

CLASSIFYING LABORERS

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Instinct, Property, and the Psychology
of Productivity in Hungary (1920–1956)

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■ Twentieth-century class struggles took many forms: strikes, street fights, parliamentary debates, and new regulations. Battles were waged over the legitimacy of property and the rights of labor. At stake were the fundamental moral principles justifying social hierarchies. Coalitions on the left and right of the political spectrum proposed solutions to the discontent and to the economic turmoil it fostered. One crucial site for adjudicating the validity of social classifications was the field of work science. Promising social harmony, work scientists also held out the promise of greater efficiency. Armed with innovative techniques to improve performance, work scientists set out to rationalize the physical actions of laborers. Equally important was the discovery of workers' innate qualities and psychological states. At the heart of these activities was the search for mechanisms: the mechanics of action and the motivations for behavior. Once identified and understood, these mechanisms could be marshaled to increase productivity. The search for successful strategies of rationalizing the workplace entailed experimental work, extensive training to solidify the standards of performance embodied in the innovations in task performance, and, not least, occupational testing to find the right person for the job. And it is this productive tension—among scientific engineering, standardizing, and social

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classificatory practices (racializing and classifying)—that constitutes the focal point of my analysis explicating the powerful scientific and political techniques used in creating people and justifying hierarchy.

In this account, I review the strange history of agrarian work science in mid-twentieth-century Hungary, in which, as we learn, a schema accounting for the mechanics of work in capitalism was sustained in socialism while the moral valence of its classificatory principles were inverted. In both the capitalist period of interwar Hungary and the Stalinist era of the 1950s, people's motivations were understood to be given, habituated, and even instinctual, but, curiously enough, instincts varied according to an individual's ethnic background, property relations, and family history. The capacity to work was not simply learned; it was fully embodied. Yet despite the presumption that classes and ethnic groups carried specific work habits in their physical makeup, the attribution of diligence and sloth were reversed in the course of a few decades. So what would otherwise have been considered very different social strata—landless workers of the 1930s and wealthy landowners of the 1950s—came to be classified into the same category. Both were, by their very nature, incapable of working. The dangerous subversive of the interwar era—the unemployed worker (*lumpenproletariat*)—was considered to be as subversive in his time as the wealthy peasant (*kulak*), the prototypical class enemy in Stalinist villages, was a decade later. These sentiments were voiced in political speeches and pamphlets, although the sources I cite here are more obscure: treatises on rationalization and agrarian work science texts from the 1920s and 1930s, and bureaucratic reports on Stalinist cooperative farms from the early 1950s. Standardizing occupational categories relied on the scientific development of theories of motivation and human behavior, categories that built explicitly on, and further elaborated, local classifications structuring social inequality: class, race, and gender. Social inequality was solidified, indeed authorized, by modern projects of standardization, not despite of but because of the ways that scientific practices were crafted.

In common parlance, to standardize means to introduce uniformity and/or to align with a stipulated goal. Standardizing workers may suggest imposing a homogeneous template, echoes of which are found in classic critiques of the assembly line and deskilling (Braverman 1974). This cookie-cutter view misrepresents or underestimates the degree to which standardization entails complex techniques of differentiation (see Steve Epstein, chap. 2; Martin Lengwiler, chap. 4; and Judith Treas, chap. 3 in this volume). The standardization of workers central to scientific management strategies never totally erased differences between workers, just as it never eliminated the division of labor itself. Pernicious differences that were seen to impede production were squashed, but other differences were sustained and even enhanced by the techniques of work science. Complementary to these efforts was the focus on developing uniform scientific techniques for differentiating workers, for molding groups to particular specifications. Once perfected, these

practices would be offered in the marketplace of ideas for modernizing society. Work scientists and their colleagues in scientific management and occupational psychology envisioned this to be a worldwide market because the techniques being designed were formulated in terms of instinct and human nature, shared by all. Yet the actual practices of creating a science and managing subjectivity in the workplace entailed codifying cultural-historical assumptions shared locally by scientific practitioners about the subjects (and subjectivity) of analysis. In short, sociocultural norms justifying existing social hierarchy were refined into scientifically tested principles of modern organizational forms. Science and industry clasped hands, committed to the grand project of classifying work and standardizing workers.

It is clearly not earthshaking to suggest that twentieth-century scientific management principles reinforced existing patterns of inequality and exclusion; the question, of course, is: Why? More to the point, what are the hows that explain the why? We could easily list a series of conventional explanations, from crude Marxist explanations painting pictures of mean-spirited executives reveling in exploiting the lowly worker to far more sophisticated studies of social capital and the reproduction of inequality (Bourdieu 1984, 1986). My intervention into the debate comes from a different angle—grounding the study of science and engineering in social histories of subjectivity and political economy. I argue that theories of human nature, and indeed instinct, carried very local meanings; they were socially inflected in important and divergent ways, contrary to what we might otherwise assume about such universalizing categories. Everyone agreed that morality and motivation were embodied, but the social location of virtue differed, depending on the social position of the observer. This becomes clear in the history told here—the principles justifying social inequalities changed radically, but the mechanisms explaining motivation, as well as the belief that capacities were physically embodied—remained the same. So, it behooves us to consider the social context within which these ideas were developed and deployed, that is, how, in the name of social engineering, standardization strengthens existing explanations for human difference while altering the means by which these differences matter. In other words, in the following analysis I offer a more sustained investigation of the social as constitutive of work science, in particular, and of social science, in general.

This story may be arcane, carrying all the negative connotations of mid-twentieth-century scientific engineering, eugenics, and political indoctrination.¹ I hasten to add, however, that the language of human nature and biological explanations for behavior are just as common in academic and business studies today—economics, psychology, management, and political science—as they were fifty years ago. This short exploration is intended, therefore, to give us reason to question

1. Social engineering tends to be associated with what are now considered morally reprehensible practices, such as eugenics and Stalinism, but this substantially misunderstands the centrality of transforming individuals into efficient workers and voracious consumers in the dynamics of capitalist economies.

the meanings of human nature and the purposes of genes in current social analyses, as much as to ponder the consequences of theories of instinct and politics in the historical example at hand.

