Pragmatism and Modernities

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Pragmatism belongs – at least to a certain degree – to the Protestant-based reaction towards the economic, social, and political developments of the time in the US, and it is no coincidence that the pragmatists all came from religious families if not even theologian families. But these life conditions have changed over the course of the last century as much as the Protestant self-assurance has been questioned more and more. The question discussed in this book by international scholars is as to whether the possible modernity of pragmatism of around and after 1900 can still be labeled modern today, in the modernity (or post-modernity) around and after 2000. Has philosophy and philosophy of education found better alternatives? Have the alternatives of the time around 1900 proven to be better? Were the contemporary critics of pragmatism right? These questions are discussed in fourteen chapters clustered in three lager parts: The first part deals with pragmatism and modernity around 1900, the second part discusses contemporary alternatives to pragmatism and critics of pragmatism, and the third and last part of the book deals with the modernity of pragmatism today.

Intended audience:

- philosophers
- philosophers of education
- historians
- historians of education
- religious educators
- historians of sociology
- cultural historians
- political scientists
- postmodernists
PRAGMATISM AND MODERNITIES
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SENSE PUBLISHERS
ROTTERDAM / BOSTON / TAIPEI
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In September 1908 a philosophical clash occurred during the Third International Conference of Philosophy in Heidelberg. On the one side, there was the European philosophy dominant at the time, Neo-Kantian and Neo-Hegelian idealism, which claimed to deal more adequately with phenomena of modernity than the alleged protagonists of modernity, the natural sciences, which idealism labeled as materialism. The other side of the debate was represented by only two papers; they explained core elements of pragmatism, by doing so challenging the supremacy of idealism. In the center of the argument was the theory of truth that had been developed by pragmatism in general and by William James in 1907 in a volume of popular lectures, *Pragmatism: A New Name for Some Old Ways of Thinking* (James, 1907) in particular. In accordance with these lectures, at the Heidelberg conference the British philosopher Ferdinand Canning Scott Schiller defended the pragmatic—or as Schiller preferred to say: humanistic—notion of truth as opposed to a rationalistic or idealistic one. In the center of Schiller’s humanism, “the notion of truth is in permanent relation to the human life and its purposes. “Truth,” in other words, is not eternal or transcendent; it is “never ultimate” but must be “validated in practice.” Truth is a “core means in the struggle of life,” and therefore any idea—here Schiller turns to the rationalist or idealist idea of truth—“of an independent, superhuman, eternal, incommutable, unachievable, unfuctional truth must appear to be childish” (Schiller, 1908, p. 711).

The pragmatist idea of truth challenged the modern philosophy of idealism effective at the time by questioning the dualism between the material and the ideal and thus by contesting the idealist assumption that there is a truth beyond the material human world, a truth that has to be recognized by professionals (philosophers) and that needs to be applied to the human world, not least by educators: One of the founding fathers of Neo-Kantianism, Friedrich Albert Lange, was a high school teacher and wrote books on education, and Paul Natorp, one of the major exponents of Neo-Kantianism, held the chair of philosophy and education at Marburg. Plato had been the model of this idealism (Natorp wrote books on the Greek philosopher as well as on Pestalozzi), and in the nineteenth century it had been foremost the German philosophers that held to idealism, whereby ever since the fall of the Holy Roman Empire of the German Nation in 1806, coarse nationalism had melded with the ancient Greek idealism. In *Addresses to the German Nation*, published in 1808, the German idealist Johann Gottlieb Fichte, for instance, left no doubt that the realization of the eternal ideal could only come through (the once better educated) German people. However, idealism, nationalism, education, and politics were not exclusive to Germany, for Giovanni Gentile—Italian idealist, philosopher, and national education secretary to
Mussolini – joined the armada of European idealists, as did also his former colleague and anti-fascist, Benedetto Croce.

Therefore, the pragmatist challenge was not only an attack on idealism as a specific mode of thinking in a modern way but also an attack on national identities, most of all the German identity. This German identity had been greatly encouraged by the immense growth in the economy and population but shattered domestically by the emergence of different political parties (and in particular the socialist party, which proved to be highly attractive to the new industrial labor class) and with regard to foreign affairs by the ‘Moroccan Crisis,’ which resulted in the establishment of a French protectorate in Morocco (with the help of the British and by ignoring important treatises with the German). The Germans were losing in their efforts to establish a powerful colonial empire parallel to France, Great Britain, Spain, or Portugal. Germany was once again involved in the Second Moroccan Crisis in 1911, which very nearly triggered the Great War that broke out not very long after.

It is not that the German philosophers had not recognized the tremendous economic growth in their own nation, but they held that this growth had no deeper meaning and had not affected the way that Germans stuck to their ideal, the German Geist, and their world mission in which they had believed since Fichte’s Addresses to the German Nation. This shows up clearly, for instance, in the work of Rudolf Eucken, New Idealist philosopher of life (Lebensphilosophie) and winner of the Nobel Prize in Literature. Eucken acknowledged that Germany – like France, England, or America – had experienced tremendous economic growth in the nineteenth century. The crucial difference according to Eucken (1914), however, was that this development had not corrupted the Germans’ true character at all: “Have we then fallen away from our own selves when we turned to the visible world, when we developed our forces on land and water, when we took the lead in industry and technology? Have we thus denied our true, inner nature?” Eucken asked, only to respond, “No and once again no!” (p. 8). The invisible world – and not the visible – was the all important world, and this invisible world was not so much ‘above’ the world as it was within the single persons: It derives from the Lutheran concept of Innerlichkeit, the inwardness of the person. Therefore, the focus on the person did not mean the individual as a distinct person in a pluralistic (and democratic) society, for this conception of individuality had been perceived as selfish, whereas according to Sombart (1915), “true individuality” had been raised to “heroic idealism” (p. 113). Western democracy was seen as an atomistic “aggregate of individuals” and juxtaposed against the German concept of Nation, which is “a folk community composing a unity,” the “deliberate organization of something transcending individuals” (Sombart, 1915, p. 76), to which single individuals belong as parts in order to form the “last dam holding back the mud slide of commercialism” (p. 145). It was in this context that along with his colleague Ernst Troeltsch, the sociologist Max Weber tried to trace the different cultures in the United States of America and Germany back to the different Protestant denominations, Calvinism and Lutheranism. Weber (1906/1990) had no doubt that Luther was superior to Calvin, but he acknowledged that the Calvinists
had more commitment than the Lutherans, for they had gone through “the school of strict asceticism” (p. 33), a circumstance that was:

