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# Twins, Twain, Galton, and Gilman: Fingerprinting, Individualization, Brotherhood, and Race in *Pudd'nhead Wilson*

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## Abstract

It is well-known that Mark Twain introduced the idea of fingerprint identification to much of the world in his novella *Pudd'nhead Wilson*. While Twain's prescience has often been noted, this essay explores the less-remarked-upon connections between fingerprint identification and the idea of racial typing that forms a central theme of the book. The essay argues that, in addition to foreseeing the use of fingerprint evidence in criminal trials, Twain identified a tension between individualized identification and racial typing that has pervaded the law and criminal-justice system through the present day.

## Introduction

The fingerprint would seem to be the least likely biological marker to have anything to do with race. The fingerprint, after all, is the great individualizer, the biological marker that does not categorize, but merely individualizes. Today, it is commonplace to view fingerprints as race-neutral, as having nothing whatsoever to do with race. "Fingerprinting," as Paul Rabinow puts it, "is based on a *separation of individuals and populations*."<sup>1</sup>

This essay is constructed around two historical figures, Mark Twain and Francis Galton, who would have been surprised by the notion

1. Paul Rabinow, "Galton's Regret: Of Types and Individuals," in *DNA on Trial: Genetic Identification and Criminal Justice*, ed. Paul R. Billings (Plainview, N.Y.: Cold Spring Harbor Laboratory Press, 1992), p. 5 (emphasis added).

that fingerprints and race had nothing to do with each other; instead, for them, race and fingerprinting were closely intertwined. Galton was the founder of the eugenics movement—indeed, was the coiner of the term—and in many ways was an intellectual ancestor of biological racism. He was also one of the pioneers of fingerprint identification. When Galton called fingerprints “the most important of anthropological data,” he meant that fingerprint patterns would be the key to unlocking the code of heredity.<sup>2</sup> Twain wove fingerprints and race together in his great novella *Pudd'nhead Wilson*. Fingerprints, for Twain, were not a mere plot device, but rather raised crucial questions about race, identity, and biological determinism.

The intersection of fingerprints and race in Galton's and Twain's work has typically been treated as a historical accident; in Rabinow's reading, for example, Galton serves to illustrate the *dis*-connect between fingerprints and race. Galton's supposed failure to find significant racial correlations in fingerprint patterns, according to Rabinow, demonstrated that fingerprints contained purely individual information, that “they revealed nothing about individual character or group affiliation.”<sup>3</sup> The role of fingerprints in *Pudd'nhead Wilson*, meanwhile, has generally been treated as a convenient plot device in what is really a story about race.

Galton and his students, however, never gave up hope of correlating fingerprint patterns and race. Twain, meanwhile, I will suggest, saw clearly the inevitable inextricability in America of race and a powerful biological marker such as a fingerprint. I will argue that there may be something to be learned by taking Galton and Twain at their word, and by taking seriously a notion that at first glance may appear preposterous: that fingerprints and race might have something to do with each other.

### Black or White?

Graphic artist Margaret Pauffley's richly suggestive graphic, “Black or White?” (Fig. 1) neatly sums up a widespread view of the relationship between fingerprints and race, which is, in a nutshell, that there isn't one. The fingerprint—the ultimate symbol of the unique individuality and inherent personhood of every member of the human race—seems like the antithesis of racism, which is, at bottom, the categorization of individuals into artificially constructed groups. I will begin this essay by pausing briefly to think a little more closely about what Pauffley's graphic is asking us—and, implicitly, telling us.

2. Francis Galton, *Finger Prints* (London: Macmillan, 1892), p. 2.

3. Rabinow, “Galton's Regret” (above, n. 1), p. 7.



Figure 1. Margaret Pauffley, "Black or White?" (Copyright © Margaret Pauffley/Leeds Postcards. Reprinted with permission.)

Is the donor of the fingerprint black or white? Pauffley challenges the viewer to decide. She uses the viewer's presumed inability to do so to undermine facile biological determinist notions of race by appealing to our common humanity. In so doing, Pauffley is, of course, operating within a longstanding tradition of challenges to biological notions of race: the inability to determine race from anthropological markers such as skulls and bones is one of the most frequently used tactics in challenging biological racism.<sup>4</sup>

Is Pauffley's graphic black, or is it white? Again, she challenges the viewer to decide. The image is composed of a mixture of areas that, taken individually, are either black or white. As whole, they create an image that is certainly not grey, but a mixture of black and white. Pauffley's analogy is clear. Again, she adopts a familiar tactic in the argument against biological racism: liminal individuals of mixed-race decent, or "mulattoes." The mulatto undermines biological racism in several ways, most fundamentally by providing concrete evidence of the common species-hood of the supposed "races," our ability to interbreed. But mulattoes also defy racial categories by not fitting; they invite biological racists to undermine their neat racial categories in a cornucopia of subcategories. And, of course, they challenge the biological racist to "tell" what they are.

4. Stephen Jay Gould, *The Mismeasure of Man* (New York: Norton, 1981); Alan H. Goodman, "Bred in the Bone?" *The Sciences* 37:2 (March/April 1997): 20–25.

Pauffley's use of a fingerprint is hardly accidental. The fingerprint has come to stand as the ultimate icon of individual personhood, and individuality is the ultimate challenge to racial categorization: the fundamental uniqueness of each individual undermines the effort to construct neat boundaries along a seemingly endless continuum of difference. Where does one draw the line? How "different" may individuals be within categories for the categories to still make sense? "The differences within races are greater than the differences between them" has become a commonplace in the discourse on genetics and race.<sup>5</sup> It is a statement that seeks to use individuality to undermine the project of categorization.

In this essay, I will question the assumption that, historically, individuality as expressed by the fingerprint inherently undermined racial categorization. I will then more generally suggest that the seemingly opposed projects of individualization and categorization may in fact be far more intertwined, or *intertwined*, than we may have assumed. This possibility has implications that extend beyond the nineteenth- and twentieth-century history of fingerprint identification; indeed, it may be crucial to understanding the ongoing discourse about race and biological identity.

### The Madness of Sir Francis Galton

That Sir Francis Galton would see fingerprints in racial terms was, of course, inevitable; he saw everything in racial terms. It would have been surprising if Galton had *not* collected sample fingerprints from various races: English, Scotch, Welsh, Germans, Basques, Arabs, "Hindoos," American Indians, Chinese, Negroes, Irish, Jews, and Eastern Europeans were the groups he assembled. This was hardly peculiar to Galton; any nineteenth-century scientist would have done the same thing, and, indeed, many of them did.<sup>6</sup> As with photography, anthropometry, handwriting, and, today, with DNA, projects of individualized identification and classificatory diagnosis were

5. Troy Duster, "Buried Alive: The Concept of Race in Science," in *Genetic Nature/Culture: Anthropology and Science Beyond the Two-Culture Divide*, ed. Alan H. Goodman, Deborah Heath, and M. Susan Lindee (Berkeley: University of California Press, 2003), p. 259.

6. René Forgeot, *Des Empreintes Digitales Étudiées Au Point De Vue Medico-Judiciaire* (Lyon, 1892); Charles Féré, "Les Empreintes Des Doigts Et De Orteils," *Journal de L'anatomie et de la Physiologie Normales et Pathologiques de L'homme et de Animaux* 29 (1893); Charles Féré, "Notes Sur Les Mains Et Les Empreintes Digitales De Quelques Singes," *Journal de L'anatomie et de la Physiologie Normales et Pathologiques de L'homme et de Animaux* 36 (1900); David G. Horn, *The Criminal Body: Lombroso and the Anatomy of Deviance* (New York: Routledge, 2003), p. 23.

inextricably intertwined for fingerprinting as well.<sup>7</sup> The man who initially brought the subject of fingerprints to Galton's attention, Scottish physician Henry Faulds, had already compared samples of British, Japanese, and monkey fingerprints.<sup>8</sup> Faulds thought fingerprint patterns promising enough as biological markers to write about them to Charles Darwin, and it was the latter who passed the project on to his cousin, Galton.<sup>9</sup>

Galton's failure to find significant racial correlations in his 1892 study has prompted Rabinow to conclude that such correlations do not exist, which he eloquently called "Galton's regret." In fact, even as Galton published, numerous other researchers were finding results significant enough to begin ordering fingerprint patterns into a supposed evolutionary hierarchy, using studies of primates, inmates, mental patients, and epileptics.<sup>10</sup> Galton's students would later publish studies of the heredity of fingerprint patterns.<sup>11</sup>

But race was important to fingerprinting for another reason as well: as a system of identification, Galton argued that fingerprinting would be particularly useful for solving the problem of racial homogeneity. The problem of personal identification had been "solved," in the view of most nineteenth-century experts, during the 1880s by the Paris police official Alphonse Bertillon, whose system of identification contained three components: eleven anthropometric measurements; a "morphological vocabulary" for describing a staggering variety of ear types, nose types, lip types, eye colors, and so on; and the meticulous notation of "peculiar marks" such as tattoos, scars, and birthmarks. The Bertillon system, or "Bertillonage," was, of course, itself the application of a technology of racial classification—Bertillon's father and brother were prominent demographers and well familiar with anthropometry, and the craniometrist Paul Broca was a frequent houseguest—to the problem of individualization, but in Bertillon's application, it remained stubbornly individualizing.

7. Allan Sekula, "The Body and the Archive," *October* 39 (1986); Horn, *The Criminal Body*; Roxanne Panchasi, "Graphology and the Science of Individual Identity in Modern France," *Configurations* 4:1 (1996): 1–31; Garland Allen, "DNA and Human Behavior Genetics: Implications for the Criminal Justice System," in *The Technology of Justice: DNA and the Criminal Justice System*, ed. David Lazer (Cambridge, Mass.: MIT Press, 2004).

8. Henry Faulds, "On the Skin Furrows of the Hand," *Nature* 22:574 (1880): 605.

9. Gerald Lambourne, *The Fingerprint Story* (London: Harrap, 1984).

10. Forgeot, *Empreintes Digitales Étudiées* (above, n. 6); Féré, "Empreintes Des Doigts" (above, n. 6); Féré, "Notes Sur Les Mains" (above, n. 6).

11. H. Waite, "Association of Finger-Prints," *Biometrika* 10 (1915); Ethel M. Elderton, "On the Inheritance of the Finger-Print," *Biometrika* 13 (1920).

Bertillon was skeptical of the potential for using his data to generalize about “criminal types.”<sup>12</sup>

Race came into play, however, when Bertillonage was exported from Europe to the colonies. In an address before the Anthropological Institute in 1889, Galton suggested that fingerprinting might avoid “the great difficulty in identifying coolies either by their photographs or measurements.”<sup>13</sup> Colonial officials had told Galton that the empire’s various native populations’ “features are not readily distinguished by Europeans.”<sup>14</sup> Galton reported that officials stationed in India had complained that “[t]he uniformity in the colour of hair, eyes, and complexion of the Indian races renders identification far from easy, and the difficulty of recording the description of an individual, so that he may be afterwards recognised, is very great.” But this problem was not confined to India: “Whatever difficulty may be felt in the identification of Hindoos, is experienced in at least an equal degree in that of the Chinese residents in our Colonies and Settlements, who to European eyes are still more alike than the Hindoos, and in whose names there is still less variety.”<sup>15</sup> Thus, fingerprinting emerged as a solution to the problem of identification specifically in locales where perceived racial homogeneity was viewed as rendering individualization through Bertillonage technically unfeasible.<sup>16</sup>

Galton’s problem, however, was the lack of system for indexing fingerprint patterns. This also was analogous to the overall tension between individualization and categorization inherent in the very project of criminal identification: although they seemed to fall into distinct types, each pattern was individual. In 1823, Czech physician Jan Purkyně had been the first to posit fingerprint types, devising nine different categories.<sup>17</sup> This process of typing, Galton assumed,

12. Henry T. F. Rhodes, *Alphonse Bertillon: Father of Scientific Detection* (New York: Abelard-Schuman, 1968); Alphonse Bertillon, *Signaletic Instructions: Including the Theory and Practice of Anthropometrical Identification*, trans. R. W. McClaughry (Chicago: Sharp & Smith, 1896); Sekula, “Body and the Archive” (above, n. 7).