Studying the Soul, Rationalizing the Job

Agrarian work science is perhaps the least known of the cluster of fields subsumed under the name scientific management, which flourished in the mid-twentieth century. Scientific management writ large encompassed the work of many disciplines: psychology, economics, physiology, business, accounting, and engineering. This was just as true of agrarian work science as of studies of industrial production. In Hungary, for example, we find studies in agricultural magazines and specialist journals concerning nutritional requirements and energy expenditures for specific tasks; time and motion studies to enhance workplace performance; and experiments with organizational patterns, shop floor design, and wage structures to increase productivity (Bereznai 1943; Blantz 1936; Fischer 1936; Kemptner 1939; Keszler 1941; Kölber 1932; Molnár and Schiller 1937; Schiller 1940; Schrikker 1942). Careful measurements of output and experiments with tool use were rigorously executed, and results were displayed in graphic tabulations and mathematical formulae. Studies of the movement and rhythm of agricultural work, such as cutting hay (Szakáll 1943; Ujlaki 1943), assisted agrarian work scientists in calculating the amount of time required to perform this task. Although clearly influenced by industrial work science, agrarian work science traced its lineage in Europe to manorial estate management as much as to economic studies of the firm.² This did not lessen its commitment to calculation and measurement. Ludwig Ries, an influential German specialist, encouraged estate managers to carry a slide rule at all times to perform the calculations necessary for time studies; he confessed to feeling more uncomfortable on the job without his slide rule than without his watch (Reichenbach 1930, 234). Béla Reichenbach, author of the definitive study of agrarian work science in interwar Hungary, listed the following aids to the study of agricultural work: stopwatch, slide rule, dynamometer, psychographs, respiratory devices, and moving film (222).

Studies of the physical conditions of laboring were closely tied to the study of workers' dispositions, constituting the fields of psychotechnique, industrial and occupational psychology.³ Occupational psychologists or practitioners of psychotechnique constituted only one branch of the relatively young and exciting

2. I am indebted to one of the reviewers for calling my attention to references to agrarian work science in the United States (see, e.g., Friedland, Barton, and Thomas 1981). A history of manorial estate management and a focus on labor were not the primary focus because mechanization was at issue.

3. "The science of work is divided into four branches, in accord with the four-fold nature of work (intellectual, psychological, physical and social): 1. the philosophy of work, 2. the psychology of work, 3. the biology of work, and 4. the sociology (organizational studies) of work" (Rézler 1944, 13).

field of psychology. As concerned as their more famous colleagues in psychoanalysis with the fate of the human condition, they sought to realize their goals of bettering humankind on the shop floor rather than on the couch. Their prosaic task did not exclude them from participating in the heated debates raging throughout the discipline at the time (and since) over the relative significance of biology and culture, of instinct and behavior (Degler 1991; Rabinbach 1990; Stern 2003). Unlike colleagues whose work issued from mental institutions or laboratories, however, their immediate inspiration came from studies demonstrating the wide variation in abilities to perform particular tasks or master specific skills conducted by specialists committed to rationalization, scientific management, and work science (Hatvani 1935, 3).⁴

Work science labored to render workers' abilities visible, calculable, and hence malleable (Rose 1990). Analysts wished to ascertain the psychological features—skills and temperament—needed in specific jobs and then to develop tests to identify these qualities in job applicants. A number of scientific management studies, such as the Hawthorne experiment, had attempted to establish the influence of various environmental and emotional variables in work.⁵ Comparable efforts were devoted to fine-tuning wage schemes. The design of new wage systems to improve productivity had to consider the relative ability or inclination of workers to perform effectively on the job by matching ability to activity and temperament to context. Some qualities were considered more amenable to change and others less so. In light of these constraints, it may have been difficult to change people's behavior—to find just the right sorts of incentives and exercise adequate pressures to influence actions—but it was for this reason all the more worthwhile. The pragmatic tasks of increasing productivity in the depths of the worldwide depression fueled excitement about scientific management, work science, and occupational psychology. Aspirations were loftier, however, because they were nurtured by utopian dreams of a perfectly functioning, well-oiled social machine, unmarred by distrust or unrest.

A curious tension is embedded in the nexus of psychology and social engineering in work science. The purview of scientific discovery and the role of social design are intermeshed and difficult to untangle. Analysts committed to understanding workers' aptitudes and temperament—economists, as well as psychologists—regularly invoked the language of human nature, thereby positing a universal set of motivational

4. Koyama Eizos' projects of ethnic engineering and public opinion surveys in mid-century Japan show strong similarities to work science in Hungary in the 1930s and 1940s (Morris-Suzuki 2000).

5. Studies of environmental factors included investigations into the influence of climate on productivity. Ellsworth Huntington investigated the relationship between weather and efficiency in the 1920s when he occupied the chair of the Committee on the Atmosphere and Man of the National Research Council of the U.S. National Academy of Sciences. In his study of climate research, James Fleming refers to Huntington's research as "meterological Taylorism" (1998, 100–103).

traits. Instinct was also used to explain patterns of laboring, connoting a transhistorical and acultural human physiology. Engineers designing new machines or business managers introducing a new wage system recognized the constraints of natural impulses, yet much of their work revolved around retraining workers using scientifically calculated strategies to eliminate behavioral traits that impeded their schemes for improved efficiency.⁶ Yet how do we distinguish between proper motivations and problematic behaviors, if in fact the reasons for action are understood to be natural or instinctual? Just how do we reprogram human nature or erase instinct? This was precisely the difficult task that occupational psychologists and work scientists grappled with in their studies of, and attempts to alter, work and workers. They confronted the challenge eagerly, marrying their scientific interests to the pressing need for economic renewal.