the source of all that which I find odious about it [the German nation], and assessed completely religiously – and I see no way to around this – the average member of a sect in America stands just as high above the state church ‘Christians’ in our country as Luther, as a religious person, stands above Calvin, Fox, e tutti quanti. (p. 33)

It is obvious that the philosophical, educational, and religious discussions around and after 1900 dealt with the economic (industry), social (emergence of the labor class), and political (democracy) developments as much as the discussions in economy, sociology, or politics did: The fin-de-siècle crisis as sign of modernity had asked for adequate answers, and these answers turned out to be a blend of idealism and nationalism, as we can see in the quotations above from Eucken or Sombart. It is no coincidence, for instance, that the Genevan Théodore Flournoy, organizer of the International Congress in Philosophy previous to the one in Heidelberg, the Congress in Geneva in 1904, wrote on 20 September 1908 to William James (neither of them had attended the Heidelberg Congress): “I have had news of the Congress at Heidelberg only through [Lorenzo M.] Billia, the philosopher from Turin, who passed through Geneva … He found the Congress very tedious, much too German and not international; …” (quoted in Le Clair, 1966, p. 202). In other words, philosophy was not only a discussion about eternal ideas (even if it pretended to do this exclusively) but also (at least to a certain degree) a discussion about and within conditions of life around 1900. Philosophy was insofar (also) a discussion about phenomena that were perceived to characterize modernity, such as urbanism, capitalism, or nationalism, and was therefore itself (at least to a certain degree) an expression of the time and its conditions – which, of course, is an interpretation that is more pragmatic than idealist. The fact is that with the emergence of pragmatism in Europe, idealism in all its shades had become a fundamental rival in the interpretation of the world, in questions of the truth and the good, and thus in questions of politics and education.

It is exactly these considerations that motivated the editors of this volume to invite distinguished scholars in the field of philosophy, education, and religion or religious education to discuss the question of how modernity and pragmatism can be related to each other. There is no doubt that the exponents of pragmatism believed that they dealt more adequately with phenomena of modernity than their idealist colleagues in Europe and in the United States did. Was the pragmatist’s claim to be modern justified? And if so, was it exclusive?

The general thesis of this book is that pragmatism is a form of thinking that emerged in a specific context, namely, from specific conditions of life that can be labeled “modernity.” Pragmatism was, after all, developed in Boston and Chicago, and not in Wichita, Kansas, or in Jackson, Wyoming. This thesis does not assume that pragmatism is in a deterministic way simply a result of these conditions but that it is more a result of a clash between fundamental moral values of the exponents and the emergence of modernity around 1900. Implicitly, this thesis includes the idea that philosophies other than pragmatism emerged in the same
context and that they, of course, could be convincing and labeled as modern, too. Therefore, it was a major concern of this book to invite not only experts in pragmatism but also other experts – in philosophy, education, and religion or religious education of modernity, too. The purpose is to reconstruct a plural philosophical and educational discourse that in fact focuses on pragmatism but includes alternatives to pragmatism and even critics of pragmatism in the same temporal context.

To restrict the reconstruction of the multi-dimensional discussion to the discussions around and after 1900 would neglect the attractiveness of pragmatism today. It has been said over and over again that pragmatism has experienced a renaissance since towards the end of the twentieth century, and mostly this renaissance is connected with the publication of Richard Rorty’s *Philosophy and the Mirror of Nature* (Rorty, 1979) (see, for instance, Joas, 1997, p. vii). Ever since, it seems, pragmatism has gained attention in different academic disciplines, as can be seen in editions of the works and correspondence of William James, Charles Sanders Peirce, John Dewey, George Herbert Mead, and Jane Addams, and in countless academic publications and various websites, including the Pragmatism Cyberary, the Mead Project, the Center for Dewey Studies, or the John Dewey Society. However, this popularity is not without pitfalls, for the conditions in 1900 obviously differed very much from the conditions today. It will be helpful to reconsider the situation of Chicago around 1900, for example, for it was no other than John Dewey who explained in 1899 to a Chicago audience that prevailing socio-economic conditions of life required a response – an educational response, to be precise (Dewey, 1899/1976, pp. 6ff.). Dewey (1927/1954) did not try to ignore the life conditions in the big cities but specifically sought to deal with them: “It is silly and futile to ignore and deny economic facts… They do not cease to operate because we refuse to note them, or because we smear them over with sentimental idealizations” (p. 156). Pragmatism is by its definition an answer for dealing with the concrete situation.