13. Francis Galton, “Human Variety,” *Nature* 39:1004 (1889): 296–300.

14. Galton, *Finger Prints* (above, n. 2), p. 149.

15. *Ibid.*, pp. 150–152.

16. Chandak Sengoopta, *Imprint of the Raj: The Emergence of Fingerprinting in India and Its Voyage to Britain* (London: Macmillan, 2002); Clare Anderson, *Legible Bodies: Race, Criminality and Colonialism in South Asia* (Oxford: Berg, 2004), pp. 60–96; Simon A. Cole, *Suspect Identities: A History of Fingerprinting and Criminal Identification* (Cambridge, Mass.: Harvard University Press, 2001), pp. 60–96.

17. Jan Evangelista Purkyně, “A Physiological Examination of the Organ of Vision and the Integumentary System” (1823); Carlo Ginzburg, “Morelli, Freud, and Sherlock

would provide the key to a fingerprint identification system, much as Bertillon had enabled anthropometric identification by devising a classification scheme. "On trying to sort [fingerprints] according to Purkenje's [*sic*]<sup>18</sup> standards," however, Galton "failed completely," because he kept coming across "transitional" patterns that could be construed as belonging to more than one type. Galton was stymied by "mulatto" fingerprint patterns, lost in what Twain would call "the bewildering maze of whorls or curves or loops which constituted the 'pattern' of a fingerprint" (*Pudd'nhead Wilson*, p. 105). Individuality, the very quality that rendered fingerprints so useful for identification also muddled any classification scheme. "Many analogous plans were attempted without success," Galton recalled, because "a complex pattern [like a fingerprint] is capable of suggesting various readings, as the figuring on a wall-paper may suggest a variety of forms and faces to those who have such fancies."<sup>19</sup>

Galton's conceit brings to mind Charlotte Perkins Gilman's story "The Yellow Wallpaper," published the same year in *New England Magazine*. Her description of the wallpaper echoed Galton's of fingerprint patterns:

the outside pattern is a florid arabesque, reminding one of a fungus. If you can imagine a toadstool in joints, an interminable string of toadstools, budding and sprouting in endless convolutions—why that is something like it. . . . On a pattern like this, by daylight, there is a lack of sequence, a defiance of law, that is a constant irritant to a normal mind.<sup>20</sup>

Bertillon had long recognized that individuality did not an identification system make. Individuality was the easy part; it was order and categorization that were in short supply. His dismissive description of fingerprinting also echoes Gilman's yellow wallpaper:

Certainly, I do not deny, to speak only of the Chinese method, that the fili-greed arabesques found on the epidermis of the anterior face of the thumb may be at the same time permanent in the same subject and extraordinarily

Holmes: Clues and Scientific Method," in *The Sign of Three: Dupin, Holmes, Peirce*, ed. Umberto Eco and Thomas A. Sebeok (Bloomington: Indiana University Press, 1983).

18. I use the Czech spelling, under which Purkyně was born. Henry J. John, who has located nine different variants, insists that this is the correct one; see John, *Jan Evangelista Purkyně: Czech Scientist and Patriot, 1787–1869* (Philadelphia: American Philosophical Society, 1959).

19. Galton, *Finger Prints* (above, n. 2), pp. 65–66.

20. Charlotte Perkins Gilman, "The Yellow Wallpaper," in *Anthology of Literature by Women: The Tradition in English*, ed. Sandra M. Gilbert and Susan Gubar (1892; rept., New York: Norton, 1985).

variable from one subject to another; and that every individual may thus possess a species of seal, original and entirely distinctive. Unfortunately, it is quite as undeniable, in spite of the ingenious investigations made by Mr. Francis Galton in England, that these designs taken by themselves do not present elements of variability sufficiently well-defined *to serve as a basis of classification* in a file of several hundred thousand cases.<sup>21</sup>

Resolving to try again, Galton

endeavoured to sort the patterns into groups so that the central pattern of each group should differ by a unit of “equally discernible difference” from the central patterns of the adjacent groups, proposing to adopt those central patterns as standards of reference. After tedious re-sortings, some sixty standards were provisionally selected, and the whole laid by for a few days.<sup>22</sup>

But fingerprint patterns could play tricks even on a mind as famously orderly as Galton’s. “On returning to the work with a fresh mind,” he lamented,

it was painful to find how greatly my judgment had changed in the interim, and how faulty a classification that seemed tolerably good a week before, looked then. Moreover, I suffered the shame and humiliation of discovering that the identity of certain duplicates had been overlooked, and that one print had been mistaken for another.

Finally, a frustrated Galton conceded: “repeated trials of the same kind made it certain that finality would never be reached by the path hitherto pursued.”<sup>23</sup> In short, fingerprint patterns nearly drove Galton as mad as Gilman’s heroine.

Galton retreated from his sixty patterns, and even from Purkyně’s nine, deciding that all fingerprints could essentially be characterized as one of three patterns, which he called arches, loops, and whorls (Fig. 2). This tripartite classification scheme would form the basis for most subsequent classification, and it represented Galton’s chief contribution to the development of fingerprint identification. Since loops were by far the most common pattern, comprising 60 percent of the total, Galton further subdivided them into “ulnar” loops (which open toward the little finger) and “radial” loops (which open toward the thumb). This brought the number of patterns to four. For purposes of criminal identification, Galton proposed simply to classify all ten fingers, expressing the full complement of an individual’s

21. Bertillon, *Signaletic Instructions* (above, n. 12) (emphasis added).

22. Galton, *Finger Prints* (above, n. 2), p. 65.

23. Ibid.



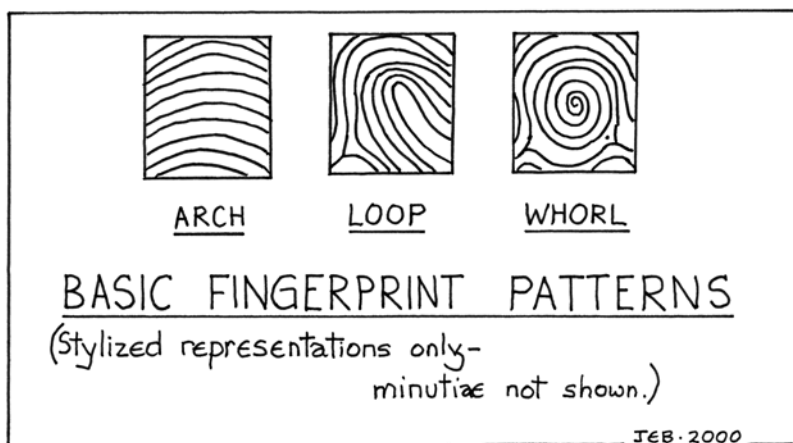


Figure 2. Basic fingerprint-pattern types categorized by Francis Galton. (Reprinted with kind permission of John E. Berry.)

fingerprints as a ten-letter word expressed in a four-letter (A,U,R,W) alphabet (the similarity to DNA should be obvious here).<sup>24</sup> Identification cards might then be indexed alphabetically according to this ten-letter word. In summary, Galton's chief technical contribution to the development of fingerprint identification consisted of the realization that four crude categories were actually more useful than sixty nuanced ones—a realization that Bertillon had already made with his categorization of anthropometric measurements into crude "small," "medium," and "large" categories.

### *Pudd'nhead Wilson*

There has been some debate over where Twain first learned about fingerprinting.<sup>25</sup> He used a fingerprint as a plot device as early as 1883 in "A Dying Man's Confession" in *Life on the Mississippi*.<sup>26</sup> There is no doubt, however, that he read Galton's 1892 book, *Finger Prints*, at around the time of its publication, and it is clear that it was Galton

24. Lily E. Kay, *The Molecular Vision of Life: Caltech, the Rockefeller Foundation, and the Rise of the New Biology* (New York: Oxford University Press, 1993); Joseph Pugliese, "Identity in Question: A Grammarology of DNA and Forensic Genetics," *International Journal for the Semiotics of Law* 12 (1999): 419–444.

25. Robert D. Olsen Sr., "Fingerprints and Mark Twain," *Journal of Forensic Identification* 42 (1992); John Berry and Martin Leadbetter, "The Faulds Legacy Part 6—Inter Alias," *Fingerprint Whorld* (1986): 24–26.

26. Mark Twain, *Life on the Mississippi* (Boston, 1883), pp. 340–356.

who transformed fingerprints—in Twain's fiction as in life—from a mere plot device into a meditation on eugenics and race.

Among many other things, *Pudd'nhead Wilson*, which literary scholar Ronald Thomas has called "the first post-Galtonian novel," is a tale about biological determinism—an idea that Galton and his followers in the eugenic movement had begun to express not only strenuously, but programmatically.<sup>27</sup> Twain performed a literary experiment, with his black and white babies switched at birth, that anticipated the classic twin studies that would follow from Galton's program. The master's baby Thomas à Becket Driscoll is switched with the slave's baby Chambre de Valet, "soon shortened to 'Chambers,' of course" (p. 9). Twain also weaves a set of real twins into the story: the noble Italian adventurers Angelo and Luigi Capello.

Twins occur repeatedly in Twain's fiction; his obsession with imposters, *doppelgangers*, and alter egos is well-known. Samuel Clemens not only created his own alter ego, as do many fiction writers, but even gave it the doubling name "Twain," and often wrote about Mark Twain as if he were an imposter or evil twin. Twain was obsessed with twins, doubles, and imposters and the way in which "they raise a fundamental question: whether one can tell people apart, differentiate among them." But Twain also returned repeatedly to "the law as one agent of control that resolves confusions about identity, restoring and enforcing the fundamental distinctions of society."<sup>28</sup>

Tom and Chambers are not just ersatz twins; they are a wry literary creation: black and white twins. Chambers's mother, the Driscoll family's slave girl Roxy, is a "pure-white slave."<sup>29</sup> She is one-sixteenth Negro and "as white as anybody" (p. 8), but, as Twain deadpanned, "the one sixteenth of her which was black out-voted the other fifteen parts and made her a negro" (pp. 8–9). Her child is only one thirty-second Negro and has "blue eyes and flaxen curls" (p. 9) like Tom, the master's baby born almost at the same time. Tom's own father is only able to distinguish the infants by social, not biological markers—their clothing: "ruffled soft muslin and a coral necklace" for the

27. Ronald R. Thomas, *Detective Fiction and the Rise of Forensic Science* (Cambridge: Cambridge University Press, 1999), p. 240.

28. Susan Gillman, *Dark Twins: Imposture and Identity in Mark Twain's America* (Chicago: University of Chicago Press, 1989), p. 5. Literary critics have also suggested that Twain felt "his real self was a black child disguised as a white man"; see Shelley Fisher Fishkin, *Was Huck Black? Mark Twain and African-American Voices* (New York: Oxford University Press, 1993), p. 162. Also see Hillel Schwartz, *The Culture of the Copy: Striking Likenesses, Unreasonable Facsimiles* (New York: Zone, 1996), p. 58.

