

Caitjan Gainty, “Going After the High-Brows’: Frank Gilbreth and The Surgical Subject, 1912–1917.” *Representations* 118.1 (2012): 1-27.

Gainty’s historiographical article seeks to dispute and nuance the condemnation in earlier scholarship on the motion studies of industrial efficiency expert, Frank Gilbreth, which accused him of using his ‘scientific management’ to efface the individual agency of workers to the profit of corporate management. Gainty considers the case of Gilbreth’s offer to New York Hospital surgeons to conduct a motion study of their work free of charge on condition that he be given total autonomy in its execution. Why, Gainty’s argument runs, would surgeons, by no stretch of the imagination the least autocratic medical practitioners, agree to participate if they felt in danger of dehumanisation or subjugation?

Gilbreth sought to conduct a motion study of surgeons primarily as a publicity stunt: if he could render this most complex of medical practices efficient, this would suggest to potential clients that he could do so for any trade. Furthermore, he claimed a democratic intention behind “going after the High-Brows”: all workers could benefit from the insights of scientific management which broke skills down to a series of movements, all of which could be made more efficient. Gainty claims that “the dehumanising nature of Gilbreth’s motion study, which reduced identity to a series of ‘muscular coordinations,’ made motion-study science potentially the ultimate tool of American democracy” (13).

Gilbreth’s surgical subjects did more than acquiesce to his study, they participated with eagerness, in one case travelling from New York to Providence, Rhode Island to participate in an experiment in Gilbreth’s dining room. Gainty argues that Gilbreth’s study coincided with the dawn of medical standardisation, when all medical practitioners could carry out surgical procedures regardless of their level of skill or experience, but that surgeons were trying to distinguish themselves as expert, efficient and distinct from general medicine. The surgeons’ enthusiastic involvement in Gilbreth’s study is central to Gainty’s argument against the reading of scientific management as detrimental to the worker-subject’s agency and individuality. However, it is not quite convincing. Gainty’s precisely detailed description of Gilbreth’s experimental design emphasises that he insisted on surgeons wearing hoods and masks (which was not yet common practice) obscuring all facial features. They were identified instead by numbers and colour coded by rank.

The great unasked question of this article is whether Gilbreth’s work yielded any medically or scientifically valid results, or indeed influenced future surgical methods. The example used to highlight the participant surgeons’ enthusiasm for Gilbreth’s methods – their travelling two hundred miles to perform approximate surgical gestures to be captured by chronocyclegraph – is a case in point. The chronocyclegraph was a device where lights were attached to the subject’s fingers and a slow-exposure camera would record the line of light capturing the motion. The faith placed in the chronocyclegraph by the study’s surgeon participants is fascinatingly correlated to the contemporary advances in X-ray. X-ray permitted the visualisation of the inside of something without disruption to its exterior aspect. The chronocyclegraph allowed the user to see motion in a way that was impossible without mechanical aid. Both technologies gave access to a landscape which had

always been there but was previously unknowable. Gainty also considers the shortcomings of the chronocyclegraph: the images it produced were frequently unusable as fear of electric shocks prevented the lights from being tightly attached and subjects felt that their weight rendered movements inaccurate. There is no discussion, however, of whether there were any insights, or any improvements implemented, from this efficiency experiment which required surgeons to mime “what seemed not to be any procedure in particular, but rather the generic but fundamental motions that might be a part of any procedure in general” (16). It is perhaps beyond the remit of a historiographical article to consider this, but Gainty claims that previous scholarship’s focused criticism of the technocratic and de-individualising nature of scientific management “helps to account for the all but complete dismissal of Gilbreth’s study of surgical motion as a moment of significance in American medicine’s history” (2). The surgical motion study’s significance would thus seem to merit further exploration. Gainty’s article provides an insightful and interesting consideration of Gilbreth’s surgical motion study. It provides the background for his measurement of motion rather than time, it details his experimental design and argues for the serendipitous confluence of Gilbreth’s interests with those of the surgical profession. However, by not entering into colloquy with the scholarship it seeks to refute, it does not go far enough to convince as a reinterpretation of scientific management.

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