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# Job Evaluation in a Racial Order

I returned to Cambridge and wrote up my findings on the language question in Indian universities. I knocked on Professor Shils's door once again, this time to hand him my report. Remembering my first visit, he looked at me, incredulous. To his credit he said he would read it and told me to return the following week. That year I became a regular visitor to his chambers in King's College as I became a specimen of the "reviled" student rebellion overtaking universities. He offered to have my report published in his journal, *Minerva*, presumably after he had rewritten it to his liking. I declined the offer, fearing what would become of it. In his benevolent way he told me I needed to cut out my wild schemes and get down to a serious training in sociology, which, he assured me, could only be obtained in the US. But I had other plans.

For now I had to get this degree in mathematics – quite a challenge given how much time I had devoted to my Indian escapade. Somehow I survived the ordeal but that was the end of my interest in being a student. Instead, after graduating in 1968, I immediately returned to South Africa where my color gave me access to a journalist job that would be quite beyond my reach elsewhere. I joined the staff of *News Check*, a newly created weekly magazine, styled after the US magazine *Businessweek*,

whose editor, Otto Krause, was a rising star in the liberal wing of Afrikaner politics. I was assigned to the section on foreign affairs – the back pages of a magazine that mainly focused on South Africa. Writing to deadline on topics about which I knew next to nothing was discipline indeed. Still, 1968 was an exciting time to be reporting on foreign news – the year of great student movements not just in Europe and the US but across the globe, the year of the ugly Biafra–Nigeria Civil War, the year of the Prague Spring. In South Africa things were bleak, yet for those in the know, there was a stirring in the belly of the beast, most notably the Black Consciousness Movement. Social transformation was in the air, all over the world.

After six months of journalism in South Africa, I retraced my previous hitchhiking path northwards to Zambia – the path I had taken two years before. It was now four years after the country had won independence in 1964. Although I was in pursuit of sociology and student movements, I also needed to earn a living. I knocked on the door of Jack Simons – South African communist and anti-apartheid fighter, living in Lusaka in exile. Apart from his political engagement, he had been a distinguished anthropologist and political scientist, teaching at the University of Cape Town. He was now teaching in the sociology department at the new University of Zambia.

We know a lot about the conditions of the miners, Simons told me, but we know so little about the mining companies and their dealings with the new Zambian government. So I followed his suggestion and looked for a job with Anglo American, one of the two multinational corporations that owned and ran the lucrative copper mines. I contacted a senior executive who had put me up on my previous trip through Zambia. I was in luck: copper prices were high and “qualified” expatriate labor was in demand. I landed a position in the copper industry’s Personnel Research Unit. As it turned out, I couldn’t have been better placed to understand the responses of the mining companies to Zambian independence.

The Personnel Research Unit (PRU) had been recently created as a research wing of the Copper Industry Service Bureau, located in Kitwe at the heart of the Copperbelt. I was given free rein to study such things as patterns of absenteeism, labor turnover, work stoppages, disciplinary measures – which, I discovered, were being misused by Zambian political leaders to excoriate mine workers as slothful and unpatriotic. Later I would re-examine these same figures to criticize the claims of a then young political scientist, Robert Bates (1971), who was echoing the government's view that, with independence, workers were not pulling their weight in their contributions to nation building (Burawoy 1972b).

One of the core tasks of the PRU was to service the job evaluation scheme that had evolved to justify the pay scales of the mining industry's approximately 50,000 African and expatriate employees. Each job was evaluated on the basis of a list of factors, such as skill, training, education, effort, and responsibility, so as to produce an appropriate and consistent payment system. The scheme had developed as a way of rationalizing African advancement in the colonial period when, under pressure from African unions, expatriate (white) jobs were slowly fragmented and passed over to Africans. Expatriates with long experience in different parts of the mining industry maintained the system, responding to grievances and changes in job descriptions. In this regard the colonial context had produced a rather effective machinery of modern management, but there was a snag. There had always been two job evaluation schemes, corresponding to two pay scales and two different job ladders, one for Blacks and one for whites. Four years after independence this was now unacceptable – if it meant anything, postcolonialism meant the end of the colonial racial order. The union was demanding a single wage structure, and they wanted to participate in its construction. This could no longer be controlled by a clique of expatriate old-timers.

But how to integrate these two wage structures, especially as most of the expatriate jobs were qualitatively different from the jobs held by Zambians? Could one even devise a single job evaluation scheme to embrace such disparate job structures? Equally important, the integrated wage structure could not disturb the existing job hierarchies within and between races. They brought in consultants from the UK whose experience with job evaluation was limited to a small Kleeneze factory in Birmingham. Dealing with the copper industry of 50,000 employees and several thousand different jobs, they were quickly out of their depth. I was a silent observer in these matters, as I too had no expertise in the jobs of the mining industry. Still, it did occur to me that this was an intriguing mathematical problem of optimization under constraints. Management became so desperate that they were willing to give me the chance to rescue the situation.