29. Joel Williamson, quoted in Gillman, *Dark Twins*, p. 72.

white child, and “a coarse tow-linen shirt” for the Negro (p. 9). Physiognomically, Tom and Chambers are as indistinguishable as identical twins; legally, they occupy different worlds. In this, of course, Twain invokes both the race and gender politics of “passing.”<sup>30</sup>

Twain thus satirizes not only eugenics but also racial categorization, especially as practiced in the Old South. He was referring here to the notorious “one drop rule,” or “hypodescent,” the legal principle that obtained in some states of the American South and dictated that any mixed-race individual be legally considered Negro. Under this legal fiction the mulatto did not exist; individuals were either pure white or Negro.<sup>31</sup> Historians have noted that an unintended effect of the one drop rule was the increasingly prevalent phenomenon of “white slaves.” As Joel Williamson put it, “white people were enslaving themselves, as it were, in the form of their children and their children’s children.”<sup>32</sup>

In *Pudd’nhead Wilson*, fingerprints perform triple duty: they solve crimes, determine individual identity, and police legal racial identities. The protagonist, David “Pudd’nhead” Wilson, a local attorney and scientific dilettante, uses fingerprints taken from the babies at birth to identify Tom, rather than Luigi, as the murderer of Tom’s uncle, Judge Driscoll. But the fingerprints also demonstrate that “Tom” is not Thomas Driscoll, but rather Chambre de Valet. And, Tom, despite having white skin and having lived as white his entire life, is a Negro, “a slave and salable as such” (p. 9). Indeed, in the book’s last line and its crowning irony and comeuppance, Tom is sold down the river, saved from the gallows by his body’s economic value to the estate of the man he murdered; in other words, his slave identity outweighed his criminal identity. Chambers, meanwhile, despite his Negro dialect, ends the novella legally white. In *Pudd’nhead Wilson*, fingerprints are not mere individualizers, but determinants of racial legal categories as well.

30. Elaine K. Ginsberg, “The Politics of Passing,” in *Passing and the Fictions of Identity*, ed. Elaine K. Ginsberg (Durham, N.C.: Duke University Press, 1996).

31. At least one literary critic has also suggested that Huckleberry Finn was a mulatto; see Fishkin, *Was Huck Black?* (above, n. 28).

32. Williamson, quoted in Gillman, *Dark Twins* (above, n. 28), p. 64; Stephan Talty, *Mulatto America* (New York: HarperCollins, 2003), pp. 3–25. This, Robin West has observed, may be the allegorical meaning of the famous “half a dog” joke that earns “Pudd’nhead” Wilson his moniker: Wilson jokes that he wishes he owned half a barking dog so that he could kill his half. The villagers sagely note that one cannot kill half a dog without killing the whole. Similarly, if an individual is half (or 1/32) Negro, the whole individual is Negro. See West, *Narrative, Authority, and Law* (Ann Arbor: University of Michigan Press, 1993), p. 131.

Twain's understanding of the importance of biological markers was far subtler than either Galton's or that of contemporary civil libertarians and cultural critics, because he saw the crucial issue being not merely whether a biological marker corresponded to some racial reality. As Ronald Thomas points out, Twain was more skeptical than the English detective writers about the ability of either law or science to produce unambiguous truth;<sup>33</sup> instead, Twain understood that the real synergy between fingerprints and race lay precisely in its ability to construct legal and biological fictions. Twain draws attention to the way in which law constructs racial boundaries, and the way in which law oscillates between "scientific" and "common sense" understandings of race.<sup>34</sup> He understood the importance to law of maintaining stable categories like black and white, whose respective salience was not undermined by their own arbitrariness.

Fingerprints, in *Pudd'nhead Wilson*, are individualizers; they enable the authorities to see the individual differences between seemingly "identical" twins (Luigi and Angelo) and *doppelgängers* (Tom and Chambers). Moreover, they also allow us to see racial identities previously invisible to us, which were obscured by the unreliable physical manifestations of what historian Evelynn Hammonds calls "embodied" race.<sup>35</sup> Using fingerprints, Pudd'nhead Wilson is able to "see" that Tom is in fact "black" and Chambers is in fact "white," even when this determination cannot be reached through a visual assessment. Wilson does not see race as Galton had hoped, however; he is not able to determine race from fingerprint patterns.

Tom and Chambers's whiteness and blackness reverse in the metaphorical sense as well: Tom turns out to be "bad," a murderer; Chambers a victim of identity theft.<sup>36</sup> This is perhaps why *Pudd'nhead Wilson* has been read by different critics both as an endorsement and

33. Thomas, *Detective Fiction* (above, n. 27), p. 242.

34. Ian F. Haney López, *White by Law: The Legal Construction of Race* (New York: New York University Press, 1996); Ariela J. Gross, *What Blood Won't Tell: A History of Race on Trial in America* (Cambridge, Mass.: Harvard University Press, 2008).

35. Evelynn M. Hammonds, "New Technologies of Race," in *Processed Lives: Gender and Technology in Everyday Life*, ed. Jennifer Terry and Melodie Calvert (London: Routledge, 1997), p. 118.

36. Mark Poster, *Information Please: Culture and Politics in the Age of Digital Machines* (Durham, N.C.: Duke University Press, 2006); Simon A. Cole and Henry N. Pontell, "'Don't Be Low Hanging Fruit': Identity Theft as Moral Panic," in *Surveillance and Security: Technological Politics and Power in Everyday Life*, ed. Torin Monahan (New York: Routledge, 2006).

a critique of eugenics, and the twins experiment may be read as indicating the triumph of either nurture or nature.<sup>37</sup> Similarly, *Pudd'nhead Wilson* may be read either as reflecting the dominant cultural view of race or as subverting it.<sup>38</sup> Brook Thomas, however, suggests that the nature and nurture readings can be reconciled by understanding Twain's neo-Lamarckianism, which allowed him to view traits as being both innate and acquired.<sup>39</sup> Tom and Chambers embody a concern of early twentieth-century American race scientists such as Earnest Hooton: that some white individuals appear black, and some black individuals appear white.<sup>40</sup> This, of course, was precisely Galton's eugenic project: to use hidden somatic markers like fingerprint patterns to visualize racial, ethnic, and hereditary identities that were not visible simply by looking at a face or body. And, ultimately, as popularists like Havelock Ellis suggested, this would enable scientists to see who was "bad" and who "good"—namely, to diagnose criminal predispositions,<sup>41</sup> which was precisely what Galton meant when he called fingerprints "the most important of anthropological data."<sup>42</sup>

### Fingerprinting in America

As with so much of Twain's work, *Pudd'nhead Wilson* predicted the future so uncannily well that it might almost be called science fiction.<sup>43</sup> Much of the early history of fingerprint identification in the United States has the feel of playing out a script written by Twain in 1892. *Pudd'nhead Wilson* was indeed adapted for the stage, and at least one budding "fingerprint expert" recalled seeing the play (Fig. 3).<sup>44</sup> Fingerprint experts performed dramatic courtroom demonstrations of their ability to correctly attribute "latent" fingerprints—left,

37. Thomas, *Detective Fiction* (above, n. 27), pp. 246–247.

38. Fishkin, *Was Huck Black?* (above, n. 28), pp. 122–123.

39. Brook Thomas, *American Literary Realism and the Failed Promise of Contract* (Berkeley: University of California Press, 1997), p. 203.

40. E. A. Hooton, "Methods of Racial Analysis," *Science* 63:1621 (1926): 78. On Hooton, see Nicole Rafter, "Earnest A. Hooton and the Biological Tradition in American Criminology," *Criminology* 42:3 (2004).

41. Havelock Ellis, *The Criminal* (New York: 1890).

42. Galton, *Finger Prints* (above, n. 2), p. 2.

43. Mark Seltzer, *Bodies and Machines* (New York: Routledge, 1992).

44. Donald C. Dilworth, ed., *Identification Wanted: Development of the American Criminal Identification System, 1893–1943* (Gaithersburg, Md.: International Association of Chiefs of Police, 1977), pp. 95–99.

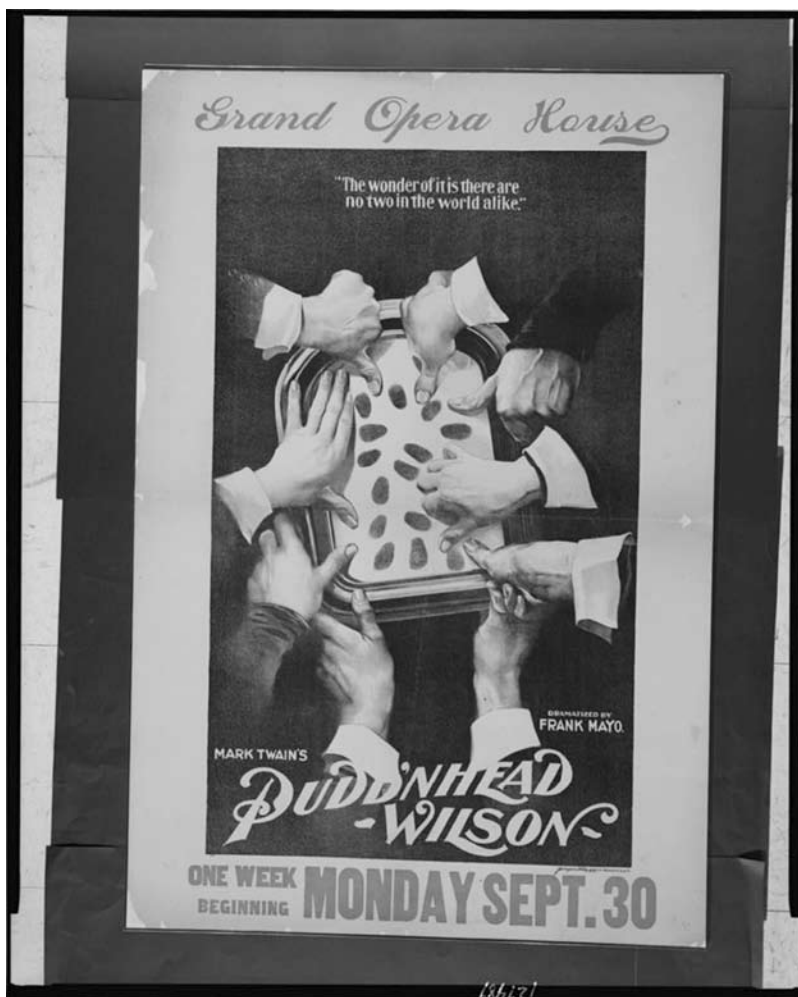


Figure 3. Mark Twain's *Pudd'nhead Wilson* dramatized by Frank Mayo. (Source: Library of Congress, Prints and Photographs Division, LC-USZ62-127489.)

for example, on a pane of glass—that seemed to come right out of the climatic trial scene in *Pudd'nhead Wilson*.<sup>45</sup> Appellate court opinions even cited the book and its author, “the great Westerner,” as legal authority, and some histories of fingerprinting list Twain among the pioneers of the technique.<sup>46</sup>

45. *Moon v. State*, 198 P. 288 (1921); *People v. Crispi* (1911).

