Münster Lectures in Philosophy 2

Julia F. Göhner · Eva-Maria Jung
Editors

Susan Haack: Reintegrating Philosophy

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Preface

Susan Haack is distinguished professor in the humanities, professor of philosophy, and professor of law at the University of Miami. She gained international acclaim for her work in philosophy of logic (especially nonclassical, fuzzy logics), her plea for the epistemological position of foundherentism, and her contributions to the philosophy of law. In numerous books and articles on logic, epistemology, philosophy of language, philosophy of science, and metaphysics as well as pragmatism, feminism, and philosophy of law, she has greatly influenced contemporary philosophy throughout the past 40 years. Haack has been awarded various honors and prizes, both for her research and teaching. In 2004, she was included in Peter J. King's "100 Philosophers: The Life and Work of the World's Greatest Thinkers," and in 2005 she was listed as one of the ten most important woman philosophers of all time.

Haack's impact on contemporary philosophy, her professional renown, and the broad range of topics covered would have been reason enough to invite her to deliver the 17th Münster Lectures in Philosophy. Her eagerness to discuss her work and elaborate on its details and implications has commended her all the more. From the 6th–8th of November in 2013, the Department of Philosophy had the honor of welcoming her as their guest in Münster. Her public evening lecture "The Fragmentation of Philosophy, the Road to Reintegration" set the stage for a colloquium, which took place on the following 2 days. During the colloquium, groups of students and junior faculty of the Department of Philosophy in Münster presented papers on diverse aspects of Haack's philosophy—some inquisitive, some slightly critical, but all of them well prepared after thorough occupation with Haack's work. Haack took the time to patiently explain her motivations, to comment constructively on ideas proposed, and to reply to the critical points that were raised. What ensued was a lively and stimulating philosophical exchange, which gave students and faculty an opportunity to profit from meeting a philosopher of international fame in a personal, nonhierarchical, and productive context. This, after all, is the idea at the very heart of the Münster Lectures in Philosophy.

All contributions to the Münster Lectures—including the evening lecture, the students' papers, and Haack's replies—are contained in this volume, alongside her essay "The World According to Innocent Realism: The One and the Many, the Real and the Imaginary, the Natural and the Social," which is here published in English for the first time.

The editors would like to thank everybody involved in organizing the lecture and the colloquium and in preparing the publication, especially Stefan Klatt of the Centre for Advanced Study in Bioethics, Claudia Güstrau, Lars Kiesling, Sibille Mischer, Oliver R. Scholz, Tanja Uekötter, and Rebecca Walsh. Furthermore, we cordially thank Gertrud Grünkorn and academic publisher *De Gruyter* for their financial support, as well as Raphael Hüntelmann, whose publishing company *Ontos* has supported the Münster Lectures for many years. We are particularly grateful to Lucy Fleet and her colleagues at *Springer* for generously offering us to publish this and future volumes of the Münster Lectures and for helping us with the preparation of the manuscript.

The students at Münster and our colleagues have done a wonderful job at preparing their contributions for the colloquium, and we wish to express our gratitude to each and every author.

Last, and certainly not least, we wish to thank Susan Haack for her willingness to partake in this unique event, for her energy in preparing the evening lecture and the replies, and for her general cooperation. Without her, the event would not have been the success that it was.

August 2015 Julia F. Göhner
Münster Eva-Maria Jung

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Lectures

Chapter 1
The Fragmentation of Philosophy, the Road to Reintegration

Susan Haack

> *. . . every fact leads to every other .... . Only men do not yet see how, always. And your business is to make plainer the way from some one thing to the whole of things; to show the rational connection between your fact and the frame of the universe. . . . To be master of any branch of knowledge, you must master those that lie next to it . . .* —Oliver Wendell Holmes (1886).[1]
>
> *British and American philosophy has recently become extraordinarily scholastic, obsessed with questions about how many philosophers can sit on a niggle.* —Jenny Teichman (1989).[2]

Over dinner at a conference a few years ago, the graduate student sitting next to me solemnly announced that what *she* did was virtue epistemology; and what, she politely inquired, did *I* work on? I was partway through explaining how developing my foundherentist epistemology[3] had got me thinking about the evidence with respect to scientific claims, which in due course led to my Critical Common-sensist account of scientific evidence and scientific inquiry and my Innocent Realist account of their metaphysical underpinnings,[4] and how I was drawn from there to

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Münster Lecture, Universität Münster, November 2013.

[1] Oliver Wendell Holmes, "The Profession of the Law" (1886), in Sheldon M. Novick, ed., *Collected Works of Justice Holmes* (Chicago: University of Chicago Press, 1993), vol.3, 471–73, p. 472.

[2] Jenny Teichman, "Don't be Cruel or Reasonable" (review of Richard Rorty, *Contingency, Irony and Solidarity*) (1989), reprinted in Teichman, *Polemical Papers* (Aldershot, Hants, U.K.: Ashgate, 1997), 134–36, p.134. (This, the common use of "scholastic" today, is probably unfair to the Scholastics; but here I will let it pass).

[3] Susan Haack, *Evidence and Inquiry* (1993; expanded ed., Amherst, NY: Prometheus Books, 2009).

[4] Susan Haack, *Defending Science—Within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003).

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issues about legal proof generally,[5] and about legal efforts to domesticate scientific testimony specifically,[6] and from there to questions about the evolution of legal systems,[7] …, and so on, when I realized she was looking at me as if I were a Martian. "You don't have an *area*?" she asked, in the incredulous tone in which people sometimes ask me, "you don't have a *cell-phone*?" This, naturally, set me thinking about how radically out of step[8] I find myself with the hyper-specialized, quasi-technical work that, of late, seems to be (almost) ubiquitous in professional philosophy—and why this fragmentation is, to my way of thinking, so counter-productive.

And only a few months ago, serving on a panel at another meeting, I listened in disbelief as another participant insisted that this hyper-specialization is perfectly OK. After all, he said in a blithely confident, "let's be reasonable" tone, such specialization is both normal and productive in the sciences—so why not in philosophy, too? That's preposterous, I found myself protesting; the two cases are quite different. In a mature branch of the sciences, individual scientists or laboratories will take on this or that highly specialized problem *because there's a body of well-warranted theory to be applied and extended*. But the situation in philosophy is quite different;[9] and the way our discipline is splitting into a congeries of small sub-specialties is a sign, not of its maturity, but of the careerism and cliquishness of our profession. These thoughts nagged at me on my way home; and set me thinking about how detached philosophy now seems from its own history, and how very different this is, also, from working scientists' usual indifference to the history of their fields—and, again, how counter-productive.

Hence this paper, which will fall into four parts: first, contrasting the highly specialized professional philosophy we see today with the philosophy of the past,

[5] See, e.g., Susan Haack, "Epistemology Legalized: Or, Truth, Justice, and the American Way," *American Journal of Jurisprudence* 49 (2004): 43–61; "Legal Probabilism: An Epistemological Dissent" (first published in Spanish in 2013), in Haack, *Evidence Matters: Science, Proof, and Truth in the Law* (New York: Cambridge University Press, 2014), 47–77

[6] See, e.g., Susan Haack, "Irreconcilable Differences: The Troubled Marriage of Science and Law" (2009), in Haack, *Evidence Matters* (note 5 above), 78–103.

[7] See e.g., Susan Haack, The Pluralistic Universe of Law: Towards a Neo-Classical Legal Pragmatism," *Ratio Juris* 21, no.4 (2008): 453–80; "Pragmatism, Law, and Morality: The Lessons of *Buck v. Bell*," *European Journal of Pragmatism and American Philosophy* III, no.2 (2011): 65–87.

[8] Here I am deliberately echoing the title of a recent paper of mine, "Out of Step: Academic Ethics in a Preposterous Environment," in Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, expanded ed., 2013), 251–67, 313–17 (the second set of page numbers refers to the notes).

[9] In some fields, to be sure, specialized division of intellectual labor may be helpful because it enables the collection of large amounts of data (as a law librarian may assemble a bunch of cases illustrating a key idea or argument, so that I can take up the task of interpreting and assessing them); but there's nothing like *this* in philosophy, either.

even the quite recent past (§1); then, explaining why this fragmentation is intellectually disastrous (§2); next, suggesting how this disaster came about (§3); and finally, offering some ideas about how to reverse, or at least resist, this unhappy trend (§4).

1.1 The Fragmentation of Philosophy

When I teach an introductory philosophy course I use (not one of those big, heterogeneous, and desperately confusing anthologies with which, in the US, textbook publishers bombard professors, but) Plato's *Republic*. Why so? Because it ranges over every major area of philosophy—metaphysics, epistemology, philosophy of mind, philosophy of education, philosophy of art, etc., as well as political and social philosophy; and does so in a way that manifests their intimate interconnections.[10]

To be sure, only Plato is Plato. But the breadth of Plato's vision, so far from being unique in the history of philosophy, is if anything the rule rather than the exception. Indeed, many of the most important figures in that history, from Aristotle to Aquinas to Francis Bacon, from Descartes to Leibniz to Kant, from Locke and Hume to Reid to J. S. Mill, . . ., etc., etc., contributed not only to a wide range of philosophical issues, but also to questions in other areas: the sciences, theology, mathematics, history, political theory, law, and so on. And we find the same kind of breadth even in much more recent philosophers: in Santayana, Russell, Whitehead, . . ., etc.; and in the philosophers of the classical pragmatist tradition, from whom I have learned so much.

In this context it is worth recalling that the members of Metaphysical Club, the birthplace of pragmatism, were a very varied bunch—among them Chauncey Wright,[11] who was beginning to apply the then-new theory of evolution to psychology;[12] Oliver Wendell Holmes, Jr.,[13] a young attorney who would in due course become a Justice first of the Massachusetts and then of the US Supreme Court; and

[10] Sometimes I combine this with a more recent book, Jonathan Rauch's *Kindly Inquisitors*, the core argument of which is that campus "speech codes" rest on essentially Platonic conceptions of knowledge and politics—conceptions which, Rauch continues, are deeply flawed; because this book brings home to students who are still struggling to get their bearings how Plato's work is relevant to their everyday lives, and suggests to students who are already getting a feel for the subject how a more defensible epistemology might interlock with a more defensible political theory. Jonathan Rauch, *Kindly Inquisitors: The New Attacks on Free Thought* (Chicago: University of Chicago Press, 1993). Mr. Rauch, by the way, isn't a philosophy professor, but a journalist.

[11] For more about Wright (1830–1875), see Edward Madden, *Chauncey Wright and the Founders of Pragmatism* (Seattle, WA: University of Washington Press, 1963).

[12] Chauncey Wright, "Evolution of Self-Consciousness," *North American Review* CXVI, no. CCXXX (April 1873): 245–310.

[13] Holmes's father, Oliver Wendell Holmes, Sr., was a well-known Boston physician and poet.

Unitarian clergyman and theologian Francis Ellingwood Abbot.[14] And the two members who were to be the founders of pragmatism, C. S. Peirce and William James, weren't trained in philosophy, either.

Peirce was trained in chemistry; and for many years did scientific work for the US Coastal Survey[15] (indeed, the only book he published in his lifetime was a scientific one).[16] But he had long been fascinated by logic. At the age of twelve or thirteen, he recalls, finding a copy of Whately's *Logic* in his older brother's room, he "flung [himself] on the floor and buried [himself] in it";[17] and in due course he would make pioneering logical innovations. He arrived at a unified propositional and predicate calculus a few years after, and independently of, Frege,[18] and went on not only to introduce a novel diagrammatic notation for logic,[19] but also to experiment with modal[20] and many-valued systems[21]—and to map the hitherto little-explored territory of semeiotics, the general theory of signs.[22] Extraordinarily well-read in the history of philosophy, he developed a subtle theory of inquiry[23] and

[14] Philip P. Weiner, *Evolution and the Founders of Pragmatism* (1949; Philadelphia, PA: University of Pennsylvania Press, 1972).

[15] 1861–91. I rely on the chronology in Nathan Houser and Christian Kloesel, eds., *The Essential Peirce*, vol.1 (Bloomington, IN: Indiana University Press, 1992) pp. ix-x.

[16] *Photometric Researches* (1878). *Ibid.* Peirce is now recognized as having been the first scientist to tie a unit, the meter, to a well-known natural standard (the length of a spectral line), "the foundation for what came to be called the International System of Units." Laura J. Snyder, "The Perfected Yardstick" (review of Robert P. Crease, *World in the Balance* [New York: W. W. Norton, 2011]), *Wall Street Journal*, October 28, 2011, A15.

[17] Peirce, "Semiotics and Significs," in Charles S. Hardwick, ed., *The Correspondence between Charles S. Peirce and Victoria Lady Welby* (Bloomington, IN: Indiana University Press, 1977) (letter to Lady Welby dated December 23rd, 1908).

[18] See C. S. Peirce, "On the Algebra of Logic" (1880), and "The Logic of Relatives" (1883), in *Collected Papers*, eds. Charles Hartshorne, Paul Weiss and (vols. 7 and 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58), 3.154-251 and 3.328-58; and Peirce's student, O. H. Mitchell, "On a New Algebra of Logic," in *Studies in Logic by Members of the Johns Hopkins University* (Boston, MA: Little, Brown, 1883), 72–106 (a book edited by Peirce, though his name does not appear). Frege, *Begriffsschrift* (1879), reprinted and translated in *Conceptual Notation and Related Articles*, ed. Terrell Ward Bynum (Oxford: Clarendon Press, 1972), 101–203.

[19] Peirce, *Collected Papers* (note 18 above), 4.347-529 (c.1903). On the title page of this Book II of *The Simplest Mathematics,* "Existential Graphs," (immediately before 4.347), Peirce described this work as "my *chef d'oeuvre*," perhaps because he believed that necessary reasoning is essentially diagrammatic. *Id.*, 1.54 (c.1896).

[20] *Id.*, 4.510-29 (the "Gamma Part of the Existential Graphs," 1903).

[21] Peirce, *Logic Notebook* for 1909; reproduced in facsimile in Max Fisch and Atwell Turquette, "Peirce's Triadic Logic" (1966) in Kenneth Lane Ketner and Christian Kloesel, eds., *Peirce, Semeiotic, and Pragmatism* (Bloomington, IN: Indiana University Press, 1986), 171–83, pp.173–75.

[22] Peirce, *Collected Papers* (note 18 above), 2.227-442 (assembled from writings of 1867, c.1893, c.1897, c.1902). (I follow Peirce's spelling, rather than the now more usual "semiotic," because, as he points out, the word derives from the Greek word for "sign," *not* from the Latin word "semi," meaning "half.")

[23] See, e.g., "Logic and Scientific Method," *id.*,7.59-79 (1882); "Issues of Pragmaticism," 5.438-62 (1905).

philosophy of science,[24] a panoramic metaphysics,[25] a distinctive philosophy of mind,[26] a unique approach to philosophy of religion,[27] . . ., etc., etc. And while some have thought (given his somewhat unkind remarks about "vitally important topics")[28] that he was dismissive of ethics, in fact he developed his own, very distinctive, idea of "concrete reasonableness" as the *summum bonum*.[29] He even tried his hand at writing fiction.[30]

Peirce endorses Kant's conception of philosophy as "cosmic" or "archtectonic";[31] and writes that his pragmatism was "designed and constructed . . . architectonically." He means, he tells us, that just as a civil engineer will first consider the properties of the materials to be used, and test those materials to ensure that they will serve his purpose in building the bridge, the road, or whatever, so pragmatism begins by considering the properties of concepts so as to choose those most suitable to the purpose of philosophical theorizing.[32] Philosophy must grow, he continues (in an observation to which I will return in due course) "by the fission of minute parts and not by accretion."[33] And in response to Paul Carus's criticism that he is positivistic, he replies that the "cautious reflectiveness" of his procedure shows that his method "has neither been in theory purely empirical, nor in practice mere brain-spinning."[34]

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[24] See, e.g., "Scientific Method," *id*., 7.49-161 (assembled from writings from 1866, 1882, c.1902, 1903, c.1910).

[25] See generally *id*., vol. 6. For a summary account, see Susan Haack, "The Legitimacy of Metaphysics: Kant's Legacy to Peirce, and Peirce's to Philosophy Today," *Polish Journal of Philosophy* 1 (2007): 29–43.

[26] See, e.g., *Collected Papers* (note 18 above), 6.238-71 (1892); 6. 272–86 (c.1893).

[27] "A Neglected Argument for the Reality of God," *id*., 6.452-92 (1908).

[28] Notably, in the Cambridge Conference Lectures of 1898. See *id*., 1.671, where Peirce writes that "[c]oncerning matters of vital importance reasoning is at once an impertinence toward its subject-matter and a treason against itself" (1.667).

[29] This idea is already present near the end of the lecture referred to in note 28 above (*id*, 1.673 [1898]), where Peirce writes that "the supreme commandment of the Buddhisto-christian religion is, to generalize, to complete the whole system even until continuity results and the distinct individuals weld into one." It is developed at *id*.,1.605, and 1. 613 (1903). I follow the very plausible interpretation given by Rosa María Mayorga in "Peirce's Moral 'Realicism,'" in Cornelis de Waal and Krzysztof Piotr Skowroński, eds., *The Normative Thought of C. S. Peirce* (New York: Fordham University Press, 2012), 101–24.

[30] C. S. Peirce, "A Tale of Thessaly" (MSS 1561); my source is Max Fisch, "Peirce's Arisbe" (1971), in Ketner and Kloesel, eds., *Peirce, Semeiotic, and Pragmatism* (note 21 above), 227–48, n.39.

[31] Peirce, *Collected Papers* (note 18 above), 1.176 (c.1896). See Immanuel Kant, *Critique of Pure Reason* (1781/1787), trans. Norman Kemp Smith (London: MacMillan, 1929, corrected ed. 1933), A474/B502: "Human reason is by nature architectonic. That is to say, it regards all our knowledge as belonging to a possible system"—a point spelled out in detail at A832/B 851 ff.

[32] Peirce, *Collected Papers* (note 18 above), 5.5 (c.1905).

[33] *Id*., 1.177 (c.1896).

[34] *Id*., 6.603-04 (1893). The quotation is from 6.604.

As a young man, James had aspired to be an artist; but at his father's insistence he studied medicine at Harvard instead.[35] From there he gradually moved to psychology—writing his enormously successful *Principles of Psychology*[36] and *Varieties of Religious Experience*,[37] involved with the earliest psychological laboratories in the US,[38] and inviting important European psychologists, among them Hugo Münsterberg, to visit[39]—and to philosophy.[40] And his philosophical work also spans a broad range: philosophy of mind,[41] philosophy of religion,[42] metaphysics,[43] epistemology,[44] ethics,[45] . . ., etc.

John Dewey, who would carry the pragmatist tradition forward, *was* trained in philosophy (and had been a student at Johns Hopkins University during the period when Peirce was, briefly, an instructor there);[46] but his philosophical work rivals Plato's both in its scope—from logic and theory of inquiry,[47] philosophy of

[35] Howard M. Feinstein, *Becoming William James* (Ithaca, NY: Cornell University Press, 1984), chapters 7 and 8; H. Standish Thayer, ed., *Pragmatism: The Classic Writings* (Indianapolis, IN: Hackett Publishing Co., 1982), p. 123.

[36] William James, *The Principles of Psychology* (1890), eds. Frederick H. Burkhardt, Fredson Bowers, and Ignas J. Skrupselis (Cambridge, MA: Harvard University Press, 1981).

[37] William James, *The Varieties of Religious Experience: A Study of Human Nature* (Gifford Lectures, University of Edinburgh, 1901–2) (1902), eds. Frederick H. Burkhardt, Fredson Bowers, and Ignas J. Skrupselis (Cambridge, MA: Harvard University Press, 1985).

[38] Perry, *The Thought and Character of William James* (Boston: Little, Brown and Company, 1935), vol.2, pp. 6 ff.

[39] *Id*., vol.2, pp. 138–72.

[40] James was appointed instructor in physiology and anatomy at Harvard in 1873, and professor of philosophy in 1885; between 1889 and 1897 his title was professor of psychology.

[41] See e.g., William James, "Does 'Consciousness' Exist?" (1904), reprinted in James, *Essays in Radical Empiricism* (1912), in Richard Bernstein, ed., *Essays on Radical Empiricism and A Pluralistic Universe* (New York: Dutton, 1971), 3–22; Lectures II, V, VII and VIII of the *The Pluralistic Universe*, *id*., 142–61, 207–26, 253–64, 264–80.

[42] See e.g., William James, "Reflex Action and Theism" (1881), in Frederick Burkhardt and Fredson Bowers, eds., *The Will to Believe and Other Essays in Popular Philosophy* (Cambridge, MA: Harvard University Press, 1979), 90–113; "The Will to Believe" (1896) in the same volume, 13–33.

[43] See *Essays on Radical Empiricism* and *A Pluralistic Universe* (note 41 above).

[44] See James, "What Pragmatism Means," in James, *Pragmatism* (1907), eds. Frederick Burkhardt and Fredson Bowers (Cambridge, MA: Harvard University Press, 1975), 27–44, pp.34 ff.

[45] William James, "The Moral Philosopher and the Moral Life" (1891), in *The Will to Believe* (note 42 above), 141–62.

[46] Jane M. Dewey, "Biography of John Dewey," in P. A. Schilpp, ed., *The Philosophy of John Dewey* (Evanston, IL: Northwestern University Press, 1939), 3–45, pp. 14 ff.

[47] See, e.g., John Dewey, "The Experimental Theory of Knowledge," *Mind* n.s. XV (1906): 293–307; "The Problem of Truth," *Old Penn, Weekly Review of the University of Pennsylvania* IX (Feb. 1911): 522–28, 556–63, and 620–25; *Logic, The Theory of Inquiry* (New York: Henry Holt and Company, 1938).

science,[48] and metaphysics,[49] to ethics,[50] aesthetics,[51] philosophy of mind,[52] philosophy of education,[53] philosophy of law,[54] political philosophy,[55] . . ., etc.—and in its interconnectedness. Indeed, much of Dewey's work could be seen as a constructive reaction against Plato's quest for certainty, his hyper-rationalism, and his denigration of democracy as the next-to-worst form of government. Moreover, Dewey's work was read and admired by educated people far beyond the limited circle of philosophy professors—so much so that he was once described in the *New York Times* as "America's philosopher."[56] His thought had a profound influence on the US system of public education;[57] and he was active in political causes.[58]

Dewey died, at the ripe old age of 93, in 1952. It seems safe to say we haven't seen his like—or Peirce's, or James's—since. To the contrary: over my working life, philosophy seems to have become ever more fragmented and internally splintered, ever more hermetic and aloof from neighboring fields, and ever more detached from its own history; in short, ever more "academic," in the pejorative

[48] See, e.g., John Dewey, "Common Sense and Scientific Inquiry," in *Logic, The Theory of Inquiry* (note 47 above), 60–80.

[49] See, e.g., John Dewey, "The Realism of Pragmatism," *Journal of Philosophy* II (June 1905): 324–27; "Brief Studies in Realism," *Journal of Philosophy* VII (1911): 393–400 and 546–64; *Experience and Nature* (Chicago: Open Court, 1925).

[50] See, e.g., John Dewey, *Outlines of a Critical Theory of Ethics* (Ann Arbor, MI: Register Publishing Company, 1891); "Evolution and Ethics," *Monist* VIII (1898): 321–41; *Theory of the Moral Life* (New York: Holt, Rinehart and Winston, 1908); (with James H. Tufts), *Ethics* (New York: Henry Holt sand Company, 1908); "The Problem of Values," *Journal of Philosophy* X (1913): 268–69; "The Construction of Good," in Dewey, *The Quest for Certainty* (New York: Capricorn Books, 1929), 254–86.

[51] See, e.g., John Dewey, *Art as Experience* (New York: Minton, Balch, 1934).

[52] See, e.g., John Dewey, "The Reflex Arc Concept in Psychology," *Psychological Review* 1, no.1 (1896): 39–52.

[53] See, e.g., John Dewey, "My Pedagogic Creed," *School Journal* LIV (Jan. 16, 1897): 77–80; *The School and Society* (Chicago: University of Chicago Press, 1900); "Democracy in Education," *Elementary School Teacher* IV (Dec. 1903): 193–204; *How We Think* (Boston: D. C. Heath & Co., 1910); *Interest and Effort in Education* (Boston: Houghton Mifflin Co., 1913); *Democracy and Education: An Introduction to the Philosophy of Education* (1913; New York: Free Press, 1966).

[54] See, e.g., John Dewey, "Nature and Reason in Law," *International Journal of Ethics* XXV (1914): 25–32; "My Philosophy of Law," in Julius Rosenthal Foundation, *My Philosophy of Law: Credos of Sixteen American Scholars* (Boston: Boston Law Book Co., 1941), 71–85.

[55] See, e.g., John Dewey, "Democracy as a Moral Ideal" (1940), in Irwin Edman, ed., *John Dewey: His Contribution to the American Tradition* (Indianapolis, IN: Bobbs-Merrill, 1955), 310–15; *Democracy and Education* (note 53 above).

[56] "Introduction," in Larry A. Hickman and Thomas M. Alexander, eds., *The Essential Dewey*, vol.1 (Indianapolis, IN: Indiana University Press, 1998), ix-xiii, p. ix.

[57] See e.g., Paul Arthur Schilpp, "The Influence of John Dewey upon American Education," *Chicago Review* (1960): 97–108; "John Dewey on Education, Experience and Community," available at http://infoed.org/mobi/john-dewey-on-education-experience-and-community.

[58] Jane M. Dewey, "Biography of John Dewey" (note 46 above), pp. 39–45.

sense of the word. For me, this is most immediately apparent in epistemology—which I think of as a core area in which almost everyone in philosophy could, and should, take an interest, but which has for decades now been the specialty of a relatively small sub-group; a small sub-group that is by this point itself visibly fragmenting, with the virtue epistemologists (such as the young woman with whom my paper opened) forming one circle, the reliabilists another, the contextualists another, the social epistemologists another, the Gettierologists yet another, the feminist-epistemologists another again. Indeed, there seem to be sub-groups even within the sub-groups: e.g., in the virtue epistemology camp, those who follow Ernest Sosa's[59] lead and those who follow Linda Zagzebski's.[60]

Most of these academic-epistemologists seem largely indifferent to neighboring fields; at any rate, my efforts to interest them in issues about evidentiary procedures in the law,[61] or in what we can learn from epistemological novels like Samuel Butler's *The Way of All Flesh*[62] (a brilliant depiction of self-deception, hypocrisy, and sham reasoning) or Dorothy Sayers's *Gaudy Night*[63] (an illuminating exploration of the place of women in the life of the mind), or in former-Secretary of State Donald Rumsfeld's much-derided observations about the pitfalls of "unknown unknowns" in military intelligence,[64] or in what it is to believe something,[65] or, . . ., etc., seem to fall mostly on deaf ears. Nor, apparently, do those academic-epistemologists have much interest in the history of their field; at any rate, I've sat through many a lecture on epistemology without hearing a word about anything written more than ten years or so before. And the cliquishness is disturbing, as

[59] Ernest Sosa, "The Raft and the Pyramid," *Midwest Studies in Philosophy* V (1980): 3–25. (By "virtue" Sosa means something like "power," and his approach seems to be a distinctive kind of reliabilism.)

[60] Linda Zagzebski, *Virtues of the Mind* (New York: Cambridge University Press, 1996). (Zagzebski uses "virtue" in the more ordinary sense; and, unlike many of her followers, draws a good deal from the philosophical past, notably from Aristotle and Dewey.)

[61] Susan Haack, "The Embedded Epistemologist: Dispatches from the Legal Front," *Ratio Juris* 25, no.2 (2012): 206–35.

[62] Samuel Butler, *The Way of All Flesh* (New York: The Modern Library, 1998). See also Susan Haack, "The Ideal of Intellectual Integrity, in Life and Literature" (2005), in *Putting Philosophy to Work* (note 8 above), 209–20.

[63] Dorothy Sayers, *Gaudy Night* (1936; New York: HarperPaperbacks, 1995). See also Susan Haack, "After My Own Heart: Dorothy Sayers's Feminism" (2001), in *Putting Philosophy to Work* (note 8 above), 221–28.

[64] "[A]s we know, there are known knowns; there are things that we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know."—Donald Rumsfeld (Secretary of Defense under President George W. Bush), Department of Defense news briefing, February 12, 2002. For an analysis of Rumsfeld's epistemological insight, see Susan Haack, "Epistemology: Who Needs It?" (first published in Danish in 2013), *Cilicia Journal of Philosophy* 3 (2015): 1–15.

[65] Susan Haack, "Belief in Naturalism: An Epistemologist's Philosophy of Mind," *Logos & Episteme* 1, no.1 (2009): 1–22.

people in this or that sub-sub-specialty focus more or less exclusively on work by others of the same stripe.

At this point in time, I can't participate in an epistemology conference without *feeling* like a Martian—a Martian anthropologist, sitting on the sidelines noting the constant mutually-reassuring references of each participant to the others' work, the coded jargon alluding to the narrow seam of niche literature that defines this or that sub-sub-field—"high-stakes situation," "Lackey-type counter-examples," "knowledge first," etc., etc.—and the conspicuously chummy use of first names. At the conference I mentioned at the beginning of this paper, for example, I was the only speaker who referred to older work in the field—Locke, Mill, Peirce, etc.; the only speaker who referred to the other participants as Professor X, Professor Y, and Professor Z, rather than as Tom, Dick, and Harry; and—though the topic of the conference was ostensibly "The Point and Purpose of Epistemic Evaluation"—the only speaker who even *mentioned* the real world![66]

And, so far as I can tell, just the same kind of fragmentation is happening in the rest of philosophy, too. At a recent meeting, for example, I heard three philosophers of science from three different continents tell almost exactly the same story about where their field is currently at (reminding me of the reviewer who, apparently miffed because I didn't discuss his and his friends' work, complained that my *Defending Science* focused too much on ideas from dead people—dead people like Thomas Huxley, Albert Einstein, Percy Bridgman, James Conant,[67] John Dewey, and Gustav Bergmann). Those three speakers all agreed, in particular, that philosophy of science has now divided into sub-specialties: philosophy of physics, philosophy of biology, philosophy of the social sciences, etc. At a subsequent meeting I learned that there is also, by now, another sub-group of philosophers of science who focus on questions about causation (and, probably, there are other such sub-groups I haven't encountered).

Metaphysics seems no less fragmented. I won't soon forget a long drive with another graduate student, who told me she was working on tropes. For several miles I was happily telling her about the fun I and the students in my class on philosophy and literature had exploring such figures of speech as metaphor, simile, litotes, synecdoche, etc.—until I realized that she was completely baffled; what "trope" meant to her was something entirely different, a technical concept native to a small,

[66] Actually, I exaggerate just a little: In the discussion period at the end of the conference, when another speaker observed in passing that human beings are social animals, I pointed out, very politely, that this was the first time anyone besides myself had mentioned the world; another participant replied, rather indignantly, that there was nothing wrong with philosophers' speculating about how the concept of knowledge could have arisen, but that it wasn't their job to check out whether those speculations were correct—not even, apparently, by looking in an etymological dictionary. After the conference, the organizers requested that, for publication in the conference volume, I please make my paper more like the others'. I declined, and gave my paper, instead, to *Ratio Juris* (see note 61 above).

[67] The late James [B.] Conant, that is, former President of Harvard and author of *Science and Common Sense* (New Haven, CT: Yale University Press, 1951), not the living philosopher of the same name.

then-fashionable metaphysical niche. More recently, the authors of a paper entitled "What's Wrong with Contemporary Philosophy?"—urging that philosophers get real about the true complexity and variety of the world—complained about the *horror mundi* of the metaphysics cliques.[68] In fact, in all the areas in which I work, where I'm sometimes asked to referee, or occasionally read a journal issue, I see the same fragmentation. Journals, meetings, job advertisements, and even departments seem ever more specialized, and the "parochialism of the recent" ever more severe.

Of course, I am speaking only of a trend, and primarily about how things seem to be going in English-language philosophy and among those non-native English speakers influenced by these developments. Still, some might object that, even with these caveats, there are obvious exceptions to what I have said. Wasn't Richard Rorty's philosophical scope, they might ask, and his openness to other fields, quite as broad as, say, Dewey's, and his knowledge of the history of philosophy quite as comprehensive as Peirce's? Isn't there a trend, now, towards an "experimental philosophy" closely tied to psychology? Isn't the history of philosophy flourishing? My answer to all these questions would be the same: well, yes, in a way; but not really—not in the way that matters.

Rorty certainly wrote about a wide range of subjects; but since his point was almost always essentially the same—a wearily disillusioned insistence there's less to this or that (truth, the world, evidence, representation, science, or whatever) than most people naively imagine—I don't believe he did much, if anything, to advance our understanding of these questions. And neither, though he certainly dropped a lot of names (on *one page* of one of Rorty's avalanche of articles picked more or less at random I found "Heidegger," "Descartes," "Dewey," "Dewey's Baconianism," "Brandom," "Husserl," "Plato," "Carnap," "Putnam"),[69] his ostentatious displays of learning and transparent efforts to press Big Names from the past onto his team could hardly be more different from Peirce's engagement with, and willingness to learn from, the advances, and the mistakes, of the philosophical past.[70]

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[68] Kevin Mulligan, Peter Simons, and Barry Smith, "What's Wrong with Contemporary Philosophy?" *Topoi* 25 (2006): 63–67, p. 64.

[69] Richard Rorty, "Philosophy as Science, as Metaphor, and as Politics" (1986), in Rorty, *Essays on Heidegger and Others* (Cambridge: Cambridge University Press, 1991), 9–26, p.11. (In mentioning Brandom, I assume, Rorty was doing a small favor for an admirer.) In fairness to Rorty, however, I should add that his review of Scott Soames's two-volume history of analytic philosophy is appropriately scathing about Soames's defense of fragmentation as actually a *good* thing. Richard Rorty, "How Many Grains Make a Heap?" *London Review of Books* 27, no.2 (2007), available at http://www.lrb.co.uk/v27/n02/richard-rorty/how-many-grains-make-a-heap (reviewing Scott Soames, *Philosophical Analysis in the 20th Century* (Princeton, NJ: Princeton University Press, 2005), 2 vols).

[70] In just the first few paragraphs of "The Fixation of Belief," for example, Peirce comments on the insight of Roger Bacon ("almost a scientific man"); reflects on the shortcomings of Francis Bacon's conception of scientific inference ("wrote on science like a Lord Chancellor"); describes how Kepler tried one hypothesis after another; and points to Lavoisier's originality in recognizing the importance of "manipulating real things instead of words and fancies." Peirce, *Collected Papers* (note 18 above), 5.359-64 (1877). (The quotations are from 5.360 [Roger Bacon], 5. 361 [Francis Bacon], 5.363 [Kepler], and 5.363 [Lavoisier]).

Some of the work offered under the rubric "experimental philosophy" seems to be nothing more than conceptual or linguistic analysis conducted by the survey method;[71] which, I should add, is nothing new: seventy-five years ago Arne Ness had conducted surveys to elicit people's intuitions about the concept of truth.[72] Other work offered under the rubric "experimental philosophy" might be interpreted, with a little charity, as trying to tie philosophical ideas to, or draw them from, the results of psychological surveys;[73] which, again, is nothing new—except that in its current manifestation it seems often to rely, not on the work of psychologists, but on surveys conducted, well or not-so-well, by philosophy professors themselves. And some experimental philosophers, apparently, have by now come to suspect that maybe philosophical intuitions aren't the be-all and end-all of our work;[74] which is true, but hardly news to anyone not totally immersed in the analytic mainstream. Some of the work conducted under the rubric, "experimental philosophy" is probably decent interdisciplinary stuff. But the fact that the "experimental philosophy" crowd now boasts a logo, and even an anthem,[75] tells us unmistakably that, on the whole, it represents less an encouraging move towards the desirable kind of inter-disciplinarity than yet another clique promoting yet another fad.

And, yes, there are plenty of historians of philosophy about; though my impression is that in analytically-oriented departments they tend to be low on the totem pole. But all too often, these days, historians of philosophy tend not only to focus

[71] Joshua Alexander, *Experimental Philosophy: An Introduction* (Malden, MA: Polity Press, 2012) describes experimental philosophy as "a diverse movement" and lists, as the first of its "different programs," eliciting people's philosophical intuitions by the survey method (pp. 2–3).

[72] Arne Ness, "'Truth' as Conceived by Those Who are not Professional Philosophers," *Skrifter Utgitt av der Norske Videnskap-Akademi i Oslo II, Hist.-Philos. Klasse*, no.4 (1938): 11–118 (as the length of this article suggests, Ness's survey work was quite sophisticated and rigorous—more so than much recent "experimental philosophy"). I believe Timothy Smiley did something similar, though much more informally, in the 1960s, in his case focusing on people's intuitions about non-referring definite descriptions. (At a conference in 2007 I quietly mentioned to a young enthusiast for experimental philosophy—who, instead of presenting a paper, had simply surveyed the other participants over whether they would say in these or those, rather under-described circumstances that an employer had acted intentionally—that Ness had conducted a very careful "philosophical" survey long before. "Great!" he replied, "Ness anticipated me." Gosh.)

[73] Alexander (note 71 above), p.3, listing as the second of those "different programs," the use of such surveys in showing us "something philosophically important" about how our minds work.

[74] *Ibid.*

[75] Tania Lombrozo, "The Ironic Success of Experimental Philosophy" (2013), available at http://www.npr.org/blogs/13.7/2013/03/23/175145568/the-ironic-success-of-experimental-philosophy. Knobe and Nichols' introductory essay to a volume of papers on experimental philosophy suggests that what is proposed is a return to a traditional vision of philosophy as not very clearly distinct from neighboring disciplines, and as only adding a new tool to the philosophical toolbox. Joshua Knobe and Shaun Nichols, "An Experimental Philosophy Manifesto," in Knobe and Nichols, eds., *Experimental Philosophy* (New York: Oxford University Press, 2008), 3–16. The logo, however (a burning armchair), suggests something much more radical, that the old model of conceptual analysis is to be replaced by something new. (The phrase "bait and switch" comes to mind!)

quite narrowly, but also to devote much of their energy to arguing with other specialists in the same field or sub-field. The history-of-philosophy dissertation on Quine I recently examined,[76] for example, seemed to have more to say about other contemporary Quine-specialists than about the older philosophers who influenced Quine; and a recent book on Quine that *did* give those older philosophers the attention they deserve[77] arrived as a gift from the author with an inscription to the effect that I was probably one of only three people alive who could understand it! Even the call for submissions to the Peirce Essay Contest, I regret to say, now recommends that essays submitted discuss the recent literature in the area.[78]

Now, however, I need to emphasize once again that I am talking *only* about a trend. There surely *are* exceptions: philosophers who follow a problem where it leads, even if that takes them across into another area, or outside philosophy altogether; and some knowledgeable and modest enough to learn from philosophers of the past. I believe I can claim to be among them. But we in the philosophical resistance are distinctly a minority; and—as the fact that the word "resistance" comes so readily to mind suggests—we are swimming against the tide.

1.2 The Intellectual Costs of Fragmentation

This unhappy combination of fragmentation, hermeticism, and ahistoricism carries a heavy price; indeed, I would go so far as to describe it as an intellectual disaster. It blinds us to the intimate interconnectedness of the various branches of philosophy; it closes our eyes to the consilience of knowledge more generally; and it condemns us both to repeat the philosophical mistakes of the past, and to fumble around in the dark when the philosophical advances of those who have gone before could light our way. As John Locke put it long ago, "some Men of Study and Thought, that reason right, and are Lovers of Truth, do make no great advances in their Discoveries of it," because:

> . . . they converse but with one sort of Men, they read but one sort of Books, they will not come in the hearing but of one sort of Notions . . . . They have a pretty Traffick with known Correspondents in some little Creek, within that they confine themselves, but will not venture out onto the great Ocean of Knowledge, to survey the Riches that Nature hath stored other parts with, no less genuine, no less solid, no less useful, than what has fallen to their lot in the admired Plenty and Sufficiency of their own little Spot, which to them contains whatsoever is good in the Universe.[79]

[76] It's significant in itself that work on Quine, who died only in 2000, already counts as history of philosophy.

[77] Edward Becker, *Quine's Philosophy* (New York, Cambridge University Press, 2012).

[78] I quote: ". . . entrants should .... take care to locate their views in relation to published material that bears directly on their topic."

[79] John Locke, *Of the Conduct of the Understanding,* in *Posthumous Works of Mr. John Locke* (London: A. and J. Churchill, 1706), 1–133, pp. 9–10.

Of course, Locke wasn't writing, as I am, about the condition of philosophy in the early twenty-first century. So my next task is to explain more exactly why the fragmentation of philosophy that we see today is inducing just the kind of tunnel-vision Locke described so vividly centuries ago.

This task is itself a philosophical one; for, as Wilfrid Sellars famously observed, philosophy is the discipline to which it falls to understand "how things in the broadest sense of the word hang together in the broadest sense of the word."[80] I would say (not, as Sellars does, that this is *the* task of philosophy, but) that it is *a* task of philosophy to understand how, for example, ethical, aesthetic, and epistemological standards of appraisal relate to each other; whether, and if so, how results from the human sciences bear on epistemological questions; whether, and if so, how sociological or historical studies of the sciences bear on questions about the assessment of evidence with respect to scientific claims, or about the method, or methods, of the sciences; how the sub-atomic particles postulated by physics fit in with the other furniture of the world, or vice-versa; how, if at all, biological truths about species bear on metaphysical questions about whether there are real kinds, and if so, what kinds of kind; whether theological explanations are legitimate, and if not, why not; . . ., and so on.

Central to the first part of my explanation, then, will be the philosophical concept of consilience; which—though the *word* doesn't appear—is clearly at work in the quotation from Holmes with which I began. The term was coined by William Whewell;[81] as I use it, however, the concept of consilience is not confined, as in Whewell, to the logic of induction, and neither is it given the reductionist spin that, more recently, E. O. Wilson puts on it.[82] What I mean, rather, is that there is one real world—albeit a very complex and varied world,[83] a "pluralistic universe," to borrow James's phrase;[84] and that all the truths about this complex and various world must, somehow, fit together. "Somehow," here, is intended to signal that

[80] Wilfrid Sellars, "Philosophy and the Scientific Image of Man" (1962), in Sellars, *Science, Perception, and Reality* (London: Routledge and Kegan Paul; New York: Humanities Press, 1963), 1–40, p. 1.

[81] William Whewell, *Philosophy of the Inductive Sciences* (1840), in *Selected Writings of William Whewell*, ed., Yehuda Elkana (Chicago: University of Chicago Press, 1984), 121–259, 257. (The word derives from the Latin "*con*" and "*siliere*," "jump together.")

[82] E. O. Wilson, *Consilience: The Unity of Knowledge* (New York: Knopf, 1998). As I argued in "Six Signs of Scientism" (2012), in *Putting Philosophy to Work* (note 8 above), 105–20, Wilson's book wavers between two mutually incompatible understandings of "consilience": that all the truths about the world must be consistent (which is of course true), and that all the truths about the world must be reducible to scientific truths (which, I believe, is false). See also Susan Haack, "Brave New World: On Nature, Culture, and the Limits of Reductionism," in Bartosz Brozek and Jerzy Stelmach, eds., *Explaining the Mind* (Kraków: Copernicus Center Press, forthcoming 2016).

[83] Susan Haack, "Realisms and Their Rivals: Recovering Our Innocence," *Facta Philosophica* 4, no.1 (2002): 67–88. "The World of Innocent Realism," in German translation in Markus Gabriel, ed., *Der Neue Realismus* (Berlin: Suhrkamp 2014), and in English in this volume, pp. 33–55. "The Real, the Fictional, and the Fake," *Spazio Filosofico* 8 (2013): 209–17.

[84] William James, *A Pluralistic Universe* (note 41 above).

articulating what this "fitting together" amounts to requires some subtlety. All the truths about the world must be mutually consistent, but "fitting together" requires more than this; not, however (as reductionists dream), that all the other truths about the world must be derivable from some privileged sub-set of truths, but rather that they must interlock, as entries in a crossword puzzle do.

Let me give some examples. The modern theory of evolution, the "post-Darwinian synthesis," interlocks with Mendelian particulate genetics, with cosmologists' current estimates of the age of the earth, with molecular biology, etc. The explanation of how humans came to have one chromosome fewer than other primates is an especially striking example: at some time in the far-distant past, two chromosomes merged into one—an explanation neatly confirmed by the traces of this long-ago fusion on a human chromosome with telomeres at the center besides, as in all the others, at the ends.[85] Truths about when human populations moved from A to B during our prehistory must interlock with truths about when continents shifted and land-bridges became seas, and with truths about the ethnic characteristics of ancient human remains; truths about how tyrants, serial killers, philanthropists, and saints behave must interlock with truths about the mainsprings of human motivation and their possible variations and distortions; truths about human artifacts and works of art must interlock both with truths about the materials from which they are made and with truths about human beings' perceptual, linguistic, and cognitive abilities and limitations; truths about what is real as opposed to illusory or fictional must interlock with scientific, historical, and other truths about what there is in the world; truths about the scope and limits of human knowledge must interlock in turn with those truths about human capacities and weaknesses and about the character of the world we try to understand; truths about what it's good for human beings to do, and what social institutions and rules are better and what worse, must interlock with truths about what enables, and what frustrates, human flourishing; . . ., and so on.

And the same kind of interlocking is needed *within* philosophy: truths in one branch must interlock with truths in other branches. Again, I'll start with epistemology. True answers to questions about what makes beliefs more, or less, warranted must interlock with true answers to questions in philosophy of mind—about the nature of belief, of perception, and of introspection, for example; with true answers to questions in metaphysics—about how we, and the world, must be if we are to have knowledge of it, and whether any, and if so what aspects of the world might be in principle beyond our ken; even with true answers to questions in ethics—about the character of ideals and norms, the place of epistemic virtues among the virtues more generally, . . ., and so on. And these in turn must interlock with the answers to questions about how it's possible to learn about what makes

[85] See J. W. IJdo, A. Baldini, D. C. Ward, S. T. Reeders, and R. A. Wells, "Origin of Human Chromosome 2: An Ancestral Telomere-Telomere Fusion," *Proceedings of the National Academy of Sciences* 88, no.20 (October 1991): 9051–55 (concluding that "the locus cloned in cosmids c8.1 and c29B is the relic of an ancient telomere-telomere fusion and marks the point at which two ancestral ape chromosomes fused to give rise to human chromosome 2″).

human beings tick not only from psychological, sociological, and anthropological studies and from history, but also from works of fiction; which in turn must interlock with answers to questions about the ontological standing of fictional characters, about the relations of reason and emotion, and about the role of the imagination in literature and in science. The answers to questions in philosophy of science must interlock with the answers to epistemological, metaphysical, ethical, and even aesthetic questions, . . ., and so on; indeed, by my lights, philosophy of science really *is*, in significant part, a branch of epistemology and metaphysics.

But what, more exactly, is this "interlocking"? Let me begin with an example mentioned earlier. One presupposition of Darwin's theory of evolution by random mutation and natural selection was that the earth is old enough for these processes to have produced the vast variety of species we find around us; another was that mutations that contributed to survival would be passed to offspring. Had Lord Kelvin's calculation of the age of the earth been correct, the former presupposition would have been false;[86] had the "blending" theory of inheritance that Darwin himself accepted been correct, the latter presupposition would have been false.[87] Subsequent calculations of the age of the earth, together with Mendelian particulate genetics, however, revealed that these presuppositions of Darwin's theory are true. Again: one presupposition of my foundherentist theory of empirical justification is that people have beliefs. If Stich and the Churchlands had been correct in claiming that the ontology of beliefs is unsustainable "folk psychology,"[88] this presupposition would be false; but if my account of belief is correct,[89] this presupposition of the foundherentist theory is true.

What's at stake, however, isn't simply consistency; as Peirce's comment that philosophy advances "by the fission of minute parts" suggests, it's both more complex, and subtler, than that. Actually, as I see it, philosophy advances both by *fission* and by *fusion*. Merriam-Webster's dictionary gives as the first meaning of "fission," "reproduction by spontaneous division." Peirce doesn't give examples; but I think of how his idea of "relatives," as he calls them,[90] led by something like "spontaneous division" to his pioneering work on the logic of relations, his critique

[86] David Quannem, *The Reluctant Mr. Darwin: An Intimate Portrait of Charles Darwin and the Making of his Theory of Evolution* (New York: W. W. Norton, 2006), pp. 210–12.

[87] Edward J. Larsen, *Evolution: The Remarkable History of a Scientific Theory* (New York: Modern Library, 2004), pp.121–22.

[88] Stephen P. Stich, *From Folk Psychology to Cognitive Science* (Cambridge, MA: Bradford Books, MIT Press, 1983); Paul M. Churchland, *Scientific Realism and the Plasticity of Mind* (Cambridge: Cambridge University Press, 1979), and *A Neurocomputational Perspective: The Nature of Mind and the Structure of Science* (Cambridge, MA: Bradford Books, MIT Press, 1989); Patricia Smith Churchland, ""Epistemology in the Age of Neuroscience," *Journal of Philosophy* 84, no.10 (1987): 544–53.

[89] Susan Haack, *Evidence and Inquiry* (note 3 above), 226–36; *Defending Science* (note 4 above), pp.157–61; and, especially, "Belief in Naturalism" (note 65 above).

[90] Itself, as Peirce makes clear, a sport of the chemical concept of valency. *Collected Papers* (note 18 above), 5.469 (1907). (The modern terminology for what Peirce calls "relatives" would be "relations," or "relational properties.")

of Kant's definition of analyticity (which, he argues, is based on Aristotelian syllogistic logic, incapable of expressing relations),[91] and his analysis of his categories by reference to their adicity (Firsts are monadic, Seconds dyadic, Thirds triadic).[92] Again, his conception of continuity leads, by something like "spontaneous division," to the methodological principle of synechism,[93] and this to his reflections on mind and body,[94] and even on immortality;[95] and the biological conception of evolution "reproduces" in his work to yield produce a trio of types of evolution and an account of how the universe has evolved, and is still evolving, from chaos to order—the theory Peirce calls "agapism,"[96] Other examples might include the way, in John Searle's work, the concept of speech-act[97] "reproduces" to help create a theory of the intensional, and then of social intensionality and the construction of social reality;[98] or the way the crossword analogy, itself a sport of Michael Polanyi's metaphor of a jigsaw puzzle,[99] reproduces and mutates in my work.[100]

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[91] *Id*., 5.84 (1903): "Kant's view of the relation between his Analytic and Synthetic Judgments [is] a view that a study of the logic of relatives would at once have exploded."

[92] *Id*., 5.469 (1907).

[93] "The Law of Mind," *id*., 6.102 f. (1892); 6.169 ff. (1902). Of course, ideas from one person's work sometimes reproduce in another's, as Peirce's synechism did in my thinking. Susan Haack, "Not Cynicism but Synechism: Lessons from Classical Pragmatism" (2005), in *Putting Philosophy to Work* (note 8 above), 83–96.

[94] "Man's Glassy Essence" (1892), *Collected Papers* (note 18 above), 238–71; "Mind and Matter" (c.1893), *id*., 6.272-86; "The Law of Mind" (note 93 above).

[95] C. S. Peirce, "Immortality in the Light of Synechism" (1893), in Peirce Edition Project, eds., *The Essential Peirce*, vol.2 (Indianapolis, IN: Indiana University Press, 1998), 1–3.

[96] Peirce, *Collected Papers* (note 18 above), 6.287-317 (1893).

[97] Itself borrowed, of course, from Austin. J. L. Austin, *How to Do Things with Words* (Oxford: Clarendon Press, 1962).

[98] See e.g., John Searle, *Speech Acts: An Essay in Philosophy of Language* (London: Cambridge University Press, 1969); *Expression and Meaning: Studies in the Theory of Speech Acts* (New York: Cambridge University Press, 1979); *The Construction of Social Reality* (New York: Free Press, 1995); *Making the Social World: The Structure of Human Civilization* (New York: Oxford University Press, 2010).

[99] Michael Polanyi, *The Republic of Science: Its Politics and Economics* (1962), reprinted in Marjorie Greene, ed., *Knowing and Being* (Chicago: University of Chicago Press, 1969), 49–62.

[100] See, e.g., my *Evidence and Inquiry* (1993) (note 3 above), chapter 4, spelling out the crossword analogy; "Dry Truth and Real Knowledge: Epistemology of Metaphor and Metaphors of Epistemology" (2005) in Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: University of Chicago Press, 1998), 69–89, working out how metaphors function as intellectual tools; *Defending Science* (2003) (note 4 above), chapters 3 and 4, using the crossword analogy to understand both the character of scientific evidence and issues about the supposed "scientific method"; "Proving Causation: The Weight of Combined Evidence" (2008), in Haack, *Evidence Matters* (note 5 above), 208–38, deploying the analogy to show that, and when, a combination of pieces of evidence can warrant a claim to a higher degree than any of the components alone; "Legal Probabilism" (note 5 above), deploying it to show that degrees of warrant have a quite different logical structure from that of mathematical probabilities.

That's fission; but fusion, the process by which solutions to apparently separate problems interact to make both deeper, is no less important. An account of what it is to believe something, for example, should fuse with an understanding of the role that experience, sensory and introspective, can play in causing and modifying people's beliefs, with a grasp of the role socialization plays in a human infant's becoming "minded," with a conception of what it is for a belief to be true and why true is what a belief has to be to be good, with an appreciation of what it might mean to demand of a witness that he tell "the whole truth and nothing but the truth,"[101] . . ., and so on. Again, a decent account of what "real" means should fuse with an understanding of how the physical differs from the mental, the natural from the social, the particular from the general, etc.[102]

Consilience, in turn, interlocks with other key philosophical ideas. As I have argued elsewhere, when various pieces of evidence with respect to a claim point in the same direction, the degree to which that claim is warranted by the combined evidence can be higher than the degree to which it is warranted by any component piece;[103] so the fusion of one bit of philosophical theorizing with another can enhance the warrant of the overall account. And, as I have also argued elsewhere, our concepts grow as our knowledge grows;[104] so the fusion of hitherto-separate bits of theory—with one aspect of belief, or truth, or reality, or, etc., linked to another—constitutes a step not only towards a better-warranted overall account, but also towards more versatile and better-designed conceptual tools.

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However, appeal to consilience, whether of truths in philosophy with truths of neighboring disciplines, or of truths in one branch of philosophy with truths in another, can't by itself be sufficient to show that the kind of specialization I have been complaining about is as disastrous as I have claimed. Why not? Because everything I have said so far in this section applies (as Holmes saw) to *any* discipline, including the natural sciences. True answers to questions in molecular biology must interlock with true answers to questions in organic chemistry, in physics, . . ., and so on; and truths within molecular biology must interlock with each other. The same goes for all the sciences. And nevertheless, in the sciences

[101] Susan Haack, "The Whole Truth and Nothing but the Truth," *Midwest Studies in Philosophy* XXXIII (2008): 20–35.

[102] Susan Haack, "Reflections on Relativism: From Momentous Tautology to Seductive Contradiction" (1996), in Haack, *Manifesto of a Passionate Moderate* (note 100 above), 149–66; "Realisms and Their Rivals: Recovering our Innocence," *Facta Philosophica* 4, no.1 (2002): 67–88; and "The World of Innocent Realism" and "The Real, the Fictional, and the Fake" (both note 83 above).

[103] Haack, "Proving Causation" (note 100 above).

[104] Susan Haack, "The Growth of Meaning and the Limits of Formalism, in Science and Law," *Análisis Filosófico* XXIX, no.1 (2009): 5–29.

(as my co-panelist at that recent meeting said), specialization is not only normal, but can be very productive.

By now, after centuries of work, the natural sciences deserve to be called "mature." To be sure, the maturity of a scientific field isn't categorical, but a matter of degree; and even within the most mature sciences there will always be a continuum of ideas (a continuum within the continuum of more and less mature disciplines) from the very firmly established, to the reasonably well-established, to the as-yet largely speculative, to the presently wild and implausible. That said, it is precisely the well-warranted theories in physics, chemistry, evolutionary biology, etc., that pave the way for productive specialization. For example: once the evidence was in that DNA and not protein is the genetic material, that it is a double-helical, backbone-out macromolecule with like-with-unlike base pairs, and that it carries genetic information by somehow coding for proteins, the outstanding challenge for molecular biologists was to figure out how, exactly, this coding works. Many specialists worked on the problem; and in 1961 Marshall Nirenberg and Johann Matthaei figured out the first "word" in the genetic code when they discovered that "one or more uridylic acid residues appear to be the code for phenylalanine"[105]—so paving the way for others to decode other "words."

The situation in philosophy, however, could hardly be more different. Around 1903, Peirce described metaphysics as "a puny, rickety, and scrofulous science";[106] and now, more than a century later, philosophy hardly seems—in metaphysics or any other area—in much better shape. Even more than the social sciences (by my lights, at least, still very far from full maturity), philosophy remains a field of competing schools and approaches, fads and fashions. And for a discipline in this condition—perhaps especially for *this* discipline in this condition—over-specialization *impedes* progress rather than enabling it, because it means that time and energy are inevitably wasted on "niche" problems that won't survive the half-baked theories that gave rise to them.

I think, in this context, of the "Davidson program."[107] The underlying idea, of course, was that meaning can be explained in terms of truth-conditions, and that truth-conditions can be spelled out by means of the methods Alfred Tarski used in developing his theory of truth for formalized languages.[108] The challenge was that, while his approach is well-suited to handle the regimented formal languages of logic and mathematics it is, as Tarski himself pointed out,[109] signally *ill*-suited to deal with the complexities, the raggedness, the constant evolution (and, Tarski

[105] Horace Freeland Judson, *The Eighth Day of Creation: Makers of the Revolution in Biology* (New York: Simon and Schuster, 1979), p. 481.

[106] Peirce, *Collected Papers* (note 18 above), 6.6 (c.1903).

[107] See generally Donald Davidson, *Inquiries into Truth and Interpretation* (Oxford: Clarendon Press, 1984); Ernest Lepore, ed., *Truth and Interpretation* (Oxford: Blackwell, 1986).

[108] Alfred Tarski, "The Concept of Truth in Formalised Languages" (first published in Polish in 1933), trans. J. H. Woodger, in Alfred Tarski, *Logic, Semantics, Metamathematics* (Oxford: Clarendon Press, 1956), 152–278.

[109] *Id.*, p. 154.

thought, the inconsistencies) of natural languages. In particular, as Davidson realized, there are numerous aspects of English, and presumably of other natural languages too—from adverbs to verbs of propositional attitude to metaphors and malapropisms—to which it can't readily be applied. The "program" was to regiment these recalcitrant aspects of natural language so as to *make* them amenable to those methods. For a while, within a limited circle and from a limited perspective, philosophy began to look a lot like what Kuhn called "normal science."[110] After decades of work, however, it seems finally to have been acknowledged that Tarski was right all along—his methods apply only to well-behaved formal languages, and could be applied to natural languages only if they were first rigidified beyond all recognition.

Eventually, Davidson himself concluded that, after all, there is no such thing as a language, at least in the sense that philosophers of language like himself had taken for granted.[111] Less time might have been wasted had more people been willing to go back and think through Tarski's reasons for pessimism before jumping on the Davidsonian bandwagon; and it might all seem like less of a waste of energy had more people been willing, after the collapse of the program, to explore what a more realistic understanding of language might look like.[112] But as it was, I fear the program advanced more careers than it did philosophical frontiers.

