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Biological Determinism, Free Will and Moral Responsibility

Insights from Genetics and Neuroscience

 Springer

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*For my parents, Peter and Ann,
in the year of their golden wedding*

Preface

It is a sad reality that we live in a world in which people commit crime. Every day, in every city, in every country, the actions of one individual will impact detrimentally on the person or the property of somebody else.

As part of the commitment to living in civilised society, those accused of carrying out antisocial behaviour of sufficient gravitas will have the evidence against them considered in a court of law. If found guilty, they will be required to fulfil some suitable punishment.

Suppose, for a moment, that it could be shown that the person who had perpetrated a crime had been literally unable to avoid carrying it out. Under such circumstances, would it still be appropriate to punish them for their actions? As details regarding the influence of both genetic characteristics and brain neurochemistry on human behaviour are being uncovered, some scientists and philosophers are claiming that traditional notions of free will, of moral responsibility and, therefore, of accountability for one's actions need to be re-evaluated.

In order to investigate the legitimacy of these propositions, it is necessary to undertake a survey of various relevant discourses. First, we need to reflect upon philosophical considerations of free will and determinacy. Are, for example, free will and determinism mutually exclusive, or might there be some way in which biological determinism and moral responsibility might co-exist? This will be considered in Chap. 1.

Second, it is important to have an appreciation of the current legislation regarding responsibility for one's actions. This will be the focus of Chap. 2. Building on these philosophical and legal foundations, it will then be time in Chap. 3 to investigate the scientific discoveries which are leading some commentators to question the existence of free will and/or moral responsibility. Evidence drawn from both genetic analysis and brain science will be considered.

The past decade has seen an explosion of interest in the potential relevance of such brain-related science in legal cases, and the emergence of a new field of "neurolaw". A survey of examples in which genetic and neuroscientific data have already been used in criminal trials (Chap. 4) will precede a final discussion

(Chap. 5) in which these disparate threads will be interwoven into reflections on the validity of biological determinism as an influence in human behaviour, and the appropriateness of such genetic and brain imaging evidence in current and future criminal proceedings.

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Summary

Recent investigations have shed light on the roles played by genetics and neuroscience in human behaviour. These observations have led some commentators to adopt a model of biological determinism in which the role of free will is downplayed or entirely excluded.

Following an overview of philosophical aspects of free will and determinism, and a survey of current legislation relating to responsibility, the evidence for biological contributions to behaviour is reviewed. Whilst the importance of genetics and neurobiology to behaviour is generally endorsed, it is concluded that this connection does not currently substantiate a deterministic view in which moral responsibility for one's actions is undermined.

Current and potential future roles for biological evidence in criminal proceedings are considered. Despite the fact that genetic or brain imaging data have already been cited in some court cases, it is argued that expansion of this usage at the present time would be premature. As further data is gathered, however, a point may be reached at which biological information would have a role to play as mitigation during the sentencing phase of trials.