46. *State v. Kuhl*, 175 P. 190, 191 (1918); *Stacy v. State*, 292 P. 885, 191 (1930); Federal Bureau of Investigation, *The Identification Division of the FBI: A Brief Outline of the History*,

Twins also prominently figured in fingerprint discourse. Identical twins had, of course, long been used as the crucial test of early dactyloscopers' hypothesis that no two persons have identical fingerprint patterns, based on the assumption that these patterns are, at least in part, inherited. Tom was wrong when he told Wilson: "The hand-print of one twin is the same as the hand-print of the fellow twin" (p. 49). As Wilson later noted: "One twin's patterns are never the same as his fellow-twin's patterns" (p. 108). Scotland Yard detective John Ferrier brought photographs and fingerprints of the Fox twins Ebenezer Albert and Albert Ebenezer with him to his celebrated exhibit on fingerprinting at the St. Louis World's Fair that has been (incorrectly) credited with introducing the technique to the United States.<sup>47</sup> The earliest major fingerprint trial in Britain was the 1905 Deptford murder trial, in which a fingerprint implicated the (non-twin) brothers Alfred and Albert Stratton. Albert even played into the good twin/bad twin cliché, claiming, while being held in the Tower awaiting execution, that Alfred "had led me into this."<sup>48</sup>

In the United States, the twins used for fingerprint demonstration purposes were the vaudeville performers Charles and Frank Terry (Fig. 4). In one of the earliest fingerprint trials in the country, *People v. Crispi*—a 1911 burglary trial in New York City—New York Police Department fingerprint expert Lieutenant Joseph Faurot, over strenuous objections of irrelevance from the defense, produced the Terry twins' photographs and fingerprints. He testified that both their photographs and their anthropometric measurements were "very similar, identical almost," but their fingerprints were markedly different. Carlo Crispi's defense attorney, Robert Moore, perhaps unwittingly evoked the vexing interrelationship between race and fingerprints when he countered, "there might be two other men whose faces would be as unlike as *dark and daylight*, and their finger prints might yet be as like as two peas."<sup>49</sup>

*Services, and Operating Techniques of the World's Largest Repository of Fingerprints* (Washington, D.C.: FBI, 1991).

47. David L. Grieve, e-mail message, September 11, 1996; Simon Cole, "Fingerprints: An Archival Whodunit," *New York Archives*, spring 2002.

48. Martin Leadbetter, "Rex v. Stratton and Stratton," *Fingerprint Whorld* 2:7 (1977); Anne Joseph, "Anthropometry, the Police Expert, and the Deptford Murders: The Contested Introduction of Fingerprinting for the Identification of Criminals in Late Victorian and Edwardian Britain," in *Documenting Individual Identity: The Development of State Practices since the French Revolution*, ed. John Torpey and Jane Caplan (Princeton, N.J.: Princeton University Press, 2001), p. 178.

49. *People v. Crispi* (New York, 1911), trial transcript, Special Collections, Lloyd G. Sealy Library, John Jay College of Criminal Justice, City University of New York, pp. 152–154 (emphasis added).

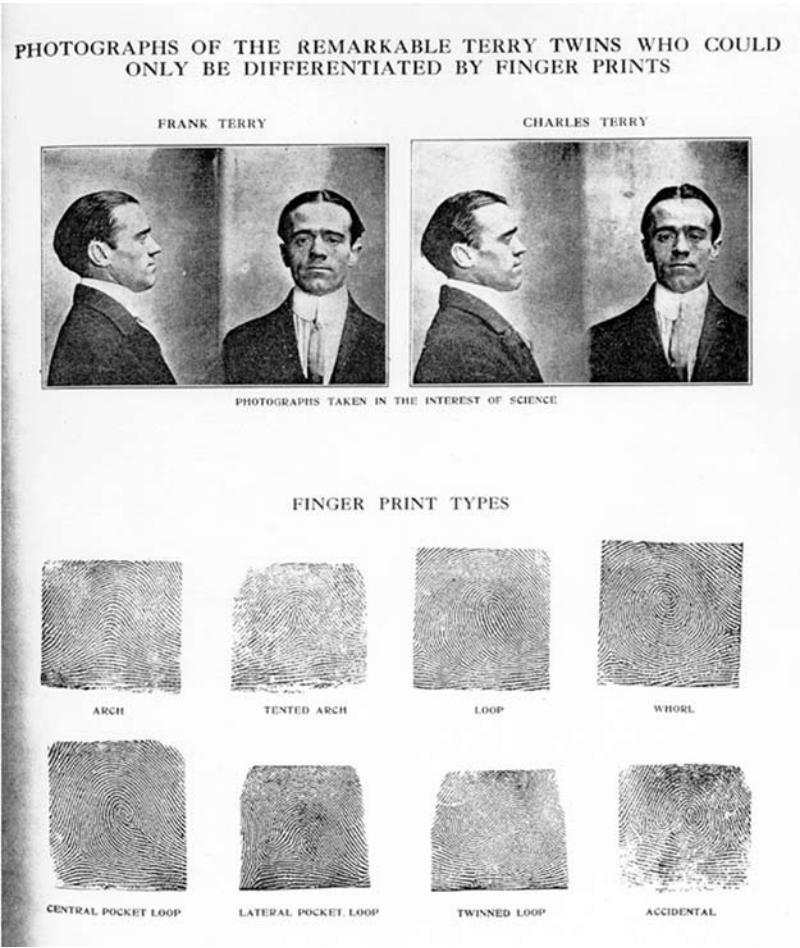


Figure 4. The Terry Twins, from the New York City Police Department, *Annual Report* (1921), p. 232. (Courtesy Municipal Library, Department of Records and Information Services, City of New York.)

The Two Will Wests

The most striking real-life echo of *Pudd'nhead Wilson*, however, was what has become known as the "Will West case." On May 4, 1903, so the story goes, a man named Will West was incarcerated at the United States Penitentiary in Leavenworth, Kansas. Consistent with the routine of the time, West was "Bertillonized," his mug shots taken, his anthropometric measurements recorded, his name, offense, and physical features transcribed. Leavenworth was the central



repository for federal criminal identification information, and the Bertillon clerks did a quick search of their records based on West's aggregate anthropometric measurements. This search produced a "hit" (to use today's parlance)—a card with similar anthropometric measurements and, indeed, bearing the name William West. Reportedly, even West himself agreed that the photograph was of him. There was a slight problem, however: according to the records, William West was already incarcerated at Leavenworth.

William West was summoned from his cell. As one report put it, "[t]he two negroes were so exactly alike that, even when they were side by side, it was impossible to tell them apart."<sup>50</sup> But the fingerprints of the two men were different (Fig. 5). Another report claimed that Warden R. W. McClaughry cried "This is the death of Bertillonage!" and abandoned anthropometry the very next day.<sup>51</sup> The Wests had provided a "crucial test" of anthropometry and fingerprinting, one that had conclusively demonstrated the superiority of fingerprinting.<sup>52</sup> As the FBI's official history later put it:

It would be hard to conceive a more perfect case for refuting the claims of rival systems of identification. Although the two Wests denied being related, there was a facial resemblance *like that of twin brothers*. The formulas derived from their Bertillon measurements were nearly identical . . . and, finally, there was the crowning coincidence of the similarity of names. The fallibility of three systems of personal identification—names, photographs, and Bertillon measurements—were demonstrated by this one case. On the other hand, the value of fingerprints as a positive means of identifying people was dramatically shown.<sup>53</sup>

It is perhaps of more than passing importance to note that these dramatic events did not actually occur. Although fingerprinting had been implemented in the New York State Bureau of Identification in Albany in 1903, it was not introduced to Leavenworth until 1904, after McClaughry learned about it from Ferrier at the exposition in St. Louis.<sup>54</sup> Contrary to McClaughry's fabled cry, Leavenworth

50. Mary B. Mullett, "Have You Been Finger-Printed?" *American Magazine*, June 1920, p. 44, in the Papers of Harris Hawthorne Wilder, Smith College archives, box 21, Smith College, Northampton, Massachusetts.

51. Frank Smyth, *Cause of Death: The Story of Forensic Science* (New York: Van Nostrand Reinhold, 1980), p. 129.

52. Karl R. Popper, *The Logic of Scientific Discovery* (New York: Basic, 1959).

53. Federal Bureau of Investigation, *Identification Division of the FBI* (above, n. 46), p. 7 (emphasis added).

54. Cole, "Fingerprints" (above, n. 47).



Fig. 5. The Bertillon photograph of Will West, No. 3426 of the United States Penitentiary at Leavenworth, Kans.

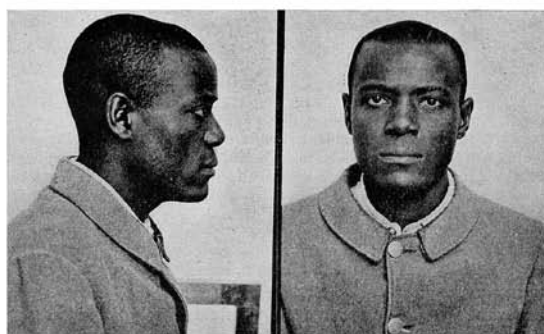


Fig. 6. The Bertillon photograph of William West, No. 2626 of the United States Penitentiary at Leavenworth Kans. This is a different man from the foregoing (Fig. 5.), but has practically the same Bertillon measurements, and almost the same name. Both were at Leavenworth at the same time.



Figure 5. Photographs and fingerprints of "The Two Will Wests." (Source: Harris Hawthorne Wilder and Bert Wentworth, *Personal Identification: Methods for the Identification of Individuals, Living or Dead* [Boston, 1918], pp. 31–32.)

continued to use anthropometry until at least 1919.<sup>55</sup> There is no record of the incident in any contemporary press reports about fingerprint identification.<sup>56</sup> In addition, the claim that the West case had somehow “falsified” the Bertillon system was not accurate. To begin with, the coincidence in names ought to have had no impact on a Bertillon search, whose primary purpose was, after all, to expose individuals utilizing aliases. Even more damning, however, was that the Wests’ anthropometric measurements did not, in fact, “match”; although ten of the eleven measurements were within what Bertillon called the “maximum tolerable deviation”—what today would be called “the margin of error”—of one another, the foot measurements differed by seven millimeters (Table 1). This was outside the three-millimeters maximum tolerable deviation for the foot measurement and thus grounds for *exclusion* under the Bertillon system.

It appears that the West incident was concocted well after the fact to create an appealing origin story for American fingerprinting, which it has succeeded in doing.<sup>57</sup> The story is repeated credulously in numerous “histories” of American fingerprinting, in addition to the FBI’s mentioned above.<sup>58</sup> And for years it served as one of the most memorable portions of the FBI’s celebrated tour in Washington, D.C. (it has since been eliminated).

55. U.S. Justice Department, Criminal Identification Bureau, *Annual Report of the Special Agent in Charge* (Leavenworth, Kans.: U.S. Penitentiary Press, 1920).

56. Robert D. Olsen Sr., “More About ‘the Two Will Wests,’” *Identification News* 32:1 (1982): 7-10.

57. Robert D. Olsen Sr., “A Fingerprint Fable: The Will and William West Case,” *Identification News* 37:11 (1987).

58. Anne Joseph and Alison Winter, “Making the Match: Human Traces, Forensic Experts and the Public Imagination,” in *Cultural Babbage: Technology, Time and Invention*, ed. Francis Spufford and Jenny Uglow (London: Faber & Faber, 1996); Joseph, “Anthropometry” (above, n. 48), p. 170; Jack Fincher, “Lifting ‘Latents’ Is Now Very Much a High-Tech Matter,” *Smithsonian* 20 (October 1989): 201-218; Sandra S. Phillips, “Identifying the Criminal,” in *Police Picture: The Photograph as Evidence*, ed. Sandra S. Phillips, Mark Haworth-Booth, and Carol Squiers (San Francisco: Chronicle, 1997), p. 20; Jürgen Thorwald, *The Century of the Detective*, trans. Richard Winston and Clara Winston (New York: Harcourt, Brace, 1965), pp. 94-95; Frederick J. Weihs, *Science against Crime* (New York: Collier, 1964), pp. 39-43; Keith Inman and Norah Rudin, *Principles and Practice of Criminalistics: The Profession of Forensic Science* (Boca Raton, Fla.: CRC Press, 2001), p. 31; Ed German, *The History of Fingerprints*. 2003. <http://www.onin.com/fp/fphistory.html>; Richard Saferstein, *Criminalistics: An Introduction to Forensic Science*, 7th ed. (Upper Saddle River, N.J.: Prentice Hall, 2001), p. 396; Michael Lynch, Ruth McNally, and Patrick Daly, “Le Tribunal: Fragile Espace De La Prevue,” *La Recherche* 300 (1997): 113-114; Andrew C. Bernasconi, “Beyond Fingerprinting: Indicting DNA Threatens Criminal Defendants’ Constitutional and Statutory Rights,” *American University Law Review*

Table 1. Anthropometric measurements of “the two Will Wests” as reportedly recorded at Leavenworth, 1903.

