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The Differences that Make a Difference: William James on the Importance of Individuals¹

An unlearned carpenter of my acquaintance once said in my hearing: “There is very little difference between one man and another; but what little there is, *is very important*”. – William James (1890)²

On the question of “the individual and the community in pragmatism”, most people would probably think first of Dewey’s influential ideas about the individual and society: his conception of education as preparation for responsible citizenship³, perhaps, or his critique of the “ragged individualism” of unbridled capitalism⁴. But, because my work has focused primarily on logic, epistemology, metaphysics, philosophy of science, and the like, the first topic that came to my mind was Peirce’s complaint about the “pernicious” individualism of Descartes’s criterion of truth⁵, and the role of the community in his own theory of inquiry. And I hope, one day, to return to the task of tracking how Peirce’s pragmatist understanding of truth and reality in terms of the community of inquirers grew from the seeds to be found in his 1868 anti-Cartesian papers⁶; and maybe, also, to explore the parallels, and the divergences, between Peirce’s critique of Descartes and James’s⁷ – or try to get to the bottom of Peirce’s intriguing idea that a solution to the problem of induction requires us to acknowledge that “logic depends on the social principle”⁸.

But for the present occasion I have decided to take a quite different tack, beginning with the ideas expressed in a short paper in which James reflects on “the importance of individuals”. Until now, I hadn’t paid much attention to the context in which this paper of James’s

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² William James, “The Importance of Individuals”, *The Open Court*, 4.154, August 1890: 24-37; reprinted in *The Will to Believe and Other Essays in Popular Philosophy* (1897; reprinted, New York: Dover, 1956), 255-62, pp. 256-7. Page references given here will be to the reprinted version.

³ “I believe that education is the fundamental method of social progress and reform”. John Dewey, “My Pedagogic Creed” (1897), in *The Essential Dewey*, eds. Larry A. Hickman and Thomas Alexander (Bloomington, IN: Indiana University Press, 1998, 229-35, p.234 (also in *Early Works of John Dewey*, Jo Ann Boydston, ed. (Carbondale, IL: University of Illinois Press, 1972), 5.84-95). See also John Dewey, *Democracy and Education* (1916), in *Middle Works of John Dewey*, Jo Ann Boydston, ed., (Carbondale, IL: Southern Illinois University Press, 1976), 3-370.

⁴ “So far, all is for the best in the best of all possible cultures: our rugged – or is it ragged? – individualism”. John Dewey, *Individualism Old and New* (1929), in *Later Works of John Dewey*, Jo Ann Boydston, ed., 5.41-123, p.45. Dewey uses the phrase again in “The Irrepressible Conflict” (1931), *id.*, 6.149-52, p.151; in “Can Education Share in Social Reconstruction?” (1934), *id.*, 9.205-209, p.205; and in “Our Un-Free Press”. *id.*, 11.269-71, p.270.

⁵ “[T]o make single individuals absolute judges of truth is most pernicious”. C. S. Peirce, *Collected Papers*, eds Charles Hartshorne, Paul Weiss, and (vols 7 and 8) Arthur Burks (Cambridge, MA: Harvard University Press, 1931-58), 5.265 (1868).

⁶ “Return”, because I wrote on this topic many years ago, in “Descartes, Peirce, and the Cognitive Community”, *The Monist*, 65.2, 1983: 156-81; reprinted in Eugene Freeman, ed., *The Relevance of Charles Peirce* (La Salle, IL: The Hegeler Institute, Monist Library of Philosophy, 1983), 238-63.

⁷ See William James, *Radical Empiricism* (1912), in *Essays in Radical Empiricism and A Pluralistic Universe*, ed. Richard Bernstein (New York: E. F. Dutton & Co., 1971).

⁸ Peirce, *Collected Papers* (note 5 above), 2.654 (1878).

appeared, but had simply enjoyed it as a free-standing piece – relishing its shrewdness about human beings and their idiosyncracies, and finding it a marvelously bracing antidote to the pseudo-sophisticated sneering at “individualism” fashionable in recent decades. Re-reading this paper now, and paying closer attention to its context, I still found it just as delightfully human and just as psychologically shrewd as I remembered; but I also discovered that it has much more philosophical and historical substance than I had previously realized. This both raised some questions about James’s arguments, and gave the present project a whole new twist.