Designing a Modern Hungary

Following World War I, Hungary was in a political and economic shambles. Hungarian politics was cut loose from the crumbling edifice of the Austro-Hungarian Empire and, in a few short months, lurched from a liberal republic to a people's (Soviet) republic. Conservative forces rallied, dismantling soviet institutions, such as town and worker councils, and murdering suspected communist sympathizers. The economy was in ruins, battered by prolonged fighting. More important, however, was the loss of two-thirds of the nation's territories to the new successor states in Eastern Europe, lands once integral to the national economy. The loss of valuable resources, as well as numerous customers, crippled the nation's economy at precisely the moment at which the fortunes of many nations were deteriorating as well. Once the backbone of the national economy, agriculture now became its emaciated skeleton. Feeble attempts at land reform did not challenge the dominance of manorial production. Fifty-six percent of arable land remained in the hands of the aristocracy, Catholic Church, and wealthy peasantry; the remaining 44 percent was worked by small landowners (Weis 1930, 162). Two-thirds of the agrarian population—one-half of which was officially defined as landless, the other half too poor to sustain their families—were forced to cobble together a living as best they could (Kerek 1939, 348). Some tried to provide for their families by working a few acres, but the majority could not subsist on their paltry holdings and ended up as residents on large manorial estates or as impoverished day-laborers in villages and towns.

The sorry state of agricultural production, even on huge farms owned by the wealthy elite, hindered the growth of the national economy. The equitable distribution of land was held out by many as a solution to economic stagnation, but

6. It bears mentioning that psychological studies were not restricted to workers but were extended to the psychology of management as well.

another group—comprising business economists and work scientists—advocated modernizing production. They hoped to follow the lead that their German colleagues had shown in developing scientific management techniques for agriculture. (They were conversant with similar innovations in the United States, Italy, and the Soviet Union as well.) Agrarian work science promised to achieve higher profits and lower costs, which were seen as the most effective (and perhaps sole) means of competing in the dismal international market. In the long term, however, their goal was to modernize Hungarian agriculture by reforming its organizational structures, improving economies of scale, mechanizing production, introducing accounting standards, and transforming small property owners into a more efficient labor force. Their activities during the interwar period consisted of establishing departments of agrarian business economics in several institutions of higher learning, training students, writing columns in influential agrarian newspapers, and participating in research activities funded primarily by the Ministry of Agriculture. It is to the products of those efforts that I now turn to examine the manner in which theories of behavior and notions of human nature were articulated.

Manorial estate managers and work scientists shared the views of their Hungarian compatriots nationwide that workers differed in their skills and abilities, according to their regional identification, racial/ethnic identity, class position, and gender (e.g., see Turda 2007; Turda and Weindling 2007). The ethnic/racial classificatory schema that work scientists used had deep roots in parochial and broader territorial squabbles. Long histories of animosity between adjacent villages or counties bred prejudices among fellow citizens, expressed frequently in terms of working habits and moral behavior. Similar prejudices were elaborated in the nationalist battles over economic authority and political sovereignty in the decades leading to the demise of the Austro-Hungarian Empire, attitudes that lived long after the Hapsburgs had left the throne.

There are substantial differences between agricultural workers ethnically. With regard to working capacity and suitability as a manorial servant, day laborer or contractual laborer, the pure Hungarian is worth the most. Among these, the people from the Great Plain and Dunántúl are especially so. Even though we pay these workers well, they nonetheless work the cheapest because of their substantial performance. Following them are the Slovak workers from these regions, where they haven't become too americanized⁸ [lazy]. Their working capacity, however, is less.

7. In 1920, the Ministry of Agriculture in Hungary established the National Agricultural Business Institute (Országos Mezőgazdasági Üzemi Intézet), modeled on comparable national institutes in Austria, Denmark, Germany, Italy, Norway, and the United States (Károly 1925, 2–3).

8. The term *become americanized* in Hungary means to become a reluctant or recalcitrant worker (Révai Nagy Lexikona 1911). This is based on the active resistance American workers made to the introduction of Taylorism and scientific management, a history well enough known in Hungary at the time for this to become a commonly used expression.

German workers are excellent, if they are working for themselves, but they don't gladly engage in wage labor, especially for a master of another ethnicity. Moreover, they are expensive; together with the Serb they are the most expensive worker. The undemanding Ruthenian and Romanian are fairly obedient, but they are very weak workers. Although they make do with less, they perform very expensive and slipshod work. (Reichenbach 1930, 247–48)

Reichenbach's description of ethnic workers in agriculture living within the country's borders could have been drawn from any number of social science texts in interwar Hungary. The disciplines of Hungarian ethnography and rural sociology were firmly grounded in identifying and explaining differences among classes, races, ethnic groups, and religious communities within the nation (e.g., Erdei 1941; Györfy 1942; Illyés 1936; Kovács 1937; Szabó 1937). The experimental and observational work of occupational psychologists and work scientists confirmed these views.

[O]ne must lead a people inclined to a life in the barracks entirely differently than the Hungarian worker, in whom there is a strong propensity for independence and a tendency to take on responsibility. [Hungarians] have a difficult time enduring rigid military training. Therefore one must establish work psychology separately for each country and each people. Without preliminary studies from abroad, we must undertake this significant duty ourselves. (Rézler 1944, 14; see also Thurzó 1934)

Distinguishing the dynamics of different social groupings also entailed founding several branches of psychological investigation: folk psychology, social psychology, and mass psychology (*néplélektan*, *társas-lélektan*, and *tömeglélektan*; Rézler 1944). Scientific rigor demanded the creation of subfields to investigate the specific forces at work in varying social configurations, providing insights into the causes of difference and the means of domesticating variety in the service of standardization.

Hungarians were not alone in distinguishing workers by their ethnic or national identity. The premier German specialist in agrarian business economics, Friedrich Aereboe, articulated similar sentiments in a lecture he gave in 1930 describing his travels in the United States the year before. Contesting the usual explanation among Europeans for U.S. economic domination, which focused on natural resources and the low costs of acquiring land, Aereboe argued that the human factor was the most significant difference. The United States was settled primarily by "the northern races," who enjoyed superior "mental and physical abilities" (1930, 6). Recognizing the poor educational level of U.S. workers, Aereboe countered that racial characteristics compensated for this deficiency, especially if one surveyed the specialization of nationalities in agricultural production:

The cooperation of the different tribes [*Volkestämme*] with their distributed roles has advanced America immensely. The Germans soon proved themselves to be the best

crop farmers, the Scandinavians and the Swiss the best in animal husbandry, the talented Celts from the green island as the best speakers, agitators and traders, the Italians as the good innkeepers and fruit traders, while the English with their great organization and leadership talents quickly took on everywhere a comfortable leadership role. (6)⁹

In light of subsequent events in German politics, Aereboe's ethnic division of labor seems tame. Radical notions that skills were embodied in racial stock can also be found among Hungarians, for example, in Jenő Kodár's (1944) discussion of race psychology.