Measurement	Head length	Head breadth	Middle finger	Foot length	Forearm length	Height	Little finger	Trunk	Arm span	Ear length	Cheek width
Will West	19.7	15.8	12.3	<b>28.2</b>	50.2	178.5	9.7	91.3	187.0	6.6	14.8
William West	19.8	15.9	12.2	<b>27.5</b>	50.3	177.5	9.6	91.3	188.0	6.6	14.8

Source: Harris Hawthorne Wilder and Bert Wentworth. *Personal Identification: Methods for the Identification of Individuals, Living or Dead*. Boston: Gorham, 1918, 33.

For the purposes of this essay, the veracity of the story is less significant than its role as an origin myth. The West story, of course, drew upon the twins trope, with its characters who, though not twins, bore “a facial resemblance like that of twin brothers.” Indeed, some have contended that the Wests were long-lost twins separated at birth, or perhaps distant cousins (hence the shared surname), whose genetic relationship explained their uncanny resemblance.<sup>59</sup> But the West story also drew upon the powerful resonance of race in America: rather than the theme of a slave “passing” as white that occupies *Pudd’nhead Wilson*, it exploited white Americans’ conception of other races as physically homogeneous by constructing a case of purportedly “indistinguishable” African-American men.<sup>60</sup> The West case reconstituted in the American context Galton’s theme of racial homogeneity as threat to the integrity of a system of identification based on physiognomy. Even the coincidence in names had a racial subtext, the surnames of African Americans being, for obvious

50 (2001): 1005; Thomas J. Ferriola, *Scientific Principles of Friction Ridge Analysis and Applying Daubert to Latent Print Identification* (complete latent print examination, n.d.). <http://www.clpex.com/Articles/ScientificPrinciplesbyTomFerriola.htm>; Peter J. Hutchings, *The Criminal Spectre in Law, Literature and Aesthetics* (London: Routledge, 2001), pp. 148–149. Also see United States Marshals for Students of All Ages, [http://www.usdoj.gov/marshals/usmsforkids/fingerprint\\_history.htm](http://www.usdoj.gov/marshals/usmsforkids/fingerprint_history.htm).

59. German, *The History of Fingerprints*; Joe Nickell, “The Two ‘Will Wests’: A New Verdict,” *Journal of Police Science and Administration* 8 (1980): 406–413.

60. This point is correctly noted by Hutchings, *Criminal Spectre* (above, n. 58), p. 151, despite his misplaced credulity in the “two Will Wests” fable.

reasons, a freighted matter.<sup>61</sup> As Roxy taunts Chambers, “you ain’t got no fambly name, becaze niggers don’t *have* ’em!” (p. 41). Even after emancipation, African-American names, in the view of white authorities, may not have been considered as discriminating or as “real” as white surnames.

Whereas in *Pudd’nhead Wilson* fingerprinting allowed authorities to “see” racial identities that the face obscured, in the West case, fingerprinting allowed authorities to see individual identities that embodied race—the supposed physiognomic homogeneity, in white eyes, of African-Americans—obscured.

### Race and Fingerprints

Who concocted the Will West myth? The story first appeared in the 1918 book, *Personal Identification*, by Harris Hawthorne Wilder and Bert Wentworth.<sup>62</sup> Wentworth was the former police commissioner of Dover, New Hampshire, though it is Wilder, a professor of zoology at Smith College and the leading academic proponent of fingerprint identification in the country, who is of interest here.

Race was always crucial to Wilder’s conception of the utility of fingerprint identification. He was a tireless promoter of the use of finger, palm, and sole identification. In 1902, Wilder acknowledged the Bertillon system as “[p]erhaps the most scientific system in practical use” for *criminal* identification, but he saw potential for fingerprint, palm, and sole identification in other, noncriminal areas. One area in which Wilder thought “this system would be of great service would be in the official identification of Chinese, negroes, and other races, the features of which, at least to the Caucasian eye, offer hardly sufficient individuality to be at all times trustworthy.”<sup>63</sup> In other words, he proposed the use of fingerprinting for the surveillance of racially marginalized populations rather than the identification of criminals, for which the Bertillon system was still reserved at that time.

Fingerprinting was thus considered a *less* scientific system for the identification of individuals of races who defied the Bertillon system’s reliance on the face and body. The identification of white

61. Eugene D. Genovese, *Roll, Jordan, Roll: The World the Slaves Made* (New York: Pantheon, 1974), pp. 443–450.

62. Olsen, “Fingerprint Fable” (above, n. 57); Harris Hawthorne Wilder and Bert Wentworth, *Personal Identification: Methods for the Identification of Individuals, Living or Dead* (Boston: Gorham, 1918).

63. Harris Hawthorne Wilder, “Palms and Soles,” *American Journal of Anatomy* 1 (1902): 439–440.

Americans still demanded that the face be seen. This view was succinctly expressed by San Francisco Police Chief F. H. De Pue, a proponent of a complex system of facial identification that relied on superimposing a grid over photographs:

But, surely finger impressions are not enough, unaided by any other means of identification. For indifferent Hindus and wandering Arabs it might answer. The English regime has not been considered too particular in the matter of identity of native suspects. We, in America, however, demand something scientifically reliable.<sup>64</sup>

In fact, the proposed use of fingerprint identification to identify the Chinese had a long history in the United States, one that long predated the eventual import of fingerprinting from Scotland Yard at the turn of the twentieth century. During the early 1880s, at the height of nativist reaction against the immigration of Chinese laborers in California, Congress passed the first of several Chinese Exclusion Acts, which banned entry to laborers though not to merchants and students.<sup>65</sup> Several different individuals proposed using thumb-printing to enhance the security of “return certificates”—documents that allowed Chinese residents to visit home and return to the United States. It was widely believed that a brisk black market in these documents existed in China, since, as U.S. Representative William Morrow put it:

There is remarkable similarity in the size, complexion, color of eyes and hair, and general appearance of all Chinamen coming to this country. It therefore happens that the present certificate of identification issued to a departing Chinaman will do equally good service as a certificate of admission into the country for a thousand other Chinamen.<sup>66</sup>

Those who proposed thumb-print identification included Harry Morse, former Alameda County sheriff and famed bandit hunter; Franklin Lawton, superintendent of the San Francisco Mint; and the famed Western landscape photographer Isaiah West Taber. As with the British, U.S. officials viewed thumb-printing as a solution to the problem of Asian physiognomic homogeneity. As the *San Francisco Daily Report* put it in an illustrated report on the proposal: “The thumb prints of Mon Shing, a Chinese laundryman, are more easily

64. F. H. De Pue, “The De Pue System of Identification,” in *Proceedings of the International Association of Chiefs of Police* (Grand Rapids, Mich.: Seymour & Muir, 1902).

65. Kitty Calavita, “The Paradoxes of Race, Class, Identity, and ‘Passing’: Enforcing the Chinese Exclusion Acts, 1882–1910,” *Law and Social Inquiry* 24 (1999).

66. William W. Morrow, “Chinese Immigration” (Washington, D.C., 1886).

recognizable than his face.”<sup>67</sup> Wilder echoed this notion, writing that the 1892 Geary Act, which extended the ban of the immigration of laborers to all Chinese and mandated the registration of all Chinese residing in the United States, would be more enforceable “if the certificate issued to each Chinaman bore, besides the photograph, a single palm print.”<sup>68</sup>

It is worth noting in this context that “The Yellow Wallpaper” was written in California around this time. Gilman’s other writings vociferously, and disconcertingly, reflect the nativist tenor of that time and place, with regard to Chinese, African Americans, and other immigrants, so much so that Susan Lanser suggests that the color of Gilman’s wallpaper may have referred to the “Yellow Peril.” Gilman, Lanser notes, was a contradictory figure on the issue of race: she supported both interracial marriage and eugenics (the latter was, of course, a progressive, and in some cases feminist, view at the time). As Laura Doyle notes, Gilman’s embrace of eugenics, like Ellis’s, married progressive sexual politics with regressive racial politics.<sup>69</sup> Indeed, as Lanser shows, Gilman was virulently anti-immigrant, and the Chinese were among the many ethnic groups Gilman singled out as threats to “the American ‘national character.’”<sup>70</sup>

Wilder actively pursued Galton’s research agenda as well. Twins provided evidence of both the specific individuality and the general heritability of fingerprint patterns. Wilder’s photographs and fingerprints of twin white girls, Lucy and Lucille Hoersechgen, provide an interesting contrast with the Wests (Fig. 6). Although Galton sought to correlate fingerprint patterns with ethnicity, Wilder concentrated more on the papillary ridges found on the palms and soles. Wilder collected and published studies of the distributions of various attributes of palm and sole patterns of white Americans, Maya Indians, African Americans, Liberians, Japanese, and Chinese. In 1892, he

67. “Thumbs Down! The Latest Plan for Outwitting the Chinese. Thumb-Marks for Identification. An Old Idea Revived in Good Practical Shape. Fac-Similies of Thumb Marks. Some Curious but Hitherto Little Known Facts. Every Man’s Thumbs Different from Every Other Man’s—the Lines Which Serve to Invariably Identify a Person—Opinion of Prominent Persons on the Advantages of the Method,” *San Francisco Daily Report*, 1885.

68. Harris Hawthorne Wilder, “Palm and Sole Impressions and Their Use for Purposes of Personal Identification,” *Popular Science Monthly* 63 (1903): 410.

69. Laura Doyle, *Bordering on the Body: The Racial Matrix of Modern Fiction and Culture* (New York: Oxford University Press, 1994), pp. 19–20.

70. Susan S. Lanser, “Feminist Criticism, ‘the Yellow Wallpaper,’ and the Politics of Color in America,” *Feminist Studies* 15:3 (1989): 429–430.



Figure 6. (a) The Hoerschgen twins at about age 9. (b) Handprint and fingerprints of Lucy. (c) Handprint and fingerprints of Lucille. (Source: Harris Hawthorne Wilder Papers, Smith College archives, Smith College, Northampton, Massachusetts.)

found some racial correlations in the overall pattern type that Galton had not. Although these correlations were not strong enough to reliably predict the race of an individual by his or her papillary ridges, they were nonetheless significant; indeed, Wilder found one palm pattern type overrepresented enough among negroes that he felt





justified in calling it “the negro formula” (Fig. 7).<sup>71</sup> In this, his findings were consistent with those of his European counterparts, who, after Galton’s disappointing early results, also found weak correlations between “race” and the frequency of various fingerprint pattern types.<sup>72</sup> Indeed, these weak racial correlations, as well as evidence of the heritability of the general fingerprint pattern types (though not the minute details), are still found today.<sup>73</sup> Fingerprint patterns correlate weakly with embodied race, just as genes do. The idea that fingerprints contain no racial information is a historical achievement, not a natural fact.

