Blue-Collar Brilliance

MIKE ROSE

My mother, Rose Meraglio Rose (Rosie), shaped her adult identity as a waitress in coffee shops and family restaurants. When I was growing up in Los Angeles during the 1950s, my father and I would occasionally hang out at the restaurant until her shift ended, and then we'd ride the bus home with her. Sometimes she worked the register and the counter, and we sat there; when she waited booths and tables, we found a booth in the back where the waitresses took their breaks.

There wasn't much for a child to do at the restaurants, and so as the hours stretched out, I watched the cooks and waitresses and listened to what they said. At mealtimes, the pace of the kitchen staff and the din from customers picked up. Weaving in and out around the room, waitresses warned behind you in

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Mike Rose is a professor at the UCLA Graduate School of Education and Information Studies. He is well known for his writing on issues of literacy, including the books *Lives on the Boundary: The Struggles and Achievements of America's Underprepared* (1989) and *Back to School: Why Everyone Deserves a Second Chance at Education* (2012). He also coedited a collection of essays, *Public Education Under Siege* (2014). This article originally appeared in 2009 in the *American Scholar*, a magazine published by the Phi Beta Kappa Society.

Rosie solved technical problems and human problems on the fly.

impassive but urgent voices. Standing at the service window facing the kitchen, they called out abbreviated orders. Fry four on two, my mother would say as she clipped a check onto the metal wheel. Her tables were deuces, four-tops, or six-tops according to their size; seating areas also were nicknamed. The racetrack, for instance, was the fast-turnover front section. Lingo conferred authority and signaled know-how.

Rosie took customers' orders, pencil poised over pad, while fielding questions about the food. She walked full tilt through the room with plates stretching up her left arm and two cups of coffee somehow cradled in her right hand. She stood at a table or booth and removed a plate for this person, another for that person, then another, remembering who had the hamburger, who had

the fried shrimp, almost always getting it right. She would haggle with the cook about a returned order and rush by us, saying, He gave me lip, but I got him. She'd take a minute to flop down in the booth next to my father. I'm all in, she'd say, and whisper something about a customer. Gripping the outer edge of the table with one hand, she'd watch the room and note, in the flow of our conversation, who needed a refill, whose order was taking longer to prepare than it should, who was finishing up.

I couldn't have put it in words when I was growing up, but what I observed in my mother's restaurant defined the world of adults, a place where competence was synonymous with physical work. I've since studied the working habits of blue-collar workers and have come to understand how much my mother's kind of work demands of both body and brain. A waitress acquires knowledge and intuition about the ways and the rhythms of the restaurant business. Waiting on seven to nine tables, each with two to six customers, Rosie devised memory strategies so that she could remember who ordered what. And because she knew the average time it took to prepare different dishes, she could monitor an order that was taking too long at the service station.

Like anyone who is effective at physical work, my mother 5
learned to work smart, as she put it, to make every move count. She'd sequence and group tasks: What could she do first, then second, then third as she circled through her station? What tasks could be clustered? She did everything on the fly, and when problems arose—technical or human—she solved them within the flow of work, while taking into account the emotional state of her co-workers. Was the manager in a good mood? Did the cook wake up on the wrong side of the bed? If so, how could she make an extra request or effectively return an order?

And then, of course, there were the customers who entered the restaurant with all sorts of needs, from physiological ones,

including the emotions that accompany hunger, to a sometimes complicated desire for human contact. Her tip depended on how well she responded to these needs, and so she became adept at reading social cues and managing feelings, both the customers' and her own. No wonder, then, that Rosie was intrigued by psychology. The restaurant became the place where she studied human behavior, puzzling over the problems of her regular customers and refining her ability to deal with people in a difficult world. She took pride in being among the public, she'd say. There isn't a day that goes by in the restaurant that you don't learn something.

My mother quit school in the seventh grade to help raise her brothers and sisters. Some of those siblings made it through high school, and some dropped out to find work in railroad yards, factories, or restaurants. My father finished a grade or two in primary school in Italy and never darkened the schoolhouse door again. I didn't do well in school either. By high school I had accumulated a spotty academic record and many hours of hazy disaffection. I spent a few years on the vocational track, but in my senior year I was inspired by my English teacher and managed to squeak into a small college on probation.

My freshman year was academically bumpy, but gradually I began to see formal education as a means of fulfillment and as a road toward making a living. I studied the humanities and later the social and psychological sciences and taught for ten years in a range of situations—elementary school, adult education courses, tutoring centers, a program for Vietnam veterans who wanted to go to college. Those students had socioeconomic and educational backgrounds similar to mine. Then I went back to graduate school to study education and cognitive psychology and eventually became a faculty member in a school of education.

Intelligence is closely associated with formal education—the type of schooling a person has, how much and how long—and most people seem to move comfortably from that notion to a belief that work requiring less schooling requires less intelligence. These assumptions run through our cultural history, from the post-Revolutionary War period, when mechanics were characterized by political rivals as illiterate and therefore incapable of participating in government, until today. More than once I've heard a manager label his workers as "a bunch of dummies." Generalizations about intelligence, work, and social class deeply affect our assumptions about ourselves and each other, guiding the ways we use our minds to learn, build knowledge, solve problems, and make our way through the world.

