Introduction

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights.
—Declaration of Independence (1776)

Men are born and remain free and equal in rights. Social distinctions may be founded only upon the general good.
—Declaration of the Rights of Man and Citizen (1789)

Americans proclaimed it so boldly, the fundamental equality of all human beings, that even their more radical co-revolutionists in France drew back a bit, conceding an equality in rights but asserting at the same time the possibility of social distinctions, of difference and inequality. Not that most Americans failed to come to the same conclusion. Few on either side of the Atlantic advocated a thoroughgoing social leveling. Human differences seemed real enough even in the late eighteenth century, Enlightenment proclamations of human perfectibility notwithstanding, and the labors of various scientists investigating human nature during the nineteenth and twentieth centuries would largely serve only to confirm this fact. Physically, mentally, perhaps even morally, by race and region and class, along lines of gender and age, differences were manifest everywhere. But the fact that not everyone was exactly the same did not mean necessarily that some were better than others, and the visibility of all these differences gave little insight into which ones should matter for what purposes. What was clear, however, was that the social systems of the old world and the ancien régime, founded on notions of inherited status and hereditary aristocracy, had been rendered suspect, if not unworkable. Thus, if social distinctions were to be reclaimed and elites legitimated, they would have to be justified along new lines, ones that could accord with republican celebrations of equality and the sovereignty of the people.

The Measure of Merit tells the story of how the American and French republics turned to the sciences of human nature to help make sense of the meaning of human inequality. These sciences’ exploration of the status and character of human differences, particularly as related to mental ability, it contends, provided a range of political theorists, social commentators,
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and practical politicians with seemingly objective grounds for interrogating the limits of human equality and developing what could be represented as a justifiable basis for social distinctions. Indeed, from the earliest ruminations about human beings in a state of nature, discussions of the implications of human differences for the establishment of a social order promoting equality but also consonant with nature’s truths were central. Jean-Jacques Rousseau and Thomas Jefferson puzzled over the natural inequalities in the eighteenth century; the naturalist Louis Agassiz and abolitionist Frederick Douglass battled over the white race’s presumed innate mental superiority in the nineteenth century; and the psychologists Alfred Binet and Lewis Terman worried over the meaning of intelligence differences for democracy in the twentieth century. In each instance, questions about the correct way to understand inequalities in human abilities also became questions about the appropriate way to organize society, and vice versa. In general, mental philosophers and political theorists on both sides of the Atlantic argued that if the “false” distinctions of wealth or family background or beauty or any of the other accidents of birth could be eliminated, then the “true” ones, those reflecting fundamental aspects of a person’s nature, could come to the fore. Almost all believed that social differences would not disappear; rather, they would be placed on a new footing—merit—and made to seem legitimate expressions of how individuals manifested those abilities.¹

Two issues persistently arose for those seeking to understand social inequality in terms of ability and merit. First, there was the question of the nature of the differences themselves. Which were the ones that mattered, what was their origin, and how easily could they be altered or improved? Did nature ensure that some individuals were better than others at certain tasks, or was it all a function of education and experience? Second, once ability was acceptably defined and understood, what should happen next? Should all be trained to the same level in all things; or should those with ability be identified and receive special instruction; or should talents be allowed to develop as they would, neither promoted nor hindered by the state? And what about those deemed decidedly weak in abilities? At first, educators, mental philosophers, and political leaders in America and France responded to these questions similarly. Sharing Enlightenment commitments to the primacy of reason and the need to reconcile social structure with the dictates of nature, and sure that education could improve the populace and ready it for citizenship, they imagined social worlds in which individual differences were many, open to training, and easily harnessed to the benefit of state and society. Whereas virtue was to constitute one foundation of these new polities, mental attributes, understood as the vaguely defined term “talents,” was to be the other. Thus both nations promoted broad-based education as a means of making opportunity...
available to all, and both emphasized individual differences in the plural—talents, and facultys, and abilitys—whether understood as products of nature or nurture or both.