Now I begin to see that there's a kind of vicious spiral here: when specialization is premature, it wastes time and energy because there is as yet nothing like the body of well-warranted theory needed to make it productive. When premature specialization becomes commonplace, the prospects for achieving something solid to build on seem to recede indefinitely; and so people keep themselves busy arguing over and over the same puzzles—until boredom sets in, and they set off in pursuit of a new fad. Problems are never solved, but simply abandoned: philosophers of science leave the "grue" paradox behind unresolved; metaphysicians lose interest in older debates about realism vs. nominalism, about realism vs. "anti-realism," about internal realism vs. metaphysical realism, . . ., etc., and chase after a new, post-post-modern realism—or a new "deflationism"; philosophers of language abandon Davidson to argue over Kripke and, especially, over X's, Y's, and Z's interpretations, critiques, and defenses of Kripke and A's, B's and C's interpretations, critiques, and defenses of X's, Y's and Z's interpretations, critiques, and defenses of Kripke, . . ., etc; and so on.

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[110] Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962), pp.35 ff.

[111] Donald Davidson, "A Nice Derangement of Epitaphs" (1986), in Earnest Lepore, ed., *Truth and Interpretation* (Oxford: Blackwell, 1986), 433–46, pp. 445–46.

[112] As I tried to do in "The Growth of Meaning and the Limits of Formalism" (note 104 above). Some progress has been made by Chen Bo, in "Kripke's Semantic Argument against Descriptivism Reconsidered," *Croatian Journal of Philosophy* 13, no.39 (2013): 421–45, and an unpublished paper entitled "The Social Construction of Language and Meaning: An Alternative Theory of Names." (However—as his titles suggest—Prof. Chen's work might be better described as post-Kripkean than as post-Davidsonian.)

As those critics I mentioned earlier observe:

> [i]n the recent history of [analytic philosophy] a series of puzzles have been mooted, flared up as trends, attracted a significant portion of graduate students, and then died down with no obvious solution having established itself and the world not much the wiser. These problems include: paradigms, rules, family resemblance, criteria, "gavagai," Gettier, rigid designation, natural kinds, functionalism, eliminativism, truth-minimalism, narrow versus wide context, possible worlds, externalism versus internalism, vagueness, four-dimensionalism, and, just now, presentism.[113]

This list dates from 2006; and (since, as the authors note, such fashionable "niche" problems typically last somewhere between a couple of years and a decade or so)[114] today's list would be somewhat different. But their point remains valid: the puzzles that would be missing if they wrote the list today weren't crossed off *because they'd been solved*; they were simply set aside when people got bored with them—like the hula hoops and bell-bottomed trousers stuffed, with the rest of the detritus, in the garage. No wonder I'm so often put in mind of Peirce's complaints about the literary dilettanti of his day, who have "so perverted thought to the purposes of pleasure," that "a positive discovery which takes a favorite subject out of the arena of … debate is met with ill-concealed dislike,"[115] and about those "over-cultivated Oxford dons … whom any discovery that brought quietus to a vexed question would evidently vex because it would end the fun of arguing around it and about it and over it."[116]

And now I begin to see, also, how fragmentation, hermeticism, and ahistoricism fit together in a kind of syndrome of intellectual decay. By closing our eyes to consilience with other disciplines, fragmentation encourages hermeticism; and by closing our eyes to the possibility that better answers to this or that philosophical question might be found, not in the work of the specialist sub-group presently focusing on it, but in outsiders' ideas, or in ideas from the philosophical past, fragmentation encourages ahistoricism. And in philosophy ahistoricism isn't, as it usually is in the sciences, harmless. Successful past work on a scientific problem will usually already have been incorporated into the textbooks and into current approaches; but nothing like this is true in philosophy. And so, as George Santayana

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[113] Mulligan, Simons, and Smith, "What's Wrong with Contemporary Philosophy?" (note 68 above), p. 64.

[114] One puzzle, however, seems extraordinarily long-lived: the problem posed by the "Gettier Paradoxes," which have by now been around for *fifty years*. Edmund Gettier, "Is Justified True Belief Knowledge?" *Analysis* 23 (1963): 121–23. I believe I identified the source of the paradox—that "knows" is categorical, but "is justified in believing" a matter of degree—in a paper written in 1983; which, however, I thought not interesting enough to publish, … until Gettierology flared up all over again. Susan Haack, "'Know' is Just a Four-Letter Word" (1983) in the 2nd edition of *Evidence and Inquiry* (note 3 above), 301–30.

[115] Peirce, *Collected Papers* (note 18 above), 5.396 (1878). "This disposition," Peirce continues, "is the very debauchery of thought." Indeed.

[116] *Id.*, 5.520 (c.1905).

famously observed, "[t]hose who cannot remember the past are condemned to repeat it."[117]

I will illustrate, once more, with an example from epistemology, this time from my own work. After *Evidence and Inquiry* (which focused on individual knowing subjects), in the process of writing *Defending Science* I began puzzling over questions about the evidence with respect to scientific claims, which is usually the shared resource of many people in the field in question. Dipping into the then-burgeoning literature on "social epistemology" proved disappointing. But eventually I figured out for myself what the fundamental problem was: that the evidence with respect to scientific claims must include scientists' seeing, hearing, etc., this or that; but sensory experience is always *someone*'s, i.e., some *individual*'s, sensory experience. And so, I concluded, to understand warrant in the impersonal sense (i.e., the degree of warrant of this or that scientific claim at a time), you have to start with the degree of warrant of a claim in light of the evidence possessed by a individual scientist, and proceed from there to an account of the degree of warrant of a claim for a group of people; and only then can you construct an account of a claim's being more, or less, warranted at a time.[118] Years later I discovered that, long before, Russell had put his finger on the key point in *Human Knowledge: Its Scope and Limits* (1948). "In considering the reason for believing in any empirical statement, we cannot escape from perception with all its personal limitations," he wrote; and "[i]ndividual percepts are the basis of all our knowledge, and no method exists by which we can begin with data which are public to many observers"[119]—just exactly what I had spent too long figuring out for myself.

Now, however, I need to emphasize that, while for simplicity I have written as if specialization in philosophy and specialization in the sciences were two entirely different kettles of fish, a better statement would acknowledge that this is a matter of degree. After all, there is plenty of waste, banality, etc., in specialized scientific work; and some progress is occasionally made even in prematurely-specialized philosophical work. (Even a stopped clock is right twice a day!) But I don't see how it could be denied that, though progress in the natural sciences is ragged, uneven, and unpredictable, and though the now-very-substantial body of well-warranted natural-scientific claims and theories is accompanied by a vastly larger trash-heap of discarded unsuccessful efforts, there *is* progress in the sciences. By contrast, in philosophy the prospects for this kind of real-though-ragged progress seem at present, as the saying goes, somewhere between slim and none.

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[117] George Santayana, *Reason and Common Sense*, vol. 1 of *The Life of Reason* (New York: Scribner's, 1905), p. 284.

[118] Haack, *Defending Science—Within Reason* (note 4 above), chapter 3.

[119] Bertrand Russell, *Human Knowledge: Its Scope and Limits* (New York: Simon and Schuster, 1948), p. 8. It is worth adding that Russell notes that we might look, here, to the law; which, as he observes, has long wrestled with some of the issues this raises about the appraisal of the worth of testimony.

1.3 The Causes of Fragmentation

If the current fragmentation of philosophy is as intellectually disastrous as I have claimed, then there can't be intellectually respectable reasons for the disintegration of our discipline into petty fiefdoms; in particular, the explanation can't be that people realize that this or that important discovery has brought solutions to these and those more specific problems within reach, and so focus on solving them. In short, the explanation can't be *intellectual opportunity*—philosophers' fastening on promising ways to contribute to the growth of knowledge; it must be at least in part a matter of *academic opportunism*—philosophy professors' fastening on promising ways to advance their careers.

The verbal shift in the last sentence, from "intellectual" to "academic," suggests where to begin the explanation: with the professionalization of philosophy. The words "amateur" and "professional" are often used to contrast relatively less well-informed and skilled efforts in a field (the "amateurish") with more skilled, sophisticated, and better-informed efforts (the "professional"); and it's undeniable that skilled and well-informed efforts are, in general, more likely to be successful than *un*skilled and *ill*-informed ones. It doesn't follow, however, that the professionalization of a field, in the purely sociological sense of its becoming a recognized profession with recognized training, qualifications, standards, etc., necessarily advances it; *that* requires, in addition, that the training, the qualifications, the standards, etc, be *of the right kind*. For example, as Michael Polanyi pointed out many years ago, the scientific peer-review system will contribute to the advance of science only on the assumption that authors and referees (and, I would add, editors) are acting in good faith; while:

> [i]f each scientist set to work each morning with the intention of doing the best bit of safe charlatanry which would just help him into a good post, there would soon exist no effective standards by which such deception could be detected. . . . Only if scientists remain loyal to scientific ideals rather than try to achieve success with their fellow scientists can they form a community which will uphold those ideals.[120]

I really wish that, as I read this passage, I weren't struck by how disturbingly close it comes to describing the situation in philosophy today . . . .

An amateur, as the etymology of the word suggests, pursues his projects for the love of it; whereas the professional makes his living by pursuing them. This, of course, is why a career in academia seems so attractive to the intellectually-inclined; what could be better, after all, than being paid to do what you love? And indeed, all would be well *if* professional success in the academy tracked real intellectual achievement, at least roughly. But the more success in a profession and real achievement come apart, the more the professionalization of a field will encourage the kind of professional opportunism I described earlier, and the more it will tend to impede progress rather than enable it. And while the correlation between academic success and real achievement in even the natural sciences is far

[120] Michael Polanyi, *Science, Faith, and Society* (Cambridge: Cambridge University Press, 1946), p. 40.

from perfect—there is, in my opinion, too much emphasis on such unreliable surrogate measures as how much grant money someone brings in, how often they are cited, how "prestigious" the journals in which they publish are, etc.—the correlation between academic success and real achievement in philosophy is much, much *further* from perfect.

How did this happen? Why is the situation in philosophy so much worse? I can't offer a full explanation—I'm not sure *anyone* could—but maybe I can identify at least some relevant factors. First: philosophers, like human beings generally, find it hard to resist acting so as to advance what Mill would call their interests "in the vulgar sense of the word"[121]—the desire for prestige, status, worldly success, and, of course, money; and as it is presently organized our profession creates powerful perverse incentives—incentives, that is, not to be alert for and to seize opportunities to advance inquiry, but instead to be alert for and to seize opportunities to advance yourself.[122] Second: once upon a time, philosophy professors felt affinity with others in the humanities; but, especially after "theorists" in literature departments began to flex their philosophical muscles, they began circling the wagons against these threatening outsiders. And again: once upon a time, philosophy professors were scholars learned in their field, and published only when they believed they had discovered something or figured out something interesting; but, as the publish-or-perish ethos took hold, many soon came to believe that the only way to survive, let alone succeed, in their profession was to find some niche, some clique, some citation cartel, where—provided they used the right, i.e., the fashionable, jargon, and cited the right, i.e., the most influential, people—they could publish enough to get tenure, a raise, a promotion. Gradually and inexorably, philosophers' work became narrower, their "little Creeks" smaller and shallower; and inevitably, also, those self-absorbed departments and self-absorbed cliques became the self-appointed judges of what work is good and what not, what topics worth pursuing and what not.[123]

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[121] John Stuart Mill, "Sidgwick's Discourse" (1835), in *The Collected Works of John Stuart Mill, Vol. X—Essays on Ethics, Religion, and Society*, available at http://oll.libertyfund.org/title/241, 166–205, p. 200.

[122] The temptations can be serious, subtle, and very hard to resist; think, for example, of the phenomenon of the dismissive endnote, seemingly an ever-commoner device for putting oneself front-and-center, and consigning those who made the key steps forward to a shadowy place where most readers won't go. On this topic, see Mark Migotti, "Pragmatism, Genealogy, and Truth" (critical notice of Bernard Williams, *Truth and Truthfulness: An Essay in Genealogy* [Princeton, NJ: Princeton University Press, 2002]), *Dialogue* XLVIII (2007): 1–19.

[123] And matters are made still worse, of course, now that deans are usually professional administrators whose own intellectual ambitions have long ago been permanently shelved; and so are obliged to assess professors and departments by means of such very poor surrogate measures as the supposed "prestige" of journals in which someone publishes, or the amount of grant money he brings in. This is especially disastrous in philosophy, where the ranking of departments initiated by Prof. Leiter—apparently an irresistibly lazy way of avoiding the need to make serious judgments of quality—is eroding the integrity of our discipline from the inside. All this is spelled out in "Out of Step" (note 8 above).

I really shouldn't have been shocked—though, I admit, I was—when the young woman I mentioned at the beginning told me that her supervisor had advised her to "publish as much as possible as fast as possible"; nor that she had evidently realized that the easiest way to go about this was to concentrate her attention on a narrow seam of niche literature.

1.4 A Road to Reintegration

Am I suggesting, then, that every philosopher should aim to construct his or her own comprehensive world-view, or that everyone in philosophy should be a general practitioner, that no one should do specialized work? No. That, I'm afraid, would likely produce a vast quantity of pretentious, self-important rubbish,[124] encourage dilettantes—Jacks of all trades and masters of none—and waste the talents of those who are strong in one area but flounder in others. So what *am* I suggesting? I don't believe there's any simple recipe; nor am I hopeful about the prospects for substantial improvement in the short term. I can only suggest some ideas about how best to conceive our work and how best to go about it—a way that I have found fruitful, and that might, in the longer term, improve the prospects for reintegration, and for real progress.[125]

I would urge, first, that philosophers and would-be philosophers heed Locke's shrewd counsel: that, instead of reading only one kind of book and listening to only one kind of person, they "venture into the great Ocean of Knowledge"—that they read novels, newspapers, biographies, history books, journals beyond the very narrow scope of the *Philosophers' Index*, philosophers long dead as well as their own contemporaries, etc., and that they listen to people in other areas in philosophy and in other disciplines and in other countries and, yes, outside the academy, too. (Now I'm remembering James's splendid paper on the importance of individuals, where he quotes an extraordinarily shrewd remark due, as he says, to "an unlearned carpenter of [his] acquaintance": "there is very little difference between one man and another; but what little there is, is *very important*.")[126]

Read, listen and, I would add, look around you, pay attention to what is before your eyes; never forget that philosophy, like physics or biology, is *about the world*,

[124] As I explained in my response to Richard Carrier's question to this effect in his "Interview with Susan Haack," available at http://freethoughtblogs.com/carrier/archives/1207 (2012).

[125] I don't claim that this is the *only* way; which is why I have given this section a title somewhat more modest than the sub-title of the paper, "*a* road" not "*the* road."

[126] William James, "The Importance of Individuals" (1890), in James, *The Will to Believe* (note 42 above), 190–95. See also Susan Haack, "The Differences that Make a Difference: William James on the Importance of Individuals," *European Journal of Pragmatism and American Philosophy* II, no.1 (2010): 1–10.

not just about our language or our concepts[127]—and especially, not just about what another member of this or that little professional circle said last year. And cultivate your peripheral vision—as you work on one question, stay alert both to problems (e.g., what concepts seem thin or soggy, and how they might be improved, what aspects may be being oversimplified, and what continuities ignored) and, especially, to prospects (e.g., what other issues, perhaps in other areas, this work might contribute to). In my experience, working in philosophy really is like working on a huge crossword puzzle; and a robust solution to one question often provides a hook into another, just as filling in one entry provides a couple of letters that can help you complete others.

Above all, perhaps, I would urge: be constructive, rather than simply ingenious. Try, not to come up with yet another wrinkle on a familiar idea, but actually to solve, or at least contribute to the solution of, problems that interest you. Maybe you will find it useful, as I have, to begin with an answer that seems undeniably true, but is unacceptably vague, and try gradually to refine it, without, in the process, making it false—keeping track of each step, so that you can retrace your path if you find you have gone astray.[128] Remember Peirce's observation about "cautious reflectiveness": don't be afraid to speculate; but don't forget, either, that there is virtually no formulation of a philosophical idea that couldn't be improved, or that a philosopher's most essential equipment is his wastepaper basket.

"Pay attention to the world; be constructive." Once again I'm echoing centuries-old advice, this time from Francis Bacon, who urged that philosophers emulate, not the ant, busily collecting and piling up material, and not the spider, busily spinning cobwebs out of its own substance, but the bee; because:

> . . . the bee takes a middle course; it gathers its materials from the flowers of the garden and of the field, but transforms and digests it by a power of its own. Not unlike this is the true business of philosophy . . . .[129]

If you really want to make progress, I would add, you will be wise to be leery of celebrities—and of celebrity. I mean, in part, that you should beware of deference to supposed "authorities" on a question (especially if their supposedly authoritative status derives from their institutional affiliation or their fancy title or the supposed "prestige" of the presses or journals with which they publish or their role in those wretched rankings); but also in part that, attractive as it might seem, the sort of cheap celebrity sometimes achieved in philosophy by the clever defense of outlandish claims or, these days, by self-advertisement in the blogosphere or even—heaven

[127] To say this, of course, is to repudiate the Central Dogma of analytic philosophy in its heyday. But that heyday is over, and that dogma has long been in trouble—as the popularity of the umpteen forms of "naturalized X" and "naturalized Y," and the fad for experimental philosophy, testify.

[128] This is what I called, in *Evidence and Inquiry* (note 3 above), p. 118, "the method of successive approximation."

[129] Francis Bacon, *The New Organon* (1620), Aphorism XCV, trans. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, in *The Works of Francis Bacon* (Boston: Taggard and Thompson, 1863).

help us—on YouTube,[130] is likely to make the mature reflection necessary for real progress harder, not easier, to achieve. Now I'm echoing even older advice—from Roger Bacon, who writes that:

> [t]here are four chief obstacles to grasping truth . . .: namely, submission to faulty and unworthy authority, influence of custom, popular prejudice, and concealment of our own ignorance accompanied by ostentatious display of our knowledge.[131]

Let me be absolutely frank: serious philosophical work isn't for the faint of heart. Like all serious intellectual endeavors, it carries inherent risks. You can spend a lot of time on something that doesn't pan out as you hoped; and even if you succeed, you may be frustrated because someone else gets to print just before you.[132] But then, as Holmes observes, "[n]o result is easy that is worth having."[133] If you can't tolerate these risks—and can't take comfort in the thought that, even if you fail, your unsuccessful efforts might in due course help someone else solve the problem you botched—then you're in the wrong business.

But in the present academic environment, serious philosophical work also carries other, adventitious risks. For example, unless you conform, more or less, to the perverse incentives I described earlier, you will likely find it harder to publish, and harder, therefore, to get tenure, to get promoted, to get a raise—perhaps, as pressure mounts for even graduate students to publish, to get any kind of academic job in the first place. I don't know what to say to someone who wonders whether they can, or should, tolerate *this* kind of risk for the sake of doing the work they care about.[134] "My professional life hasn't been exactly a bed of roses," I might say; "that has been the price I've paid for keeping my independence, and for following my ideas where they lead." But, I would have to add, I can't predict whether our profession will get better, or worse, over the course of a budding philosopher's working life (though I'd bet on its getting worse before it gets better, *if* it does); and I wouldn't presume to advise someone else whether, for them, the rewards would be worth the price. That is just too personal a matter.

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[130] In principle, the internet might have broadened philosophers' horizons—and perhaps, in time, it will; but my suspicion is that, overall, thus far it has had the opposite effect: encouraging people (graduate students especially) to assume that only what they can readily find via the electronic *Philosophers' Index* is worth reading, or that only the other subscribers to this or that electronic mailing list are worth listening to.

[131] Roger Bacon, *Opus Magus* (c.1266), trans. Robert Belle Burke (New York: Russell and Russell, 1962), p. 4.

[132] Or, I'm afraid, because someone gets to print *after* you but, being from a more "prestigious" department, or publishing in a more "prestigious" journal or with a more "prestigious" press, or simply being more in tune with his time, gets the credit you deserved.

[133] Holmes, "The Profession of the Law" (note 1 above), p. 472.

[134] To someone who actually *relishes* the idea of publishing as much as possible as fast as possible, running around to conferences making lots of "contacts," and promoting their work on the internet, I would have say, "*you* are in the wrong business, too!"

But perhaps you were expecting that, in this last section, I would offer a synoptic, unified philosophical picture. The best I have, however, falls well short of that—a partially-completed crossword puzzle in which there are huge blank spaces, and all the entries that *are* completed are only in pencil, many of them rubbed out and redone more than once. But I will sketch some key ideas that—though none is perfectly formulated, and some, doubtless, will prove more robust than others—seem, so far, both to be holding up in their own right, and to be interlocking as philosophical ideas should.

I'll start my list in metaphysics, with the Innocent Realist conception of the world.

- "Real" contrasts with "figment," and means something like "independent of how anyone or everyone believes (or wants, or fears) it to be." There is one real world, extraordinarily rich and various but, at the same time, unified—but not in the crude way reductionists suppose. "Our" part of this world, the earth we humans inhabit, is only one small corner of a vast universe, perhaps itself only one of many "multi-verses." But in this small corner, besides natural things, stuff, phenomena, events, kinds, and laws, there are our mental states and processes; and natural reality is overlaid by a dense mesh of human creations, physical and mental, intellectual and imaginative: physical artifacts: social institutions, rules, norms, laws; and a wealth of both intellectual, and imaginative, artifacts—languages, theories, . . ., works of art, plays, poems, novels and other works of fiction and the imagined characters, scenarios, etc., that they introduce.

I'll turn next to our efforts to describe this multi-faceted world, and in particular to truth.

- There are many and various truths about this rich and varied world, in many different, and not always mutually inter-translatable, vocabularies. Some of those truths are made true by things people do, some make sense only relative to a place, a time, or a jurisdiction, some are vague; but truth, the phenomenon, is not man-made, not relative, and not vague. There are many truths, but only one truth: whatever a claim is about, what it means to say that it is true is the same—that it is the claim that *p*, and *p*. That technology based on true theories works is neither a mystery nor a miracle: the reason airplanes don't burst at the seams, for example, is that they are constructed on the basis of a theory to the effect that *these* materials will withstand *this* pressure, and these materials *will* withstand this pressure.

This leads to questions about the process of discovering truths about the world.

- Inquiry, investigation—figuring out how the world is—requires seeking out, and appraising the worth of, evidence. It is better-conducted the more thorough and well-informed the search for evidence, and the more honest and well-informed its appraisal. Intellectual integrity crucially involves a willingness to go where the evidence leads; and other epistemic virtues, similarly, are evidence-related.

So we need a good, detailed, plausible understanding of what evidence is, and what makes it better or worse.

- The evidence with respect to the truth of a belief, claim, or theory involves both experience and (presumed) background information, and has the ramifying structure of a crossword puzzle. How warranted a claim is depends on how well it is supported by experience and other presumed background information—a matter, briefly and roughly, of the explanatory integration of evidence and claim; on how secure that presumed background information is, independent of the claim in question; and on how much of the relevant evidence the evidence includes.

This raises questions about the way(s), if any, in which scientific inquiry is distinctive.

- Inquiry in the sciences, like everyday empirical inquiry, involves making a conjecture that would explain something puzzling, figuring out its consequences, checking how well those consequences stand up to the evidence you have or can lay hands on, and then using your judgment whether to stick with the conjecture, modify it, suspend judgment until you can get more evidence, or dump that conjecture and start again with a new one. But over centuries of work, scientists have devised a vast array of specialized tools and techniques to strengthen the imagination, extend evidential reach, and stiffen respect for evidence: models and metaphors, instruments of observation, mathematical and statistical techniques, computers and computer programs, social mechanisms to encourage creativity and discourage dishonesty, . . ., etc.

Does this, you may wonder, go for social-scientific inquiry too?

- Social-scientific inquiry uses (mostly) different specialized tools and techniques from those used in the natural sciences; and it seeks intentional, rather than physical, explanations. Moreover, social institutions, roles, rules, etc., the objects of social-scientific explanations, are real, all right, but also socially constructed—i.e., though independent of what you or I or any individual believes about them, they depend in part on what people in the society concerned believe about them.

What, you might wonder now, is it about human beings that makes us able, fumblingly and fallibly to be sure, to figure out something of how the world is?

- Like all empirical inquiry, scientific inquiry is possible only because (i) there are real kinds and laws in the world, and (ii) we humans are able to perceive things and events around us, make generalized conjectures about what might explain what we see, etc., and then check these consequences against further experience.

And how do we humans come to have these capacities?

- Our senses are part of our biological inheritance. But our distinctively human cognitive capacities, innate *in potential*, develop by means of our interactions

with others, specifically our linguistic (or other semeiotic) interactions. Beliefs, for example, are dispositions to behavior, verbal and non-verbal: dispositions that are neurophysiologically realized, but that get their content, not from their neurophysiological characteristics, but from their relation to things and events in the world and to words in a person's language and the relation of those words to these things and events.

This raises another kind of question, about the character of language.

- A natural language—probably best construed as a loose federation of similar-enough idiolects—is constantly evolving, with words gaining new meaning as our knowledge grows; and this growth of meaning in turn contributes to the growth of knowledge as, for example, the sciences gradually work towards a vocabulary that better corresponds to real kinds of thing and stuff in the world. This in part explains the failure of formal-logical models of scientific reasoning.

This also in part explains the failure of formal-logical models of legal reasoning.

- Legal concepts, like scientific concepts, shift and change—in this case, however, not so as better to represent kinds in the world, but so as better to accommodate changing social institutions, technologies, values, etc. And legal systems, like legal concepts, shift, change, adapt; and are sometimes transplanted from one part of the world to another, and then adapt and evolve in their new niche.

This, together with the ideas about truth summarized earlier, resolves some puzzles about truth in the law.

- Legal truths, i.e., truths about what the law is, are a sub-class of social-scientific truths, specifically, truths about (a sub-class of) the norms of a society. Such truths are local to a jurisdiction and a time, and they are made true by things that people do; but what it means to say, e.g., that it is true that in 2013 Florida shifted from the *Frye* standard for the admissibility of scientific evidence to the *Daubert* standard is, simply, that in 2013 Florida *did* shift from *Frye* to *Daubert*.

Moreover, an adequate conception of the structure of evidence and the determinants of evidential quality can resolve some evidentiary issues with which the law has wrestled. I'll remind you of two examples already mentioned briefly.

- Legal degrees and standards of proof are best construed as degrees of warrant, not as mathematical probabilities (the two have demonstrably different logical structures). This shed light on, e.g., why evidence of more than doubled risk among those exposed to a substance is neither necessary nor sufficient to prove causation "by a preponderance of the evidence."
- If (i) it enhances supportiveness, and/or (ii) it enhances the independent security of positive reasons or lowers the independent security of negative ones, and/or (iii) increases comprehensiveness without lowering supportiveness, a combination of pieces of evidence none of which would be sufficient by itself to establish a factual claim to the required degree of proof may do so jointly.

These last examples illustrate both something of how constructive philosophical work can be useful to neighboring fields, and something of how figuring out how to apply such work in other fields can enable further articulation of a philosophical theory—as I found as I put my epistemological ideas to work on questions about the legal concept of proof.

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Innocent Realism, Laconicism, Foundherentism, Critical Common-sensism, the growth of meaning, the limits of formalism in science and in law, …, etc. Of course, this is only a sketch, and a very sketchy one at that. But I dare to hope that, somewhere in this body of work, there is something, maybe more than one something, that will enable others to make progress.[135]

[135] My thanks to Mark Migotti for very helpful comments on a draft, and to Claus Emmeche for helpful correspondence.

Chapter 2
The World According to Innocent Realism: The One and the Many, the Real and the Imaginary, the Natural and the Social

Susan Haack

"The time has come," the Walrus said,
"To talk of many things:
Of shoes—and ships—and sealing wax—
Of cabbages—and kings . . . ." —Lewis Carroll[1]

2.1 A "New" Realism?

When, in 2011, I received an invitation to speak on "Prospects for a New Realism," I wasn't quite sure whether to laugh or to cry. (I settled for smiling wryly.) Why so? Because my work on realism—or rather, on realism*s*—isn't exactly new: I began thinking about these issues in the late 1970s, and the Innocent Realist theory I was starting to build by the early 1990s calls on ideas from C. S. Peirce—who describes himself as "a scholastic realist of a somewhat extreme stripe" in acknowledgment of the ideas *he* draws from the medieval metaphysician Duns Scotus.[2] So I can only hope it will suffice if—even if they aren't all new—the ideas I develop here are true.

[1] Lewis Carroll, "The Walrus and the Carpenter," *Through the Looking Glass: And What Alice Found There* (1878), in *The Works of Lewis Carroll*, ed. Roger Lancelyn Green (Feltham, Middlesex: Spring Books, 1965), 111–220, p.152. "Lewis Carroll" was the pen-name of Charles Dodgson (1832–98), clergyman and mathematician.

[2] C. S. Peirce, *Collected Papers*, eds. Charles Hartshorne, Paul Weiss, and (volumes 7 and 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58), 5.470 (1902). (References to the *Collected Papers* [hereafter *CP*] are by volume and paragraph number.) On what ideas specifically Peirce drew from Scotus, see Rosa Maria Perez-Teran Mayorga, *From Realism to Realicism: The Metaphysics of Charles Sanders Peirce* (Lanham, MD: Lexington Books, 2007).

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In the early days—at a time when, after completing the Ph.D. dissertation that became *Deviant Logic*,[3] I first taught a class on epistemology and metaphysics—I was thinking about the revival of metaphysics, in the wake of the Logical Positivists' critique, in the work of Peter Strawson[4] and W. V. Quine;[5] puzzling over Rudolf Carnap's distinction between internal and external questions;[6] and trying to make sense of how—after affirming categorically in a joint paper, "we don't believe in abstract objects"[7]—Quine and Nelson Goodman moved in radically different directions: Quine from nominalism to extensionalism,[8] and Goodman to a mereological repudiation of set theory.[9] The result was a series of papers arguing, against Strawson, that metaphysics should aspire to do more than simply describe "our conceptual scheme";[10] against Quine, that Carnap's distinction of internal and external questions cannot be assimilated to the analytic-synthetic distinction;[11] and

[3] Susan Haack, *Deviant Logic* (Cambridge: Cambridge University Press, 1974); 2nd, expanded edition, *Deviant Logic, Fuzzy Logic: Beyond the Formalism* (Chicago, IL: University of Chicago Press, 1996).

[4] P. F. Strawson, *Individuals: An Essay in Descriptive Metaphysics* (London: Methuen & Co., Ltd., 1959).

[5] W. V. Quine, "On What There Is," *Review of Metaphysics*, 2, 1948: 21–38; reprinted in W. V. Quine, *From a Logical Point of View*: *9 Logico-Philosophical Essays* (1951: 2nd ed., New York: Harper Torchbooks, 1963), 1–19.

[6] Rudolf Carnap, "Empiricism, Semantics, and Ontology," *Revue Internationale de Philosophie*, 4, 1950: 20–40; reprinted in Rudolf Carnap, *Meaning and Necessity: A Study in Semantics and Modal Logic* (Chicago, IL: Phoenix Books, 1947), 205–21.

[7] W. V. Quine and Nelson Goodman, "Steps Towards a Constructive Nominalism," *Journal of Symbolic Logic*, 12, 1947: 97–122, p. 97.

[8] Already by 1951, in "Logic and the Reification of Universals" (*From a Logical Point of View* (note 5 above), 102–29), p.128, we find Quine describing the nominalist position as "heroic"; and in 1953, in "Three Grades of Modal Involvement" (reprinted in *Ways of Paradox* (Cambridge, MA: Harvard University Press, 1966), 158–76), p.162, he describes modal logicians as "flouting the policy of extensionality."

[9] In "A World of Individuals" (1956), in Hilary Putnam and Paul Benacerraf, eds., *Readings in the Philosophy of Mathematics: Selected Readings* (Englewood Cliffs, N.J.: Prentice Hall, 1964), 197–210, p. 198, Goodman writes that, for him, nominalism "consists specifically in the refusal to recognize classes"—apparently, rather than abandoning his earlier nominalism, as Quine did, Goodman redefined it.

[10] Susan Haack, "Descriptive and Revisionary Metaphysics," *Philosophical Studies*, 35, 1979: 83–94; reprinted in Cynthia MacDonald and Stephen Laurence, eds., *Contemporary Readings in the Foundations of Metaphysics* (Oxford: Blackwell, 1998), 22–31. In German translation in *Conceptus*, XII.31, 1978: 80–100.

[11] W. V. Quine, "On Carnap's Views on Ontology" (1951), reprinted in *Ways of Paradox* (note 8 above), 203–11. Susan Haack, "Some Preliminaries to Ontology," *Journal of Philosophical Logic*, 5, 1976: 457–74. In the same period, I wrote a paper on Kantian elements in Carnap's *Aufbau*, which I believe has had some influence in what would later become a fashionable line of scholarship. Susan Haack, "Carnap's *Aufbau*: Some Kantian Reflections," *Ratio*, 19.2, 1977: 170–75 (also, in German translation, in the German edition of *Ratio*, 19.2, 1977: 158–63). The English version is reprinted in Sahotra Sarkar, ed., *Science and Philosophy in the Twentieth Century: Basic Works of Logical Empiricism* (New York: Garland, 1996), vol. 1, 342–47.

against Goodman, that Carnap's *Logical Structure of the World*[12] is not more ontologically burdened than *The Structure of Appearance*,[13] only burdened in a different way.[14] Two key ideas were already in place: that metaphysics is a substantial enterprise; and that the old question of nominalism versus realism—"that question on which each new-fledged masculine intellect likes to try its powers of disputation"[15]—remains crucial.

A little later, I began to think about the contrasts between realism and relativism, and between realism and what was then beginning to be called (as the debate between Davidsonians and Dummettians heated up) "anti-realism." Another key idea began to grow: that "realism" refers, not to a single, unitary philosophical thesis, but to a whole unruly family of theses, some logically independent of others. An invitation to speak on the philosophy of Karl Popper was the opportunity for a paper making some preliminary distinctions and arguing, *inter alia*, that Popper's idea that Tarski's theory of truth served to underpin both realism and the objectivity of knowledge needed re-evaluation.[16] I now see this as an early step on the path that eventually led to the realization that—despite the optimism of his title, *Objective Knowledge*[17]—Popper's attempt to combine fallibilism and objectivity falls far short of the mark: his "fallibilism" collapses into a thinly-disguised skepticism; and his three-worlds metaphysics could at most establish the objective existence of propositions—known or unknown—but *not* the objectivity of knowledge.[18]

Gradually, I came to see that, well before Popper, Peirce had done much better—that his understanding of what is needed to combine fallibilism and objectivity is far subtler than Popper's, and his conception of the kind of realism required not only distinctive, but in important ways also distinctively plausible. *Reality* and *existence*,

[12] Rudolph Carnap, *Der Logische Aufbau der Welt* (Berlin-Schlatensee: Weltries-Verlag, 1929); English translation *by R. A. George, The Logical Structure of the World* (London: Routledge and Kegan Paul, 1967).

[13] Nelson Goodman, *The Structure of Appearance* (Indianapolis, IN: Bobbs-Merrill, 1951).

[14] Susan Haack, "Platonism versus Nominalism: Carnap and Goodman," *The Monist*, 61.3, 1978: 83–94; reprinted in Catherine Z. Elgin, ed., *The Philosophy of Nelson Goodman*, vol. 1, *Nominalism, Constructivism, and Relativism in the Work of Nelson Goodman* (New York: Garland, 1997), 199–210.

[15] Chauncey Wright, "Peirce's Berkeley Review," *The Nation*, 13, November 30, 1871: 355–6, p. 355; reprinted in The Peirce Edition Project, ed., *Writings of Charles S. Peirce: A Chronological Edition* (Bloomington, IN: Indiana University Press, 1982-present) [hereafter *W*], 2:477–9, p. 487. Wright was an active member of the Metaphysical Club in Cambridge, Mass., the birthplace of the classical pragmatist tradition in philosophy.

[16] Susan Haack, "'Realism,'" *Synthese*, 73, 1987: 275–99.

[17] Karl R. Popper, *Objective Knowledge: An Evolutionary Approach* (Oxford: Clarendon Press, 1972).

[18] See Susan Haack, "Just Say 'No' to Logical Negativism" (first published in Chinese in 2011), in Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, 2008, expanded ed., 2013), 179–94 and (notes), 298–305.

Peirce argues, are different concepts[19]—the former, which applies to "generals" as well as to particulars, more inclusive than the latter. Accordingly, a key question is: "are there real generals, i.e., real kinds and laws?"[20] There are, Peirce replies; but this is not to say that generals exist. Nor, he continues, is ordinary language is "a sufficient guarantee in this matter":[21] rather, it is for scientific investigation to determine which of the general terms in our language pick out real kinds. Though many think of science as inherently nominalist, Peirce continues, the truth is that nominalism *undermines the scientific enterprise*.[22] For without real generals there could be no basis for explanation, prediction, or induction, and all we could do is describe individual things and events.

At first—no doubt influenced by Quine's animadversions against multiplying senses of "to be"[23]—I was inclined to resist Peirce's distinction of existence and reality. But gradually I came to see that it revealed why Quine's insistence that "there is" be understood exclusively in terms of the existential quantifier, and his adoption of that celebrated criterion of ontological commitment—"to be is to be the value of a variable"[24]—created a false dichotomy. The existential quantifier ranges either (in first-order logic) only over ordinary individuals, or else (in second-order logic) both over concrete and over abstract individuals such as properties, propositions, etc. So Quine's criterion restricts our options: *either* a nominalism that allows the existence only of concrete particulars, *or else* a pseudo-realism that also allows the existence of abstract particulars—a nominalistic *ersatz* for real generals. This false dichotomy, I began to suspect, had distorted the contemporary debate over natural kinds, and perhaps contemporary philosophy of science more generally.[25]

By this time, I was beginning to develop a distinctively realist position of my own. The first, very brief, published statement of my Innocent Realism was in "Reflections on Relativism," which appeared in 1996.[26] In 2002, this new theory

[19] Peirce, *CP* 6.349 (1902–3): "*reality* and *existence* are two different things"; *CP* 5.503 (c.1905): "*reality* means a certain kind of non-dependence upon thought, while *existence* means interaction with the environment." [I believe Peirce uses "general" (which is not usually a noun in English) rather than the more usual philosophical term, "universal," so as to include kinds and laws.]

[20] Peirce, *CP* 1.16 (1903): "the question [at issue between nominalism and realism] is whether *laws* and general *types* are figments of the mind or are real."

[21] *CP* 6.361 (c.1902).

[22] Peirce, *CP* 6.361 (1902–3): "physical science gives its assent much more to scholastic realism . . . than it does to nominalism"; *CP* 1.20 (1903): "science has always been at its heart realistic, and must always be so."

[23] See Quine, "On What There Is" (note 5 above), p. 3, complaining about philosophers "who have united in ruining the good old word 'exist.'"

[24] Quine, *id*., p. 12: "the *only* way we can involve ourselves in ontological commitment [is] by our use of bound variables."

[25] Susan Haack, "Extreme Scholastic Realism: Its Relevance to Philosophy of Science Today," *Transactions of the C. S. Peirce Society*, 27.1, 1992: 19–50.

[26] Susan Haack, "Reflections on Relativism: From Momentous Tautology to Seductive Contradiction," in James E. Tomberlin, ed., *Philosophical Perspectives, 10: Metaphysics* (Oxford: Blackwell, 1996), 298–314, and in the Supplement to *Noûs*, 1996: 298–314; reprinted in Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago, IL: University of Chicago Press, 1998), 149–66.

was amplified and refined in "Realisms and Their Rivals";[27] the following year, in *Defending Science*, I applied it first to the natural and then to the social sciences;[28] a few years later, I distinguished it from so-called "Metaphysical Realism";[29] and most recently, I have begun to explore its relevance to our understanding of legal systems and laws.[30]

2.2 Ideas Gradually Gelling

The thought with which this constructive work began was that "realism" has many meanings, and contrasts with a host of opposing terms—some of which, notably "relativism," are even more ambiguous than it is. So the first task was disambiguation.

Different forms of realism qualify as realist in virtue of the shared idea that something—the world, moral or epistemic values, truth, beauty, etc.—is independent of something human; what distinguishes them from one another is *what*, exactly, is held to be independent of *what* about us. In due course, identifying the various forms of realism by reference to the characteristic opposing theses, I distinguished:[31]

- Perceptual realism—as opposed to the representative theory of perception.
- Physicalism, dualism, pluralism, neutral monism—as opposed to subjective idealism.[32]
- The thesis that there may be unknowable truths—as opposed to an identification of the true and the justifiably assertable; and truth-condition theories of meaning—as opposed to verification- or assertability-condition theories.
- Realism about universals, or the reality of generals—as opposed to nominalism and conceptualism.

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[27] Susan Haack, "Realisms and Their Rivals: Recovering Our Innocence," *Facta Philosophica*, 4.1, 2002: 68–88. (This paper was originally written in 1998, for publication in a volume that was scheduled to appear in 1999 but didn't finally come out until 2004. Ilka Niiniluoto, Matti Sintonen, and Jan Woleński, eds., *Handbook of Epistemology* (Dordrecht, the Netherlands: Kluwer, 2004), 415–36.)

[28] Susan Haack, *Defending Science—Within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003) chapters 5 and 6.

[29] Susan Haack, "Innocent Realism in a Pluralistic Universe: Response to Carlos Caorsi," in Cornelis de Waal, ed., *Susan Haack: A Lady of Distinctions* (Amherst, NY: Prometheus Books, 2007), 233–6.

[30] Susan Haack, "Nothing Fancy: Some Simple Truths about Truth in the Law," in Haack, *Evidence Matters: Science, Proof, and Truth in the Law* (New York: Cambridge University Press, 2014), 294–324.

[31] Haack, "Realisms and Their Rivals" (note 27 above); see especially Table 1, p. 68.

[32] In this context I noted that theological idealism (according to which everything is an idea in God's mind), like Objective Idealism, arguably might be classified as forms of realism. *Id.*

- The many and various forms of scientific realism, among them: that theoretical statements really are genuine statements, capable of truth and falsity—as opposed to instrumentalism; that the goal of science is true theories—as opposed to constructive empiricism; that the entities posited in scientific theories are real—as opposed to radical forms of social constructivism. (Some forms of scientific realism, I noted, also make *epistemological* claims, e.g., that scientific knowledge is cumulative, or that scientific inquiry converges on the truth, or that currently accepted theories in mature sciences are true.)
- Metaphysical Realism (as characterized by Putnam)[33]—as opposed to the many and various forms of metaphysical relativism, including Putnam's later thesis of conceptual relativity.[34]

Similarly, different forms of relativism qualify as relativist in virtue of the shared idea that something is relative to something else; what distinguishes them from one another is *what* is said to be relative to *what*, and *in what sense* of "relative."[35] I distinguished two relevant senses: an anthropological, descriptive sense, "varies depending on," and a philosophical sense, "makes sense only relativized to." Setting anthropological forms of relativism aside (but noting that they don't imply the corresponding philosophical forms), I proposed a table of varieties of philosophical relativism:

--------- IS RELATIVE TO	
1. meaning	a. language
2. reference	b. conceptual scheme
3. truth	c. theory
4. metaphysical commitment	d. scientific paradigm
5. ontology	e. version, depiction, description
6. reality	f. culture
7. epistemic values	g. community
8. moral values	h. individual
9. aesthetic values	

Not all the permutations this table allows represent even half-way plausible philosophical positions; no one supposes, for example, that aesthetic values are relative to scientific paradigms. But many of these permutations represent positions

[33] In this context I suggested that the "internal realism" proposed by another time-slice of Putnam arguably might be classified as a form of non-realism. *Id.*

[34] Hilary Putnam, *Renewing Philosophy* (Cambridge, MA: Harvard University Press, 1992), 115–23.

[35] Haack, "Reflections on Relativism" (note 26 above), pp. 146 ff.

familiar from the literature; and the table enables us to distinguish verbally similar but philosophically different views. For instance:

- Tarski's thesis that truth can be defined only relative to a language[36]—3(a).
- Rorty's claim that truth is just what can overcome all conversational objections[37]—3(g).
- Quine's thesis of ontological relativity[38]—2 (c).
- Benjamin Lee Whorf's thesis of linguistic relativity[39]—4 (c).
- Putnam's thesis of conceptual relativity[40]—5(b) or 5(a).
- Goodman's pluralistic irrealism[41]—6(e).
- the form of epistemological relativism held by David Annis[42] and (perhaps) Richard Rorty[43]—7(g); the form suggested by Thomas Kuhn[44]—7(d).

The ultimate aim of this clarificatory work, however, was not simply to distinguish and classify relativist ideas, but to discriminate those that are false, and among these, those that are self-defeating, from those that are true, or in which there is a grain of truth.[45] Similarly, the ultimate reason for distinguishing among

[36] Alfred Tarski, "The Concept of Truth in Formalized Languages" (first published in Polish in 1933), in Tarski, *Logic, Semantics, Metamathematics* (Oxford: Oxford University Press, 1956), 152–278; "The Semantic Conception of Truth" (1944), reprinted in Herbert Feigl and Wilfrid Sellars, eds., *Readings In Philosophical Analysis* (New York: Appleton-Century-Crofts Inc., 1949), 52–84.

[37] Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton, N.J.: Princeton University Press, 1979), p. 308.

[38] W. V. Quine, "Ontological Relativity," in *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969), 26–68.

[39] Benjamin Lee Whorf, *Language, Thought, and Reality*, ed. J. B. Carroll (Cambridge, MA: MIT Press, 1953).

[40] Putnam, *Renewing Philosophy* (note 34 above).

[41] Nelson Goodman, *Ways of Worldmaking* (Hassocks, Sussex: Harvester Press, 1978).

[42] David Annis, "A Contextualist Theory of Epistemic Justification," *American Philosophical Quarterly*, 15.3, 1976: 213–9; reprinted in Louis J. Pojman, ed., *Theories of Knowledge: Classic and Contemporary Sources* (Belmont, CA: Wadsworth, 2nd ed., 1998), 280–87.

[43] Rorty's position is, however, far from clear: to put it at its simplest, rather than consistently defending epistemic relativism, Rorty seems to evade critics by shifting up and back between relativism and tribalism. See, e.g., *Philosophy and the Mirror of Nature* (note 37 above), pp. 373 ff.; "Pragmatism, Relativism, Irrationalism" (1980) in *Consequences of Pragmatism* (Hassocks, Sussex: Harvester Press, 1982), 160–75, pp. 166 ff.; "Solidarity or Objectivity?" (1985) in *Objectivity, Relativism and Truth* (Cambridge: Cambridge University Press, 1991), 21–34, pp. 23 ff. See also Susan Haack, *Evidence and Inquiry: Towards Reconstruction in Epistemology* (1993; 2nd, expanded ed., Amherst, NY: Prometheus Books, 2009), 249–53; "Coherence, Consistency, Cogency, Congruity, Cohesiveness, &c: Remain Calm! Don't Go Overboard!" (2004), reprinted in Haack, *Putting Philosophy to Work* (note 18 above), 69–82 and 273–76.

[44] Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL: University of Chicago Press, 1962), especially chapter VI.

[45] Haack, "Reflections on Relativism" (note 26 above), pp. 152–3.

the many and various forms of realism was to sift genuine realist insight from crude overstatement and unnecessary accretion.[46]

In *Evidence and Inquiry*[47] and a subsequent paper entitled "How the Critical Common-sensist Sees Things,"[48] I articulated and defended a kind of perceptual realism that would mesh with my foundherentist epistemology; epistemological relativisms came under scrutiny in this book,[49] and again in *Defending Science*;[50] and issues about semantic relativism came up in a series of papers on truth.[51] But I will set all this aside for now, to focus specifically on the metaphysical theory that gradually emerged—the theory I called "Innocent Realism" to signal that (while it is not, I hope, naive) it is not burdened by the various philosophically over-optimistic aspirations of some ambitious forms of Metaphysical Realism, scientific realism, etc.

2.3 The Core of Innocent Realism

Unlike the old Positivists, I believe metaphysics is a legitimate enterprise. (Granted, it has all too often entangled itself in unanswerable questions. But what makes these questions unanswerable is that they rest on false presuppositions; and the way to resolve *this* problem, obviously, is not to abandon metaphysics, but to do *better* metaphysics—specifically, to trace our steps back until we identify those false assumptions, and then start again without them.) Moreover, I take metaphysics to be *about the world*, not just about our concepts, conceptual schemes, or languages; and to *depend on experience*—not, however, on the kind of specialized, recherché experience on which the empirical sciences call, but on close attention to familiar,

[46] Haack, "Realisms and Their Rivals" (note 27 above), p. 164.

[47] Haack, *Evidence and Inquiry* (note 43 above), chapter 5.

[48] Haack, "How the Critical Common-sensist Sees Things," *Histoire, épistemologie, langage*, 16.1, 1994: 9–33. See also Robert E. Lane, "Haack's Critical Common-sensim about Perception," in de Waal, ed., *Susan Haack* (note 29 above), 109–22, and my reply, "How I See Things Now," 123–8 in the same volume.

[49] *Evidence and Inquiry* (note 43 above), pp. 248 ff., 269–70.

[50] Susan Haack, *Defending Science—Within Reason* (note 28 above), pp. 76–7, 99–100, 182 ff.

[51] Susan Haack, "Confessions of an Old-Fashioned Prig," in *Manifesto of a Passionate Moderate* (note 26 above), 7–30. "The Unity of Truth and the Plurality of Truths," *Principia*, 9.1-2, 2005: 87–110; preprinted in Dag Westerstahl and Tjbjörn Tännsjö, eds., *Lectures on Relativism* (Göteborg, Sweden: University of Göteborg, 2005), 31–50; reprinted in Susan Haack, *Putting Philosophy to Work* (note 18 above), 53–68 and 271–73. "The Whole Truth and Nothing but the Truth," *Midwest Studies in Philosophy*, XXXIII, 2008:20–35; reprinted in *Filozofia Nauki*, XIX.4 (76), 2011: 7–23. "Professor Twardowski and the Relativist Menace," *Filozofia Nauki*, XIX.4(76), 2011: 25–33.

everyday experience. This is the approach to metaphysics you will see at work in what follows. It is scientific metaphysics, in Peirce's sense of the phrase.[52]

There is one real world, the Innocent Realist holds—a world largely, but not entirely, independent of us and our actions, beliefs, etc. This one real world is, manifestly, very heterogeneous—including (in Carroll's words) "shoes and ships and sealing wax, and cabbages and kings," or simply (in Quine's word), "everything."[53] "Everything" includes particulars *and* generals: natural objects, stuff, phenomena, kinds, and laws; a vast array of human (and some animal) artifacts; mental states and processes, including our thoughts, dreams, etc.; social institutions, roles, rules, and norms; human languages and other sign-systems; a plethora of scientific, mathematical, and philosophical theories (and, in at least some instances, their objects); works of history and art criticism, etc.; myths, legends, and works of fiction, and the characters and places that figure in them. But, the Innocent Realist holds, this heterogeneity is not the end of the story; the world is also, in a sense that will become clear as the argument develops, integrated. The one real world of Innocent Realism is, to borrow James's marvelously Janus-faced phrase, a pluralistic universe.[54]

But now I realize that, for all my efforts to be comprehensive, my sketch of this pluralistic universe is still too much like those joke postcards of "the view from New York"—where Manhattan looms large, the heartlands are sketchily marked "flyover country," and California is just a skinny sliver on the left edge. So I should add that we humans, and the earth we inhabit, are just a tiny part of a much larger universe; and that some cosmologists speculate that this universe may itself be only one of many.[55] Briefly and roughly, the idea is that "as space expands the cosmic

[52] See e.g., Peirce, *CP* 5.423 (c.1905), where he observes that, once pragmatically meaningless "ontological" metaphysics has been swept away, what will remain is "a series of problems capable of investigation by the observational methods of the true sciences." See also Susan Haack, "The Legitimacy of Metaphysics: Kant's Legacy to Peirce, and Peirce's to Philosophy Today," *Polish Journal of Philosophy*, 1, 2007: 29–43; preprinted in Hans Lenk, ed., *Kant Today* (Münster: LIT Verlag, 2006), 132–27; reprinted in *Philosophical Topics*, 36.1, 2008: 97–110.

[53] Quine, "On What There Is" (note 5 above), p. 1.

[54] William James, *A Pluralistic Universe* (Hibbert Lectures, 1909); in *Essays on Radical Empiricism* and *A Pluralistic Universe*, ed. Richard J. Bernstein (New York: E. P. Dutton & Co., 1971), 123–278. The metaphysical picture offered here, however, is obviously very different from James's.

[55] See e.g., Jaume Garriga and Alexander Vilenkin, "Many Worlds in One," *Physical Review*, 064.043511: 1–5, July 26, 2001, available at http://prd.aps.org/about; Max Tegmark, "Parallel Universes," in John D. Barrow, Paul C. W. Davies, and Charles L. Harper, eds., *Science and Ultimate Reality: Quantum Theory, Cosmology, and Complexity* (Cambridge: Cambridge University Press, 2004), 459–91; or, for a summary presentation, Tegmark, "Parallel Universes," *Scientific American*, May 2003: 41–51. Bernard Carr, ed., *Universe or Multiverse?* (Cambridge: Cambridge University Press, 2007) includes papers by skeptics as well as believers. George F. R. Ellis, "Does the Multiverse Really Exist?" *Scientific American*, August 2011, 38–43, argues that proof of parallel universes lies beyond the domain of science. Chris Impey, *How it Began: A Time-Traveler's Guide to the Universe* (New York, W. W. Norton, 2012) describes the multiverse idea as deriving from the conjunction of "two largely untested theories": the theory of chaotic inflation and string theory (p. 349).

fuel replenishes itself, and so efficiently that it is virtually impossible to use it all up. Which means the Big Bang would not be a unique event. Instead, the fuel . . . would power countless other bangs, each yielding its own . . . universe."[56] This is very speculative, very controversial—and far, far beyond my ability to judge. But, should it turn out to be true, all these universes would belong to the one real world posited by Innocent Realism.

Of course, my brief initial statement is only a first approximation, and raises many hard questions: most immediately, exactly what is meant by "one," and exactly what is meant by "real."[57] When I say that there is *one* real world, I mean, negatively, that there isn't more than one. There isn't a world of Being *and* a world of Becoming, for example, or a physical world *and* a spiritual. And—now I turn to more modern "many worlds" theories—to speak, as Popper did, of three metaphysically distinct worlds (the world of physical objects, the world of mental states, and the world of abstract objects such as numbers, problems, propositions, properties, theories, etc.),[58] while perhaps tolerable if it is only a fancy way of saying that the one real world includes things of all these kinds, is next to no help with the hard questions about heterogeneity and integration. And to speak, as many modal metaphysicians do, of a plethora of real possible worlds of which the actual world is only one, while perhaps tolerable if it is only a figurative way of talking about how the one real world might have been different, is unhelpful if taken *au pied de la lettre*.

But when I say that there is one real world I also mean, positively, to insist that diverse as the world is, it is also, in an important sense, integrated, unified. This, however, is emphatically not to commit myself to any grandiose form of reductionism. Rather, it is in part to acknowledge that the artifacts we and other creatures make are constrained by the physical properties of the things and stuff we make them from: you can't make a working typewriter out of butter, for example, or a comfortable pillow out of brass; and in part to acknowledge that our beliefs, hopes, wishes, and fears are *realized in* physiological states of our nervous systems—though not, as we shall see later, *reducible to* such physiological states.

What about "real"? It can't mean "independent of us (humans)," which would imply that there can't be, as there obviously are, real human artifacts. Nor can it mean "mind-independent," which would imply that there can't be, as there obviously are, real thoughts, dreams, etc. We best understand "real" by noting that it contrasts primarily with "fiction, figment, imaginary." What properties an imaginary beast or a fictional character has depends on what properties its creator gives

[56] Brian Greene, "The Mystery of the Universe," *Newsweek*, May 28, 2012: 22–25, p. 23.

[57] Here once again I follow what in *Evidence and Inquiry* (note 43 above), pp. 118, 139, I called the "method of successive approximation."

[58] Karl R. Popper, "On the Theory of the Objective Mind," originally published in German in *Akten der XIV Internationales Kongresses für Philosophie*, vol. 1, 1968: 25–53; amplified English version in Popper, *Objective Knowledge* (note 17 above), 153–90.

it. So what makes something real, rather than imaginary or fictional, is that it is independent of what you or I or anyone thinks about it.[59]

Since I said earlier that the one real world includes works of fiction, some readers may be puzzled by this contrast of "real" with "imaginary." The puzzlement, though understandable, can be readily dissolved. The essential point is that, while there are real fictional works (folk tales, children's stories, novels, plays, movies, TV dramas, cartoons, etc.), and real fictional characters, those real fictional characters *are not real people* (or real horses,[60] rabbits,[61] hobbits,[62] etc.). There really are fictional characters, in short; but fictional characters are not real. Some readers may find this explanation alarmingly reminiscent of Alexius Meinong's observation that "[t]here are objects of which it is true that there are no such objects."[63] But there are no serious grounds for alarm. "There really are fictional characters" just means that *there are real works of fiction in which imagined people, rabbits, etc., figure*; and "these fictional characters are not real people, rabbits, etc.," just means *that there are no such real people, rabbits, etc., as these works of fiction describe*.

[59] This understanding of "real" is adapted from Peirce. See *CP* 8.12, *W* 2.467 f. (1871): "The real is that which is not whatever we happen to think it, but is unaffected by what we may think of it." And then, in 1878, "a figment is a product of somebody's imagination; it has such characters as his thought imposes on it. That those characters are independent of how you or I think is an external reality. There are, however, phenomena within our own minds, dependent on our thought, which are at the same time real . . . . [T]hough their characters depend on how we think, they do not depend on what we think those characters to be." *CP* 5.405, *W* 3: 271. Peirce goes on, however, to give this idea a pragmat[ic]ist twist, suggesting that, at the third and highest grade of clarity, the real is the object of the Final Opinion in terms of which he defines truth—a turn in which I shall not follow him.

[60] See Anna Sewell, *Black Beauty* (1877; Oxford: Oxford Children's Classics, 2008).

[61] See Richard Adams, *Watership Down* (1972; Harmondsworth, Middlesex: Puffin Books, 1973), where the chief protagonists are the members of a heroic band of rabbits. (I am amused to see that the series' editor's blurb for the book says that "[t]his is a book about rabbits—*real* rabbits"; but when she continues, "*real* rabbits who act throughout in accordance with real rabbit behavior and instincts" it is clear that what she means is that these fictional rabbits *act like* real rabbits, not like people.)

[62] See J. R. Tolkein, *The Hobbit*, *or There and Back Again* (London: George Allen and Unwin, 1937); *The Lord of the Rings* (in three volumes, *The Fellowship of the Ring*; *The Two Towers*; and *The Return of the King*) (London: George Allen and Unwin, 1954–5).

