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▶ To cite this version:

G. E. Berrios. 'Mind in general' by Sir Alexander Crichton. History of Psychiatry, 2006, 17 (4), pp.469-486. 10.1177/0957154X06071679. hal-00570870

HAL Id: hal-00570870

https://hal.science/hal-00570870

Submitted on 1 Mar 2011

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History of Psychiatry, 17(4): 469–497 Copyright © 2006 SAGE Publications (London, Thousand Oaks, CA and New Delhi) www.sagepublications.com [200612] DOI: 10.1177/0957154X06071679

Classic Text No. 68

'Mind in general' by Sir Alexander Crichton

with an introduction by G. E. BERRIOS*

The history of the 'philosophies of psychiatry' can be defined as the contextualized study of past theoretical views on the nature, understanding and management of madness and related notions. The application of an hermeneutic apparatus to past psychiatric narratives gives rise to the history of psychiatry; its application to current narrative gives origin to the philosophy of psychiatry. If the latter employs off-the-shelf, ready-made, external philosophies, it follows a centripetal approach; if it starts from the inside of psychiatry and generates its own tools and meta-language, it follows a centrifugal approach.

Psychiatry is burdened by intrinsic and extrinsic philosophical problems. The former result from its hybrid nature, i.e., from the fact that psychiatry unsteadily straddles the natural and human sciences. The latter are borrowed from the conceptual frames into which psychiatry has been inscribed since the 19th century.

The philosophy of psychiatry may anticipate or follow empirical research. The ante rem mode is based on the idea that empirical research requires conceptual supervision, audit and guidance, for it is always ideology- and theory-laden. The post rem mode is based on the view that science is the only way to 'truth' and hence all that the philosophy of psychiatry can (or should) do is facilitate, interpret, justify, defend or glorify empirical findings.

The Classic Text that follows was written by Sir Alexander Crichton at the end of the 18th century, and is a good example of the centripetal mode of philosophy-making.

Keywords: Alexander Crichton; historicism; history; John Augustus Unzer; Joseph Priestley; philosophy; psychiatry; psychopathology

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INTRODUCTION: THE PHILOSOPHIES OF PSYCHIATRY – A CONCEPTUAL HISTORY

Throughout history, the phenomena of madness have attracted philosophical reflection both on account of their extraordinariness and of the fact that their (putative) irrationality has been perceived as a threat to the epistemological validity of man's perception or conception of the world. When collated, such reflections amount to a veritable 'philosophy of psychiatry'. Their contextualized analysis is the task of what is called here the 'history of the philosophies of psychiatry'.

Defining psychiatry

In its present form, the discipline of 'Psychiatry' was constructed during the nineteenth century to deal with the *understanding* and *management* of categories of behaviour and experience then deemed deviant, abnormal or 'diseased'. Some of these categories were created anew, others were a legacy. Selecting and describing such forms of behaviour also required the construction of a technical language (*descriptive psychopathology*). During the nineteenth century, the act of *understanding*² abnormal behaviour was considered as tantamount to identifying a link between the said behaviour and an anomaly of the body.³ Although in most cases the link amounted to no more than an observation of contiguity, it was boldly considered as 'causal'.⁴ The act of *management* included interventions of a social, moral and scientific nature addressed at changing target behaviours (Berrios, 2007).

The construction of psychiatry during the nineteenth century occurred under the ægis of medicine.⁵ Because of the complexities exhibited by the phenomena of madness, the conceptual structure of psychiatry and its epistemological handles were (rather hastily) made out of fragments taken from contemporary natural and human sciences. Ever since, the former have informed psychiatry of how the target behaviours may be inscribed in the body (currently research is focused on the brain); and the latter have provided the criteria for their very selection and configuration. The natural sciences by themselves cannot create new categories of 'mental disorder', nor can any somatic footprint be sufficient to define a mental disorder. This means that the human sciences have epistemological primacy. In other words, a mental disorder cannot be formally ascertained by studying the brain of the patient but by the enactment of the social act of 'diagnosis' which is the outcome of an emotional and epistemological partnership between helper⁶ and sufferer. After a private negotiation between two persons, experiences and behaviours will get selected, named, and thereby made real.

