally revised at all times and are in constant flux. Thus, scientific cognition is pure thought through and through. In pure thought reality becomes constructed, but it becomes constructed on the basis of foundations laid by the creative scientist who is, in this sense, a philosopher. The creative act of the philosopher is the laying of a foundation in what Cohen also calls—alluding to Plato[65]—grounding a *hypothesis*, and what is achieved on this basis is pure thought, purely that which is purely lawful in mental activity. This is why Cohen has also been called an extreme "logicist" as he "sublates" ultimately all cognition in pure thought.[66] The notion of "purity" refers to the logical, lawful elements in all human activity. This tendency becomes stronger as Cohen's system progresses. Characteristically, his own theoretical work in parallel to Kant's First Critique is called *Logic of Pure Cognition*, where all the purity of cognition crystallizes in a logic of judgment. But also his other two systematic parts are interested merely in the *purity*, i.e., the lawful elements in other mental faculties, namely willing and feeling. Ethics is to deal with "pure will" and aesthetics with "pure feeling."[67]

In this pure sense and in its focus on the objective achievements of reason, Cohen's idealism has also been called an "idealism without subject."[68] The subjective is entirely neglected and seen as premature or at the very least irrelevant for scientific cognition. It is not that Cohen denies any inquiry into the subjective; rather, how it comes to pass that we arrive at scientific cognition is irrelevant for the truths of science. This emphasis—also in his reading of Kant's Deduction, favoring the B Edition—makes sense in his focus on pure thought and the objective, lawful achievements. Only in so far as scientific cognition is able to reach *universal* and *general* truths is it relevant philosophically. It is easy to see how such an over-emphasis could prompt critique from several points of view. Husserl's phenomenology, e.g., is one big attempt to draft a science of the subjective, ascertaining ideal laws of thought itself. This is why phenomenology need not be construed

[65] A hypothesis is famously introduced in the dialogue Meno, where Socrates posits the hypothesis that virtue (*arête*) is either knowledge, in which case it can be learned and taught, or something altogether different (it turns out to be "true opinion," [*dóxa alethés*] in the end). On the Marburg interpretation of Plato, cf. Natorp's influential *Platons Ideenlehre* (*Plato's Theory of Forms*).

[66] The term "sublate" here is not to mean that Cohen does this in any analogy to Hegel. Hegel's teleological system is rejected on several accounts, though it has been remarked that Hegel receives an unfair treatment altogether, or is nearly overlooked altogether, in the Marburg School. On Marburg's relation to Hegel, cf. Holzhey, 2004.

[67] While both of Cohen's works on ethics and aesthetics (*Kants Begründung der Ethik* and the systematic *Ethik des reinen Willens*) have been received with great interest and intensity, it is worth mentioning that his works on aesthetics (*Kants Begründung der Aesthetik* and *Aesthetik des reinen Gefühls*) have been treated as curiosities up to being mocked—even within Marburg.

[68] Willey, 1975.

as antithesis to neo-Kantianism of the Marburg brand, but rather its correlative and its logical counterpart.[69]

At this point one can revisit the well-known and oft-voiced critique of Cohen's allegedly rendering philosophy a mere "handmaiden of the sciences." As should have become clear by now, this statement is simply mistaken on many levels. It is neither a *handmaiden*, nor of the *sciences*, if one understands by sciences exclusively mathematical-physical science. While Cohen takes it as point of departure both in his Kant interpretation as well as in his own system, it is clear that it is the paradigm exclusively for *theoretical* philosophy, where one is dealing with truths of mathematical rigor, as seen in Kant's understanding of a priori as general and universal. Rather, the sciences must be seen as a totality of knowledge about the world as we know it, in the broad sense in which the Greeks used the term *episteme* and which is also present in the German *Wissenschaft*. As such, the sciences are but one, though the highest form of culture, and what is relevant about culture is the ways man as a rational animal forms the world he lives in. Culture is the ultimate focus of Cohen's philosophy and any philosophy that sees itself as working within culture that is fuelled by the optimism of the Enlightenment.[70] The world is how it has been created by humanity. Culture is a great achievement, and its pinnacle is reached in man's rational activity crystallized in science, in the highest form of scientific cognition of general, universal objectivity. To say it bluntly: Humanity's greatest achievements are present and lie readily available in the academic libraries of this world.