For this little paper of James’s was just a small part of his contribution to the debate over the role of great men in history – a debate which, as an editor of Thomas Carlyle’s *On Heroes, Hero-Worship, and the Heroic in History* observes, was “a major Victorian preoccupation”⁹. In 1880, James had published a long article on “Great Men, Great Thoughts, and Their Environment”¹⁰, largely devoted to criticizing an idea he attributes to Herbert Spencer and his followers: that great men are simply the product of their society. On the contrary, James argued: just as natural selection can explain what causes a mutation to be preserved or to die out, but cannot explain what brings the mutations about initially, so sociology can explain the forces that preserve or destroy great men, but cannot explain what produces great men in the first place. This paper prompted two replies, one from John Fiske¹¹, and another from an admirer of Spencer’s called Grant Allen¹². Fiske argued that James’s Spencer was a straw man – the *real* Herbert Spencer had never denied the role of individuals¹³. Allen, however, defended quite a strong social-determinist position. “The Importance of Individuals” is James’s reply to Allen’s reply to his earlier paper¹⁴.

Of course, Peirce also took an interest in the subject of “great men”; and this suggests that it might be fruitful to compare James’s ideas with Peirce’s researches – which, as we know from his notes for his class on this subject at Johns Hopkins University, he tackled from a distinctively statistical angle that seems, at first blush, markedly at odds with James’s intuitive, anecdotal approach. Moreover, though there is nothing explicitly epistemological in “The Importance of Individuals”, James’s earlier piece, “Great Men and Their Environment”, is in part concerned to stress that significant intellectual advances and discoveries are not, as James took Spencer to claim, predetermined by external forces, but, on

⁹ Michael K. Goldberg, “Introduction”, in Thomas Carlyle, *On Heroes, Hero-Worship, and the Heroic in History* (1841; Berkeley and Los Angeles: University of California Press, 1993), xxi-ciii, p. xxxiii.

¹⁰ William James, “Great Men, Great Thoughts, and Their Environment”, *Atlantic Monthly*, XLVI, October 1880: 441-459; reprinted under the title “Great Men and Their Environment” in James, *The Will to Believe and Other Essays in Popular Philosophy* (note 000 above), 216-254; and under its original title, slightly abridged, in Sigmund Diamond, ed., *The Nation Transformed: The Creation of an Industrial Society* (New York: George Braziller, 1963), 510-24. Here, I will usually refer to the paper by its shorter title, and always give page references to *The Will to Believe and Other Essays*.

¹¹ John Fiske, “Sociology and Hero-Worship”, *Atlantic Monthly*, XLVII, January 1881: 75-84. Fiske, described by Wiener as a “philosophical historian,” had been a member of the original Metaphysical Club. See Philip P. Wiener, *Evolution and the Founders of Pragmatism* (1949; Philadelphia: University of Pennsylvania Press, 1972), pp. 129-36.

¹² Grant Allen, “The Genesis of Genius”, *Atlantic Monthly*, XLVII, January 1881, 371-381. Allen was “[c]elebrated not only as a writer of literature and criticism but as a historian, naturalist, anthropologist, biographer, and physicist”. Paul Matthew St. Pierre, “Grant Allen,” in *Canadian Writers, 1890-1920*, ed. William H. New (Detroit, MI: Gale Research Inc., 1990), 3-9 (also available at Literature Resource Center, Doc. No. GALE/H1200004783).

¹³ For the present, I shan’t try to determine whether James’s interpretation of Spencer is, as Fiske believes, “over-hasty”. Fiske, “Sociology and Hero-Worship” (note 000 above), p. 77. James quotes Spencer’s *The Study of Sociology* (New York: D. Appleton & Company, 1874) at some length – but then, so does Fiske!

¹⁴ The editor of the *Atlantic Monthly* declined to publish it, however, which is why it did not appear in print until several years later.

the contrary, require “flashes of genius in the individual head”¹⁵. And this suggests that it might be fruitful to compare James’s ideas about the role of individual thinkers in the community of inquirers with Peirce’s stress on the individual’s vulnerability to ignorance and error.

Both comparisons, it turns out, open up the attractive possibility of *combining* insights from James and from Peirce. So, after a brief commentary on James’s paper, I will argue first that, despite their very different emphases, a full treatment of “the question of great men” might reconcile elements of James’s approach with elements of Peirce’s; and then that a complete theory of inquiry will surely need to accommodate *both* the individual contributions that James stresses, *and* the social mechanisms of correction and adjustment that Peirce highlights.

AS Peirce wrote of his old friend in a tribute shortly after his death, James’s “comprehension of men to the very core was most wonderful”¹⁶. Indeed: James had a remarkably shrewd and sympathetic understanding of what makes human beings tick; and “The Importance of Individuals” is a fine example of this understanding at work, as his marvelous quotation from his carpenter friend is of his keen ear for the *mot juste*.