[63] Alexius Meinong, "Kinds of Being" (1904) in Gary Iseminger, ed., *Logic and Philosophy* (New York: Appleton-Century-Crofts, 1968), 116–127 (excerpted from Meinong, "The Theory of Objects," in Meinong, ed., *Untersuchugen zur Gegenstandstheorie und Psychologie* (Leipzig, 1904), p. 123. Both Russell and Quine take Meinong to task for his supposed ontological extravagance. Bertrand Russell, "On Denoting" (1905), reprinted in *Logic and Knowledge*, Robert C. Marsh, ed. (New York: Capricorn Books, 1956, 41–56, p. 45; Quine, "On What There Is" (note 5 above), *passim*. Russell mentions Meinong by name; Quine does not, but I assume that Meinong is the inspiration for the fictional philosopher Quine calls "McX." But all Meinong meant, I believe, when he said that "[t]here are objects of which it is true that there are no such objects" was that some objects *of thought* are not real things. Peirce, I note, also allows unreal beings. *CP* 6.349 (1902–3).

George Eliot's *Middlemarch*[64] is a real work of fiction, for example, and Dorothea Brooke is a real fictional character; but there never was any such place as Middlemarch, nor any such person as Dorothea.

Of course, some novels are set in real places, and some include real people and events. A full treatment of the issues raised by this complication would take me far beyond the scope of the present paper; but this is the place to acknowledge that, as I conceive it, fictionality isn't categorical, but comes in degrees. I suspect, in fact, that fiction has its origins in the universal human practice of narrating real events, and the natural human inclination to imaginative embroidering of such narratives. (In English we speak of "fish stories," boastful reports of successful fishing trips in which the size of the fish caught grows and grows in the telling.)

But if "real" contrasts with "fictional," and fictionality comes in degrees, doesn't it follow that reality comes in degrees? Indeed, it does. Perhaps you suspect that this is a *reductio ad absurdum* of my understanding of "real"; but once again, if we step back we see that, far from being absurd, this conclusion is both plausible and fruitful, opening up a whole new area of inquiry.[65] Think, for example, of the legend of King Arthur and the Knights of the Round Table. Were they real, or not? With respect to King Arthur himself, the least misleading short answer seems to be that he *was* real—"sort of," or "in part." For, as I understand it, there really was a British chieftain who, after the Romans had abandoned Britain to defend Rome against the barbarians, rallied various tribes to repel invaders from northern Germany; and his exploits were the origin of the legend. But, like those fish stories, the legend of King Arthur grew, and was greatly embellished and embroidered, not to mention "updated" in medieval style, in the telling—the hundred Knights, the Round Table, etc., being pure fictional accretions.[66] All this suggests that we

[64] George Eliot, *Middlemarch*: *A Study of Provincial Life* (1871–2) (New York: The American Library, 1964).

[65] The gradualist conception of reality developed here *is* new; but I now see that it was foreshadowed in my endorsement of Peirce's regulative principle of synechism, that in philosophy we should look for continuities rather than sharp distinctions. See Peirce, "Immortality in the Light of Synechism" (1893), in *The Essential Peirce*, ed. the Peirce Edition Project (Bloomington, IN: Indiana University Press, 1998), 2:1–3; "The Law of Mind," *CP* 6.102 ff., *W* 8:135–57 (1892). Susan Haack, "Not Cynicism but Synechism: Lessons from Classical Pragmatism" (2005), reprinted in *Putting Philosophy to Work* (note 18 above), 83–97 and 276–77.

[66] I first learned this in a long-ago but never-forgotten high-school class on Roman Britain; then many years later discovered this passage in Edward Rutherfurd's historical novel, *London: The Novel* (New York: Ballantine Books, 1997), p.100: "Around the year 500, a Romano-British leader held the West Country against [the north German invaders], and his name, discovered by chroniclers long after, gave rise to the legend of King Arthur." Historian Peter Salway is more cautious, because "so much doubt has now been thrown on the state of knowledge about the written sources for Arthur" (*Roman Britain* (Oxford: Clarendon Press, 1981), p. 485). Richard Fletcher writes that "the irreducible minimum with which we are left [from the various sources] is that from the late sixth century onwards British poetic tradition celebrated a heroic warrior of the past named Arthur who fought successfully against the Saxons. . . . This is as far as it is prudent to go. That Arthur was a King, that he had a retinue of knights, that he kept a chivalric court—all this derives from the brilliant fiction of Geoffrey of Monmouth, *The History of the Kings of England*, composed in the 1130s" (Richard Fletcher, *Who's Who in Roman Britain and Anglo-Saxon England* (London and Chicago, IL: St. James Press, 1989), p. 18.).

need a gradualist modification of my earlier, categorical construal of the concept of reality: x is *more fully* real, the more independent it is of what you or I or anyone believes about it.

Innocent Realism, as I said, is a metaphysical theory; and perhaps that's why at least one commentator has had difficulty distinguishing it from the view Putnam called "Metaphysical Realism."[67] But the two theories are quite different. There is nothing in my theory remotely like a "fixed totality of mind-independent objects" (and, as I said earlier, "mind-independent" can't be what "real" means). Nor is there any suggestion in my theory of a privileged vocabulary in which this supposed fixed totality of objects can be characterized in One True Description of Everything. On the contrary, I take there to be many different true descriptions of the one real world, in many different, and not always mutually inter-translatable, vocabularies. But that it bears little resemblance to philosophically simplistic Metaphysical Realisms in no way diminishes the claim of Innocent Realism to be a *bona fide* form of realism.

For example, while the Innocent Realist acknowledges the diversity of the vocabularies in which the world may be partially described, it emphatically rejects the once-fashionable style of magical linguistic idealism according to which we brought the Big Dipper, or the Pacific Ocean, into being when we named them.[68] To be sure, we could have named that collection of stars differently, or collected a different bunch of stars together, and we could have called the Pacific Ocean by another name, or named that part of the ocean in which our tribe fishes the "Great Grey Water", etc., etc.; but those stars, and that body of water, were there anyway, and would have been there even if there had never been human beings or human languages. And, to be sure, before there was such a thing as the English language, the sentence "there are many islands in the Pacific Ocean" didn't exist, and so wasn't true; nonetheless, long before there was an English language as we know it, there were many islands in the Pacific Ocean.

[67] Hilary Putnam, "A Defense of Internal Realism" (1982), in Putnam, *Realism with a Human Face* (Cambridge, MA: Harvard University Press, 1990), 30–42. Carlos Caorsi, "Some Remarks on Susan Haack's Innocent Realism," in de Waal, ed., *Susan Haack* (note 29 above), 224–32, and my reply in the same volume, "Innocent Realism in a Pluralistic Universe," 233–36 in the same volume.

[68] See, e.g., Goodman, "Words, Works, Worlds," in Goodman, *Ways of Worldmaking* (note 41 above), 1–22; or (for linguistic irrealism in philosophy of science) Bruno Latour and Steve Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Beverly Hills, CA: Sage Publications, 1979; reprinted Princeton, N.J.: Princeton University Press, 1986). (The latter is criticized in detail in my *Defending Science* (note 28 above), pp. 190–94.)

2.4 Innocent Realism in Philosophy of the Natural Sciences

In philosophy of science—as I learned when I turned my attention in that direction—things are at least as tangled as in metaphysics, perhaps even more so. The realisms in question here are the many and various forms of "scientific realism" that evolved in response to a raft of anti-realist ideas from instrumentalism through constructive empiricism to radically irrealist forms of social constructivism. As usual, I had to clear my own path through this philosophical jungle, eventually arriving at the ideas developed in chapter 5 of *Defending Science*: an amplified Innocent Realism that formed the metaphysical backdrop to my Critical Commonsensist conception of scientific inquiry.[69]

Scientific theories are (normally) either true or else false.[70] Moreover, since science is best conceived as a kind of inquiry,[71] and since the goal of inquiry is to discover the answer—*the* answer, i.e., the *true* one—to the question at issue, it follows that science aims at true answers to its questions. Neither old-fashioned instrumentalism (according to which scientific theories are merely intellectual tools, and no more capable of being true or false than an abacus or a computer is),[72] nor the newer-fangled constructive empiricism (according to which, though scientific theories are truth-capable, the goal of scientific investigation is, not to arrive at true theories, but only to arrive at empirically, i.e., observationally, adequate theories),[73] is viable.[74]

To say that the sciences aim at true theories is not to say that scientists seek The Truth, in some quasi-religious sense. It is only to say that, if a scientist is investigating whether *p*, the goal is to end up concluding that *p*, if *p*, and that not-*p*, if not-*p* (and, to be sure, to end up concluding that it's a lot more complicated than that if it *is* a lot more complicated than that). When James Watson and Francis Crick were investigating the structure of DNA, for example, the goal was to end up at the conclusion that DNA is a double-helical, backbone-out macromolecule with like-with-unlike base pairs just in case DNA *is* a double-helical, backbone-out

[69] Haack, *Defending Science* (note 28 above), pp. 123–50.

[70] "Normally" is intended to allow for the possibility that, when a theory posits stuff that turns out not to be real (phlogiston, for example), it might reasonably be held to be neither true nor false.

[71] This is to say, not that investigation is the *only* business in which the sciences engage, but that it is their *core* business. See Susan Haack, "The Integrity of Science: What It Means, Why It Matters," *Etica e Investigação nas Ciências de Vida—Actas do 10 Seminario do Conselho Nacional de Ciências da Vida*, 2006: 9–28; reprinted in Haack, *Putting Philosophy to Work* (note 18 above), 121–40 and 283–88.

[72] See e.g. Ernst Mach, "On the Principle of Conservation of Energy" and, especially, "On the Principle of Comparison in Physics," in *Populärwissenschaftlich Vorlesungen* (Leipzig, 1894), trans. Thomas J. McCormack, *Popular Scientific Lectures* (La Salle, IL: Open Court, 1943), 137–85 and 236–58.

[73] Bas C. van Fraassen, *The Scientific Image* (Oxford: Oxford University Press, 1980).

[74] The argument was made in *Defending Science* (note 28 above), pp. 137–39; so I won't rehearse it here.

macromolecule with like-with-unlike base pairs; at the conclusion that DNA is a triple-helical, backbone-in macromolecule with like-with-like base pairs just in case DNA *is* a triple-helical, backbone-in macromolecule with like-with-like base pairs; and so on.

To say that the sciences aim at true theories is not to say, either, that they always succeed in their aim. Far from it: scientific inquiry is thoroughly fallible, and its progress is ragged and uneven. Sometimes science—or, usually, this or that branch of some science—advances with astonishing speed; sometimes it makes headway only by slow and painful degrees; and sometimes it blunders into blind alleys. Moreover, *any* scientific theory, however well-established, is in principle open to revision in the light of new evidence; and there is no iron-clad guarantee that presently-accepted theories, even in the most mature sciences, are true.[75] (This may partly explain why some working scientists are reluctant to describe themselves as seeking the truth, preferring to say that they are looking for a possible solution to a problem or for a plausible model of some stuff or phenomenon; and, perhaps, why some philosophers of science have found constructive empiricism appealing).

And to say that the sciences aim at true theories is not to say, either, that it is sufficient for success that a scientist's conclusion be true. "Either DNA is a double-helical, backbone-out macromolecule with like-with-unlike base pairs, or it isn't" is undeniably true; but it would be a manifestly unsatisfactory answer to the question Watson and Crick were trying to answer—"What is the structure of DNA?" Science seeks, in short, not just true answers to its questions, but substantial, explanatory true answers. "Substantial," here, means more than just "not tautological"; but it is not intended to suggest, as Popper maintains, that a scientific claim or theory with more content is invariably better than one with less. "DNA is a double-helical, backbone-out macromolecule with like-with-unlike base pairs, and horses normally have four legs and eat grass" isn't a better answer to Watson and Crick's question than "DNA is a double-helical, backbone-out macromolecule with like with unlike base pairs"; it's worse—because its second clause, though true, has no bearing on the matter.

But I want to concentrate here on "explanatory." It isn't necessary to subscribe to every detail of the covering-law model of scientific explanation[76] to acknowledge that, to be genuinely explanatory, an account of an event or phenomenon needs to appeal to something general, i.e., to make some reference to kinds and laws—e.g., to DNA, a kind of stuff with a certain structure and composition, which determines heredity by virtue of laws about coding, etc. So I find myself returning to Peirce's

[75] For more details, see *Defending Science* (note 28 above), pp. 135 ff.

[76] Carl G. Hempel and Paul Oppenheim, "Studies in the Logic of Explanation," *Philosophy of Science*, 15, 1948: 135–75; reprinted in Carl G. Hempel, *Aspects of Scientific Explanation: and Other Essays in the Philosophy of Science* (New York: Free Press,1965), 245–95.

point that explanation[77]—and induction, and prediction—would be impossible if there were no real generals; i.e., if kinds and laws were mere artifacts of human convention, and not real aspects of the world. Science aims not simply to describe but to explain how things are; and so it seeks, not simply true statements of generality, but real laws: i.e., true generalizations that govern not only actual but possible instances, not only what *will* happen, but what *would* happen if . . .;[78] and this in turn requires identifying real kinds.

To say that tigers, horses, gold, DNA etc., are real kinds, however, is not to say that, over and above individual tigers, horses, lumps of gold, or strands of DNA, there are also abstract Kinds—TIGER, HORSE, GOLD, DNA—a view I think of as a kind of nominalistic Platonism.[79] It is to say, rather, that horses, for example, or bits of DNA, really are alike, regardless of how we believe them to be. I hasten to add that this is not to suggest that all horses, etc., are alike *in every respect*. Of course they aren't. I think, in this context, of all the half-wild cats in my neighborhood. Every one is different: some black, others grey or ginger or brown or white; some plain, others striped or patched or splotchy; some lean and rangy, others heavy and low-slung, others again tidily compact; some timid, others bold; some preferring to sleep on the roof, others in the trees or on the lawn or under the bushes, even a couple with a taste for snoozing on the narrow railing around my deck. But all are carnivorous; all contort themselves into a pretzel as they wash a hind leg; all run, walk, stalk, and sit in the same ways; all climb confidently up the trees in my yard but anxiously slip and claw their way down; etc., etc. I can even conjecture how the various shapes, sizes, colors, etc., came about, thanks to Mendel's laws, in the local feline genetic lottery; which prompts me to add that it is precisely the variability of DNA that explains its role in heredity. In short, my claim is not that scientific explanation is possible only if nature is uniform—whatever exactly that might mean; but that it is possible only if there are uniformities in nature.

Just as there is no guarantee of the truth of scientific theories, so there is no guarantee that every kind term in the language of the relevant science picks out a real kind (much less that every general term in ordinary language does). As the

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[77] See, e.g., Peirce, *CP* 6.273 (c.1893): "nominalistic explanations . . . merely restate the fact to be explained under another aspect"; "The Laws of Nature and Hume's Argument against Miracles" (1901) in P. P. Wiener, ed., *Charles S. Peirce: Selected Writings* (New York: Dover, 1966), 289–321, p. 295: "the Ockhamists are forced to say of a law of nature that it is a similarity between phenomena . . . which consists in the fact that somebody *thinks* the phenomena similar. But when they are asked why future phenomena conform to the law, they are apt to evade the question as long as they can."

[78] "The *will be's*, the *actually-is's* and the *have-been's* are not the sum of the real. . . . There are besides *would-be's* and *can-be's* that are real." Peirce, *CP* 8.216 (1910).

[79] "Nominalistic Platonism" because the view I am repudiating treats real generals as existent, abstract individuals. The phrase is adapted from Peirce's comment, in his review of Fraser's edition of *The Works of George Berkeley*, that Berkeley's philosophy is an admirable illustration of "that strange union of nominalism with Platonism characteristic of English philosophy" (CP 8.10; *W* 2: 464) (1871). The problem with Quine's criterion of ontological commitment, I can now say, is that it makes nominalism and nominalistic Platonism look like the only options.

hundred-year history of the development of the concept of DNA reveals,[80] a vocabulary that picks out real kinds of thing or stuff is an achievement, not a given—an achievement that enables inquiry. This is why, unlike those who thought that "meaning-variance" exposed the naiveté of the idea that science is a rational enterprise (but also unlike the shocked philosophical conservatives who responded by trying to explain the phenomenon of meaning-change away), I believe that shifts of meaning in the vocabulary of the sciences can *contribute to* the rationality of the scientific enterprise. As this suggests, I certainly don't think of natural-kind terms as rigid designators, mere labels or tags with no meaning or descriptive content; but I won't pursue that issue here.[81]

Perhaps, now, I need to say explicitly that Innocent Realism is far removed from the imperialist style of scientific realism that acknowledges only the entities posited in scientific theories, or only the entities posited in fundamental physics, as real. Are there *really* pieces of furniture, books, trees, etc., or only molecules, atoms, and such? The question rests on a false dichotomy. The suite of furniture in the living room *consists of* a sofa and two armchairs; a deck *consists of* 52 cards; and pieces of furniture, books, trees, etc., *consist of* atoms, which in turn . . . . But doesn't common sense tell us that my desk is solid, while physics reveals that, really, it is not? No: molecules arranged thus and so *constitute* a solid surface, i.e., a surface with no visible holes, and that feels smooth and resistant to the touch.

2.5 Innocent Realism in Philosophy of the Social Sciences

The examples in the last paragraph remind us that the world includes not only *natural* kinds, but also *artifactual* kinds (e.g., chair, lamp, pen) and *social* kinds (e.g., money, marriage, law). I will focus here on articulating the Innocent Realist account of social institutions, roles, rules, and norms. Some of these seem to be universal, found in every human society: mating, for example, hierarchy, perhaps envy and fear of envy.[82] Others are found only in some societies: witch-doctors, for example, marching bands, banks, stock exchanges, churches, armies, newspapers, street names and numbers,[83] etc., etc.

[80] I tell the story in "The Growth of Meaning and the Limits of Formalism, in Science and Law,"*Análisis Filosófico*, XXIX.1, 2009: 5–29.

[81] But see *Defending Science* (note 28 above), pp. 131–35.

[82] Helmut Schoek, *Envy: A Theory of Social Behaviour* (1966: Indianapolis, IN: Liberty Fund, 1987), p. 33: "Ethnological material shows how inescapable is the problem of envying and being envied in every aspect of human social existence."

[83] I added these to my list when, while I was writing this paper, I learned that even today there are no street names and numbers in Costa Rica. Leslie Josephs, "When Getting Directions, It Helps To Know Where the Fig Tree Was: Costa Rica Addresses Its Lack of Street Names; 'By Pizza Hut,'" *Wall Street Journal*, June 29, 2012, A1, A10.

The initial challenge for Innocent Realism is that—unlike natural things, stuff, and phenomena—social institutions, roles, rules, etc., really *do* depend in part on what people in the society concerned think about them; whether a currency is viable, for example, depends in part on whether people in the society concerned *believe* it is viable. Perhaps you suspect that this threatens the reality of the social. But it doesn't; for social institutions, etc., though not wholly independent of *everyone*'s beliefs about them, *are* independent of what *you or I or any individual* believes about them. You and I can't, for example, make the counterfeit dollar bills we print in the basement real money, however fervently we manage to believe they are. Human social institutions, though undeniably brought into being by things people do, believe, etc., are nevertheless, no less undeniably, real—even if they aren't quite *as* real as rocks, or trees, which would have existed even if there had never been human beings or human societies, and are wholly independent of what *anyone* believes about them.

So we need a second addendum to our understanding of the concept of reality: the *brutally* real is independent of what anyone and everyone believes about it; while the real-but-socially-constructed, though independent of what any individual believes about it, does depend on the beliefs of some group of people. Unlike the previous gradualist modification, which acknowledged the only partially real (like King Arthur) this acknowledges gradations *within* the realm of the real. And perhaps it begins to explain what has gone wrong in the thinking of those imperialist social constructivists who claim that not only scientific theories, but also the stuff or phenomena or things posited in such theories, are man-made: they mistakenly suppose that acknowledging brute reality somehow compromises the reality of the social.

Because many social institutions are local, so too are some social-scientific explanations. Moreover, much social-scientific explanation is intentional, referring essentially to people's beliefs, hopes, fears, etc.[84] (Why did the price of chicken go up? Because there was a scare over mad-cow disease in the beef supply, and many shoppers bought chicken instead. Why did so many people buy houses they couldn't afford? Because they had been led to believe that real-estate prices would rise indefinitely, so that borrowing money to buy a house would be bound to make them rich. And so on.) So this is the place to say something about the nature of belief—and to sharpen and deepen the Innocent Realist conception of the social and the natural aspects of the world as intimately integrated, albeit not in the one-dimensional way that reductionists envisage.[85]

We humans, and our beliefs, hopes, fears, etc., are real;[86] and we, and our beliefs, hopes, etc., are part of the natural world. But it doesn't follow that my

[84] Compare, for example, physical anthropology (which is not intentional) with cultural anthropology (which is). See *Defending Science* (note 28 above), pp. 153–54.

[85] And now I realize that, with this thesis, I have come to understand one of the main problems with Carnap's *Aufbau* (note 12 above), which is reductionist through-and-through.

[86] But what, you might wonder, about (say) my belief that I believe that dogs have four legs—how can that qualify as real, as I have explained reality? To which I reply—no problem: such a belief is independent of what I or anyone believes *about it* (though not, of course, independent of what I believe about how many legs dogs have).

beliefs are simply states of my brain; and it isn't true. Take my belief that hurricanes are dangerous. This is manifested in my behavior, verbal and non-verbal:[87] I will assert, or assent to, statements to the effects that hurricanes are dangerous;[88] and if I learn that a hurricane is approaching, I will get out of its path if I can, and batten down the hatches if I can't. My dispositions to speak and behave like this must be physiologically realized in some way, presumably in some network of connections in my brain (and between my brain and my tongue, my arms, hands, legs, and so on). But what makes my belief *the belief that hurricanes are dangerous* is not the physiological features of those connections, but the connections of these patterns in my brain with the pattern of word-use in my language, and the connections of these words in my language with things or events in the world; and what makes this belief of mine and a monolingual Chinese speaker's the *same* belief is that this word-pattern in my language and that word-pattern in his are connected to the *same* things and events in the world. Understanding what is involved in ascriptions of belief requires going through a complex socio-historical-cultural-linguistic loop.

The last paragraph, focused specifically on beliefs, doesn't pretend to constitute a complete philosophy of mind. It *is* intended, however, to signal that we can understand how we humans are "minded" only by looking to the combination of our social nature and our capacity for language- (or sign-) use.[89] My inspiration here is George Herbert Mead, who wrote decades ago of *Mind, Self, and Society*;[90] but I was relieved to read, in Raymond Tallis's recent critique of the "Darwinitis" and "neuromania" so predominant in recent philosophy of mind, that human beings are "inseparable from a community of minds,"[91] and in Evan Thompson's *Mind in Life* that "[t]he roots of mental life lie not simply in the brain, but ramify through the body and environment. Our mental lives involve . . . the world beyond the surface membrane of our organism."[92]

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[87] I speak here, for convenience, of the verbal; but in a fuller account the key concept would have to be, not *words*, but *signs*; for of course the deaf, and even the deaf and blind, have beliefs. I also choose here, for convenience, an example of a belief that is manifested in my behavior every hurricane season; but a fuller account would include beliefs that are not manifested.

[88] And because, by asserting, or assenting to, *p*, you commit yourself to its truth, there is an internal connection between the concepts of belief and of truth. As James puts it, the true is the "*good in the way of belief*." William James, *Pragmatism* (1907: eds. Frederick Burkhardt and Fredson Bowers (Cambridge, MA: Harvard University Press, 975), p. 42; Haack, *Evidence and Inquiry* (note 43 above), pp. 256 ff.

[89] I leave open the question whether some animals are, in a more minimal way, also minded.

[90] George Herbert Mead, *Mind, Self, and Society: From the Standpoint of a Social Behaviorist*, ed. Charles W. Morris (Chicago: University of Chicago Press, 1961) (largely composed from students' notes of Mead's lectures from 1927–1930).

[91] Raymond Tallis, *Aping Mankind: Neuromania, Darwinitis, and the Misrepresentation of Humanity* (Durham: Acumen, 2011), p. 350. (Tallis continues, "and the worlds its component selves have built," but I don't believe this reference to "worlds," in the plural, is intended as serious metaphysics.)

[92] Evan Thompson, *Mind in Life* (Cambridge, MA: Belknap Press of Harvard University Press, 2007), p. ix.

As I have put it elsewhere: it's all physical, all right; *but it isn't all physics*.[93] We humans are cultural creatures: our cultures shape us, and we in turn shape them; and so social phenomena can't be understood in purely physical terms, nor the social sciences reduced to physics. This is, to be sure, a much less tidy picture than familiar reductionist models; but I believe its complexities and singularities represent the world—the one real world—and our place in it, far more faithfully than such neat but over-simplified models can do.

2.6 Innocent Realism in Philosophy of Law

The word "law" has two uses: as an abstract noun referring to the phenomenon, law, i.e., to the vast array of legal systems past, present, and future; and as a concrete noun referring to specific legal provisions. (In the latter use but not the former, it takes the indefinite article, as in "North Carolina had a compulsory-sterilization law on the books until 2003,"[94] and the plural form, as in "enforcement of traffic laws occupies much of courts' time.") My concern here will be primarily with laws, in the concrete sense.

Legal institutions, roles, and rules are a sub-class of social institutions, roles, and rules—a sub-class so complex and so varied, I might add, that they constitute a kind of pluralistic universe in themselves;[95] and they are local to a jurisdiction and a time. Like other social institutions, legal systems, procedures, and laws are brought into being by human action—by what the writers of constitutions, legislators, and the judges who interpret the constitution and the legal provisions passed by legislatures, do. But that laws are in this sense socially constructed doesn't mean that they aren't real; far from it—as anyone who has been caught in the machinery of the law can testify. And—as anyone who has ever conducted legal research can tell you—though legal truths are made true by things people do, once they have been made, they can then be discovered.

Perhaps you suspect that, when I say that legal truths are relative to a jurisdiction and a time (just as many social-scientific truths are relative to a society and a time),

[93] This understanding has been gradually evolving over the years. See *Evidence and Inquiry* (note 43 above), pp. 229–36; *Defending Science* (note 28 above), pp. 154–61; and "Belief in Naturalism: An Epistemologist's Philosophy of Mind," *Logos & Episteme*, 1.1, 2010: 56–8. The quotation is from *Defending Science*, p. 160.

[94] Paul A. Lombardo, *Three Generations, No Imbeciles: The Supreme Court and* Buck v. Bell (Baltimore, MD: Johns Hopkins University Press, 2008), p. 294. See also Susan Haack, "Pragmatism, Law, and Morality: The Lessons of *Buck v. Bell*," *European Journal of Pragmatism and American Philosophy*, III.2, 2011: 65–87.

[95] Susan Haack, "The Pluralistic Universe of Law: Towards a Neo-Classical Legal Pragmatism," *Ratio Juris* 21, no.4 (2008): 453–80. In German translation, "Das pluralistische Universum des Rechts: Hin zu einem neoklassischen Rechtspragmatismus," in Martin Hartman et al., eds., *Die Gegenwart des Pragmatismus* (Berlin: Surhkamp, 2013), 311–49.

I must have committed myself to some kind of relativism with respect to truth. If so, you are mistaken. For, just like the word "law," the word "truth" has two uses: as an abstract noun referring to the phenomenon, truth; and as a concrete noun referring to particular true propositions, theories, etc. Granted, some truths are made true by things human beings do, and some of these truths make sense only relativized to a place or a jurisdiction and a time. But truth, the phenomenon, is not relative: for a proposition is true just in case it is the proposition that *p*, and *p*; and this understanding is in no way relativist.[96]

In every society, we find norms; and in every society of any complexity, we find a whole variety of types of norm—norms of etiquette, of ethics, of law, of conversation, etc. Some have been tempted to assimilate legal norms to moral norms; but these are quite different. They are conceptually distinct: to say that it is morally deplorable to be inconsiderate to your spouse or your assistant is one thing, to say that it is legally prohibited obviously quite another. Moreover, they differ in extension: some moral matters (e.g., buying "your" term paper from a commercial outfit that supplies such things for money)[97] are not legally regulated; some laws (e.g., laws obliging you to drive on the right—or on the left) are morally indifferent; and some (e.g., Nazi race laws)[98] are morally deplorable.

Like all social institutions and norms, legal systems and laws are man-made. Does this mean, you might wonder, that legal systems and laws are as purely conventional as rules of etiquette? I don't think so. In one society, politeness demands that you leave a little food on your plate and never belch in public; in another society, politeness demands that you eat every scrap and belch in appreciation of the food your host has provided. There's little more to be said, beyond "when in Rome, do as the Romans do." But (though I very much doubt that there's a unique best legal system) there's a good deal to be said about what makes one legal system better than another—better on numerous dimensions: more efficient, rather than slow and clumsy; more economical, rather than saddled with wasteful transaction costs; more civilized, rather than riddled with irrational procedures, arbitrary rules, or barbaric penalties; fairer, rather than one-sided or capricious; etc., etc.[99]

It is obvious, I hope, how neatly this understanding of legal phenomena fits into the Innocent Realist framework. It is less obvious whether it qualifies me as a realist

[96] The argument is spelled out in more detail in "The Unity of Truth and the Plurality of Truths," "The Whole Truth and Nothing but the Truth," and "Professor Twardowski and the Relativist Menace" (all note 51 above).

[97] No, I am not making this up! See Ed Dante, "The Shadow Scholar: The Man Who Writes Your Student Papers Tells His Story," *Chronicle of Higher Education*, November 12, 2012. http://chronicle.com/article/The-Shadow-Scholar/125329

[98] See e.g., Michael Stolleis, *The Law Under The Swastika: Studies in Legal History in Nazi Germany* (1994), trans. Thomas Dunlap (Chicago: University of Chicago Press, 1998).

[99] The argument is made in more detail in "Nothing Fancy" (note 30 above).

in the sense in which this word is usually used in legal philosophy—where, to put it at its simplest, "realism" contrasts, not with "idea-lism" but with "ideal-ism." A legal realist not only believes that the law is determined in part by judges' decisions but also, at his most cynical, suggests that those decisions are entirely capricious, that they turn, as the saying goes, on what the judge had for breakfast.[100] I agree with him thus far: legal systems and laws are wholly man-made; judges' interpretations of legal provisions passed by legislatures play a role in determining what the law is in a jurisdiction at a time; and no doubt sometimes those interpretations *are* capricious.[101]

But I don't entirely share the cynical legal realist's cynicism; often enough, I believe, judges' interpretations represent good-faith attempts to construe the law, consistently with statute and precedent, so as to contribute to desirable goals of public policy. Inevitably, judges disagree not only about how to do this, but also about what goals should have priority, and even what goals should be taken into account. Still, as I see it, a legal system is more likely to contribute to human flourishing through the cumulative combined efforts of fallible judges than by appeal to the intuitions of some hypothetical judicial Hercules. As those familiar with the writings of Oliver Wendell Holmes, Jr. will realize, this makes me, not a cynical legal realist, but a neo-classical legal pragmatist.

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Complicated as this has been, many details remain to be worked out: e.g., whether the "independent" in my characterization of realism, like the "relative to" in my characterization of relativism, has more than one sense; how to understand "about" in my construal of "real"; and how to extend that construal to contexts where "real" contrasts, not with "imaginary," but with "fake" or "artificial." And wide-ranging as it has been, many questions remain to be tackled: e.g., the place of epistemic or moral norms, or of the entities posited in mathematics, in the Innocent Realist picture. So perhaps this is the place to say that, in my experience anyway, the development of a serious philosophical theory, like the development of a serious scientific theory, is the work of many years—perhaps beginning with a simple idea,

[100] The famous phrase comes from Robert M. Hutchins, "Autobiography of an Ex-Law Student," *American Law School Review*, 7, 1930–34: 1051–56, p. 1054—though he is not himself endorsing this idea, but criticizing it.

[101] A 2010 study (by three professors of management) of 1,112 parole rulings by 8 Israeli judges over a 50-day period concluded that the likelihood of a favorable ruling is greater at the beginning of the day and after a food break; and more generally that "judicial decisions can be influenced by whether the judge took a break to eat." Shai Danziger, Jonathan Levav, and Llora Avnaim-Pesso, "Extraneous Factors in Judicial Decisions," *Proceedings of the National Academy of Sciences*, 108.17, April 28, 2011: 6889–92 (the quotation is from p. 6890). It is, of course, an open question how much weight can be put on such a finding, or how far it can be extrapolated.

but requiring constant checking both for internal consistency and for explanatory interrelations with other ideas, and constant modification, amplification, and refinement as it is applied to new phenomena. So I find myself smiling wryly once again as I remember Friedrich Nietzsche's observation that "agitation is growing so great that higher culture can no longer allow its fruits to mature; . . . as though the seasons were following upon one another too quickly."[102] Indeed.[103]

[102] Friedrich Nietzsche, *Human, All Too Human* (1878), trans. Marion Faber (Lincoln, NE: University of Nebraska Press, 1984), §285.

[103] My thanks to Mark Migotti for helpful comments, and to Pamela Lucken and Barbara Brandon for help in finding relevant materials.

Part II
Colloquium

Chapter 3
Problems at the Basis of Susan Haack's Foundherentism

Nikolai Ruppert, Riske Schlüter, and Ansgar Seide

3.1 Introduction

In her book *Evidence and Inquiry* (1993/2009), Susan Haack develops an account of epistemic justification that is supposed to be an alternative to two standard accounts of the structure of justification: foundationalism and coherentism. Because her account combines insights from both foundationalism and coherentism, it is consequently called "foundherentism." Foundherentism is motivated by a handful of well-known problems the standard accounts face. Haack's overall idea is that her intermediate position between foundationalism and coherentism leads to a solution of exactly these problems.

In our paper, we discuss Haack's foundherentism and focus on whether it really solves all of the pressing problems of the standard accounts. In particular, we argue that foundherentism shares an important trait with foundationalism, a trait that is at the core of one of the biggest problems of foundationalist theories. And as it seems to us, Haack's foundherentism does not supply the resources for a satisfying solution to this problem.

Our paper has three parts. In the first part, we join a debate that questions whether Haack's foundherentism is a form of foundationalism. While Laurence BonJour (1997) and Peter Tramel (2008) argue that this is indeed the case, Haack claims that foundherentism is a genuine alternative to foundationalism. As we show, Haack's foundherentism can be read as a form of foundationalism in accordance with her own definition of "foundationalism."

However one determines the answer to this question, it is at least clear that Haack's foundherentism shares an important trait with many foundationalist theories, a trait we focus on in the second part of our paper. Haack holds that there are

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beliefs that are at least in part justified on the basis of experience.[1] To support this claim, she has to give an account of how the justification of a belief on the basis of experience works. As we argue, the account put forward in her book *Evidence and Inquiry* leaves this justifying relation between experiences and beliefs mostly in the dark.

In our third part, we address a newer version of Haack's account of this relation as it is sketched in her book *Defending Science—within Reason: Between Scientism and Cynicism* (2003). We argue that this version still leaves questions open and problems unsolved.

3.2 Is Haack's Foundherentism a Foundationalism?

BonJour, Tramel and Haack herself have debated, at length, whether foundherentism is really a genuine alternative to foundationalism. In our discussion of this question, we have chosen to circumvent many of the subtle distinctions between different forms of foundationalism that have been invoked by the participants of this debate. We spare ourselves as far as possible the trouble of distinguishing between, for example, "weak foundationalism" (which Haack defines differently than BonJour), "impure foundationalism," "weak-and-impure foundationalism," "feeble foundationalism," etc.[2] To do this, we focus on a claim that seems to be the most important reason for Haack's protest against classifying foundherentism as a form of foundationalism; namely, we consider her claim that the distinction between basic and derived beliefs, which is fundamental for foundationalism, is flawed.[3]

Let us take a look at Haack's presentation of foundationalism, which includes definitions of basic and derived beliefs, and ask whether these definitions can be applied to Haack's foundherentism. We start with Haack's own characterization of foundationalism:

> I shall say that a theory qualifies as foundationalist which subscribes to the theses:
>
> (FD1) Some justified beliefs are basic; a basic belief is justified independently of the support of any other belief;
>
> and:
>
> (FD2) All other justified beliefs are derived; a derived belief is justified via the support, direct or indirect, of a basic belief or beliefs.
>
> (Haack 2009, 51)

[1] Actually, as will turn out, Haack thinks that this holds for *every* justified belief.

[2] For these distinctions, see (Haack 1997, 26).

[3] "[N]o form of foundationalism can accommodate the mutual interpretation, the quasi-holism, of beliefs, which is the real insight of coherentism; for if one takes this coherentist insight seriously, one realizes that no distinction of basic and derived beliefs, such as all forms of foundationalism require, is viable."(Haack 1997, 26).

We argue that Haack's own position fulfills both of these conditions, although perhaps in a surprising way.

(FD1) is Haack's own way of describing the foundationalist's "minimal claim about the requirements for a belief to qualify as basic" (Haack 2009, 51), i.e, it includes a minimal definition of the term "basic belief." As her presentation of different kinds of foundationalist theories makes clear, this definition is compatible with the idea that basic beliefs are only *to some degree and not completely* justified independently of the support of any other belief.[4] For example, an experientialist version of such a weak form of foundationalism would state that there are basic beliefs that are *at least to some degree justified by the subject's experience*.

Let us now consider Haack's foundherentism in light of her own definition of "foundationalism." Haack holds that "[a] subject's experience is relevant to the justification of his empirical beliefs" (Haack 2009, 57). By this, she means that the subject's experience can confer justification to a belief, at least to some degree.[5] But if experience confers some justification to a belief independently of the support of other beliefs, this belief could be denoted as basic in line with the definition of "basic belief" in (FD1). So it seems that in foundherentism there are basic beliefs that meet condition (FD1).

If we now turn to condition (FD2), which includes a definition of the term "derived belief," we find that a belief is derived if and only if its justification depends only on the support of other beliefs. Haack points out that she is "not convinced that there are any derived beliefs, in this sense—given that experiential evidence includes dim memory traces of what one earlier saw, read, etc." (Haack 1997, 28; cf. Haack 1996, 649). Haack's point seems to be that there are no beliefs that are justified *solely* on the basis of other beliefs because every justified belief gains some support by experiential evidence, at least if experiential evidence is construed wide enough. And this insight, she suggests, is enough to blow up the distinction between basic and derived beliefs.

But even if one is disposed to grant that every justified belief gains some of its justification by the direct support of experience, it is not clear that the distinction has to be given up. As Peter Tramel has suggested in an insightful criticism of Haack's position, the distinction should be maintained even if it seems like there are no derived beliefs. He points out that Haack's argument for the non-existence of derived beliefs rests upon a psychological assumption—the assumption that every belief is at least in part directly supported by experience—that could in the long run turn out to be false. So his advice is to "hold onto [the] basic/derived belief distinction in order to encounter, and survive, unexpected discoveries in psychology." (Tramel 2008, 228).

[4] This way of spelling out (FD1) is part of what Haack calls "weak foundationalism," as opposed to a strong form of foundationalism that demands that basic beliefs are *conclusively* justified independently of any other belief (cf. Haack 2009, 54).

[5] For a detailed analysis, see Sects. 3.3 and 3.4.

Given this consideration in favor of the derived/basic belief distinction, we would describe Haack's position in the following way: According to Haack, there are basic beliefs that are justified at least to a certain degree by experience, which means that (FD1) is met by her theory. What is more, she even holds that *all* justified beliefs are basic in this sense. But if this is true, condition (FD2) is met by her theory as well, although in a surprising way: If all justified beliefs are basic, it is also true that, as (FD2) states, *all other justified beliefs* are derived, if only for the simple reason that there are no other justified beliefs that could render this sentence false.

So far we have argued that—given Haack's own definition of foundationalism—a good case can be made for the claim that Haack's foundherentism is a variant of foundationalism. Of course, this is a point that, in and of itself, does not have dramatic consequences for Haack. For example, she could just specify the definition of "foundationalism" in order to highlight the uniqueness of her foundherentist approach. But although her account differs in several respects from standard foundationalist accounts, there are also remarkable parallels between foundationalism and foundherentism, especially when it comes to the role of experience in justification.

To begin, we find that the distinction between basic and derived beliefs still exists in foundherentism, although in a more subtle way. All beliefs have in common that they are partly justified by some sort of experience. But, as Tramel (2008, 228) points out, different experiences play different roles in their justification. Some part of any given belief is directly justified by a specific experience, or experiences, while other experiences play a role in its justification by directly justifying those beliefs which in turn justify the first belief. All beliefs share the defining trait of basic beliefs, as some part of their justification comes not from other beliefs, but from experience. However, they can also be considered derived, since there is no justified belief that isn't supported by other beliefs[6]—as shown in Fig. 3.1.

Contra Haack, foundherentism cannot eliminate the distinction between these two forms of justification; it only makes it more subtle.

Haack's account construes foundationalism as necessarily requiring different classes of beliefs, and privileging a certain class as basic. While this certainly is a common trait of many forms of foundationalism, it is not necessarily its defining trait. An alternative account of foundationalism is possible, where all a theory needs to do in order to be foundationalist is privilege a certain kind of justification, namely a kind of justification that doesn't refer to other beliefs, but to something else. In Haack's account, the something else in question is experience, which serves as the foundation for all justification. In this sense, justification remains one-directional:

[6] This is a claim at least indicated by Haack: "Foundherentism permits a consistent acknowledgement that one couldn't have—that it makes no sense to imagine someone's having—*just* the belief that there's a dog in the room, say, with no other beliefs about dogs, about where one is, about one's ability to recognize a familiar animal at a distance of three yards, etc." (Haack 1997, 28 f.).

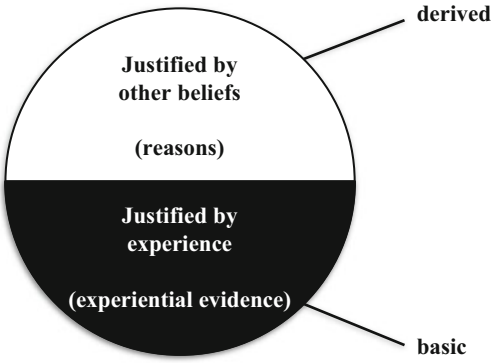

Fig. 3.1 The justification of derived and basic beliefs

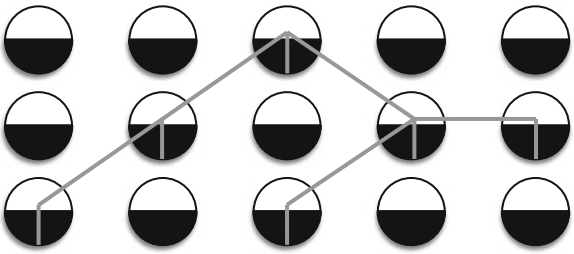

Fig. 3.2 Threads of justification. The *grey lines* represent threads of justification. You can see that each belief is supported in part by experience—which is represented by the *grey lines* that are anchored in the black parts of the circles—and in part by other beliefs—which is represented by the *grey lines* that connect the circle with other circles

all beliefs are justified in part directly by experience, while the other part of their justification stems from the support of other beliefs, which are justified in the exact same fashion. If each belief is justified in part by experience and in part by supporting beliefs, then a belief's justification branches at each supporting belief. And, since there are no beliefs justified in complete independence of immediate experience, every thread of justification can eventually be traced back to specific experiences (see Fig. 3.2).

As a matter of fact, foundherentism actually does allow for a hierarchy of beliefs, making certain beliefs more basic than others. The stronger the experiential evidence of a given belief, the less additional support it requires, and the more support it can give to other beliefs. By contrast, a belief with only so much as a vague memory as immediate experiential evidence will require a lot more support by other beliefs in order to be considered justified. Unlike the hierarchy detailed in the accounts that Haack criticizes, this hierarchy is gradual and fluid. No belief is absolutely basic or absolutely derived, but each may be more derived or more basic than others, and each may change its position in this hierarchy as new experiential evidence comes along.

Whether or not we have made a case for defining foundherentism as a form of experientialist foundationalism, we are faced with yet another issue, the central

problem of all forms of experientialism: How does justification by experience work?

3.3 Justification by Experience

In a way, the debate about the question whether Haack's foundherentism is a foundationalism can be said to be a mere dispute over words. The more interesting question is of course if Haack's foundherentism faces the same problems that trouble foundationalist theories. Perhaps the most serious argument against foundationalist theories, the one on which we want to focus here, is what Haack calls "the irrelevance of causation argument" (Haack 2009, 68). It is an argument that is raised against experientialist variants of foundationalism and their claim that basic beliefs are justified by experience. Since Haack believes that *every* justified belief is—at least to some extent—justified by experience, an argument for the claim that justification by experience is impossible in general threatens her account as well.

The basic idea of the irrelevance of causation argument is that justification is a *logical or inferential* matter: Beliefs can be justified on the basis of other beliefs because their propositional contents stand in certain inferential relations. A belief can be justified by an inferential argument with other beliefs serving as premises of the inference. Sensations, on the other hand, are not propositional attitudes and therefore cannot stand in inferential relations to beliefs. Their relation to beliefs is a *causal* relation and causal relations, the argument goes, cannot confer justification (cf. Davidson 1983, 143).

Haack is of course aware of this argument. In response, she develops a "double-aspect, state-content approach" (Haack 2009, 69) in order to analyze the relations between the causal and the logical aspects of justification. This approach is based on the distinction between states and their contents. For example, we can distinguish between a belief-state and the corresponding belief-content. While belief-*states* stand in *causal* relations to other belief-states and also to sensory experiences, belief-*contents* are propositionally structured, are capable of evaluation and stand in *inferential* relations to other propositional contents (cf. Haack 2009, 113 f.).

Haack first examines belief-states, which she dubs *S-beliefs*, and the causal relations that are relevant for their justification (cf. Haack 2009, 120 f.).[7] The sustaining causes of an S-belief with the content that p, i.e. the causal factors that incline the subject towards believing p, comprise S-reasons and experiential S-evidence. "S-reasons" refers to other S-beliefs and "experiential S-evidence" refers to sensory and introspective states of the subject. The idea is that

[7] For reasons of brevity, we give only a short sketch of the account and abstract from many distinctions Haack introduces. For example, we will consider only sustaining evidence and neglect inhibiting evidence.

belief-states are causally sustained by other belief-states as well as by sensory experiences, and that these sustaining belief-states and experiences are relevant for the justification of the respective belief.

On the side of content, we have a similar structure: The content of the S-belief in question, the proposition p, is called *C-belief*. The relations that are relevant for the inferential justification of this content are exactly (i) the inferential relations to the C-reasons and (ii) the experiential C-evidences that correspond to the causally sustaining S-reasons and experiential S-evidences respectively. What exactly does this mean?

Let us first focus on reasons and bracket experiential evidence. A *C-reason* for the belief that p is the propositional content of an S-reason that sustains the S-belief that p. For example, imagine that my belief-state with the content that someone lives in Florida is (at least in part) caused by another belief-state with the content that Susan Haack lives in Florida. In this case, the proposition that Susan Haack lives in Florida is a C-reason for the C-belief that someone lives in Florida. Because the S-reason is part of the causal nexus of the S-belief in question, the inferential relation of its corresponding C-reason to the C-belief is relevant for the justification of the C-belief. Up to this point, Haack's account can be said to be straightforward.

Now the interesting question is what *experiential C-evidence* is supposed to be. If the account of the experiential C-evidence were to be exactly parallel to the account of the C-reasons, we would have to expect that experiential C-evidence consists of *the contents of the states that make up the experiential S-evidence*. However, this is not the way Haack works out the details of her account, and probably for good reasons. If the contents of the experiential S-evidence were supposed to confer justification to the belief in question, these contents would have to be propositional (or at least quasi-propositional, whatever that may be) in form, and then we would have to ask how *these* contents could be justified in turn.[8] But Haack is keen to point out that experiential evidence is exactly what ends the regress of justification:

> [O]ne will eventually reach a point where the issue is not how well some belief is supported by other C-beliefs, but how well it is supported by experiential C-evidence. And the question for justification doesn't arise with respect to experiential C-evidence. (Haack 2009, 130).

But why does the question for justification not arise with respect to experiential C-evidence? The answer is given by Haack's account of what experiential C-evidence actually is:

> [...] 'A's experiential C-evidence for believing that p' [will refer] to sentences or propositions to the effect that A is in a certain state or states—the state(s) which constitute(s) A's experiential S-evidence for believing that p [...]. (Haack 2009, 124)

[8] This is one of the main points of Laurence BonJour's argument against experientialist variants of foundationalism, an argument that is based on Wilfrid Sellars' argument against the "Myth of the Given" (cf. BonJour 1985, Chap. 4).

So, for example, if Peter believes that there is a tree in front of him on the basis of his sensual experience, his experiential C-evidence for believing that there is a tree in front of him is not the content of his sensual experience but simply the sentence "Peter is in the state of having the sensual experience of seeing a tree in front of him." The question of justification does not arise with respect to this sentence because, as Haack points out, only those descriptions of sensual experiences will count as experiential C-evidence *which are in fact true* (cf. Haack 2009, 125).

To be honest, this account of experiential C-evidence looks somewhat like a trick to us. As BonJour puts forward in his critical assessment of Haack's account, it is not clear how the experiential C-evidence can be said to be available to the subject of the belief to be justified (cf. BonJour 1997, 20). To put the point a little bit differently than BonJour, we can formulate the objection in the form of a dilemma: *Either* the experiential C-evidence is available to the subject and is endorsed by the subject in a justifying inference to the belief that is to be justified, *or* the experiential C-evidence is not (or at least not necessarily) available to the subject and fulfills its justificatory function without the subject recognizing it as the evidence the belief to be justified is based on. In the former position, the sentence describing the experiential state of the subject becomes the content of a *belief* of the subject. Therefore, what is supposed to be an experiential C-evidence is really a C-reason. The latter position is the position that Haack explicitly commits to.[9] But this places an externalist element at the heart of her foundherentism. At first sight, this looks like something Haack could not agree to, given her critique of what she calls "extrinsic foundationalism":

> [E]xtrinsic foundationalism violates the intuition that what justifies a belief should be something of which—as the etymology of 'evidence' suggests—the subject is aware. (Haack 2009, 67).

To be sure, Haack rejects the dichotomy between internalism and externalism because it "is not robust enough to carry any serious weight." (Haack 2009, 38). What she means by this can be explained in the present context: In her reply to BonJour's critique, Haack asserts that what BonJour perceived as a commitment to internalism across-the-board is restricted to S-evidence and does not apply to C-evidence:

> [A]ll that is needed is that A's experiential S-evidence consist of (conscious) states of A. (Haack 1997, 31)

Haack neither endorses a full-blown internalism, nor a full-blown externalism, but something in between: an account with internal and external elements. The *internal element* consists in her just cited demand that the justification of a belief is to be based on states of the believer. But on the side of the C-evidence, an *external element* comes into play, just as we suspected above. The experiential C-evidence, i.e. the sentence stating that the believer is in the experiential state that is the

[9] "*A*'s experiential *C*-evidence, however, consists of propositions which are true of *A*—he *is* in the kind of perceptual, etc., state they say he is—but which *A* need not believe." (Haack 1997, 30; italics in original).

experiential S-evidence, does not have to be available to the subject in order to be able to confer justification to the belief in question. But this, we want to suggest, leaves completely in the dark how the justification of a belief by experience works.

Imagine Peter looking at a tree, he states, "There is a tree in front of me". If he is asked "How do you know?," his answer will be "I can see it." Haack refers to this pre-theoretical conception of the evidence of our senses (cf. Haack 1997, 31) and stresses that one of the chief aims of her account is to capture our pre-theoretical intuitions concerning justification as accurately as possible.[10] We grant to Haack that our Common Sense intuitions support an account according to which sense experience *somehow* plays an important role in the justification of at least some beliefs. But as epistemologists, we would like to know more: We want to understand *how* experience is able to fulfill this role. And Haack's account in *Evidence and Inquiry*, by incorporating an external element at exactly this point, is silent on this question (cf. BonJour 1997, 20). So when Haack insists that

> all that is needed is that *A*'s experiential *S*-evidence consists of (conscious) states of *A*. Part of what justifies *A* in believing that there's a dog in the room, for example, is *its looking to him as if there is* (Haack 1997, 31),

we would like to know more about the story that is behind the curtain of the external element of this approach: Exactly *how* can *its looking to him as if there is* confer justification on his belief *that there is* without the subject consciously maintaining the premise *that it is looking to him as if there is*?

3.4 Ostensive Definitions and Justification

In a later publication, namely in Chap. 3 of her 2003 book *Defending Science—within Reason: Between Scientism and Cynicism*, Haack seems to acknowledge this lack in her theory. First of all, she seems to have noticed that it is not a good idea to construe experiential C-evidence in terms of propositions stating that the subject of the belief to be justified is in a certain experiential state. She now explicitly rejects this part of her theory and puts a new idea in its place:

> Experiential evidence consists, not of propositions, but of perceptual interactions; and it contributes to warrant, not in virtue of logical relations among propositions, but in virtue of connections between words and world set up in language-learning (Haack 2003, 63)[11]

[10] This part of her epistemological account is what Haack calls the "project of explication" (Haack 2009, 37).

[11] To be sure, while the main topic of *Evidence and Enquiry* is justification, this passage is about warrant. But the account of warrant indicated in this passage can be transformed into an account of justification in a very straightforward way. A claim is warranted if "the evidence indicate that the claim is non-neglibly likely" (Haack 2003, 73). A subject is not automatically justified in holding a claim to be true if the claim is warranted for him: He may belief the claim to be true for the wrong reasons or he may fail to give it the credence it deserves on the basis of the evidence (cf. Haack 2003, 73). In order to abstract from these complications, we imagine the ideal case of a subject that gives the claim exactly the credence it deserves.

The new account that shines through in this statement is based on a consideration concerning language and language-learning. How does it work? Haack's idea is that there are some words that are learned by ostensive definition and that this somehow serves to justify future applications of these words. She adds that this first sketch of an account is too simple because it rests on a distinction between observational and non-observational vocabulary that does not do justice to the complexity of language. But still, she claims, the central idea is right: Our experiences contribute to the warrant of our beliefs because some words are learned ostensively (cf. Haack 2003, 62).

Because this is still very abstract, it may be instructive to take a look at a longer passage in which Haack explains her account with an example:

> We nearly all encounter a sentence like "this is a glass of water," in the first instance, by hearing it used in normal circumstances in which a glass of water is visible to both teacher and learner. Subsequently, however, we learn a lot of caveats and complications: a glass of water looks, smells, tastes, etc., thus and so, *provided* the observer and the circumstances of observation are normal; if the stuff in the container is *really* water, it will give such and such results under chemical analysis; etc., etc. So seeing the thing can partially, though only partially, warrant the claim that there's a glass of water present; for a normal observer in normal circumstance can tell it's a glass of water by looking, even though there is room for mistake. (Haack 2003, 63; footnote deleted; italics in original).

As we want to argue, this account, if it is supposed to answer the question how experience can contribute to the justification of our beliefs, has to be made more precise in many ways.

Imagine Peter learning a new word or phrase ostensively: Mary points to a glass of water and explains: "This is a glass of water." The next day Peter is alone. He again encounters a glass of water and realizes: "This is a glass of water." What has happened?

First of all, on the first day, Peter seems to have (i) *associated* the term "glass of water" to the experience he had while looking at the object Mary pointed to. Then, on the second day, he must have (ii) *remembered this association*. Also, he must have (iii) *remembered the experience*, and based on a comparison with the new experience he must have (iv) *discovered that the two experiences are similar* in relevant respects.

One point we would like to have clarified is whether on Haack's account the cognitive acts highlighted as (i) to (iv) have to be justified in order for Peter's claim "This is a glass of water" on the second day to be justified. If this is the case for some or all of these acts, a regress of justification seems to threaten the account. Perhaps Haack can opt for an external element again in order to avoid this consequence: These acts, she could hold, do not have to be justified in an internal sense, but only have to be reliable. But Haack seems at least to demand that Peter *entertains* certain beliefs with respect to the reliability of his epistemic acts:

> Foundherentism permits a consistent acknowledgement that one couldn't have—that it makes no sense to imagine someone's having—just the belief that there's a dog in the room, say, with no other beliefs about dogs, about where one is, *about one's ability to recognize a familiar animal at a distance of three yards*, etc. (Haack 1997, 28 f., our italics)

We would like to know whether the justification of such background beliefs is a necessary condition for the justification of experiential beliefs, and if so, how a regress of justification can be avoided. For if we always needed justified background beliefs in order to be able to justify experiential beliefs, experiential evidence could not—as Haack sometimes suggests (cf. Haack 2009, 130)—be the regress stopper.

A second point is that the idea of ostensive definition does not help to explain the justification of a very important class of experiential beliefs, namely memory beliefs. First of all, as we have already seen above, Haack construes experience in a broad way, so that "experiential evidence includes dim memory traces of what one earlier saw, read, etc." (Haack 1997, 28). Haack seems to be committed to the claim that memory beliefs are for the most part justified on the basis of this kind of experiential evidence. But we see no way to explain the justifying relation between memory experience and memory beliefs in a way parallel to Haack's general account of the justifying relation between experience and beliefs on the basis of ostensive definitions of certain key terms.

A third point—perhaps not a threat to Haack's theory but still worth mentioning—is that the new conception of experiential evidence seems to make some changes in Haack's most favorite analogy necessary: her famous crossword analogy. Imagine you are doing a crossword puzzle. You have just filled in a word and now you want to know how reasonable it is to think that the entry is correct. On the one hand, you rely on the clue. On the other hand, you rely on other, already filled-in entries that intersect with the new entry. These other entries, however, also depend on a clue and on other filled-in entries. Haack explains that there are interesting structural similarities between this support of an entry by a clue and by other entries with the support of a belief by experiential evidence and reasons:

> [T]he crossword model permits pervasive mutual support [. . .]. The clues are the analogues of the subject's experiential evidence; already filled-in entries, the analogue of his reasons. The clues don't depend on the entries, but the entries are, in variable degree, interdependent; these are the analogues of the asymmetries already noted between experiential evidence and reasons. (Haack 2009, 126)

We think that this is an enlightening analogy that really helps to understand Haack's account. However, as enlightening as it may be, the analogy rests on Haack's older account of experiential evidence as propositional in form: At least in standard crossword puzzles, the clues are propositionally structured and the relations of the clues to the entries are inferential relations. If Haack wants to accommodate her analogy to her new account of experiential evidence, the clues of the puzzle would have to be construed as something non-conceptual, e.g. as pictures.

3.5 Conclusion

Haack's foundherentism is one of the most interesting recent additions to the range of theories of epistemic justification. While giving illuminating insights into the possibility of combining foundationalist with coherentist elements, Haack's account is not completely free of problems that trouble the standard accounts. In particular, since it shares with experiential foundationalism the claim that beliefs can at least in part be justified on the basis of experience, Haack faces the task of explaining how experiential justification works. While we think that her account as laid down in *Evidence and Enquiry* does not deliver the resources needed for a satisfying explanation of experiential justification, her newer account based on ostensive definitions is in need of further clarification and development.

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Chapter 4
How Innocent Is Innocent Realism?

Julia F. Göhner, Tim Grafe, Yannis Krone, and Johannes Ueberfeldt

4.1 Introduction

Some of the most fundamental metaphysical questions inquire into the very nature of reality: What is the world made of? What kinds of things are there? What does it mean for an entity to be real? Susan Haack holds a rather embracing view with regard to these questions, according to which the one, real world is both heterogeneous and integrated. It contains all sorts of things, such as material objects, dreams, social norms and mathematical theories. To encompass this plethora of entities, among which fictional entities are assigned a central argumentative role, Haack proposes a gradual concept of reality. Following a brief survey of her Innocent Realism, we argue that, even though Haack's position provides many valuable insights, her account of fictional entities needs elaboration in at least three respects. Arguing thus, we proceed from problems facing the concrete application of the gradual concept of reality to rather general issues concerning the ontology of fictional characters.