On account of the above, diagnosing in psychiatry is far more than the act of 'recognizing' by means of a checklist some pre-existing, autonomous object

(as ontologically stable as a tumour or a pimple). Diagnosis consists in the construction of 'mental symptoms' by the unique act of attaching meaning to certain experiences and behaviours and (ideally) getting the patient to go along with it. Seeing things which are not out there is a report which remains ontologically empty until an act of diagnosis takes place. It is only when the reported 'experience' is integrated into the life of the sufferer that it becomes an official token of what is now called a 'hallucination'. This is why proxy devices such as checklists, psychiatric instruments and putative 'biological markers' (e.g., neuroimages, biochemical tests, physiological changes) cannot confer meaning or effect the transformation described above. That they appear to have the power to confer meaning results from their parasitical nature, from the fact that they depend (usually via a 'significant' correlation) on an earlier primary social act of diagnosis.

In psychiatry, there is an additional problem, namely, that correlations are made finite by the fact that their correlates are transient: that is, both the social criteria for selecting abnormal behaviours and the brain inscriptions identified for them do change with time. This means that there is no transhistorical object of inquiry (i.e., an eternal mental disorder) which the psychiatry of today may expect to share with the disciplines that managed the 'phenomena of madness' before the nineteenth century or might share with disciplines that will be constructed in the future to manage them.

In this sense, each historical period constructs its own ('psychiatric') object of inquiry, and over the centuries a variety of such has accumulated. When trying to compare them, the historian may find that objects from different historical periods are named the same, or that throughout time the same object has been named differently. 10 Comparisons of these variegated objects of inquiry are, in fact, extremely difficult to undertake for they require that the historian has, for each, adequate knowledge of: (1) structure, function, social meaning and role; and (2) putative biological inscriptions (Berrios, 1994). An important point to remember is that within each historical period behaviours that have been selected as 'abnormal' or 'deviant' tend to 'correlate' well, i.e., be coherent with, putative bodily inscriptions (which have been linked to all manner of organs such as the stomach, hypochondria, liver, brain, etc.) and with therapeutic success. 11 Local coherence is then used by 'experts' to make truth claims about their own theories, and to found their right to draw professional and deontological rules for the psychiatric community at large.¹² The meaning and evidential power of such internal coherence, however, is localized, and it remains unclear whether coherences from different historical periods can be compared (i.e., whether they are incommensurable).¹³

A crucial consequence of the definitions proposed above is that it will not ever be possible for psychiatry to jettison the human sciences, i.e., to kick away its Wittgensteinian ladder¹⁴ solely to rely on the 'invariant' objects' offered it by the natural sciences. Without the social sciences the process of

periodically redefining mental disorder or constructing 'new' disorders would come to a halt, and the (weak) biological markers available to psychiatry would soon lose calibration.

It also follows from the above that the history of psychiatry should conceive of its subject as the set of narratives and practices¹⁶ that have been constructed to describe and/or control behaviours which are deemed 'unacceptable', 'disturbing' or 'diseased' (three concepts which are not necessarily overlapping). During the nineteenth century these practices included the creation of a language of description (descriptive psychopathology; Berrios, 1984, 1996).

Aspects of the philosophy of psychiatry are regularly chronicled by historians of psychiatry, but no dedicated historiography has yet been developed for it. This introduction to the Classic Text wishes to justify the need for one. Such specification needs to be based on a preliminary agreement on what the history of psychiatry (Berrios, 1984, 1994; Micale and Porter, 1994) and the history of philosophy are (or should be).

The history of the philosophies of psychiatry

The history of the philosophies of psychiatry can be defined as the contextualized analysis of the origins and vicissitudes of views developed (in the Western world) to make sense of the diverse phenomena of 'mental disorder' (sensu lato), the focus of such analysis being on their conceptual structure, social appurtenances and aesthetic and moral warrants rather than on any 'empirical' claims that have been made in regard to their nature and origins. A number of historiographical options are available to this end.¹⁷

The history of philosophy

Books dedicated to the general history of philosophy started to appear during the seventeenth century;¹⁸ by the time of the Enlightenment, major historical works¹⁹ and a journal²⁰ had become available. The historiographical rivalries adumbrated by these writings were sharpened during the nineteenth century when histories of philosophy became a genre in their own right (Geldsetzer, 1989; Schneider, 1992). In his magisterial history of the histories of philosophy, Braun (1973) identified naïve, erudite, pragmatic, progressive, critical and romantic historiographical approaches to philosophy. A variety of other typologies and taxonomies are also available (Piaia, 2001).

Representative of what Braun called the naïve genre are 'doxographies',²¹ that of Diogenes Laertius (1972) being the best example. The concept of history as the linear unfolding of a divine truth (Markus, 1970) was introduced by Christianity and has influenced the writing of history ever since.²² Secularized during the nineteenth century,²³ the linear approach inspired writings purporting to show that the natural sciences and philosophy were themselves processes unfolding towards a form of 'lay' truth.