Grant Allen, to whom James is responding, was primarily concerned to explore what we might call “national character”. Trying to understand why western civilization arose where and when it did, he stressed the geography and climate of ancient Greece, its busy mercantile culture, and so on¹⁷. He was impressed by the vast differences between the ancient Greeks and their contemporaries in Egypt, or in China – and played down the differences *among* the Greeks, *among* the Egyptians, *among* the Chinese. The difference between the mind of a Plato or an Aristotle or a Zeno and the ordinary Greek mind, he suggested, is petty by comparison with the difference between the Greek mind and the Chinese or the Egyptian mind.

James thinks this completely wrong-headed. Trying at first to be as conciliatory as possible, he begins as if the disagreement were simply a matter of emphasis: that, while Mr. Allen is interested in the large differences between “tribes”, he is more concerned with the small differences between the great man and the ordinary run of his tribe. But as he gives his “personal reasons” for emphasizing individual differences, James reveals that there is much more at stake than a mere difference of emphasis: for he not only suggests that an adequate philosophy should accommodate both kinds of difference, but also objects to the assumption “that the mere *size* of a difference is capable of deciding whether that difference be or be not a fit subject for philosophy”¹⁸. In fact, he continues, Allen’s emphasis is invidious, even perverse: the differences that most interest us are precisely those *we don’t take for granted*: not the very large differences between our dog and our human friends, for example, but the much smaller differences among those friends – or the even smaller differences between the ablest students in a class and the dullest. Moreover, James continues, it is the very fact that they interest us that makes these differences important: “the preferences

¹⁵ James, “Great Men and Their Environment” (note 10 above), p.253.

¹⁶ Peirce, *Collected Papers* (note 5 above), 6.184 (c.1911). Peirce continues: “Who, for example, could be of a nature so very different from his than I? He so concrete, so living; I a mere table of contents, a very snarl of twine”.

¹⁷ Grant Allen, “Hellas and Civilization”, *Popular Science Monthly, Supplement*, XIII-XVIII (1878), 398-406.

¹⁸ James, “On the Importance of Individuals” (note 2 above), p.256.

of sentient creatures *create* the importance of topics”¹⁹. And anyway, he argues, Allen is blind to a crucial point: that “[t]he zone of the individual differences, and of the social ‘twists’ which [...] they initiate, is the zone of formative processes, [...] the line where past and future meet”. But it is exactly here that we see the differences among tribes or nations “*in the making*”. So, James concludes, since the differences among tribes come about in part because of the actions and ideas of great men, Allen’s approach has things exactly backwards²⁰.

Ingenious as this line of argument is, it is not, I think, entirely fair to Mr. Allen. True, as James says, Allen stresses the distinctive casts of mind he believes characteristic of different nations or tribes, and the role of the environment, especially of geography, in determining national character; true, as James says, Allen maintains that, if Plato or Shakespeare or (his example) Robert Clive²¹ had died young²², the environment that produced him would have produced another great man of the same type. “Our circumstances have, unhappily, created amongst us a class of Bob Clive begetters”, Allen writes; “and whenever there is a Zululand or an Afghanistan to annex, so Sir Bartle Frere is forthcoming at once to annex it”²³. But James doesn’t mention that Allen also points out, in response to the analogy that he had drawn with natural selection, that there is nothing in Darwin to suggest that mutations are mysterious, uncaused, or inexplicable²⁴.

Nor does James note that Allen grants that an individual’s special talents or genius will be explicable in part by heredity, but then argues that the environment is also responsible, albeit indirectly, for the hereditary element. For, while in very homogeneous societies where “every man’s life closely resembles every other man’s” every child will inherit “a brain and nervous system of the relatively fixed ancestral type”, in a very heterogeneous society where different people live very differently there will be “numberless varieties of functionally acquired brain elements” to be inherited²⁵. This argument seems to presuppose both a kind of functionalist conception of mind and, apparently, the heritability of acquired mental capacities; on neither of which, disappointingly, James makes any comment.

Moreover, one might well feel a little uncomfortable about the way James ups the ante – shifting, in the course of a few pages, from noting a difference of emphasis, to suggesting that his is the really important topic and the matters on which Allen focuses relatively trivial, and from there to the very strong claim that Allen’s approach inverts the appropriate scientific procedure. Still, a more sympathetic reading might recognize these rhetorical maneuvers as James’s way of leading us away from Allen’s stress on “the ancient Greek mind”, “the ancient Chinese mind”, etc., and back to what he believes to be the root of the problem: the inadequacy of “the contemporary sociological school”, with its focus on “av-

¹⁹ *Ibid.*, p. 261.

²⁰ *Ibid.*, pp. 259-60.

²¹ Robert Clive (1725-1774) was the founder of the British empire in India.