Let us thus recall briefly the situation in Chicago around 1900, in order to understand what conditions irritated the moral values of the exponents later called pragmatists. Within ten years, between 1880 and 1890, the population of the city had doubled from a half to a full million, and within the next twenty years between 1890 and 1910 it doubled again to two million. For city government or companies to cope with these numbers in terms of infrastructure – road construction, electricity, transportation, food supply, education, and so on – was a tremendous task, not to mention the ethnic and cultural differences and the communication problems. But Chicago not only grew quantitatively; life changed totally. Whereas in 1840 most of the 4,000 inhabitants made a living by farming, trading, or running small enterprises, the steel and meat industries began to dominate economic life after 1860, when Chicago became the center of the railroad system. Among the large integrated steel works we find Union Mill, founded in 1863, U.S. Steel South Works in 1881, Acme Steel in 1907, and U.S. Steel in Gary 1908. At the peak, about 200,000, people were employed in Chicago in the steel mills and other industries related to steel (Bensman & Wilson, 2004, pp. 42ff.). The railroad enabled Chicago to become not only the hub of the American railroad system but
also the “Porkopolis” of the United States during the Civil War (Wade, 2004, pp. 515ff). The Union Stock Yard opened in 1865 and became the center of meatpacking in the United States; from 1893 onwards, no year passed in which fewer than 15 million head of livestock were unloaded at the stockyards and then slaughtered, packed, and shipped – mostly to the big cities on the East Coast: That makes 50,000 head of livestock a day. Ironically or not, the Great Fire of 1871, which destroyed the homes of almost a third of Chicago’s population, can be seen as a new driving force in generating even more development; financial men like Henry Greenebaum traveled through the Western world to successfully promote investment in the destroyed city (Sawislak, 1995, p. 321).

The crucial question about these developments is how they were interpreted and what the reactions to them were. Wealth had become tangible along the shores of Lake Michigan: One of the first skyscrapers in the world was completed in 1885, the Home Insurance Building on Addams Street, which had a fireproof metal frame. The Masonic Temple with twenty-one stories followed in 1892 and the Tower Building in 1899 (Condit, 1964). Hotels that were destroyed in the fire of 1871 were rebuilt: the Grand Pacific Hotel in 1872, then the Palmer House, the Tremont, and the Sherman House, adopting the commercial palazzo style of architecture, all fireproofed, boasting of grand lobbies, monumental staircases, elegant parlors, cafes, ballrooms, and so on (Berger, 2004, p. 394). For private residences, architects such as Frank Lloyd Wright developed a unique blending of various architectural styles. How much the modern architecture reflected the self-confidence of the privileged classes of society can be seen in the monumental Plan of Chicago, proudly presented in 1909 by the former Director of Works for the World’s Columbian Exposition (also called The Chicago World’s Fair) (Burnham & Bennet, 1909/1970). Accordingly, entertainment clearly began to become fragmented along class lines and added to the separation of the classes (Vicker, 1883; Erenberg, 2004, pp. 270ff.).

Whereas some people applauded these developments as the beginning of a modern age, others felt concern. To them, wealth, luxury, and pomp were only one side of the coin, bringing along with them humiliation, child labor, exploitation, corruption, diseases, crime, prostitution, and alcoholism. This interpretation emerged from a specific ideal of how people’s lives should be organized. It therefore triggered a vast variety of moral upset. There were a vast number of publications aiming to shake up the public, and accordingly, moral social activities such as the Social Gospel movement emerged. It is no coincidence that the majority of the activists were middle-class Protestants trying to reestablish a moral order that they believed had existed in earlier times (Boyer, 1978). Most of them shared some ideal of equal community, as the Baptists and Congregationalists had promoted, and they could be quite militant. In New York City, the Presbyterian minister Charles Henry Parkhurst accused officials of corruption and of being responsible for alcohol abuse and prostitution, and in Chicago it was the son of a congregational minister, William Thomas Stead, who led the moral crusade against the conditions of city life with books like If Christ Came to Chicago (Stead, 1894). Books such as the famous In His Steps by Congregationalist minister Charles Monroe Sheldon demanded of tens of thousands of middle-class Protestants,
“What would Jesus do?” (Sheldon, 1896), and other books, like Our Country: Its Possible Future and Its Present Crisis (Strong, 1885), by Josiah Strong, reverend and founder of the Social Gospel movement, or The Christian Society (Herron, 1894) by Congregationalist pastor George D. Herron, were absolute bestsellers, published in numerous editions.

There is no doubt that pragmatism belongs at least to a certain degree to the Protestant-based reaction towards the economic, social, and political developments of the time, and it is no coincidence that the pragmatists all came from religious families if not even theologian families (Kuklick, 1985; Rockefeller, 2001; Tröhler, 2006). But these life conditions have changed over the course of the last century as much as the Protestant self-assurance has been questioned more and more. The question thus remains as to whether the possible modernity of pragmatism of around and after 1900 can still be labeled modern today, in the modernity (or post-modernity) around and after 2000. Has philosophy found better alternatives? Have the alternatives of the time around 1900 proven to be better? Were the critics of pragmatism right?

