

Crime Science

Ken Pease argues the importance of developing the discipline of crime science.

The murder of the television presenter Jill Dando set in train a process resulting in the establishment of the Jill Dando Institute of Crime Science in the School of Public Policy at University College London in April 2001. Jill's fiancé Alan Farthing and the journalist Nick Ross were prime movers in that process. The title may be thought more than a little presumptuous, since the phrase 'crime science' had hitherto been used more narrowly to refer to methods of forensic detection (see for example Nickell and Fisher 1999). The Jill Dando Institute (JDI) sought to apply scientific principles to the prevention and detection of crime and the reduction of disorder in ethically acceptable ways. Detailing the contours of the approach remains work in progress (see Laycock, 2005). Of crucial importance in the establishment of JDI and the choice of its title was the recognition that all science disciplines had something to contribute to the understanding and ethical reduction of crime. Three strands were central. They involved:

- better understanding the nature of crime and criminality, its extent, distribution and drivers;
- contributing to the crime-reductive design of places, goods, services, policies and management practices;
- improving the detection of crime through the application of appropriate science.

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While the application of science to crime reduction is something that most citizens would regard as something devoutly to be desired, the reality falls short of what they might desire, and may even be regarded as sinister by those fearful of the excesses of a Government prone to micro-management.

Searching the Home Office website yields a series of links with little history of integration, either by function or location, with (for example) the Police Scientific Development Branch (soon to be renamed the Home Office Scientific Development Branch) in leafy Hertfordshire, the Home Office Research, Development and Statistics Directorate in Central London, and the Forensic Science Service in the West Midlands. There is movement in hand to integrate Home Office science functions more closely. Whether a common zeitgeist created both JDI and the Home Office's recognition of the need to think of science on a broader canvas may interest historians, but need not detain us here.

Because crime science has crime (the event)

rather than criminal (the person or predisposition) at its centre, it challenges the way in which democracies typically characterise crime and disorder and attempt to deal with it. Crime scientists focus on the action itself, and an analysis of the characteristics of common features of acts, with the aim of developing effective preventive methods where possible, or recognition of a crime's social embeddedness which makes regulation or withdrawal of an act's criminal status humane or prudent. In its preventive orientation, crime science may draw on disciplines like ecology, drawing parallels between on the one hand animal and plant defence techniques, and on the other crime prevention techniques. An example in the news recently is the 'Smokecloak' device, which floods a secure area under attack with thick (but non-toxic) coloured smoke (see Ekblom 1997, Farrell 1997 for development of the theme).

Crime science as championed at JDI draws on the theories of environmental criminology including crime pattern theory (Brantingham and Brantingham, 1993), routine activity theory (Felson, 2002), rational choice theory (Cornish and Clarke, 2003) and situational crime prevention (Clarke, 1997). However, a major part of emergent crime science involves the new recognition of the potential role of other sciences. As crime increasingly migrates to cyberspace from 'meatspace', information technology becomes central

in understanding and controlling crime. As the genetic contribution to the predisposition to certain behaviours which are often criminal becomes better understood (see Caspi *et al.* 2002 for an important early example) the insights of criminology and genetics must be reconciled to avoid notions of people being 'doomed' by their genes.

Current work at JDI justifies the aspiration towards an unsegmented science approach. The work of Shane Johnson and Kate Bowers (see Johnson *et al.* 2004) combines elements of epidemiology, mapping and criminology to yield a local crime prediction methodology which seems to outperform those currently available. Although many techniques used by forensic scientists are now well established, recent developments in DNA technology have opened up new possibilities. For example, DNA can be used either to establish unique identity or to reduce the size of the suspect pool, alongside witness statements and other evidence. Foy (2004) develops some of the ways in which this can be done. Work of this kind already



takes place in major enquiries, but is not routinised. Optimisation of techniques to reduce the size of suspect pools by all means available requires understanding the individual data sources and expertise in the fuzzy logic which combines them. This is a large job, but beats the present situation. Police officers express the aspiration to have all active offenders on the national DNA database, which would be instantly recognised as futile by reference to the way criminal careers work, with large movement into and out of the population of those criminally active. Most if not all operational police stations have fridges packed with unanalysed DNA samples from crime scenes. The economics of DNA need urgently to be considered alongside the relevant genetics and criminology.

How can crime science, nurtured by JDI in the bosom of a world class university and under the inspirational leadership of Gloria Laycock, possibly fail? It could fail insofar the mindset of potential customers, and of the research councils, changes too slowly (or not at all). If crime issues are not framed across conventional boundaries, if funders offer JDI money to do conventional criminology, crime science will slip back into a discipline mould, and will become a misnomer. There are some hopeful signs. The Engineering and Physical Sciences Research Council are funding crime research. The appointment of a Chief Scientific

Advisor within the Home Office spanning its science facilities, and the emergent interest of the European Commission in what it somewhat optimistically terms 'crime proofing' are among the green shoots of scientific integration. With a nurturing environment and skilful husbandry, crime science may yet come to mirror or outstrip the rewarding eclecticism of medical science.

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References

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