Meanwhile, Wilder’s research assistant Inez Whipple, who would later become his wife, undertook ambitious morphological studies of the development of fingerprint pattern types. Whipple constructed an evolutionary hierarchy of fingerprint patterns by using the basic pattern types initially identified by Galton, much as Pudd’nhead Wilson had “arranged” his collection of fingerprints “according to plan in which a progressive order and sequence was a principal feature” (p. 105).<sup>74</sup> What was particularly intriguing about the “Wilder/Whipple theory,” as it was called, was that it stood the European evolutionary hierarchy of fingerprint pattern types on its head. The Europeans had made the intuitive argument that the simplest pattern—the arch—was probably the least evolved, which was supported by findings of large numbers of arches among primates, prisoners, mental patients, and epileptics.<sup>75</sup> Wilder and Whipple argued, in contrast, that this simplest of patterns was the least functional

71. Harris Hawthorne Wilder, “Racial Difference in Palm and Sole Configurations: II. Palm and Sole Prints of Liberian Natives,” *American Anthropologist* 15:2 (1913): 189–197; Harris Hawthorne Wilder, “Racial Differences in Palm and Sole Configuration,” *American Journal of Physical Anthropology* 5:2 (1922).

72. Kristine Bonnevie, “Studies on Papillary Patterns of Human Fingers,” *Journal of Genetics* 15 (1924); L. W. LaChard, “Finger-Print Characteristics,” *Journal of the American Institute of Criminal Law and Criminology* 10:2 (1919).

73. C. H. Lin et al., “Fingerprint Comparison I: Similarity of Fingerprints,” *Journal of Forensic Sciences* 27 (1982); John Berry, “Race Relationships,” *Fingerprint Whorld*, 1977; Sargur N. Srihari, Harish Srinivasan, and Gang Fang, “Discriminability of Fingerprints of Twins,” *Journal of Forensic Identification* 58:1 (2008): 109–127.

74. Inez L. Whipple, “The Ventral Surface of Mammalian Chiridium with Special Reference to the Conditions Found in Man,” *Zeitschrift für Morphologie und Anthropologie* 7 (1904).

75. Forgeot, *Empreintes Digitales Étudiées* (above, n. 6); David Hepburn, “The Papillary Ridges of the Hands and Feet of Monkeys and Men,” *Scientific Transactions of the Royal Dublin Society* 5 (1895); Féré, “Notes Sur Les Mains” (above, n. 6); Féré, “Empreintes Des Doigts” (above, n. 6).

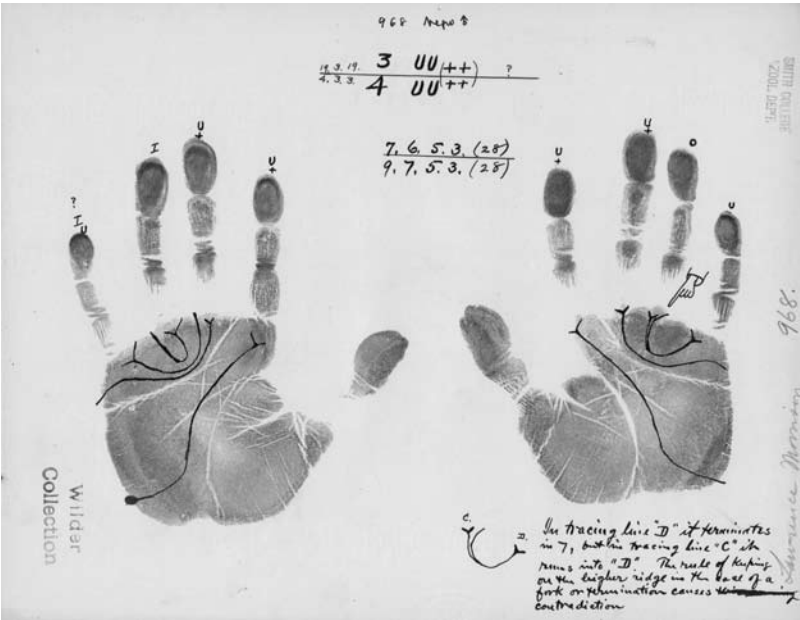


Figure 7. Handprints no. 968, negro female, n.d. (Source: Harris Hawthorne Wilder Papers, Smith College archives, Smith College, Northampton, Massachusetts.)

and therefore the most *highly* evolved (Fig. 8). This accorded well with the general findings of a higher proportion of arches among Europeans and lower proportion among Asians, and tended toward the stigmatization of races rather than individuals.

By the time of the publication of *Personal Identification*, Wilder had come to endorse fingerprint identification as superior to anthropometry for all applications. Wilder and Wentworth never actually claimed that the Wests had been fingerprinted in 1903 nor that the case had vanquished Bertillonage; indeed, a better case can be made that the publication of their book in 1918, rather than the mythical events surrounding the incarceration of Will West in 1903, marked the moment when the triumph of fingerprinting over anthropometry became apparent.

### The "Yellow File"

It would be tempting to read the triumph of fingerprinting over anthropometry as a defeat of racist thinking—as the banning of a technology with heavily racist connotations from the state practice of identification. Anthropometry, as is well-known, played a signifi-



Figure 8. G. Tyler Mairs, “An Arrangement of Friction-Ridge Dermatographs from the Apical Phalanges of the Human Fingers, Demonstrating the Wilder Theory of Functional Evolution or Degeneration of the Apical Friction-ridge Configurations from the Primitive Concentric Whorl (Alpha) to the ultimate Patternless Configuration—the Arch (Omega).” (Source: *Finger Print and Identification Magazine* 7:3 [September 1925]: 16–17.)

cant role in the nineteenth-century construction of “scientific racism.”<sup>76</sup> And the Bertillon system, which measured skull length and width and carefully and systematically recorded facial features, appeared at lot like craniometry, phrenology, and physiognomy, all of which were, if anything, even more deeply implicated in scientific racism.<sup>77</sup> This is why Rabinow has viewed the displacement of anthropometry by fingerprinting as a defeat of racist thinking, and why he saw the contemporary transition toward a genetic identification system rooted in population genetics as a regression.<sup>78</sup>

76. Horn, *Criminal Body* (above, n. 6), p. 13.

77. Nicole H. Rafter, *Creating Born Criminals: Biological Theories of Crime and Eugenics* (Urbana-Champaign: University of Illinois Press, 1997); Ysabel Rennie, *The Search for Criminal Man: A Conceptual History of the Dangerous Offender* (Lexington, Mass.: Lexington, 1978); Sekula, “Body and the Archive” (above, n. 7).

78. Rabinow, “Galton’s Regret” (above, n. 1); also see Hutchings, *Criminal Spectre* (above, n. 58), p. 150. Sekula, “Body and the Archive” (above, n. 7), p. 360, correctly notes, however, that despite the obvious superficial resemblance and intellectual connections between Bertillonage and Lombrosian criminal anthropology, “[f]or Bertillon, the criminal body expressed nothing. No characterological secrets.”

In contrast, I suggest, counter-intuitively, that an opportunity to defuse racism was actually lost with the defeat of anthropometry. Fingerprinting, far from drowning “race” in a flood of individualization, may, in fact, have fueled racist thinking. The Bertillon system seems racist because it looked closely at the body and face; it saw and acknowledged skull size and shape, nose and ear size and shape, hair and eye color, and, yes, skin tone. Fingerprinting seems “race neutral” because it averts its gaze; it looks only at the detailed level of papillary ridges and only at Pauffley’s image (see Fig. 1), which, because it is only black and white, cannot tell us “Black or White?”

In the very act of looking at these features, however, Bertillon and his operators were forced to confront the true range of human anthropometric and physiognomic variation. They could not ignore the existence of mulattoes and other “transitional” cases, because they were right before their very eyes and therefore created classificatory problems that demanded attention. Maybe researchers could ignore transitional cases, which is perhaps what Hooton meant when he described “the tendency of the biometric school to study populations as a whole or by selecting classes without attempting to distinguish between the various racial types included in them.”<sup>79</sup> But identifiers—“Bertillon clerks”—could not, nor could they over-generalize: where we see brown eyes, Bertillon clerks saw more than twenty different shades (Fig. 9); and where we see a “Jewish” nose, Bertillon saw numerous finely differentiated varieties.<sup>80</sup>

Bertillon, the anthropometrist, saw “race” in a more sensitive way, as a continuum of individual differences along which one cannot construct natural boundaries. It was the dactyloscopers who saw race in the crude way we associate with racism. While proponents of thumb-printing in California were decrying the “remarkable similarity in the size, complexion, color of eyes and hair, and general appearance of all Chinamen,” in France, Bertillon was denoting twenty different shades of brown eyes.<sup>81</sup> Fingerprinting, with its focus on the minute details of skin, could coexist with racial distinctions that were crude and arbitrary; the Bertillon system could not, because its

79. Hooton, “Methods of Racial Analysis” (above, n. 40), p. 76. The difference is in some sense analogous to the difference between Linnaeus and Buffon: where Buffon saw a continuum, Linnaeus saw categories; see Jonathan Marks, *What It Means to Be 98% Chimpanzee* (Berkeley: University of California Press, 2002), p. 60.

80. Bertillon, *Signaletic Instructions* (above, n. 12). Sander L. Gilman, *The Case of Sigmund Freud: Medicine and Identity at the Fin de Siècle* (Baltimore: Johns Hopkins University Press, 1993).

81. Bertillon, *Signaletic Instructions*.

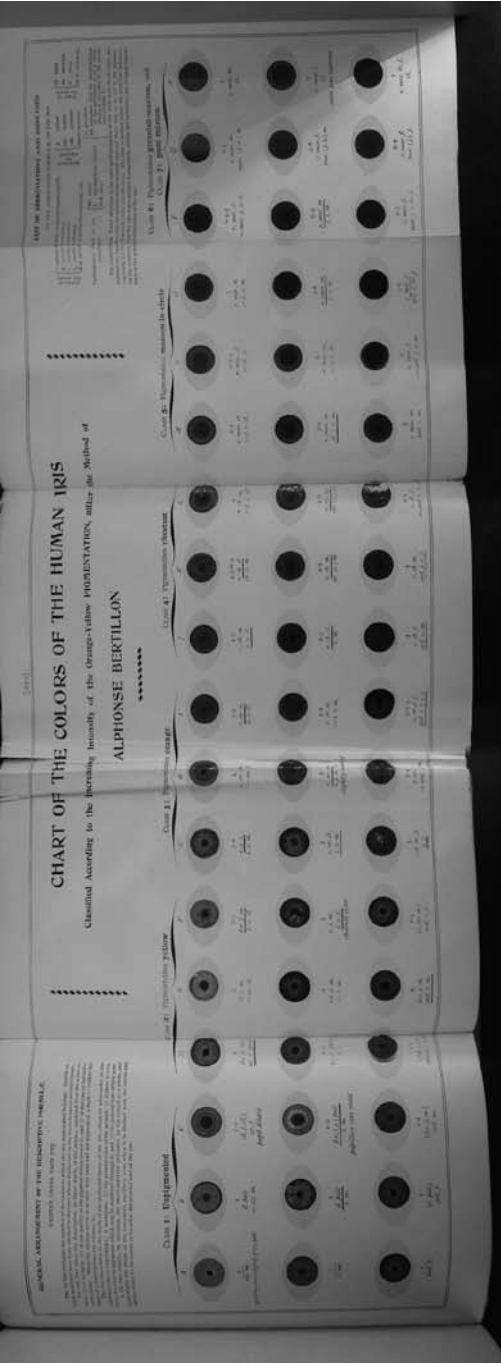


Figure 9. Different types of brown eyes according to the Bertillon system. (Source: Alphonse Bertillon, *Signaletic Instructions: Including the Theory and Practice of Anthropometrical Identification*, trans. R. W. McClaughey [Chicago, 1896]. Courtesy Lloyd G. Sealy Library, John Jay College, City University of New York.)

own embedded knowledge would have undermined such crude categories.