Just as common in these texts are differentiations of ability according to class position. The social hierarchy of rural communities between the wars was built on the rock of property ownership, which became the guarantor not just of an individual's livelihood but also of his or her moral character. Having to leave home to find work, that is, being relatively mobile in the labor market, was a sign of a lack of control and so a loss of integrity (see Lampland 1995). We see these sentiments clearly expressed in Reichenbach's differentiation among workers according to property ownership:

A portion of day laborers are dwarfholders [i.e., own very small properties]. They are more class-conscious and so in general more difficult to manage, but they are more diligent, reliable and skilled workers. The day laborer without property either lives in his own small house, or usually is just a tenant; he often doesn't even have his own domestic animals. The latter are the most mobile, and the least reliable workers politically and morally. (1930, 196)

Poorer workers were not entirely unreliable. A family history of faithful service at the manor—a respectable form of diligence—bode well. "Good traits are inherited over generations. That is why we attempt to obtain as many decent, capable and diligent families as possible working permanently for our estate. At our large estates we often find workers' families, which are descended from many generations of excellent manorial servants and workers" (Reichenbach 1930, 247). On the other hand, not being primarily employed in agriculture robbed one of the ability to work effectively, as the following passage indicates. "Among migrant workers one may also find village craftsmen and industrial workers, who take on migrant labor in the summer to ensure a better living. These latter are usually the least fit for use in the work gang, so it is best if we don't allow industrial workers to be accepted into the crew" (209).

Where an individual worked and how was determined by his or her social history, but this was intimately related to his or her psychological state. In an article written by a manorial steward who had conducted experiments in innovative wage schemes, we learn that there are three pillars to rationalizing work. The first two are the introduction of labor-saving devices and rationalizing the division of labor

9. I am indebted to Shannon McMullen for helping me wade through this text and for providing translations.

and the practice of management. The third is taking advantage of “psychological elements,” that is, making the worker interested in the result of work. As he explains, “This has great significance, because the farm-owner profits by this system since the worker produces greater value and the worker also shares in the higher proceeds” (Kemptner 1939, 33–34). We see, therefore, that stratifications of laboring skills according to ethnicity and class were paired with the instinct for material reward. Deep in the heart of all workers was the “natural” desire for economic gain, as Rezső Károly, the Hungarian proponent of agricultural Taylorism, explains, “The greatest disadvantage of time wages . . . is that the worker is under no compulsion, since he has gotten used to the overseer or attendant at his heels. This compulsion is never as effective as the stimulus which material gain represents” (1924, 78–79). This stimulus was powerful enough to reverse unfortunate historical trends. “The World War and the revolutions that followed corrupted workers. The sense of duty and conscientiousness have diminished. Therefore one must exploit the base and simplest instinct of workers—greed—for the effective increase of work” (Reichenbach 1930, 239).

A variety of terms are used in Hungarian texts to refer to the psychology of working. In one text, an advocate of rationalization cites a mood or inclination for work (*munkakedv*). “Selecting proper tools and proper human material, as well as establishing proper work norms have the purpose of regulating personal questions of rationalization, yet perhaps of these the most important is the question of work mood” (Raith 1930, 256). Károly (1924, 77, 80) mentions inclination and instinct, whereas Reichenbach uses the term inclination but also discusses workers’ nature, their wishes, and their interest in diligence or, more generally, psychological motives as well as creative instinct (*alkotó ösztön*) (Reichenbach 1930, 200, 225, 228, 237, 265). Various terms—instinct, motivation, inclination, and interest—are used interchangeably in these texts. This was not unusual at this time because psychologists worldwide had not reached consensus on their use. The relative significance of various factors in human behavior—evolution, heredity, genetics, culture, and personality—were at the center of debate within psychology and related disciplines. For example, in the United States, instinct theory had faded from psychology by the 1920s, but drive theory had taken its place (Cravens 1978). In the very different world of psychoanalysis, the concept of instinct suffered from being underspecified analytically. I quote here from a Hungarian in the psychoanalytic tradition: “There are primary repressed energies in the psyche, which various psychological schools call instincts, needs, wants, etc. All that we can really determine is that repressed energies exert an influence at the depth of the psyche” (Révay 1946, 86).

All these terms connote innate or embodied qualities crucial to the laboring process, conflating theories of social difference and natural desires for material reward. In principle, we might assume that these qualities could coexist without having to be implicated in one another. The reason I do so is that they are tightly intertwined in the cultural history I am analyzing. Hungarian theories of behavior

partook of both these notions: socially constituted features and biologically determined responses.¹⁰ Socially differentiated features were embodied and far more durable than the prevailing view today in the social sciences that human behavior is learned through social interaction. Embodied differences were further grounded in assumptions about universal characteristics of human nature, such as the enduring desire for gain.¹¹ It was the task of work scientists to skillfully manipulate these variables of the work process to economic advantage. “In our interventions in the interest of increasing the yields and income of peasant farms, we must give our full attention to the mentality and emotional experience of the common man, which has taken root in and been imprinted on the peasant brain and soul from generation to generation” (Kulin 1933, 57). In other words, mentality and experience were not ephemeral phenomena, but were converted into durable features of a family, ethnic group, or class segment. Certainly this is a more Lamarckian conception of the inheritance of traits, but it is no less a theory of inheritance for that.¹²

The variability among workers was a widely recognized social fact, one that presented a serious problem to modernizing and rationalizing the workplace. Indeed, the nature of workers was considered as substantial an impediment as the weather. “In connection with motion and tool studies we must emphasize the great difficulties which these studies confront in agriculture. These are caused by changing weather conditions, the nature of the workers, not to mention the extraordinary diversity of agricultural tasks. Workers . . . cling to custom too strongly; it is difficult to accustom them to different movements or different tools” (Reichenbach 1930, 228). Reichenbach goes so far as to question any customary method or style of work, following the advice of a famous German specialist in agrarian work studies. “According to Seedorf, we must consider every pre-existing work style which follows custom to be bad, and must search for a better one in its place” (232).

