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**Geoffrey C. Bunn, *The Truth Machine: A Social History of the Lie Detector*. Baltimore: Johns Hopkins University Press, 2012. Pp. ix+246. ISBN 978-1-4214-0530-8. £18.00 (hardback).**

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turn exposed to different kinds of risk? Although African Americans and immigrants appear in the book, differences in their encounters with the hazards of American life are seldom analysed. Differing religious and gendered perceptions of risk are not studied either. In contrast to Christopher Sellers's seminal *The Hazards of the Job* (1997), Mohun only touches once on changing concepts of health and disease in the case of eighteenth-century smallpox. This is a curious choice, given contemporaries' repeated use of public-health terminology to frame accidents and homicides as 'epidemics' (p. 241) and the fact that 44 per cent of 1970s class-action suits were not about lawnmowers but about asbestos (p. 252). The rising importance of environmental degradation in post-war risk discourse is not studied either. Still, in spite of these gaps, Arwen Mohun's book is informative about a wide range of creatively chosen case studies in an important field of historical research.

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GEOFFREY C. BUNN, *The Truth Machine: A Social History of the Lie Detector*. Baltimore: Johns Hopkins University Press, 2012. Pp. ix + 246. ISBN 978-1-4214-0530-8. £18.00 (hardback). doi:10.1017/S0007087413000605

This short book explores how an intangible, disputable entity – truth – was reimagined as a quantity that could be extracted from a machine. Along the way, it touches upon themes of enduring interest in historical studies of science and technology, including literary and visual representations, gender disparities, pseudoscience, objectivity and the framing of categories.

Lie detection has been the subject in recent years of a growing body of literature drawing on law, ethics, psychology and cultural history. Such accounts have traced its famous cases, challenged its claims of scientific reliability, and analysed its legal legitimacy. The Introduction of this book is wide-ranging and promises to track lie detection's invention in America as a 'technology of truth' that could 'manage contradiction' (p. 5). The title and Introduction do not fully encapsulate the book's coverage, though. Its emphasis is not so much on truth, lies and technology, as on criminology and studies of physiognomy more loosely defined.

The book centres on American contexts, opening with the O.J. Simpson murder case and contrasting the assessments provided by two contemporary voice-stress technologies and their experts. Recent episodes – the use of lie detection in soft-drink advertisements, television cop shows and sexual harassment claims in American politics – are mentioned but not analysed.

Nor are these curious technologies and others, such as 'pupillometrics' (detecting dishonesty by change in pupil diameter), the focus of attention. Instead, attributes of human appearance and behaviour recur in the developing narrative. These include observable characteristics such as talkativeness, pulse rate and blood pressure, respiration rate and depth, and (perhaps less familiarly) response time after being asked an unexpected question. As this list of relevant physical properties suggests, and as Bunn highlights, we have been conditioned to understand lie detection by its typical depictions in film and television.

The book devotes much of its coverage, however, to less familiar territory. The first four chapters, amounting to a third of the text, trace ideas less commonly associated with notions of lie detection, some of which oppose their underlying assumptions. Chapter 1 explores the detection of wrongdoing by studying outward signs or occurrences. Thus criminal justice sometimes relied on noting the reaction of accused persons when forced to view, or even speak the names of, their putative victims. Indeed, cruentation rituals (witnessing the spontaneous bleeding or blushing of a corpse in the presence of the accused) were interpreted as late as the eighteenth century as a divine sign of guilt.

From this recognizable link between the close observation of visual indicators and the later development of lie-detection techniques, though, the author's coverage moves to wider-ranging explorations. A less clearly justified detour is a chapter that turns abruptly to issues of gender construction. Chapter 3 discusses female criminality, ostensibly because 'Western philosophical tradition' considered women to be 'secretive, deceptive and duplicitous', victims of their emotions and insensitive to pain (p. 51). But while such essentialist claims could be relevant to understanding the subsequent application of lie-detection techniques to female subjects, the author limits his subsequent analysis to claims that, by the late 1930s, depictions in popular media disproportionately portrayed female subjects and male inquisitors.

More generally, the coverage of the rise of criminology and criminal anthropology could be more tightly related to the subject of detecting dishonesty. The book surveys how criminality was reconstructed as a hereditary trait (the 'born criminal') during the eighteenth and nineteenth centuries. In the process, the notion of covert guilt was culturally downplayed; in its place was substituted a reassuring certainty that criminal proclivities – indeed, entire classes – could be identified by characteristic appearances or 'degenerate stigmata' (p. 73). The book argues that scientists, too, became interested in imperfect individuals: 'the habitual criminal, the eugenically unfit degenerate, the feeble-minded child' (p. 115). By the late nineteenth century, anthropological studies of physiognomy became associated with the new sciences of statistics and psychophysics. Some research had higher ambitions: at the turn of the century, psychologist Carl Jung devised the 'psychometer' (a galvanometer detecting small changes in skin resistance) to assess reactions to words and, with them, the existence of 'emotional complexes' in his patients. Variant devices sharing its reputed properties of divination – the 'emotimeter', 'lietector', 'polygraph' and others – emerged over the following generation.

At the halfway point of the book, this transition from largely European science to American criminology is made overt. The author suggests that the lie detector could have been invented only when the notion of the born criminal was abandoned and the lie was constructed as a universally shameful act. He notes that 'polite sectors of Victorian society considered the management of lying a valuable skill', and a vehicle for social transformation (p. 75).

This reconstruction was achieved by American novelists, journalists and writers of adventure fiction who, while popularizing the physicality of born criminals, were even more interested in assessing hidden culpability as a plot device. Within the entire population, anyone might be guilty of an uncharacteristic crime. The lie detector, observes the author, was 'quintessentially a byproduct of the whodunit' (p. 115). Its cultural rise was signalled by fictional characters such as Luther Trant, 'America's first scientific detective' and his 'soul machine' (pp. 110–111). With it, the accused person could be betrayed by almost indiscernible electric forces, the scientific equivalent of the wandering planchette of the Ouija board.

After the First World War such dream devices found increasing application and representation in American law enforcement. Technological advance was not the key here, but procedural refinement and even terminological innovation. The final, and arguably most engaging, sections of the book survey how the increasingly black-boxed device legitimated the notion of infallible guilt-finding technology by intimidating its subjects. Ironically, the lie detector became a cultural construct more stable than elusive truthfulness itself.

Was the lie detector firmly rooted, as the author hints, in a unique melange of turn-of-the-century pulp fiction, post-First World War profit-driven promotion and the urgent policing of the Prohibition? National comparisons would have been interesting but, overall, this is an intriguing book that suggests wider questions about human attributes and the rising role of machines in modern culture.

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