Moreover, it would be absolutely misleading to consider philosophy in this sense as a "handmaiden" of these activities; philosophy lays the foundations upon which cultural activities become possible. Philosophy begins its work where problems arise for the scientist, which the scientist cannot answer without making recourse to philosophy. That is, these problems become question marks and as such challenges for mankind's rational powers. Or said differently, philosophy forever turns unquestioned givennesses into tasks to be problematized and ultimately solved with the use of reason, thereby opening up new avenues for questioning. Where scientists are at their wits' end, philosophers begin their work. It may be that the philosopher becomes motivated to begin her job on the basis of an already existing activity and in this sense comes *temporally* after the fact of cultural production. But this does not mean that she cannot then creatively interact with the cultural formations of her time, giving them guidance and laying the theoretical foundations of that which is achieved, for the most part, intui-

[69] On a manner in which one could merge the neo-Kantianian and phenomenological methods, cf. Luft 2004. One would also have to mention that, to Heidegger, this reading of the Deduction—Heidegger favoring that of the A-edition—was precisely the point of disagreement and of a fundamental parting of the ways.

[70] Cf. also Natorp's summary of Cohen's philosophical scope, cf. above, note 56.

tively and without explicit reflection. Cohen's view of philosophy is in this sense not entirely irreconcilable with an Hegelian idealism without, however, its teleological vision that would require all knowledge to ultimately become self-knowledge in absolute knowing that sublates all differences and brings the dialectical process to an end.

What has been said, thus, about the constructive character of pure thought holds throughout Cohen's entire system. In this sense, Cohen's idealism is a bold statement of the constructive achievements of humanity's cultural activities. His idealism has in this regard undoubtedly and self-consciously a cultural relevance and implications not only for the sciences but also for politics in his "social idealism," also referred to as "ethical socialism." The fundamental claim is: "The world of things is based on the foundation of the laws of thinking"[71], and this holds throughout and has, and (in accordance with Kant) *ought to have*, ethical and political consequences that are spelled out in Cohen's moral and political philosophy.

4. Outlook: The Unity of the Marburg School

While the later Cohen further delves into this "productive" aspect of reason, with an ever more radical focus on the purity of thought, it becomes clear how both Natorp and Cassirer took their cue from the foundations laid by Cohen. Natorp, for one, perceived there to be a gap in Cohen's system by not considering the "subjective" element in reason's activity. The "objective founding [*Begründung*] of cognition" would have to be complemented by a "subjective founding." Thus, in Natorp's own sketch of a transcendental psychology, which was quietly frowned upon by Cohen, Natorp attempts a "reverse" tendency. If scientific cognition, as the transcendental method teaches, *constructs* reality, then a consideration of the subjective would have to go its opposite path, that of a *re-construction* of the subjective elements from which objective cognition has become constructed. Natorp's reconstructive psychology, however, is not developed ultimately and Natorp himself gives up this project altogether in his late thought in favor of a deepened method that purports to unify both objective and subjective tendencies. It is, ironically, Husserl who takes the cues from Natorp's attempts and actually drafts such a transcendental psychology in the transcendental phase of his phenomenology, as an eidetic science of transcendental subjectivity. Husserl's key to solve Natorp's problem of psychology merely being a "reverse tendency" of the transcendental method is the phenomenological reduction. While Cohen moves towards an ever purer logic, Natorp aims at a unifying method that reconciles both tendencies, which he calls "life" and "thought" and ends up ultimately in a mysticism that listens to a primal logos that reveals being. Heidegger, who, as usual, obscures the

[71] Holzhey 2004, p. 51.