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4.2 Innocent Realism

4.2.1 Intellectual Backdrop

Unlike other present-day philosophical pragmatists, Haack adheres to a rather classical theoretical position in the tradition of C. S. Peirce.[1] Following in his footsteps, she conceives of Innocent Realism[2] as a realization of the Peircean idea of a "scientific metaphysics" (Haack 2016, 41) based on two principles: First, Innocent Realism is a theory "*about the world*, not just about our concepts, conceptual schemes, or languages." (Haack 2016, 40) Second, it pays "close attention to familiar, everyday experience" (ibid.), but strives not to be naïve.[3] By dubbing her position "innocent", Haack wishes to distance herself from "the various philosophically overoptimistic aspirations of some ambitious forms of Metaphysical Realism, scientific realism" (ibid.) and similar approaches to the questions of ontology.

4.2.2 A World Full of Many Things, "of Shoes and Ships and Sealing Wax, and Cabbages and Kings"[4]

Any realist position, Haack reminds us, comes down to claiming "that something [. . .] is independent of something human" (Haack 2016, 37). Hence, in establishing Innocent Realism, Haack takes great care to point out exactly what the respective relata are. According to Innocent Realism, the one, real world contains a variety of real things, such as:[5]

[1] Whereas her allegiance to Peirce is ubiquitous in her work, Haack distances herself especially from Richard Rorty.

[2] Haack develops Innocent Realism in a series of papers, most notably in Haack 2016 (this volume) but also in Haack 1996, 2002, and, only recently published, 2013. Additional remarks can be found in Haack 2007b, c, the former being a response to Caorsi 2007.

[3] In "Philosophy and the Conduct of Life", Peirce relates his understanding of what it means for metaphysics to be scientific: "Philosophy seems to consist of two parts, Logic and Metaphysics. [. . .] Logic is the science of thought, not merely of thought as a psychical phenomenon but of thought in general, its general laws and kinds. Metaphysics is the science of being, not merely as given in physical experience, but of being in general, its laws and types." (Peirce 1998, 36) Among the "great catalogue of problems" discussed in metaphysics, Peirce names the following (which, in Haack's words, concern "familiar, everyday experience"): "What general explanation or account can be given of the different qualities of feeling and their apparent connection with determinations of mass, space, and time? [. . .] Is Time a real thing, and if not, what is the nature of the reality that it represents?" (Peirce 1906, 375)

[4] Motto to Haack's "The World According to Innocent Realism" (Haack 2016, 33), adopted from Lewis Carroll's "The Walrus and the Carpenter".

[5] Haack 2016, 33.

particulars and
generals, natural objects/
laws, artifacts, mental states
and processes, social institutions/
roles/rules/norms, (human) languages,
scientific / mathematical / philosophical
theories, books and papers on
history and art criticism, "myths,
legends, and works of fiction,
and the characters and places
that figure in them", or,
in simple terms:
everything.

Although the world is heterogeneous, because it houses so many different kinds of entities, it integrates all these things into one big "pluralistic universe" (Haack 2016, 41), in which things interact, depend on each other or are made out of other stuff.

Surely, anybody (who does not happen to be an extreme reductionist) will agree that our world consists of many different things and that these things are, plainly, real. So what exactly does it mean for an entity to be real? Haack strives to provide a definition that is inclusive enough to encompass entities of all the kinds listed above (and more). Obviously, for something to be real it is not enough to be independent of humans, as there are real human artifacts, such as mobile phones and sunglasses. Neither does it suffice for a thing to be mind-independent, as (human) thoughts, dreams and desires, too, are real. Rather, Haack suggests, "*x* is real" is to be understood in terms of "*x* is not fictional" or "*x* is not imaginary". She concludes that "what makes something real, rather than imaginary or fictional, is that it is independent of what you or I or anyone thinks about it." (Haack 2016, 43) Note that contrasting "real" with "fictional" or "imaginary" is not far-fetched. It corresponds to certain intuitions: We can manipulate the world in certain ways, but not any which way we like. In dealing with the fictional, on the other hand, we need not consider any worldly givens.

Haack cleverly anticipates an apparent contradiction: If "*x* is real" means, by definition, that *x* is not fictional, then how are works of fiction, imaginary events and fictional characters real (as related above)? Of course, novels, plays and epical poems are real. Somebody wrote, staged or told them, and we can read, watch or listen to them. In addition, Haack readily asserts that

> [t]here really are fictional characters [. . .]; but fictional characters are not real. [. . .] 'There really are fictional characters' just means that *there are real works of fiction in which imagined people, rabbits, etc., figure*; and 'these fictional characters are not real people,

> rabbits, etc.' just means *that there are no such real people, rabbits, etc., as these works of fiction describe*. (Haack 2016, 43)

Take, for example, the fictional character Lieutenant Commander Data from *Star Trek: The Next Generation*. According to Haack, saying that Data is a real fictional figure does not mean that there really is an android called "Data" who was manufactured by Dr. Noonien Soong, strives to be more like a humanoid and is operations officer aboard the USS Enterprise-D. Rather, it means that there really is a work (or a collection of works) of fiction called "Star Trek", in which "Data" is the name of a character which figures only in the fictional universe the former comprises. Whereas there are real fictional characters like Data, fictional characters are not real: there is no real-life Data.

4.2.3 Degrees of Reality

There are, Haack quickly notes, some fictional characters which are real in yet another sense. "Some novels", she reminds us, "are set in real places, and some include real people and events" (Haack 2013, 13), but contain some imaginative alterations. Depending on how severe the impact of these changes is, a novel can be more or less fictional. From the assertion that "fictionality comes in degrees" (ibid.), Haack infers that the same must be true of reality. In order to illustrate, Haack refers to the legend of King Arthur, the origins of which date back to early medieval times. "[T]here really was a British chieftain who, after the Romans had abandoned Britain to defend Rome against the barbarians, rallied various tribes to repel invaders from northern Germany" (Haack 2016, 44) and who served as an inspiration for the myths and sagas surrounding King Arthur and the Knights of the Round Table. Whereas some aspects of the legendary figure are grounded in British history, others stem from sheer imagination (such as Excalibur, the legendary sword stuck in a stone which only Arthur could draw). Hence, Haack asserts, King Arthur "*was* real—'sort of,' or 'in part.'" (Ibid.) Pondering the case of King Arthur, Haack decides to adjust her definition of "*x* is real" to "x is *more fully* real, the more independent it is of what you or I or anyone believes about it." (Ibid.)

The gradual concept of reality evidently occupies a central position within Innocent Realism. However, it appears that Haack introduces the former exclusively for the benefit of dealing accurately with fictional characters, places and events. As her definition of "*x* is real" is at the very heart of her metaphysical convictions, the rest of our paper will be devoted to examining this tactical move more closely.

4.3 Problems with Innocent Realism

As plausible as Haack's conception of Innocent Realism may appear at first sight, we believe that it brings in its wake certain questions concerning fictional entities that deserve an answer. For one, the gradual concept of reality highly suggests that it is possible to compare different entities with respect to their respective degrees of reality. Inquiry into the possibility and the technical execution of these comparisons, however, indicates that Innocent Realism is not quite as innocent as Haack assumes. When fully spelled out, Innocent Realism must comprise additional ontological theses. Second, Haack's example presupposes that there is exactly one entity to which the name "King Arthur" refers. There is, however, good reason to assume that the matter is far more complicated than this, as problems concerning the reference of fictional names and the individuation of the corresponding entities abound. Third, as Innocent Realism employs the distinction between the real and the fictional (as the extremes of a continuum), and as the real is explained in terms of the fictional, we should at least be able to say what it means for an entity to be fictional. This, however, is not guaranteed by Haack's account as it stands. We will discuss these problems below.

4.3.1 Comparisons

Since reality comes in degrees, it is only plausible to assume that comparing entities with regard to their respective degree of reality is possible. For illustration, imagine a scale on which "0" and "1" mark the extremes, with "0" indicating that an entity is fully imaginary and "1" meaning that it is fully real. In between these extremes lies a continuum of values that mark different degrees of reality. In principle, an approximate value should be assignable to each entity that forms part of the one, real world.[6] Think, for example, of Han Solo, a fictional figure George Lucas created for his science-fiction movie series *Star Wars*. Initially, Lucas was free to create Solo in ways radically different than he eventually did. Apart from his thoughts on the matter, there was nothing in the world which could have forced him to create Solo in a specific way. So, for example, he could have made him a woman or a red haired, dutiful, decent and upright fellow, etc. Accordingly, as Han Solo is, by and large, a product of Lucas' vivid imagination, his reality-value must be close to 0.

Now, to contrast, consider Alexander the Great, conqueror of Persia. The most complete account of his deeds is delivered to us by the historian and biographer Callisthenes. Probably, the historical person Alexander differed from the character

[6] Claiming so, we do not wish to imply that humans (or even other (hypothetical) superior beings) are capable of doing so. We are well aware of the fact that human epistemic means are limited. In some cases, however, we assume that, at the very least, orderings are possible.

Callisthenes described in his works—let us call him Callisthenes-Alexander. For example, it is unlikely to be true that Alexander really was related to Achilles and Heracles. Unlike George Lucas, however, Callisthenes was not free to write anything he liked about Alexander. His historiographical story was bound to the real, historical Alexander in certain respects. For example, to claim that Callisthenes-Alexander was born in Persia and was the secret son of King Darius II would have caused uproar (and may have ended in the beheading of the author). Similarly, Callisthenes was not free to assert that Alexander was an insane tyrant or a Satyr (or some other mythological creature). In consequence, and in accordance with Haack's treatment of King Arthur, Callisthenes-Alexander can be said to be only partly real, and partly imagined. Comparing Han Solo to Callisthenes-Alexander, we will find that the latter is more real than the former, as Callisthenes-Alexander will have to be assigned a reality-value closer to 1 than Han Solo's.[7]

If such comparison or ordering is possible, we are well advised to inquire into the technical requirements and ontological premises it presupposes. Certainly, not all cases are as easily decided as the one delineated above. What is more, we need yet to determine what it means to say that there is something about Callisthenes-Alexander which is imagined by Callisthenes and something else which is really real. One possible option is to deconstruct the entities which are up for comparison into properties. The resulting bundles of properties can then be contrasted with non-fictional entities in the real world in search for something which matches some or all of these properties. An approach of this kind presupposes some sort of Leibnizian concept of individuality, according to which being a fully real individual x means that there is a certain set of properties which is instantiated at some place p at some (period of) time t.

To illustrate this idea, consider the fictional characters King Arthur and Merlin. Intuitively, we assume that King Arthur is more real than Merlin. If asked, how can we justify this belief? Following the proposal above, we may start by deconstructing these entities into properties. Presumably, we arrive at something like this:

King Arthur	{human, intelligent, powerful, honest, brave, born and lived in Great Britain, son of King Uther Pendragon, reared by knight Ector and his wife, married Guinevere, lived in Camelot castle, received a magic weapon from the Lady of the Lake, founded the fellowship of the Knights of the Round Table, searched for the Holy Grail, was killed in battle, etc.}
Merlin	{half-human (descendant of a demon and a human), intelligent, white-bearded, lived in Great Britain, interpreted divine messages, predicted the future, knew magic spells, was in close contact to mystical beings (dragons), magically altered Uther Pendragon's appearance, educated Arthur, was consulted by Arthur, etc.}

[7] In order for this example to be applicable, we here assume that Callisthenes-Alexander is indeed a fictional entity, not merely the result of an incorrect description of the real Alexander. (For a more detailed discussion of the difference between fictionality and false description, see Sect. 4.3.3 below.)

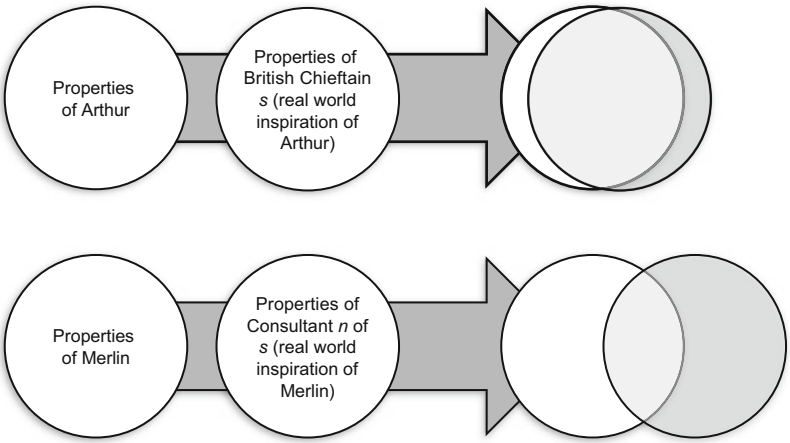

Fig. 4.1 Overlapping properties of the fictional characters and their (fully real) real world inspirations

To say that Arthur is more real than Merlin then simply means that there is some fully real entity *s* which King Arthur shares a specific amount of properties with, and that there is no fully real thing *n* which Merlin shares as many properties with as King Arthur shares with *s* (see Fig. 4.1).

Ontologically speaking, this approach is rather demanding. The ontological premises on which it rests can be avoided if an alternative is found that helps us understand what it means to say that mythical King Arthur is *similar in certain aspects* to a fully real, historical person who was once a British chieftain, while there is no fully real entity in the world which is similar to legendary Merlin. Now, similarity is a central and rather controversial notion in ontology. If Innocent Realism is to enable us to compare fictional entities with regard to their respective degree of reality—as it should—, additional ontological assumptions must be made. (Remember, the cases negotiated here are easily decidable, but there may be others where intuition fails us.) Hence, it appears that Innocent Realism is not quite as innocent as Haack suggests, but stands in need of expansion by means of further metaphysical assumptions (which in turn may drive us towards philosophically burdened, implausible or even outright wacky conclusions).

4.3.2 A King with Multiple Personalities

The forgoing argument has already touched upon questions regarding the individuation of fictional characters, a topic that deserves closer attention.

Arranging her critical example, Haack writes as if to suggest that there is exactly one entity to which the name "King Arthur" refers.[8] The matter is, however, more complicated than that. For one, consider the historical origin of the legend as Haack describes it: "[T]here really was a British chieftain" (Haack 2016, 44) whose deeds were embellished by historiographers and folklore. Sometimes, we refer to the historical archetype as "the real King Arthur". Are there, then, two entities that go by the name of "King Arthur", one fictional and one a human being? Other examples come to mind, where an author fashions his protagonist after two of his closest friends, or where two or more real persons eventually become fused in the eyes of posterity. Probably, problems of reference and individuation of this kind can easily be dispelled, as we are dealing with different kinds of entities that just happen to bear the same name.

There are, however, more intricate ambiguities to be considered. Myths and legends like those surrounding King Arthur and his Knights of the Round Table often originate in oral lore, a format which is rather prone to creeping modification. Retelling the story over and over, bards stress different aspects and neglect others, and sometimes they succumb to the temptation of including fantastic elements. Written tales, too, are not immune to alteration. Frequently, authors adopt or recreate storylines, characters and motifs. As a result, numerous versions of the Arthurian legend are available, such as the stage musical *Camelot* (1960), the infamous spoof movie *Monty Python and the Holy Grail* and Marion Zimmer Bradley's 1983 book *The Mists of Avalon*, retelling the events from the perspective of Morgan le Fay. Today, we have access to a multitude of mutually incompatible stories about King Arthur, some of which may even be inconsistent. If we assume that a fictional character's identity depends on the stories[9] in which it figures—and to assume so is only reasonable—,[10] then we must establish a theory of reference that explains how the names of fictional characters (like "King Arthur") can be applied to successfully refer to fictional entities (like King Arthur).[11] In order to do so, we first need to know what it takes to individuate fictional entities. Faced with incompatible or inconsistent stories, hence, we cannot forgo making up our minds on whether fictional characters, unlike real-life people, can have conflicting properties. Why not

[8] In the decisive paragraph, Haack writes that "with respect to King Arthur himself" the best we can say is "that he was real" (Haack 2016, 44). This wording suggests that Haack does not consider the possibility of mutually incompatible bits of legend, which call for a clarification of the reference of "King Arthur". In her 2013 paper, Haack explicitly mentions different cinematic representations of Captain Ahab's struggle with Moby Dick, but does not appear to draw any serious conclusions from this (Haack 2013, 214–215).

[9] As should be clear by now, a story need not be written down in a book in order to contain fictional entities. Fictional characters are perpetuated by oral traditions, depicted on TV and in movies, and appear in video games. Although we focus on fictional people here, similar reflections apply to fictional animals, places and events.

[10] This is, we admit, an assumption that we do not support by means of argument. However, there appears to be no viable competitor.

[11] Very vaguely, Haack mentions that somehow "'fictional pretend-reference' is parasitic on the practice of regular reference to real people, events, etc." (Haack 2007a, 212). By itself, this serves merely as a hint, not an answer to the question of reference.

suppose that fictional King Arthur is both Morgan le Fay's half-brother and, simultaneously, not related to her at all? Although it may seem odd at first sight, we should not carelessly dismiss this possibility out of hand. After all, fictional entities are fundamentally different from real people in a number of ways.[12]

Depending on our inclinations, then, we are free to choose our preferred view on the individuation of fictional entities from a range of options. For example, we can assume that (1) all the (fictional) stories in which a particular (fictional) name occurs refer to only one fictional entity. If Haack were to claim this, as a rather rigorous reading of the wording in her example suggests, her argument for the graduality of reality would crumble. No matter how similar fictional King Arthur is to his historical counterpart, an entity that cannot be described without inherent contradiction should not be deemed partially real, as its being real is impossible. Furthermore, comparisons of the respective degrees of reality between two such entities are infeasible. If, on the other hand, Haack agrees to abandon the idea that contradictory characteristics can be associated with a single fictional entity, she may wish to claim that (2) one fictional entity may figure in various mutually compatible stories. With respect to this claim, problems arise whenever a certain story S_1 is compatible with two other stories (or sets of stories) S_2 and S_3 that are mutually exclusive, as any instance of the entity's name appearing in S_1 refers to two different fictional entities at once (which is implausible). A more reasonable approach is to maintain that, along with names mentioned, (3) every story (or, generously understood, every story cycle) supplies its own fictional entities. In order to differentiate between different fictional entities, then, we need only distinguish stories from each other. For disambiguation, we can then introduce indexes and refer to *Camelot*'s Arthur as "Arthur$_1$", Monty Python's Arthur as "Arthur$_2$" and so on, each Arthur being a separate fictional entity.[13]

Indeed, this idea offers some advantages. Think of the different depictions of Socrates in Plato's various dialogues, Xenophon's *Apology* and Aristophanes' comedy *The Clouds*. For proper disambiguation, let us refer to the historical person on whose life and conduct these reports are based as "Socrates$_1$", Plato's thoughtful and righteous teacher shall be called "Socrates$_2$", Aristophanes' quack in the basket "Socrates$_3$" and so on. This pattern can be continued even further. For example, if you wish to assume that every reader creates his or her own image of Socrates when consuming Plato's dialogues—including ideas about his physical appearance, the sound of his voice and his demeanor when drunk—, you now have the tools to distinguish different subjective ideas ("Socrates$_4$", "Socrates$_5$", etc.). Depending on which book you read or which actor portrays Socrates, impressions may differ. Also, maybe you inform others about your image of Socrates, and thereby spark further ideas of what he was like ("Socrates$_7$", "Socrates$_8$", etc.; see Fig. 4.2).

[12] For a thorough investigation into the characteristics of fictional entities, see Sect. 4.3.3 below.

[13] In the same strain, we might want to continue by claiming that (4) in an inconsistent story, multiple fictional entities are referred to, with reference varying according to the context in which a certain name is used. This, like (2), introduces more problems than it solves.

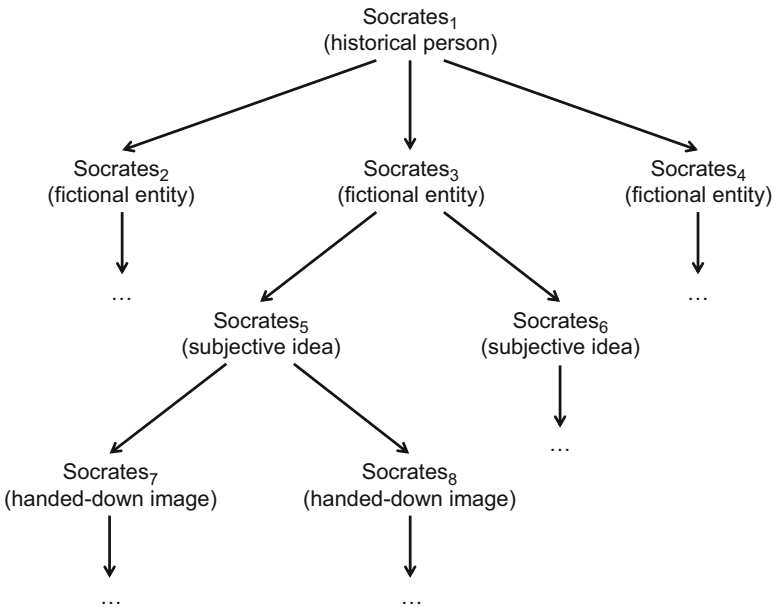

Fig. 4.2 Multiple personalities: a problem concerning individuation

If followed through all too rigorously, however, this project runs the risk of losing sight of what unifies our ideas of Socrates or King Arthur, respectively. Whether King Arthur was the incestuous father or an unrelated enemy of Mordred, somehow stories about him are linked, even unified. To claim that the historical genesis of the legend provides the sole binding element is to do injustice to the many novelist and screenplay writers who develop their very own version of the saga. To speak of "King Arthur" as if there were one consistent story, on the other hand, is to neglect a central problem concerning the identity of fictional entities.

4.3.3 Fiction and Falsehood

As we have seen, in order to provide a comprehensive account of fictional entities, Haack needs to say more on the reference of names for and the individuation of fictional characters. Unfortunately, the trouble with fictional entities does not end here just yet. If we inquire a little further into the nature of the fictional, another challenge for Innocent Realism surfaces, which hinges on the difference between incorrect description and fiction.

Fiction does not differ from non-fiction in that a work of fiction consists only of statements that are false because they do not correspond to the facts. Supposedly factual reports, too, can turn out to be mistaken. For example, it would be absurd to suppose that if a scientific hypothesis turns out to be false, we begin to conceive of its written expression as a work of fiction all of a sudden. Likewise, if a novelist decides to include in his or her novel an accurate description of the exterior of Westminster Abbey in the morning twilight, bookshops will not react by placing the book significantly closer to the textbook section.[14] Hence, the claim that all it takes for an entity (a character, a place etc.) to be fictional is to appear in a false or inadequate description of the world is clearly misleading.

What is it, exactly, that makes an entity a fictional entity? What characteristics determine whether a certain entity belongs to the fictional or imaginary kind—as opposed to the "brutally real", the socially constructed or the like? First, fictional entities are not physically instantiated (or, if you insist, they are not physically instantiated precisely as described, even though there may exist a thing that is very similar to that which is so described).[15] Second, fictional characters are, like artifacts, creations of ingenuity. They are "the real products of real mental processes" (Haack 2013, 216). If it weren't for humans (or other similarly intelligent and imaginative beings), there would be no such things as fictional entities.[16]

That fictional entities be incorporeal and man-made does not, by itself, suffice to capture the uniqueness of what it means for some entity to be fictional. For example, these criteria may well apply to certain social institutions. (Imagine that marriage, in a culture less permeated by legal restraints than ours, is no more than a social arrangement with no physical manifestation other than the cohabitation of two adults, which, of course, could as well be a symptom of a host of very different arrangements.) Rightfully, Haack points out that the intention of the author (and, probably, also of the perpetuators) of stories in which a fictional entity figures is determinative. Whereas texts that serve the purpose of promoting a scientific

[14] However, Haack very sensibly notes, "it would be something of an embarrassment to discover that the characters or events [an author] thought he had imagined were, actually, real" (Haack 2007a, 209).

[15] As Haack points out, fictional characters may resemble or be based on actual people and fictional places may resemble actual places. Real places may also figure in fictional setups. For example, imagine a novelist's detailed description of an imaginary apartment in New York City with a stunning view of Central Park. It is for exactly this reason that the easy answer—that an entity is fictional if and only if it figures in a work of fiction—is not exactly persuasive.

[16] True, acquaintance with some fictional entities is more widely spread and more profoundly anchored than others. Anybody has a word or two to say about Homer Simpson, and the more literate among us may remember the tale of Dorian Gray's self-transforming painting, but few are introduced to the ruin of Charlotte Temple nowadays, and a great number of heroes were most certainly buried along with the bards of old. Nevertheless, all of the above are fictional entities, whether they exist or existed in the minds of many or few, whether they are remembered or forgotten, whether they have stirred the imagination of artists and masterminds or figure only in scribbled notes buried in someone's backyard.

hypothesis or disinterestedly reporting historical events or other matters[17] are best described as "putatively truth-stating" as well as "putatively referential" (Haack 2007a, 211),[18] fictional texts are not meant to display the world as it really is, at least not *in toto*.[19] Although novels, made-up bedtime stories and TV shows may well convey truths about the elations and pitfalls of life (Haack 2007a, 212), their main objective is not to inform us about the whereabouts of Oliver Twist, the curious giraffe on the loose or the Fishers' funeral business. Neither is it a playwright's intention to fool or deceive their audience about the truth value of the statements uttered on stage or the referents of names and descriptions that figure in them. Scientists, on the other hand, who deliberately publish papers that rest on incorrect data or refer to things they know do not exist will rightfully earn themselves ill repute.

Even if preliminary and incomplete, these reflections help explain why we do not take novelistic or cinematic adaptions of the tale of King Arthur and his knights of the round table at face value. We do not conceive of these adaptions as incorrect descriptions, because we do not take them to be intended as descriptions of any fact of the matter at all. Intentions, however, are a fickle thing. Suppose an author employed by the government (of, say, North Korea) but secretly opposed to their doctrines is ordered to compose the biography of the Great Leader. He does not wish to deceive his readers, but knows what he writes to be untrue. The product is a text that is not putatively truth-stating, although others are later led to believe so.[20] Neither is it any more referential than Steven Lawhead's *Avalon: The Return of King Arthur* or *Merlin* featuring Sam Neill, as it is merely based on the life of a person about whom precious little is actually known. Haack's criterion, hence, does not suffice to differentiate fiction from deliberate or accidental incorrect description, nor does it explain why we conceive of King Arthur, but not of the Great Leader as a fictional character. Moreover, this conclusion runs contrary to Haack's opinion as expressed in *Defending Science*, where she states that the result that "the distinction between history and imaginative literature dissolves" (Haack 2007a, 213) is disagreeable and should hence be avoided. As with any criterion, if it cannot be applied to distinguish where distinction is desirable, it needs mending.

[17] Haack wisely includes "food labels, theological treatises, newspaper articles [...], police reports, tourist brochures, advertising copy, bus timetables, etc., etc." (Haack 2007a, 213).

[18] Haack mentions further criteria, namely that scientific texts be "about stuff, things, and events in the natural world [...]; evidence-presenting; aimed at an audience of other scientists; and written in a direct, explicit, dry, closed style." (Haack 2007a, 211) These criteria apply to scientific texts, but not to other forms of non-scientific writing, which is why we do not discuss them in this context.

[19] The difference between scientific, historical and literary or fictional texts may not always be easily detectable, nor need there be a strict separation for the above to be true.

[20] If texts were capable of having intentions, we would be able to say that the intention of the author differs from the intention of the text.

4.4 Conclusion

We do not fancy the three problems mentioned above to pose barriers that cannot be overcome. Rather, they should be regarded as challenges to any realist position that encompasses fictional entities. Beyond doubt, Haack herself is aware of the fact that Innocent Realism is, to date, merely sketched out and needs to be developed. We welcome her attempt to include fictional entities, as they certainly are part of our world. After all, books, plays and movies affect our lives. However, we harbor reservations concerning the manner in which this idea is fleshed out. As we understand it, Haack introduces the gradualist account of reality for the sole purpose of dealing appropriately with fictional entities, especially with those that are based on real people, real places or real incidents (like King Arthur). From what Haack writes, all other kinds of entities—such as mental states, social institutions and natural laws—are not gradually real—that is to say, partly real and partly fictional—, but categorically real. Contrary to the idea of the gradual reality of fictional entities, which is fueled mainly by reflections on King Arthur and his companions, this matches her rather explicit statement that fictional entities are real only as fictional entities. A fictional character is a real, integrated part of the one, heterogeneous world, but it is an incorporeal artifact, not an actual person, nor is it a hybrid entity hovering somehow in between the fully real and the purely fictional.

For all we know, we cannot but agree that there is an "essential difference between the fictional and the real" (Haack 2007a, 210)—but it runs deeper than Haack suggests. If the difference between reality and fictionality were indeed a gradual affair—an idea which we are highly skeptical of—, more should be said on what it means for a fictional entity to be partially real and partially imaginary, and on how comparisons of different entities with respect to their respective degree of reality (or fictionality) is possible. Plainly, we do not see how Haack's present, rather sketchy gradualist conception of reality furthers our understanding of what it means for something to be real.[21] Instead, we suggest, if Innocent Realism is to encompass fictional entities, more pressing questions should be addressed in greater detail: How are fictional entities to be individuated? What does it mean for a name to refer to a fictional entity? What exactly does it mean for an entity to be fictional?

If a conclusion is in place here, it must be that Innocent Realism would profit greatly if Haack were to postpone judgment on the nature of reality, gradual or not, and to elaborate on her account of fictional entities first.

[21] Haack is, of course, free to return to her definition of reality according to which "x is more fully real, the more independent it is of what you or I or anyone believes about it." (Haack 2016, 50) How this criterion applies to the fictional, however, is far from evident.

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Chapter 5
Deviant Rules: On Susan Haack's "The Justification of Deduction"

Sascha Bloch, Martin Pleitz, Markus Pohlmann, and Jakob Wrobel

5.1 Introduction

5.1.1 Situating Haack's "The Justification of Deduction"

A glance at the history of modern logic shows that an attack on the justification of (some aspect of) deductive reasoning need not be long to be of long-lasting interest. This is the case with Lewis Carroll's brief dialogue between Achilles and the Tortoise about the relation between the truths and the rules of logic, and with Arthur Prior's polemical praise of his deviant connective '*tonk*' as a "runabout inference ticket" (cf. Carroll 1895; Prior 1960). We think that the same is true of Susan Haack's critique of the justification of deduction. However, while Carroll's and Prior's short papers led to extensive discussions the main points of which are well-known within the community, Haack's article (despite its repeated republication) did not spur many reactions. Today we want to try and start filling this gap. We share Achille Varzi's opinion that whereas Haack's other logical works—on deviant logic in general and fuzzy logic in particular—were of considerable interest at the time they were first published but have been superseded by later developments in the field, her argument about the justification of deduction is ingenious and still stands in need of more attention than it got initially (cf. Varzi 1998).[1]

[1] We will concentrate on Haack's 1976 text "The justification of deduction" (Haack 1996, 183–191), because its 1982 companion article about Michael Dummett's attempt at a justification of deduction (Ibid., 192–213, cf. Dummett 1978 [1973]) keeps the main argument unchanged.

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5.1.2 Haack's Main Argument

Haack contrasts her own inquiry into the justification of deduction with the more extensive discussion about the justification of induction. She sees the problem of deduction as a mirror-image of the problem of induction. Whereas a deductive justification of induction would be too strong, an inductive justification of deduction clearly would be too weak. And, much like an inductive justification of induction, a deductive justification of deduction would be circular, and that in a problematic way. Or so Haack argues.

To show that a deductive justification of deduction would be circular in a self-defeating way, Haack needs to construct an analogy argument. The dialectic is like this: It is known well among logicians, that although many specific deductive arguments may be justified deductively in a non-circular way, when we have reached rock-bottom we will encounter some deductive arguments that can only be justified in a circular way.[2] The circularity in question need not be premiss-circularity, but rule-circularity cannot be avoided across the board. As a paradigmatic example for a rule of deductive reasoning that we take for granted in all but the weirdest logical contexts, Haack discusses modus ponens, and points out that the typical deductive justification of modus ponens itself makes use of the rule of modus ponens. As some rule-circularity is unavoidable, Haack needs to do more than make this explicit—she needs to show that this rule-circularity is of a dangerous kind. In order to do this, she discusses a parallel but deviant rule that she dubs 'modus morons,' in effect elevating what is commonly known as the fallacy of affirming the consequent to the status of a candidate for a rule of inference. Her ingenious move is to construct a deductive justification of modus morons by modus morons that mirrors the deductive justification of modus ponens by modus ponens. By showing that an evidently invalid rule (like modus morons) would be warranted if rule-circular justifications were in order generally, she succeeds in casting doubts on the corresponding rule-circular justification of modus ponens.

Let us look at this in more detail. Following the post-Tarskian orthodoxy, Haack understands logical consequence in terms of truth-preservation. Hence the two parallel arguments meant to justify modus ponens and modus morons aim at showing that the respective rule is truth-preserving.

In the case of modus ponens, the argument is as follows: We suppose that the two premisses of modus ponens, the conditional 'If A then B' and its antecedent 'A', are true. A look at the truth table for the conditional shows us that if both the conditional 'If A then B' and 'A' are true, so is the consequent of this conditional, 'B'. Applying the rule of modus ponens, we can now infer that 'B' is true. Thus we have shown that the move from the premisses 'If A then B' and 'A' to the conclusion 'B' is truth-preserving—at this point we may well think that we have shown modus ponens to be a valid rule of inference.

[2] In the words of Thomas Nagel: "Certain forms of thought can't be intelligibly doubted because they force themselves into every attempt to think about anything." (Nagel 1997, 61).

Suppose that 'A' is true, and that 'A → B' is true.
By the truth-table for '→',
if 'A' is true and 'A → B' is true, then 'B' is true.
So 'B' must be true, too.

Or, to make the basic form of this argument visible:

Suppose that C ('A' is true and 'A → B' is true).
If C then D (if 'A' is true and 'A → B' is true, then 'B' is true).
So D ('B' is true, too).

The supposed justification of modus morons runs in a parallel way. We start by supposing that the conditional 'If A then B' and its consequent 'B' are true. Given the material understanding of 'if ... then'-phrases, this assumption entails that if the conditional 'If A then B' is true, then its consequent 'B' is true. From the truth-table for the conditional we now use a slightly more complicated fact than in the argument for modus ponens, namely the fact that if the antecedent 'A' is true, then, if the conditional 'If A then B' is true, then its consequent 'B' is true. Applying the rule of modus morons, we can now infer that 'A' is true. Thus modus morons allows us to show that the move from the premisses 'If A then B' and 'B' to the conclusion 'A' is truth-preserving—and so it seems that we have shown that modus morons is a valid rule of inference!

Supposing that 'A → B' is true and 'B' is true,
if 'A → B' is true, then 'B' is true.
Now, by the truth-table for '→',
if 'A' is true, then, if 'A → B' is true, then 'B' is true.
Therefore, 'A' is true.

Or, to make the basic form of this argument visible:

Suppose D (if 'A → B' is true, then 'B' is true),
If C then D (if 'A' is true, then, if 'A → B' is true, 'B' is true).
So C ('A' is true).

At this point someone who wants to defend good modus ponens against its bad rival modus morons might try to object that the purported justification of modus morons employs an invalid rule of inference (namely modus morons). But such an objection would clearly be question-begging![3]

5.1.3 *Some Observations About Haack's Main Argument*

There are two implicit presuppositions of Haack's argument that strike us as important. Firstly, she adheres to the truth-preservational analysis of logical consequence. Secondly, she presupposes that, even in the context of an inquiry about modus morons, the truth table for the material conditional can be employed.

[3] In our presentation of Haack's main argument, we follow (Haack 1996, 186 f.).

Although we think that neither of these presuppositions is entirely innocent (especially the one about the truth-table), we will concede them here for the sake of the argument—at least for the time being, because our critique will lead us back to them in due course.

That being said, Haack's argument is strikingly strong. If the analogy it is based on is sound, then the rule-circularity in any deductive justification of a deductive argument that is similar to the argument for modus ponens discussed by her would be of a self-defeating kind. She would indeed have gone far to show that a deductive justification of deduction is problematically circular.

Nevertheless, we are not convinced. Haack's whole argument stands and falls with the similarity between modus ponens and modus morons as candidates for rules of deductive reasoning. Our critique will take the form of denying this similarity.

5.1.4 A Recent Debate

We have found inspiration in a more recent debate, which in any case bears mentioning in the context of Haack's work on the justification of deduction. The debate starts in 2001 with a text by Paul Boghossian, and among the disputants are Crispin Wright and Neil Tennant (cf. Boghossian 2001; Wright 2001; Tennant 2005). It concerns doubts about justification in general—it is about the question, to quote Boghossian, of "how objective epistemic reasons [are] possible" (Boghossian 2001, 1); and the special question of how deductive arguments can be justified plays an important role. Haack's work on this topic is (as far as we know) not referred to at all in the debate. This is a regrettable omission, and it is all the more striking because Boghossian's central argument bears a close resemblance to Haack's main argument.

Boghossian wants to call into doubt the very same rule-circular argument for the claim that modus ponens is truth-preserving that Haack deals with. He does this by constructing a similar rule-circular argument that is meant to show that one of the inferential rules governing Arthur Prior's rogue connective '*tonk*' is truth-preserving—which is a highly undesirable result because '*tonk*' wreaks havoc with every well-behaved logical system it is added to. As the inferential rule for '*tonk*' plays exactly the same rule in Boghossian's argument that is played by modus morons in Haack's argument, one might go so far to say that Boghossian here reinvents the wheel.

In developing our critique of Haack's argument, we found helpful clues in Boghossian's own discussion of his argument against modus ponens and especially in the close examination that Tennant gives to this argument. In fact, three of the four arguments against modus morons we will present[4] are inspired quite directly by what Tennant says against '*tonk*'.

Besides acknowledging the key role of Tennant's text for our project, we would like to mention another thing we found helpful in the recent debate. It concerns the

[4] To anticipate, these are the arguments concerning reduction, inferential truth theory, and truth tables. The fourth argument, which concerns inconsistency, is our own.

overall context of doubts about the justification of deduction. Boghossian begins his extensive discussion of the possibility of objective reasons—a key part of which is the discussion of objective reasons for our deductive reasoning—by situating it in current debates about relativism. (His text opens dramatically with the statement that "Epistemic relativism has the contemporary academy in its grip." (Boghossian 2001, 1)) The point to note is that Boghossian—like Haack—*rejects* relativism: His purpose in giving an argument against the rule-circular justification of modus ponens is not to further some relativism or skepticism about logic; rather, he wants to show that there is real work to be done for those who see logic as an indispensable part of our practice of giving objective reasons (cf. Boghossian 2001, 1 ff.). What we can learn from Boghossian's way of putting his doubts about the justification of modus ponens in a broader anti-relativist context is that the following observation should be made explicit: As we understand her, Haack—like Boghossian—is not a skeptic about logic. Rather, the doubts about the justification of modus ponens she voiced much earlier than Boghossian are meant to show that there is a real challenge for those who would like to think of our inferential practices as justified in an objective way. Today, we want to take up this challenge.

5.2 Natural deduction

5.2.1 Natural Deduction and Axiomatics

Before we start with our argument we want to clarify our way of notation. There are many ways of presenting deductive systems. Two of those are axiomatics and natural deduction. While Susan Haack (in the text we are referring to) employs some sort of Frege-Hilbert style axiomatics, we will use natural deduction. While the Frege-Hilbert style works with axioms to derive the formulas that are to be proven, natural deduction offers introduction rules and elimination rules for the operators. By deploying those rules one builds up proofs from assumptions. There are no axioms in natural deduction.

Since its invention many logicians have come to prefer natural deduction over axiomatic systems because it represents our reasoning in a more intuitive way. The axioms used in Frege-Hilbert style axiomatics are not as intuitive as the introduction and elimination rules of natural deduction. In fact most of our daily reasoning starts with an assumption from which we derive certain statements. And in natural deduction, proofs start with assumptions, too. Those assumption are discharged during the proofs. So at the end of the proofs there stand formulas which do not depend on the assumptions.

The primitive rules of natural deduction, that is, the most basic rules one can apply, usually contain exactly one operator. So there are no introduction or elimination rules which allow to introduce or eliminate more than one operator at a time. The rules are defined in pairs for each operator. That means that there are no single rules for an operator and not more than two rules for each operator. For example,

the introduction rule for conjunction allows one to write ‘A ∧ B’ whenever one had both ‘A’ and ‘B’ in a derivation. The elimination rule for conjunction allows to derive ‘A’, as well as ‘B’, from ‘A ∧ B’.

5.2.2 Notations for Natural Deduction

There are many different styles of writing down natural deduction proofs—in fact so many that this can be a considerable source of confusion. We will employ the Fitch style as well as the Gentzen-Prawitz style.

To illustrate the differences between the two styles with an example, here are two different presentations of a proof of ‘C’ from the premiss ‘A ∧ B’ and a derivation of ‘C’ from ‘A’. On the left you can see the proof in Fitch style, on the right in Gentzen-Prawitz style:

(1)		A ∧ B	premiss
(2)	*	A	assumption
(3)	*	⋮	
(4)	*	C	
(5)		A → C	(2)–(4), →-intro
(6)		A	(1), ∧-elim
(7)		C	(5), (6), MP
(a)	(b)	(c)	(d)

$$\dfrac{\dfrac{A \wedge B}{A}\,\wedge\text{-elim} \qquad \dfrac{\begin{array}{c}[A]\\ \vdots\\ C\end{array}}{A \to C}\,\to\text{-intro}}{C}\,\text{MP}$$

In Fitch style, proofs are represented as lists. Every line in the list contains a line of the proof. In our example, the list consists of four columns which give from left to right: (a) the number of the line of proof, (b), sometimes, a star, which indicates that the formula in the line is derived from an assumption, (c) the line of the proof itself, and (d) a commentary naming the rules applied and the lines from which the current line has been derived.

In the first line of the list we have the premiss ‘A ∧ B’. From the assumption ‘A’ made in line 2, ‘C’ is derived in line 4. The three vertical dots in between are placeholders for some particular derivation. In line 5 we use the introduction rule for the conditional which allows us to derive ‘A → C’. Then ‘A’ is derived from ‘A ∧ B’ in line 1 through an application of the elimination rule for conjunction in line 6. Finally we get ‘C’ in line 7 by applying modus ponens to lines 5 and 6.

In Gentzen-Prawitz style, by contrast, proofs are represented as trees. Every horizontal line in such a tree represents a deduction. If the deduction employs a specific rule of inference, we usually note it down next to that very line. Everything used to infer a certain step is written above the line and the inferred formula is written below the line. Assumptions are indicated by putting them in square

brackets. The proof in Fitch style (on the left) that we already discussed can be found on the right in Gentzen-Prawitz style. In this presentation, the proof consists of two branches. The left branch starts from 'A ∧ B' as a premiss and gives us 'A' after an application of the elimination rule for the conjunction. The right branch starts from an assumption 'A' which is used to derive 'C' in some way. The particular steps of this derivation are again symbolized by the three vertical dots. From this derivation we get the conditional 'A → C'. The last deductive step is an application of modus ponens to 'A' and 'A → C', from which we get 'C' at the root of the tree.

We have chosen to use both styles because each one illustrates some details of deduction more clearly than the other, and we can make use of their special features in our proofs.

5.2.3 *Modus Morons and Modus Ponens as Elimination Rules for the Conditional*

A basic idea of our critique will be to understand modus morons as an alternative to modus ponens as a candidate for an elimination rule for the conditional. Because the rules in natural deduction always come in pairs, there has to be an introduction rule corresponding to modus morons as well as to modus ponens. The usual introduction rule for the conditional, which corresponds to modus ponens, is conditional proof. You can see the rules of conditional proof, modus ponens and modus morons in the following table (given here in Gentzen-Prawitz style).

$\dfrac{\begin{array}{c}[A]\\ \vdots \\ B\end{array}}{A \to B}\,\mathrm{CP}$ conditional proof (usual →-intro)	$\dfrac{A \quad A \to B}{B}\,\mathrm{MP}$ modus ponens (usual →-elim)
?	$\dfrac{B \quad A \to B}{A}\,\mathrm{MM}$ modus morons (deviant →-elim)

At this point it is not yet clear which introduction rule corresponds to modus morons (hence the question mark in the lower left corner of the table). Haack does not offer such a rule. In the next section we will get a first of impression of what happens when modus morons and conditional proof are combined; this will enable us to say more about the missing introduction rule.

5.3 Philosophical Proof Theory

5.3.1 Two Convictions About Natural Deduction Rules

So, natural deduction allows for a presentation of a logical system (i.e., a formal language together with a syntactic consequence relation) that although it is equivalent to an axiomatic presentation of that system, is more transparent and perspicuous and presumably nearer to our actual reasoning practices. But according to one school in the philosophy of logic(s), there is much more to be seen from a natural deduction presentation of logic. Beginning with its inventor Gerhard Gentzen, many people have held two interconnected convictions about the rules of a natural deduction system:

1. Taken together, an introduction rule and the corresponding elimination rule fix the meaning of the logical connective they govern.
2. For a given logical connective, the introduction rule must somehow fit the elimination rule.

Gentzen wrote:

> To every logical symbol [. . .] belongs precisely one inference figure which "introduces" the symbol [. . .] and one which "eliminates" it. [. . .] The introductions represent, as it were, the "definitions" of the symbols concerned, and the eliminations are no more, in the final analysis, than the consequences of these definitions. (Gentzen 1964, 294f.)[5]

In contrast to the more common model-theoretic approach to logical consequence, according to these convictions logical consequence is ultimately tied to its syntactical explication. As the emphasis is thus shifted from semantics to proof-theory in our philosophical understanding of logic, the label of "philosophical proof-theory" has been proposed for this approach.[6]

5.3.2 'Tonk'

The ideas of philosophical proof-theory came into much sharper focus through the debate about Prior's deviant connective '*tonk*'. Prior used '*tonk*' to attack the first idea, that a pair of inferential rules is meaning-constituting. His opponents, the defenders of philosophical proof-theory, emphasized the second idea, that the two

[5] Here is the original quote: „Zu jedem der logischen Zeichen [. . .] gehört genau eine Schlußfigur, die das Zeichen [. . .] 'einführt', und eine die es 'beseitigt' [. . .]. Die Einführungen stellen sozusagen die 'Definitionen' der betreffenden Zeichen dar, und die Beseitigungen sind letzten Endes nur Konsequenzen hiervon [. . .]" (Gentzen 1934, 189).

[6] The label "philosophical proof-theory" is due to Humberstone (2011, 511). Tennant talks about "proof-theoretically inclined philosopher[s] of logic" (Tennant 2005, 648) and Hjortland about "proof-theoretic semantics" (Hjortland 2009, 9 ff.).

rules must fit together in some way, and presented several proposals for making this requirement more precise. We will give you a very swift tour through the discussion of '*tonk*' because many points will be pertinent to our critique of Haack's argument.

Inspired by Gentzen's remarks, Karl Popper and others in the 1940s and 1950s made much of the idea that logic can be grounded on definitions of the logical connectives in terms of inferential rules alone, aiming at a "new justification of deduction" (Hjortland 2009, 25 f.). Prior attacked these maybe somewhat naïve renderings of Gentzen's original ideas (cf. Ibid., 26) by defining the new connective '*tonk*' through an introduction rule that allows the inferential move from 'A' to 'A *tonk* B' and an elimination rule that allows to move from 'A *tonk* B' to 'B' (cf. Prior 1960, 39).

$$\frac{\mathrm{A}}{\mathrm{A}\,tonk\,\mathrm{B}}\ tonk\text{-intro} \qquad\qquad \frac{\mathrm{A}\,tonk\,\mathrm{B}}{\mathrm{B}}\ tonk\text{-elim}$$

Adding '*tonk*' to a logical system has disastrous consequences. Under the weak assumption that the consequence relation of the logical system is transitive, it becomes possible to derive anything from anything, which in the presence of any logical truth whatsoever will not only render the system inconsistent but trivialize it completely (cf. Hjortland 2009, 27 ff.). Thus, '*tonk*' is a truly malfunctioning logical operator. So, Prior's polemic suggests, something must be seriously wrong with the idea that inferential rules, if they are understood as meaning-constituting, can justify deductive reasoning.

5.3.3 Harmony

To the rescue of philosophical proof-theory, logicians like Nuel Belnap and Michael Dummett met Prior's challenge by insisting that not any old pair of an introduction rule and an elimination rule can be put together to characterize a connective (Dummett 1991, 216; Belnap 1962). The requirement of harmony goes back to the passage by Gentzen that we already quoted, where he analyzed an elimination rule as a mere "consequence" of the respective introduction rule that is understood as a "definition."

To explain the intuitive idea of harmony for a logical operator, we can say that its introduction rule defines under which conditions one is entitled to infer a conclusion with that operator (in main position). The corresponding elimination rule states what one can infer from a statement containing the operator (in main position). The concept of harmony now demands that these two collections of statements do not differ from one another.

To illustrate the idea we imagine two persons, a speaker and a listener. If the speaker uses only harmonic logical operators to argue for a statement *S*, she needs some set of premisses for each operator used. Altogether these sets of premisses are collected in Σ. Now the listener (who has been convinced of *S* by the speaker) is

entitled to infer what is collected in Σ from *S*—but no more: The listener cannot infer new contents from *S* which are not already contained in Σ. This balance between the speaker's commitments and the listener's entitlements is given because the introduction rules used by the speaker to arrive at *S* and the elimination rules available to the listener to move on from *S* are in harmony.

The rules for conjunction, for example, evidently meet the requirement of harmony as spelled out in this way: From 'A' and 'B' we can move to the conjunction 'A ∧ B', and from the conjunction 'A ∧ B' we can move to 'A', and to 'B'.

$$\frac{\mathrm{A} \quad \mathrm{B}}{\mathrm{A} \wedge \mathrm{B}} \wedge\text{-intro} \qquad \frac{\mathrm{A} \wedge \mathrm{B}}{\mathrm{A}} \wedge\text{-elim} \qquad \frac{\mathrm{A} \wedge \mathrm{B}}{\mathrm{B}} \wedge\text{-elim}$$

(conjunction introduction) (conjunction elimination)

Nothing really exciting happens here, and that is as it should be with a harmonious logical operator. The rules for '*tonk*', in stark contrast, are not at all in harmony.

$$\frac{\mathrm{A}}{\mathrm{A}\ \mathit{tonk}\ \mathrm{B}}\ \mathit{tonk}\text{-intro} \qquad \frac{\mathrm{A}\ \mathit{tonk}\ \mathrm{B}}{\mathrm{B}}\ \mathit{tonk}\text{-elim}$$

We can move from any statement to a "contonktion" (Prior 1960, 39) that connects it to some other statement and from there to that other statement, and quite probably the step from the first to the second statement will be very exciting; in the inadmissible sense that nothing at all is required in terms of logical similarity between the first and the second statement. So, to put the response of philosophical proof-theory to Prior roughly, '*tonk*' is unharmonious and hence out of the question.

The example of '*tonk*' also allows to illustrate how the two basic convictions of philosophical proof-theory are connected: The harmony between an introduction and the corresponding elimination rule for a logical operator is a precondition for this pair of rules to confer meaning to that operator. If you think about it, you will agree that the introduction rule for '*tonk*', as it allows to move from 'A' to 'A *tonk* B', confers the intuitive meaning 'A regardless whether B' on the formal statement 'A *tonk* B'.

$$\frac{\mathrm{A}}{\mathrm{A}\ \mathit{tonk}\ \mathrm{B}}\ \mathit{tonk}\text{-intro}$$

('A *tonk* B' seems to mean 'A regardless whether B'.)

The elimination rule, which allows to move from 'A *tonk* B' to 'B', suggests a different meaning on the formal statement 'A *tonk* B', namely the converse 'B regardless whether A'.

$$\frac{\mathrm{A}\ \mathit{tonk}\ \mathrm{B}}{\mathrm{B}}\ \mathit{tonk}\text{-elim}$$

('A *tonk* B' seems to mean 'B regardless whether A'.)

Thus the two rules try to confer conflicting meanings on a given contonktion—and thus they cannot succeed to confer *any* meaning to it (cf. Tennant 2005, 637 f.).

Using the rules for conjunction for contrasting purposes again, it becomes clear how two rules that are in harmony succeed in conferring the same meaning on the operator they govern: You need to know only either the introduction rule for conjunction or the pair of admissible inferences that make up the elimination rule for conjunction to understand that the formal statement formed by conjoining a sentence 'A' by means of the conjunction symbol '∧' to a sentence 'B' has the intuitive meaning that 'A' is the case *and* 'B' is the case. This is, again, as unexciting as logic should be.

5.3.4 How Can Harmony Be Formally Explicated?

In the wake of '*tonk*', several proposals were put forth for making the intuitive notion of harmony precise. We will now present three of these proposals for a formal explication of harmony, which are connected to the respective topics of conservativeness, reduction, and inferential truth-theory.

Dummett (1973, 1991) proposed to explicate harmony as conservativeness. A logical operator, conceived of as governed by an introduction and an elimination rule, is conservative if and only if its addition to a logical system will lead to a *conservative extension*, i.e., it will not increase the number of sentences derivable that do not contain that operator. E.g., adding the classical conditional to a logical system that contains only the logical operators of conjunction and negation will not lead to more well-formed formulas containing only conjunction or negation (or both) being derivable. The explication of harmony as conservativeness goes well with the diagnosis of '*tonk*' in terms of harmony, because the addition of '*tonk*' to a logical system will be highly non-conservative in all but some very weird cases.[7]

Dag Prawitz (2006[1965]) proposed to explicate harmony in terms of reduction. The formal notion of reduction concerns logical systems presented in a natural deduction way. The idea is quite similar to the reduction of fractions. If a proof contains an occurrence of a logical operator's introduction rule followed by the corresponding elimination rule one should be entitled to abbreviate this section of the proof to get a shorter proof that contains no less information. In other words, after a proof has been reduced to what is called a *normal form*, it no longer contains any unnecessary detours. Prawitz showed that classical logic, intuitionist logic, and minimal logic are reducible. The explication of harmony in terms of

[7] Cf. Hjortland 2009, 32 ff.—But there are disadvantages, because the property of leading to a conservative extension may depend on the way a logical system is presented (cf. Hjortland 2009, 42 ff.).

reducibility allows to deal with '*tonk*' because it can be shown that a proof consisting of the introduction rule for '*tonk*' directly followed by its elimination rule cannot be reduced. We will get back to this matter when we talk about reduction in Sect. 5.4.

Neil Tennant uses his inferential truth-theory, if not to explicate harmony, then to characterize it in a formal way—to give a formal necessary condition for a pair of rules being harmonious (cf. Tennant 2005, 630 ff.). Tennant's inferential truth-theory allows to formulate some desirable properties of a truth-predicate that are usually formulated as biconditionals—in particular, the Tarskian truth scheme and the fact that truth commutes with the usual logical operators—in the form of inferential rules. Then he shows that for the usual logical operators, the inferences corresponding to the principles which say that these desirable properties hold are derivable from a few uncontentious assumptions, but not for '*tonk*', suggesting that the derivability of the said principles about the interaction of the truth predicate with the logical operators together form a necessary condition for harmony. This matter, too, we will take up again, when we get to Sect. 5.5.[8]

5.3.5 *Harmony and the Rules Governing the Conditional*

When we presented natural deduction (in Sect. 5.2), we already said that we want to understand modus ponens and modus morons as two candidates for an elimination rule for the conditional, with the inferential figure of conditional proof as the usual introduction rule for the conditional. Now, with the notion of harmony to work with, we are able to say more about these rules, and to find the missing fourth rule

[8] Note that there are several contenders for explicating harmony! This leads us to a side remark about the hope for precision and the plurality of acceptable logical systems discussed today. Gentzen had hoped that we need only make the idea that an elimination rule must fit the respective introduction rule precise, and we will find that the elimination rule is a function of the introduction rule. ("By making these ideas more precise it should be possible to display the [elimination rules] as single-valued functions of their corresponding [introduction rules], on the basis of certain requirements." (Gentzen 1964, 195). Here is the original quote: "Durch Präzisierung dieser Gedanken dürfte es möglich sein, die B-Schlüsse [Beseitigungs-Regeln] auf Grund gewisser Anforderungen als eindeutige Funktionen der zugehörigen E-Schlüsse [Einführungs-Regeln] nachzuweisen." (Gentzen 1934, 189)) As there are different serious contenders for an explication of harmony today, we obviously have not yet reached a point where we can be quite sure *which function* it is that determines elimination rules once the introduction rules are given. And probably it is a good thing for the community of logicians that the one and only best explication of harmony has not been found yet, because such a function would privilege one understanding of each logical connective over all others, thus severely reducing the number of acceptable logical systems and cutting off many interesting discussions. E.g., the discussion about classical versus intuitionistic negation would be decided once and for all. And that would be a result that is just too strong, because there are many considerations, often in conflict with each other, that are relevant to the question of which logical system provides the best explication of the intuitive notion of inference.

for a second candidate for an introduction rule for the conditional—a rule that fits modus morons construed as an elimination rule.

Note first that conditional proof and modus ponens, conceived as a pair of an introduction and an elimination rule for the conditional, are in harmony. This was observed by Gentzen himself (who of course did not yet use the term "harmony"):

> An example may clarify what is meant: We are able to introduce the formula A → B when there exists a derivation of B from the assumption formula A. If we then wished to use that formula by eliminating the →-symbol [. . .], we could do this precisely by inferring B directly, once A has been proved, for what A → B attests is just the existence of a derivation of B from A. Note that in saying this we need not go into the 'intuitive meaning' of the →-symbol. (Gentzen 1964, 295: notation altered)[9]

In contrast, when conditional proof is paired with modus morons, there is no harmony at all. In Gentzen's wording: While, in view of conditional proof as a rule of introduction, a conditional 'If A then B' still attests that 'B' can be derived from 'A', modus morons as a rule of elimination uses the very same conditional to license a derivation of 'A' from 'B'.

Matters are now prone to get rather messy! We will show this formally in the following sections, with the aim to undermine Haack's claim that modus morons is "on a par" (Haack 1996, 189) with modus ponens.

But before we start, we would like, for contrasting purposes, to find a rule of introduction that harmonizes with modus morons in the same way that conditional proof harmonizes with modus ponens. We get modus morons from modus ponens by switching the role played in a derivation by the antecedent and the consequent of a conditional, which we hold fixed. When we apply the same procedure to the rule of conditional proof, we get the obvious candidate for a deviant introduction rule for the conditional:

$$\frac{\begin{array}{c}[\mathrm{B}]\\ \vdots \\ \mathrm{A}\end{array}}{\mathrm{A} \rightarrow \mathrm{B}} \rightarrow\text{-intro}_{\mathrm{dev}}$$

If, given the assumption 'B', we can derive 'A', we are allowed to infer the conditional statement 'If A then B'. And between this deviant introduction rule and modus morons, we again have harmony, much as it was described by Gentzen: A conditional statement 'If A then B' now, in view of the altered introduction rule,

[9] Here is the original quote: "Ein Beispiel möge verdeutlichen, wie das gemeint ist: Die Formel A → B durfte eingeführt werden, wenn eine Herleitung von B aus der Annahmeformel A vorlag. Will man sie nun mit Beseitigung des Zeichens → wieder verwenden [. . .], so kann man das gerade in der Weise tun, daß man aus einem bewiesenen A sofort B schließt, denn A → B dokumentiert ja das Bestehen einer Herleitung von B aus A. Wohlgemerkt: Es braucht hierbei nicht auf einen 'inhaltlichen Sinn' des Zeichens → Bezug genommen zu werden." (Gentzen 1934, 189; notation altered)

attests that ‘A’ can be derived from ‘B’, which is exactly the inferential move that the given conditional licenses when modus morons is employed.