Others have proposed the existence of a fixed set of philosophical

questions (i.e., a *philosophia perennis*) to which each historical period would give its own answers. When placed in chronological order, such answers may or may not show a relationship: in other words, *philosophia perennis* may be accommodated by either a linear or a cyclical (Viconian) conception of history.²⁴

During the nineteenth century, the view became predominant that the understanding of man and the world required knowledge of their origin and development (Wright, 2003). Called 'historicism' or 'historism', this trend culminated in the work of Dilthey, Windelband and others, and during the first half of the twentieth century it provided a new frame for the writing of the history of philosophy (Bambach, 1995; D'Amico, 1989; Engel-Janosi, 1944; Morris, 1972; Riesterer, 1969). During the second half of that century, versions of historicism also inspired the so-called 'sociologies of knowledge', i.e., the view that philosophical systems are fully the product of history and culture (Bloor, 1991; Gieryn 1999; Golinski, 1998; Kusch, 1995). Variations and combinations of the approaches listed above can often be found, and the assumptions made by authors of well known 'histories of philosophy' are not always easy to disentangle (Collins, 1998).

During the twentieth century, there was a reaction against historicism, particularly from philosophies deriving from logical positivism, the Vienna circle, and the analytical school of the type practised in much of the Anglo-Saxon world. Representative of this view is Wittgenstein's claim (1979: 82e): 'what has history to do with me, mine is the first and only world'. (On Wittgenstein's views on history in general, see Glock, 2005.) Other philosophers approach history as a source of material to translate into current categories. It goes without saying that 'translating' views of earlier philosophers into current concepts does away with meaning, context and rhetorical force

The historian of the philosophies of psychiatry will have to choose what method to follow and what writers to study, for, in earlier times, not only philosophers but medics, theologians, moralists, poets, fiction writers, etc., pondered over the nature of madness, and their reflections should be considered as forms of philosophy of psychiatry. It is the job of the historian to seek the connection between such discourses, their historical context and the 'understanding and management of madness'. Such discourses can precede, interpret or follow ongoing views on mental disorder; indeed, often enough philosophy may just be used to 'interpret' or justify empirical research (on this, see more below).

Ways of doing philosophy of psychiatry

The philosophy of psychiatry can be undertaken in a centripetal or centrifugal fashion. To allow a fair comparison, it is assumed here that both are being carried out by competent thinkers. Those practising the centripetal style will make use of off-the-shelf philosophies to identify, configure, classify and resolve the problems of psychiatry. Animism and vitalism,²⁵ phenomenology,²⁶

logical empiricism,²⁷ analytical philosophy,²⁸ etc., have all been resorted to. Both professional philosophers and psychiatrists have tried their hand with varied degree of success. Although technically impeccable, the offerings of the former are often off the mark simply because they lack the knowledge by acquaintance with the phenomena of madness. The latter, on the other hand, rarely offer more than syncretistic²⁹ solutions (currently re-branded as 'pluralism'),³⁰ that is, mixtures of fragments taken from different philosophical systems. (Examples of centripetal philosophy can be found in: Ghaemi, 2003; Kendler, 2005.)

The centrifugal way, on the other hand, starts at the very centre of psychiatry. It thinks its problems from the inside and, when required, composes a metalanguage to capture them. However, to be able to identify issues, formulate questions and draw boundaries, the thinker will need a first-hand familiarity with the subject-matter of psychiatry. Not all the problems generated by psychiatry are equal. Some – such as the definition of mind, the interaction between mind and body, the supervenience of new types of experience and behaviour, the distinction between causes versus reasons, etc. – will be extrinsic to psychiatry, and their analysis will share the same conceptual frames and methods as the philosophy of mind. Other problems, however, such as the concept of mental symptom, the semantics organization of mental disorder, 31 etc., will be intrinsic, that is sui generis to the task that psychiatry has set itself. Solutions to these problems do not exist ready-made. They must be original and fresh, and this makes them sometimes into veritable contributions to philosophy. Excellent works have made use of the centrifugal approach.³²

Whether centripetal or centrifugal, the philosophy of psychiatry can be undertaken *ante rem*, i.e., early in the process of becoming acquainted with the phenomena of madness, or *post rem*, i.e., as an exercise in justification³³ of whatever object has been created by empirical research. Those who practise the latter approach seem to assume that biological psychiatry (the current source of such empirical findings) is a non-ideological activity whose 'discoveries' are an exact picture of the world.³⁴ This assumption is unwarranted given that (as seen above) in psychiatry all 'empirical' findings are epistemologically dependent upon an object of inquiry which has been primarily and originally constructed in terms of social, moral and aesthetic criteria.