This difference between anthropometry and fingerprinting was embodied in identification practice. Far from fingerprint systems vanquishing race, crude racial designations quickly resurrected. Not long after the triumph of fingerprinting, Captain John Golden of the New York Police Department announced the creation of a “yellow file” at the annual meeting of the International Association for Identification:

About 3 years ago, I inaugurated a new file in my bureau, which I have chosen to call the “yellow file.” In New York City we have quite a number of Chinese who are residents of the city, and quite a number of visiting Chinese from Boston and Newark, and I found out that it would be very well for us to have a yellow file *in addition to a black file*.

Golden’s description of how to use the yellow file demonstrates how precise individualization and crude physiognomic-based racial identification not only coexisted, but combined to form a seamless identification system in which law enforcement officials could simultaneously individualize and racialize criminal bodies. Golden assured them:

You identification men know a Chinaman when you see one or a Japanese; you will not make a mistake in that, and, therefore, when a Chinaman or a Japanese is brought into your bureau, you can simply mark on the front of the card, “Yellow,” the same as you would mark it “Black” for a negro, and file that file in a separate file.

The latent print examiners’ purported scientific expert ability to know “matching” fingerprints—that is, prints that derive from a common source finger—when they see them contrasts with and complements their supposed experiential expert ability to know racial identity when they see it. Such racial subdividing was necessary because of the size of the files identification bureaus were amassing. “It is an easy matter to look up a Chinaman when he is brought in,” Golden noted; “instead of going through our entire collection, we merely go through the yellow collection.”<sup>82</sup> The practice of using a racial classification to subdivide a large identification file continued throughout the era of manual fingerprint classification. Even today, when fingerprints are optically scanned and stored in digital form, the computer matchers are built so that delimiters such as race, gender, and age can limit the search.

82. International Association for Identification, *Proceedings of the Annual Convention* (1925), p. 60 (emphasis added).

Certainly the maintenance of separate “black” and “white” identification files existed as early as the turn of the nineteenth century in the United States. (“Indian” was a descriptor equivalent to, say, “pockmarked” or “bald.”)<sup>83</sup> But fingerprinting did not exist then; identification was effected via written description. Why would “the ultimate individualizer” be used in conjunction with crude racial distinctions like black, white, and yellow? The possibility for disaster is significant: classify an individual of ambiguous racial background in the wrong file, and his or her “identity” may be lost forever.<sup>84</sup>

However, given the size of the files, some subdivision was necessary, and “race,” as Golden suggests, was as easy a category to impose as any. As he learned with fingerprint patterns, there is such a thing as having too many categories, too much individuality. Indeed, what is noteworthy is the way in which three or four seems to be the “right” number of categories in this context: arch, loop, whorl or black, white, yellow; arch, ulnar loop, radial loop, whorl or black, white, brown (or red), yellow. Without denying the existence of baroque systems of racial categorization, in the United States, race has always been to some extent binary or tripartite. As Evelyn Hammonds puts it: “In the U.S., race has always been dependent on the visual. . . . to most Americans, race is embodied and, even with racial mixing, the existence of primary races is as obvious as the existence of primary colors in the Crayola crayon palette.”<sup>85</sup> In this way, fingerprint identification, while perhaps denying some support to scientific racism, reified embodied race.

Of course, the ability to subdivide criminal record files was hardly the only way in which race remained useful to criminal justice systems and the actors within them. We need here only allude to the host of ways that today come under the broad rubric of “racial profiling,” in which embodied race is made useful in the pursuit of criminal justice in the United States. The preservation of race, despite the development of a purportedly individualized identification technology, must be viewed not merely as an administrative convenience,

83. State Prison of the City of New York, Register of Prisoners Received, 1797–1810, Records of the Department of Correctional Services, New York State archives, record series A0775.

84. Compare Shubha Ghosh’s fascinating discussion of patent applications for devices for detecting various shades of skin color and their purported applicability to the organization of police records; see Ghosh, “Race Specific Patents, Commercialization, and Intellectual Property Policy,” SMU Dedman School of Law Legal Studies Research Paper No. 00-13, August 20, 2007. Available at <http://ssrn.com/abstract=1008338>.

85. Hammonds, “New Technologies of Race” (above, n. 35), pp. 109, 118.



but rather as being bound up with an entire culture and operationalization of institutional and individual racism.<sup>86</sup>

### Embodied Race in the Twenty-first Century

In the tale related here, the breaking down of “scientific” racial categories—through either individualization or mixtures—is followed by the re-inscription of “commonsensical” racial categories. This suggests that individualization is not, as one would assume at first blush, the antidote to nefarious classification systems based on race: not only can biological individualization easily coexist with crude, artificial, “embodied” racial classification systems; it also seems that individualizing technologies are so fine-grained that they may, in fact, *demand* such schemes. This, it is suggested, is one of what Troy Duster calls the “complex feedback loops” between biological and social conceptions of race.<sup>87</sup>

The interdependence rather than opposition between individualization and classification may have implications for myriad ongoing discourses about race, science, and law in contemporary life. For example, in the 2000 U.S. census, a crude embodied racial categorization (white, black, and so on) was pitted against a “truer” schema in which multiracial identities would be acknowledged (i.e., individuals could check more than one box). Many of the fiercest critics of the new schema were, in some sense, those stigmatized by crude embodied racial categories: members of minority populations. These critics were put in the position of deploying what Gayatri Spivak has called “strategic essentialism”: defending artificial racial classifications in order to avoid further under-representation of minority populations.<sup>88</sup> Partly in response to these political concerns and partly to avoid a “statistical nightmare,” federal rules have already been promulgated by which the multiracial identities collected by the census will be translated back into crude single-race categories. As scholars have pointed out, the implementation of these regula-

86. David Theo Goldberg, *Racist Culture: Philosophy and the Politics of Meaning* (Oxford: Blackwell, 1993).

87. Duster, “Buried Alive” (above, n. 5), p. 259.

88. Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (Cambridge, Mass.: MIT Press, 1999), p. 224; Melissa Nobles, “Racial Categorization and Censuses,” in *Census and Identity: The Politics of Race, Ethnicity, and Language in National Censuses*, ed. David I. Kertzer and Dominique Arel (Cambridge: Cambridge University Press, 2002); K. Anthony Appiah and Amy Gutmann, *Color Consciousness: The Political Morality of Race* (Princeton, N.J.: Princeton University Press, 1996); Ian F. Haney López, “The Birth of a ‘Latino Race,’” *Los Angeles Times*, December 29, 2004.

tions amounts to a revival of “hypodescent”: any claimed racial heritage triggers the categorization of the individual as nonwhite.<sup>89</sup> Similar discourses may be found in medical research, where drugs are now being approved for specific ethnic groups based on theories that invoke biological race, but research that invokes embodied race, and in political initiatives designed to enforce governmental color-blindness led by the embodied-black, mixed-race conservative activist Ward Connerly.<sup>90</sup>

Meanwhile, fingerprinting has been replaced by genetics as an arbiter of identity. While many geneticists claim that genetic science has convincingly undermined the idea of attaching any scientific value to the concept of “race,” Jenny Reardon has shown that genetic science did not so much do away with the concept of race as it did change its form. For one thing, the dismantling of racial categories occurred simultaneously with their resurrection: “Human population geneticists’ claims that we are all one human species depend upon first dividing us into racial and ethnic groups and studying our differences, thereby creating the very racial concepts they claim to deny.”<sup>91</sup> Moreover, Reardon argues that the supposed genetic “dismantling” of race was in fact a transition from embodied race to an invisible, molecular-level concept of race: “true” race is no longer visible in phenotypes, but is increasingly visible in genotypes.<sup>92</sup> The

89. Joshua R. Goldstein and Ann J. Morning, “Back in the Box: The Dilemma of Using Multiple-Race Data for Single-Race Laws,” in *The New Race Question: How the Census Counts Multiracial Individuals*, ed. Joel Perlman and Mary C. Water (New York: Russell Sage Foundation, 2002).

90. Jonathan Kahn, “How a Drug Becomes ‘Ethnic’: Law, Commerce, and the Production of Racial Categories in Medicine,” *Yale Journal of Health Policy, Law, and Ethics* 4:1 (2004): 26; Robin Marantz Henig, “The Genome in Black and White (and Gray),” *New York Times Magazine*, October 10, 2004; Thomas H. Maugh II, “Drug for Only Blacks Stirs Hope, Concern,” *Los Angeles Times*, November 9, 2004; Dorothy E. Roberts, “Is Race-Based Medicine Good for Us?: African-American Approaches to Race, Biotechnology, and Equality,” *Journal of Law, Medicine and Ethics* 36: 3 (2008): 537–545; Tanya Schevitz, “Connerly Retiring as UC Regent—Leaves Controversial Legacy,” *San Francisco Chronicle*, January 19, 2005; Michael K. Brown et al., *Whitewashing Race: The Myth of a Color-Blind Society* (Berkeley: University of California Press, 2003); Troy Duster, “Debating Proposition 54: Data That Bears on Matters of Life and Death,” *San Francisco Chronicle*, September 19, 2003.

91. Jenny Reardon, “Decoding Race and Human Difference in a Genomic Age,” *Differences* 15:3 (2004): 41; *Race to the Finish: Identity and Governance in the Age of Genomics (in-Formation)* (Princeton, N.J.: Princeton University Press, 2004).

92. Reardon, “Decoding Race,” pp. 54–56. Also see Bernadette Wegenstein, “Getting Under the Skin, or, How Faces Have Become Obsolete,” *Configurations* 10:2 (2002): 221–259.

Human Genome Diversity Project (HGDP) promised to undermine racism by generating “truer” information about our ethnic ancestry: crude embodied racial designations would be undermined by the relentless flow of genetic information that, it is assumed, will show that embodied race does not actually correlate with genetic differences.<sup>93</sup> Learning that we are more genetically similar to some members of different embodied races than to members of our own embodied race would eradicate racism once and for all. The HGDP’s attitude was aptly summed up by the title of anthropologist Jonathan Marks’s excellent essay, “We’re Going to Tell People Who They Really Are.” Marks and HGDP’s other critics have pointed out the ways in which it seeks to establish “the equality of the so-called races, while even at the same time often reifying them” through moves like the division of the world’s population into four “major ethnic regions.”<sup>94</sup> Similar hopes are expressed by private companies that market services that will analyze customers’ DNA to provide them information about their mixture of ethnic heritage.<sup>95</sup> Such services might be seen as valorizing the importance of ethnic heritage by exploiting, or indeed creating, a market for finding out individuals’ precise African tribal origin. But on the contrary, vendors of such services contend that “[b]y allowing for the inference of precise ancestral mixture, ANCESTRY [a new DNA testing kit] could help dispel the entire notion of ‘race’ as we know it today and force governing bod-

93. Some geneticists, however, now argue that genetic differences correlate fairly well with traditional anthropologically defined “races”; see Armand Marie Leroi, “A Family Tree in Every Gene,” *New York Times*, March 14, 2005.

94. Jonathan Marks, “‘We’re Going to Tell These People Who They Really Are’: Science and Relatedness,” in *Relative Values: Reconfiguring Kinship Studies*, ed. Sarah Franklin and Susan McKinnon (Durham, N.C.: Duke University Press, 2001). Also see Leroi, “A Family Tree.”