sources of his thought, could not have come to his fundamental ontology without the influence of Natorp, which he was exposed to in his time at Marburg.[72]

Cassirer, for his part, departs freely and creatively from Cohen in several respects, while, arguably, remaining in keeping with the overall scope and conception of Cohen. Both Cohen and Natorp never questioned the principal "logical" aspect of the transcendental method in the sense of its constructive character. 'Logical' means 'lawful', and so in every aspect of culture Cohen sought to find the lawful elements, with a rather rigid notion of law. This is the first tenet that Cassirer questions and overcomes. The main idea is here that, while there are different ways of viewing reality, this implies that one should have to accommodate also different *concepts* of lawfulness, and when one considers this, other cultural formations come into view that were impossible for Cohen to appreciate. Though Cohen sees the role of philosophy in the idea of a "reconstruction of culture," he never really fulfills this promise; instead, it is Cassirer who explicitly conceives of his philosophy as a "critique of culture." Culture, however, has different ways of expressing itself, with different "logics" and henceforth different *types* of laws. Whereas Cohen is a methodological *monist*, Cassirer embraces methodological *pluralism*, while retaining the idea of reality being *constructed*.[73] If one has this broad perspective, new phenomena come into view: these are what Cassirer calls the *symbolic forms*, of which he analyzes language, myth and knowledge in his three-volume systematic *Philosophy of Symbolic Forms*. These are ways in which cultural reality becomes constructed in different ways and in different logics. And this is the second element where Cassirer modifies the Marburg method: Cohen is still committed to the paradigm of *reason* in his focus on law-like formations in pure thought. In Cassirer, reason becomes *spirit*, as a term for the general activity of human "mental" activity that goes beyond, or is more fundamental than, cognition.

These can only be very broad strokes, to be sure, but should make clear how Cassirer's philosophy is based in a fundamental way on the foundations laid by his teacher Cohen in his original reading of Kant. Reason is spirit that acts in this world, thereby constructing, forming it, and viewing itself in these cultural achievements which are spiritual through and through. Thus, the only, and most important, element of the transcendental method that is preserved in Cassirer is that of *construction*. This is the most radical and at the same time most encompassing notion of idealism imaginable, which owes its basic foundation to Cohen's work. Although Cassirer in many respects

[72] On Natorp's influence on Heidegger's *Seinsfrage*, cf. Stolzenberg and von Wolzogen.

[73] The methodological connection here is between Cohen's work on mathematics in his *Infinitesimalprinzip* and Cassirer's first systematic work, *Substance and Function*.

departed from his Marburg origins, he made sure to always acknowledge the foundation of his system in the thought of Cohen. The real genius of the Marburg School, and hence of this original way of transforming Kant, is, and remains, Hermann Cohen.[74]

Overview over Hermann Cohen's Main Writings:

Kants Theorie der Erfahrung (1st ed. 1871, 2nd ed. 1885, 3rd ed. 1918)
Kants Begründung der Ethik (1877)
Kants Begründung der Ästhetik (1889)
Das Prinzip der Infinitesimalmethode und seine Geschichte. Ein Kapitel zur Grundlegung der Erkenntniskritik (1883)
Logik der reinen Erkenntnis (System der Philosophie, Vol. I, 1902, 2nd. ed. 1914)
Ethik des reinen Willens (System d. Ph., Vol. II, 1904)
Ästhetik des reinen Gefühls (System d. Ph., Vol. III, 1912)
Religion der Vernunft aus den Quellen des Judentums (completed in 1918, published posthumously in 1919, ed. by Cassirer/Rosenzweig)

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[74] I thank Melissa Mosko for comments on a preliminary version of this paper. A shorter version of this paper was delivered at the Northern American Kant Society, Midwestern Study Group, Chicago, November 2005. I thank the participants of this study group, especially Claudia Schmidt, Fred Rauscher, Sally Sedwick and Daniel Sutherland, who contributed to the discussion, providing helpful input and posing critical questions. Last not least, I thank David McPherson for help on grammar and style.

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