See Chapter 1 for ways to introduce something implied or assumed.

Although writers and scholars have often looked at the working class, they have generally focused on the values such workers exhibit rather than on the thought their work requires—a subtle but pervasive omission. Our cultural iconography promotes the muscled arm, sleeve rolled tight against biceps, but no brightness behind the eye, no image that links hand and brain. 10

One of my mother's brothers, Joe Meraglio, left school in the ninth grade to work for the Pennsylvania Railroad. From there he joined the Navy, returned to the railroad, which was already in decline, and eventually joined his older brother at General Motors where, over a 33-year career, he moved from working on the assembly line to supervising the paint-and-body department. When I was a young man, Joe took me on a tour of the factory. The floor was loud—in some places deafening—and when I turned a corner or opened a door, the smell of chemicals knocked my head back. The work was repetitive and taxing, and the pace was inhumane.

Still, for Joe the shop floor provided what school did not; it was like schooling, he said, a place where you're constantly learning. Joe learned the most efficient way to use his body by acquiring a set of routines that were quick and preserved energy. Otherwise he would never have survived on the line.

As a foreman, Joe constantly faced new problems and became a consummate multi-tasker, evaluating a flurry of demands quickly, parceling out physical and mental resources, keeping a number of ongoing events in his mind, returning to whatever task had been interrupted, and maintaining a cool head under the pressure of grueling production schedules. In the midst of all this, Joe learned more and more about the auto industry, the technological and social dynamics of the shop floor, the machinery and production processes, and the basics of paint chemistry and of plating and baking. With further promotions, he not only solved problems but also began to find problems to solve: Joe initiated the redesign of the nozzle on a paint sprayer, thereby eliminating costly and unhealthy overspray. And he found a way to reduce energy costs on the baking ovens without affecting the quality of the paint. He lacked formal knowledge of how the machines under his supervision worked, but he had direct experience with them, hands-on knowledge, and was savvy about their quirks and operational capabilities. He could experiment with them.

In addition, Joe learned about budgets and management. Coming off the line as he did, he had a perspective of workers' needs and management's demands, and this led him to think of ways to improve efficiency on the line while relieving some of the stress on the assemblers. He had each worker in a unit learn his or her co-workers' jobs so they could rotate across stations to relieve some of the monotony. He believed that rotation would allow assemblers to get longer and more frequent breaks. It was

With an eighth-grade education, Joe (hands together) advanced to supervisor of a G.M. paint-and-body department.

an easy sell to the people on the line. The union, however, had to approve any modification in job duties, and the managers were wary of the change. Joe had to argue his case on a number of fronts, providing him a kind of rhetorical education.

Eight years ago I began a study of the thought processes 15
involved in work like that of my mother and uncle. I catalogued the cognitive demands of a range of blue-collar and service jobs, from waitressing and hair styling to plumbing and welding. To gain a sense of how knowledge and skill develop, I observed experts as well as novices. From the details of this close examination, I tried to fashion what I called "cognitive biographies" of blue-collar workers. Biographical accounts of the lives of scientists, lawyers, entrepreneurs, and other professionals are rich with detail about the intellectual dimension of their work.

But the life stories of working-class people are few and are typically accounts of hardship and courage or the achievements wrought by hard work.

Our culture—in Cartesian fashion—separates the body from the mind, so that, for example, we assume that the use of a tool does not involve abstraction. We reinforce this notion by defining intelligence solely on grades in school and numbers on IQ tests. And we employ social biases pertaining to a person's place on the occupational ladder. The distinctions among blue, pink, and white collars carry with them attributions of character, motivation, and intelligence. Although we rightly acknowledge and amply compensate the play of mind in white-collar and professional work, we diminish or erase it in considerations about other endeavors—physical and service work particularly. We also often ignore the experience of every-day work in administrative deliberations and policymaking.

But here's what we find when we get in close. The plumber seeking leverage in order to work in tight quarters and the hair stylist adroitly handling scissors and comb manage their bodies strategically. Though work-related actions become routine with experience, they were learned at some point through observation, trial and error, and, often, physical or verbal assistance from a co-worker or trainer. I've frequently observed novices talking to themselves as they take on a task, or shaking their head or hand as if to erase an attempt before trying again. In fact, our traditional notions of routine performance could keep us from appreciating the many instances within routine where quick decisions and adjustments are made. I'm struck by the thinking-in-motion that some work requires, by all the mental activity that can be involved in simply getting from one place to another: the waitress rushing back through her station to the kitchen or the foreman walking the line.

The use of tools requires the studied refinement of stance, grip, balance, and fine-motor skills. But manipulating tools is intimately tied to knowledge of what a particular instrument can do in a particular situation and do better than other similar tools. A worker must also know the characteristics of the material one is engaging—how it reacts to various cutting or compressing devices, to degrees of heat, or to lines of force. Some of these things demand judgment, the weighing of options, the consideration of multiple variables, and, occasionally, the creative use of a tool in an unexpected way.