All the differences in play—class, gender, local custom, and ethnicity/race—were considered crucial variables for schemes improving productivity. Hence, we see that, although rationalizing the workplace entailed techniques to standardize the labor

10. The word for instinct in Hungarian (*ösztön*) means to motivate, stimulate, or urge (*ösztönöz, ösztönzés, ösztönző*) (Bárcai 1941, 230–31). This makes the original meaning of the term *prodding stick* (circa 1600), which shares the same etymology as *instinct*, more evident in Hungarian than in English. The notion of an embodied feature or characteristic came later, as was also true in English.

11. It warrants emphasis that “an enduring desire for gain” is assumed to be universal, but, in fact, it is not. As the historical and ethnographic record demonstrates, the desire for gain is not universally shared but, instead, is the product of very specific cultural and historical processes. See Lampland (n.d.b) for a discussion of the strong resistance that wealthy landowners in Hungary mounted against using the promise of monetary reward to entice villagers to work in the immediate postfeudal period (circa 1850s–1870s).

12. It is important to remember that the so-called evolutionary synthesis, that is, the reconciliation of Mendelian genetics and Darwinian evolutionary theory, was only in its infancy in the 1930s (Mayr and Provine 1980; see Smocovitis 1996 for a critique of the conventional history).

process, there were limits to the standardization of laborers. "Big differences exist within a group between the ability and willingness of individuals to work, even if the group appears to be homogeneous. The industrious, diligent and skillful worker cannot express his full abilities, because he is prevented from doing so by the weaker, less diligent, or just bad tempered workers, who cannot even be impelled by a premium to take greater advantage of their physical strength" (Fodor 1925, 44). Obstacles did not have to be conscious; resistance could also be conceived of as a simple engineering problem, formulated in the terms of constitutional or organizational resistance (Gárdonyi 1933).¹³ Most texts, however, showed a more subtle understanding of the behavioral features of the human organism, which could be engineered, certainly, but not in quite the same fashion as machines.

So, if instinct and human nature are impediments, what can one do? One mobilizes all resources to transform the character of workers, to teach them to respond differently, and to master new skills. Work scientists and occupational psychologists devised training and skills testing for workers to complement changes made to the workplace itself. They were well aware, nonetheless, that the transformation of the workers would take time. As Károly reminded his readers, the full realization of Taylorism would be achieved ideally once the workers themselves accepted and internalized its principles.

It would be a mistake to believe that the increased work results achieved by the Taylor system comes from greater brawn and intellectual exertion. In fact the result derives from the correct organization of work, the invention of the most expedient labor process, from saving wasted time, and the better use of machines and tools. *The greatest moderation must be exercised with the introduction of the Taylor system.* Years are needed to adopt it completely. One shouldn't force the introduction of the system. Rather one must attempt to have the workers appreciate the advantages of the system and be willing to adopt it themselves. (Károly 1924, 80; italics in the original)

In short, workers could be taught to recognize the advantages offered by scientific management and would come to embrace it on their own. More precisely, they would (and could) be taught to respond instinctively to new kinds of incentives and changes in working environments. The workplace would be peopled with units standardized to a range of labor specifications.

The job of raising the people's consciousness and moral character was also to be shouldered by school teachers and public intellectuals. Moral improvement—cultivating the folk (*népnevelés*)—would ensure the optimal improvement of the entire society. "The dexterity, diligence and reliability of time wage agrarian workers are not only increased by being bound to the land and a little property,

13. Gárdonyi's use of analogies from the physics of energy and discussions of organizational fluidity reminds us of the crucial role of thermodynamics in the early history of work science and even of political economy, for example, the work of Karl Marx (Rabinbach 1990).

but also by the intellectual and moral level of workers, so this is why people's education is such a truly important general national interest" (Reichenbach 1930, 196). Finally, however, one had to rely on the state, which had already shown itself to be effective in designing techniques of rationalization. The military was an important and early site for experimenting with and implementing standardized techniques in the United States and Germany (Kevles 1968; Rabinbach 1990; Rose 1990). This reminds us that the range of scientific research and education was not confined to productive sites. And it explains why work scientists continued to look to state institutions to assist in this broad effort.

More and more the modern state aspires to an ideal condition, where it does not trust changing social and economic relations to the incalculable whimsy of fate. . . . To solve the new tasks of the modern state (*the one best way*) most feasibly, scientific institutes are established to research and determine the necessary concrete knowledge in various problem areas. In doing so they substantially contribute to an active state leadership resolving questions in an informed, professional and quick manner. (Rézler 1944, 16; italicized phrase quoted in English in original)

Advocating an interventionist state and (more) planned economy sat comfortably in this world of innate abilities and physical constraints on change.¹⁴ It continued to be the preferred role for government in the postwar era, and particularly so once the Communist Party took control of the state in a few short years.

Socialist Wages and the Psychology of Collectivization

Agrarian business economists moved in influential circles during the interwar period. They had access to valuable resources in educational institutions and research, and published in prominent journals and newspapers. Nonetheless, they had little to no impact on the way agriculture was organized and laborers remunerated.¹⁵ Their failures could be attributed in large part to the dismal condition of the economy. Wealthier farmers were unwilling to expend much effort on experimenting with their businesses in so precarious an economy and were certainly reluctant to replace payment in kind with monetary salaries, a central pillar of work science proposals. The possibility that agrarian modernizers could influ-

14. Planned economies and interventionist states were common in the interwar period (e.g., Germany, Italy, Japan, and the United States). It bears emphasizing that socialist state planning in Hungary grew out of an already very interventionist state climate bequeathed from the war years and postwar reconstruction (see Lampland n.d.b).

15. Mary Nolan's fascinating 1994 book on debates about Fordism and rationalization in Germany in the decade following the First World War shows a comparable disjuncture between intense interest in scientific modernization and very little concrete success in implementing these strategies at the level of the factory.

ence Hungarian production was threatened further by the land reform of 1945. Nearly all manorial estates over 200 acres were distributed to the poorest of the poor, smashing the economy-of-scale that agrarian business that economists considered foundational for modernization. This bleak period did not last long, however.