$\dfrac{\begin{array}{c}[A]\\ \vdots\\ B\end{array}}{A \to B}$ CP conditional proof (usual $\to$-intro)	$\dfrac{A \quad A \to B}{B}$ MP modus ponens (usual $\to$-elim)
$\dfrac{\begin{array}{c}[B]\\ \vdots\\ A\end{array}}{A \to B}$ $\to$-intro$_{dev}$ (deviant $\to$-intro)	$\dfrac{B \quad A \to B}{A}$ MM modus morons

So, given these two pairs of rules, there are four ways of defining a conditional, corresponding to the two rows and the two diagonals in the table. We will in the following look again and again at three of these four combinations:

1. Conditional proof plus modus ponens delivers the classical conditional, which classical logic shares with a wide range of logical systems.
2. Conditional proof plus modus morons delivers a very ill-behaved conditional, which, as we shall argue, is implicit in Haack’s argument against the justification of deduction.
3. And the deviant introduction rule plus modus morons, as we saw, is a harmonious combination and therefore defines a well-behaved conditional.

In fact, the conditional defined by the third combination is not only well-behaved, but nothing more than a notational variant of the classical conditional. This can be shown formally, but it can also be seen more directly from the way both deviant rules result from the classical rules by nothing more than exchanging antecedent and consequent.

5.3.6 The Plan for Our Argument

What we have said so far allows us to give a brief preview of our critique of Haack’s main argument against the justification of modus ponens. Our critique will consist of four arguments, each making one specific formal point. In every case, we will consider the three combinations of an introduction and an elimination rule for a conditional that we have just described, showing for some special formal aspect that, firstly, the usual combination of conditional proof and modus ponens fares well, secondly, that the combination of conditional proof with modus morons gets into serious problems, and thirdly, that the combination of our deviant introduction rule for the conditional with modus morons again is unproblematic. The four aspects will be the question of reduction, the validity of some principles that can be stated in inferential truth theory, the question of the existence of a truth table, and

the matter of consistency. Some of these aspects can be seen as formal explications of the intuitive notion of harmony. Therefore our observation that, while the first and third combination of rules are harmonious, the second one which pairs modus morons with the usual introduction rule of the conditional is not in harmony, should already give you an intuitive idea of what it is that we are about to show formally.

5.4 Reduction

Our first way of explicating the idea of harmony is by means of reduction. Most of the results concerning this topic are due to Prawitz, whose characterization we want to follow:

> Observe that an elimination rule is, in a sense, the inverse of the corresponding introduction rule: by an application of an elimination rule one essentially only restores what had already been established if the major premiss of the application was inferred by an application of an introduction rule. This relationship between the introduction rules and the elimination rules is roughly expressed by the following principle, which I shall call the inversion principle: Let α be an application of an elimination rule that has B as consequence. Then, deductions that satisfy the sufficient condition [...] for deriving the major premiss of α, when combined with deductions of the minor premises of (if any), already 'contain' a deduction of B; the deduction of B is thus obtainable directly from the given deductions without the addition of α. (Prawitz 2006, 33)

In his formulation of the inversion principle, Prawitz distinguished between minor and major premisses for an elimination rule. The major premiss is the one actually containing the logical operator in question. The minor premisses (if there are any) are the ones without the operator.[10]

The underlying idea is to clear up a proof. Prawitz proved his normalization theorem for classical, intuitionistic, modal and second order logic. It states that a proof in one of these logics can be cleansed of occurrences of what Ole Hjortland calls a "maximum formula" (2009, 47). What he means are occurrences of an application of an introduction rule where it is only used to gain the major premiss of an elimination rule for immediate use. Take for instance a proof containing deductions of 'A' and 'B' from collections of premises Σ_1 and Σ_2, that are used to derive 'A $\wedge$ B' by means of conjunction introduction, which is followed directly by a deduction of 'A' from 'A $\wedge$ B' by means of conjunction elimination. The inversion principle then says that the deduction of 'A $\wedge$ B' already contains a deduction of 'A'.

So one is entitled to get rid of the proof's part that deduces 'B' as well as of the use of conjunction introduction and conjunction elimination to shorten the proof. This procedure is called a *reduction step*.

[10] Take for instance modus ponens: The major premiss is 'A $\rightarrow$ B' for it contains '$\rightarrow$'. The only minor premiss needed to deduce 'B' is 'A'.

Here the reduction looks like this:

$$\dfrac{\dfrac{\dfrac{\Sigma_1}{A}\quad\dfrac{\Sigma_2}{B}}{A \wedge B}\,\wedge\text{-intro}}{A}\,\wedge\text{-elim} \quad\Rightarrow\quad \dfrac{\Sigma_1}{A}$$

The rule of conjunction introduction does not need a minor premiss to be applied. Modus ponens on the other hand requires the minor premiss ‘A’ to infer ‘B’ from the major premiss ‘$A \rightarrow B$’. In this case a reduction step looks like this:

$$\dfrac{\dfrac{\begin{array}{c}[A]\\ \vdots\\ B\end{array}}{A \rightarrow B}\,\text{CP}\qquad \dfrac{\Sigma}{A}}{B}\,\text{MP} \quad\Rightarrow\quad \begin{array}{c}\dfrac{\Sigma}{A}\\ \vdots\\ B\end{array}$$

The left branch contains the assumption ‘A’ from which ‘B’ is deduced in order to introduce ‘$A \rightarrow B$’. The right branch contains a collection of premisses Σ from which ‘A’ is deduced. The reduction step then merges both branches: Instead of separately assuming ‘A’, the reduced proof infers ‘A’ directly from the premisses Σ and then deduces ‘B’ from there.

Both examples illustrate the elegance of a normalized proof. Every reduction step frees the proof of an unnecessary detour and after finitely many steps one reaches a most condensed version of the proof: the normal form.

5.4.1 Modus Morons Combined with Conditional Proof

Here is a proof containing an occurrence of conditional proof, i.e., the usual conditional introduction, followed by modus morons:

$$\dfrac{\dfrac{\begin{array}{c}[A]\\ \vdots\\ B\end{array}}{A \rightarrow B}\,\text{CP}\qquad \dfrac{\Sigma}{B}}{A}\,\text{MM}$$

Again, the left branch contains an assumption ‘A’ from which ‘B’ is deduced. The right branch is different because it deduces ‘B’ from a collection of premisses Σ instead of ‘A’ in the case of modus ponens. What one would like to get now as a reduced form would be:

$$\begin{array}{c}\dfrac{\Sigma}{B}\\ \vdots\\ A\end{array}$$

But the existence of a deduction of 'B' from 'A' (as in the left branch) does not at all guarantee that there is a deduction of 'A' from 'B' (as in the purported 'reduced form'). So we encounter a maximum formula consisting of the usual introduction rule for the conditional and modus morons which defeats our attempts to reduce it. The two parts of the proof have turned out to be like puzzle pieces which will not fit together in any way, and so we are not able to reduce the proof.

5.4.2 *Modus Morons Combined with the Deviant Conditional Introduction*

We already know that the combination of modus morons with the deviant conditional introduction rule is a notational variant of the usual conditional as governed by modus ponens and conditional proof. So it is to be expected that one can find a reduction step—and here it is:

$$\dfrac{\dfrac{\begin{array}{c}[\mathrm{B}]\\ \vdots\\ \mathrm{A}\end{array}}{\mathrm{A}\to\mathrm{B}}\to\text{-intro}_{\mathrm{dev}} \quad \dfrac{\Sigma}{\mathrm{B}}}{\mathrm{A}}\,\mathrm{MM} \quad \Rightarrow \quad \begin{array}{c}\Sigma\\ \hline \mathrm{B}\\ \vdots\\ \mathrm{A}\end{array}$$

Here the left branch of the unreduced proof includes a deduction of 'A' from an assumption 'B' followed by an introduction of 'A → B'. The right branch deduces 'B' from some premisses Σ. Now it is possible to reduce the proof by combining both branches. One first deduces 'B' from the premisses in Σ and then deduces 'A' from that. In contrast to the reduction step for the usual conditional introduction and modus ponens, 'A → B' remains unchanged, but all other instances of 'A' and 'B' are swapped.

5.5 Inferential Truth-Theory

For a second approach to harmony, we turn to Neil Tennant's inferential truth theory. His theory departs from the standard Tarskian approach to truth theory where the biconditional truth scheme '$\mathcal{T}(\Phi) \leftrightarrow \Phi$',[11] where '$\mathcal{T}(\ldots)$' ascribes truth, and the inductive clauses for each logical operator (from the recursive definition of truth) are considered as axioms. His idea is to drop these biconditional axioms and work instead with more rules of inference governing the logical operators

[11] Strictly speaking, if '$\mathcal{T}(\ldots)$' is to be understood as a truth-*predicate*, we would also need a nameforming operator for a formula like this to be well-formed. But we will suppress this point here.

(cf. Tennant 2005, 630 ff.). So in addition to each introduction and elimination rule for a logical operator there exists now a corresponding truth-predicational variant. It is obtained by prefixing the compound sentence and its components with the truth predicate. As an example, here are the corresponding rules of inference for conjunction:

$$\frac{\mathrm{A} \quad \mathrm{B}}{\mathrm{A} \wedge \mathrm{B}} \wedge\text{-intro} \qquad \frac{\mathrm{A} \wedge \mathrm{B}}{\mathrm{A}} \wedge\text{-elim} \qquad \frac{\mathrm{A} \wedge \mathrm{B}}{\mathrm{B}} \wedge\text{-elim}$$

(introduction and elimination rules . . .)

$$\frac{\mathcal{T}(\mathrm{A})\,\mathcal{T}(\mathrm{B})}{\mathcal{T}(\mathrm{A} \wedge \mathrm{B})}\,\mathcal{T}\wedge\text{-intro} \qquad \frac{\mathcal{T}(\mathrm{A} \wedge \mathrm{B})}{\mathcal{T}(\mathrm{A})}\,\mathcal{T}\wedge\text{-elim} \qquad \frac{\mathcal{T}(\mathrm{A} \wedge \mathrm{B})}{\mathcal{T}(\mathrm{B})}\,\mathcal{T}\wedge\text{-elim}$$

(. . . and their truth-predicational variants)

Now we turn to the former axioms, first to the instances of Tarski's biconditional truth scheme '$\mathcal{T}(\phi) \leftrightarrow \phi$'. One can divide it into a conditional scheme of truth introduction '$\phi \rightarrow \mathcal{T}(\phi)$' (an axiom scheme of Semantic Ascent) and a conditional scheme of truth elimination '$\mathcal{T}(\phi) \rightarrow \phi$' (an axiom scheme of Disquotation). The rules of inference that correspond to the conditional schemes are the following:

$$\text{Semantic Ascent} \quad \frac{\phi}{\mathcal{T}(\phi)} \qquad \frac{\mathcal{T}(\phi)}{\phi} \quad \text{Disquotation}$$

With these preparations done, one does no longer have to state the truth scheme as an axiom anymore in order to guarantee that it holds. Instead one is able to actually deduce (nontrivially) the rules of Semantic Ascent and Disquotation for the logical operators—if we presuppose that the rule of Semantic Ascent and Disquotation are valid when applied to atomic formulas. And that is the point where it gets interesting because up to now one had to assume the truth scheme and a logical operator's inductive clause. Being able to actually prove it enables us to investigate the aspect of harmony for a given logical operator, because we seem to have found a necessary condition for harmony. And that means that it may turn out to be impossible to prove one (or any) of the principles laid out in this section for a logical operator which would provide us with an argument against the admissibility of that operator.

But first some examples, here for conjunction[12]:

$$\dfrac{\dfrac{\dfrac{\mathcal{T}(\mathrm{A} \wedge \mathrm{B})}{\mathcal{T}(\mathrm{A})}\,\mathcal{T}\wedge\text{-elim}}{\mathrm{A}} \quad \dfrac{\dfrac{\mathcal{T}(\mathrm{A} \wedge \mathrm{B})}{\mathcal{T}(\mathrm{B})}\,\mathcal{T}\wedge\text{-elim}}{\mathrm{B}}}{\mathrm{A} \wedge \mathrm{B}}\,\wedge\text{-intro}$$

Disquotation

$$\dfrac{\dfrac{\dfrac{\mathrm{A} \wedge \mathrm{B}}{\mathrm{A}}\,\wedge\text{-elim}}{\mathcal{T}(\mathrm{A})} \quad \dfrac{\dfrac{\mathrm{A} \wedge \mathrm{B}}{\mathrm{B}}\,\wedge\text{-elim}}{\mathcal{T}(\mathrm{B})}}{\mathcal{T}(\mathrm{A} \wedge \mathrm{B})}\,\mathcal{T}\wedge\text{-intro}$$

Semantic Ascent

In the proof for Disquotation two things are remarkable: The operator's introduction and elimination rules are used once (at least only on one level) and one rule

[12] In this case and the others, we only display the induction step of a proof by induction.

is the usual one and the other is the truth-predicational variant.[13] First the elimination rule is used to 'extract' the sentences '$\mathcal{T}(A)$' and '$\mathcal{T}(B)$' and after translating them to 'A' and 'B' the introduction rule is used to gain 'A ∧ B'. One is able to prove Semantic Ascent in a similar fashion.

What we have done to the truth scheme can also be done for each logical operator's unique biconditional, the respective inductive clause from a recursive definition of truth.[14] We split it up into two conditional halves and express these as rules of inference[15] which are called Distribution and Compounding of Truth and which then can be proved:

$$\dfrac{\dfrac{\mathcal{T}(A \wedge B)}{\mathcal{T}(A)}\,\mathcal{T}\wedge\text{-elim} \quad \dfrac{\mathcal{T}(A \wedge B)}{\mathcal{T}(B)}\,\mathcal{T}\wedge\text{-elim}}{\mathcal{T}(A) \wedge \mathcal{T}(B)}\,\wedge\text{-intro}$$

Distribution of Truth

$$\dfrac{\dfrac{\mathcal{T}(A) \wedge \mathcal{T}(B)}{\mathcal{T}(A)}\,\wedge\text{-elim} \quad \dfrac{\mathcal{T}(A) \wedge \mathcal{T}(B)}{\mathcal{T}(B)}\,\wedge\text{-elim}}{\mathcal{T}(A \wedge B)}\,\mathcal{T}\wedge\text{-intro}$$

Compounding of Truth

These two proofs work in a similar fashion as the ones for Disquotation and Semantic Ascent.

We now turn to the rules of inference that we are interested in. Here is an exhaustive list of the four rules of inference governing the conditional and their truth-predicational variants:

$$\dfrac{\begin{array}{c}[A]\\ \vdots\\ B\end{array}}{A \to B}\,\to\text{-intro} \qquad \dfrac{\begin{array}{c}[\mathcal{T}(A)]\\ \vdots\\ \mathcal{T}(B)\end{array}}{\mathcal{T}(A \to B)}\,\mathcal{T}\to\text{-intro}$$

(usual conditional introduction)

$$\dfrac{\begin{array}{c}[B]\\ \vdots\\ A\end{array}}{A \to B}\,\to\text{-intro}_{\text{dev}} \qquad \dfrac{\begin{array}{c}[\mathcal{T}(B)]\\ \vdots\\ \mathcal{T}(A)\end{array}}{\mathcal{T}(A \to B)}\,\mathcal{T}\to\text{-intro}_{\text{dev}}$$

(deviant conditional introduction)

$$\dfrac{A \quad A \to B}{B}\,\text{MP} \qquad \dfrac{\mathcal{T}(A) \quad \mathcal{T}(A \to B)}{\mathcal{T}(B)}\,\mathcal{T}\,\text{MP}$$

(modus ponens)

$$\dfrac{B \quad A \to B}{A}\,\text{MM} \qquad \dfrac{\mathcal{T}(B) \quad \mathcal{T}(A \to B)}{\mathcal{T}(A)}\,\mathcal{T}\,\text{MM}$$

(modus morons)

5.5.1 *Modus Morons Combined with Conditional Proof*

Now we want to try to prove the four principles for the combination of conditional proof, i.e., the usual conditional introduction, and modus morons.

There are two possible ways one can try to write down such proofs. One can try to force the use of either the rule for introduction or the rule of elimination in question. As it turns out, in the case of modus morons and the usual conditional introduction both approaches fail. It is simply not possible to use the second rule to finish the proof.

[13] In addition, the rules of Semantic Ascent and Disquotation are applied to atomic formulas or to formulas of the level immediately before the respective induction step.

[14] '$\mathcal{T}(A \wedge B) \to \big[\mathcal{T}(A) \wedge \mathcal{T}(B)\big]$' in the case of conjunction.

[15] '$\mathcal{T}(A \wedge B) \to \big[\mathcal{T}(A) \wedge \mathcal{T}(B)\big]$' and '$\big[\mathcal{T}(A) \wedge \mathcal{T}(B)\big] \to \mathcal{T}(A \wedge B)$' in the case of conjunction.

5.5.1.1 Disquotation

In the first case $\mathcal{T}$MM is the enforced rule of inference, therefore 'B' is assumed to gain '$\mathcal{T}$(B)' as the minor premiss for $\mathcal{T}$MM. But thus one gets only to 'A'. So there is a deduction from 'B' to 'A' and our introduction rule would allow us to infer 'B $\rightarrow$ A' but what we would need is 'A $\rightarrow$ B'. Observe that the deviant introduction rule would fit perfectly.

$$\dfrac{\dfrac{\mathcal{T}(\mathrm{A}\rightarrow\mathrm{B}) \quad \dfrac{[\mathrm{B}]}{\mathcal{T}(\mathrm{B})}}{\mathcal{T}(\mathrm{A})}\ \mathcal{T}\mathrm{MM}}{\dfrac{\mathrm{A}}{\mathrm{A}\rightarrow\mathrm{B}}\ \text{not: }\rightarrow\text{-intro}}$$

In the second case the enforced rule is the introduction rule. So one has to assume 'A' to be able to deduce 'A $\rightarrow$ B', provided there is some way to deduce 'B' first. But then one gets '$\mathcal{T}$(A)' as the minor premiss for $\mathcal{T}$MM and since the major premiss is '$\mathcal{T}$(A $\rightarrow$ B)' this fails. Instead of $\mathcal{T}$MM which we want to use, the rule of inference needed here is $\mathcal{T}$MP.

$$\dfrac{\dfrac{\mathcal{T}(\mathrm{A}\rightarrow\mathrm{B}) \quad \dfrac{[\mathrm{A}]}{\mathcal{T}(\mathrm{A})}}{\mathcal{T}(\mathrm{B})}\ \text{not: }\mathcal{T}\mathrm{MM}}{\dfrac{\mathrm{B}}{\mathrm{A}\rightarrow\mathrm{B}}\ \rightarrow\text{-intro}}$$

The other three principles can be handled in a similar fashion:

5.5.1.2 Semantic Ascent

$$\dfrac{\dfrac{\mathrm{A}\rightarrow\mathrm{B} \quad \dfrac{[\mathcal{T}(\mathrm{A})]}{\mathrm{A}}\ \text{not: MM}}{\mathrm{B}}}{\dfrac{\mathcal{T}(\mathrm{B})}{\mathcal{T}(\mathrm{A}\rightarrow\mathrm{B})}\ \mathcal{T}\rightarrow\text{-intro}} \qquad \dfrac{\dfrac{\mathrm{A}\rightarrow\mathrm{B} \quad \dfrac{[\mathcal{T}(\mathrm{B})]}{\mathrm{B}}\ \mathrm{MM}}{\mathrm{A}}}{\dfrac{\mathcal{T}(\mathrm{A})}{\mathcal{T}(\mathrm{A}\rightarrow\mathrm{B})}\ \text{not: }\mathcal{T}\rightarrow\text{-intro}}$$

5.5.1.3 Distribution of Truth

$$\dfrac{\mathcal{T}(\mathrm{A}\rightarrow\mathrm{B}) \quad [\mathcal{T}(\mathrm{A})]}{\mathcal{T}(\mathrm{B})}\ \text{not: }\mathcal{T}\mathrm{MM}}{\mathcal{T}(\mathrm{A})\rightarrow\mathcal{T}(\mathrm{B})}\ \rightarrow\text{-intro} \qquad \dfrac{\mathcal{T}(\mathrm{A}\rightarrow\mathrm{B}) \quad [\mathcal{T}(\mathrm{B})]}{\mathcal{T}(\mathrm{A})}\ \mathcal{T}\mathrm{MM}}{\mathcal{T}(\mathrm{A})\rightarrow\mathcal{T}(\mathrm{B})}\ \text{not: }\rightarrow\text{-intro}$$

5.5.1.4 Compounding of Truth

$$\dfrac{\dfrac{\mathcal{T}(\mathrm{A}) \to \mathcal{T}(\mathrm{B}) \quad [\mathcal{T}(\mathrm{A})]}{\mathcal{T}(\mathrm{B})}\ \text{not: MM}}{\mathcal{T}(\mathrm{A} \to \mathrm{B})}\ \mathcal{T}\text{-intro} \qquad \dfrac{\dfrac{\mathcal{T}(\mathrm{A}) \to \mathcal{T}(\mathrm{B}) \quad [\mathcal{T}(\mathrm{B})]}{\mathcal{T}(\mathrm{A})}\ \text{MM}}{\mathcal{T}(\mathrm{A} \to \mathrm{B})}\ \text{not: } \mathcal{T}\text{-intro}$$

So, modus morons and the usual conditional introduction, when put together, fail to fulfill the principles of Disquotation and Semantic Ascent as well as those of Compounding and Distribution of Truth. This is of course due to the lack of harmony this combination of rules of inference is guilty of.

5.5.2 Modus Morons Combined with the Deviant Conditional Introduction

We already know that the combination of modus morons combined with the deviant conditional introduction is just a notational variant of the combination of modus ponens with the usual conditional introduction. And we have seen in our attempt to prove Disquotation that the deviant introduction rule would have been exactly what we need to fill the gap.

So, as is to be expected, we are now able to prove the four principles:

$$\dfrac{\dfrac{\mathcal{T}(\mathrm{A} \to \mathrm{B}) \quad \dfrac{[\mathrm{B}]}{\mathcal{T}(\mathrm{B})}}{\mathcal{T}(\mathrm{A})}\ \mathcal{T}\text{MM}}{\dfrac{\mathrm{A}}{\mathrm{A} \to \mathrm{B}}}\ \to\text{-intro}_{\text{dev}} \qquad \dfrac{\dfrac{\mathrm{A} \to \mathrm{B} \quad \dfrac{[\mathcal{T}(\mathrm{B})]}{\mathrm{B}}\ \text{MM}}{\mathrm{A}}}{\mathcal{T}(\mathrm{A} \to \mathrm{B})}\ \mathcal{T}\text{-intro}_{\text{dev}}$$

Disquotation Semantic Ascent

$$\dfrac{\dfrac{\mathcal{T}(\mathrm{A} \to \mathrm{B}) \quad [\mathcal{T}(\mathrm{B})]}{\mathcal{T}(\mathrm{A})}\ \mathcal{T}\text{MM}}{\mathcal{T}(\mathrm{A}) \to \mathcal{T}(\mathrm{B})}\ \to\text{-intro}_{\text{dev}} \qquad \dfrac{\dfrac{\mathcal{T}(\mathrm{A}) \to \mathcal{T}(\mathrm{B}) \quad [\mathcal{T}(\mathrm{B})]}{\mathcal{T}(\mathrm{A})}\ \text{MM}}{\mathcal{T}(\mathrm{A} \to \mathrm{B})}\ \mathcal{T}\text{-intro}_{\text{dev}}$$

Distribution of Truth Compounding of Truth

5.6 No Truth Table

Our third argument employs the compatibility of truth tables and natural deduction rules. While the introduction and elimination rules for the usual connectives are compatible with the binary truth values of classical logic, this is not the case for modus morons together with the usual introduction rule for the conditional. One can see this by comparing the information about truth tables that is implicit in these two rules.

Let us explain this for an unproblematic case first. Take for example the introduction and elimination rules for conjunction.

$$\frac{A \quad B}{A \wedge B}\ \wedge\text{-intro} \qquad \frac{A \wedge B}{A}\ \wedge\text{-elim} \qquad \frac{A \wedge B}{B}\ \wedge\text{-elim}$$

(conjunction introduction) (conjunction elimination)

The introduction rule allows to derive 'A ∧ B' on the basis of 'A' and 'B'; and the elimination rule allows to derive 'A' as well as 'B' from 'A ∧ B'. For these rules there exists a truth table that in a way contains the same information:

A∧B	T	F
T	T	F
F	F	F

So, for every distribution of truth and falsity over 'A' and 'B', there exists a truth value for 'A ∧ B'. The same holds for the usual introduction rule for the conditional in combination with modus ponens.

But in the case of modus morons combined with the usual introduction rule for the conditional there exists no truth table. To see this consider the case in which 'A' is false and 'B' is true. Recall that the introduction rule for the conditional looks like this:

$$\frac{\begin{array}{c}[A]\\ \vdots \\ B\end{array}}{A \rightarrow B}\ \rightarrow\text{-intro}$$

For the distribution where 'A' is false and 'B' is true, one gets a derivation of a true formula from a false assumption. Therefore the conditional 'A → B' has to be true, because the derivation is successful.[16]

[16] To see this more clearly consider the following. If conditional proof is a valid form of argument, then it is truth-preserving. Everyone who wants to use it as an introduction rule for an operator would presuppose this much. So, if conditional proof is truth-preserving, then each instantiation for a certain distribution of truth values over 'A' and 'B' leads to the same truth value for the conditional 'A → B'. Now take e.g. a conditional proof that starts with a derivation of 'A ∨ ¬A' from the assumption 'A'. (We get this by replacing 'B' with 'A ∨ ¬A' in the general form of the rule of conditional proof.)

$$\frac{\begin{array}{c}[A]\\ \vdots \\ A \vee \neg A\end{array}}{A \rightarrow A \vee \neg A}\ \rightarrow\text{-intro}$$

In this example 'A ∨ ¬A' is derived from the assumption 'A', and then 'A → A ∨ ¬A' is deduced. Now 'A' could well be false. But even then 'A ∨ ¬A' would be true. So we have the very distribution of truth values for the antecedent and the consequent of a conditional that we are interested in. Now the conclusion 'A → A ∨ ¬A' is derivable according to the rule of conditional proof and hence is a theorem. So it must be true. But if the conclusion of this example is true and conditional proof is truth-preserving in general, then the conclusion of such a conditional proof—a conditional with a false antecedent and a true consequent—must be true in general.

By contrast, according to modus morons the conditional 'A → B' has to be false for the same distribution of truth-values over 'A' and 'B'. Recall that modus morons (as an elimination rule for the conditional) looks like this:

$$\frac{\mathrm{B} \quad \mathrm{A} \rightarrow \mathrm{B}}{\mathrm{A}}\ \mathrm{MM}$$

Now if 'A' is false, then the conclusion of this deduction is false. So, if the deduction is truth-preserving there has to be one false premiss. The premisses of this deduction are 'A → B' and 'B'. Now 'B' is already supposed to be true. Therefore 'A → B' has to be false.

All in all we can see that, for this distribution of truth-values over 'A' and 'B', 'A → B' has to be false according to modus morons and true according to the usual introduction rule. Therefore there is no classical truth value for 'A → B' if 'A' is false and 'B' is true. If a definite distribution of truth values for a connective defined by introduction and elimination rules is desirable, then the combination of modus morons and the classical introduction rule for the conditional are at a considerable disadvantage.

And even if the existence of a binary truth table is not a precondition for a logical operator being well-behaved, this result still is a problem for Haack's use of modus morons (at least as long as she does not have the deviant introduction rule in mind). Haack's main argument makes essential use of the usual truth table of the conditional, but we have shown that there cannot be *any* truth table for the combination of modus morons and the usual introduction rule.

For the combination of modus morons and the deviant introduction rule there again is a truth table, which looks like this:

$A \rightarrow B$	T	F
T	T	T
F	F	T

The only case in which this conditional is false, is when 'B' is true and 'A' is false. We can see that this truth table is similar to the truth-table for the usual conditional, which is false when 'A' is true and 'B' is false. So the case in which the usual conditional is false is just the case in which the deviant conditional is false with inverted truth values for 'A' and 'B'. This underlines the point that the usual conditional and the one defined by modus morons and the deviant introduction rule are merely notational variants of each other.

5.7 Inconsistency

In the last part of her argument based on the analogy of modus morons and modus ponens Haack considers a potential refutation of her thesis that it is based on showing that modus morons "cannot be truth-preserving" (Haack 1996, 189) because it leads to inconsistency. She phrases this refutation as a version of an argument used by Nuel Belnap against '*tonk*', suited to modus morons, as follows (cf. Ibid.):

(1)		$(p \wedge \neg p) \rightarrow (p \vee \neg p)$	
(2)		$p \vee \neg p$	
(3)		$p \wedge \neg p$	(1), (2), MM

This derivation consists simply of deducing line (3) from lines (1) and (2), which serve as premisses for an application of modus morons in one single step. Using two classically valid theorems in the first and in the second line, namely '$(p \wedge \neg p) \rightarrow (p \vee \neg p)$' and '$p \vee \neg p$', this argument obviously shows that the addition of modus morons would make any system of classical logic inconsistent, for each such system includes the law of excluded middle '$(p \vee \neg p)$' as a theorem, which is presupposed in the second premiss. Haack counters that since not all systems of logic contain this particular formula as a theorem, modus morons may still be suitable as a rule of inference for some non-classical systems, like, for instance, minimal logic. She argues that a system containing modus morons as a rule of inference could "hardly be assumed to be otherwise conventional" (Ibid.).

The following argument is going to show that this counter-argument against the reproach of inconsistency is hardly sufficient. It will demonstrate that modus morons—if it is combined with the usual introduction rule for the conditional—trivializes every system containing it. The following proof shows that a derivation of any given formula 'B' would be possible:

(1)	*	A	assumption
(2)	*	A	(1), repeat
(3)		$A \rightarrow A$	(1)–(2), CP ($\rightarrow$ -intro)
(4)	*	B	assumption
(5)	*	$A \rightarrow A$	(3), repeat
(6)		$B \rightarrow (A \rightarrow A)$	(4)–(5), CP($\rightarrow$ -intro)
(7)		B	(3), (6), MM

In this short proof the assumption 'A' is discharged by using conditional introduction, so that '$A \rightarrow A$' and '$B \rightarrow (A \rightarrow A)$', which here function as premisses for the application of modus morons, are independent of any assumption. Therefore the conclusion is, too. It is important to note that this derivation does not rely on the assumption of any theorem of any special logical system at all (be it classical, intuitionistic, or minimal), for it only uses conditional proof and modus

morons as inference rules. Thus, this derivation holds true for any system containing these rules! Since inconsistency is surely unacceptable, modus morons as an elimination rule for the usual conditional is, too.

Of course, an analogous proof of inconsistency does not hold in the other case, when modus morons is combined with the deviant introduction rule for the conditional. And obviously, such a derivation *could* not work, because as we have seen, modus morons in combination with the deviant introduction rule is just a notational variant of the ordinary conditional; and no one doubts that classical, intuitionistic and minimal logic are consistent.

At the same time, this proof of inconsistency stands in an interesting relation to the concept of harmony, since Dummett attempts to make the latter more precise through the formal concept of conservativeness. According to his suggestion, rules are harmonious for a new operator if and only if they are conservative, that is, they should not allow derivations of formulas which do not include the new operator and which hitherto were not derivable. Since, as we now know, each consistent system turns into an inconsistent one when the combination of modus morons and the conditional introduction rule (as rules for the same operator) is added, this addition is a fortiori not conservative. So we see that modus morons, if it is to be used as an elimination rule for the conditional in combination with its usual introduction rule is not only no possible deviant rule of inference of any consistent logical system, but that it also fails at conservativeness as a possible criterion for harmony. The same argument in other words: It seems that not being harmonious and trivializing an otherwise consistent system are interrelated, since being conservative would have precluded the operator from trivializing the system added to.

These considerations show again that Haack's suspicion that a purely syntactically defined rule of deduction might be justified by an argument that employs the very same rule is misled, because any rule of inference has to meet the demands of harmony.

5.8 Summary and Conclusion

5.8.1 Summary

In summary, we have shown of four properties desirable for any logical operator that although they are instantiated by the usual conditional, the rogue conditional defined by modus morons together with conditional proof does not instantiate them: The rogue conditional fails to be reducible; for it the inferences corresponding to the Tarskian truth scheme and the commutation of the truth predicate with logical operators cannot be derived; it cannot have a truth table; and it renders inconsistent and trivializes every logical system it is added to. On the same four points, the deviant conditional that is defined by modus morons together with our deviant introduction rule again fares well, which is not surprising since this deviant

conditional is only a notational variant of the usual conditional (one might say that we have done no more than change the direction of the arrow).

These formal results refute Haack's main argument because they thoroughly undermine the similarity between modus ponens and modus morons which is the most important presupposition of her argument. While she claims that modus morons is "on a par" (Haack 1996, 189) with modus ponens as a candidate for an inferential rule, we have shown that this cannot be the case. Our only assumption has been that, as it makes no sense to treat modus morons in total isolation, it is most natural to investigate its behavior in an environment that it shares with the usual introduction rule for the conditional, or in an environment shared with the deviant introduction rule for the conditional. While the test of its behavior in the first environment shows that it lacks all kinds of properties a well-behaved inferential rule should have, the test of its behavior in the second environment brings us back to the usual conditional and—in effect—to a setting where modus morons is nothing else but modus ponens in disguise. We conclude that Haack has not succeeded in showing the rule-circular justification of modus ponens to be problematic.

5.8.2 Praise of Philosophical Proof-Theory

We are aware that our result is negative only: If the deductive justification of deduction is problematic, this cannot be shown by Haack's argument. This is of course far from showing that there is an unproblematic way of justifying deduction. As we nonetheless would like to end on a positive note, we will close with some brief and suggestive remarks about the setting in which we conducted our investigation—remarks about and some praise for natural deduction and, more importantly, philosophical proof-theory.

Firstly, we think that our investigation shows in an indirect way that natural deduction is well-suited to make important aspects of a logical system transparent which are more difficult to discern when the same system is given in a Frege-Hilbert style axiomatic representation. More specifically, we think that we can gain some insights about the inferential figure of modus ponens if we understand it as an elimination rule for the conditional.

Secondly, we think that our investigation shows how fruitful the notion of harmony is that philosophical proof-theorists hold dear. Three of our four formal arguments can be understood as using the notion of harmony to shed light on Haack's deviant rule of modus morons. In each case we use a different candidate for the formal explication of harmony, namely conservativeness, reduction, and inferential truth theory. As modus morons is found wanting in the light of all three, we need not settle on a specific way of explicating harmony formally—but we think that our investigation as a whole attests to the power of the intuitive notion.

Thirdly,—and this is probably the most suggestive of our remarks—we see the result of our investigation as an indirect piece of evidence for the orientation in the philosophy of logic(s) called "philosophical proof-theory." The proof-theoretical

conviction that each elimination rule must fit its introduction rule has helped us get rid of modus morons, which is a desirable result because modus morons so clearly does not capture what we intuitively hold to be a good inference. The other proof-theoretical conviction we have cited, that harmonious rules constitute the meaning of logical operators, might even reopen the road to a justification of deductive reasoning by virtue of the meaning of the logical words. Specifically, this might be a way to rehabilitate the idea that modus ponens can be justified in an objective way: If we understand deduction not as a mere game of pushing around symbols, but as an explication of our inferential practices, then the meaning of 'if . . . then'-phrases suffices to confer warrant to the inferential rule of modus ponens. Haack mentions this way of justifying deductive reasoning, but only very briefly and in order to dismiss it out of hand (cf. Haack 1996, 188 f.). We think this dismissal is overly hasty. And we would like to suggest that its success in rehabilitating modus ponens can actually be seen as a reason to adopt the orientation of philosophical proof-theory when doing logic.[17]

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[17] We are, of course, not alone in this assessment. Boghossian writes: "The satisfying intermediate position concerning warrant transfer, I therefore want to propose, is that in the case of fundamental inference the implicated rule must be meaning-constituting. Unlike the purely external requirement of truth-preservation, this view explains why the thinker is entitled to the rule; and yet unlike the impossible internalism, it does so without requiring that the thinker know that the rule is truth-preserving." (Boghossian 2001, 29) And here, Tennant agrees with Boghossian: "Boghossian's suggested solution to his problem is that the introduction and elimination rules for a (well behaved) logical connective are meaning-constituting. They are therefore not in need of any justification—or at least are none the poorer for having only rule-circular justifications. This is a view already widely held within the above-mentioned community [of philosophical proof-theorists]. So I am sure that I shall not be the only proof-theoretically inclined philosopher of logic who would regard Boghossian as having confirmed us in our views." (Tennant 2005, 648)

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Chapter 6
The (Dis)continuity of Philosophy: Reflections on Susan Haack's Critical Common-Sensism

Christoph Fischer and Eva-Maria Jung

6.1 Introduction

The focus of our paper is the conceptual backbone of Susan Haack's metascientific considerations: the Peirce-inspired "Common-sensist Continuum", which Haack introduces in order to develop an epistemology of science that, while admitting that there are objective epistemic standards, abandons the idea that science can be characterized by a unique logical or quasi-logical method. As such, Haack's position can be understood as a middle-course approach between what she calls "Old Deferentialism" and "New Cynicism". Critical Common-sensism offers an intuitively plausible description of the interrelations of the various scientific inquires. It does not only consider the sciences as being continuous with common place forms of human inquiry, it deals with a term of "science" that reaches beyond the spectrum of the natural sciences, incorporating the social sciences and philosophy, as well. We will argue, however, that it leaves some important questions unanswered. These questions especially concern the role of philosophy within the scientific continuum.

Haack's considerations on philosophy and inquiry in general are influenced by Peircean and Quinean philosophy. Haack adopts Peirce's *synechism*, which, roughly, is a methodological principle that relies on the tendency to think of the world as a continuous one (see, e.g., Haack 2013, 83 ff.), and his *Critical Commonsensism*, which, roughly, is the qualified acceptance of our everyday, commonsense beliefs (see, e.g., Haack 2013, 93 ff.). Quine's influence on Haack concerns the so called *web of belief*, namely the conviction that various scientific disciplines

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contribute to our steadily devised, ideally coherent net of empirical knowledge about the world. Haack derives yet another lesson from both Peirce *and* Quine: the doctrine that any adequate inquiry, including philosophy, ought to be conducted in a *scientific manner*, meaning first and foremost that it must be *empirical* in spirit (see, e.g., Haack 1998, 48 ff. as well as Haack 2009, 167–79).

From these interrelated and mutually supportive ideas—synechism, Critical Common-sensism, the web of belief, empiricism—Haack derives the gradualist thesis that the various and manifold forms of human inquiry are *continuous* with each other. The conceptual backbone of Haack's reflection on science and philosophy, which we will consider in this paper, is what one might call "the Continuum of Critical Common-sensism". It comprises essentially two forms of inquiry: the common place and the scientific form. Our interest concerns the continuum's scientific end.

The paper is divided in three sections. In the first section, the core ideas behind Haack's "Critical Common-sensism" are reconstructed. In the second section, the criteria she offers for assigning certain kinds of inquiry to her postulated scientific continuum are outlined. In the third section, we argue that the extent to which Haack allocates philosophy to this continuum is unclear. We find that there is a certain tension in Haack's metaphilosophy: while she aims to assign philosophy to the continuum, she also seeks to acknowledge some rather deep differences between philosophy and other, "normal" sciences. Moreover, we think that the vagueness of one of the continuum's criteria, the reliance on "experience", might lead to some unwanted consequences for Haack's Critical Common-sensism.

6.2 Haack's "Critical Common-Sensism"

The thesis that science is continuous with everyday inquiry and is best understood as "the long arm of common sense"[1] has guided Haack's writings in epistemology and philosophy of science from an early stage on. At the core of this so-called "Critical Common-sensism" lies the conviction that debates on the status of science are predominated by two competing approaches, neither of which, for different reasons, succeeds: *Old Deferentialism* and *New Cynicism*.

Old Deferentialism includes a variety of approaches, according to Haack, all of which aim to explain the success of the sciences by reference to an exclusive "method of inquiry of a narrowly logical or quasi-logical character" (Haack 2003, 115), clearly demarcating science from other forms of inquiry. Old Deferentialism, Haack holds, fails simply because there is no such method. On the contrary, science is best understood as a kind of genuine inquiry and, as such, as "an attempt to discover the truth of some question or questions" (Haack 2003, 96). In this picture, science, rather than being distinguished and unique in any profound sense, is continuous with other kinds of empirical inquiry, especially with everyday common

[1] Haack borrows this term from Gustav Bergeman, see, e.g. Haack 2003, 95.

sense. Haack does, however, agree with Old Deferentialism in terms of the peculiar success of the sciences. She nevertheless claims that this success is not due to a superior methodology, but rather to "the many and various ways to extend and refine the resources on which we all rely in the most ordinary of everyday empirical inquiry" (Haack 2003, 95). Scientific research, from this perspective, is a form of enhanced common sense research by means of, e.g., sophisticated research instruments. While Old Deferentialism—by assuming a specific scientific method and a criterion of demarcation—focuses only on "one part of a whole complicated story" (Haack 2003, 96), Haack pleads for a "multi-dimensional explanation" (Ibid.) of the successes and failures of the sciences by taking into account not only the logical dimensions, but also the various socio-historical parameters as well as the technical tools for empirical inquiry that have been invented over time.

New Cynicism—which Haack believes is in direct opposition to Old Deferentialism—denotes a variety of "historical-sociological-rhetorical approaches" (Haack 2003, 52) that assume that there neither is a unique scientific method, nor any objective epistemic or rational standard in general. Accordingly, science is by no means epistemologically distinguished from other human activities. New Cynicism, furthermore, assigns a principally arbitrary character to science insofar as it is considered an institution, which is shaped by the interests of politics or social groups, and influenced by historical contingencies. Although the New Cynicists are right in their skepticism about a superior scientific method, as well as in their emphasis on the social and historical influences on scientific inquiry, according to Haack, a problem arises when they draw the unwarranted conclusion "that the whole idea that natural-scientific inquiry is in some way epistemologically distinguished must be an illusion." (Haack 2003, 115). Thus, Haack accuses New Cynicism of being "too dismissive to the epistemological pretensions of the sciences" (Ibid.) and of neglecting the central role that epistemological concerns actually play within philosophy of science.

As Haack points out, Critical Common-sensism as a middle-course approach is a promising alternative to Old Deferentialism and New Cynicism, both of which focus on rather narrow conceptions of the nature of science. In the Critical Common-sensist picture, "science" is taken "to pick out a federation of epistemologically distinguished kinds of inquiry" (Haack 2003, 115), which are neither unified by a specific method nor unique in this sense, but are continuous with ordinary common sense. This picture does, however, allow for a distinction between genuine inquiry and pseudo-inquiry, which only pretends to aim at truths while engaging in biased research. Against this background, investigative journalism, historical analysis, the repair of a car, biochemistry, and the figuring-out of how to get rid of the stains in my laundry (Haack 2013, 93)—all these activities are forms of inquiry, to which the employment of critical common sense is key.

6.3 The Scientific Continuum

It is important to note that Haack's Critical Common-sensism not only acknowledges the continuity between common place forms of inquiry and natural scientific forms of inquiry, but also the continuity between natural scientific forms of inquiry,

the social sciences, and philosophy. "Science", then, comprises a vast variety of disciplines which are continuous with each other. It is this end of the Critical Common-sensist continuum, the scientific end, which we will be concerned with in this section.

In *Evidence and Inquiry*, Haack—while dealing with the ambiguity in Quine's use of the term "science"—introduces two notions of "science" (Haack 2009, 172 ff.): (1) science in a *broad sense*, and (2) science in a *narrow sense*. Science in a broad sense is simply the frame comprising all sorts of (organized and intersubjectively relevant) empirical inquiries contributing to the Quinean web of belief. Science in a narrow sense, on the other hand, denotes a range of empirical disciplines *within* these manifold forms of empirical inquiry, namely the natural sciences, such as physics, chemistry, and biology. Nevertheless, Haack admits that the lines of demarcation between the different ranges of disciplines within science in a broad sense are not easy to draw. The social sciences, e.g., psychology, could indeed be referred to as having the status of (or at least a status close to) the natural sciences because of their strong reliance on systematized empirical investigation. Nevertheless, they deal with a different *subject matter*, which is of "intentional" character (Haack 2003, 152). As Haack puts it, the social sciences are, compared to the natural sciences, "the same, only different."[2] They are the same insofar as they count as forms of "systematic empirical inquiry" (Ibid.), yet they are different insofar as they "take human beings' beliefs, intentions, etc., as part of their subject matter" (Haack 2013, 49). This subject matter requires different methods of inquiry such as "well-designed questionnaires, double-blinding, test of statistical significance, and so forth" (Ibid.). As we can see, Haack's Critical Common-sensist continuum unifies social and natural sciences to a certain degree and yet acknowledges differences among the various disciplines.

Not every kind of human activity, however, can be allocated to the continuum. For this to happen, an activity has to fulfill essentially three criteria. We can derive these criteria from Haack's discussion of the Peircean reflections on the scientific spirit of inquiry. This discussion is present in many of Haack's publications. We focus on two papers in particular, namely, "As for that Phrase 'Studying in a Literary Spirit. . .'" and "The Legitimacy of Metaphysics". For a given discipline to be allocated to the Critical Common-sensist continuum, it must (1) constitute a kind of "disinterested truth-seeking" (Haack 1998, 49), i.e., it must pursue truth for truth's sake only, unaffected by any kind of partisanship and partiality, (2) be guided by well-conducted reasoning, and (3) rely on experience. Explanations which cannot be derived from experience need to be set aside (Haack 1998, 50 f.).[3]

With reference to these criteria, Haack argues that literature, religion, and theology are discontinuous. The reason why literature cannot be placed on the continuum lies in the fact that it (though representing a kind of inquiry) is undertaken for a different *end* than scientific inquiry, and thus does not satisfy criterion (1):

[2] See the title of Chap. 6 in Haack 2003.

[3] See also Haack's Peirce-guided repudiation of "aprioristic" metaphysics in Haack 2007.

> The inquiry in which writers of imaginative literature engage, whether a matter of informal observation and pondering over the quirks of human nature or of systematic research into a place or time, is essential to their enterprise—*but as a means to the end of writing* edifying, entertaining, provocative, expressive, moving, illuminating ... novels, places, etc. And the writing in which scientists engage is essential to their enterprise too—*but as a means to the end of finding out* significant explanatory truths, well warranted by evidence, about the world and how it works. (Haack 2003, 209)

Religion and theology, according to Haack, do not belong to the continuum for different reasons. Whereas religion is "best conceived, not as a kind of inquiry, but as a body of belief, a creed" (Haack 2013, 200)—a fact that violates criterion (1)—theology indeed represents a form of inquiry but, as Haack states, "there are significant discontinuities between theological inquiry and such everyday [empirical, NB] inquiry: in the kinds of explanation they offer, and in the kinds of evidential resources to which they appeal" (Haack 2013, 201). Theistic explanations refer to God as a powerful supernatural agent and are based on elitist religious experiences that are not supported by our sensory interactions with the world. Thus, theology drops out of the continuum because it essentially violates criterion (3).

We do not want to discuss Haack's view on literature, religion and theology in detail. For the aim of our paper it is sufficient to note that the three criteria mentioned above are at the core of Haack's theory of scientific continuity, which is the background for her metaphilosophical considerations.

6.4 The Role of Philosophy

We will now discuss two problems concerning the role of philosophy with regard to Haack's continuum. First, although Haack asserts philosophy's continuity with the natural sciences, certain facts also suggest philosophy's discontinuity, as she herself acknowledges. Second, a problem arises concerning the vagueness of the continuum's third criterion, or the reliance on *experience*. We will hold that this vagueness invites certain philosophical approaches to join the continuum which Haack is obliged to exclude. This is problematic as it undermines the continuum's initial purpose, which was to distinguish exactly these kinds of illegitimate philosophical approaches from legitimate philosophical inquiry. Both problems, however, are due to a much deeper ambiguity: it is simply unclear whether the continuum is intended to be descriptive or normative.

6.4.1 Continuity or Discontinuity?

How exactly is philosophy, according to Haack, related to the scientific continuum? We are not really sure. On the one hand, she explicitly assigns philosophy to the continuum; on the other hand, she acknowledges some considerable differences between philosophical and scientific inquiry so that philosophy, at least in part,

seems to drop out of the continuum. In the following, we will discuss this apparent inconsistency in detail.

Haack allocates philosophy to the scientific continuum insofar as it is "a kind of inquiry, an effort to discover the truth of the questions within its scope." (Haack 2007, 41). She is very clear about the fact that philosophical questions do differ from questions in other scientific areas: there are certain tasks, which, although their completion may very well be assisted by science, genuinely fall to and can only be resolved by philosophy. They are, as Haack puts it, "entirely philosophical in character." (Haack 2009, 183). What makes a question or an outlook on a problem philosophical is its degree of "generality and abstraction." (Haack 2009, 176). Examples given by Haack are such epistemological issues as the problem of induction, the analysis of concepts such as "evidence" and "truth," metaphysical questions such as whether there is uniformity in nature, or metatheoretical questions such as whether the sciences (or philosophy, for that matter) have a unique, epistemic status (see Haack 2009, Haack 2007). Albeit having a peculiar scope of interest, philosophy is, as Haack suggests, only *gradually* differentiated from other disciplines (cf. Haack 2009, 176). There is no *categorical* distinction between philosophy and science that would break the continuity. This becomes even more apparent when we consider her Peirce-inspired defense of a *scientific philosophy*—"scientific" meaning that it must rely on "experience and reasoning" (see, e.g., Haack 2007, 33). As philosophy benefits from natural scientific insights, it should acknowledge and welcome the natural sciences' contributory relevance. Philosophy also employs an own kind of experience. The experiential character of philosophy does, however, differ from that in the special sciences insofar as philosophical inquiry "requires close attention to experience of the most familiar kind rather than the recherché experience needed by the special sciences." (Haack 2007, 29).

From the passages that have been quoted throughout this paper, it seems clear that Haack assigns philosophy to the continuum. In "Six Signs of Scientism", however, she seems to admit that at least certain philosophical disciplines, e.g. logic, ethics, aesthetics, and epistemology, are discontinuous with empirical inquiry. As she puts it, "[F]ormal disciplines like logic or pure mathematics don't qualify as sciences, nor normative disciplines like jurisprudence or ethics or aesthetics or epistemology" (Haack 2013, 112). Possibly, this apparent inconsistency in Haack's view could be clarified by reference to the two notions of science we mentioned in the second section. She might simply emphasize here that these disciplines do not qualify as *science in a narrow sense*, yet do qualify as *sciences in a broad sense*. This interpretation accords with Haack's modest naturalism which she introduces in order to "steer clear both of apriorism and scientism—the Scylla and Charybdis" of recent philosophy (Haack 2007, 29) and which emphasizes the contributory role of the natural sciences, as stated above. We will have a closer look at Haack's modest naturalism before continuing with our criticism.

Haack explicitly ascribes legitimacy to *a priori* reasoning in those disciplines and rejects radical kinds of naturalism that relinquish the *a priori* altogether. When it comes to whether we should choose radical naturalistic positions or the rival purely *a priori* approaches, Haack argues that "the truth [...] lies somewhere in between." (Haack 2003, 307). With regard to epistemology, "it is not within the sciences to

articulate core epistemological concepts and values" even though "they do have an epistemological contribution to make." (Ibid.). She defends an approach "in which the concept of contributory relevance is key." (Haack 2003, 309). The natural sciences, particularly psychology, cannot tell us what evidence is, but they can indeed improve our understanding of our cognitive capacities and limitations (cf. Ibid.). Haack thus believes that the evaluative project in epistemology relies on *a priori* reasoning and cannot be replaced by an overly ambitious naturalistic perspective.

With regard to metaphysics, Haack defends the scientific understanding of the discipline suggested by Peirce. The questions metaphysics asks cannot be solved by the methods of experimental research employed by the natural sciences. Nevertheless, metaphysical questions are naturally *empirical questions* insofar as they "require[s] close attention to experience of the most familiar kind." (Haack 2007, 29). As she states:

> Not that metaphysicians need to conduct experiments or set off on expeditions; for metaphysical abductions and meta-abductions can be expected to be of the highest generality, and the evidence by which they stand or fall won't be in the least recherché. If we are wondering whether there are uniformities in nature, for example, no fancy equipment or skillful experiment will help; nevertheless, the common experience that we can successfully predict how animals, or people, or stuff will behave is surely apropos (Haack 2007, 42).

The modestly naturalistic estimate that metaphysics can be experiential in this sense stems from Haack's innocent realist conviction. She writes, "[Although] answering metaphysical questions often requires strenuous efforts at conceptual clarification [. . .] metaphysical theories are about the world, not just about conceptual schemes or linguistic frameworks or the world-as-it-appears-to-us." (Haack 2007, 42)

Haack expresses, therefore, an overall convincing idea of how philosophy can conform to the continuum's criteria. Philosophy combines *a priori* reasoning, which is regarded as a well-conducted reasoning, with a "close attention to experience" and includes the contributions of the natural sciences whenever it is relevant. It is not clear, however, how logic and pure mathematics figure into the continuum since they are paradigm examples of essentially formal sciences, which, therefore, do not correspond to the criterion of experience, as there is still no obvious reliance on experience within these disciplines. Even if one acknowledges that these disciplines are of obvious relevance for most of the sciences placed on the continuum (physics, for instance, is highly mathematical), these *autonomous disciplines* themselves cannot be located on the continuum.

Apart from this problem, there is still a tension in Haack's claim that philosophy, at least to some respect, diverges significantly from other disciplines. One crucial difference between philosophy and the other sciences concerns, as Haack suggests, the plurality of methods in philosophy. She asserts that she is "inclined [. . .] to a tolerantly expansive (but not boundless) view of the scope of philosophy and a flexibly pluralistic (but not promiscuous) attitude." (Haack 2013, 237). Another important difference is the progressive character of philosophy which is, according to Haack, unlike the progressive character of the other "normal" sciences. "I believe, there can be, and sometimes is, progress in philosophy. Nevertheless, philosophy really isn't much like normal science; and neither, I'm afraid, does it presently seem to be on any clear forward path." (Haack 2013, 248).

6.4.2 The Vagueness of "Experience"

As we have seen, the employment of experience in philosophy, according to Haack, takes essentially two forms: (1) the natural sciences can be of "contributory relevance" for philosophical questions. In its consideration of natural scientific insights, philosophy, then, becomes empirical. (2) Philosophy requires what Peirce calls "close attention to observation of the most familiar kind." (Haack 2007, 29).

But these descriptions are too vague. In fact, these descriptions are so vague that even those philosophical enterprises that Haack dismisses or should dismiss as illegitimate forms of inquiry, may be allocated to the continuum. For instance, "experimental philosophy" is a fairly new movement in philosophy that relies strongly on empirical methods (see Knobe and Nichols 2008). *Prima facie* it seems to be an ideal candidate for the continuum. However, experimental philosophy often reaches conclusions which doubt the very foundation of the continuum insofar as it claims that relying on common sense as an evidential resource is, at least to some degree, unjustified. These conclusions in experimental philosophy are based on empirical psychological research, which suggests that there is a vast diversity of common sense beliefs. Another example is Kantian metaphysics, which Haack believes to be inadequate insofar as it relies solely on aprioristic means (cf. Haack 2007, 5 f., Kant 2001 [1783], §§. 1 and 2). Metaphysics, according to Kant, is an *a priori* enterprise. Yet if one considers the way in which Kant obtained his insights, it is easy to argue that Kant's reflections are not of the world-isolated armchair kind after all. Kant's investigation into our epistemic constitution (i.e. into the structure of "pure reason") does, of course, rely on "close observation" of our epistemic capacities.

To sum up, one must acknowledge that there is a deep controversy among philosophers when it comes to determining the best methods for resolving certain philosophical problems and how these methods should be applied. Furthermore, one also has to acknowledge the diversity of fundamental convictions, which is characteristic of philosophy. Haack admits, of course, that philosophy is characterized by a plurality of methods. Yet we believe that Haack is not completely aware of the depth of this plurality and of the implications it might have for her Common-sensism. The examples above have already shown that the application of the three criteria, particularly of the reliance on experience, allows different interpretations. Therefore, the criteria cannot, as such, serve as a means of legitimacy in the way Haack intends. The criteria are so vague that only very extreme positions can be said to drop out of the continuum (e.g., a straw man).

Haack might object that Critical Common-sensism is not meant to offer criteria of legitimacy after all, but rather aims at an adequate description of the variety of scientific inquiry. This is in accordance with her claim that "an axe wielding demarcationalist approach" should be avoided and replaced by her Critical Common-sensist account, which acknowledges the "epistemological, methodological, and metaphysical continuities between inquiry in the science and everyday empirical inquiry." (Haack 2013, 93). So it would seem, on the one hand, that

Haack does not consider the Critical Common-sensist continuum as a distinguishing legitimate from illegitimate inquiry. On the other hand, she indeed implicitly ascribes normative powers to the continuum, particularly by defending a modestly naturalistic understanding of philosophy.

6.5 Conclusion

We have argued that there is a friction between Haack's intention to include philosophy into her Common-sensist continuum and her emphasis on the fact that philosophy diverges significantly from other "normal" sciences. We have, furthermore, pointed out some possible consequences that arise from the ambiguity of the continuum's third criterion, the reliance on *experience*.

We think Haack should be more explicit about the overall aim of the Critical Common-sensist continuum, precisely whether it shall offer an adequate description of the variety of scientific inquiries and their interrelating and overlapping features, or whether it shall serve as a legitimation of "proper" philosophy. A more explicit account would help us to determine the extent to which philosophy is "the same, only different."

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Chapter 7
Lessons in Multiculturalism and Objectivity? Puzzling Out Susan Haack's Philosophy of Education

Markus Seidel and Paul-Christoph Trüper

7.1 Introductory Remarks

To bring up the topic of education in a symposium on Haack's philosophy might come as a surprise: are there any pertinent references to the philosophy of education in her work, after all? To be sure, Haack is mostly known for her work in logics, epistemology, philosophy of science, philosophy of law, and related domains. However, an overarching theme of her philosophy has been the methods and conditions of scrupulous inquiry from which questions concerning adequate educational means and schemes naturally emerge. Accordingly, reflection on educational issues is of major interest to Haack's general philosophical endeavor.

In fact, her work already *contains* casual references to educational matters, contouring what might develop into an elaborate philosophy of education. In this paper, we seek to build on these preliminaries in order to explicate what we take to be Haack's implicit philosophy of education, and to highlight potential tensions and critical issues.