In manipulating material, the worker becomes attuned to aspects of the environment, a training or disciplining of perception that both enhances knowledge and informs perception. Carpenters have an eye for length, line, and angle; mechanics troubleshoot by listening; hair stylists are attuned to shape, texture, and motion. Sensory data merge with concept, as when an auto mechanic relies on sound, vibration, and even smell to understand what cannot be observed.

Planning and problem solving have been studied since the earliest days of modern cognitive psychology and are considered core elements in Western definitions of intelligence. To work is to solve problems. The big difference between the psychologist's laboratory and the workplace is that in the former the problems are isolated and in the latter they are embedded in the real-time flow of work with all its messiness and social complexity.

Much of physical work is social and interactive. Movers determining how to get an electric range down a flight of stairs require coordination, negotiation, planning, and the establishing of incremental goals. Words, gestures, and sometimes a quick pencil sketch are involved, if only to get the rhythm right. How important it is, then, to consider the social and

communicative dimension of physical work, for it provides the medium for so much of work's intelligence.

Given the ridicule heaped on blue-collar speech, it might seem odd to value its cognitive content. Yet, the flow of talk at work provides the channel for organizing and distributing tasks, for troubleshooting and problem solving, for learning new information and revising old. A significant amount of teaching, often informal and indirect, takes place at work. Joe Meraglio saw that much of his job as a supervisor involved instruction. In some service occupations, language and communication are central: observing and interpreting behavior and expression, inferring mood and motive, taking on the perspective of others, responding appropriately to social cues, and knowing when you're understood. A good hair stylist, for instance, has the ability to convert vague requests (I want something light and summery) into an appropriate cut through questions, pictures, and hand gestures.

Verbal and mathematical skills drive measures of intelligence in the Western Hemisphere, and many of the kinds of work I studied are thought to require relatively little proficiency in either. Compared to certain kinds of white-collar occupations, that's true. But written symbols flow through physical work.

Numbers are rife in most workplaces: on tools and gauges, as measurements, as indicators of pressure or concentration or temperature, as guides to sequence, on ingredient labels, on lists and spreadsheets, as markers of quantity and price. Certain jobs require workers to make, check, and verify calculations, and to collect and interpret data. Basic math can be involved, and some workers develop a good sense of numbers and patterns. Consider, as well, what might be called material mathematics: mathematical functions embodied in materials

and actions, as when a carpenter builds a cabinet or a flight of stairs. A simple mathematical act can extend quickly beyond itself. Measuring, for example, can involve more than recording the dimensions of an object. As I watched a cabinetmaker measure a long strip of wood, he read a number off the tape out loud, looked back over his shoulder to the kitchen wall, turned back to his task, took another measurement, and paused for a moment in thought. He was solving a problem involving the molding, and the measurement was important to his deliberation about structure and appearance.

In the blue-collar workplace, directions, plans, and reference books rely on illustrations, some representational and others, like blueprints, that require training to interpret. Esoteric symbols—visual jargon—depict switches and receptacles, pipe fittings, or types of welds. Workers themselves often make sketches on the job. I frequently observed them grab a pencil to sketch something on a scrap of paper or on a piece of the material they were installing. 25

Though many kinds of physical work don't require a high literacy level, more reading occurs in the blue-collar workplace than is generally thought, from manuals and catalogues to work orders and invoices, to lists, labels, and forms. With routine tasks, for example, reading is integral to understanding production quotas, learning how to use an instrument, or applying a product. Written notes can initiate action, as in restaurant orders or reports of machine malfunction, or they can serve as memory aids.

True, many uses of writing are abbreviated, routine, and repetitive, and they infrequently require interpretation or analysis. But analytic moments can be part of routine activities, and seemingly basic reading and writing can be cognitively rich. Because workplace language is used in the flow of other activities, we

can overlook the remarkable coordination of words, numbers, and drawings required to initiate and direct action.

If we believe everyday work to be mindless, then that will affect the work we create in the future. When we devalue the full range of everyday cognition, we offer limited educational opportunities and fail to make fresh and meaningful instructional connections among disparate kinds of skill and knowledge. If we think that whole categories of people—identified by class or occupation—are not that bright, then we reinforce social separations and cripple our ability to talk across cultural divides.

Affirmation of diverse intelligence is not a retreat to a soft-hearted definition of the mind. To acknowledge a broader range of intellectual capacity is to take seriously the concept of cognitive variability, to appreciate in all the Rosies and Joes the thought that drives their accomplishments and defines who they are. This is a model of the mind that is worthy of a democratic society.

Joining the Conversation

1. This essay begins with a fairly detailed description of Mike Rose's mother at her work as a waitress in the 1950s, when he was a child. How is this description related to his argument? Is it an effective opening? Why or why not?
2. How would you summarize Rose's overall argument? What evidence does he offer as support? How convincing is his argument?
3. Where does Rose mention differing views, and what is his reason for bringing them up? What are these other views, and who holds them?

4. How do you think Rose would respond to Charles Murray's argument (pp. 344–64) that many students lack the intellectual potential to succeed in college?
5. Write an essay in which you consider the intellectual demands of a kind of work that you have done or are interested in.