²² As a boy, James tells us, Clive had tried to shoot himself, but survived. James, “Great Men and Their Environment” (note 10 above), p. 228. R. J. Minney tells the story in more detail: as a young man in Madras, hard up and homesick for England, Clive had picked up a pistol, held it to his head, and pulled the trigger – twice; but the gun failed to fire. At this point another young man entered the room and, at Clive’s request, fired the gun out of the window; this time it went off, leaving Clive to conclude that fate had reserved him for some other purpose. R. J. Minney, *Clive* (New York: Appleton and Company, 1931), pp. 22-3. (From the same book, I learned that Clive had almost died of a childhood illness, and narrowly escaped drowning on his first passage to India.)

²³ Allen, “The Genesis of Genius” (note 12 above), p. 379.

²⁴ *Ibid.*, p. 374.

²⁵ *Ibid.*, pp. 377 (the homogeneous society), 378 (the heterogeneous society), and 379 (the environmentalist conclusion).

erages and general laws and predetermined tendencies,” and “its obligatory undervaluing of the importance of individual differences”²⁶.

As this suggests, what James had presented in “Great Men and Their Environment” as objections to sociology are really objections, not to the scientific study of society, as such, but to a particular style of sociological study, the style James attributes, rightly or wrongly, to Spencer: sociological study focused exclusively on “external circumstances” such as geography, climate, etc., and taking for granted that these are *sufficient to determine* social development, including the production of the great men of any place or time. So James’s contrast between “sociology” and “hero-worship” is more than a little misleading: the real point is not that the emergence of great men is wholly outside the scope of scientific study, but that such study would require a very different, and much subtler, approach.

James is of course correct in saying that Darwin’s theory of natural selection explains why some of the random mutations that arise are preserved and others die out, but not why they arise in the first place. But, as Allen had already pointed out, it doesn’t follow (and neither, so far as I am aware, does Darwin ever suggest) that the causes of these mutations are inherently beyond the reach of science. James is also correct in saying that, while sociological generalizations may suffice to explain why certain kinds of greatness will flourish in these or those social circumstances and wither and die in others, it will not explain why they arise in the first place – nor, as he adds, will such generalizations explain the sheer contingencies that often affect whether, or in what way, potential greatness is realized. But, so far as I can see, again it doesn’t follow that “the causes of the production of great men” must be a complete mystery, beyond the reach of scientific explanation altogether – which leads us directly to Peirce’s researches on the subject.

Peirce had a long-standing interest in the phenomenon of great men²⁷. In 1859 he wrote an “Analysis of Genius”, in which he argued against Dr. Johnson’s definition – “large general powers accidentally determined in a particular direction” – and in favor of an understanding of genius as involving, not “general powers” but *special* powers, and not powers “accidentally determined” but *inborn* powers²⁸. (Apparently, however, he changed his mind about innateness; for many years later we find him writing that “real power ... is not *born* in a man; it has to be worked out”)²⁹. In 1860, reflecting in “Private Thoughts” on “the inhumanity of a polemic spirit”, he had observed that we should still “revere a great man notwithstanding his mistakes”, silently adding to and modifying his words as necessary³⁰. Many years later, James’s “Great Men and Their Environment” would be the subject of dis-

²⁶ James, “On the Importance of Individuals” (note 2 above), pp. 261-2.

²⁷ See Nathan Houser, “Introduction” to volume 5 of the *Writings* (Bloomington, IN: Indiana University Press, 1982 –), pp. xxiii-xxv.

²⁸ Peirce, “Analysis of Genius,” *Writings* (note 12 above), 1: 25-30 (1859).

²⁹ Peirce, letter to Francis Russell (Jan. 1, 1909), in Carolyn Eisele, ed., *New Elements of Mathematics* (The Hague: Mouton, 1976), vol.4, p. 977. (The observation comes from a critique of Paul Carus, whom Peirce describes as so “full of *himself*” that he was incapable of a genuine concern for truth.)

³⁰ C. S. Peirce, “Private Thoughts”, *Writings* (note 27 above), 1:5 (1860). Voltaire had expressed a very similar thought when he wrote that “[c]’est le privilège du vrai génie, et surtout du génie qui ouvre une carrière, de faire impunément de grandes fautes.” [“It is the privilege of true genius, and especially of the genius who opens a new path, to make great mistakes with impunity”]. Voltaire, *Le Siècle de Louis XIV* (Paris: Armand Colin et Cie., 1894), p. 375.

cussion at a meeting of the new Metaphysical Club that Peirce founded at Johns Hopkins³¹; and in the fall of 1883 Peirce began teaching a course at Hopkins on the subject of great men³².