These questions – rather than answers – led the editors to design a three-part structure for the book. The first part has four chapters and deals with pragmatism and modernity: a chapter on Charles S. Peirce by Cornelis de Waal, a chapter on pragmatism as a response to interpretations of modernity by Daniel Tröhler, a chapter on how the pragmatist philosophy of education can be labeled modern by Sabine Baum, and a chapter reflecting on a more general level on education and modernity around 1900 by Jürgen Oelkers. The second part of the book starts with a chapter on alternatives in religion and education by Friedrich Schweitzer. It then includes two chapters on critics and two on concrete debates. The chapter by Thomas S. Popkewitz reconstructs the main critiques that pragmatism triggered in the United States, and the chapter by Fritz Osterwalder focuses on Emile Durkheim’s critique of pragmatism. The chapter by Norbert Grube reconstructs the famous Lippmann-Dewey debate, and the chapter by David F. Labaree shows how David Snedden, with his idea of Social Efficiency, ‘won’ over John Dewey’s progressive educational ideas. The third and last part of the book deals with the modernity of pragmatism today. Johannes Bellmann examines Dewey’s PISA compatibility, and in the next chapter Gert Biesta sounds the limits of the democratic ideal of pragmatism. In the third chapter Thomas Schlag examines the possible impact of pragmatism on today’s religious education, and in the last chapter Cleo Cherryholmes reflects on the particularity of re-reading pragmatism today.

This book is a result of an international cooperation among scholars in the United States, England, Germany, Luxembourg, and Switzerland. An important part of the process of writing this book was a one-week seminar at Monte Verità (the hill of truth) in Ascona, Switzerland, in September 2008, where the ideas for the book and the single chapters were discussed. We owe the Swiss Federal Institute of Technology in Zurich thanks for hosting the seminar at Monte Verità and are grateful to the Universities of Bern, Zurich, and Luxembourg for help in financing the project. We also would like to thank Peter de Liefde at Sense Publishers, who accepted the book for publication, Diana Goncalves Morgado for
the layout, for the index, and for checking the references, and Ellen Russon for editing the whole book.

One of the findings of this book is that pragmatism is not permanently modern, and it probably never has been. However, this insight goes beyond the question of pragmatism and modernity; it teaches us that utterances of ideas are always historical, in their original form just as much as in their appearance in a renaissance. And there was a second insight, namely, that innovative research is international and interdisciplinary and neither draws a Berlin Wall between philosophy and history nor leaves an insurmountable continental rift between the United States’ and Europe’s modern times.

NOTES

1 These lectures became known in German-speaking Europe through the publication of the German translation by the anti-idealist, Bohemian philosopher Wilhelm Jerusalem directly prior to the Congress (James, 1908).

2 Despite its outstanding role in the development of the nationalistic philosophy and educational theory, Fichte’s work, Addresses to the German Nation, was translated into English only in 1922. Reprints were published in 1968 and 1979. In 2008 Cambridge University Press published the first full translation of the Addresses into English since that of R. F. Jones and G. H. Turnbull in 1922 and only the second ever (Fichte, 1808/2008).

3 When the German Empire (or the Second German Reich) was founded in 1871, the number of people engaged in agriculture was 8.5 million, compared to 5.3 million people working in industry, transportation, and administration. In 1910 the number of people in agriculture had grown a little bit to 10 million, whereas the number of people in industry, transportation, and administration had increased to 13 million.

4 http://www.pragmatism.org
5 http://www.brocku.ca/MeadProject
6 http://www.siuc.edu/~deweyctr/
7 http://cupid.net/ids/
8 This follows Trohler (in press).
9 The first railroad in Chicago made its maiden journey in 1848.
10 Porkopolis was the nickname for excelling in the slaughterhouse business. Cincinnati, the first city to have this nickname (as early as 1843), was replaced by Chicago after 1860 (Wade, 2004).
11 An impressive view of the rise of Chicago and insights into city conditions is provided by the film, Chicago, City of the Century, co-produced by WGBH Boston and WTTW Chicago, in association with the Chicago Historical Society. The film is based on the book, City of the Century: The Epic of Chicago and the Making of America, by Don Miller (New York: Simon and Schuster, 1996; Touchstone, 1997).

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I. Concepts in Context
Overcoming Modernity Through the Application of Pragmatism

PEIRCE, POSTMODERNISM, AND POST-POSTMODERNISM

The signs are clear. The modern period, long considered the final destination for any development of thought, is more and more a thing of the past – and this despite the longstanding belief that its methods set the standards for all inquiry and that its foundations and its conclusions can boast of being universally true, even if only in principle. In his voluminous work, Four Ages of Understanding, John Deely argues that we find ourselves at the dawn of a new age. After the ancient, medieval, and modern age, we stand now at the beginning of what Deely calls the postmodern age, an age that in his view begins with Peirce (Deely, 2001). A similar sentiment is expressed by David Ray Griffin, whose book, Founders of Constructive Postmodern Philosophy, also begins with Peirce (Griffin, 1993). In the following I want to take some elements from Deely and Griffin to show that Peirce is not only a postmodern thinker, in that he rejects the basic tenets and presuppositions of the modern age, but also a post-postmodern thinker, in that he develops a unified research program that brings us solidly beyond the modern age and sets the tone for future philosophical inquiry.

In fact, I will argue boldly that Peirce might be the next Descartes. Just as Descartes is often considered the father of the modern age, Peirce might become the father of the next great age in philosophy. Of course, this will be a rather biased and unfair affair. Descartes is only one of many thinkers that inaugurated the modern age, and the same would be true for Peirce. Moreover, the claim that Descartes was the father of the modern age is one that we only encounter in rather superficial histories of thought that were written long after the fact, and it is certainly premature to give such an account about Peirce before the fact has even happened! However, just as Descartes is often used to provide a simplified account of the main tenets of modern philosophy and to put them in a historical perspective, so Peirce can be used to sketch out a potential future of philosophy in a way that allows us to stay firmly within the actual development of thought.