95. Alondra Nelson, “Genealogical Branches, Genetic Roots, and the Pursuit of African Ancestry,” in *Revisiting Race in a Genomic Age*, ed. B. Koenig and S.S.-J. Lee (New Brunswick, N.J.: Rutgers University Press, 2006); “Bio Science: Genetic Genealogy Testing and the Pursuit of African Ancestry,” *Social Studies of Science* 38:5 (2008): 759–783. Also see Emma Daly, “DNA Tells Students They Aren’t Who They Thought,” *New York Times*, April 13, 2005, which features a professor who seeks “to demonstrate to students how complex race and ethnicity are” by conducting genetic ancestry tests on the students. The surprising dissonances between phenotype and genotype reported include the discovery by a woman who had “always thought of herself as half black and half white” that “the test *proved* her to be 58 percent European and 42 percent African” (emphasis added). Note also the recent trend in using genetic tests to authenticate membership in Native American tribes; see Karen Kaplan, “Ancestry in a Drop of Blood,” *Los Angeles Times*, August 30, 2005.

ies to re-think policies based on the classification of individuals into rigidly defined racial groups."<sup>96</sup>

Finally, forensic DNA profiling, like fingerprinting, promises individualized identification; but as with Captain Golden's yellow file, embodied race is present in DNA databases as well. The probabilities associated with forensic DNA "matches" are calculated based on the (visually) perceived "race" of the defendant; the racial groups employed are interesting both for their local nature and their crudity.<sup>97</sup> Thus in the United States, the major populations used are African American, Caucasian, Hispanic, Far East Asian, and Native American.<sup>98</sup> Hispanic, interestingly, is not a race in the eyes of the census, but apparently is in the eyes of the FBI database. In the United Kingdom, however, the groupings are Caucasian, Afro-Caribbean, Indian subcontinentals, Southeast Asian, and Middle Eastern. Significant strides have already been made in the effort to reverse-engineer forensic genetic profiles so as to make it possible to infer an ethnic origin from an unknown DNA sample, and such inferences have been used in a small number of criminal investigations.<sup>99</sup> Significantly, in the research for such efforts, "[d]esignation of ethnic group was by police officers and was based on appearance rather than any knowledge of an individual's ancestry."<sup>100</sup> Thus, even with the precision of DNA, we return to embodied race.

96. DNAPrint Genomics, "DNAPrint Presents Forensic Discoveries: New Products Could Transform the Landscape of DNA Testing," press release (June 27, 2000).

97. Amâde M'charek, "Technologies of Population: Forensic DNA Testing Practices and the Making of Differences and Similarities," *Configurations* 8:1 (2000): 121–158. Somewhat paradoxically, it was defense attorneys—assisted in some cases by biologists who in other circumstances were critical of biological notions of "race," such as Richard Lewontin—who insisted that random match probabilities be calculated by "race," because such specifications typically benefited their clients; see. Richard C. Lewontin, *The Doctrine of DNA: The Biology of Ideology* (London: Penguin, 1993).

98. Bruce Budowle et al., "Codis STR Loci Data from 41 Sample Populations," *Journal of Forensic Sciences* 46:3 (2001).

99. Richard Willing, "DNA Tests Offer Clues to Suspect's Race," *USA Today*, August 16, 2005; Mildred K. Cho and Pamela Sankar, "Forensic Genetics and Ethical, Legal and Social Implications Beyond the Clinic," *Nature Genetics* 36:11 (2004). Pilar Ossorio makes the important point that this technology will necessarily fall more heavily on minorities, because knowledge that a wanted individual is a member of a minority population necessarily has greater utility than knowledge that they are a member of the majority population; see Ossorio, "About Face: Forensic Genetic Testing for Race and Visible Traits," *Journal of Law, Medicine and Ethics* 34:2 (2006).

100. Alex L. Lowe et al., "Inferring Ethnic Origin by Means of an STR Profile," *Forensic Science International* 119 (2001). I am grateful to Troy Duster for bringing this to my attention.

### Postscript: Twins, Race, and Brotherhood in the Genetic Age

In March 2004, police investigating the 1999 rape of a student in Michigan found that the semen sample from it was consistent with the genetic profile of Jerome Cooper, who had been convicted for home invasion. But the evidence was also consistent with his twin, Tyrone Cooper, a convicted sex offender. Both Coopers lived in Grand Rapids at the time of the attack, and both were incarcerated for other crimes at the time of the database hit.<sup>101</sup> The press photographs of the two Coopers recall the century-old mug shots of the two Will Wests (Fig. 10).

One geneticist told police she could scour the evidential material for a mutation that might distinguish one twin from the other, but it would cost between \$50,000–\$100,000. Orchid Cellmark, a DNA testing company, then announced that it would perform the analysis gratis.<sup>102</sup> The Cooper story raises difficult ethical and legal issues concerning twins and DNA databases. For example, if one twin is entered into a DNA database, so effectively is the other. What if only one twin had been incarcerated at the time and thus effectively implicated his brother? Indeed, brotherhood takes on an entirely new meaning now that law enforcement is beginning to actively engage in what is called “familial searching” of DNA databases. Close, but not exact, DNA matches to someone in the DNA database may be used to investigate that individual’s blood relatives. Familial searching, which is coming into increasing use in both this country and Britain, threatens to exacerbate the already-existing overrepresentation of racial minorities in the law enforcement DNA databases of both countries.<sup>103</sup>

The Cooper case also evokes a spate of recent “brother cases,” some involving DNA, others not. There is the case of Lamont Branch, recently freed in Brooklyn, New York, after having served thirteen years in prison for a murder prosecutors now say they are no longer convinced he committed. But Branch was hardly uninvolved in the

101. Richard Willing, “Identical Twins Complicate Use of DNA Testing,” *USA Today*, June 3, 2004.

102. Ken Kolker, “Lab Offers Free DNA Test of Twins in Rape Case,” *Grand Rapids Press*, August 10, 2004.

103. Henry T. Greely et al., “Family Ties: The Use of DNA Offender Databases to Catch Offenders’ Kin,” *Journal of Law, Medicine and Ethics* 34:2 (2006); Frederick Bieber and David Lazer, “Guilty by Association,” *New Scientist*, October 23, 2004; Frederick R. Bieber, Charles H. Brenner, and David Lazer, “Finding Criminals through DNA of Their Relatives,” *Science* 312:5778 (2006); James Randerson, “DNA of 37% of Black Men Held by Police,” *U.K. Guardian*, January 5, 2006; Jennifer L. Mnookin, “The Problem with Expanding DNA Searches,” *Los Angeles Times*, April 5, 2007.

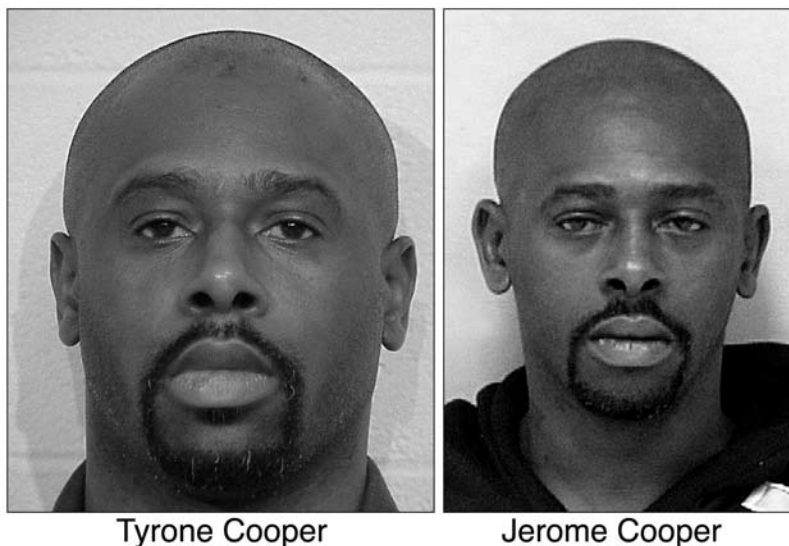


Figure 10. Jerome and Tyrone Cooper. (Source: AP/World Wide Photos.)

crime; he claims that the murderer was his brother and drug-dealing partner Lorenzo.<sup>104</sup> For several years now, New Yorkers have followed the recurring chronicle of the strains within the Branch family; as Lamont served thirteen years for a crime many family members believe was committed by Lorenzo, and family members have taken sides in the dispute.<sup>105</sup>

And then there is the case of Clyde Charles of Louisiana, who served nineteen years in prison for a rape he did not commit. Charles was featured in an Ofra Bikel film, shown on the public television series *Frontline*, eventually won the right to DNA testing and was exonerated by the evidence, was released in 1999, and became one of the best-known of the more than 200 people exonerated by DNA evidence. The perseverance of Charles's sisters is one of the most moving aspects of Bikel's film. But in 2000, the rape-kit DNA was searched against a national database and found to be a partial match to Clyde's brother Marlo's, from whom Clyde had parted a few hours before the rape occurred. As journalist Sean Flynn wrote: "Clyde says he does not believe his brother is guilty, perhaps because that would

104. William Glaberson, "Man Is Freed in Killing in Which His Brother Admitted a Role," *New York Times*, September 11, 2002.

105. William Glaberson, "Older Sibling Says He's Responsible for 1988 Killing," *New York Times*, February 22, 2002.

mean believing that Marlo betrayed him, that his own brother left him to waste away in prison for 19 years."<sup>106</sup>

So far, the Coopers are exercising their Fifth Amendment rights and brotherly solidarity and are remaining silent. Thus far, geneticists have failed to distinguish one from the other in order to decide which to keep in prison longer. It is a story worthy of Mark Twain himself. Like the other twins discussed in this essay—Tom and Chambers, Angelo and Luigi, Alfred and Albert Stratton, Lamont and Lorenzo Branch, Clyde and Marlo Charles—the Coopers manifest the continuing relevance of the theme Twain identified so early in the history of biometric identification in America. No matter how similar biology says we are, we still need our distinctions—between “races,” between individuals, between good and evil, and between criminals and the rest of us.

### Acknowledgments

I am grateful to Laura S. Kelly for many things, and also for the gift of the image used herein as figure 3. I am also grateful to Jenny Reardon for the image (figure 1) and conversations that helped originate this essay. This material is partially based on work supported by the National Science Foundation under grant nos. SES-0115305 and IIS-0527729, and the National Institutes of Health under grant no. HG-03302. The research for this article was funded in part by a Margaret Storrs Grierson Travel-to-Collections award from the Smith College Archives. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation, the National Institutes of Health, or Smith College. I am grateful to Mary T. Y. Lui and Arthur Burris for their collaboration on research on the use of fingerprinting in enforcing the Chinese Exclusion Acts. Earlier versions of this article were presented at the annual meeting of the Society for the History of Technology, at the Center for the Study of Law & Culture’s “Internment” colloquium series at Columbia Law School, and at the “Science, Technology, and the Historical Influence of Race: An Interdisciplinary Conversation” conference held at Drexel University. I am grateful to Evelyn Hammonds, Jennifer Morgan, and Amy Slaton for their comments, as I also am to Kitty Calavita, Ray Fouché, Michael Montoya, and Brook Thomas for helpful critical comments.

106. Sean Flynn, “DNA Gothic,” *New York Times Magazine*, April 27, 2003. Interestingly, the authorities don’t seem to express any doubts that even this degraded DNA sample clearly excludes one brother, and includes (though with a relatively low random match probability) the other.