The Communist Party advocated the collectivization of agriculture within months of taking full control of the government in 1948. Collectivization was a crucial element of industrial modernization, intended to reduce the size of the agrarian labor force and ensure the availability of food to nourish the new proletarian paradise. It was also part of a broader commitment to reorganizing the economy along the scientific principles of Marxist-Leninist political economy. Agrarian business economists thus found themselves in the curious situation of advising the new socialist state on the development of wage schemes, despite their pedigrees as capitalist technicians. After all, crucial features of the new socialist science were shared by both socialist and capitalist camps, specifically the techniques of work science and rationalization. The same theories of instinct continued to inform Stalinist practices, but the social classificatory system and moral world within which they were deployed was inversely related to its capitalist forebearer—now the former landowners were to be reviled and the poor worker praised. Ethnic differentiations did not disappear from the classificatory schema, but they were secondary to the relentless focus of the Communist Party on class relations.

Labor relations in socialist industry as well as agriculture were built on the simple principle that higher incomes motivate greater productivity. The effective use of pecuniary motivation was the foundation for the structure of wage contracts at socialist enterprises and cooperative farms. To provide even greater impetus, additional features such as bonuses and premiums were developed, as well as the famous labor competitions held in anticipation of every possible communist holiday, party leader's birthday, and historical commemoration.¹⁶ Unfortunately, agricultural production at cooperative and state farms did not increase; throughout the early 1950s, private farmers were always more productive. This is not surprising, despite the state's promotion of cooperative agriculture. Cooperative farms were poorly equipped; they lacked adequate tools and were manned primarily by formerly landless workers whose skills in running a farm were limited by their past work experiences. Large numbers of cooperative farm members simply refused to work the land owned jointly by farm members, preferring to work the small parcel of land they kept as part of their membership contract. Moreover, the membership of the farms was constantly changing. New members joined to escape the oppressive state tactics mounted against peasants. When the policies of the state became less punitive, families left en masse, leaving their fellow farm members in the lurch. State farms were

16. Stalinist competitions are usually depicted as primarily forcing workers to work harder, typified by the Soviet Stakhanov in the 1930s. Actually, competitions were held for a variety of goals: to reduce waste, encourage innovation, improve bookkeeping, and rationalize administrative tasks (e.g., see Gille 2007).

more successful, better equipped, and less subject to the vacillations in membership that endangered yearly productivity at cooperative farms.

The state worked hard to cripple wealthier peasants, primarily with extremely high taxation rates. The Communist Party attempted to restrict the private hiring of laborers, ostensibly in the interests of eliminating capitalist practices within agricultural production. The party/state also forbade private farmers from using any sort of payment by result, clearly wishing to keep the power of material incentives under its own control.¹⁷ Giving managers incentives for individual performance was necessary, in concert with worker incentives, to ensure all efforts would be expended to increasing productivity.¹⁸

In place of the current complicated, bureaucratic premiums that are not based on individual performance, the Council of Ministers wishes to introduce a system—based on individual performance suited to the principle of a socialist wage system—in order to reward the upper and middle management overseeing production (directors, department heads, group heads, etc.). The purpose of the new system is to make the upper and mid-level directors of production more interested in the increase of production.¹⁹

Bonuses and other tools to motivate the laboring community were an integral part of socialist wage schemes. Yet these flourishes on the basic incentive wage system of cooperative farms did not achieve their desired effect in rural communities during this period. The process of implementing new wage systems was marred by numerous problems, not least of which was the profound mismatch between party/state policy and local conceptions of a just reward for labor performed (see Lampland n.d.a).²⁰ These difficulties were not lost on party officials, as a document from a meeting of the Political Committee of the Hungarian Workers' Party in 1954 shows:

The development of effective large scale production at cooperative farms has been prevented by the Ministry of Agriculture and other state organs not keeping the increase of cooperative farm members' monetary interests in mind. . . . The members' interest was reduced substantially by the exaggerated restriction of financial management, free market sales, and distribution of advance payments at cooperative farms, as well as the coercive character of state production plans. . . .²¹

17. "Performance-based work in the private sector must be prohibited" (MDP 276 f., 53 cs., 23 ö.e., 1949, March 17).

18. Stalinist society was not characterized by an oppressive collectivism. This image of collectivist culture is inaccurate, fostered by kitschy Stalinist newsreels as well as the many critics of Stalinism. Collectivism characterized public ritual, no doubt, but it finds little validation in the world of factory production or cooperative farm work. There a focus on individual effort, reward, and punishment was absolutely crucial to ratcheting up labor productivity.

19. FMTÜK, XIX-k-1-c 5. d., 1950, April 28.

20. Industrial workers, more familiar with payment by output, were far more belligerent and resistant to these innovations, simply refusing to work or physically assaulting local party figures when norms were revised downward (see Pittaway 1999).

21. MDP 276 f., 53. fcs., 156 ö.e., 1954, January 13.

The party/state hurried to remedy its failed policies, but by the fall of 1956, it had lost control over a range of public institutions, as open opposition became more frequent. After the Soviet invasion crushing the revolution and reinstating the party/state, collectivization was put on hold indefinitely. Only under significant pressure from the Soviets in late 1958 was collectivization started up once more, although this time the intense pressure and frequent use of violence against village communities resulted in virtually all private farmers joining cooperative and state farms for good.

We could argue that this concern with material incentives was merely a short-term concession to the capitalist mentality of the labor force. Soviet society and its Eastern European offshoots had committed themselves to the utopian project of creating Socialist Man and ushering in communism. The party/state knew far too well, however, that this radical change would not happen overnight, or even within decades.²² Accordingly, communist officials had to work within the constraints of human nature. As the party secretary in Zala County reminded his subordinates, "We absolutely must reckon with the psychology of our peasantry."²³ In short, Hungarian socialism was not committed to social equality. Following in the tracks of Soviet ideologues and heeding Stalin's campaign against "bourgeois egalitarianism," Hungarian Stalinists promoted social justice on the principle that those who work shall prosper, in direct relation to the quantity and quality of their work. It was assumed that many—particularly the irredeemable "class alien"—would not be able to engage in honorable labor, thus "earning" their impoverishment. For this reason, it was absolutely imperative to purge socialist enterprises of class enemies whose nature would rebel against socialist morality.