First, a few words need to be said about the term “postmodernism.” To begin with, I should say that I disagree with Deely, who calls the fourth era in the history of Western philosophy the age of postmodernism. Postmodernism, as it stands, is too much defined in terms of its opposition to the modern age. It is a reactive movement. Hence, I think that the postmodern period will prove to be much like the Renaissance, a time of a deep transition that leaves no area of thought untouched – a time in which criticism of the old paradigm has gained momentum.

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and tentative new avenues of thought are being explored. The postmodern period resembles the Renaissance also in another way. Both periods center around the rebirth of a previous era. For the Renaissance this was antiquity, for Peirce this is the schoolmen, especially the work of John Duns Scotus (Boler, 1963). And so I would like to distinguish the postmodern period from the post-postmodern period. The former is the period of transition described above; the latter is the yet-to-be-named next grand period in the history of Western philosophy – the one that comes after the modern period.² Peirce is certainly a postmodern thinker in that his philosophy dislodges the basic presuppositions of the modern age (this is the critical aspect), but he is also a post-postmodern thinker in that he developed a new philosophical platform that lies distinctly beyond the modern age (this is the constructive aspect).

A few words should be said also about what is meant by an age, and about the transition from one age to another. If we take Deely’s division into four great ages, we position ourselves at a great distance from the actual stream of thought, and the excuse for doing so is the attempt to discern long-term trends and shifts therein. For the purpose of the current chapter an age can be defined as a prolonged period of thought that is colored at a deep level by a relatively small set of main currents that distinguish it from preceding and subsequent times. It should be emphasized that such currents are often ascribed long after the fact and that during the period itself they often take the form of unconscious assumptions, truths too obvious for reflection, or implications at best dimly perceived. Generally people do not write and think about the things they take for granted; they write and think about what they do not take for granted but nonetheless believe to be true or at least worthy of investigation, or to oppose what they believe is false. It should be added also that at no time in the history of ideas is there homogeneity of thought, even though it may sometimes appear that way from a vantage point that is sufficiently far removed. At any point in time there are precursors to what is yet to come, dissenters, outliers, etc., and each age comes with prolonged Indian summers that extend well into the following age. In short, there are no clear breaks between the different ages, and the idea of long periods of stability separated by quick revolutions is misguided. New ways of seeing things take time to gain momentum, and old ways of looking at things tend to die slowly, and they seldom die entirely. Thus, when examining the shift from the Latin to the modern age, we see the first modern-style scientific work appear as early as the thirteenth century with Petrus Peregrinus’s Epistola de magnete, whereas logic remained firmly tied to its scholastic Procrustean bed until well into the nineteenth century (a circumstance that led to an almost complete disconnect between science and logic). Taking into account such forerunners and laggards, Descartes (1596–1650), who is oft considered as inaugurating the modern age, falls about midway.

THE MODERN AGE

So what constitutes the modern age? One crude way of capturing the spirit of the modern age is that it is the combined effect of a rejection of the ways of the schoolmen and a decided turn to nature. With their predominantly heavenly
aspirations, the schoolmen did not look too much at nature, and when they did, they usually confined themselves to imaginary experiments rather than get their hands dirty in direct confrontation with stubborn fact. The modern age, in contrast, is characterized in a very direct way by the discovery that nature has an order to it that lies open to any normal person endowed with reason, a premise that resulted in a rapid development of what we now call modern science. I think it is fair to say that what characterizes the modern age more than anything is the rise and tremendous success of science, with its subsequent profound influence on how we think and see things, and on society in general. In fact, the modern age can safely be called the age of science. It is the era during which scientific inquiry, in terms of its methods as well as its interests, came to exercise such a profound impact on thought that by the twentieth century there emerged the strong sentiment that all reasoning should be scientific. For instance, in the paper, “The Overcoming of Metaphysics Through the Logical Analysis of Language,” Rudolf Carnap happily dismissed all metaphysical and ethical claims as pseudo-statements—statements that suggest that they have cognitive meaning, whereas in fact they have none (Carnap, 1932).

Since the title of my paper is a deliberate echo of Carnap’s, I should briefly address my disagreement with Arthur Pap, who in 1959 translated Überwindung as elimination instead of overcoming, as I do here. I believe Pap is mistaken, and his choice of word has had significant ramifications on how Carnap’s views came to be understood in the English-speaking world. There is a big difference, in meaning as well as sentiment, between the two words. Eliminating an obstacle is something quite different from overcoming an obstacle. The latter conveys a strong sense of having struggled with the obstacle and triumphed. This is not so with the former, as you can eliminate an obstacle by finding your way around it; there may not be any struggle with the obstacle at all but only avoidance. The phrase “the elimination of metaphysics” suggests, and has suggested to many, that one can avoid doing metaphysics altogether. The title of the current paper is a play on Carnap’s title but not on Pap’s mistranslation. Modernity is something that needs to be overcome, not something that can simply be eliminated and replaced by something that is presumed to be better. It did not work for metaphysics. All that the elimination of metaphysics accomplished was that explicitly held metaphysical beliefs were replaced by tacit metaphysical presuppositions that escaped criticism because metaphysics had been officially eliminated. It will not work for modernity, either. If there is to be a new age of philosophy it has to overcome the modern age. There is no way around it.