Over the course of the nineteenth and twentieth centuries, however, the specific ways in which each society responded to the evolving sciences of human nature diverged sharply as these nations addressed the problem of balancing equality and difference. Four distinctions stand out. First, in America, a political culture celebrating liberal market-based approaches, wary of placing power in the hands of the state, and deeply skeptical about claims to expertise dominated. Consonant with this outlook, throughout much of the nineteenth century both liberal and conservative writers firmly believed that human talents were multiple and diverse, and argued that a proper social order was one where the free play of talents among self-determining individuals allowed the most meritorious to rise to the top. In postrevolutionary France, by contrast, belief in the state as guarantor of equality and individual rights was strong, worry about the unrestrained market pervasive, and faith in the power of experts to act in the public interest high. Under these conditions, most favored some form of state-centered solution to the problem of equality and difference, usually one featuring a universal educational system that would identify and nurture individual talents, at least among bourgeois males.

Second, although both America and France strongly favored basic education for all classes, the kinds of educational systems that each nation developed, and thus their responses to the problem of difference, were strikingly dissimilar. Until the second half of the nineteenth century, American education was almost entirely a local affair. Primary-level training was broadly available, and often provided by local government; beyond that, however, education at the secondary or collegiate levels was principally in private, often sectarian hands, and available mostly to a small elite destined for one of the professions. Major changes occurred only after the Civil War, when federal and local governments began to invest more heavily in mass secondary and university education. In contradiction, the French from the start adopted an approach to education that was national, universal, and comprehensive. Pyramidal in design, the French system eventually established primary schools in every region open virtually to all, with the most successful students continuing to secondary school and then elite institutions for the most advanced training. Rigorous examinations determined who could move up, with the goal of ensuring that the most talented received the best education and became the core of the nation’s technocratic elite. Throughout the vicissitudes in their nation’s political structure, the French continued to use the educational system to identify and train an elite who would represent the triumph of merit in service to the nation. Until the twentieth century, Americans, on
the other hand, placed much more weight on personal attributes than on formal education as a means of social advancement or distinction. Once educational credentials did become more essential, however, Americans too embraced more systematic approaches to identifying and promoting the most talented, though ones adapted to its decentralized educational system, and consonant with the desire to employ objective methods of selection and to disaggregate masses of students quickly and efficiently to meet the needs of rapidly expanding urban school districts.

Third, because of the centrality of race in American culture, explorations of group-level differences had much more resonance there than in France. During the nineteenth century, anthropologists and biologists in both nations—including Samuel Morton and the American school of anthropology and later Paul Broca and the Société d’Anthropologie de Paris—constructed a language of mental capacity in the singular, based on the concept of intelligence, to describe and analyze human beings at the level of groups. Created by transforming reason from an absolute into a characteristic manifested in degrees, intelligence and its synonyms justified the arrangement of animals and humans in a simple linear order based on mental power. The result was a scientific explanation of two largely uncontested “truths” of the period: that humans, specifically white male Europeans, held pride of place in the animal kingdom, and that European civilization was distinctly superior to all others. The growing authority of scientific rationales for racism in the late nineteenth century synthesized these “truths,” pushing intelligence to the forefront of explanations of the hierarchical ordering of the races. Notoriously, in America anthropological determinations of levels of intelligence by race were used to “prove” the inherent and unalterable inferiority of nonwhite peoples, and quickly became part of the nationwide debate about the place of African Americans in society. French anthropologists were no less certain about the existence of an intelligence-based racial hierarchy with whites on top, but their claims had much less resonance in a nation that saw itself as racially homogeneous and superior on the basis of culture alone to the nonwhite societies it was colonizing. Thus segments of the American public became accustomed by the latter half of the nineteenth century in ways that their French brethren simply did not to using the language of intelligence to debate whether certain groups deserved access to opportunities denied others.

Fourth, and finally, the extraordinary social changes of the late nineteenth century—political upheavals in France and social/cultural transformations in the United States—opened space for new methods of understanding and evaluating humans and their behavior. In both countries mental scientists unhappy with previous approaches to human nature began to push for more “scientific” alternatives, ones that led psychologists to recast many of their fundamental conceptions about the mind, including
the notion of intelligence. American psychologists turned to methods of quantification and measurement associated with the experimental laboratory to try and create an exact science of the mind, one where every mental attribute was accessible to measurement and perhaps statistical characterization. For them, intelligence as understood by anthropologists such as Morton or Broca beckoned as a biologically based, unitary, quantifiable entity that might not only usefully distinguish races, but rank individuals within a given group as well. Although French psychologists, too, were impressed by laboratory science’s power, their approach emphasized clinical observation, where intensively investigated individual pathological cases were used to understand the mind’s normal features. To be sure, the inventor of the modern intelligence test—the Binet-Simon intelligence scale—was a French psychologist, Alfred Binet; nonetheless, the test became an American sensation rather than a French one. French psychologists and administrators were ambivalent about the nature and intrinsic significance of intelligence and preferred to assess individuals on the basis of methods reliant on expert judgment. While few French psychologists rejected outright the intelligence test and the knowledge it could produce, most favored understanding intelligence as a complex multivalent phenomenon useful for shedding light on the abilities of the elite or diagnosing the deficient, and thus best approached through clinical/observational modes of analysis.