All across the county the enemy is attempting to worm its way into cooperative farms. This year we have already expelled 24 kulaks and other hostile elements, but there are still 7 cooperative farms, where there apparently are hostile elements, which will be expelled within a short time. The enemy's assault is now being manifested in their stealing their way into our cooperatives which they then destroy from within.²⁴

New socialist institutions had to be protected from class enemies' impulse to demolish them. The humble place guaranteed to class enemies in socialist society was determined by their natural character—the need to avoid work and exploit others for personal gain. Even occasional association with *kulaks* was sufficient to brand an individual as unreliable and suspicious, even if the interaction was limited. "Very serious actions have been taken to consolidate the work discipline of

22. A Romanian joke comments on the continual postponement by the Communist Party of the communist paradise: What is the horizon of communism? It is a line connecting two points that is constantly receding.

23. ZML MDP:mg 57.f.2 fcs, 53 .ö.e., 1950.July.29.

24. ZML MDP:mg 57 f. 2 fcs. 49 ö.e., 1952, December 11.

Dózsa cooperative farm. . . . Subversive elements, or those who tried to bring the *kulaks'* voice into the group or fraternized with them, have been removed from the membership. These were the ones who last summer hindered the group's work, or at the height of the season went to work for the *kulak*."²⁵ Society would be reconstituted, aided by scientific principles ensuring that the hierarchy in the workplace and society at large reflected a truly just distribution of effort, founded on moral integrity and respectability.²⁶ With the proper classification in place, standardized wage scales could be devised and productivity rewarded.

Finally, it is important to note that, although the social hierarchy of socialism was calibrated according to the individual's ability and willingness to work, not all forms of work were accorded the same value or prestige. Obviously, industrial workers had greater prestige than agricultural workers. Those engaged in productive labor—usually understood as the production of things—were endowed with higher value than those employed in the service sector or commerce, such as existed at the time. Being landless in a rural community, or even being a cooperative farm member, did not necessarily garner party favor if a person performed dishonorable work, as the following anecdote reveals:

A. J. is a cooperative farm member who is completely landless and not a party member. At the meeting mentioned above he encouraged the members to leave the cooperative since they can't earn anything and their living is not secure. I determined in relation to the forenamed that he is a lumpenproletarian, who usually performs as a musician at parties and weddings in neighboring communities. He is used to earning his money easily and without honorable work, and this is why he tried to influence cooperative farm members.²⁷

Indeed, A. J.'s willingness to speak out against the party's policies is a sure sign of his being an enemy of the people. I would also draw your attention to the thinly veiled reference to A. J.'s being a Roma (Gypsy) musician. Obviously, the socialist state categorized citizens according to Hungarian racial theories of diligence, not just class.

In ways eerily familiar from the 1920s and 1930s, party/state officials devoted themselves to extensive campaigns of "folk education" to reconfigure the social and

25. HBML XXIII. 9./b., 430 d., 340 sz., 1952, February 19.

26. The actual fate of class enemies during the Stalinist period is far more complex than official pronouncements suggest. As James Mark's (2005a, 2005b) research on the urban bourgeoisie during the 1950s demonstrates, so-called class enemies could and did find ways of participating in the new socialist economy and bureaucracy. In some instances, the party/state relied on their skills and expertise; in others, untrustworthy elements could reform themselves through engaging in physical labor. In village communities, who was defined as a class alien and who was punished for his or her social identity varied tremendously from place to place and party official to party official. For an example of the other extreme, that is, a former impoverished villager being branded as a *kulak*, see Lampland (1995, 144).

27. ZML MDP:mg 57 f 2 fcs 64. ö.e 1950, January 18.

behavioral landscape of laboring. This was a demanding chore. In Stalinist parlance, this was called agit-prop, and it was backed up by a more actively violent state apparatus than existed prior to 1948. National and county-level bureaucrats never ceased to underscore the centrality of these activities to local leaders, not least because local party representatives were not always the most willing participants in these endless tasks. "In order for true socialist work discipline to develop, we must first show the most class-conscious example. Work discipline will only improve if ideological education does not cease for one minute, if communists are properly divided into brigades and work groups. They should constantly train cooperative members at their work site and wage a battle against those subverting work discipline."²⁸ Communists were to set an example for the rest of the community by being good workers, as well as taking measures against those who resisted the new standards of diligence demanded by the party/state. More eager or audacious officials erred by attacking too many villagers, confusing the upright working peasant (*dolgozó paraszt*) with the evil *kulak*. These swings toward what in Marxist-Leninist parlance were called left-wing deviations in village politics had to be reined in because they tended to unite villagers against the party rather than permitting local party officials to exploit internal divisions within communities against one another. Transforming the political consciousness of reliable villagers entailed severing bonds of kinship, affection, and familiarity between local elites and their poorer peasant neighbors. It also required making clear to the working peasantry the cost of the socialist promise, that is, that one had to take sides against his or her neighbors to partake of the new rewards of socialist development. "If this offends them, then that is our mistake; we didn't transform their consciousness. A truly great life is waiting for the working peasantry, but they must do their part according to their ability."²⁹ Everyone would be sorted out in the end, and those who resisted the state's lead could find themselves excluded from the bounty of socialist wealth to come.