7.2 Haack on Multiculturalism and Education

In her paper "Multiculturalism and Objectivity" Haack sets out to discern plausible from erroneous forms of multiculturalism. She distinguishes four basic forms: social multiculturalism, pluralistic educational multiculturalism, particularistic

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educational multiculturalism and philosophical multiculturalism (Haack 1998, 137).[1] The focus of Haack's critical discussion is on the latter form and its potentially harmful consequences for objective inquiry and public life. For the purposes of this paper, however, we will concentrate on the two educational forms she sets out. What characterizes pluralistic and particularistic educational multiculturalism?

According to Haack, pluralistic educational multiculturalism (hereafter: PLUREM) is "the idea that it is desirable for students to know about other cultures than their own" (Haack 1998, 137). Its particularistic counterpart (hereafter: PARTEM) consists in "the idea that students [. . .] should be educated in their own culture" (Haack 1998, 137).[2] Although she does not discuss these alternative positions in detail, she clearly endorses PLUREM, and rejects PARTEM: "The claim of pluralistic educational multiculturalism [. . .] is true [whereas] the claim of [. . .] particularistic educational multiculturalism [. . .] is mistaken." (Haack 1998, 139 f.). On what grounds does she hold this conviction?

Haack points out that

> awareness that others do things differently and take different beliefs for granted helps you to discriminate the conventional from the non-conventional in your own practice and thinking, to avoid the "rightly are they called pigs" syndrome. And, yes, knowledge of the customs of minority communities within a multicultural society surely can contribute to the accomplishment of a mutually tolerable, or, with good luck and good will, a mutually enriching, modus vivendi. (Haack 1998, 139–140)

From this quote it emerges that, for Haack, PLUREM serves an epistemic and a moral/social function: morally speaking, PLUREM can foster a more tolerant climate in intercultural dialogue and lead to mutual understanding of differing cultural practices. From an epistemic point of view, PLUREM is desirable in so far as it helps bringing our own epistemological house in order by raising awareness about which parts of our belief system are merely conventional.

This epistemic function—our primary focus in this chapter—is rooted in Haack's general epistemological outlook. In several papers, Haack denounces various approaches from sociology of scientific knowledge and Literary/Cultural studies as expressions of rampant epistemic relativism and social constructionism.

[1] Later in her paper she extends this array of distinctions to 8 forms including what she describes as counterculturalist forms (Haack 1998, 139 and also Haack 2007, 330). In our context this may be set aside.

[2] Furthermore, Haack differentiates between a strong and weak form of PARTEM, where the stronger form demands "that students should be educated *exclusively* in their own culture" (Haack 1998, 137). Since Haack herself concentrates only on this form in her discussion of PARTEM, we will understand this position always in the strong sense. After all, the specifics of the weak form of PARTEM remain somewhat unclear anyway: if we construct the weak form strictly from her definition of the strong form, then weak PARTEM—as the thesis that it is not the case that students should be educated exclusively in their own culture—appears to coincide with PLUREM, so that it is unclear where the additional value in this more fine-grained distinction lies. Alas, Haack herself does not specify otherwise, since she only explicitly defines strong PARTEM. In any case, we will disregard this potential ambiguity.

Although she strongly takes issue with such relativistic overemphasis on social and cultural contingencies, she likewise acknowledges that our beliefs crucially depend on which *conventional background beliefs* we adopt. Thus,

> [t]here is no real relativity of standards of evidence; though disagreements in background beliefs, and consequential disagreements about evidential quality, can make it look as if there is. However, though quality of evidence is an objective matter, our *judgments* [sic!] of the quality are perspectival, since they can only be made from the perspective of our (fallible) background beliefs. (Haack 1998, 144)

Therefore, although Haack attacks the relativistic currents in a huge body of work from e.g. Cultural Studies, she seems to share their confidence that intercultural encounters have the potential to enhance self-correction and intellectual advancement. Her distinction between the perspectival character of judgements of evidential quality and the objective standards of evidence yields her rationale for the adoption of PLUREM:

> This [...] begins to explain the truth that pluralistic educational multiculturalism accommodates. Awareness that others take different background beliefs for granted, and so make different judgements of this or that evidence, can prompt the realization that your own judgments [sic!] of the worth of evidence depend on your background beliefs, and are only as good as those beliefs are secure. (Haack 1998, 144)

However, she warns, this benefit of identifying contingencies in our respective belief systems, afforded by pluralistic education, "would be sacrificed by an uncritical relativism that found all comparisons to be odious." (Haack 1998, 141)

Haack illustrates her idea by a particular example quoted here in full:

> I find much to admire in the life of the Kalahari Bushmen: their closeness to the natural world, the vigor of their rock paintings, their delight in music and dancing, their taking for granted, in the extraordinary harshness of their conditions of life, that "if one eats, all eat." And, thinking about the remarkable ingenuity of the triple-jointed poisoned arrows with which they hunt their game, I am set to wondering in a new way about what the social and intellectual conditions were that enabled the rise of modern science in seventeenth-century Europe. But it doesn't follow, and neither is it true, that Bushman myths about the origin of the world or the causes of the seasons, and so forth, are on a par with the best scientific theorizing. (Haack 1998, 141)

On Haack's account, PLUREM fosters recognition of foreign lifestyles, lifting the mind above the limitations of epistemic narrow-mindedness without embracing a falsely egalitarian form of relativism.

From all of this there emerges in sum a two-fold approach in Haack's philosophy of education: On the one hand, she seeks to convince us that it is desirable to confront students with the beliefs of other cultures in order to enhance their ability for critical reflection on their own belief systems. This is the first branch of her account. On the other hand, she insists that we should nevertheless refrain from teaching all views as being equally valid and on a par with the best scientific theorizing. To coin a slogan for this second branch: No teaching of ethno-science in physics-classes![3]

[3] Of course, the idea to combine the benefits of multicultural elements in educational schemes with a universalist/objectivist stance in epistemology is not particular to Haack's work but has been advanced by various other scholars in philosophy of education (cf. e.g. Nola and Irzik 2005, especially pp. 437, or Siegel 1997).

7.3 Puzzling Out Haack's Philosophy of Education

But which educational ideals form the background of Haack's position on multiculturalism and education? Some interpretative effort is needed to distil such ideals from Haack's scarce remarks on educational matters. However, there is reason to believe that her proposal implies a commitment to *critical thinking* as a major goal of education. This interpretative hypothesis finds some support from other Haack scholars. Thus, in his sympathetic reading of "Multiculturalism and Objectivity", James Gouinlock notes Haack's concern that the "consequences of [the irrationalist tendencies of our times] [. . .] extend throughout the educational establishment and to those whom it would teach; and they result in a degradation of powers of *critical thought* and understanding." (Gouinlock 2007, 313 f., our italics) Obviously, this reading implies that Haack takes fostering critical thought and understanding to be a major goal of education.

To unfold this interpretation further, an at least preliminary definition of critical thinking is required. Needless to say, there is an extensive debate on this concept that cannot be reviewed in the context of this paper.[4] For our purposes, it is sufficient to rely on the short and handy definition given by Matthew Lipman, according to which critical thinking is "thinking that (1) facilitates judgment because it (2) relies on criteria, (3) is self-correcting, and (4) is sensitive to context." (Lipman 1991, 116) All of these four criteria may be found in Haack's approach: Good judgement relies on non-relative criteria, but reflects its dependence on different background beliefs. Meanwhile, PLUREM facilitates self-correction by drawing attention to alternative belief systems.

However, it remains an interesting question—on which we would like to know Haack's authoritative answer—in how far she herself supports this tentative interpretation of her casual remarks in philosophy of education. Some specification on this point is needed all the more urgently, since the educational ideal of critical thinking might be endorsed in at least two different ways: first, one might take critical thinking to be of intrinsic value. Accordingly, it is desirable *simpliciter* that students develop into critical thinkers to enable them to be *skillful* puzzle-solvers. Alternatively, there is the possibility to entertain the ideal of critical thinking in education for its instrumental value in truthful inquiry, as it increases students' opportunities to arrive at the superordinate goal of *truth*. The educational motive would then be to turn them into skillful *puzzle-solvers*. It may be interesting to learn which comes closest to Haack's own understanding, provided that she counts on critical thinking in education at all.

[4] For a short overview, see Pritchard 2013, §2.

7.4 Multiculturalism and Objectivity—A Fundamental Tension?

Besides such mainly exegetical questions, Haack's approach to multicultural education implies a major problem pertaining equally to the philosophy and practice of education. This problem relates to the two branches set out above: on the one hand, PLUREM—by virtue of its pluralistic element—is intended to foster the ability to critically reflect on one's belief system, whereas, on the other hand, it should not nurture an egalitarian educational relativism, putting science and myths on a par in class. However, this twofold picture includes a fundamental tension which, since it is rooted in the nature of the task at hand, is much discussed in the literature on philosophy of education.[5]

Obviously, developing the ability of critical reflection on one's belief system requires the strength and willingness to allow possible challenges to reach even one's most deeply entrenched beliefs. This is necessary because the process of genuinely separating between the merely conventional and non-conventional components of a belief-system cannot start out presupposing a differentiation between two kinds of beliefs, where the beliefs of one kind are not itself open to revision in this very same process. This seems to be teaching critical thinking with brakes on. Haack's commitment to anti-relativistic science education seems to be in fundamental tension with the openness PLUREM requires. How, so we ask, can the goal of teaching a self-critical attitude be achieved if students in one entire part of the curriculum, especially in science classes, are not confronted with genuine alternatives trusting in the superiority of "Western scientific beliefs"?

At this juncture, we would like to be very clear: in raising this question we do not mean to propose that "ethnic" or otherwise "alternative sciences" exist, or should be included into the science curriculum. Thus, we do not intend to recommend a change in educational practice seeking to accommodate certain postmodernist tendencies nowadays frequently subscribed to by educators. Consequently, we do not share a vision of science classes as proposed by e.g. Ogawa (1995): "In a science class with a "multiscience" perspective every student can act as a researcher." (Ogawa 1995, 591) According to Ogawa, children should interview their classmates in small group discussions, with the groups consisting "of children from different cultural origins" (Ibid.).[6] As an intended result of such a discussion process, he holds, children "can be made aware that there exist different kinds of

[5] See e.g. chapter 13 of Nola and Irzik 2005, and Siegel 1999.

[6] Besides, the notion of cultural origin as used by Ogawa requires further clarification. First of all, it is far from obvious that students from sufficiently distinct cultural backgrounds are frequently to be found in one class. Second, it is not clear what exactly designates cultural origins. To take a local German example: Is a native German speaking German as her first language whose Turkish grandparents were part of the immigrant work force recruited in the 1950s of different cultural origin than either of the authors commenting here? Is, for example, her inherited Muslim faith sufficient to mark the potential difference?

indigenous sciences as well as personal sciences" (Ibid.). We do not think that the notions of "personal", "Western" or, for example, "Aboriginal science" (cf. e.g. Aikenhead 2001) can gain any meaning within the curriculum such that these alleged specialties were to be taught on a par in science education.

Nevertheless, a more nuanced approach resisting such temptations of educational relativism has to confront the problem of how to integrate science education into a multiperspectival curriculum incorporating PLUREM. With regard to that issue, Haack is invited to develop on her moderate pluralistic vision of multicultural education. Elaboration on this point is all the more called for, since, if this matter is allowed to disappear in a conceptual void, it remains unclear how other cultures' beliefs about nature may be considered in an adequate and serious manner at all: there is the imminent danger of belittling other cultures' aspirations to knowledge about nature by teaching them in a merely anecdotal fashion. With that in mind, we insist on the careful depiction of the practices of foreign cultures on which the strength of PLUREM depends.

Alas, this is easier said than done, as an adequate representation poses many difficulties and challenges even to the well-educated and benevolent researcher: the permanent risk of misapprehensions and stereotypes lurks along the way. The dimensions of this problem begin to show even in Haack's own work. A second glance at the depiction of the Kalahari culture adduced as an example in "Multiculturalism and Objectivity" leaves the impression that it calls on stereotypical imagery in the form of the "noble savage"-idealization. As a basis for further discussion of this issue, we turn to *Encyclopedia Britannica's* characterization of this typus: the concept of "noble savage" refers to "uncivilized man, who symbolizes the innate goodness of one not exposed to the corrupting influences of civilization" (*Encyclopedia Britannica* 2014). We fear that Haack's admiration of the Kalahari bushmen's "closeness to the natural world" (Haack 1998, 141), "their delight in music and dancing" (Ibid.) and "their taking for granted, in the extraordinary harshness of their conditions of life, that 'if one eats, all eat'" (Ibid.) might in part be reminiscent of this stereotypical image.

To be sure, this criticism does not seek to blame Haack for a casual "example that won't touch on any local sensibilities" (Haack 1998, 141), but to point out the difficulties philosophers, but also educators in practice, are confronted with in depicting foreign cultural ways of life. In our view, giving an image of other cultures that is at once both sensible and sensitive crucially depends on using adequate sources.[7] In the present case concerning the so-called "Bushmen," Haack's only cited reference is Elizabeth Marshall Thomas' (1959) well-known travel report *The Harmless People* (Haack 1998, 147, n. 4). Taking the form of a personal narrative, this book is remarkable for its rich imagery and empathetic characterization –but it falls short of the necessary distant and scholarly analyses of

[7] Without subscribing to the rampant relativistic/constructionist tendencies commonly associated with what has been called "cultural turn" it is nevertheless worthwhile noting that it also brought a more critical awareness for the importance of vantage points in assessing sources.

the phenomena observed.[8] Again, our point here is not to criticize Haack for her choice of sources or to engage in anthropological disputes. It may even be the case that empathetic narratives can provide useful insights concerning foreign cultures and turn out to be especially valuable educational material. Rather, we want to focus on the danger of narrative belittlement in discussing the convictions of other cultures in educational settings: once the focus shifts to detailed depiction of individual cases, the danger of a merely anecdotal access to the beliefs of other cultures is imminent. The success of PLUREM in epistemic respects and its attractive features—to provide the means to distinguish between the conventional and non-conventional in one's own belief-system—crucially depend on providing genuine challenges of convictions: anecdotes, thus, tend to be not only disrespectful, but surely cannot fulfil this epistemic function. Therefore, the problem of using adequate sources poses a major task for every educator who seeks to integrate PLUREM into her professional practice.

To our minds, the tension pointed to is one of the major problems to be solved by philosophy of education. Since we tried to extract the basics of Haack's approach in this area from her remarks and—as we have seen—Haack's proposal to adopt PLUREM is confronted with the tension too, we ask her to elaborate on her position in this regard. So, to sum up our point in one question: How, so we ask, can education in scientific fields remain faithful to an ideal of objectivity and denounce the egalitarian teaching of "Western" and "Alternative Sciences", but at the same time integrate PLUREM's goal of strengthening students' self-critical attitude by opening up the possibility of finding out that even the most entrenched beliefs within their belief-systems are merely conventional?

7.5 Common Ground and Three Open Questions

Because PLUREM requires us to unite our objectivist and multiculturalist ambitions, it implies a walk on the tightrope—a tension that both the philosopher and the educator are likely to encounter in the course of their work. As we have pointed out, the aim of providing multicultural challenges to background beliefs and the demands of robust epistemic anti-relativism pull in opposite directions. This highlights a problem that is both vital to present-day education and in need of further philosophical elucidation.

Although this paper has so far largely been concerned with critical aspects, we intend it to be a constructive contribution to Haack's nascent philosophy of education. In conclusion, we would therefore like to draw special attention to the common ground we share with her. Our shared convictions that set the stage for further philosophical debate even make a respectable list.

[8] See Shapera 1960 for a similar assessment of Marshall Thomas' book.

With Haack, we believe that:

(a) PLUREM is desirable and clearly preferable to its particularistic counterpart,
(b) we should not indulge in an egalitarian educational relativism,
(c) enabling students to ameliorate their background beliefs is a key aim of education,

and—as an obvious tribute to an enlightened intellectual climate,

(d) treating other cultures and their belief systems with respect is imperative (Haack 1998, 140 f.).

Certainly, this ensemble of intuitions about a culturally sensitive education is much to go by and reflects important educational aims and convictions. Nevertheless, it is unmistakably beset with the problems we have tried to expose. Thus, believing in the truth of (a) to (d), we have tried to find a way of incorporating these into a coherent picture of education. But, as is often the case in philosophy, we found that there are a lot more intricate problems and questions to be solved on the way than we could hope to deal with in one short paper. Haack herself has once declared finding "habitable middle-ground" (Haack in Vázquez 2013) a key element of her philosophical endeavor in case false dichotomies threaten to produce an "intellectual lockjaw". Are we facing a similar situation here—and could it be helpful to address it in the same spirit?

In order to map out a space for further debate we would like to end this paper not with a proposed solution, but with a set of questions for Haack. These questions trace our train of thought, thereby summarizing the main points of our discussion:

First, there is the issue of how to understand the aim of critical thinking in education: is it a mere means in service of the more important goal of truth, or is it an end in itself? The second question concerns the problem of PLUREM's practical implementation into the curriculum. Haack herself frequently introduces insightful distinctions in order to avoid philosophical impasses. This might be a useful procedure here, too. With regard to educational practice, differentiating between various target groups (e.g. elementary-school pupils, university students) and various domains (e.g. natural sciences, intentional sciences[9]) might pave the way to a solution to the problems we set out. Critical reflection of background beliefs can be more adequate for some target groups—and to some domains—than for others. If this is correct: is it possible to find a viable educational scheme implementing the intuitions (a) to (d) by making intelligent use of such differentiations—and what would it look like? Eventually, these two questions lead up to our final question addressing the key problem of our paper. How to integrate the intuitions (a) to (d) into a coherent account of education avoiding the tension discussed? A well-reasoned answer would be a major advance in theorizing multicultural education for philosophers, educators and adherents of cultural studies alike.

[9] For Haack's juxtaposition of natural versus intentional sciences, see her 2002, 37f..

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Chapter 8
Pragmatism, Evolutionary Theory and the Plurality of Legal Systems: On Susan Haack's Philosophy of Law

Helena Baldina, Andreas Bruns, and Johannes Müller-Salo

8.1 Introduction

Susan Haack's philosophy of law relies primarily on the writings of the first pragmatist theorist of law, Justice Oliver Wendell Holmes, Jr. (1841–1935). In a series of articles she has defined a position called "neo-classical legal pragmatism".[1] In the following section (Sect. 8.2), we examine legal pragmatism's key elements. We then turn our attention to one feature of legal pragmatism, namely the idea that the history of legal systems can be described by using terms developed within evolutionary theory (Sects. 8.3 and 8.4). Haack's statements concerning evolutionary interpretations of law are considered, and, following Dennett, we offer a general framework for the use of evolutionary theory within the social sciences and cultural studies (Sect. 8.3). Afterwards (Sect. 8.4), we present an argument that in our opinion offers good reasons to be skeptical of the explanatory power of evolutionary theory within the social and cultural sciences. In the last section (Sect. 8.5), we discuss two other features of legal pragmatism by raising the question whether this theory of law is equally plausible within different systems of law. Our examples are based on the differences between common law and civil law systems.

[1] We mainly refer to "The Pluralistic Universe of Law" (Haack 2008); "On Legal Pragmatism" (Haack 2005); and "Pragmatism, Law and Morality" (Haack 2011).

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8.2 The Haack-Holmes-Conception of Law (HHCL)

In choosing Holmes as her main reference author, Haack prefers a move back to the roots of legal pragmatist thinking (Haack 2005, 71–73, 103, 2008, 455).[2] According to her, most recent work on law that claims to adhere to the pragmatist tradition is theoretically confused and—even worse—presents a deeply anti-theoretical attitude that has never been a part of pragmatism until Rorty shifted the main meaning of this term. Following Haack in her interpretation, we concentrate mainly on Holmes' groundbreaking paper "The Path of the Law" and Haack's response to it, which is delivered in various articles.[3]

What we call the "Haack-Holmes-Conception-of-Law" (HHCL) consists of six main thoughts. Our description of HHCL is not merely a summary of Haack's theoretical approach but an attempt to draw together the central aspects of legal pragmatism developed by Haack in a series of papers. We found six features of legal pragmatism in her philosophy of law; but she does not indicate whether these features are equally important or if some should be considered as more fundamental core ideas of legal pragmatism. With our interpretation of Haack's ideas, we hope to further the search for an exact definition of legal pragmatism.

The first idea central to legal pragmatism is *prediction theory*: "The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law" (Holmes 2011, 4; see further 2011, 68). Secondly, prediction theory is connected to a kind of heuristic device: To learn about the real nature of law, one has to imagine the *reasoning of a "bad man"*; he is not interested in morals or in good or virtuous behavior but simply does not want to be sentenced by the court in his jurisdiction (Haack 2011, 2005, 81).

Thirdly, an important feature of HHCL is the *strict separation of morality and law* (Haack 2011, 73). Although the actual developmental stage of a country's legal system mirrors its moral situation, ethical standards and beliefs, the language of law should not be mixed up with the language of morality.

Fourthly, another failure of legal theory, according to Holmes, consists in *the misdescription of law as a system of logical rules* (Holmes 2011, 9–10, 2005, 81): "The life of the law has not been logic: it has been experience" (Holmes 1963, 5). It is often assumed that a judge's individual decision can be deduced logically from an abstract set of rules and principles. Holmes and Haack hold this idea to be thoroughly misleading: If there are two different opinions about one single case,

[2] Not only in legal pragmatism but in general within pragmatist thought Haack prefers "classical pragmatism" to "revolutionary neo-pragmatism fashionable today" (Haack 2004a, 4, see also 29–33). She asserts that neo-pragmatism all too often displays an anti-theoretical attitude and changes classical pragmatist positions into "the essentially opposite message of contemporary vulgar pragmatisms" (Haack 2004a, 33–34).

[3] In Haack 2011, 74–75, Haack describes the central aspects of Holmes' legal pragmatism that she is ready to accept.

the reason for this difference is certainly not that one side did not fulfill their logical duty correctly.

Fifthly, Haack like Holmes presents a positive description of her understanding of law: Law is a historically grown system that "embodies the story of a nation's development through many centuries" (Holmes 1963, 5) and is adequately described in evolutionary metaphors. Progress in law consists in learning by doing, in thousands of little "trial and error" processes (Haack 2005, 96). Haack claims that Holmes' use of the term "evolution" is "not much more than a metaphor", but that it is also "possible to construe the idea of the evolution of legal systems in a more robust way, as part of an understanding of the evolution of cultural phenomena generally" (Haack 2008, 461–462).[4] However, a careful reading of Holmes and Haack displays that the *evolutionary image* of law conflicts with another—the sixth—element of legal pragmatism. This element might be called the *future-orientation* of HHCL. According to Holmes,[5] a complete understanding of the concept of law consists of three parts. After studying the jurisprudence—the science of generalizing decisions and finding abstract principles—and, secondly, the history of law, the law student is advised to "consider the ends which the several rules seek to accomplish, the reasons why those ends are designed, what is given up to gain them, and whether they are worth the price" (Holmes 2011, 20, Haack 2011, 71, 2005, 83). In search of a good law, the legal theorist, like the judge, should first of all think about the end, or the outcome. What are the laws good for? After answering this question he can construct the best road to the aspired goal. In doing this, he depends on scientific advice, especially from the social sciences (Holmes 2011, 14).

To sum up, we believe that HHCL has six key features:

1. Prediction theory
2. The perspective of the bad man
3. The separation of law and morality
4. Decisions within the law are not deduced logically from abstract rules and principles
5. The evolutionary perspective of law
6. The future-orientation of law

So far we have presented the aspects of HHCL we consider to be most important. In concluding this analysis, we can raise the central question again: What is law? HHCL considers law to be a complex, human-made social ensemble, containing very different local systems, which are in permanent evolution.[6] This

[4] See also Haack 2011, 70. Haack also criticizes Holmes' historical optimism, which looks upon history as a process directed towards morally better societies, see Haack 2005, 92–94.

[5] For Haack's view, see e.g. Haack 2008, 465–466.

[6] Haack 2008, 456: "Every legal system is local to a place and time; but the whole ensemble, the whole vast conglomeration of systems of law—from the earliest precursors of modern legal systems to as yet only dimly perceivable future developments—represents a long and still on-going struggle to supplant arbitrary, brute force by intelligent, peaceable ways of resolving the disputes that inevitably arise in any human community." See also Haack 2005, 84–85.

conception is intended to cover a long history of different traditions and include systems of social regulation that other theories handle as border cases of law at best. As Haack puts it:

> I suggest looking at the continuum of systems of social norms from tribal and religious customs, taboos, rules, and penalties through the 'illegal legal orders' of the favelas [. . .] to the most central, paradigmatic cases of legal systems past and present and the complex, overlapping, and sometimes conflicting meshes of federal and state or provincial legal orders, of national and international law, . . . and so forth and so on; and, rather than fussing over which qualify as really, genuinely *legal*, exploring the respects in which they are like each other, and those in which they are unlike (Haack 2005, 88 f.; see also 2008, 459–461).

8.3 Law and Evolutionary Theory

After presenting HHCL and identifying its six key aspects, we will now turn to the idea of an evolution of law, i.e., a metaphorical or substantial interpretation of the development of legal systems in terms of biological evolutionary theory. We will refer to this view as the *evolutionary perspective of law*.

The connection between both domains—legal history and biological evolution—can be conceived in a weaker (A) or stronger (B) sense. The two endpoints on a scale from "weak" to "strong" would be:

(A) to claim that legal history can be described metaphorically with the use of terms like "variation" and "natural selection", without assuming that these descriptions include any basic claim on the "nature" of law or how it develops over time.
(B) to claim that legal systems as a part of human culture are *in fact* subject to the process of reproduction and natural selection.

The latter, stronger thesis will not be of concern in this paper. It bears the assumption of a "coevolution of genes and culture" (Boyd and Richerson 2006, 253); in other words, according to this view cultural qualities are similar to genetic ones insofar as they are variable and selectable features of biological organisms.[7]

According to this scale, we have to ask where exactly Haack's position is located. Haack claims that "legal systems are not biological organisms or species", but that "[e]ven understood in a minimal, metaphorical way, the idea of the law as evolving suggests useful ways of thinking about legal developments". Secondly, as mentioned before, she writes that "it is also possible to construe the idea of the

[7] Boyd and Richerson hold that "[b]ecause culture is transmitted, it is subject to natural selection. Some cultural variants persist and spread because they cause their bearers to be more likely to survive and be imitated" (Boyd and Richerson 2006, 238, see also Boyd and Richerson 2005). This notion does not seem to suit the evolution of law as a system, because the thesis that law evolves draws attention to the development of legal systems themselves, not to the development of human individuals who live in societies under some legal order.

evolution of legal systems in a more robust way, as part of an understanding of the evolution of cultural phenomena generally" (Haack 2008, 461 f.). Thus, it seems that Haack considers the evolution of law to be more than just a metaphorical manner of speaking. Hence, Haack's notion of the evolution of law might be located somewhere in the middle of the scale between a weak and a strong understanding.

Haack takes an evolutionary perspective of law in various passages of her works on legal philosophy. As we already emphasized in the previous section, she likewise follows Holmes' conception at this point. In her words, Holmes "had long stressed that every legal system is an artifact of history; all have evolved, grown, adapted—and many have died away—in response to changing circumstances" (Haack 2011, 70). The notion "that law constantly changes and adapts, responding 'spontaneously' to changing circumstances" (Haack 2008, 462; see also 2005, 78) seems to be the initial point of an evolutionary way of thinking about the law. As a large-scale example of such legal evolution, Haack mentions "the gradual and uneven shift away from trial by ordeal towards other methods of proof" (Haack 2008, 462), which can arguably be seen as a response to the struggle between clerical and worldly powers and the gradual formation of a secular jurisdiction.

There are a few more aspects implied in the notion of legal evolution. For instance, there is a historical variety of legal systems, not all of which have adapted sufficiently to changing circumstances and, consequently, died away. Hence, in the long-term, some legal systems prevail over others. Haack also perceives some analogies between the legal history and the evolutionary process of annidation (Haack 2008, 462; 2011, 70). As a whole, she identifies the evolution of law, again following Holmes, as a part of the broad process of the civilization of social life: "[T]he continuing history of the evolution of legal systems is the history of humanity's long, ragged struggle towards civilized social life" (Haack 2005, 87).[8]

Since Haack's thoughts concerning the evolution of legal systems have been presented, it seems useful to reformulate the central question, to sketch a general evolutionary perspective of law and to examine its reach and explanatory power.

It should first be pointed out that there is not *one* evolutionary theory; rather, evolutionary theory is a general term covering a great variety of different theories in different fields of scientific research. To sketch a general evolutionary perspective of law, we rely on the Darwinian foundations of evolution.[9] We chose basic concepts of biological evolution – variation, reproduction and selection – to show how they could be adapted to a theory of the evolution of law. When discussing these concepts, we also refer to the principles of the "struggle for existence" (Darwin) and the "survival of the fittest" (Spencer), which are closely linked to them.

[8] It is important to emphasize that this does not imply that Haack believes in continual, uninterrupted social progress, as we will see in the following section (Sect. 8.4).

[9] For a brief summary of the key aspects of Darwin's theory of evolutionary selection, see Mayr 2002, 128.

In his book *Darwin's Dangerous Idea*, Daniel Dennett presents an abstraction of Darwin's evolution theory that he thinks is applicable to non-biological, cultural and social phenomena. Dennett suggests that evolution also occurs in non-biological contexts when the following three basic conditions are fulfilled: (1) There is a persistent variety of different elements. (2) These elements are reproduced over time. (3) The reproducing of an element is contingent on the interactions between that element and the environment in which it persists (Dennett 1995, 343). The first two conditions cover the concepts of variation and reproduction, and the third must be understood as the *pre*condition for the process of selection to occur. Thus, the view that evolution occurs within legal systems can be established by reflecting on legal developments in the following ways. Firstly, the evolution of legal systems is a consequence of independent or interdependent[10] social, political and cultural developments; legal systems and conceptions are historically and presently diverse. Secondly, legal opinions, conceptions and rules are reproduced insofar as they are consistently accepted in legal decision situations, passed on to succeeding generations, or find their way into stable social systems. Thirdly, whether a legal system prevails or not seems to be, in the long-term, a matter of how it fits into the actual circumstances of social and cultural life and how it adapts to changing circumstances. Its fitness is constantly tested by the challenges of its social and political surroundings, just as the "goodness" of the individual in a biological population is constantly tested by the challenges of the environment (Mayr 2002, 132).

Reflecting on these three features of legal development, one can further suppose that legal systems, in a metaphorical or substantial sense, consequently underlie a process of selection in which some legal conceptions and systems prevail over time, while others do not and, hence, vanish and remain mere remnants of "historical law". Different legal conceptions are in competition, because not all of them can be implemented at once in judicial decisions or incorporated by legislation (Henke 2010, 36 f.). The "differential 'fitness'" (Dennett 1995, 343) of competing conceptions determines their probability of being accepted, implemented and incorporated – only the "fittest" survive.[11]

Viewed in broader terms, this process will cause a gradual civilization of legal systems and law in general, that is: a centralization of jurisdiction; a differentiation of legal branches; an emancipation from external dependencies, like religious, political and economic interests; and, finally, an apparent progress of legal history (Benda-Beckmann and Benda-Beckmann 1998, 93).

[10] If different legal rules contained in one legal system are established by several interdependent developments, it might be plausible to say that the system, in some sense, came about *by accident*. That would possibly be an analogue to the biological concept of genetic mutation. We will return to this point later, discussing the role of intentional actions in legal development.

[11] As Ernst Mayr notes, the process of natural selection leads either to adaption, or to elimination (Mayr 2002, 130, 166).

8.4 Possible Limits of the Evolutionary Perspective of Law

So far we have seen how the central elements of evolutionary theory could be used to describe the evolution of law. It should be noted that this theoretical approach is only appropriate for long-term descriptions of law that focus on the development of entire legal systems instead of examining singular decisions made, for example, by judges or legislative bodies within a single legal system.[12] If legal scholars want to examine the growth and the changes that occur over decades or even longer, they could use the evolutionary concepts to explain why certain rules are no longer valid, why the system has changed in some ways, why particular institutions still exist, and so on.

It is time to raise the central question: Does an evolutionary conception enrich our understanding of the functioning and development of legal systems? The development of law comprises countless single events within the legal system. Most of these events are actions performed by conscious agents, e.g., court decisions, legislative ruling and accompanying commentaries by legal scholars. Hence, legal development is mainly composed of *intentional* actions. This comes into direct conflict with the central aim of evolutionary theory, namely to explain changes that occur in biological organisms and natural systems *without* referring to any kind of agency, especially intentional divine agency. But this does not necessarily mean that an evolutionary account of a legal system's development must be rejected. There is still another way out: It could be claimed that although legal development consists of intentional actions, the whole process could still be adequately described without referring to intentionality, i.e., the individual actions.

This idea has been defended in various ways and contexts by social scientists. The theory of civilization developed by the German-British sociologist Norbert Elias is an example of such a defense.[13] The central idea in his influential book *On the Process of Civilisation* is that the modern, rationalist, western society is a result of processes of coercion and self-control. These processes can be traced back to the early modern times when noblemen started to control strictly their own behavior in an effort to reach higher positions within the courtly society. Other important social groups were forced to adopt such behavior, and the lower classes voluntarily imitated the leading groups in order to improve their situation. The final result has been the emergence of modern western societies:

> Clearly, 'civilization' is not, any more than rationalization, a product of human 'ratio' or the result of calculated long-term planning. [...] All of this certainly did not spring from a rational idea conceived centuries ago by individual people and then implanted in one generation after another as the purpose of action and the desired state, until it was fully

[12] Haack seems to agree with this statement, as she uses the term evolution to describe the development of law systems instead of describing the formation of a single action within the system of law. See e.g. Haack 2005, 84, 87, 91 f., 2011, 70, 2008, 461–463.

[13] Another important sociological theory that contains similar arguments is Niklas Luhmann's systems theory, see Luhmann 2004.

> realized in the 'centuries of progress'. And yet, though not planned and intended, this transformation is not merely a sequence of unstructured chaotic changes. [. . .] It did not happen, nevertheless, without a specific type of order (Elias 2012, 403).

If evolutionary descriptions of legal systems should form a part of legal pragmatism, pragmatists are forced to accept arguments of the same kind and structure as proposed by Elias. More specifically, although each action within the legal system is intentional, the pragmatist would have to see the whole process of development as existing without an intentional agent.[14] In doing so, they have to answer to one influential criticism of Elias and similar theories put forward by historians and social scientists who work within the postmodern philosophical tradition. As the postmodernist Lyotard puts it, Elias has presented a big story named "metanarrative". Within a metanarrative it is claimed that humanity's development is directed in a certain way, e.g., towards more rational or more human behavior or towards a more equal society. In the twentieth century these narratives have become less and less plausible – "the narrative function is losing its functors, its great hero, its great dangers, its great voyages, its great goal" (Lyotard 1984, xxiv). To take up the example of Elias again: It is questionable whether western societies in fact have become more and more rational. Such a thesis seems to ignore important parts of western historical reality. Two world wars and catastrophic problems like world poverty and climate change have fostered skepticism concerning the directedness of human development.

The main problem of an evolutionary account of legal systems can be reformulated now: On one hand, such a theory has to improve our understanding of law substantially via using key concepts of evolutionary theory; on the other, the account must not incorporate judgmental terms that imply a constant development towards a more rational or morally valuable human legal system. Haack herself takes up the second aspect and criticizes Holmes for unjustifiably believing in general progress within the evolution of law (Haack 2005, 91–95). Her considerations lead to the conclusion that Holmes is presenting a great story which Lyotard would call a metanarrative.[15] Otherwise, within her work on legal pragmatism, Haack does not treat the problem of intentionality as we described it earlier. She only mentions at one point that an evolutionary account of social systems development is "quite compatible with an acknowledgement that cultural practices are not always 'spontaneous', but sometimes deliberately conceived and executed"—that is, intentionally planned (Haack 2008, 465). It is not clear how these ideas are compatible or how evolutionary thinking can enrich our understanding of legal

[14] As Ernst Mayr notes, there is no answer to the question "Who does the selection?", as there is "no such agent involved in natural selection" (Mayr 2002, 130).

[15] Haack 2005, 94: "Outside of those Hegelian dreams to which Holmes dismissively alludes, there can be no guarantee that some class or classes of people will not, in principle or in practice, be denied access to the justice system, or denied any voice in the process by which laws are made; there can be no guarantee against the evolution of oppressive, totalitarian societies and oppressive, totalitarian laws, and there can be no guarantee against the stagnation, or the decline, of civilized social life."

systems without the thesis of a directed development. We therefore believe it is necessary to answer the stated problem through a clarification of HHCL and the exact role of evolutionary thinking in legal pragmatism.

8.5 Common Law and Civil Law

In the last section of this paper we want to examine two other important aspects of HHCL. For the sake of the argument, let us assume that it is possible to solve the problems raised and discussed in the last two sections and that at least some form of *prima facie* similarity between the theory of evolution in biology and the development of legal systems can be accepted.

The pragmatist conception of law, as presented by Holmes and Haack, includes the insights that history plays an important role and that we are still confronted with a great variety of constantly changing legal systems. Haack writes that "even if we consider just one nation, the U.S., we see that its legal universe is distinctly pluralistic. The laws of the states differ in myriad ways, subtly and not so subtly, each from the others" (Haack 2008, 457). Despite important differences within every legal system, the differences between various systems are more striking. We want to examine one example closer by comparing two traditions of legal systems, common law (especially Anglo-American Law) and civil law systems (especially Continental Law).[16] The central question is: Do all kinds of existing legal systems comply with the requirements formulated by HHCL? Or does just the common law system comply with HHCL – since within legal pragmatism theorists have in most cases focused on common law? In our following analysis, we focus on the first (*prediction theory*) and last (*future-orientation*) key elements of HHCL, and add some brief remarks on the former presentation of the evolutionary perspective of law to demonstrate that its relevance for the philosophy of law might depend on the kind of legal system that is under discussion. We will first consider common law systems, which are the main point of reference in the construction of pragmatist theory (Haack 2004b, 15–26, 2011, 65–87).

8.5.1 Common Law

Within common law systems, decisions are primarily based on customs and judicial precedents. Prior decisions in comparable cases function as points of reference for a judge or a jury. Therefore, decisions are always informed by earlier decisions and depend on the history of a state's jurisprudence. This typical feature of common law

[16] For further reading, a brief overview about the plural law systems of the world is to be found in: Hertel 2009, 128–141.

systems has to be contrasted with the sixth element of HHCL. Changing circumstances, times and places, as well as new societal necessities have to be taken adequately into account. As mentioned by Holmes, it is of great importance to focus on future developments, especially on the ends of certain legal systems and rules (Holmes 2011, 20). In Sect. 8.2, we labeled this feature the *future-orientation* of law.

This perspective is teleological: The application of a law is informed by the future goals and ends that can be stimulated via concrete judicial sentences. Haack indicates that it is necessary to consider the possible consequences of certain laws. Therefore, we have to think about the future (Haack 2008, 71) in a pragmatic way, which includes realizing that "legal truths become true only when some person or body makes them so" (Haack 2014, 317). It is worth mentioning again that this sixth key element of HHCL, which underlines the importance of single, intentionally performed actions within a legal system, can be used to support the kind of criticism we have presented in the last two sections.

Nevertheless, there exists a tension between this sixth element and the *prediction theory*, i.e., the first element of HHCL. Let us imagine a judge, Mr. Richard. When contemplating the right decision in a certain case brought before court, he has to examine several precedents in sufficient similar cases; he is obliged to do this, as it is required by the common law system.[17] But, according to HHCL, that is not the only thing he has to do. He also has to weight the moral value of possible outcomes, while taking into consideration changing political, social and economic conditions. On this basis, Mr. Richard should decide which judgment will be the right or best one. It is important to see that when dealing with the future-orientation of law, one is committed to an *internal* perspective of law. Mr. Richard is involved, and the further development of the legal system depends at least partly on him. Holmes was familiar with this perspective of law, since he himself worked as a judge for most of his life. However, this perspective of law is not in accordance with the *prediction theory* of law, which includes an *external* perspective of law. Is it sensible for Mr. Richard to ask himself which decision a well-informed outsider might expect him to make and then to realize this expectation by deciding accordingly? We do not think so.

This line of criticism can be developed even further. The main difference between the first and last elements of HHCL is a normative one. The *prediction theory* presents a definition of law that does not require any normative commitments. On the contrary, if the judge is to take into account social and economic considerations and possible outcomes, normative elements must be included. Our Mr. Richard needs a set of basic (moral) values in order to choose between possible options. The attempt to formulate an idea of law without referring to normative concepts seems to be given up, if the criterion of future-orientation is accepted. This

[17] Of course, within common-law systems judges also have to stick to statutes and rules. Nevertheless, this kind of procedure contrasts with the strict duty to act according to the rules within civil-law systems.

should not be read as a refusal of HHCL, but as an indication that HHCL's key elements are in need of further clarification. Maybe the sixth element can count as an additional requirement: The first five elements of HHCL define what law is, and the sixth requirement amends what law should be, namely always orientated towards the promotion of the good of society.

8.5.2 Civil Law

In contrast to common law systems, civil law systems are based on statutes and prescribed rules—thus law is codified precisely. Methodologically, legal thought proceeds in a more deductive way. The importance of judges in shaping law is less significant. Their influence on decisions is bounded more strictly by the framework of existing legislation. The central role that is assigned to judges within a civil law system is that of legal interpretation. The shaping of law rests on legislative initiatives, which are supported and advised by legal scholars.

As we did in the case of common law systems, we want to have a closer look at the problems of applying the first and last elements of HHCL, *prediction theory* and the *future-orientation of law*. Obviously, the influence of judges and juries in civil law systems on the outcome of a trial is more limited. Of course we do not deny that every process of judicial decision-making leaves room for interpretation, but the variety of possible interpretations is more limited than in common law systems. *Prediction theory* therefore does not lose its power, but in common law contexts it might lose its intuitive attractiveness.

More important are the differences between common law and civil law concerning the *future-orientation* of law. It has been demonstrated that the judge should weight the future benefits and costs of the decisions he is going to make. Within civil law systems, this is not a task that has to be performed by judges, but by legislative bodies. The judge is responsible for a careful analysis of single cases and has to decide whether certain rules or laws apply within a case or not. The more general questions concerning the purpose, the end and the sensibleness of a law are left to the parliament. Within a civil law system, we would criticize a judge for not applying a law in a relevant case, although we might agree with him that this law is morally indefensible and should better be annulled. It is just not within his power to decide these central questions. Once again we can refer back to the discussion of the last two sections. If we accept an evolutionary perspective of law, it is interesting to consider whether this idea fits better with the examination of a civil law system than it does in the analysis of common law systems. But this cannot be decided here. On the one hand, authors like Donald E. Elliot stress that legislative bodies within civil law systems are not bound as strongly by existing law as judges within common law systems are bound by authoritative precedents: "[The] process of reproduction of new statutory forms is closely analogous to the way in which a new mutant develops and can be reproduced in biology if it has certain advantages. However, because the pressures of reproducing exact copies are much weaker in statutory area

than in common-law or in biology, there is more opportunity for variation" (Elliott 1997, 602). On the other, a judge within a common law system is usually able to choose between different precedents to guide his decision.

In summary, we have seen that an analysis based on the distinction between common and civil law reveals frictions within HHCL. Firstly, there is a change of perspective from external (the first five elements) to internal (the future-orientation element) with respect to law. Secondly, the requirements stated in HHCL are not limited to a common law system. If we are right that questions concerning the advancement of society should be discussed democratically and publicly, then the future-orientation requirement might as well be fulfilled by civil law systems. The same is true for the fifth element: Change within civil law depends on legislative agreement, which makes variation (as an aspect of the evolutionary perspective of law) in civil law as plausible as in common law, where a judge can shape decisions by choosing certain precedents to follow and omitting others.

8.6 Conclusion

In this paper we have tried to achieve a better understanding of legal pragmatism by proposing a description (HHCL) that contains six key elements. Based on this description we raised critical questions concerning some of the identified central features. We do not think that it is impossible for legal pragmatism to answer these questions convincingly. Nevertheless we do think that these questions reveal the need for further clarification of and differentiation within HHCL. What Holmes considered to be true of law is, in our opinion, true of legal pragmatism as well: The life of it has not been logic, it has been experience. And this experience continues and forces us to work constantly on our concepts of law and legal pragmatism.

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Chapter 9
Evaluating Philosophy: Susan Haack's Contribution to Academic Ethics

Simon Derpmann, Dominik Düber, Thomas Meyer, and Tim Rojek

9.1 Introduction

Susan Haack is mostly known for her work in the philosophy of science, logic and law, as well as the history of pragmatism. However, on different occasions she also deals with the current state of academic philosophy. In these contributions, Haack reflects on the social and institutional environment in which philosophy—and possibly science in general—is done today, and its effects on philosophical inquiry. One could say that what has to be understood by "academic ethics" concerns the adequacy of academic institutions and "the moral demands of everyday academic life" (Haack 2013, 252). In our paper we want to concentrate on Haack's essays "Out of Step: Academic Ethics in a Preposterous Environment" (Haack 2013) and the earlier article "Preposterism and its Consequences" (Haack 1998). In these articles, Susan Haack describes the demands of academic life and the virtues that are required to meet these demands. She diagnoses that there is a dangerous tendency in the current academic system impairing the quality of teaching and research.

The topic that Haack addresses is subject to a wide variety of considerations, among them pedagogical, sociological, economic, and political ones.[1] However, we will focus on the philosophical core of the debate. Although we tend to agree with Haack's diagnosis for the most part, we would like to raise a couple of questions. In doing this, we are not attempting to formulate a rejection of Haack's general

[1] Of course, some of these aspects will play a role in our discussion. The critique, for example, that the current academic landscape is "big business" relies on an empirical claim about the economic reality, but contains a normative claim that is of a philosophical nature.

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criticism. Instead, we would like to use the occasion to examine the normative foundations of her critique. Our impression is that Haack has to argue for a substantial account of what "good philosophy" consists in, a claim that is not entirely unproblematic.

Our paper proceeds in three sections: In the *first* section we want to grasp Haack's critique as far as it is necessary for our purposes. For the sake of the argument, we accept Haack's empirical claims concerning the subject. We suppose that the phenomena that she describes are representative of academic life in general, and that her findings could be substantiated by a more thorough social analysis (see also Haack 2013, 260). In our reading, her critique mainly focuses on an inversion of means and ends that is produced by the arrangements set by academic institutions. In the *second* part, we want to offer a possible explanation for these arrangements that largely rely on "surrogate measures" (Haack 2013, 261) when evaluating academic achievement—or potential for academic achievement—instead of evaluating philosophical inquiry itself.[2] In the *third* part, we will go beyond a mere explanation of the development of these institutional arrangements and bring forward a substantial problem for Haack's criticism and the conclusions that can be drawn from this. If there is not only an epistemic problem of identifying good philosophical work, but, beyond this, a problem of justified disagreement about what good philosophy consists in, then surrogate measures may be indispensable for a reason that is related to the nature of philosophy. A critique of the current system of the evaluation of academic achievement may have to take into account that the criteria of academic achievement—at least in philosophy—are disputable.

9.2 Haack's Critique of Preposterism

In 1996 Haack puts forward her first critique of the academic environment that she considers "inhospitable" (Haack 1998, 191) to genuine philosophical inquiry. In her second paper on this subject in 2013, Haack suggests that the current academic environment is even more hostile to good philosophical work.[3] She diagnoses that her first critique "[. . .] now, fifteen years on, [. . .] seems to me distinctly too mild, the present situation much worse than I then foresaw" (Haack 2013, 252). Within Haack's critique, one can distinguish a part that focuses on academic institutions from a part that is concerned with the ethical evaluation of agents within academia, mainly professors. She identifies ten virtues that are at least helpful within a flourishing academic community. Among those virtues are judgment, industry, and persistence. These virtues are relevant in different contexts of academic life.

[2] One could also bring forward a critique of the methods of Haack's argument from the standpoint of empirical science. However, this is not our business.

[3] A similar critique of the current academic environment is put forward in Haack's Münster Lecture "The Fragmentation of Philosophy, the Road to Reintegration" (Haack 2016).

They do not only concern teaching, but also research, scholarship, and other areas, such as administration or hiring decisions. These virtues are not necessarily specific to philosophy, but may be relevant in other academic or everyday contexts as well. Furthermore, the manifestation of these virtues is not sufficient for being a good academic.

Although Haack criticizes Steven Cahn for his "mostly individual rather than institutional" (Haack 2013, 253) perspective on duties of professors, her immediate focus lies on individual academic agents as well. From here, she draws conclusions for the ethical adequacy of academic institutions. Thus, academic institutions are to be judged based on their effect on the manifestation of academic virtues. Haack emphasizes that "we need to understand how an environment that systematically encourages skewed values is damaging the entire academic enterprise" (Haack 2013, 252).

In her critique of preposterism, Haack describes how the quest for truth can be undermined by various influences in the environment of philosophical inquiry. In earlier times, these endangering influences on academic life came from religious institutions mainly. The current problem that Haack identifies originates in the success of the natural sciences and the application of their standards and procedures to philosophical research (Haack 1998, 193). In her view, it is questionable whether the organizational structure of the natural sciences is adequate to philosophy. One central problem is that a genuine quest for truth tends to be replaced by two kinds of pseudo-inquiry: "The *sham* reasoner is not primarily concerned to find out how things really are, but to make a case for some immovably held preconceived belief. The *fake* reasoner is not primarily concerned to find out how things really are, but to advance himself by making a case for some proposition to the truth-value of which he is indifferent." (Haack 1998, 189–190) In her later work, Haack does not only affirm the existence of this tendency, but focuses more thoroughly on the harmful effects of the current academic institutions on the manifestation of academic virtues. In a nutshell, Haack's critique is that the academic environment exerts a pressure—or at least provides an incentive—for scholars to formulate research proposals and produce scientific results that meet the requirements set by the institutions that decide about employment, funding, and fame. In this process, research is not evaluated by its actual value[4] but by *surrogate measures*, and thus researchers tend to focus on these surrogate measures instead of taking interest in philosophical achievements directly. In the long run, the currency of the present academic system—success in the application for grants or publications in prestigious journals—is not the means of doing philosophical research but becomes its end. This conversion of means and ends is inhospitable to good philosophical work.

There are two consequences that follow from these arrangements. *First*, they tend to corrupt the motives of scholars and in turn impair their academic virtues. *Second*, they tend to lead to a bias in the findings of the academic community. So,

[4] We will discuss the problem what the actual value of a good philosophical contribution may consist in—if something like this exists at all—later on.

the danger of the current institutional arrangements is that they produce not only bad philosophers but bad philosophy. In the end there may even be a feedback process that reiterates and strengthens the harmful effects of preposterism because future decision-makers are likely to evaluate philosophical research by the standards that they met themselves. The procedures of measurement become affected by the object they are supposed to measure.

Haack substantiates her claims by offering a variety of examples from her academic life. So, her argument is not based on empirical observations such as statistical data that might suggest correlations between institutional arrangements and the manifestation of academic virtues. Rather, she offers a variety of examples, or thick descriptions, from her personal life and her experiences within academia. As mentioned before, it is not our aim to scrutinize the empirical validity of Haack's observations. Instead, we would like to focus on her treatment of the surrogate measures that are used in the evaluation of scholars, institutions, and the quality of philosophical research.

9.3 Why Surrogate Measures?

Arguably, the orientation towards surrogate measures raises the problem of a conversion of means and ends that contains what Haack refers to as "preposterism." She notes that "reliance on these surrogate measures is a very poor substitute for the informed judgment of someone in close touch with the demands, the temptations, and the pitfalls of intellectual work. That X has published a lot, even in supposedly prestigious journals or with supposedly prestigious presses, is absolutely no guarantee of the quality of his work" (Haack 2013, 261–262). There are two things that could be replied to this criticism.

First, there is a practical explanation why measures of this kind are introduced. Surrogate measures reduce the amount of resources that it takes to evaluate philosophical research. They replace material evaluations that bear a variety of difficulties, such as dissent emerging from a pluralism of philosophical ideals. Bearing this in mind, one might not want to criticize the existence of surrogate measures *per se* but the uninformed interpretation and usage which is made of them in the scientific arena. For example, when hiring someone for an academic position there might be a dangerous tendency that the metric and other more or less "evident" results, generated by surrogate measures, become knock-down criteria to choose a candidate for a job. But this is not the way these criteria should be deployed in the first place. They are intended as measurement criteria which should help to make a decision within the complex and intransparent field of scientific evaluation. It is a mistake to use these criteria as if they were neutral or objective, because they are not. Again, this is not an argument against surrogate measures as such, but against the limited sensibility for their meaning and their limits.

Second, it seems to us that it is no realistic alternative to reject surrogate measurements in general. Haack seems to suggest this by proposing a reliance on

"informed judgment" instead of an indirect measure in evaluating the philosophical quality of a person or a text. The alternative sketched by Haack suggests that it is possible to judge good philosophical work by reading texts, speak to the philosophers in person, and make a judgment which is capable of consent between the academic colleagues. So she suggests that surrogate measures are mainly attractive for those researchers who are too lazy or ignorant to read the work of their prospective colleagues. She invokes the example of a scholar whose reason to trust surrogate measures is the incapability and distrust of his own informed judgment (Haack 2013, 261). But this suggestion might be too simple, if we concede the point Haack is making in another passage. Here, she makes explicit that she is interested in a "realistic" approach distant from an academic utopia which never existed and will never exist (Haack 2013, 259–260). It seems implausible to us to demand from an agent in the academic system to read everything and keep in touch with everybody to make a valid judgment, even if we admit that overspecialization is a problem (see Haack 2016).

Of course, these considerations provide no satisfying answer to Haack's criticism, as they mainly describe the rationale of a widely conceived pragmatic reaction of researchers and universities trying to deal with insufficient time, knowledge, and money. Indeed, the situation may call for different procedures and different patterns of the distribution of scarce resources. However, there is one reply that raises another—more fundamental—problem, which we would like to focus on for the remainder of our comment. This problem concerns Haack's notion of "informed judgment". We would like to turn our attention to the question of what an informed judgment about scholarly quality does *mean* in the realm of philosophy. As can be seen above, one problem about the suggestion that one may be able to simply identify good philosophy through an informed judgment is that philosophers are unlikely to agree on a set of criteria that would make such a judgment possible in the first place. There is factual dissent about what has to count as good philosophical inquiry, because sometimes it is just hard to tell. Moreover, it may not be all that clear what good philosophical inquiry consists in.

9.4 What Is Good Philosophy?

In order to see the distinction we are heading towards, take this example: We got tickets for a football game, but unfortunately not all of us did get good seats. While Tim can see the field and the goal, Thomas and Simon sit behind a large pole that hides the goal. Dominik could not come, because he is babysitting his daughter. As we are interested in the game we try to figure out a means of telling whether a goal has been scored. Since Tim is in the middle of finishing a Tolstoy novel he is not much of a help, and obviously his remark that we should just look at the goal does not get us very far, since not all of us can see the goal. So, while we do not even think about the question *what scoring a goal means*, we try to settle for surrogate measures that serve as criteria for assuming *that a goal has been scored*. Naturally,

we will not agree on these measures, because one of us may think that the applause of the audience is a good indicator, while the other may think that the behavior of the players is a good indicator. The point is that in this case, our dissent is not about what counts as a goal, but about what is the best means of figuring out when a goal has been scored. The point of the example is that this case of disagreement about when to assume that a goal has been scored is different from the disagreement that we find in the evaluation of academic achievement. At least some aspects of the issue in the evaluation of academic quality seem to be more like a disagreement about whether we have seen a good game than about what are the best criteria for finding out about whether a goal has been scored.

At this point, it becomes apparent that the analogy does not capture the complexity of the judgment about good philosophy for at least two reasons. *First*, what epistemic criterion we are settling on in the end has no impact on the course of the football game. After all, neither of us decides on whether a goal has been scored. *Second*, and more importantly, there is an independent criterion of when a goal has been scored. There is a set of institutions, rules, referees and committees defining what it means that a goal has been scored that is independent from our concept of scoring a goal. Furthermore, there is Tim who could just look at the game and see whether a goal is scored or not, a privileged epistemic position that we do not have in philosophy. When we encounter a dissent about the question of good philosophical inquiry, there may be no agreement on what good philosophical research consists in, because there are fundamental disagreements not only about specific philosophical theories or problems but also about the right way of *doing philosophy*. Unlike in the case of the football game, this disagreement may lie in the nature of philosophy, because the question about the right philosophical method is itself a philosophical question.

Thus, Haack's criticism of the academic environment of philosophy requires some reflection on the nature of philosophy. Haack sees this point and refers to the Aristotelian argument that in order to reject philosophy one has to make a philosophical claim, showing that it is a defining feature of philosophy that a reflection on its nature belongs to its own domain. We want to emphasize that this observation poses a problem for the neutral evaluation of different ways of doing philosophy. Haack claims that "philosophy is a kind of inquiry, that is, that philosophical questions are genuine questions to which there are true and false answers." (Haack 1998, 189) Taken together these claims suggest that there is also a true answer to the question what good philosophical inquiry consists in. Haack's formulations about the evaluation of philosophical work suggest that there is a problem of finding "the good stuff" (Haack 1998, 199) that deals with "significant issues" (Haack 1998, 191).[5] However, we may not only have trouble *finding* the

[5] Other examples are: "what is published tends to fall; and sifting the good stuff from the dreck get harder and harder" (Haack 2013, 263) or an "environment will be hospitable to good intellectual work insofar as incentives and rewards favor those who work on significant issues." (Haack 1998, 191)

good stuff. Beyond this, we may have incompatible conceptions of what good philosophy consists in which are nonetheless equally justified by their respective philosophical standards. Haack's description of some of the virtues shows similar traits. The virtue of judgment, for example, is the ability "to discriminate the worthwhile work from the flimsy, the fashionable, the flashy and the obfuscatory" (Haack 2013, 255), or to "figure out what problems are most worth tackling" (Haack 2013, 257). In some cases, one may readily come to an agreement that a philosophical contribution can be characterized in this way. Yet, while Haack formulates substantial criteria in the form of these academic virtues that describe what a good teacher or a good researcher has to fulfill, one cannot find independent criteria of what *good philosophy* consists in. However, her own critique seems to rely on a substantial conception of what good philosophy or good research in general amounts to. There is one way to argue that even within this conception, Haack can make sense of the constitutive dissent that we described above. There may not be a set of necessary and sufficient conditions that singles out one philosophical tradition or method as the "good stuff." On the contrary, there could be different ways of embodying good philosophical inquiry that may be similar in some regards, but very dissimilar in others. However, the thing that needs to be kept in mind is that this description of different acceptable ways of doing philosophy is itself brought forward from one specific philosophical standpoint. Thus, if there is a dissent between different ways of doing philosophy, there may be no independent ground to settle their dispute in every case, even though there may be an overlapping consensus that some ways of doing philosophy are clearly nonsense.

For the moment, let us assume that Haack would agree to this description. We believe that this speaks in favor of a different view on surrogate measures, because in this description of the condition of philosophy they can be seen as a reaction to the constitutive dissent about the nature of philosophy. By this, we do not mean to imply that the dissent itself is constitutive of philosophy, but rather that a specific way of addressing this dissent as undecidable from a neutral perspective reveals something about the mode of operation that distinguishes philosophy from most or all other disciplines. The application of surrogate measures allows for the evaluation of philosophical inquiry without ignoring this dissent.