Let us therefore look at some central tenets of this modern worldview. First of all, and in a decided contrast with the previous age, the modern age is strongly subject centered. This is, I think, in part a reaction against the schoolmen’s over-reliance on authority, but more importantly it is a consequence of one of the key presuppositions of early modern science, namely, that the way the world is can be known by any normal rational individual who sets his/her mind to it; a presupposition that many modern philosophers have sought to substantiate. This same presupposition invites a foundationalist epistemology, in that all our
knowledge about the world is ultimately to be grounded in experience, or, more precisely, in the experience of the individual who has or had the experience—meaning, besides possible so-called innate ideas, sensory impressions. This view invited, in turn, a correspondence theory of truth, in which knowledge is regarded as an adequate representation of the world within the mind of the knower, pretty much in the same way as a map represents the area it is supposed to cover. Within this context it is not surprising that Descartes’ ego cogito argument gained, and retained, such prominence. It enabled the modern mind to declare that with regard to empirical knowledge we can attain a level of certainty that can compete with, if not surpass, the claims to certainty made during medieval times. Descartes’ ego cogito did much to increase the focus on the subject, and this has led to the notion of the atomic self, a notion that was picked up by moral philosophy and political economy and that subsequently shaped the capitalist liberalism that came to define modern society (Myers, 1983).

There is another important aspect of the modern worldview that I have not yet touched upon. This is the shift from reasoning through dialectical disputation to mathematical reasoning. Following the influx of Arabian texts after the Crusades, mathematics went through a rapid advance. In fact, mathematics proved so successful, and so applicable to the world, that it was not only considered the lingua franca of which our natural languages were only the most imperfect of dialects, but it was even thought to be the language through which God himself spoke to us. In 1623, even before the discovery of analytic geometry and differential calculus, the advances in mathematics had already been so great as to make Galileo remark that the book of nature was written “in the language of mathematics.” If we fail to understand that language, Galileo warned, we are doomed to wander about as if “in a dark labyrinth.” This advance in mathematics was crucial. In fact, it was not until in the nineteenth century (and only after it was itself mathematicized) that logic became truly applicable to the study of the empirical world. In brief, for the modern mind it is mathematical reasoning that in the end allows us to make sense of our sense impressions. Not surprisingly, the nature of mathematics was hotly debated, with strong voices arguing that only sense impressions can furnish us with positive knowledge about the world, mathematics being wholly a creation of the mind. By the twentieth century this led to the view that mathematics is an entirely tautological or a priori enterprise and even to the view that all of mathematics is reducible to (mathematical) logic, thereby de facto declaring that mathematics is a highly intricate logical system.

The above account confirms a claim made frequently by Peirce that the modern age was dominated by a nominalist ideology, a claim that is also made by Deely. Nominalism is the view that only singulars are real; all the rest— universals, general laws, possibilities, etc.—are considered mere products of the mind, which, to be meaningful, must be reducible to or translatable into (manifolds of) singulars. Nominalism, as it turns out, represents one side of a late medieval debate concerning the problem of universals between William of Ockham and his followers and the followers of John Duns Scotus. Whereas the Ockhamists argued that universals existed only in the mind (in mente), the Scotists denied this, arguing that at least some universals had their being in reality (in reale). Because of its
more austere ontological commitment, nominalism is widely regarded as the simpler hypothesis of the two. Hence, it is the nominalist hypothesis that the economy of research tells us that we should try first and should hold on to, until we are forced to give it up in the confrontation with stubborn fact. So one way to interpret the modern age is to call it the age of nominalism, and one way to look at the transition in which we currently find ourselves is to say that we are being forced out of this nominalist stance by the *force majeure* of hard fact. This raises the interesting question as to whether we can find in the pre-modern debate between the Scotists and the Ockhamists the seed for the post-postmodern age, which would be the age of realism. The scientist-philosopher Peirce thinks we can, and when characterizing his own philosophy of science he even labels himself an extreme scholastic realist. In fact, part of what drove the practicing scientist Peirce was the realization that despite the nominalist ideology that colored the epistemic and metaphysical reflections upon it, science is in actuality not nominalist at all but tacitly presupposes a realism of sorts. In short, Peirce realized that there was a serious disconnect between how science operates and what it establishes, and how philosophers have been interpreting science and its accomplishments.

**PEIRCE’S CRITIQUE OF THE MODERN AGE**

Peirce’s grand attack on the modern age is found in his 1867 paper, “Questions Concerning Certain Faculties Claimed for Men,” written in the form of a medieval disputation for the *Journal of Speculative Philosophy*. Here Peirce developed a devastating criticism of the Cartesian worldview that would set the tone for much of his later work. The “cognition papers,” as they are often referred to, were composed after an extensive study of the work of the schoolmen that Peirce began in the first half of the 1860s by reading many long-neglected works in the original Latin in old editions, quite a few of which he managed to purchase himself. The “cognition series” consists of three papers. The first, “Questions Concerning Certain Faculties Claimed for Men,” is largely critical, and the other two, “Some Questions of Four Incapacities” and “Grounds of the Validity of the Laws of Logic,” are largely constructive – especially the first, which contains in effect the outline of an entirely new platform of philosophy. Let’s begin with the critical part.

“Questions Concerning Certain Faculties Claimed for Men” contains seven questions, all of which are answered in the negative, and with each subsequent answer build upon the preceding negations. I will just run through them quickly without providing Peirce’s arguments for them. Peirce begins by denying that we possess an intuitive faculty that enables us to distinguish intuitive from non-intuitive cognitions. Peirce next denies that we need intuition to explain our private self. Peirce then denies that we have any intuitive power that allows us to separate the immediate objects of sense from all that appears before the mind’s eye – we can only distinguish indirectly, that is, through an inference of some kind, between what we directly perceive and what is of our own making. Peirce uses all of this to show that we have no power of introspection, arguing that all our knowledge of the so-called “internal world” is derived from the observation of “external facts.” He
then uses this to deny that we can think in any other way than in signs, which is followed by his denial that a sign can meaningfully signify something that is absolutely incognizable, which, in turn is used to deny that we can have any cognition that is not determined by a previous cognition. Peirce’s argument thus leads him to conclude that there are four significant restrictions on our cognitive abilities: We have no power of introspection; we have no power of intuition; we can only think in signs; and we can have no conception of what is absolutely incognizable.