Any job evaluation system rests on the prior determination of a ranking of a given set of carefully chosen key jobs. In this case there were twenty key jobs representative of the industry as a whole. They each had to be allotted points based on the evaluation of each of the factors – each factor having a series of levels. The trick was to determine a *weighting* of each factor so as to arrive at the correct, predetermined ranking of the key jobs – a ranking that reflected the existing hierarchy. To establish the factor weightings that would assure the correct ranking was a linear programming problem that any computer could solve. There was a lot of trial and error in determining the key jobs, both which ones as well as how many, and deciding on the factors, both what factors and how many levels within each. We experimented with broader batches of jobs until we arrived iteratively at a final scheme of factor-levels and factor-weights that fitted the constraints – maintain the old hierarchy of jobs within a new integrated system – whereupon management and union representatives could set about evaluating all the jobs in the industry. The

inclusion of union representatives on the job evaluation team was new, but they were not involved in creating the underlying system that was designed to reproduce the old racial hierarchy of jobs. Their participation in the laborious work of evaluation legitimated the new system but the results were preordained by the original ranking of key jobs.

Well, this is how I now interpret what I was doing then. At the time it was simply a mathematical puzzle. I didn't know what I was doing sociologically: I was absorbed in the technicalities and blind to the wider implications. The application of a standardized rubric to all jobs concealed an arbitrary judgment – a systems of factors, weights, and levels designed to give a specified ranking of key jobs that would translate into an unchanged hierarchy of all the jobs in the mining industry! Assumptions in, assumptions out. As a technician it was so obvious to me that it did not even bear reflecting upon. But as a budding sociologist it did warrant reflection – it was a technique to produce the appearance of race neutrality by integrating Black and white wage scales in a way that didn't threaten the status quo, and that favored the skills and experience of white workers. Today we'd call it the production of color-blind racism.

Absorbed by the challenge of making it work, I became a policy sociologist employed to resolve a problem defined by the mining companies, as they engaged in delicate negotiations with the trade unions. I was there to accomplish the integration of the wage structures without generating political repercussions that might have destabilized the industry, making it all appear as the magical product of scientific rationality. The foundation of the whole system was obscured from public vision. In Max Weber's terms I was advancing formal equality to hide and reproduce substantive inequality. I was not myself deciding the policy issue, but it was decided for me. My task was to rationalize a decision that had already been made. I had become a servant of power.

There was a lot at stake. As a legacy of colonialism and its singular focus on extraction of raw materials, the copper industry supplied 95 percent of Zambia's foreign revenue. It was a sacred cow. Four years after independence neither government nor trade unions could countenance the overt continuity of a racial order but neither could they risk undermining the racial hierarchy, for fear this would lead to intensified conflict and even the exodus of badly needed expatriate expertise. The production of an integrated wage structure based on job evaluation was the perfect solution, once it was made technically feasible.

In the study of the language problem in Indian higher education my crude field experiment *blotted out* the political context, making the results largely irrelevant; by contrast, in developing the job evaluation scheme for the Zambian mines the political context was *built into* the underlying assumptions of its design. Policy research often combines advocacy that overlooks context and sponsorship that takes conditions for granted. Thus, pioneering research that established a sub-discipline in the sociology of work was conducted at Western Electric's Hawthorne Plant in Chicago from 1924 to 1933 (Roethlisberger and Dickson 1939). A team of social scientists led by Elton Mayo of the Harvard Business School investigated the effects on productivity of changes in lighting, breaks, length of the working day, and the payment system. Unable to tie productivity directly to changes in the environment, they instead identified a pattern that linked increases in output to the experiments themselves. The researchers claimed that by being the subjects of an experiment and, thus, awarded attention, workers increased their productivity. This became known as the Hawthorne effect, and became the basis of the human relations school of management: Pay attention to your workers and they will work harder.

The story does not end there. Re-examination of the original qualitative data by Alex Carey (1967) and the original quantitative data by Richard Franke and James Kaul (1978) called into question the "Hawthorne effect"

– 90 percent of the variance could be attributed to three factors: managerial discipline, fatigue, and economic adversity due to the Depression. The managerial biases behind the Hawthorne Experiment and Elton Mayo's own disposition to look for "human factors" led to an erroneous theory of worker motivation. The revisit showed how the Hawthorne researchers missed the context in which the experiment took place, namely, deepening economic crisis and increasing unemployment that lay behind management's ability to extract greater effort from workers.

The Western Electric studies remain a classic case of policy sociology, conducted at the behest of management. They generated a research program in industrial sociology that highlighted the social dimensions of work; they also inspired a critical sociology that attacked industrial sociology as managerial ideology, an indictment that some would extend to policy sociology more broadly.

While working at the PRU I was only dimly aware of the problematic Western Electric studies. However, I did not need to know about them to develop misgivings about my research as an employee of Anglo. For I was developing another agenda, a secret agenda. Following Jack Simons's suggestion, I was burrowing from within to understand how corporate decisions were made. As the mining companies were deploying my mathematical skills, they were giving me unique insights into high-level negotiations with the trade unions, as well as access to all sorts of company documents. I even milked the companies for resources to run a social survey of miners, what I then believed to be the special technique of sociological research. The mining companies were very pleased with my work. As a servant of power they rewarded me with a scholarship to go to the University of Zambia, where I got my first degree in sociology (combined with anthropology).

The mining companies may have been happy with me, but I was not happy with them. As I became a student of sociology, I reflected upon my experience in management. I was appalled by their complicity in supporting the racial

hierarchy in the industry, what was known as the *color bar* – a quintessential expression of colonialism that was supposed to have dissolved. I realized how I too was complicit in its persistence, leading me to wonder what explained this reproduction of racism. I began to study the very process to which I had contributed.