He would later explain that he had chosen this topic as an appropriate medium for “training in inductive investigation”, and specifically of the application of statistical methods to phenomena where data are unavoidably imprecise and impressionistic. For “it was desirable”, he continues, “to explode the ordinary notions that mathematical treatment is of no advantage when observations are devoid of precision and that no use can be made of very inexact observations”³³. The class began, Peirce reports, by constructing an impressionistic list of great men – “impressionistic” because it was based, not on any analysis of greatness, but purely on the impression of greatness conveyed by study of a person’s life and work: a list originally of almost 1,000 names, eventually whittled down to 288 – of which, to keep the task manageable, the class then considered one of every six. Then each student in the class ranked these men, giving each a number from 1 (the greatest) to 6 (the least great)³⁴. The results – as Peirce illustrates by listing the rankings for Bolivar, Julian, and Swedenborg – were remarkably close; and, he tells us, there was no one on the list for whom the most extreme rankings differed by more than 2. The ballots were then added, and the mean value adopted as the “magnitude,” or degree of greatness, of that person³⁵.

Peirce’s retrospective reflection on this course focuses primarily on the methodological question the class was intended to illustrate: the degree of objectivity possible in results based on imprecise observations. But there is also a good deal to be learned from the lists themselves, a selection of which is now published in volume 5 of the *Writings*. One list, evidently informed by Peirce’s categories³⁶, distinguishes Men of Feeling (Firstness), Men of Action (Secondness), and Men of Thought (Thirdness)³⁷. And then, perhaps of most interest in the present context, there are the questionnaires that Peirce devised to systematize information about great men: their ancestry, family background, birth-order, childhood, precocity, physical stature, peculiarities, and health, sexuality, education, work habits,

³¹ Brent writes that at Hopkins Peirce “founded a new Metaphysical Club, which was a genuine success as a crucible for philosophical ideas” (Joseph Brent, *Charles Sanders Peirce: A Life* (Bloomington, IN: Indiana University Press, 1993), p. 128. See also Max Fisch, “Peirce at the Johns Hopkins University” (1952); reprinted in Kenneth Lane Ketner and Christian J. W. Kloesel, eds., *Peirce, Semeiotic, and Pragmatism: Essays by Max Fisch* (Bloomington, IN: Indiana University Press, 1986), 35-78; and Nathan Houser, “Introduction” to the *Writings* (note 27 above), 4: xix-lxx, pp.xli-xlii. Houser tells us that Peirce proposed to set up this Metaphysical Club at the end of a lecture he had begun by defining metaphysics as “the science of unclear thinking” (p. xli); and that the Club expired in March 1885, after Peirce was dismissed from Hopkins, after its 43rd meeting (p. xlii).

³² See Joseph Jastrow, “Charles S. Peirce as a Teacher”, *Journal of Philosophy, Psychology, and Scientific Method*, 13, 1916: 724-5.; Max H. Fisch and Jackson I. Cope, “Peirce at the Johns Hopkins”, in *Studies in the Philosophy of Charles Sanders Peirce*, eds. Philip P. Wiener and Frederick H. Young (Cambridge, MA: Harvard University Press, 1952), 277-211, 355-60, 363-74.

³³ Peirce, *Collected Papers* (note 5 above), 7.256 (c.1900).

³⁴ *Id.*, 7.258 (c.1900). The scale they used, Peirce tells us, was modeled on the scale of star-magnitudes developed in his *Photometric Researches*, Vol. 9 of *Annals of the Astronomical Observatory of Harvard College* (Leipzig: Wilhelm Engelmann, 1878); reprinted in Peirce, *Writings* (note 27 above), 3:382-493 (where, I note, Peirce’s concern was with “phenomenal light,” i.e., light as a sensation, rather than with “noumenal light,” i.e., light as something in the external world).

³⁵ Peirce, *Collected Papers* (note 5 above), 7.258-61 (1900). Notice the synchistic character of Peirce’s (surely correct) assumption that greatness is a matter of degree.

³⁶ Around 1896 Peirce again applies his categories to the classification of people, writing that “we remark three classes of men. The first consists of those for whom the chief thing is the qualities of feelings. These men create art. The second consists of practical men [...] . The third class consists of men to whom nothing seems great but reason”. *Ibid.*, 1.43.

³⁷ Peirce, *Writings* (note 27 above), 5.35-37 (1883-4). I note that these lists include a tiny number of women under “men of feeling” and “men of action”, but (so far as I can tell) none under “men of thought”.

drive, children if any, etc.³⁸; and the detailed answers filled in with respect to Michelangelo, John Locke, Thomas Hobbes, and others. Michelangelo, we learn, “[i]ddled at school. Would only draw. Began to draw as soon as he could use his hands”, worked “very” long and “furiously” hard, had a “[g]reat memory” but an “[a]wful” imagination³⁹. Locke “[d]id not study much. Hated scholastic disputation. Discontented with Oxford”; his work habits were “diligent” and “methodical in the extreme”; his was an age of “[t]ussle with tyranny. Lax morals. Awakening science”⁴⁰. Hobbes was “[n]ot able to endure contradiction. Swore much. Undervalued all other men”⁴¹. None of the three ever married. Etc., etc. Though Peirce offers no generalized statistical conclusions⁴², this remarkable class exercise hints, at least, at how complex and multi-faceted a scientific understanding of (as James would have put it) “the causes of the production of great men” would be.