How does this affect the modern enterprise? Above, I described the modern age as a decided turn to the study of the empirical world in which the subject is declared at once the fountainhead and final arbiter of knowledge. Knowledge is generated by the application of mathematical reasoning to direct sensory impressions, for which the Euclidian proof furnishes the model. The result is a foundationalist epistemology in which the knowledge we generate is a copy of sorts of its object, thus suggesting a correspondence theory of truth. The metaphysical underpinning of all of this is decidedly nominalistic: Only singulars are real; all the rest is a product of the mind.

Those who are familiar with Peirce’s pragmatic maxim may recognize its root in his conclusion that we can have no conception of what is absolutely incognizable. The pragmatic maxim transforms this restriction on our cognitive abilities into a regulative principle that runs as follows: “Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object” (W3:266). Peirce’s pragmatism affects the epistemological tenet of the modern age on at least two points: its foundationalism, and its adherence to a correspondence theory of truth. On the pragmatic maxim any claim that we can ground our knowledge in something that cannot in principle be known— as, for example, Locke’s substratum — as well as any claim that our knowledge corresponds with an object that is itself unknowable, is devoid of meaning. As we will see, however, Peirce’s re-conception of the subject saves him from falling into Humean skepticism, as it opens the way to a different conception of knowledge, truth, and reality.

As we saw, the modern age is self or subject centered. As it turns out, the aforementioned restrictions on our cognitive abilities do not leave our conception of the subject untouched. In fact, one key consequence of Peirce’s criticism is that the modern conception of the subject as a self-confined and pre-formed individual endowed with an innate capacity to reason and with innate intuitions—all of which are accessible through introspection (up to the point of making the self self-transparent)—can no longer be maintained. The subject can no longer be seen as something that precedes the interaction with others and with the world but must be recognized as an empirical byproduct of that interaction; the latter being a process in which the testimony of others plays a crucial constitutive role. Peirce puts this most explicitly in a draft of “Some Questions Concerning Faculties Claimed for Man”:

The dawning of the conception of testimony is the dawning of self-consciousness. Because testimony relates to a fact which does not appear.
Thus, a distinction is established between fact and appearance. For example, suppose a child hears that a stove is hot; it does not seem so to him, but he touches it and finds it so. He, thus, becomes aware of ignorance and it is necessary to suppose an ego in whom this ignorance can inhere. (W2:168f)

Hence, the self and the distinction between what is real and what is not emerge in tandem. The problem of the self and the problem of reality are in fact two sides of the very same coin.

Now, given the claim that we can have no notion of what is incognizable, such error and ignorance can be recompensed, at least in principle, through inquiry or through the testimony of others. Hence, contra Descartes and the moderns, Peirce does not put a blanket prohibition on the scholastic reliance on the authority of others. Quite the contrary, since no individual can inquire into everything that raises his or her curiosity, and since every individual needs correction by others, reliance on authority plays a crucial role in Peirce’s theory of scientific inquiry, so much so that without it science would not even be possible. How far does this reliance on authority go? Peirce answers this question rather dramatically: The testimony of others may even convince a man that he himself is mad.

According to Peirce, we naturally ascribe all that we experience to the world, and only when that fails do we seek an alternative explanation. As Peirce put it, “A man who gets up on the wrong side of the bed, for example, attributes wrongness to almost every object he perceives. That is how he experiences his bad temper.”

The upshot of this predicament is that for Peirce, the self is in essence a post facto empirical hypothesis to account for the individual’s recognition of error and ignorance.

A consequence of the resulting new notion of the subject is that we will have to forego certain things that the modern age associated with the status aparte of the subject, most importantly the inviolability attributed to the individual’s reasoning capability and claims to things being self evident as in Descartes’ notion of clear and distinct ideas. In the Cartesian notion of the self that dominated the modern age, mistakes are not caused by any deficiencies inherent to the individual’s rationality but by contingent practical limitations, or by our emotions interfering with what otherwise would be a purely rational train of thought. For Peirce, in contrast, reason is not a God-given faculty that we bring to the table fully formed at birth but a faculty that we painstakingly develop through life, and it is decidedly a social product as well. According to Peirce, all the important advances in logic are due to significant advances in actual problem solving, so that we can say that reason has its own fallible, empirical history, which, especially during the modern age, is mostly the history of science. This is why Peirce, in the “Fixation of Belief,” literally calls Antoine Lavoisier’s alembics and cucurbits instruments of thought. It is a mistake, Peirce writes elsewhere, to take our reasoning “in that narrow sense in which silence and darkness are favorable to thought. It should rather be understood as covering all rational life, so that an experiment shall be an operation of thought” (CP 2.420; emphasis added). In an essential way this releases thought from the confines of the individual mind in which the modern age has trapped it.
Let’s look more closely at science, as science is so much a defining characteristic of the modern age. For Peirce, science is social on at least two levels: Its method is social, and its facts are social. First, the method of science is social. Scientific research is an inherently communal affair. It involves multiple individuals in continual interaction. Peirce’s focus is not on the solitary genius, the Dr. Frankenstein who, abandoned by all, traverses the path of truth entirely on his own, but it is always on the community of inquirers. Second, and closely related to the first, the facts of science are social facts. They are public facts that are at least in principle accessible to those who take the trouble to inquire into them. As Peirce put it:

As long as only one man has been able to see a marking upon the planet Venus, it is not an established fact. Ghost stories and all that cannot become the subject of genuine science until they can in some way be welded to ordinary experience” (CP 7.87).