Engineering Instinct

What is the point of this exercise? Beyond recounting a curious tale about the moral connotations of social classifications, I have been intent on interrogating two central issues: (1) the tension between standardization and social engineering and (2) the physical embodiment of social qualities. I have argued that the standardization of workers did not constitute a process of deskilling to a simple common denominator. On the contrary, standardizing workers entailed complex techniques of differentiation, techniques carefully crafted in work science, occupational psychology, and scientific management. Indeed, it was the task of these fields to ascertain just how to differentiate between workers' aspirations and their abilities. Scientific pro-

28. GYMS MDRmg 30 f. 2 fcs. 2 ö.e. 31 sz. 1952, January 27.

29. HBML MDP XXXII. 41 f. 2 fcs. 94 ö.e. 1949, September 6.

cesses of close observation, experimentation, and complex calculations were used to figure out who fit where in the standardized schema while, at the same, time social engineers tried to understand the degree of malleability available when adapting workers to new standardized protocols. Developing standardized templates for the labor force required social engineers to balance carefully their need to create workers suited to new productive tasks with their belief that scientifically calibrated standardizing protocols made explicit the already existing (and probably unchanging) features of workers. Social engineering was not a grand utopian adventure discovering new qualities in the labor force but a sustained process of scientifically vetting long-existing hierarchies of privilege and exclusion.

My analysis of class stratification and the standardization of laborers has also been informed by the wide-ranging critique of race and ethnicity in recent years, a critique that encourages us to look beyond ideologies of biologically determined features to examine the cultural, social, and moral elements intrinsic to racial and ethnic classification (e.g., Briggs 2003; Dominguez 1994; McCallum 2005). In this critique, racialization weaves the physical and the moral in a complex tapestry, whose warp and woof intertwine the fixed and fluid in equal measure.

Racism is commonly understood as a visual ideology in which somatic features are thought to provide the crucial criteria of membership. But racism is not really a visual ideology at all; physiological attributes only signal the non-visual and more salient distinctions of exclusion on which racism rests. Racism is not to biology as nationalism is to culture. Cultural attributions in both provide the observable conduits, the indices of psychological propensities and moral susceptibilities seen to shape which individuals are suitable for inclusion in the national community. . . . If we are to trace the epidemiologies of racist and nationalist thinking, then it is the cultural logics that underwrite the relationship between fixed, visual representations and invisible protean essences to which we must attend. (Stoler 1992, 521–22)

Class and gender are equally implicated in these processes.³⁰ In this way, immutable bodies come to stand for immutable moral qualities, even though the process whereby bodies are invested with specific psychological propensities and moral susceptibilities is historically contingent and changes over time. Moreover, moral features are not just historically contingent; they also vary with an individual's social position.

Hungarians in the mid-twentieth century shared a cultural logic—or what, following Collins (1990), could be called a matrix of domination—justifying inequality. Class stratification was premised on fixed features of embodied skills and moral qualities, paired in curious (Lamarckian) fashion with a belief in the plasticity of social behavior. Work scientists sought to reveal inherent abilities and gauge their malleability through experiment and observation, insights that guided the

30. See the literature on the analytic imperatives of intersectionality, for example, Collins (1990).

procedures for occupational standardization. In fact, however, scientific processes committed to discovery were constitutive of the very social features and behavioral dynamics to be codified in standardized protocols. The moral valence of these practices, on the other hand, was not dictated by work scientists. Throughout the twentieth century, who deserved to be where in the social hierarchy was contested, no matter how firmly the powers that be sought to repress alternatives. Thus, when new political forces took power after 1947, interpretations explaining inequality changed overnight, even though the means of achieving fairness relied on techniques developed to justify an entirely different social structure. Only rarely, as in the story told here, do the ostensibly inherent qualities migrate so rapidly from one category of social bodies to another, shifting moral polarities while holding fast to the scientific mechanisms of classification.

A final note about contemporary uses of human nature and biology in economics and the social sciences more broadly. The quest for a rigorous understanding of human behavior has continued unabated since the 1930s, ranging broadly across the fields of psychology, management, economics, sociology, anthropology, cognitive science, genetics, and biology. We are currently enjoying a renewed fascination with genetic determinism, in both scientific circles and popular culture (Lancaster 2003). The trope "it's genetic" is heard in casual conversation as well as in debates over social policy. How are we to make sense of the deployment of claims about human nature and natural forms in the current climate? This can be explained not only by the strides in genetics in recent decades but also in terms of a broader social history about conservative politics in the United States. The disproportionate distribution of wealth is explained as the normal consequence of the international division of labor. Asian women's delicate hands assemble computer parts more effectively than the North American male; Third World migrants are "inclined" to carry out tasks shunned by European workers, whose skills lie elsewhere. These claims about human nature and historical necessity are quickly mobilized when criticisms about the social consequences of neoliberalism are raised. Markets are neutral and fair, neoliberal advocates explain, because the science of economics carries none of the political biases or social prejudice we can expect of governmental regulation. My analysis of work science and allied fields of business economics should erase this false dichotomy between the unreliable politics of states and the pure integrity of science. Investigating work science as a crucial feature of modern political economy and studying political economy as constitutive of scientific practices refute these claims. After all, if it is so easy to see the convoluted twists and turns that theories of instinct and human nature traveled in the not-so-distant past, and with such frightening consequences, it behooves us to bring all the strengths of our critical apparatus to interrogate claims made in the present that bolster inequalities based on theories of human nature—in science, in policy, and in everyday life.

■ EPA to Kill New Arsenic Standards

Whitman Cites Debate on Drinking Water Risk

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The Environmental Protection Agency announced yesterday it will revoke a Clinton administration rule that would have reduced the acceptable level of arsenic in drinking water, arguing the evidence was not conclusive enough to justify the high cost to states, municipalities and industry of complying with the proposal.

The measure was one of dozens of environmental regulations and rules issued in the final months of Bill Clinton's presidency that were put on hold after President Bush took office Jan. 20 and subjected to further review.

In ordering the withdrawal of the standard, which was to have taken effect Friday, EPA Administrator Christine Todd Whitman said there is "no consensus on a particular safe level" of arsenic in drinking water. She rejected the arguments of environmentalists that studies show the limits are essential to protecting millions of Americans from cancer and other health threats, and suggested that a lower standard might be more appropriate.

"I am committed to safe and affordable drinking water for all Americans," Whitman said. "When the federal government imposes costs on communities—especially small communities—we should be sure the facts support imposing the federal standard."

Meanwhile, the Interior Department's Bureau of Land Management will announce today a proposal to suspend new hard-rock mining regulations for public lands that would have toughened environmental standards and made it more difficult for mining companies to escape financial liability for violations of anti-pollution laws, an Interior Department official said. The new rules—adopted Jan. 20—have prompted