If the justification of surrogate procedures depends on this fundamental insight about the nature of philosophy, then we can also formulate a criterion for their adequacy. No procedure should be designed in a way that neglects the metaphilosophical dissent described above. Thus, the entirety of instruments for academic evaluation must be compatible with a plurality of conceptions of philosophy. If the reliance on impact factors for example leads to the disappearance or decline of forms of philosophy that do not represent the mainstream, then this instrument runs counter to the constitutive dissent that is part of its justification in the first place.

Our comments on Haack's paper turn out to be less of a criticism than a suggestion of a shift of perspective. We find that Haack's descriptions formulate troubling tendencies in the development of academia in a convincing way. However, in our view, part of the engagement with the environment of philosophical

inquiry must take the possibility of a specific dissent into consideration that is constitutive of philosophy. In this picture at least some indirect criteria can be justified by reference to the nature of philosophy. The question will not be whether we can rely on surrogate measures or not, but on which surrogate measures we can rely and what their scope is.

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Part III
Responses

Chapter 10
The Role of Experience in Empirical Justification: Response to Nikolai Ruppert, Riske Schlüter, and Ansgar Seide

Susan Haack

> *First, you know, a new theory is dismissed as absurd; then it is admitted to be true, but obvious and insignificant; finally, it is seen to be so important that its adversaries claim that they themselves discovered it. —William James*[1]

As I wrote in the Foreword to the second edition of *Evidence and Inquiry*,[2] I was delighted by how warmly this book was received in many circles—both inside philosophy and, outside, among scientists, legal scholars, historians, etc. I was especially glad that so many of these readers had found my ideas helpful in their fields. But somehow I wasn't greatly surprised that—despite Hilary Putnam's comment on the back cover that Popper, Quine, Rorty, Goldman, the Churchlands, etc. "will have to reply"—none of the cynics I had criticized so comprehensively,[3] and none of the epistemologists whose theories I had examined in careful detail,[4] offered any relevant response. Nor was I greatly surprised that some mainstream

[1] William James, *Pragmatism* (1907), eds. Frederick Burkhardt and Fredson Bowers (Cambridge, MA: Harvard University Press, 1975), p. 95.

[2] Susan Haack, *Evidence and Inquiry* (1993: second, expanded edition, Amherst, NY: Prometheus Books, 2009). (Hereafter *E&I*.)

[3] Rorty was (so far as I know) the only one who said anything; and all he really had to say (in his usual world-weary way) was that it was "pointless" to try to show that our standards of better and worse evidence have any connection with truth. Richard Rorty, "Response to Haack," in Herman Saatkamp, ed., *Richard Rorty: The Philosopher Responds to his Critics* (Nashville, Tenn.: Vanderbilt University Press, 1995), 148–53.

[4] C. I. Lewis, who was no longer around when I wrote the book, and Karl Popper, who died the same year the first edition of *E&I* appeared, had cast-iron alibis; the others, not so much!

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epistemologists thought I was just willfully blind to the epistemological power of Bayes's Theorem, or the importance of "refuting the skeptic," or the relevance of "context," or of gender, …, or, etc. But I *was* surprised, and more than a little disturbed, by how many seemed primarily concerned to show that my foundherentist theory was really just a variant of one or another more familiar approach.

The range and variety of misunderstandings was remarkable. For example, fudging over all the problems about the role of experience by means of the ambiguous word, "data"—which could refer to perceptions, to perceptual beliefs, or to many other things—Paul Thagard claimed to have "subsumed" foundherentism into his coherentist theory.[5] Again, Alvin Goldman sent me a draft paper in which he classified me with those who deny that the concept of truth has any role in a theory of justification; and when, in reply, I pointed out that the last chapter of *E&I* (from which he had actually quoted!) was concerned precisely to spell out the connection between degree of justification and likely truth,[6] sent me a revised version, now claiming that I was a reliabilist like himself. (Apparently he missed my minutely detailed critique, in chapter 7 of *E&I*, of each of his several attempts to get a reliabilist account off the ground.)

Laurence BonJour enthused both over my critique of Goldman's reliabilism, and over my deconstruction of Rorty et al.'s arguments for abandoning the epistemological enterprise; but ignored my critique of his own coherentist account. And he confused matters considerably by pointing to the theoretical possibility of a "foundationalism" that would allow mutual support among basic beliefs, including support "via the connecting medium of non-basic beliefs."[7] This, as I pointed out, made the distinction between basic and derived beliefs purely *pro forma*; and so wasn't really foundationalism at all, but a kind of inarticulate proto-foundherentism.[8] Ryszard Wójcicki, missing a "not" in one key sentence, took me to be some kind of infallibilist foundationalist.[9] A message from Neil Tennant told me he had made a diagram of foundherentism; but this turned out to be just a part of *my* diagram of the loops of justification acknowledged by impure foundationalism. Some weak, impure foundationalists were sure they had had "my" theory all along. And some people seemed to think that the fact that

[5] Paul Thagard, *Coherence in Thought and Action* (Cambridge, MA: Bradford Books, 2000), pp. 41 ff. See also Susan Haack, "Once More, With Feeling: Response to Paul Thagard," in Cornelis de Waal, ed., *Susan Haack: A Lady of Distinctions* (Amherst, NY: Prometheus Books 2007), 294–97, p. 294.

[6] So Goldman didn't get the one point that Rorty *did* understand; though, having got it, Rorty casually dismissed it.

[7] See Laurence BonJour, "Haack on Justification and Experience," *Synthese* 112, no.1 (1997): 13–23, and my response, "Reply to BonJour," *Synthese* 112, no.1 (1997): 25–35.

[8] *E&I*, second ed., p.22.

[9] Ryszard Wójcicki, "Foundationalism Coherentism, and Foundherentism: The Controversies from an Alternative Point of View," in De Waal, ed., *Susan Haack* (note 5 above), 57–68. See also my reply, "Of Chopin and Sycamores: Response to Ryszard Wójcicki," *id*., 69–72.

foundherentism acknowledged that experience plays a role in empirical justification was sufficient by itself to show that my theory was really a form of foundationalism.

Perhaps I should have been flattered that my new theory so soon reached the third stage of which James wrote, when it is "seen to be so important that its adversaries claim that they . . . discovered it." But no; my feeling was that:

> [t]his preoccupation was disappointing, in part because I [had been] careful to ensure that my characterizations of foundationalism, coherentism, reliabilism, etc., closely followed the use of these terms in the literature, and to avoid making it true by arbitrary stipulation that foundherentism and coherentism don't exhaust the options; but more importantly, because it distracted attention from the surely more significant question, whether my account—however you classify it—was on the right lines.[10]

When I wrote this, I was trying to speak as politely and as constructively as I could; but now I think this may have been unwise. The situation was *worse* than disappointing. For some of those who tried to shoehorn me into some more familiar category—perhaps resentful of my trespassing on what they took to be *their* turf—probably, consciously or otherwise, had an agenda: namely, to put paid to the idea that there was anything really new or important in my epistemological work. So on the present occasion, the first thing I need to do is make it unmistakably clear, once and for all, that *foundherentism is not a form of foundationalism.*

Foundherentism is a genuinely intermediate theory, *between* foundationalism and coherentism. It is like experientialist foundationalism in allowing that experience is relevant to the justification of empirical beliefs; but also unlike it, in requiring no distinction between a privileged class of "basic" beliefs and a secondary class of "derived" ones. At the same time, it is like coherentism in allowing for pervasive mutual support among beliefs; but also unlike it, in giving a role to something other than relations among a subject's beliefs, viz., his experiences, sensory and introspective. As these traditionally rival theories have evolved, each responding to the most important criticisms directed against it by the other,[11] their proponents have retreated from their strongest claims, so that they have come closer together. But neither party can take the middle ground that foundherentism occupies without sacrificing its foundationalist, or its coherentist, character. And this also explains why both parties, seeing that I agree with some claim of theirs, are apt to think, "she's on *our* side"—even though I'm really on *neither* side.

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[10] *E&I*, second ed., p. 23. At the time I wrote in this new Foreword, I hadn't read Anil Gupta's *Empiricism and Experience* (New York: Oxford University Press, 2006). If I had, however, I would also have said how very disappointing it was that, having reached the conclusion that we needed an intermediate theory between foundationalism and coherentism—and despite his referring to two papers in a volume in which a piece of mine on foundherentism *also* appeared!—Gupta apparently had no inkling that I had provided precisely such a theory more than a dozen years before. A friend tells me that he had mentioned to Gupta that he should look at *E&I*; but as of 2013 (when I heard him speak on this subject), he apparently still hadn't done so.

[11] I'm not sure why Ruppert et al. describe these, rather dismissively I thought, as "a handful of arguments"; and I wondered whether they were aware that chapters 2 and 3 of *E&I* explore them in great detail as they apply to specific foundationalist and coherentist theories.

Most to the purpose here are the key arguments against the most modest forms of foundationalism, the "Up and Back All the Way Down" arguments, the burden of which is (i) that, once you've gone so far as to acknowledge that "basic" beliefs are only partly justified by experience, there's no good reason not to acknowledge that they may also be justified in part by the support of "derived" beliefs; and (ii) once you've gone so far as to admit that there can be relations of mutual support among "derived" beliefs, there's no good reason to deny that these relations extend to "basic" beliefs as well. But, as the scare quotes in the last sentence indicate, once you've gone this far, there's no motivation to sustain even a minimal form of one-directionality or, therefore, to distinguish basic from derived beliefs. And to abandon this distinction is to abandon foundationalism.

But Ruppert et al. (borrowing, I gather, from Peter Tramel) argue that, for all I say to the contrary, *my* theory conforms to my own characterization of foundationalism. Why so?

- Well, first: I grant that there are beliefs justified in part by experience; and this, Ruppert et al. think, amounts to my accepting (the experientialist version of) FD1,[12] according to which some beliefs are basic, and basic beliefs are justified at least in part by experience.
- And, second: I can't deny that there are beliefs justified at least in part by the support of other beliefs—apparently, because this would amount to denying that any beliefs are inferred, which would be a psychological claim. And this, Ruppert et al. think, amounts to my accepting FD2, according to which some beliefs are derived, and derived beliefs get their justification at least in part from the support of basic beliefs.

As this reveals, Ruppert et al. imagine that my acknowledgment that experience plays a role in the justification of empirical beliefs is sufficient to commit me to FD1, and my acknowledgment that some beliefs are inferred to commit me to FD2. They are mistaken. It sounds as if they (and probably Tramel) have failed to grasp two key points: that FD1 and FD2 were intended to distinguish two classes of belief, the basic and the derived; and that my approach is a kind of articulated holism that works in terms, not of *chains of inference*, but of the *mesh of evidence* with respect to a belief. Specifically:

- I hold that *all* justified empirical beliefs are justified in part by experience and in part by the support of other beliefs. But to say this is obviously *not* to distinguish a privileged class of "basic" beliefs justified in part by experiential evidence; which is what FD1 does.

[12] In *E&I* I called this "$FD1^{EX}$," to distinguish experientialist versions of foundationalism from others. But in the present context, the superscript isn't necessary.

- I grant that some beliefs are inferred from others. But this fact plays no significant role in my epistemological theory. And to acknowledge it is obviously *not* to distinguish a secondary class of "derived" beliefs, beliefs justified in part by "basic" beliefs; which is what FD2 does.[13]

The last point reveals that the confusion Ruppert et al. (or perhaps it was Tramel) have created extends, not only to foundherentism, but also to foundationalism. In some contexts, "inferred" and "derived" are more or less interchangeable; *not*, however, here. "Derived" is a technical term in the foundationalist family of epistemological theories, where it expresses an epistemological, not a psychological, concept; and this was also, naturally, the concept it expressed in my FD2. In order to attribute FD2 to me, however, Ruppert et al. have to give "derived" a psychological meaning. But if this were what "derived" meant, then foundationalism would be, not an epistemological theory, but a psychological one.

And now I see what's wrong with Ruppert et al.'s curious suggestion that we should stick with foundationalism rather than adopting foundherentism, because foundherentism might be shown to be false by future psychological results. The idea that we must wait for future psychology to tell us whether some beliefs are inferred from others seems more than a little silly;[14] but set that aside. More important here is that Ruppert et al. don't notice that if—assuming for the sake of argument, but *only* for the sake of argument, that like them we equate "derived" and "inferred," and so treat both foundherentism and foundationalism as psychological theories—this suggestion is double-edged: either *both* foundherentism *and* foundationalism would be hostage to future psychological results, or *neither* would be. But, to repeat: the psychological interpretation is wrong-headed; what distinguishes foundationalism from foundherentism is not a psychological claim, but an epistemological one.

In the end, I fear, what Ruppert et al. (and perhaps Tramel) are really doing—as, eventually, they come close to conceding—is simply *redefining* "foundationalism" as a generic term for experientialism. But this is truly perverse. For one thing, there's already a perfectly good word to describe experientialism, namely, "experientialism." For another, not all forms of foundationalism are experientialist. On top of which, if we allow ourselves to redefine useful technical terms with well-established meanings to suit our own interests, I could redefine "foundherentism" as a generic term for experientialism, and conclude that foundationalism is a variant of

[13] In hindsight, I wonder if I might have forestalled this kind of barrack-room-lawyer's maneuver by building a requirement of at least minimal one-directionality into my generic characterization of foundationalism (along the lines of FD3: relations of evidential support never run from derived to basic beliefs). But at the time I thought this unnecessary, since I had already described the foundationalist as conceiving of basic beliefs as "privileged" epistemologically, and would go on to conclude from the "Up and Back All the Way Down" Arguments that the basic-derived distinction on which the foundationalist depends is not well-motivated.

[14] I wished that Ruppert et al. had given some attention both to my discussion of the broader and narrower meanings of "psychological" (*E&I*, pp. 209–10), and of the relation of epistemology to psychology (chapters 6, 7, and 8).

foundherentism. Doubtless this kind of verbal legerdemain has, to borrow a phrase from Russell, all the advantages of theft over honest toil. But it's worse than common thievery; it is, in my opinion as in Peirce's, a grave "offense against science."[15] It impedes progress, by introducing gratuitous confusion, and by undermining the incentives to innovative work.

To be sure, foundherentism and experientialist foundationalism are both variants of experientialism. But—once more, with feeling!—*foundherentism is not a variant of foundationalism*.

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Now let me turn to more interesting, less depressing, and more substantive matters. It's one thing to say that experience must have a bearing on empirical justification; quite another to spell out exactly *how*. And I wouldn't claim, even now, to have more than a tentative and partial answer to this question; but I believe I have made some progress.

My starting point, as Ruppert et al. realize, was a very popular argument to a completely incredible conclusion: that *experience is irrelevant to empirical justification*—an argument endorsed by Karl Popper (who thought it supported his idea of an "epistemology without a knowing subject"), by Richard Rorty (who thought it supported his claim that epistemology is wholly misconceived), *and* by Donald Davidson (who thought it supported coherentism). According to this Irrelevance of Causation argument, as I called it, the relation between experience and beliefs is causal, not logical; but justification is a logical concept; so that experience can play no role in the justification of empirical beliefs. The argument is valid; but the conclusion—that experience has nothing whatever to do with the justification of empirical beliefs—is about as obviously false as a philosophical conclusion can be.[16] So one of the two premises must be mistaken. Some have thought that the first premise is at fault, that experience is somehow propositional, and so capable of standing in logical relations to beliefs. My conclusion, however, is that it is the second premise that must go, that epistemic justification is not a purely logical concept, but a partly causal one.[17]

This required me somehow to articulate the two aspects of the concept of justification, and how they are related; which I did by means of the distinction between S-[state] evidence and C-[content] evidence. Where a subject's reasons are concerned, articulating this was straightforward; less so, however, for his experiential evidence. A subject's experiential S-evidence consists of experiential states of his, and his experiential C-evidence of propositions to the effect that he is

[15] C. S. Peirce, *Collected Papers*, eds. Charles Hartshorne, Paul Weiss and (vols. 7 and 8), Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58) 2.224 (1903).

[16] Popper et al., I assume, probably realized how startlingly implausible a conclusion this is, but saw no way to avoid it.

[17] Indeed, in early drafts I called my theory "causical foundherentism."

in such states. This experiential C-evidence, I emphasized, is *not* to be confused with a subject's beliefs about his perceptual states (which is why, despite the fact that the propositions that constitute A's experiential C-evidence are, *ex hypothesi*, all true, this is nothing like an infallibilist foundationalism). And, in line with a realist conception according to which what we perceive isn't color patches or sense data or "seemings," but things and events in the world, I suggested that experiential C-evidence be characterized along the lines of "A is in the kind of perceptual state that a normal subject would be in when seeing a robin redbreast at such-and-such distance in such-and-such conditions," . . ., and so forth.

This machinery was cumbersome—I always thought of it as like an East German tank, or my hefty first camera, made by Carl Zeiss of Jena; but, like those tanks, and my camera, it did the job: it enabled me to articulate how experiential evidence anchors justified empirical beliefs in the world. Experiential S-evidence plays a causal role, and belongs in the part of my theory that identifies A's evidence with respect to *p*, i.e., the evidence that moves him to this belief; experiential C-evidence plays a quasi-logical role, and belongs in the part of my theory that articulates what determines how good A's evidence is.

By the time of *Defending Science*, I was able to add to this an account of *why*, more exactly, the evidence of the senses plays this special role in the justification of our beliefs about the world: in virtue of facts about language-learning.[18] I don't believe, as is usually assumed, that there's a sharp distinction between those words learned ostensively and those learned by verbal explanation (or a sharp distinction of "observational" versus "theoretical" vocabulary). Rather, virtually all of language is learned both ways, albeit in different proportions for different (more and less theoretical) terms. We *begin* learning our native language by hearing words used to refer to things that can be seen by both teacher and learner; but later, as we learn that in abnormal circumstances our senses may deceive us, we master such idioms as "it *looked* like a dog, but . . .," "there *seemed* to be someone in the shadows, but . . .," etc. This parallels the foundherentist idea that a subject's being in this or that perceptual state contributes to the justification of a belief—more, or less, depending on where the belief in question falls on the observational-theoretical continuum.[19]

This was not to suggest that the subject must remember having learned, say, "dog," when he was in such-and-such a perceptual state, realize he is now in that state again, and infer that he sees a dog. The idea wasn't to add another element within the foundherentist account, but to explain, at the meta-theoretical level, why experiential evidence is relevant to empirical justification in the way foundherentism suggests. The idea is that a special role for the evidence of the senses is built into our concept of empirical justification; and that sensory experience has this special place in the concept because of the special role it plays in language-learning.

[18] I was also able to separate out the causal and the quasi-logical elements, characterizing the degree to which a claim is *warranted* for a person at a time in terms of the quality of the evidence *available* to him, and the degree to which he is *justified* in believing it at that time in terms of the quality of the evidence that actually *moves* him to accept it.

[19] See Susan Haack, *Defending Science—Within Reason* (Amherst, NY: Prometheus Books, 2003), pp. 62–63.

But Ruppert et al. are still puzzled about how a subject's experiential evidence does the job of anchoring his justified empirical beliefs in the world. How can this evidence be something of which the subject is aware, they ask, unless it's something he believes? And aren't the clues to a crossword propositional? But these puzzles are of their own making; they have been confused by the (admittedly, very confusing) literature on "internalism" versus "externalism," and by a misunderstanding of how philosophical metaphors, in general, and my crossword analogy, in particular, work.

As I said in *E&I*, the internalism-externalism distinction is at best unhelpful;[20] an adequate epistemological theory must include elements of both kinds. So my answer to Ruppert et al.'s first question is, simply, that a subject's experiential S-evidence consists of perceptual states of his—which are, of course, *conscious* states. And as I said in "Dry Truth and Real Knowledge," I see metaphors and analogies as intellectual tools, aids to the imagination.[21] So my answer to their second question is that in this instance what the crossword analogy helped me see was that, just as we may ask how reasonable this or that crossword entry is, but this question doesn't arise with respect to the clues, so we may ask how justified this or that belief is, but this question doesn't arise with respect to perceptual states—which are neither true nor false, neither justified nor unjustified.

Of course, there's plenty of work still to be done. For example, though I now have a better understanding of what belief is than I did in 1993, or even in 2003,[22] I can't yet explain exactly how a subject's sensory experience changes his beliefs. I was able, however, to make some progress on questions about the status of religious experience,[23] set aside in *E&I*. And as I have applied the foundherentist theory to issues about evidence in the law, I have developed a fuller understanding of the material character of relevance, the asymmetry of the independent security condition, and the relation of degrees of proof to probabilities.[24]

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[20] *E&I*, pp. 94–95.

[21] Susan Haack, "Dry Truth and Real Knowledge: Epistemologies of Metaphor and Metaphors of Epistemology" (1995), reprinted in Susan Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: University of Chicago Press, 1998), 69–89.

[22] See Susan Haack, "Belief in Naturalism: An Epistemologist's Philosophy of Mind," *Logos & Episteme* 1, no.1 (2010): 1–22; "Brave New World: On Nature, Culture, and the Limits of Reductionism," in Bartosz Brozek and Jerzy Stelmach, eds., *Explaining the Mind* (Kraków: Copernicus Center Press, forthcoming 2016).

[23] Susan Haack, "Fallibilism and Faith, Naturalism and the Supernatural, Science and Religion" (2005), reprinted in Susan Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, 2008; expanded second edition, 2013), 199–208 and 306–307.

[24] See e.g., "Epistemology and the Law of Evidence: Problems and Projects," in Haack, *Evidence Matters: Science, Proof, and Truth in the Law* (New York: Cambridge University Press, 2014), pp. 1–26 (showing that foundherentism provides plausible answers to some questions about legal degrees of proof, and suggesting other potential applications); "Proving Causation: The Weight of Combined Evidence" (2008), *id*., 208–38 (using the foundherentist theory to show when, and why, combined evidence has more weight than any of its components alone); "Legal Probabilism: An Epistemological Dissent" (2013), *id*., 47–77 (using the foundherentist theory to show that degrees of warrant don't fit the logical profile of the mathematical calculus of probabilities).

In 1843, John Stuart Mill wrote that the magistrate, the navigator, the physician, …, etc., must all "judge of evidence" and act accordingly.[25] He was right; indeed, epistemological questions are highly relevant to many aspects of virtually *everyone's* life.[26] So I hope the day will come when fewer epistemologists are trammeled[27] by the current preoccupation with picayune internecine disputes and superficial verbal wrangling, and more are thinking independently in a real effort to get on with constructive work.

[25] John Stuart Mill, *A System of Logic, Ratiocinative and Inductive, Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation* (1843), 8th ed., London, 1970, p. 5.

[26] Susan Haack, "Epistemology: Who Needs It?" (first published in Danish in 2013), *Cilicia Journal of Philosophy* 3 (2015): 1–15

[27] "Trammel" is an old word for a type of fishing net; now, it survives mainly in the metaphorical "trammeled," meaning "ensnared."

Chapter 11
The Real, the Fictional, and the Somewhere-in-Between: Response to Julia Friederike Göhner, Tim Grafe, Yannis Krone, and Johannes Ueberfeldt

Susan Haack

> *Of the three Universes of Experience familiar to us all, the first comprises all mere Ideas, those airy nothings to which the mind of poet . . . might give local habitation and a name.*
> —C. S. Peirce[1]

Perhaps I should begin by emphasizing, as they do, that the ideas of mine on which Julia Friederike Göhner, Tim Grafe, Yannis Krone, and Johannes Ueberfeldt focus—ideas about fictional characters, and specifically about the fictionalized versions of real people, places, etc., that sometimes turn up in works of fiction—are only a kind of codicil to the central themes of the much more comprehensive metaphysical theory I call Innocent Realism;[2] and that Innocent Realism itself needs to be understood against the background of my defense of an approach to metaphysics as *neither* a priori *nor* dependent on the recondite kinds of experience sought by the sciences, but as requiring, rather, reflection on aspects of our everyday experience of the world so familiar that ordinarily we hardly notice them.[3] Moreover, I will add (though Göhner et al. don't say this) it's a *logically independent* codicil; in particular, there would be no inconsistency in accepting

[1] C. S. Peirce, Collected Papers, eds. Charles Hartshorne, Paul Weiss, and (vols. 7 and 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58), 6.455 (1908).

[2] Themes worked out starting in the last section of Susan Haack, "Reflections on Relativism: From Momentous Tautology to Seductive Contradiction" (1996), in Haack, *Manifesto of a Passionate Moderate* (Chicago: University of Chicago Press, 1998), 149–66; developed in more detail in "Realisms and Their Rivals: Recovering Our Innocence," *Facta Philosofica*, 4, no.1 (2001): 67–88, in "The World of Innocent Realism" (first published in German in 2014), in this volume, pp. 33–55, and in "The Real, the Fictional, and the Fake," *Spazio Filosofico* 8 (2013): 209–17.

[3] See Susan Haack, "The Legitimacy of Metaphysics: Kant's Legacy to Peirce, and Peirce's to Philosophy Today" (2004), reprinted in *Polish Journal of Philosophy*, 1 (2007): 29–43.

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both my conception of metaphysics, and my Innocent Realism, in combination with a different account of fictional and quasi-fictional characters.[4]

According to Innocent Realism, there is one real world, a world at once unified and astonishingly various, complex, and multi-faceted. This real world includes, first, the physical stuff, things, kinds, phenomena, and laws that constitute the earth, the universe of which the earth is a small part, and (perhaps) the multi-verses of which this universe may be only one. But in the small corner of the world where we humans live, there are also our mental states, processes, etc.; all the social institution, roles, rules, etc., humans have brought into being; all the physical artifacts we have made; and all the intellectual and imaginative artifacts we have created, including both theories—scientific, mathematical, philosophical, etc.—and works of fiction, such as plays, novels, cartoons, etc., and the fictional characters, scenarios etc., that they introduce.

All these are real; but this, the Innocent Realist holds, is not to say that they are all *existent entities*. Reality is a broader concept than existence, which is the mode of being of particulars. There are real kinds and laws, for example; but these real generals are not well-conceived as a peculiar kind of particular, abstract but nonetheless existent. What "real" contrasts with is "fictional, a figment"; and so, since what's distinctive about imaginary beasts, fictional characters, etc., is that they are however their creators make them, what "real" means, at a first approximation, is something like "independent of how we believe (or want, fear, etc.) it to be." So to say that rabbits, for instance, constitute a real kind is to say that rabbits have a knot of properties in common independent of what anyone believes (etc.) about them.

The next step, to accommodate social institutions, etc.—which, though independent of what any individual believes (etc.) about them, *do* depend in part on what people in the society concerned believe (etc.) about them—is to distinguish the brutally or naturally real from the real-but-socially constructed. And the third step is to accommodate the phenomena of fiction; which proves, as Göhner et al. appreciate, a tougher task than you might at first expect.

There really are works of fiction (novels, plays, TV dramas, cartoons, etc.); and there really are fictional characters, places, etc., too. But these aren't real people or real places; they are *imagined people* and *imagined places*. George Eliot's *Middlemarch*[5] is a real novel, for example, and Dorothea Brooke is a real fictional character; but there never was such a place as Middlemarch, and there never was such a person as Dorothea. Of course, even though the town isn't real, *Middlemarch* is unmistakably set somewhere in England;[6] and many novels are set specifically in

[4] Someone might, for example, opt for a simpler (though I think, less plausible) account according to which, if a character is *in any respects* fictional, that is sufficient for him or her to count unqualifiedly as a fictional character.

[5] George Eliot, *Middlemarch: A Study of Provincial Life* (1891–72; New York: Signet Classics, 1964).

[6] In the town of Nuneaton, in the English midlands, "[n]ot far from [a statue of George Eliot] … there's a pub named for her, the George Eliot Hotel, that is said to be the one on which she modeled the Red Lion in *Scenes from the Clerical Life*." Rebecca Mead, *My Life in Middlemarch* (Bond Street Books [imprint of Random House, Canada], 2014), 32.

(fictionalized) real towns; in some, real events are intertwined with imagined ones; and in some, we encounter fictionalized versions of real people. Edward Rutherfurd's *New York: The Novel*,[7] for example, is set firmly-though-fictionally in New York; and includes, as such historical novels typically do, besides its many purely fictional characters, fictionalized versions of real people—Peter Stuyvesant, Benjamin Franklin, George Washington, etc.—and of real events, from the arrival of the British fleet off Staten Island at the start of the War of Independence in 1776 to the terrorist attack on the Twin Towers in 2001.[8]

The roots of fiction, I suggested—alluding to the English idiom "fish story"[9]—lie in the natural human tendency to recount real events, and the no less natural human tendency to embroider these narratives in the telling. And this thought, together with reflection on the British chieftain who was, apparently, the real person behind the legend of King Arthur, on the suffragette leader Christobel Pankhurst who shows up in fictionalized form in Zoë Fairbairns's feminist novel, *Stand We at Last*,[10] and so forth, led me to the conclusion that there are degrees of fictionality—or, perhaps better, that a narrative, and the characters in a narrative, the place where it is set, etc., may be *partially real* and *partially fictional*. And, of course, if "real" contrasts with "fictional," it follows that reality too can be partial.

No one was more surprised than I when I reached this conclusion—though I shouldn't have been *so* surprised, given the synechism of my philosophy generally;[11] but now I believe that, startling as it is, the conclusion is true nonetheless. Still, it's fair enough for Göhner et al. to ask what I have to say about what makes something fictional, about how grades of reality or fictionality might be ordered, how fictional characters are to be individuated, etc. My answers, however, will be mostly of a rather different kind from those they canvass. They hope, I gather, for something in the style of those necessary and sufficient conditions, criteria of identity-and-individuation, and the like dear to the hearts of analytic philosophers; but I'm inclined to think that this is just the wrong approach to something as flexible, as various, and as free-ranging as the human imagination and its products.

What makes something a work of fiction? I note first that the word "fiction" derives from the Latin verb "*facere*," "to make," specifically from its past

[7] Edward Rutherfurd, *New York: The Novel* (New York: Ballantine Books, 2009).

[8] At the beginning of one of her novels Sue Grafton writes that, while the fictional Santa Teresa where her feisty, eccentric private investigator Kinsey Millhone plies her trade resembles the real Santa Maria, California, she has freely "relocated, rerouted, and renamed" roads, invented small towns, etc; and she asks readers please *not* to write and tell her she got it wrong! Sue Grafton, *S is for Silence* (New York: Berkely Books, 2006).

[9] The phrase derives from the way that, as they tell the story of their biggest catch over and over, fishermen often exaggerate the size of the fish they caught.

[10] Zoë Fairbairns, *Stand We at Last* (London: Virago Press, 1987).

[11] Susan Haack, "Not Cynicism but Synechism: Lessons from Classical Pragmatism" (2005), in Susan Haack, *Putting Philosophy to Work: Inquiry and its Pace in Culture* (2008; expanded ed., Amherst, NY: Prometheus Books, 2013), 83–96, 276–77.

participle, "*factum*," "made."[12] What makes a story a work of fiction, I would say, isn't its content, but its origin: it is fiction if it was cooked up in someone's imagination—*made up*, as we say. A former student, Meggan Padvorac, illustrated the point very nicely with two short narratives: one about how, after she was in a minor car accident, her parents grounded her for a month when they discovered she hadn't fastened her seat-belt; and the other about how she was once best man at a wedding in Mexico. The Mexican-wedding story, it turned out, was true; the car-accident story she had simply invented.

Someone may write what purports to be a true memoir that turns out to be largely invention: think of James Frey's *A Million Little Pieces*,[13] and the public outcry when it was found to be—well, a fish-story and a half! More immediately to the present purpose, it's conceivable that a novelist should make up a story that turns out actually to be true—there really is a family called Smith that lives in such-and-such a place, and the Smiths really do have these and those occupations, and these and those adventures really do befall them, and . . ., etc., precisely as he wrote in *The Smith Saga*. But the novel would *be* a novel nonetheless, because its author imagined these people, these adventures, etc.[14] Moreover, even if everything the novel says about the Smiths is true of this real family, it won't—it *can't*—say everything that's true of them; for such a complete description would be endless.

How can we identify and individuate fictional characters? Fluidly and flexibly, I'd say, consonant with the fluidity and flexibility of fiction. The simplest case is the fictional character who turns up in just one work of fiction: Dr. Lydgate is the town doctor in Eliot's *Middlemarch*, and is how Eliot describes him; Martin Arrowsmith is the medical scientist whose growth to intellectual maturity Sinclair Lewis tracks in *Arrowsmith*,[15] and is how Lewis describes him. But even here things aren't *perfectly* simple. After all, *Arrowsmith* is a kind of *Pilgrim's Progress*[16] for scientists; and Martin Arrowsmith's character grows and solidifies as his commitment to honest scientific work is tested and forged by circumstance.

Things get more complicated again when the same fictional character shows up in a whole series of novels: Lord Peter Wimsey, for example, whom we encounter in a whole series of Dorothy L. Sayers's detective stories,[17] and who gradually evolves from stereotypical Oxford-educated British aristocrat to real human being

[12] The word "fact" has the same root; but that (if you'll pardon the pun) is a whole other story.

[13] James Frey, *A Million Little Pieces* (New York: Doubleday/Anchor Books, 2003).

[14] I give such an example in chapter 7 of *Defending Science—Within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003), comparing the way a novelist would feel if his story turns out to be true, and the way a scientist would feel if his theory turns out to be false.

[15] Sinclair Lewis, *Arrowsmith* (1925; New York: Signet Classics, 1961).

[16] John Bunyan, *Pilgrim's Progress* (1678; Oxford: Clarendon Press, 1960). (The Wkikipedia article on this book, by the way, includes a long list of "*The Pilgrim's Progress* in films, television, video games, and music," and another substantial list of "Retellings.") "*The Pilgrim's Progress*," available at http://en.wikipedia.org/The_Pilgrim's_Progress.

[17] The first novel in the series was Dorothy L. Sayers, *Whose Body?* (1923; New York: Avon Books, 1961); the last was *Busman's Honeymoon* (1937; New York: HarperTorch, 2006).

as the series proceeds; or Robert B. Parker's laconic tough-guy private eye, Spenser, whose character changes subtly after he gets together with psychiatrist girlfriend Susan Silverman, with her Harvard Ph.D., and again after he is shot and nearly killed, and so on.[18] But in such cases, as with *Arrowsmith*, I'd be inclined to say simply that the novelist is exercising his or her prerogative to change a character's properties, to represent him or her as changing over time—just as real people do.

Things get more complicated yet when one writer takes over from another: Shakespeare embroiders on tales from Boccaccio;[19] Tom Stoppard centers a play around two minor characters in Shakespeare's *Hamlet*;[20] Rudyard Kipling writes a new "Canterbury Tale" in the style of Geoffrey Chaucer;[21] after Parker's death, Ace Atkins writes the next novel in the Spenser series—described on the cover as "Robert B. Parker's *Lullaby*, by Ace Atkins";[22] and in 2014 Dorothy Sayers's Peter Wimsey and Harriet Vane, now middle-aged, turn up as lead characters in Jill Paton Walsh's *The Latin Scholar*.[23] Different episodes of a TV drama series are written by different people, or different teams; different time-slices of "The Simpsons" are drawn by different cartoonists, . . ., and so on. I won't even *mention* the recent new *genre*, "fan-fiction," with its vampire Mr. Darcy, its team of SVU detectives from a distant planet, or whatever.

And that's before we even get to playfully meta-literary fiction, such as Jasper Fforde's wildly imaginative stories about the adventures of Jurisfiction[24] detective Thursday Next—wildly imaginative stories peopled by characters borrowed from other works of fiction:[25] Miss Havisham (borrowed from Dickens),[26] Miss Next's Jurisfiction supervisor; the "cat formerly known as Cheshire" (borrowed from

[18] The first novel in the series was Robert B. Parker, *The Godwulf Manuscript* (New York: Dell, 1973); the last, published after Parker's death in 2010, was *Sixkill* (New York: Berkley Books, 2011).

[19] Shakespeare's "All's Well that Ends Well," for example, is adapted from Boccaccio's *Decameron* (third day, ninth story). Anne Wilson, "The All's Well Story," available at http://www.annewilson.co.uk/allswellhtm

[20] Tom Stoppard, "Rosencrantz and Guildenstern are Dead," first staged at the Edinburgh Festival in 1966.

[21] Rudyard Kipling, "The Master Cook," in James Cochrane, ed., *Kipling* (Harmondsworth, Middlesex: Penguin Books, 1982), 287–88.

[22] Ace Atkins, *Lullaby* (New York: Berkley Publishing Group, 2012).

[23] Jill Paton Walsh, *The Latin Scholar* (New York: Minotaur, 2014).

[24] "*Jurisfiction* is the name given to the policing agency that works *inside* books." Fforde, *The Well of Lost Plots* (note 25 below), 26.

[25] See, e.g., Jasper Fforde, *The Eyre Affair* (London: Hodder and Stoughton, 2001); *Lost in a Good Book* (London: Hodder and Stoughton, 2002); *The Well of Lost Plots* (New York: Penguin Books, 2003).

[26] Charles Dickens, *Great Expectations* (1860–61; New York, Bantam Classic, 2003). Dickens's Miss Havisham is an elderly lady who was jilted at the altar, and still wears her moldering wedding dress and keeps her moldering wedding-cake; Fforde's Miss Havisham, however, is not a recluse but a Jurisfiction supervisor—and a demon driver.

Lewis Carroll),[27] the Guide to the Great Library; Mary Mary (borrowed from a nursery rhyme);[28] not to mention the pair of "generics," Ibb and Obb—thinly sketched, characterless, even genderless, "characters" with no back-story—who, as *The Well of Lost Plots* proceeds, gradually develop into two very different (imagined) people.

And then there are those fictionalized real people, who, as Göhner et al. realize, pose some rather special problems. For example, as they illustrate very nicely, there is a whole variety of versions of the legend of King Arthur; and so, they think, a puzzle about whether, and if so how, to order these fictionalized King Arthurs as more or less real, less or more fictional. Can we look to how many properties of the real X the fictionalized X shares? I don't think so; we have no principled way of identifying and individuating properties, and even if we did, we'd surely want to give greater weight to some than to others.[29] Can we decide by asking how similar the fictionalized X is to the real X? I don't think so; we have no clear way of ordering degrees of similarity, either. We can say, to be sure, that the fictionalized X is like the real X in these respects, and unlike him in those. And in a case like the legend of King Arthur, where a tale is told and retold over and over, we can distinguish the different embroidery provided by this author or that film-maker, etc.; and we can track which earlier source, or sources, most influenced which later version. We might say that a movie version set largely outdoors in damp, dark, muddy English weather, is "more realistic" than another where Camelot is apparently well-lighted and centrally-heated; we might add that "Monty Python and the Holy Grail" is less a version than a parody of the legend. But that's about it.

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Once upon a time, I had a Quinean T-shirt—a gift from a student—that read (on the front) "To Be is to Be the Value of a Variable," and (on the back) "No Entity

[27] Lewis Carroll, *Alice's Adventures in Wonderland* (1865), in Roger Lancelyn Green, ed., *The Works of Lewis Carroll* (Feltham, Middlesex: Spring Books, 1968), 19–110, 61–67. Fforde's "cat formerly know as Cheshire," however, guides visitors to the library that contains all the fiction ever published and, in the basement, the twenty-six floors of the "well of lost plots," where books are constructed, honed, and polished in preparation for a place in the library above ground.

[28] "Mary, Mary, quite contrary, how does your garden grow/With silver bells and cockle shells/ And pretty maids all in a row"; Fforde's Mary Mary, however, lives in a grounded flying boat and keeps a pet dodo.

[29] As the co-author of a play about the relationship between Hannah Arendt and Martin Heidegger said to me, "if we'd have put in a scene where Heidegger went to the U.S.—which we know he never did—the play would have been much less realistic." Mark Migotti and Richard Savage, "Hannah's Turn," performed at the Summerworks Festival for Drama, Toronto, August 2012.

without Identity." But when I took up weight-lifting, the shirt became too small, and I had to throw it out. Now, I realize, I've outgrown not only the T-shirt, but also the aspiration to give sharp criteria of identity-and-individuation even in areas where it's not clear that such precision is feasible, or desirable—and I'm happy to have done so; for this has freed me to try out other and more fruitful approaches to those "airy nothings" that play so large a role in our lives.

Chapter 12
The Grounds of Logic: Response to Sascha Bloch, Martin Pleitz, Markus Pohlman, and Jakob Wrobel

Susan Haack

> *[Given my] rather heretical principles of philosophical research, one of which is [that] nothing can be admitted to be absolutely inexplicable, it behooves me to show how upon my principles the validity of the laws of logic can be other than inexplicable*. —C. S. Peirce[1]

"The Justification of Deduction"[2] was written more than forty years ago; so probably I should begin by saying that it wasn't I who wrote this, but my younger sister—the same young lady who wrote *Deviant Logic*.[3] Now, however, since this younger sister is no longer around, it falls to me to say a few words on her behalf.

Neither my little sister nor I ever for a moment imagined that *modus morons* was a good rule of inference—*of course* it isn't; that's why it's called *modus morons*! But Bloch et al. have done a nice job of articulating some ways in which it is, in their phrase, a "rogue" rule. They call primarily on the notion of "harmony," a term they attribute to Michael Dummett, and describe as going back to an idea of Gerhard Gentzen's: that the elimination rule for a connective is (or should be) a mere "consequence"[4] of the introduction rule for the same connective. Using Dag

[1] C. S. Peirce, "Grounds of Validity of the Laws of Logic" (1868), in Peirce, *Collected Papers*, eds. Charles Hartshorne, Paul Weiss, and (vols. 7 and 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58), 5. 318–47.

[2] Susan Haack, "The Justification of Deduction" *Mind* 85 (1976): 112–19. The paper was actually written in 1972, but spent several years awaiting publication—years during which, to my chagrin, Dummett published his paper of the same title.

[3] Susan Haack, *Deviant Logic* (Cambridge: Cambridge University Press, 1974).

[4] The quotation marks around "consequence" aren't mine, but Bloch et al.'s; I assume they indicate that Bloch et al. realize that something remains to be said about what exactly this extra-systematic concept amounts to.

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Prawitz's concept of reducibility, Neil Tennant's "inferential truth-theory,"[5] and considerations about the truth-table for "→," Bloch et al. show that the introduction rule and the elimination rule for *modus morons* are, to put it mildly, *not* in harmony. No wonder, then that (like Arthur Prior's rogue connective, "tonk") *modus morons* would wreak havoc in any logical system. My sister and I thank Bloch and Co. for this careful work.

I have, however, one correction and a couple of strategic suggestions to make, and a clutch of philosophical challenges to put to them. First, the correction: Bloch et al. are mistaken in thinking that I am, or my younger sister was, wedded to "some sort of Hilbert-Frege-style axiomatics." If they look again, they will see that "The Justification of Deduction" has nothing to say on this matter, and neither does *Deviant Logic*.[6] In fact, I'm inclined to think it's philosophically more illuminating to understand logic as primarily concerned with the validity of inferences than with the formal truth of certain formulae; but that's not something I can pursue here.

Second, the strategic suggestions: It would have been desirable to make clear that, though some of the terminology and apparatus Bloch et al. deploy is relatively new, there were surely good and sufficient reasons against *modus morons* at the time "The Justification of Deduction" was written, and for that matter long before then; and that MM would of course be a rogue rule from an axiomatic, as from a natural-deduction, perspective—even if it might be harder for Hilbert or Quine than for Gentzen or Prawitz to show why.

Now, those philosophical challenges: I would urge Bloch et al. to consider some deeper questions about the grounds of logic—questions that they don't pretend to have answered, and which I doubt the "philosophical proof-theory" to which *they* seem wedded is able to reach—but to which answers are surely needed. As Peirce observes in "The Grounds of Validity of the Laws of Logic," from which my opening quotation is taken,[7] someone might doubt every principle of inference; and even if some logical principles seem obviously true to him, he might nevertheless fear that they involve some subtle mistake. And, Peirce continues:

> I certainly shall have, among the most cultivated and respected of my readers, those who deny that those laws of logic, which men generally admit, have universal validity. But I address myself, also, to those who have no such doubts, for even to them it may be interesting to consider *how it is that these principles come to be true*.[8]

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[5] I was, by the way, struck by the fact that Tennant reportedly refers to his rule for eliminating "T" ("true") as "disquotation." If (as I gather) the theory is meant to be Tarskian, this seems a *most* unfortunate choice of word for what might better be called "semantic descent."

[6] There is a brief discussion of axiomatic vs. natural-deduction approaches in my *Philosophy of Logics* (Cambridge: Cambridge University Press, 1978), pp, 1921; but this discussion is (deliberately) entirely neutral.

[7] This is the last of Peirce's series of three articles critical of the Cartesian philosophy, published in 1868. In this paper Peirce writes largely about syllogistic logic; later, however (a few years after, and quite independently, of Frege), he developed a unified propositional and predicate calculus. For those who aren't familiar with this part of the history of logic, I recommend Hilary Putnam, "Peirce the Logician" (1982), reprinted in Putnam, *Realism with a Human Face*, (Cambridge, MA: Harvard University Press, 1990), 252–60.

[8] Peirce, *Collected Papers* (note 1 above), 5.31 (1868).

How *is* it that these principles come to be true? What *makes* the laws of logic valid? And how do we determine what the real logical principles *are*?

There is much of lasting interest in this early paper of Peirce's, including a remarkable presentation and proposed resolution of the Strengthened Liar Paradox, and an argument that, since there's no guarantee that the self-correcting character of induction will come to fruition in a single lifetime, the justifiability of induction depends on "the social principle." But, for my money, there is even more to be learned on the question signaled by its title in his later work, after he had transcended the traditional Aristotelian logic:

- Peirce distinguishes what he calls the "German" view, that what makes an argument logically good or logically bad is our subjective sense of satisfaction or dissatisfaction,[9] from the "English" view, that logical goodness and logical badness are objective, a matter of whether, or to what degree, an argument is truth-preserving;[10] and urges the superiority of the latter.
- Pursuing the "English" line, he deploys the medieval distinction between *logica utens* and *logica docens* to suggest how, by reflecting on, generalizing, and correcting our intuitive judgments of validity and invalidity, we can develop a more adequate logical understanding.[11]
- Mathematics, Peirce argues, is the science that *engages in* the necessary reasoning that deductive logic *studies*, and thus "lays the foundation on which logic builds."[12]
- This necessary reasoning, the kind of reasoning found in mathematics, he believes is essentially diagrammatic, involving a kind of experimentation on imagined diagrams;[13] so that a diagrammatic notation would best represent the true nature of valid deductive inference.[14]
- And so he develops his "existential graphs,"[15] diagrammatic notation for propositional and predicate calculus, and modal logic.[16]

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[9] The "*Gefühl* theory," which Peirce attributes specifically to Christopher Sigwart, but describes as common among German logicians at the time. *Id*., 2.19, 2.152 ff. (1902).

[10] *Id*., 2.20, 160 ff. (1902). "To some degree" because, unlike Frege's, Peirce's conception of logic includes the inductive and the abductive as well as the deductive.

[11] *Id*., 2.188 ff. (1902).

[12] *Id*., 2.197 (1902). As this reveals (even though he was aware of the possibility of reducing mathematics to logic) Peirce did not, like Frege, take mathematics to be epistemologically secondary to logic—quite the contrary. See Susan Haack, "Peirce and Logicism: Notes Towards an Exposition," *Transactions of the Charles S. Peirce Society*, 29.1 (1992): 33–56.

[13] Peirce, *Collected Papers* (note 1 above), 2.216 (1902).

[14] *Id*., 1.54 (c.1896); 2.216 (1902). Bynum reports that by 1924 Frege had reached a similar conclusion, abandoning logicism and seeking the foundations of arithmetic in geometry. Terrell Ward Bynum, ed., *Conceptual Notation and Related Articles* (Oxford: Clarendon Press, 1972), p. 54.

[15] Peirce, *Collected Papers* (note 1 above), 4.429 (c.1903).

[16] *Id*., 4.394 ff. (1903). Peirce described the existential graphs as his "*chef d'oeuvre*."

Whether Peirce's answers to these deeper questions are on the right lines is a matter for a whole other occasion, or perhaps a whole other lifetime. The point for now is only (i) that questions like these certainly deserve our attention, and (ii) that answering them will likely require us to go far beyond the quasi-formal properties of various formal-logical systems on which Bloch et al. focus, to something—well, to something *more* philosophical than "philosophical proof-theory."

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There remain two other issues, raised by Bloch et al. primarily as a way of warming up to their main themes, that need to be cleared up.

First: I was surprised to hear that *Deviant Logic* was of interest in its day, but is no longer—and not only because its second, 1996, edition[17] sold so briskly. So far as I'm aware, for example, Aristotle has had nothing new to add to the arguments about future contingents criticized in the first edition, nor Frege or Russell to their arguments about reference failure. Again, so far as I know Lotfi Zadeh has had nothing new to add to his account of fuzzy logic, subjected to searching criticism in the second edition. (Shortly after the new edition appeared, by the way, Zadeh's former student Bart Kosko sent me a copy of his book on fuzzy logic, inscribed "To Susan Haack, with warm fuzzy feelings"; and to this day Zadeh himself sends me the occasional puff-piece about the wonders of fuzzy engineering!) The reviewer whom Bloch et al. quote has evidently succumbed to the "parochialism of the recent" that is, sadly, so prevalent in philosophy today;[18] I urge them not to follow his example.

Second: Bloch et al. observe that Paul Boghossian and his friends should surely have taken note of "The Justification of Deduction" in their recent debates over epistemic relativism. Like the editors in Mexico who reprinted "The Justification of Deduction" along with Boghossian's and related papers, Bloch et al. are right about this: my paper *should* have been part of that discussion. That said, however, I must emphasize that my approach to epistemic (and other forms of) relativism is *very* different from Boghossian's—subtler, more articulated, and decidedly more constructive.

If Bloch et al. will look at my "Reflections on Relativism,"[19] they will find that, in my view, relativism is nothing like a single, simple thesis; it is a whole unruly family of theses—a family of which many members are false and some even self-

[17] Susan Haack, *Deviant Logic, Fuzzy Logic: Beyond the Formalism* (Chicago: University of Chicago Press, 1996).

[18] See Susan Haack, "The Fragmentation of Philosophy, the Road to Reintegration," pp. 000–000 in this volume.

[19] Susan Haack, "Reflections on Relativism: From Momentous Tautology to Seductive Contradiction" (1996), reprinted in Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: University of Chicago Press, 1998), 149–66. As I recall, I sent Prof. Boghossian a copy of this paper around the time it appeared; I always assumed that the reason he never cited it was that I'm not a member of his (or indeed of any) citation cartel!

undermining, but others (e.g., Tarski's thesis of the language-relativity of sentential truth) harmlessly true. Indeed, there are many varieties even of epistemic relativism, specifically—as Bloch et al. will see from the table of varieties of relativism at the beginning of this paper of mine. Moreover, in my view—again, very different from Boghossian's—the idea that relativism is *the* root of post-modernist confusions is a gross over-simplification; and the best strategy for dealing with those confusions is *not* a simple, head-on "critique of relativism," but careful dissection of the whole array of false dichotomies, equivocations, etc., that lie behind them,[20] *plus* a constructive effort to accommodate the tiny grains of truth they contain.

The best way to see how to put the various false forms of epistemic relativism and other post-modern misgivings about the legitimacy of the epistemological enterprise behind us, I believe, is to develop a viable, non-relativist, non-skeptical epistemological theory, as I did in *Evidence and Inquiry*,[21] and to show its usefulness by putting it to work on real-world problems, as I do in *Evidence Matters*.[22] The best way to deal with the various false forms of relativism and the other sources of post-modern cynicism about the scientific enterprise is to develop a viable, non-relativist, non-cynical philosophy of science, and show that it sheds light on real scientific work, as I did in *Defending Science*.[23] And the best way to deal with the various false forms of metaphysical relativism and other post-modern efforts to undermine the metaphysical enterprise is to develop a viable, non-relativist metaphysical theory and show that it can do justice both to the variety of the world, and to its unity, as I have done in a series of papers developing my Innocent Realism.[24] Prof. Boghossian's article about the proposition that brussels sprouts are delicious conveniently appears in the same volume as my "Die Welt des Unschuldigen Realismus";[25] readers interested in the differences between my approach and his might want to compare the two.

[20] Many of the papers in *Manifesto of a Passionate Moderate* do precisely this, for one or more of the myriad relevant confusions involved. See also ""Staying for an answer" (1999), in Susan Haack, *Putting Philosophy to Work" Inquiry and its Place in Culture* (2008: expanded ed. Amherst, NY: Prometheus Books, 2013), 35–45 and 269–70; "The Unity of Truth and the Plurality of Truths" (2005), in the same volume, 53–67 and 271–73.

[21] Susan Haack, *Evidence and Inquiry* (1993; second ed., Amherst, NY: Prometheus Books, 2009).

[22] Susan Haack, *Evidence Matters: Science, Proof, and Truth in the Law* (New York: Cambridge University Press, forthcoming 2014).

[23] Susan Haack, *Defending Science—Within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003).

[24] See e.g., Susan Haack, "Realisms and their Rivals," *Facta Philosophica* 4.1 (2002): 67–88; The World of Innocent Realism" (first published in German in 2014), in this volume, pp. 33–55); "The Real, the Fictional, and the Fake," *Spazio Filosofico* 8 (2013): 209–17; and my response to Göhner et al. in this volume, pp. 167–73.

[25] Markus Gabriel, ed., *Der Neue Realismus* (Berlin: Suhrkamp, 2014).

Chapter 13
The Continuum of Inquiry: Response to Christoph Fischer and Eva-Maria Jung

Susan Haack

> *. . . the philosophy which performs its analyses with an axe, leaving as its ultimate elements, unrelated chunks of being, this is most hostile to Synechism.* —C. S. Peirce[1]

Before I get to Christoph Fischer's and Eva-Maria Jung's core concerns, a few smaller issues need to be cleared up.

First, Fischer and Jung's description of my work as strongly influenced both by Peirce and by Quine is quite misleading. Peirce has been a constant philosophical companion; but Quine only in a somewhat temporary way. Early on, I worked on Quine for a time; but it's been more than twenty years since I got a purchase on his equivocations over what exactly was involved in "naturalizing" epistemology, reached the conclusion that the secret of Quine's success was his mastery of the art of disguised ambiguity[2]—and moved on. Moreover, contrary to what Fischer and Jung suggest, the "web of belief" metaphor is *not* originally Quine's; like the metaphor of "rebuilding the ship while sailing on the water," it comes from Otto Neurath.[3]

Second, there are problems with the word "science" of which I'm not sure Fischer and Jung are aware. At one time, the English word "science" had the broad meaning that "*Wissenschaft*" still has in German, referring to any kind of systematized knowledge; but since the latter part of the nineteenth century its use has narrowed, so that now it refers only to such disciplines as physics, chemistry, biology, the medical sciences, and usually (though some are still inclined to resist

[1] C. S. Peirce, "Immortality in the Light of Synechism" (1893), in Peirce Edition Project, ed., *The Essential Peirce* (Bloomington and Indianapolis, IN: Indiana University Press, vol. 2, 1998), 1–4, 2.

[2] W. V. Quine, "Epistemology Naturalized," in *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969), 69–90. Susan Haack, *Evidence and Inquiry* (1993; 2nd ed. Amherst, NY: Prometheus Books, 2009), chapter 6.

[3] Otto Neurath, "Anti-Spengler," in Marie Neurath and Robert S. Cohen, eds., Otto Neurath, *Empiricism and Sociology* (Dordrecht, the Netherlands: Reidel, 1973), 159–213, 161.

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J.F. Göhner, E.-M. Jung (eds.), *Susan Haack: Reintegrating Philosophy*,
Münster Lectures in Philosophy 2, DOI 10.1007/978-3-319-24969-8_13

this) also to the social sciences.[4] In the writings most relevant here, Peirce uses the words "science," and "scientific" in the older, broader sense; and, when he writes specifically of physics, chemistry, etc., he describes them as the "special sciences." His philosophy is thus "scientific," because it relies on experience as well as reasoning; but this is not to assimilate philosophy to the special sciences.[5]

And a third problem is that Fischer and Jung sometimes use the phrase "normal science": which, since Thomas Kuhn's *Structure of Scientific Revolutions*, almost inevitably conveys to an English-speaking reader the idea of routine science, science conducted under an unquestioned paradigm—"puzzle-solving" in Kuhn's somewhat denigratory sense.[6] But I don't *think* this was what Fischer and Jung intended; so in what follows I'll take their use of "normal science" to correspond to Peirce's "special sciences."

All this said, I can now turn to my account of the place first of the special sciences, and then of philosophy, on the continuum of inquiry.

In *Defending Science*[7] I developed what, borrowing from Peirce,[8] I called a "Critical Common-Sensist" account of the character of the core business of the special sciences—an intermediate position between the logical imperialism of the Old Deferentialism and the sociological imperialism of the New Cynicism. As Fischer and Jung appreciate, this intermediate position is synechist in spirit,[9] stressing the continuity of scientific inquiry with everyday empirical inquiry,[10] such as investigation of the cause of a bad smell, spoiled food, a delayed flight, etc. Perhaps—after decades of competing formal models of the supposed "scientific method" (inductive, deductive, probabilistic, etc.)—this synechistic approach sounds radical; but the underlying idea has a substantial and distinguished history, from Thomas Huxley to Albert Einstein, Percy Bridgman, John Dewey, James Conant, and Gustav Bergmann. As Huxley put it, the man of science "uses with scrupulous exactness the methods which we all . . . use carelessly."[11]

If what is meant by "the scientific method" is some procedure used by all scientists and only by scientists, and explaining their successes, there is no such

[4] I describe the relevant linguistic history in "Six Signs of Scientism" (2010), in Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, 2008; 2nd ed., 2013), 105–20, 278–83, footnotes 5 and 6.

[5] See., e.g., C. S. Peirce, *Collected Papers*, eds. Charles Hartshorne, Paul Weiss and (vols. 7 and 8), Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58), 1.126 (c.1905).

[6] Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL: University of Chicago Press, 1962), 35–42.

[7] Susan Haack, *Defending Science—Within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003).

[8] Peirce, *Collected Papers* (note 5 above), 5.438–537 (1905).

[9] See, e.g., *Id*., 6.102-63 (1892); 5.4 (1902). See also Susan Haack, "Not Cynicism but Synechism: Lessons from Classical Pragmatism" (2005), reprinted in Haack, *Putting Philosophy to Work* (note 4 above), 83–96, 276–77 pp.92–94.

[10] Not, however, the continuity of scientific with common-sense *knowledge*.

[11] See *Defending Science* (note 7 above), 93–95 and accompanying notes.

thing. There are only (i) the underlying procedures and modes of inference used by all serious empirical inquirers; and, gradually developed over centuries of scientific work, (ii) the vast array of specialized scientific "helps"[12] to inquiry—from instruments of observation, measurement, imaging, etc., the calculus, statistics, computers, experimental design, models, and metaphors, to the internal social mechanisms that provide incentives to good work and disincentives to cheating—a remarkable repertoire of technical and social resources on which scientific inquiry can now call. These special-scientific helps have extended human beings' unaided evidential reach, enabled more rigorous assessment of the worth of evidence, stretched scientists' imaginative powers, and (up to a point)[13] sustained honesty and evidence-sharing in the scientific community.