That is to say, only when observations enter the public domain do they become fact.

Put differently, for Peirce the problem with the modern age – which is the age of science – is that it mistakes the mental states of individual scientists for scientific facts. Peirce objects to this. For him science is a social enterprise: “I do not call the solitary studies of a single man a science,” Peirce writes.  

The situation is rather the reverse. With the human self defined in terms of error and ignorance, a key part of scientific inquiry becomes the filtering out of the quirks and limitations of the individual scientists through the confrontation with the views of others, who also come with their own quirks and limitations. As a result, we cannot look at scientific results as the product of this or that individual, however brilliant, working in isolation, but must consider it a product of the community of inquiry – a community that shapes its members while it is being shaped by them.

Peirce’s notion of scientific inquiry also makes inquiry a pluralistic affair. There are many ways to establish a fact. For instance, one may derive the rotation of the earth from evidence as varied as the movement of the heavens, the swinging of a pendulum, the aberration of light, and even the draining of bathtubs. Hence, pluralism, rather than obstructing inquiry, enhances it. In general, there are many different questions and many different starting points that will lead us to the same conclusion.

Peirce developed the resulting “social theory of epistemology” (R 958:141, 1893) in a paper entitled “The Fixation of Belief.” Presupposing that there are things that are independent of what you or I or any group in particular thinks them to be, and recalling that the absolutely incognizable is wholly inconceivable, Peirce argues that if something that is thus independent were to be studied indefinitely long by a sufficiently large group of investigators, its independence would ensure that the beliefs of those investigators would eventually gravitate to one another and become settled in one shared belief. Peirce refers to such a belief as the final opinion in the matter, which he equates with the truth; and he identified the object of this opinion as something real. This is evidently a much broader conception of truth and reality than that of the modern age. Any statement that would ultimately
be agreed upon at the end of inquiry would be true, and its object real, and there is no reason why this should be limited to singulars, as the nominalist, who seeks to erect his edifice on the pinpricks of our senses, wants to make us believe. Peirce describes his realist stance as follows:

Since no cognition of ours is absolutely determinate, generals must [be real]. Now this scholastic realism is usually set down as a belief in metaphysical fictions. But, in fact, a realist is simply one who knows no more recondite reality than that which is represented in a true representation. Since, therefore, the word “man” is true of something, that which “man” means is real. (W2:239)

In brief, to be real means to be independent of what anyone in particular thinks it to be. In this sense reality is distinguished from the fictions of our fancy. If in the indefinitely long run something is agreed upon by all who investigate the matter, then their conclusion is independent of what anyone in particular thinks it to be, and hence the object of this conclusion is real, and there is no reason to put additional restrictions upon it. That is to say, there is no reason at all why we today should seek to mold our beliefs to fit the Procrustean bed of nominalism. There is no need to tailor our beliefs about the world to accommodate the methods and presuppositions of the modern conception of the hard sciences. In fact, it seems quite clear from the views Peirce developed that such tailoring is not only misguided but also detrimental to scientific progress. To appropriate a favorite phrase of Peirce, “Do not block the road of inquiry!”, we can say that to require that to be scientific, any quest for knowledge should limit itself to the ways and means of particle physics, or something of the kind, “blocks the road of inquiry,” and this is one of the gravest offences one can make to the spirit of science.

Peirce’s epistemological project is thus social, more radically empirical, and realistic. In this way, the perceived threat of Humean skepticism is averted, as we can come to know the world, even if only in principle. 8

CONCLUSION

Do we see the dawning of a new age here? Do we find in Peirce the beginnings of a new philosophy that can carry us beyond the modern age? I think we do. Peirce’s re-conception of the subject with its resultant realism frees us from the nominalist strictures of the modern age in a way that is compatible with the turn to nature that inaugurated that age, and that can built upon the successes, and the failures, of the sciences (the latter including most significantly, the failure to adequately deal with the humanities and social sciences, a failure that is due in part to the drive to have all the sciences fit within the narrow confines of the physical sciences nominalistically understood). The conception of science that Peirce puts before us is a broad one and a different one. It includes not only the activities of the quantum physicist, the radio astronomer, and the microbiologist but also the ventures of the homicide detective who tries to solve a case, or the mother who tries to determine what kind of school she should send her child to. For Peirce,
what makes an inquiry scientific is not its subject matter, nor whether it employs the "scientific method," but whether the inquiry is engaged in with a genuine desire to have the questions one is asking answered. Peirce calls this the scientific attitude. When inquiry is engaged in with the right attitude, Peirce continues, methods for how to do the research and how to evaluate its findings follow naturally. The true purpose of such inquiry is not to provide the knower with some sort of mental replica of the world – the finite mind eagerly trying to see the world as if it were its Omniscient Architect – but to help us cope with the problems and questions that we, as humans, encounter in our environment. As Peirce’s account of scientific inquiry shows, meaning, truth, and reality are not fossil remains in need of an analysis but final causes to which the intellect eventually progresses while fulfilling its purpose. It is here that pragmatism will flourish. Hence, I think that the post-postmodern age will be Peircean. The new age in philosophy will be realistic not nominalistic, will be scientific without being scientific, will be pragmatic not rationalistic, will be future oriented, and will lead to a thorough rethinking of who and what we are.

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