Of course, when James and Peirce wrote about this question, the “blending” theory of inheritance that Darwin took for granted had not yet been displaced by the Mendelian, “particulate” theory (a scientific shift which didn’t take place until after Mendel’s ideas were rediscovered, decades after he had published them, in 1900)⁴³. And, of course, neither James nor Peirce knew anything about DNA⁴⁴, let alone about environmental triggers of gene expression⁴⁵. Still, as I think about what current science might say about great men and their environment, I am struck both by Peirce’s prescience, and by the good sense of James’s resistance to simplified sociological determinism.

For a satisfying account would surely combine, as we would now say, both hereditary and environmental causes, and would also acknowledge what we now know to be the very complex interactions between heredity and environment. It would recognize an element of randomness, perhaps even speak of a genetic “lottery”⁴⁶. It would also allow a role to the contingencies that James stresses, which can create the opportunities for potential greatness to manifest itself; or may stifle – or, as with an epidemic or a war in which a budding genius dies – cut off such opportunities altogether; and which may significantly affect the specific cast of a great man’s mind. (Peirce notes that Hobbes’s mother was so terrified by the news that the Spanish Armada was fast approaching the coastal town where she lived

³⁸ Not surprisingly, perhaps, given that Peirce believed his own intellectual gifts were related to his left-handedness, one question was whether the great man was left-handed. *Ibid.*, 5:66 (1883-4).

³⁹ *Ibid.*, 5:65-7

⁴⁰ *Ibid.*, 5:68.

⁴¹ *Id.*

⁴² At least, not in the material included in the *Writings*.

⁴³ Mendel had delivered his now-famous paper, and published it in the journal of the Brünn Natural History Society, in 1865. Gregor Mendel, “Versuche über Pflanzen-Hybriden”, *Verhandlungen des Naturforschenden Vereines in Brünn*, Bd. IV für das Jahr 1865: 3-47. However, this paper languished unread for decades. The rediscovery of the Mendelian theory dates to the year 1900, with the publication of Hugo de Vries, “Sur la loi de disjunction des hybrides”, *Comptes Rendus de l’Academie des Sciences*, Paris, 130, 1900: 845-7; Eric von Tschermak, “Über Künstliche Kreuzung bei *Pisum sativum*,” *Berichte der Deutschen Botanischen Gesellschaft*, 18, 1900: 232-9; and Carl Correns, “G. Mendel’s Regel über das Verhalten der Nachkommenschaft der Rassenbastarde”, *Berichte der Deutschen Botanischen Gesellschaft*, 18, 1900: 158-68..

⁴⁴ See Robert Olby, *The Path to the Double Helix* (Seattle: University of Washington Press, 1974); Franklin H. Portugal and J. S. Cohen, *A Century of DNA: A History of the Discovery of the Genetic Substance* (Cambridge, MIT Press, 1977); Horace Freeland Judson, *The Eighth Day of Creation: Makers of the Revolution in Biology* (New York: Simon and Schuster, 1979). There is a brief summary of the relevant history in Susan Haack, “The Growth of Meaning and the Limits of Formalism: In Science, in Law”, *Análisis Filosófico*, XXIX.1, May 2009: 5-29.

⁴⁵ See e.g., Scott Gilbert, “Mechanisms for the Environmental Regulation of Gene Expression: Ecological Aspects of Animal Development”, *Journal of Bioscience*, 30, 2005: 65-74.

⁴⁶ Though I would not assume that which combination of its parents’ genes one child inherits, and which combination falls to his brothers or sisters, is in principle inexplicable – any more than which way the dice lands on this toss and on that (or where and when a hurricane makes landfall) is in principle inexplicable.

that she gave birth to young Thomas prematurely⁴⁷: hence Hobbes's observation that he and fear were born "twins"⁴⁸ – and perhaps also his later preoccupation with the need for a state to ensure the safety of its citizens).

I suspect that such an understanding would also confirm the young Peirce's conviction that genius is more a matter of special powers than of generic brilliance; and the older Peirce's appreciation that, while the *potential* for greatness may be inborn, its *actualization* requires (both luck and) hard work – in his words, "peirceistence" and "peirceverance"⁴⁹. And I believe that, by revealing how many, and how complex, the relevant causal factors are, it would confirm Nietzsche's observation that "every man knows very well that, being unique, he will be in the world only once", and that "no imaginable chance will for a second time gather together in a unity so strangely variegated an assortment as he is"⁵⁰; and hence, also, warrant James's resistance to the much too simple socio-deterministic picture that he took to be all the sociology of his day had to offer.