This Critical Common-Sensist picture, I argued, at least partly explains how the special sciences have achieved their remarkable successes. It shows us that the special sciences are epistemologically *distinguished*, but not epistemologically *privileged*—deserving respect rather than deference; and suggests how the social aspects of the enterprise can *enable* the progress of science rather than (as Old Deferentialists and New Cynics both assumed),[14] inevitably threatening its rationality.

Fischer and Jung describe my synechist philosophy of science as "descriptive"; I would prefer to say that its core purpose is explanatory. The goal is to understand how the special sciences do their work and why, over the last four-hundred-and-some years, they have achieved so much. But Fischer and Jung are right that it is not my intent—as it was, say, Popper's, or Lakatos's—to tell scientists how to do their job. So far, so straightforward.

As Fischer and Jung notice, however, when we turn from my philosophy of science to my philosophy of philosophy, things aren't quite so straightforward. But the first step is simple enough. As I conceive it, philosophy is, first, a kind of *inquiry*. This would be quite uncontroversial, probably, if it weren't for Richard Rorty's influential championship of the idea that philosophy is "just a kind of writing," a *genre* of literature distinguished only by the names it drops—"Plato," "Aristotle," …, "Descartes," "Locke," .., "Kant," …, etc.[15] I have little doubt, however, that if we could ask them, Plato, Aristotle, Descartes, Locke, Kant, and co. would tell us that what they were doing *wasn't* just writing, but *trying to figure*

[12] The word is borrowed from Bacon. Francis Bacon, *The New Organon* (1620), Aphorism II, trans. James Spedding, Robert Leslie Ellis, and Doublas Denon Heath, in *The Works of Francis Bacon* (Boston: Taggard and Thompson, 1863).

[13] But only up to a point: as I argued in "The Integrity of Science," as science has grown larger and more expensive, those social helps are coming under severe strain. Susan Haack, "The Integrity of Science: What it Means, Why it Matters" (2006), reprinted in *Haack, Putting Philosophy to Work* (note 4 above), 121–29, 283–93.

[14] See Haack, *Defending Science* (note 7 above), chapter 7.

[15] Richard Rorty, "Philosophy as a Kind of Writing: An Essay on Derrida" (1978–79), in *Consequences of Pragmatism* (Hassocks, Sussex: Harvester Press, 1982), 90–109.

things out. So I think Rorty's proposed re-conception of philosophy is—there's really no politer way to put it—just silly.

However, as I conceive it, philosophy is, specifically, a kind of *empirical* inquiry; and this claim, of course, is much more controversial. Many in the history of philosophy have supposed that philosophy is an entirely *a priori* enterprise; indeed, "the A Priori Method," as Peirce called it, the method of "what is agreeable to reason,"[16] is still with us today in the work of, among others, David Lewis, Saul Kripke, David Chalmers, and the many, many, smaller fry swimming in their wake—not surprisingly, since the still-dominant analytic tradition of philosophy-as-conceptual-analysis is essentially apriorist in spirit. As Peirce said long ago, however, when philosophy relies on what is agreeable to reason—or, as the twenty-first-century jargon has it, on philosophical "intuitions"—the inevitable result is endless, never-resolved disputes, and a discipline seemingly incapable of progress.

It is my belief, as it was Peirce's, that philosophy is not just about our concepts, or our language(s), but *about the world*: nowhere more obviously than in metaphysics, with its questions about what kinds of things, etc., there are, whether time is real, whether human beings have free will, how the mind relates to the body, and so forth; but also in philosophy of science, with its questions about how scientific vocabularies relate to the world, how the "literature" of science differs from imaginative literature, and so on; in epistemology, with its questions about how we perceive, remember, and know our own minds, and about what it is about the world, and about us, that makes it possible for us to come up with explanations and predictions that work, etc.; in fact, in every area. And when philosophers look to the world, rather than spinning their theories, spider-like,[17] out of their own substance, disagreements can be resolved, and progress made.

But, third (and again like Peirce), though I see philosophy as like the special sciences in being a kind of empirical inquiry, I believe it is unlike them in the *kinds* of experience it requires. Philosophy needs no fancy instruments, sophisticated experiments, or, as Peirce says, "voyages and exhumations"; indeed, as he continues, to conduct an experiment to determine whether there is uniformity in nature would be like "adding a teaspoon of saccharine to the ocean in order to sweeten it."[18] What philosophy needs is *keen attention to familiar facts*: such as, in my recent work, the fact that, in the small corner of the world in which we humans live, there are not only rocks, mountains, rivers, trees, insects, animals, etc., and the physical particles of which they are composed, but also a whole host of human creations, physical and mental, intellectual and imaginative;[19] that we can learn from history and from novels, as well as from psychological experiments, about

[16] Peirce, *Collected Papers* (note 5 above), 5.383 (1877).

[17] The analogy is Bacon's. See Bacon, *New Organon* (note 12 above), Aphorism XCV.

[18] Peirce, *Collected Papers* (note 5 above), 5.522 (c.1905).

[19] Susan Haack, "Brave New World: On Nature, Culture, and the Limits of Reductionism," in Bartosz Brozek and Jerzy Stelmach, eds., *Explaining the Mind* (Kraków, Poland: Copernicus Center Press, forthcoming 2016).

what makes human beings tick; that we can sometimes successfully predict how this animal, or that stuff, will behave[20]; etc., etc.

This conception is entirely compatible with the tolerant methodological pluralism I urged in "Formal Philosophy? A Plea for Pluralism."[21] Yes, it rules out a conception of philosophy as "just a kind of writing"; and it precludes, on the one hand, a wholly *a priori* approach and, on the other, a surrender of philosophical questions to the special sciences. But within these broad limits it permits—indeed, it encourages—a community of philosophical inquirers working in different ways: some using logical formalism; some mining the older philosophical literature, or novels, or the work of thoughtful scientists or legal scholars, or …, etc., for neglected insights; some offering metaphysical, epistemological, ethical, etc., speculation; some focused tightly on the fine details of a very specific problem; some trying to synthesize ideas from one area with ideas from another; … and so on. And this conception of philosophy is entirely hospitable, also, to the contributory relevance of results from the special sciences that I stressed with respect to epistemology in *Evidence and Inquiry*;[22] with respect to ethics in "Six Signs of Scientism";[23] and with respect to philosophy of mind in "Brave New World."[24]

But—this is where things get *much* less straightforward—Fischer and Jung are correct in thinking that what I have to say about the place of philosophy on the continuum of inquiry has something of the nature of a recommendation; i.e., as they put it, it has a normative edge that my account of the place of the special sciences on that continuum does not. To understand why there is this difference, think back to Francis Bacon's *New Organon*.[25] To us, today, Bacon's core advice—that if you want to find out how the world is, you have to explore it, to manipulate it, to experiment, to get your hands dirty—seems undeniable; *of course* you can't do empirical scientific work by pure speculation. But we know that King James, to whom Bacon's book was dedicated—and who was, in his day, one of the finest scholars in Europe—found it virtually unintelligible ("it is like the peace of God," was his response; "it passeth all understanding"). In short, when Bacon wrote, he was recommending how the special sciences should go about their business if they are to make progress. Similarly, when I offer my conception of philosophy, I am recommending how *our* discipline should go about its business if *it* is to make progress. But if (if *only*!) philosophers were to heed my advice, in time this would seem as undeniable, as descriptive, as Bacon's insistence that scientists must put nature on the rack does to us.

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[20] See, e.g., *Defending Science* (note 7 above), 125.

[21] Susan Haack, "Formal Philosophy? A Plea for Pluralism" (2005), reprinted in Haack, *Putting Philosophy to Work* (note 4 above), 235–50 and 310–13.

[22] Note 2 above.

[23] Note 4 above.

[24] Note 19 above.

[25] Note 12 above.

Before I finish, I should add a few words on the subject of "experimental philosophy," about which I suspect Fischer and Jung think I should be more enthusiastic than I am. I'm tempted just to say: it's a fad; and I *detest* fads.[26] But no; something more is needed. So far as I can determine, this recent fad is a kind of bait-and-switch operation: it *seems* to offer a new way of doing philosophy that is both exciting and defensible, but when you look more closely you see that what's really on offer is either exciting but not defensible, or else defensible but not exciting. Let me explain.

In the first instance, it seems, the idea of experimental philosophy was to continue doing philosophy-as-conceptual-analysis, but by the survey method rather than from the armchair. This is the exciting-but-not-defensible version. Its roots lie in the conceptual-analysis approach, which is just a variant of the old philosophical apriorism I have urged we set aside.

In due course, however, this initial project seems to have spawned two other approaches, quite different both from the original model and from each other—but all still marching, unfortunately, under the same "X-Phi" banner: interdisciplinary work at the borders of psychology and philosophy (often relying on psychological experiments conducted, well or not so well, by philosophy professors themselves); and meta-philosophical reflection on the old conceptual-analysis model, prompted by the belated realization that there mayn't always be a unique concept of this or that, but may be a variety of different conceptions. These are the defensible-but-not-exciting versions.

Unlike X-Phi-1.0 (which is apriorism by other means), X-Phi-2.0 and X-Phi-3.0 aren't objectionable in principle. The experimental work of X-Phi-2.0 isn't always as rigorous as one might like, nor the assessment of its contributory relevance to philosophical issues always as modest as mine might be; but some of the work being done in this vein, probably, is useful interdisciplinary stuff. And the repudiation of the pure-conceptual-analysis approach implicit in X-Phi-3.0 is, insofar forth, an advance on the initial, neo-apriorist model.[27] This, however, is very old wine in very flashy new bottles. More than a century ago Peirce did experimental work on perception with Joseph Jastrow,[28] work that informed his epistemological ideas; more than twenty years ago I was exploring the epistemological relevance of J. J. Gibson's ecological approach to the psychology of perception.[29] More than a

[26] See, e.g., Susan Haack, "Preposterism and Its Consequences" (1996), reprinted in Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago, IL: University of Chicago Press, 1998), 188–208, 92 (where I complain about the prevalence in our profession of "fad, fashion, obfuscation, and fear of offending the influential").

[27] Indeed, not even X-Phi-1.0 was entirely new. As I point out in "The Fragmentation of Philosophy" (this volume, 3–32), Arne Næss had done the same kind of survey work (in his case focusing specifically on the concept of truth) in the 1930s—and survey work apparently a good deal more rigorous, I might add, than Joshua Knobe's.

[28] C. S. Peirce and Joseph Jastrow, "Small Differences in Sensation" (1884), in Peirce, *Collected Papers* (note 5 above), 7.21–48.

[29] *Evidence and Inquiry* (note 2 above), 162–63.

century ago, Peirce had articulated how meaning grows as our knowledge grows;[30] and more than a decade ago I was exploring how conceptual shifts and changes have enabled progress in the special sciences.[31] So it's really no wonder that I'm underwhelmed by all the hype about the "new" experimental philosophy.

[30] Peirce, *Collected Papers* (note 5 above), 7.587 (c.1866-67), 2.303 (c. 1895).

[31] Haack, *Defending Science* (note 7 above), 129–35, 225–26 See also Susan Haack, "The Growth of Meaning and the Limits of Formalism, in Science and Law," *Análisis filosófico* 29, no.1 (May 2009): 5–29.

Chapter 14
The Aims of Education: Response to Markus Seidel and Christoph Trüper

Susan Haack

> *I believe that . . . education . . . begins unconsciously almost at birth, and is continually shaping the individual's powers, saturating his consciousness, forming his habits, training his ideas, and arousing his feelings and emotions. . . . [T]he individual gradually comes to share in the intellectual and moral resources which humanity has succeeded in getting together.* —John Dewey.[1]

Truth to tell, I was a little surprised to learn that my writings include a philosophy of education; and then a little surprised again to learn that the paper in which my philosophy of education is to be found is "Multiculturalism and Objectivity." Before this, I'd probably have said that—but for the thoughts expressed in "Preposterism and Its Consequences,"[2] and "Out of Step,"[3] about how the ways in which higher education is currently organized tend to erode academic ethics, and so to frustrate (what should be) the real purposes of a university—philosophy of education wasn't a topic on which I'd had much to say.

Nevertheless, Seidel and Trüper are correct: there are indeed some more general thoughts about education to be gleaned from the few short paragraphs in "Multiculturalism and Objectivity"[4] to which they refer. Unfortunately, however, they

[1] John Dewey, "My Pedagogic Creed" (1897), in Larry A. Hickman and Thomas M. Alexander, eds., *The Essential Dewey* (Bloomington and Indianapolis, IN: Indiana University Press, 1998), vol. 1, 229–35, p. 229.

[2] Susan Haack, "Preposterism and its Consequences" (1996), in *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: University of Chicago Press, 1996), 136–48. I return to the themes of this paper in my reply to James Gouinlock, "Professing Philosophy: Response to James Gouinlock," in Cornelis de Waal, ed., *Susan Haack: A Lady of Distinctions* (Amherst, NY: Prometheus Books, 2007), 329–32.

[3] Susan Haack, "Out of Step: Academic Ethics in a Preposterous Environment" (2011), in Susan Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (2008; expanded edition, Amherst, NY: Prometheus Books, 2013), 251–67 and 313–17.

[4] Susan Haack, "Multiculturalism and Objectivity" (1995), in *Manifesto* (note 2 above), 137–48.

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don't get this paper quite right; and neither, as we shall see, do they do justice to the nascent philosophy of education to be found there.

"Multiculturalism and Objectivity" was originally written in response to the bizarre idea—very popular in the US at the time I wrote it[5]—that such concepts as *truth*, *evidence*, *objectivity*, and *honest inquiry* are nothing but ideological humbug serving the interests of the powerful—specifically, the interests of white men; and that the cure was for educators to give equal respect, and equal time, to women's, or to black people's, "ways of knowing" (an idea lampooned in the *very* funny episode of "The Simpsons" where Lisa stomps out of the pastel-decorated girls' math classroom in disgust when she's told to "imagine how it feels to be odd," and sneaks into the boys' classroom instead—only to find that it's a war-zone, covered in graffiti and full of burning litter!).[6] "Western civilization," it was claimed, was the work of "dead white males." And so the bizarre idea that girls, or black children, should be educated in accordance with their supposedly distinctive ways of knowing was promoted in the name of "multiculturalism"—as if "female," or "black," identified distinct cultures.

So central themes in "Multiculturalism and Objectivity" were that, to the contrary, the concepts of truth, evidence, etc., are perfectly legitimate; and that honest inquiry, seeking the truth by looking for, and assessing the worth of, evidence isn't "a white male thing," but a *human* thing. In consequence, I argued, to educate children—whether girls or boys, whether black or white—as proposed by "multiculturalists" of this racist and sexist stripe would be catastrophic. "Particularistic educational multiculturalism," as I called it, puts the stress on this or that group or kind of person. As a result it loses sight of what, in my view, matters far more: what we all have in common *qua* human beings, and what's unique about each individual.[7] As I wrote in "Staying for an Answer":

> As the stress on the interests of this or that class or category of person has waxed, our sense of our common humanity and our appreciation of individual differences has waned, until we are in danger of forgetting that fallible inquiry—the ragged, untidy process of groping

[5] To judge by a recent press report, these ideas are apparently *still* influential: in 2011, I read, the English department at the University of California, Los Angeles, changed its curriculum, dropping the requirement that students majoring in English take one course on Chaucer, two on Shakespeare, and one on Milton, and requiring instead that they take three courses in the areas of "Gender, Race, Ethnicity, Disability and Sexuality Studies; Imperial, Transnational, and Postcolonial Studies; genre studies, interdisciplinary studies, and critical theory; or creative writing." Heather Mac Donald, "The Humanities Have Forgotten Their Humanity," *Wall Street Journal*, January 4–5, 2014, A11.

[6] The Simpsons, "Girls Just Want to Have Sums," episode number 19, season 17, directed by Nancy Kruse, written by Matt Selman. FOX, April 30, 2006. See http://simpsons.wikia.com/wiki/GirlsJustWanttoHaveSums.

[7] Anthropologist Margaret Mead, I read, once wrote: "Always remember that you are absolutely unique—just like everyone else." David Barash, "What Makes Humans Unique?" *Wall Street Journal* (online), November 15, 2013 (reviewing Thomas Suddendorf, *The Gap: The Science of What Separates Us from Other Animals* [New York: Basic Books, 2013]).

for, and sometimes grasping, something of how the world is—is a human thing, not a white male thing. This is very sad.[8]

To illustrate the key point, that the capacity for inquiry is something all normal humans share, I referred to the stone-age culture of the Bushmen of the Kalahari Desert. Bushman myths about the creation of the world, the causes of the seasons, etc., I argued, are by no stretch of the imagination epistemologically on a par with the best scientific theorizing; nevertheless, these primitive people clearly have the intelligence that has made science possible—as I wrote, anyone who could devise a weapon as ingenious as the triple-jointed poisoned arrows with which they hunt their game could also, in the right circumstances, devise an airplane. But even if the book by Elizabeth Marshall Thomas on which I relied[9] *did* romanticize her subjects, as Seidel and Trüper suggest, my essential point—which I could have made, instead, by pointing to ancient Chinese astronomy, or to medieval Arab medicine, or . . ., etc.—would be unaffected.

Much more important, though, is that Seidel and Trüper have over-interpreted my brief words about the value of teaching students, especially students in a multicultural society, about cultures other than their own: that "awareness that others do things differently and take different beliefs for granted" can help you "discriminate the conventional from the non-conventional in your own practice and thinking."[10] This, they believe, indicates that I take critical thinking to be the aim of education. However, as they acknowledge, I didn't say this explicitly; and neither, contrary to what they suppose, is this the thought behind what I *did* say.

Why not? For two reasons: first, because I believe there are *many* legitimate aims of education, not just one; and second, because I have significant reservations about making "critical thinking" even one of the items on my list.

The aims of education, I would say, include:

- Introducing and honing certain skills, most obviously, reading, writing, elementary arithmetic, speaking cogently; and if possible, a working grasp of (an)other language(s) besides the students' own.[11]
- Imparting something of certain fields of knowledge, such as history, geography, mathematics, the sciences, the literature of students' native tongue (and, if possible, of the other language(s) they learn).
- Training and disciplining students' intelligence, giving them some sense of what constitutes strong evidence and what weak, of what sources of information are credible and what not, how to go about figuring out the solutions to various kinds of problem, how to think constructively, creatively, imaginatively.

[8] Susan Haack, "Staying for an Answer" (1999), in *Putting Philosophy to Work* (note 2 above), 35–52, 269–70.

[9] Elizabeth Marshall Thomas, *The Harmless People* (New York: Vintage, 1959).

[10] "Multiculturalism and Objectivity" (note 4 above), p.139.

[11] I set aside, as far beyond my competence, the very difficult questions about the desirability or otherwise of bilingual education in communities where two languages are spoken (as in Miami, where by now more than half the population is Spanish-speaking).

- Awakening students' aesthetic sense by exposing them to worthwhile music, poetry, art, etc.
- Instilling certain values, among them punctuality, honesty, consideration for others, a work ethic.
- Giving students some opportunity to use their hands to make things, to have some sense of craftsmanship.

I certainly don't claim that this list is comprehensive, that exactly what is meant by each element is transparent, or that every element is equally important. But it's enough to make clear that I *don't* accept the kind of one-dimensional picture Seidel and Trüper thought they found in my work. And you will notice, I'm sure, that "critical thinking" doesn't appear on the list at all, at least not explicitly.

Why not? Well, first, because (at least in many universities and colleges in North America), philosophy departments often put on courses called "Critical Thinking"[12]—usually focused on training students to identify certain "informal fallacies," such as arguments *ad hominem*, begging the question, etc.—as a way of attracting those who couldn't cope with even a baby logic course. Such courses often present critical thinking as a skill, indeed as an *examinable* skill, and moreover an examinable skill that can be mastered in a semester. In my view, however, what "critical thinking" *really* means is something much subtler, something that *can't* be taught in this mechanical way—something that belongs on my list, not under "skills," but under "training and disciplining students' intelligence": learning not to be unduly credulous, when to question the reliability of a source and how to go about checking it out, when to look for more evidence before forming an opinion, …, and so on. This certainly can't be reduced to the identification of those informal fallacies; moreover, it is best conveyed *in the context of teaching some substantive material*, and *by example, rather than by exercises, or by exhortation*. This is why I sometimes say that, in the sense that matters, *all* my courses are courses in critical thinking.[13] And it's particularly dangerous, I believe, to convey the impression that critical thinking can be mastered in a semester; when really it's something you never *stop* learning.

Moreover—the second reason I didn't put "critical thinking" explicitly on my list—I fear the phrase tends to suggest that what's involved is essentially negative, simply a matter of criticizing what you read or hear. But what I describe as "the training and disciplining of intelligence" should place at least as much stress on the positive, the constructive: on getting in the habit of trying to build on what you

[12] Indeed, the California State University system requires that all their students take a course in critical thinking. Executive Order No. 1065 relating to California State University General Education Breadth (CSU GE Breadth) requirements (September 16, 2011), Article 4. Other universities (including Fisk University, James Madison University, Marshall University, and Sioux Falls University) have similar requirements. See http://www.fisk.edu/academics/core-curriculum; http://www.jmu.edu/gened/message/shtml; http://www.marshall.edu/gened/core-i-courses; http://www.usiouxfalls.edu/index.php?option=com_content&task=view&id=1956.

[13] I still recall the reaction of the students in my first Law School class: accustomed to being asked simply to master a ton of material, they said, in amazement, "You actually want us to *think* about this stuff?"

already know, to develop promising but imperfect ideas; of coming up with possible solutions to questions you encounter, working them out in detail, testing them against further evidence, etc.

A particularly clear example of the problems with the negative connotations of "critical thinking" is painfully familiar to me from the way students in philosophy, especially graduate students, are often trained: essentially, in how to score points off some well-known claim, idea, or approach, often in hopes of writing a critical paper that might possibly be publishable. This is why I tell *my* students that, no matter what other faculty members may say, in my classes I'd prefer that they try to be constructive and not merely critical; that it's fine to acknowledge where there's something they don't fully understand or can't yet articulate exactly; and that they should think of term papers as an opportunity for building and stretching their intellectual muscles, and *not* try to write for publication until they are really ready to contribute.

Finally: going back to my list for a moment, I note that the relations among the aims I mentioned are quite complex: some have a certain priority, for example, and others interact. For instance, it's hard to teach students much history until they have at least some skill at reading, or much physics until they have some mathematical skills—and it's a good deal easier to teach students a second language if you start when they're very young; while the surest way to acquire, not just minimal literacy, but the ability to write well, is to be exposed to good writing. Moreover, many of these aims aren't well-conceived as falling exclusively to schools and universities; some are instilled, at least in part, at home, and many are still being learned when a young person's formal education is over.

How, Seidel and Trüper ask, can one teach students something of cultures other than their own without condescension or disrespect? I have no specific proposals about how to do this, much less about how to do it specifically at each stage of education, or for students of differing abilities. But I do have some experience of how, in a university setting, cultural differences may deepen what students learn. A Muslim student, for example, set off a useful discussion in a class on the relation of science and religion by explaining how her conception of what a religion is differed from my, vaguely-Christian, one. Again, two Chinese-speaking students in a class on philosophy of logic enabled us to understand that the definite descriptions of which Russell offered his famous logical analysis are a feature of some, but not all, languages; and made otherwise abstract-seeming questions about the relation of logic and language vivid.

As for Seidel and Trüper's more general question, though, I have just one thought to offer. It is crucial to distinguish *respect for a person*, and *respect for an opinion or a practice*, etc. On many topics, there is room for reasonable disagreement; but even when there really *isn't*, that someone is mistaken doesn't mean that he or she is a bad, or a stupid, person. I've noticed recently what seems to be a growing tendency to describe someone who is in agreement with some claim or proposal as "agreeable" to it. By suggesting that someone who disagrees must be "disagreeable," i.e., an unpleasant, difficult person, this promotes exactly the confusion I'm warning against. If you are to learn from other people, or from other cultures, you must set this nasty confusion firmly behind you.

Chapter 15
The Evolution of Legal Systems: Response to Helena Baldina, Andreas Bruns, and Johannes Müller-Salo

Susan Haack

> *The development [of the common law] has gone on for nearly a thousand years, . . . each generation taking the inevitable next step, mind, like matter, simply obeying a law of spontaneous growth.* —Oliver Wendell Holmes.[1]

Helena Baldina, Andreas Bruns, and Johannes Müller-Salo write of the "Haack-Holmes Conception of Law." Flattering as this is, I should begin by saying plainly that what I mean by calling my (still-developing) legal philosophy "neo-classical legal pragmatism"[2] is that it calls on ideas *not only* from Holmes,[3] *but also* from C. S. Peirce,[4] from

[1] Oliver Wendell Holmes, "The Path of the Law" (1897); reprinted in Sheldon Novick, ed., *Collected Works of Justice Holmes* (Chicago, IL: University of Chicago Press, 1993), vol. 3, 391–406, 398.

[2] Susan Haack, "The Pluralistic Universe of Law: Towards a Neo-Classical Legal Pragmatism," *Ratio Juris* 21, no.4 (2008): 453–80.

[3] Which is *not* to say, as Baldina et al. do, that it "rel[ies] comprehensively" on Holmes's ideas.

[4] For example, my reluctance to give a precise definition of what constitutes a legal system, and my preference for a gradualist conception of the centrally legal, the quasi-legal, etc., are rooted in my sympathy with Peirce's "synechism," the methodological principle that urges us to look for continuities rather than sharp dichotomies. C. S. Peirce, *Collected Papers*, eds. Charles Hartshorne, Paul Weiss, and (vols. 7 & 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58), 6.169–71 (1902). See also Susan Haack, "Not Cynicism but Synechism: Lessons from Classical Pragmatism" (2005), reprinted in Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, 2008; 2nd ed., 2013), 83–96, 276–77; and "The Pluralistic Universe of Law: Towards a Neo-Classical Legal Pragmatism." (note 2 above).

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John Dewey,[5] and from William James[6]—to whom I owe the marvelously Janus-faced concept of a pluralistic universe.[7] And it bears emphasizing that I accept these pragmatist ideas *not* because they are pragmatist, but because, so far as I can tell, they are true.

That said, from here on I'll focus specifically on three questions that Baldina et al. raise: (i) how I understand Holmes's idea of law as prediction; (ii) what I mean by writing of the evolution of legal systems; and (iii) how I see the differences between common-law and civil-law régimes.

"Law as prediction" is not, as Baldina et al. suggest, the most important theme in my approach; and neither, if I read him right, is it the most important theme in Holmes's. As I read Holmes, the brisk opening paragraphs of "The Path of the Law," are intended to disabuse his audience of any high-flown, romantic ideas they might have about the law, and to convey a robust sense of what it's like to be a working attorney advising his clients *what the law is* (in the relevant jurisdiction at the relevant time) with respect to their problem or dispute. And to do this, as Holmes says, an attorney needs to set his own convictions about what is good, right, or just firmly aside, and instead to predict as accurately as he can what a judge would decide were the case to come before him.[8] So, while some commentators speak of Holmes's "prediction theory of the law," or of his "Bad Man theory," I see these ideas less as theoretical claims than as heuristic devices to ward off any confusion of the legal and the moral. To be sure, the idea that a judge making a legal decision is really predicting *what he himself will decide* is puzzling, to say the least;[9] but this is no objection if, as I have suggested, Holmes is thinking here, not of the judge's job, but of the working attorney's.

The first paragraphs of Holmes's lecture, as I pointed out in "On Legal Pragmatism,"[10] stand in sharp contrast to its final paragraphs, with their sweeping vision of "[t]he remoter and more general aspects of the law," that "give it universal interest";[11] and one step on the way towards this sweeping vision is Holmes's

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[5] John Dewey, "The Construction of Good," chapter 10 of Dewey, *The Quest for Certainty* (New York: Capricorn, 1929).

[6] William James, "The Moral Philosopher and the Moral Life" (1891), in Frederick Burkhardt and Fredson Bowers, eds., *The Will to Believe and Other Essays in Popular Philosophy* (Cambridge, MA: Harvard University Press, 1979), 90–113.

[7] William James, *A Pluralistic Universe* (1909), in Richard J. Bernstein, ed., *Essays on Radical Empiricism & A Pluralistic Universe* (New York: Dutton, 1971), 120–278.

[8] A "memorandum of law" does precisely this: it assembles information about relevant statutes, rules, etc., and about how other courts have decided similar issues, as the basis for predicting how this issue would be determined were it to come to court.

[9] This is not, as I noted in "On Legal Pragmatism: Where Does 'The Path of the Law' Lead Us?" (*American Journal of Jurisprudence* 50 [2005]: 71–105, 86), a new objection: it was made by Max Fisch in "Justice Holmes, The Prediction Theory of Law, and Pragmatism" (1942), in Kenneth Lane Ketner and Christian Kloesel, eds., *Peirce, Semeiotic, and Pragmatism: Essays by Max Fisch* (Bloomington, IN: Indiana University Press, 1986), 1–18, 8, and later by H. L. A. Hart in *The Concept of Law* (Oxford: Clarendon Press, 1961), 143.

[10] "On Legal Pragmatism" (note 9 above), § IV.

[11] Holmes, "The Path of the Law" (note 1 above), 406.

conception of legal systems as constantly evolving. But Baldina et al. worry that this idea is in tension with another theme of Holmes's, and of mine:[12] that judges' legal decisions aren't—indeed, very often *can't* be—simply deduced from statutes or precedents,[13] but sometimes, and quite legitimately, depend on forward-looking considerations about the consequences of deciding this way or that.

In articulating what they understand by evolution, Baldina et al. rely more on Daniel Dennett[14] than on Darwin; but I'm relieved to see that, unlike Dennett, they don't deny that human beings have beliefs, hopes, fears, intentions, etc.[15] What troubles them is that the theory of evolution makes no appeal to goals, plans, designs, or teleology, but looks exclusively to *antecedent causes* (random mutation, selective retention); while on Holmes's account, and mine, legal decisions may be informed by consideration of their *future consequences*. One problem here is that Baldina et al. have somewhat over-interpreted what I intended: perhaps they didn't notice that, while indeed I said that, as I see it, the idea of legal systems as evolving is more than just a metaphor—meaning that it wasn't merely decorative, not just picturesque speech—I *also* said that, since legal systems aren't biological organisms, neither is it to be taken quite literally.[16] Still, it's good to be prompted to articulate more fully what I take the idea of evolution to amount to as applied to legal systems, and why, so understood, it is quite compatible with judges' looking to the future when they interpret the law. So let me see what I can do.

The evolution of legal systems is similar in many ways to the more familiar phenomenon of the evolution of languages: there are families of legal systems, as there are families of languages, and there are closer and more distant relatives in legal families, as there are in linguistic families; some legal systems spread far around the world, as some languages do, while some survive only in now-scattered pockets, and others have died out; and, most to the present purpose, as I see it the

[12] By the way, the seven (not six!) pragmatist themes I identified in "Pragmatism, Law, and Morality: The Lessons of *Buck v. Bell*" (*European Journal of Pragmatism and American Philosophy* III, no.2 [2011]: 65–87) were intended, as they were presented, simply as key ideas from classical pragmatist philosophy also to be found in Holmes's thinking.

[13] Holmes, review of Christopher Columbus Langdell, *A Selection of Cases on the Law of Contracts, with a Summary of the Topics Covered by the Cases* (Boston, MA: Little, Brown, 1871; 2nd ed., 1879), *American Law Review* 14 (1880): 233–35. Susan Haack, "On Logic in the Law: Something, but Not All," *Ratio Juris* 20, no.1 (2007): 1–31.

[14] Baldina et al. refer to Daniel Dennett, *Darwin's Dangerous Idea* (New York: Simon and Schuster, 1995). I have in mind Dennett, *The Intentional Stance* (Cambridge, MA: MIT Press, 1987).

[15] As I intimated in "The Pluralistic Universe of Law" (note 4 above), 462, the theory of evolution should explain how we humans came to have our distinctive mental capacities. See also Susan Haack, "Belief in Naturalism: An Epistemologist's Philosophy of Mind," *Logos & Episteme* 1, no.1 (2010): 1–22; "Brave New World: On Nature, Culture, and the Limits of Reductionism," in Bartosz Brozek and Jerzy Stelmach, eds., *Explaining the Mind* (Kraków: Copernicus Center Press, forthcoming 2016).

[16] "The Pluralistic Universe of Law" (note 4 above), 461–62.

overall process of the evolution of legal systems is no more goal-directed than the overall process of the evolution of languages.

So part of what I have in mind is that legal systems, like languages, are among the vast array of social and cultural institutions human beings have created; and that the human capacity to create cultures, like the human capacity to create languages and other sign-systems, is itself a product of evolution. Another part is that, like languages, legal systems shift and change over time; and that these shifts and changes are strikingly like those we see in the evolution of plants or animals. The long list of examples in "The Pluralistic Universe of Law" included the system of professional jurors ("jurats") in the Channel Island of Guernsey[17]—rather like Lonesome George, the last surviving turtle of his kind, on one of the Galapagos Islands;[18] and the current Indian and Pakistani legal systems, both originally based on English law, but by now very different from each other[19]—rather like the miniature variety of a plant that thrives in alpine regions, or a white-furred variety of animal, or a white-feathered variety of bird, in the arctic.

But is there any analogue, in the ways legal systems shift and change, of the random mutation and selective retention of the evolution of species? I believe there is. I think, for example, of the rise and spread of the idea that the key to establishing specific causation in toxic-tort cases is to show that there is more than doubled risk of developing a certain disorder among those exposed to the suspect substance than among those not so exposed, which first popped up in an unremarkable vaccine case, but then gradually spread and mutated into a test for the admissibility of expert epidemiological testimony;[20] or of Justice Blackmun's casual reference, in his ruling for the Supreme Court in the landmark US case on the standard of admissibility for expert scientific testimony,[21] to Karl Popper's idea that falsifiability is the criterion of the genuinely scientific, which soon caught on in other jurisdictions[22] feeling the same need to control the scientific testimony on which courts around the world increasingly depend. Legal "mutations" are often the result of sheer contingencies—as Justice Blackmun's allusions to Popper seem to have been prompted in

[17] *Id*., 462.

[18] *Id*., 463 and notes 59 and 60. Lonesome George, I'm sorry to report, died in 2012. He was estimated to be a "young adult," around 100 years old. "Last Pinta giant tortoise Lonesome George dies," http://www.bbc.com/news/world/18574279

[19] *Id*., 462 and note 55. More recently, I learned of the equally striking evolution of European legal systems after they were transplanted to Islamic nations in the Middle East. See Majid Pourostad, "Cultura y processo jurídico en el Medio Oriente: viviendo en el proprio y mirando el de otros," in Mónica Rúa Bustamente, ed., *Processo jurídico y cultura:Una mirada global* (Medellín, Colombia: Universidad de Medellín, 2013), 93–109.

[20] Susan Haack, "Risky Business: Statistical Proof of Specific Causation," in Haack, *Evidence Matters: Science, Proof, and Truth in the Law* (New York: Cambridge University Press, forthcoming), 264–93.

[21] Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993).

[22] In Canada, in England; and more surprisingly, in Colombia, Mexico, and Italy. For more details, see Susan Haack, "Epistemology and the Law of Evidence," in *Evidence Matters* (note 20 above), 1–26, 24–25 and notes 109–113 for details.

part by the fact that, the year before *Daubert*, there happened to be a law review article endorsing a (quasi-)Popperian account of scientific method;[23] and whether such mutations survive depends on their "fitness" in this or that legal niche.

And now I can explain why the two aspects of pragmatist legal theory that Baldina et al. fear are in tension—the evolutionary and the forward-looking—work together rather than pulling apart. Shifts and changes in a legal system over time are (in part, though only in part) the result of many small steps of judicial interpretation;[24] small steps which are quite often informed by judges' assessment of what understanding of this or that legal provision will have better consequences—better consequences morally, politically, economically, from the point of view of legal efficiency, or, . . ., etc. But *these myriad small steps are not guided by any overarching plan or goal*.

For one thing, judges' decisions don't always have the consequences they intended. Ruling in *Daubert*, for example, Justice Blackmun observed that the older *Frye* Rule[25] was "an austere standard," incompatible with the "liberal thrust" of the Federal Rules of Evidence, with their "preference for admissibility,"[26] and so needed to be replaced by something more flexible; but in practice *Daubert* has arguably made it harder, not easier, to get scientific testimony admitted. But the more important point is that many significant legal shifts and changes come about *without anyone planning them*: as the US justice system gets more and more overburdened, for example, there is more pressure for criminal defendants to plea-bargain and for parties to a civil suit to settle, so fewer cases go to trial;[27] as litigation gets more protracted and more expensive, a system of "alternative dispute resolution" grows up;[28] as ever-larger mass tort claims are brought, new legal means are devised, or older legal means adapted, to handle them;[29] . . . and so on.

These are common-law examples; and, as my opening quotation reveals, Holmes's legal philosophy was centrally focused on the common law. So I won't speculate about how Holmes would have responded to the third issue Baldina

[23] Michael D. Green, "Expert Witnesses and Sufficiency of Evidence in Toxic Substances Litigation: The Legacy of Agent Orange and Bendectin Litigation," *Northwestern University Law Review* 86, no.3 (1991–92): 643–99. I say "quasi-Popperian" because Green's understanding of Popper leaves a good deal to be desired. See Susan Haack, "Federal Philosophy of Science: A Deconstruction—And a Reconstruction" (2010), in Haack, *Evidence Matters* (note 20 above), 122–42, 138–40.

[24] See Susan Haack, "Nothing Fancy: Some Simple Truths about Truth in the Law," in Haack, *Evidence Matters* (note 20 above), 294–323.

[25] From Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

[26] *Daubert* (note 21 above), 588–89.

[27] See Marc Galanter, "The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts," *Journal of Empirical Legal Studies* 1, no3 (November 2004): 459–70.

[28] See Deborah R. Hensler, "Our Courts, Ourselves: How the Alternative Dispute Resolution Movement is Re-Shaping Our Legal System," *Penn State Law Review* 108, no.1 (2003): 165–97.

[29] See Susan Haack, "Correlation and Causation : The 'Bradford Hill Criteria' in Epidemiological, Legal, and Epistemological Perspective," in Haack, *Evidence Matters* (note 20 above), 239–63, 239–41.

et al. raise, but will simply answer on my own behalf. The first thing to say is that I don't think the long-established, traditional distinction between common-law and civil-law systems is hard and fast.[30] It is routine to distinguish the two by means of (a) the common-law division of labor between the judge (responsible for determining questions of law), and the jury (responsible for deciding matters of fact), by contrast with the "inquisitorial" judge of civil-law systems; and (b) the relatively large role played by precedent in common-law jurisdictions,[31] by contrast with more highly codified civil-law systems. But, as phrases like "relatively large" and "more highly" signal, these are best conceived as differences of degree, rather than of kind.

Moreover, over time the two kinds of system have grown, in some ways, more alike. For example: the US Constitution guarantees the right to trial by a jury of one's peers; but now, in practice, relatively few cases ever go to a jury. Again: as US courts[32] have struggled to find ways to domesticate and control scientific and other expert testimony, they have begun to use their power to appoint their own experts[33]—a small but significant step towards procedures more familiar in civil-law jurisdictions.[34]

So to say, as Baldina et al. do, that "in contrast to common-law systems," civil-law systems are "codified precisely" by statutes and prescribed rules, so that judges apply the law "in a more deductive way," and only legislators concern themselves with policy considerations, is quite misleading—a considerable over-simplification of what is better conceived as a complex mesh of differences of degree. For one thing, there are, of course, plenty of statutes and rules in common-law jurisdictions, too. More to the present purpose, the whole idea of "precise codification," and of judges as engaged in a kind of logic exercise, strikes me as more than a little unrealistic, even for the most comprehensively codified civil-law system. In a 1971 book that still seems to me one of the best and most sophisticated of the

[30] It's a little like the long-established traditional distinction between Rationalism and Empiricism—also, in my view, best conceived as a matter of degree.

[31] I'm not sure how well Baldina et al. understand the role of precedent in a common-law system. Precedents matter on questions of law, not questions of fact, so it's judges (not juries) who must look to other decisions on similar issues. Moreover, there are often conflicting or competing precedents, which is why legal reasoning is sometimes described in terms of "analogizing" (drawing parallels between this case and these precedents) and "distinguishing" (noting differences between this case and other, opposite, precedents).

[32] *Daubert* and its progeny, Gen. Elec. Co. v Joiner, 522 U.S. 136 (1997) and Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999) govern the admissibility of expert testimony in federal courts and in those states that have decided to follow the federal pattern; but some states (including California, Pennsylvania, and New York) continue to follow the older *Frye* Rule.

[33] See Susan Haack, "Irreconcilable Differences: The Troubled Marriage of Science and Law" (2009), in Haack, *Evidence Matters* (note 20 above), 78–103, 100–101.

[34] Probably there are also shifts in civil-law jurisdictions in the direction of common-law procedures, etc.; but I'm not in a position to give detailed examples.

logic-of-law genre,[35] Carlos Alchurrón and Eugenio Bulygin develop a deontic logic with axioms representing the legal system of Argentina; but they draw these "axioms" from only one aspect of Argentine law, and by the time they're done, they've had to acknowledge their logic applies only *at one moment of time*. This is no accident; for everywhere legal concepts and legal provisions shift and change over time—not to mention that, almost certainly, concepts and principles often migrate from one area of law to others, in Argentine as they do in US law.

I don't mean to deny that sometimes, both in common-law and in civil-law systems, judges are simply deducing the logical consequences of a statute, a rule, a regulation. But legislators' decisions may have mixed motives, and legislation is often the result of compromise. Moreover, legislators are human; there are often unnoticed loopholes, ambiguities, and elements of vagueness, occasionally even inconsistencies,[36] in statutes and rules; and when courts encounter such ambiguities and indeterminacies, something over and above logic is obviously required. (I think in this context of the 906 pages of President Obama's Affordable Healthcare Act, apparently rife with ambiguities and indeterminacies). And even if legislators *were* to achieve perfect precision, changes in technology and society can be sources of unanticipated problems of interpretation. And since I see no reason to suppose that legislators in Italy, say, or Uruguay—or in Germany, of course—are any less fallible than legislators in common-law countries, I doubt that Italian or Uruguayan or German judges, any more than American or English or Australian ones, are engaged in a purely, or even a largely, logical exercise.

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Towards the end of their paper, Baldina et al observe that "questions concerning the advancement of society should be discussed democratically and in public"; and suggest that civil-law systems might be better in this regard. This may be, in part, because they are apparently under the false impression that common-law judges are free not to apply a law of which they disapprove; of course they aren't!—that's why there's an appeals process. That said, however, Baldina et al.'s observation about "democratic discussion" deserves attention. Admirable as the sentiment is, I'm inclined to say, its effective meaning[37] is open to interpretation; and there may be

[35] Carlos Alchurrón and Eugenio Bulygin, *Normative Systems* (Vienna: Springer, 1971). Of course, by now there's a whole raft of proposed "logics of law," impossible to keep up with them all; but my hunch is that, as we say in English, they are all chasing rainbows.

[36] Now I'm remembering the law school colleague who, just after my paper on logic in the law appeared, slapped a couple of pages of the federal tax code on my desk, and asked plaintively: "Are these even *consistent*?"

[37] The pragmatist tenor of this remark should be obvious; as should the relevance of Dewey's observations about how the favorable connotations of the word "democratic" lead to its adoption by far-from democratic régimes. John Dewey, "Philosophy and Democracy" (1919), reprinted in Larry A. Hickman and Thomas M. Alexander, eds., *The Essential Dewey* (Bloomington and Indianapolis: Indiana University Press, 1998), vol.1, 71–78.

different ways of understanding, and of striving for, the kind of "democratic discussion" of which they speak—not all of which can readily be ordered on a continuum of better and worse, more or less democratic. There are, after all, states in the US where judges are elected;[38] and many US legal commentators who see the jury as a vital democratic institution, not to mention some who see court-appointed experts as a threat to democracy.[39] But sorting out *this* tangle of issues would be an enormous task, far beyond the scope of this brief response.

[38] Election of judges for their first full term (not including filling an unexpired term or retention of an already-serving judge): 22 states have judicial elections for the highest court of the state; 18 states have judicial elections for intermediate courts of appeal; 37 states have judicial elections for at least one kind of trial court in at least one judicial district. *The Book of the States*, vol. 39 (Lexington, Kentucky: The Council of State Governments, 2007), 263–70.

[39] Howard M. Erichson, "Mass Tort Litigation and Inquisitorial Justice," *Georgetown Law Journal* 87 (1999): 1983–2004.

Chapter 16
Ethics in the Academy: Response to Simon Derpmann, Dominik Düber, Thomas Meyer, and Tim Rojek

Susan Haack

> *[Universities] ought to guard against contributing to the increase of officialism and snobbery and insincerity as against a pestilence; they ought to keep truth and disinterested labor always in the foreground . . . .*
> —William James[1]

My purpose in "Out of Step"[2] was to articulate some core academic virtues—desirable character traits that a professor needs to do his[3] job responsibly and well; and to show how recent changes in the way universities are run[4] tend systematically to erode and compromise those virtues, resulting in what I regretfully described as a steady loss of moral muscle tone. So my criticisms of the use of surrogate measures of academic quality, on which Derpmann, Düber, Meyer, and Rojek focus, were just one thread in a much broader tapestry.

It wasn't my intent, by the way, to criticize Steven Cahn's *Saints and Scamps*[5] (which as I said, its somewhat over-optimistic title notwithstanding, has many merits). Rather, I wanted to tackle some similar issues about academic ethics

[1] William James, "The Ph.D. Octopus," *Harvard Monthly* XXXVI, no.1 (March 1903): 1–9, p. 7.

[2] "Out of Step: Academic Ethics in a Preposterous Environment," in Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, expanded ed., 2013), 251–67, 313–17.

[3] Or *of course*, as I said, *her* job; but to write in that politically-correct way of "he or she" throughout would make this response unbearably complicated, and convey the false impression that it is somehow about feminism.

[4] I had in mind changes in the way US universities are run; but the warm international response to my paper (which appeared in Chinese [2010] and Portuguese [2011] before it appeared in English in 2013—the same year it appeared in Spanish) suggests that the problem extends to much of the world.

[5] Steven M. Cahn, *Saints and Scamps: Ethics in Academia* (1986; 2nd ed., Lanham, MD: Rowman and Littlefield, 1994).

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from a different angle: first, by thinking in terms of virtues rather than duties—which, I believe, reveals more clearly how the academic ethos is being eroded; and second—building on ideas I had developed elsewhere[6] about the effects of the environment in which it is conducted on how well, or how poorly, intellectual work is done—by thinking in terms of the effects of quite recent, and very significant, changes in the university environment.

One of the changes on which I focused was the shift from an older system in which universities were run largely by working academics who would take on administrative positions for a few years and then return to their classrooms and their research, to a new system of "management" of universities by professional administrators who (even if they were once professors) have long put their own teaching and research on permanent hold to work their way up the administrative career ladder. Such professional administrators, I pointed out, are hardly in a position to judge for themselves whether a person's work, or an academic program, is genuinely worthwhile or is largely unfounded hype and self-promotion; but are obliged to rely instead on surrogate or vicarious measures: e.g., how much a professor publishes, whether his publications are in "prestigious" journals or with "prestigious" presses, how often his work is cited, or how much grant money he brings in; by how a department fares in some external "ranking," and so on. Such measures, I continued, are very poor indicators of how genuinely original, meticulous, rigorous, etc., a person's work is, or of how well-conceived and well-executed a department's programs are. And when, in response to this new reality, some professors unconsciously internalize these distorted values, and others consciously game the system of perverse incentives as best they can, the academic ethos is inevitably imperiled.

So I was quite surprised, a little disturbed, and just a bit frustrated that Derpmann et al. should *defend* the use of these surrogate measures, at least where philosophical work is concerned. Reading them charitably, though, I get the impression, not so much that they have internalized professional administrators' ill-advised criteria of good work, as that they fear that more direct appraisals of philosophical work might be even worse: that because of deep-seated disagreements about what constitutes good philosophy, some form of appraisal neutral between competing approaches would be, whatever its limitations, at least *fairer*.

The first thing to be said in reply is that university administrators' reliance on surrogate measures is now commonplace regardless of field. Still, in "Out of Step" I focused primarily on philosophy; so the question is whether the philosophical "exceptionalism" that Derpmann et al. propose is well-motivated. I think not. Certainly philosophy is now, and has long been, a field of competing schools and approaches, and one would hardly expect it to be free of controversy altogether. But the extent, and the character, of the philosophical disagreements with which we're

[6] See, e.g., Susan Haack, *Defending Science—Within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003), pp. 109, 196 ff., 319–22; "The Ideal of Intellectual Integrity, in Life and Literature" (2005), in *Putting Philosophy to Work* (note 2 above), 209–20, 307–09.

all familiar, I believe, aren't inherent in philosophy as such, but the result of extraneous factors.

Too often, in my experience, philosophy students are encouraged to criticize, but not helped to do constructive work; too often, even when something constructive *is* tried, shoddy "originality" is rewarded and solid, detailed, careful, thorough work disregarded or under-rated; too often, it's in professors' interests, in the vulgar sense of the word,[7] to make work for themselves and their students by perpetuating some controversy in which they have established a stake. I think in this context of the time I innocently explained to another participant in an epistemology conference that I believed I had identified the problem at the root of Gettier "paradoxes," and could show that, and why, no definition of knowledge could *both* avoid skepticism *and* avoid allowing some knowledge by luck.[8] Apparently he realized right away that, if I were right, it would spoil the fun, and the professional benefit, of continuing this old debate indefinitely; at any rate, his reaction put me irresistibly in mind of Peirce's comment that "among the *dilettanti* . . . a positive discovery which takes a favorite subject out of the arena of . . . debate is met with ill-concealed dislike."[9] In short: there's ample reason to believe that, for extraneous reasons of the kind I have described, philosophy is now much *more* contested than it needs to be, and much less productively so than it would ideally be.

Still, even if there's nothing inherent in philosophy *as such* that makes those endless unresolved disputes inevitable, it's undeniably true that at present philosophy *is* contested, in the sense that there are entrenched disagreements about its proper goals and appropriate methods, about the role of history of philosophy, the relative worth of the "analytic" and the "continental" traditions, the proper place of logic and other formal methods,[10] the relevance, if any, of the empirical sciences, and so on and on. So don't Derpmann et al. have a fair point about how we do things now?

Perhaps I'm unduly cynical; but I fear they are somewhat naïve. In my experience, the more contested a field is, the likelier it is that those surrogate measures will themselves be distorted by partisanship. A professional-administrator dean may ask a department chair which are the "prestigious" journals and publishers in his field, what professional meetings most important, etc.; and may have no clue that, or how, the chair's own professional allegiances or interests or, for that matter,

[7] That is, roughly, in the interests of the advancement of their career. The phrase, "interests in the vulgar sense," comes from John Stuart Mill, "Sidgwick's Discourse" (1835), in *The Collected Works of John Stuart Mill, Vol. X—Essays on Ethics, Religion, and Society*, available at http://oll.libertyfund.org/title/241, 166–205, p. 200.

[8] Susan Haack, "'Know' is Just a Four-Letter Word" (written in 1983, but first published in the second edition of Haack, *Evidence and Inquiry* [1993; 2nd ed., Amherst, NY: Prometheus Books, 2009], 301–30).

[9] C. S. Peirce, *Collected Papers*, eds. Charles Hartshorne, Paul Weiss and (vols. 7 and 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931–58). 5.396 (1878).

[10] On this topic, see Susan Haack, "Formal Philosophy: A Plea for Pluralism" (2005), in *Putting Philosophy to Work* (note 2 above), 235–50, 310–13.

his personal likes and dislikes, are skewing the answer. I think, in this context, of the very capable former student of mine who, after being hired for her excellent work on Peirce and for her bilingualism, was denied tenure by a department that had decided that publications in languages other than English didn't count, that *Anuario filosífico* (the premier journal for Spanish-language Peirce studies) wasn't "prestigious" enough—and, apparently, that it no longer cared about the history of philosophy. The Dean, evidently, had no idea that a change of régime in the department had radically shifted the supposedly "objective" criteria by which work was being judged. And then I think of the competition for a prestigious European research chair, where the candidate favored by most of the committee had published vastly more than the others—and where I was apparently the only reviewer who had actually *read* anything in this torrent of stuff, and noticed how narrowly focused it was on what X had said recently about Y's defense of W's interpretation of Z.

Perhaps Derpmann at al. assume that, if your work is good enough, the *Journal of Philosophy* or the *Philosophical Review* will surely accept it, or one of the prestigious university presses publish it, or a major grant-giving body support it. But, as I said in "Out of Step," a fashionable topic, good "contacts," fluency in the chewy, self-important academic prose-style that seems increasingly *de rigeur*, and willingness to drop enough respectful references to the right "names" in the field are far more important in achieving "prestigious" publication or grant support than just doing good, honest, thorough, well-conceived, let alone truly original, work. Indeed, when decisions about publication, grants, etc., are made, as they mostly are, by the safely conformist and conventional, genuine originality is quite likely to be *damaging* to your career.

We in the English-speaking philosophical world, at least, have absolutely no excuse for not realizing this; for over the last couple of decades we have witnessed the dire effects of those wretched "rankings" of philosophy graduate programs, which by now have such a stranglehold on our profession: needless anxiety, even obsession, among professors and graduate students, counter-productive over-specialization of departments, even distorted assignment of universities' resources—and all on the basis, not of well-informed appraisal of people's work, let alone of the soundness and seriousness of the education provided by Ph.D. programs,[11] but of "reputation," i.e., all too often, on gossip and self-promotion.

But, Derpmann et al. may protest, is there is any realistic alternative to those surrogate measures? We need to remember, I would reply, what these are supposed to be measures *of*; and here our motto might well come from W. K. Clifford, in that fine passage of "The Ethics of Belief" where he imagines the response to his thesis that "it is wrong always, everywhere, and for anyone to believe anything on insufficient evidence":

[11] When, in the past, I was asked to take part in these evaluations, I was given ten days (!) to rank roughly 80 programs in several different areas of philosophy. In footnote 29 of "Out of Step," I explain how much longer than this it took me to evaluate just *one* department in a serious way.

> 'But,' says one, 'I am a busy man. I have no time for the long course of study which would make me … a competent judge of certain questions.' *Then he should have no time to believe*."[12]

I agree. If you are to judge a person's work, there really is *no substitute* for reading it; making your best effort to understand it; and, if it's beyond you, seeking the help of someone better-equipped who is able, and willing, to make it comprehensible to you. So far as I know, no one believes that it's OK to grade a student's work without reading it; and it's no more acceptable, though now it seems commonplace, to hire or promote a professor, or give a large grant, without doing so.

Naturally, as philosophy becomes fragmented into ever narrower niches,[13] people find it harder and harder to assess candidates' work; but that is (yet another) reason for resisting, and trying to reverse, the fragmentation, *not* a reason for succumbing to the false allure of those surrogate measures. As I said in a paper of which Derpmann et al. may not be aware:

> … philosophical work is so subtle, so multi-faceted, and the criteria used [are] often so narrow and so crude, overvaluing the confident and the fluent, undervaluing the less flashy but deeper thinker, overvaluing the "productive" … and undervaluing the slower but more rigorous or creative mind."[14]

Yes, assessing philosophical work is difficult; but that certainly doesn't justify delegating the task to (often unknown, and almost always unaccountable) third parties, as those surrogate measures do. Like every professor deciding what to read, what issues to work on, how to respond to requests for letters of recommendation, etc., I make judgments of quality every day: that C S. Peirce's work is far more rewarding than Richard Rorty's;[15] that Raymond Tallis's thinking about the origins and consequences of our distinctive human mindedness sheds real light, while Alexander Rosenberg's denial of this mindedness simply wastes our time;[16] that the Ph.D. dissertation that traces the roots of Peirce's pragmaticism in careful detail through the history of empiricism since the Greeks is more worthwhile than all those dissertations surveying the recent literature on dialethism or deflationism or

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[12] W. K. Clifford, "The Ethics of Belief" (1877); reprinted in Timothy J. Madigan, ed., *The Ethics of Belief and Other Essays* (Amherst, NY: Prometheus Books, 1999), 70–97, p.78.

[13] "The Fragmentation of Philosophy, the Road to Reintegration," pp. 3–32 in this volume.

[14] Susan Haack, "The best man for the job may be a woman … and other alien thoughts on affirmative action," in *Manifesto of a Passionate Moderate* (note 2 above), 167–87, p.172.

[15] See Susan Haack, "'We pragmatists …'; Peirce and Rorty in Conversation" (1997), in Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: Chicago University Press, 1998), 31–47.

[16] Raymond Tallis, *The Hand: A Philosophical Inquiry into Human Being* (Edinburgh: Edinburgh University Press, 2004); *Aping Mankind: Neuromania, Darwinitis, and the Misrepresentation of Humanity* (Durham: Acumen, 2011). Alexander Rosenberg, *An Atheist's Guide to Reality: Enjoying Life without Illusions* (New York: W. W. Norton, 2011). See also Susan Haack, "Brave New World: On Nature, Culture, and the Limits of Reductionism," in Bartosz Brozek and Jerzy Stelmach, eds., *Explaining the Mind* (Kraków: Copernicus Center Press, forthcoming 2016).

the Gettier paradoxes or Lackey counter-examples or . . ., etc.; that a student paper carefully distinguishing abduction from "inference to the best explanation" and tracking down how the two got confused, or another identifying similarities between Logical Atomism and early Buddhist thought, or a third exploring the parallels between the ideas about the formation of good intellectual character found in Samuel Butler's *The Way of All Flesh* and in Sinclair Lewis's *Arrowsmith*,[17] deserve As.

But it is worth adding by way of conclusion that, in my opinion, while the older system of working academics serving temporarily as deans, etc., though far from perfect, was considerably better than the present system of professional administrators, it would be better yet if we were just to give up the mania for constant evaluation—which would free up time to make serious appraisals where they are really needed, e.g., in hiring and promotion decisions. That mania for constant evaluation is the result of universities' adopting a business-management model that values "productivity" above all; but this model is absurdly ill-suited to encouraging the best academic work.[18] Much of what is published deservedly goes unread; some of those who are apparently "unproductive" are working on a worthwhile long-term project that might bear fruit in twenty years, while others are devoting their time and energy to teaching; and (dare I say it?) some of those who are publishing nothing are doing the world at least the minimal service of saying nothing when they've nothing to say. It would be far better to acknowledge this honestly than to perpetuate the atmosphere of "officialism and snobbery and insincerity" of which James speaks, the sour fog of "lying and self-laudatory hallucination"[19] that increasingly pervades the academy.

[17] Samuel Butler, *The Way of All Flesh* (1903; New York: Random House, Modern Library Paperback ed., 1998); Sinclair Lewis, *Arrowsmith* (1924; New York: Signet Classics, 1998).

[18] This was a main theme in "Preposterism and it Consequences" (1996); in Haack, *Manifesto of a Passionate Moderate* (note 18 above), 188–208, to which Derpmann et al. also refer.

[19] The phrase comes from Butler, *The Way of All Flesh* (note 19 above), p. 291. I borrowed it before, in "The Ideal of Intellectual Integrity" (note 6 above), p. 220.