By the 1920s and 1930s, the combination of these factors had produced distinct ways of understanding differences in mental abilities and using them to explain who got access to what opportunities. In America, intelligence proved to be an attractive concept with which to unify the democratic and meritocratic, to help regulate the increasing demand for limited educational resources and occupational opportunities in ways that could appear objective and fair even to those least successful in garnering rewards from the system. The U.S. Army employed intelligence testing on an unprecedented scale during World War I, when more than 1.75 million soldiers were examined and sorted; such testing then underwent an enormous postwar boom. Administrators in education and industry looked to intelligence as a means of classifying their charges on the basis of a socially sanctioned criterion; professionals and experts invoked intelligence to justify their privileged status while maintaining allegiance to the ideal of equal opportunity; and the growing cadre of white-collar office workers and bureaucrats used intelligence to distinguish their mental labor from what they saw as the inferior hand labor of the factory and farm. Because intelligence signified a measurable biological construct, it could readily be represented as transcending class lines and thus as an inherently egalitarian and objective criterion. However, because members of privileged socio-economic groups generally scored well on intelligence tests, the concept
in its twentieth-century guise also offered a way to maintain the overall stability of the American social hierarchy while keeping it open to exceptional members of historically excluded groups.

In France, by contrast, the educational system continued to serve as the primary gatekeeper for entrance into the technocratic elite. Through the 1930s, intelligence and its tests were associated with identifying and classifying the mentally deficient rather than the skilled. French psychology's fascination with representing individuals in multiple registers meant that intelligence as such was rarely seen as either singular in nature or a unique determinant of an individual's future. While neither French psychologists nor the French public dismissed the importance of assessments of individual intelligence, the institutional and cultural roles of such determinations were primarily diagnostic, ways for pathology to be identified or personal mental characteristics to be known. Moreover, as Theodore Porter has demonstrated, French technocratic culture was confident of its own expert authority, and wary at best of reliance on simple quantitative determinations.3 Ironically, therefore, it was in America, for all its individualism, that mental difference was collapsed down to a single register—intelligence as something unitary—and relied on especially in education and industry to establish a justifiable basis for differentiating the masses, while in France that intelligence was regarded as multiple and most relevant to individual self-understanding.

The Measure of Merit thus tells the story of divergent conceptualizations of intelligence and their relation to merit, showing that scientific objects such as intelligence must be seen as “product[s] of history, not of nature.”4 This is not to deny the reality of intelligence or talents or other aspects of human nature discussed in this study, but rather to show that such terms are multivalent, constantly shifting in meaning and significance as they are deployed to solve problems of social order and accomplish other essential cultural work. Adopting an approach that highlights the inseparability of the ways we understand the world and the ways we live in it—what STS scholar Sheila Jasanoff has termed “co-production”—The Measure of Merit demonstrates how entities such as talents and intelligence and the mechanisms that made them seem real have become constituents of the societies in which they were produced and adopted, continually shaping and being shaped by these cultures’ particularities.5 The efforts of psychologists, anthropologists, mental philosophers, and other scientists to comprehend the source and significance of human inequality, it thus contends, helped define the terms in which the new American and French republics sought to fashion and legitimate their systems of merit. Yet this intermixing of the scientific with the political, The Measure of Merit insists, did not result in the wholesale triumph of empirical methods for understanding intelligence and assessing merit. Rather, the
negotiations between these fields of knowledge and practice generated complicated settlements, in which those appropriating knowledge about human nature—be they administrators, educators, business people, or members of the general public—were also transforming this knowledge, such that it was deemed both authoritative and yet subject to dispute. In the process of reckoning with natural inequalities, therefore, these various actors proved unable to entirely domesticate or stabilize such concepts as intelligence and merit, which remained always contestable terms in the recurrent debates about the social and political implications of inequality for a modern democracy.