Neither of James's papers on great men is focused primarily on epistemological issues; but the full title of the earlier, long piece, "Great Men, *Great Thoughts*, and Their Environment", reminds us that James's disagreement with Spencer and his admirers in part concerns "the function of the environment in *mental* evolution"⁵¹. Perhaps, James writes, Spencer would be right to think of minds as "passively plastic" – *if* we were talking only of the minds of dogs or horses, or even primitive humans⁵². But "[t]urn to the highest order of minds," he continues, "and what a change!" For here:

Instead of thoughts of concrete things patiently following one another in a beaten track of habitual suggestion, we have the most abrupt cross-cuts and transitions from one idea to another, the most rarified abstractions and discriminations, the most unheard of combinations of elements, the subtlest associations of analogy; in a word, we seem suddenly introduced into a bubbling cauldron of ideas ... [There] will be sallies of wit and humor; [...] flashes of poetry and eloquence; [...] constructions of dramatic fiction or of mechanical device, logical or philosophical abstractions, business projects, or scientific hypotheses [...]⁵³.

James's splendid depiction of this "bubbling cauldron of ideas," of the vitality and the fruitful idiosyncracies of the best minds and of the creativity and cross-fertilization they make possible, hints very suggestively at the role "great men of thought" have played in the men-

⁴⁷ Peirce, *Writings* (note 27 above), 5:68 (1883-4).

⁴⁸ In the words of Hobbes's autobiographical poem, "The Life of Mr. Thomas Hobbes of Malmesbury" (1680): ... *Fame had rumour'd / That a Fleet at Sea, / Wou'd cause our Nation's Catastrophe; / And Hereupon it was my Mother Dear / Did bring forth Twins at once, both Me, and Fear. / For this, my Countries Foes I e'r did hate, / With calm Peace and my Muse associate ...* / Thomas Hobbes, *The Life of Mr. Thomas Hobbes of Malmesbury* 2 (English translation of a poem originally written in Latin; London, 1680), available at <http://eebo.chadwyck.com/search/full_rec?SOURCE=pimages.cfg&ACTION=ByID&ID=V49741>.

⁴⁹ My source is Brent, *Peirce: A Life* (note 35 above), p. 16, reporting Peirce's explanation of his intellectual achievements.

⁵⁰ Friedrich Nietzsche, "Schopenhauer as Educator" (1874), in *Untimely Meditations*, trans. R. J. Hollingdale (Cambridge: Cambridge University Press, 1983), 125-94, p. 127.

⁵¹ James, "Great Men and Their Environment" (note 10 above), p. 245.

⁵² *Id.*

⁵³ James, "Great Men and Their Environment" (note 10 above), p. 248.

tal life of the human race: they are, we might say, the yeast that makes productive intellectual ferment possible.

At first blush, James's preoccupation with "flashes of genius in the individual head" seems quite at odds with the markedly social character of Peirce's theory of inquiry⁵⁴. For as Peirce understands them, the concepts of truth and reality are intimately bound up with the idea of a community of inquirers. "The conception of reality [...] essentially involves the notion of a COMMUNITY", Peirce writes in 1868; and "the [separate existence of the] individual man is manifested only by ignorance and error"⁵⁵. In 1871, he offers a nice illustration:

Suppose two men, one deaf, the other blind. One hears a man declare he means to kill another, hears the report of the pistol, and hears the victim cry; the other sees the murder done. Their sensations are affected in the highest degree with their individual peculiarities [...]. [B]ut their final conclusions, the thought the remotest from sense, will be identical and free from the one-sidedness of their idiosyncracies.

And, he continues:

There is, then, to every question a true answer, a final conclusion, to which the opinion of every man is constantly gravitating. [...] Any truth more perfect than this destined conclusion, any reality more absolute than what is thought in it, is a fiction of metaphysics⁵⁶.

Again, in manuscripts given the title "The Logic of 1873" by the editors of the *Collected Papers*, Peirce writes: "Let any two minds investigate any question independently and if they carry the process far enough they will come to an agreement which no further investigation will disturb"⁵⁷. In 1878, in "How to Make Our Ideas Clear," Peirce gives his now-famous definitions of truth and reality: "[t]he opinion which is fated to be agreed by all who investigate, is what we mean by the truth, and the object represented in this opinion is the real"⁵⁸. And fifteen years later he defends this account against Paul Carus's objections; now adding, however, that he never intended to suggest that we can be sure that consensus will eventually be reached on every question, and that "[a]ll that we are entitled to assume is in the form of a *hope*" that it will⁵⁹.

Whether or not Peirce's conceptions of truth and reality are, in the end, defensible, his insight into the ways in which an individual inquirer's weaknesses may be compensated by others' strengths is undeniably important. In a community of inquirers there can be, not only division of intellectual labor – as when A's theoretical speculations are tested with the help of B's experimental ingenuity and C's facility with statistics, and so on – but also the kind of mutual compensation and correction that Peirce envisaged: complementary sensory,

⁵⁴ It is more than a little disappointing that Alvin Goldman – who for the last decade or so has been urging the importance of "social epistemology" – is apparently unaware that Peirce had explored social aspects of the theory of inquiry long before he did. See Alvin Goldman, *Knowledge in a Social World* (Oxford: Clarendon Press, 1999); and note that the tiny number of references to Peirce all lead us to brief, dismissive passages about his definition of truth, that the even smaller number of references to Dewey lead us to even shorter comments about his philosophy of education, and that the only explicit reference to pragmatism occurs in a dispiriting list headed "Veriphobia": "social constructivism, postmodernism, pragmatism, cultural studies, and critical legal studies" (p. 7).

⁵⁵ Peirce, *Collected Papers* (note 5 above), 5.317, 5.311 (1868).

⁵⁶ *Ibid.*, 8.12 (1871).

⁵⁷ *Ibid.*, 7.319 (1873). These manuscripts are something like a first draft of what would eventually become "The Fixation of Belief," *ibid.*, 5.388-410 (1877).

⁵⁸ *Ibid.*, 5.409 (1878).

⁵⁹ *Ibid.*, 6.610 (1893).

imaginative, or intellectual idiosyncracies; one over-emphasis counteracting another; a balance of more conservative members of a scientific community, patiently trying to modify an old theory in response to new evidence, and of more radical members, eagerly jumping on the bandwagon of a new but as yet untried speculation; and so forth.

But, of course, this kind of mutual correction is possible only because there are differences among individuals; it would be impossible if all inquirers had the *same* blind spots, the *same* sensory and cognitive weaknesses, the *same* intellectual strengths and weaknesses, the *same* biases. Moreover – and now we see how Peirce’s logic of abduction intersects with James’s observations about “great thoughts” – inquiry begins with conjecture, informed guessing at possible explanations and laws: in short, with new ideas. And so, while Peirce is quite right to stress that only in a community of inquirers will there be the resources to correct the idiosyncracies and compensate for the weaknesses of individuals, and so to extend evidential reach and encourage rigorous appraisal of evidence, James is also right to stress that the source of the new ideas that will be tested and sifted by the community is individual minds⁶⁰ – and of great ideas, the minds of great men.

And now I am reminded of the letter James wrote to Paul Carus after hearing Peirce’s 1898 Cambridge Conference lectures: “the whole thing [left] you with a sense that you had just been in a place where ideas are manufactured”⁶¹; and of Peirce’s complaint that “[t]here is a kink in my damned brain that prevents me from thinking as other people think”⁶². Indeed: and but for that kink in Peirce’s brain philosophy would now be much the poorer. The difference between one man and another⁶³, as James’s carpenter reminds us, really *is* “very important”⁶⁴.

⁶⁰ In this context it may be worth noting that in the “Logic of 1873”, discussing “the method of public opinion” – which, interestingly enough, has been dropped by the time of “The Fixation of Belief” – Peirce observes that in any community “there will be a constant tendency to sporting”, i.e., to mutation. *Collected Papers* (note 5 above), 7.317 (1873).

⁶¹ William James, letter to Paul Carus, March 18, 1898, quoted in Kenneth Lane Ketner and Hilary Putnam, “Introduction” to Peirce’s Cambridge Conference Lectures (1989), *Reasoning and the Logic of Things*, eds. Ketner and Putnam (Cambridge, MA: Harvard University Press, 1992), 1-102, p. 36.

⁶² My source is E. T. Bell, *The Development of Mathematics* (New York: McGraw-Hill, 1949), p. 519.

⁶³ And, of course, between one woman and another. So perhaps I should add that I first read “On the Importance of Individuals”, some time ago now, in a period when many self-styled “feminist epistemologists” were stressing supposed “women’s ways of knowing”; and that James’s reflections helped me articulate one of the things I found so disturbing about such ideas: that, on the contrary, it is of the essence of sexism to perceive women, not as individuals, but as fungible representatives of their sex, as it is of the essence of racism to perceive those of other races, not as individuals, but simply as fungible representatives of their race.

⁶⁴ My thanks to Mark Migotti for very helpful comments on a draft, and to Pamela Lucken and David Wilson for their help in finding relevant material.