It is unlikely that the history of the philosophies of psychiatry will provide historians, philosophers or psychiatrists with a ready-made source of errors or hints for new ideas. The philosophical analysis of the views and practices of madness can only tell about conceptual moves and constraints. Such moves are governed by epistemic rules unique to each historical period. A historical comparison of different patterns of moves and constraints may help to work out what in the episteme itself determines such sets of rules, and whether a trans-epistemic taxonomy of conceptual moves can be identified.

For example, in each there should be legitimate and illegitimate moves, and among the former there should be silly, indifferent, prosaic and imaginative moves. Finding out what in a given cultural niche makes possible the development of original moves, and whether such conditions can be manipulated, is another important contribution of the history of the philosophies of psychiatry. Armed with this historical knowledge the philosopher can then work out the rules governing the conceptual moves in current psychiatry. This suggests that the same analytical apparatus is used by both the historian and the philosopher: when it is used on past narratives it becomes the history of psychiatry, when applied to the current narrative it is called the philosophy of psychiatry. A separation between the two disciplines is therefore likely to be artificial.

The Classic Text

An early text of the centripetal type (see above) has been chosen to illustrate the origins of drawbacks that still bedevil philosophy of psychiatry.³⁵ Entitled 'Mind in general', the text was included by A. Crichton in his book *An Inquiry into the Nature and Origin of Mental Derangement* (1798). It deals mainly with the relationship between mind, body and disease.

The author

Sir Alexander Crichton (1763–1856) was born in Edinburgh and studied medicine at Edinburgh University (Appleby, 2004). He was apprenticed to both Alexander Wood and William Fordyce, obtained his MD from Leiden University, and studied further in Paris, Stuttgart, Vienna, Halle, Berlin and Göttingen. His long association with the Westminster Hospital started in 1794 and there he taught medicine, materia medica and chemistry. In 1792 Crichton translated Blumenbach's Essay on Generation, and his own An *Inquiry into the Nature and Origin of Mental Derangement* appeared in 1798. He became a famous physician, chemist and mineralogist, contributing original work to all these fields. Between 1804 and 1819 he lived in Russia as a physician to the Imperial family. At the time he undertook original natural science research, and put together the core of his famous collections of biological and mineral specimens. He received many honours from the Russian government and was knighted by George IV in 1821. Crichton was not a mad-doctor, alienist or anything of the sort. Like Pinel, Reil, Chiarugi and other medical-men of his generation, he was a generalist who occasionally dabbled in the business of madness. Apart from this book, he did not publish any other work on mental derangement.³⁶

Its sources

The book in question is said to have influenced Pinel and Esquirol (Weiner, 1990). In the introduction to the first edition of his *Traité*, Pinel (1801)

found some of the books on madness published in England and Germany to be over-theoretical except Crichton's which he described as a 'profound work, resulting from new observations based on modern physiology' (p. xxi). Pinel was particularly impressed by the fact that Crichton used the concept of passion in a non-metaphysical, physiological way ('without any reference to morality or immorality', p. xxij).³⁷ Was Pinel right in talking about 'new observations' in this regard?

Crichton was no more than 30 years old when he started collecting information for his book. Until then he had had little experience in the diagnosis or management of madmen. If 'new' is understood as original or personal, there are no new clinical observations in his book. All the cases reported therein were borrowed from someone else. In fact, Crichton did acknowledge his main sources: Unzer's *Physiologie* and the *Magazin zum Erfahrungs-seelenkunde* (Förstl and Rattay-Förstl, 1992) edited by Moritz and Maimon:

in this work I found what I had not yet met with in any other publication, a number of well-authenticated cases of insane aberrations of mind, narrated in a full and satisfactory manner, without a view to any system whatever ... (Crichton, 1798: v)

Indeed, elsewhere Pinel (1801: 49) had already made a scathing comment:

One must admire Dr Crichton's courage for publishing two volumes on mania and melancholia without having other basis than some observations taken from a German journal, some clever interpretations of modern physiology, and a table of the psychological and physical effect of the human passion ... 38

Pinel was not the last person to criticize the book. Thomas Laycock,³⁹ the translator of Unzer's *Physiology* (1851) also commented upon it. In his personal copy of Crichton's book, D. H. Tuke⁴⁰ (a disciple of Laycock) entered: 'Dr Laycock says that some of Crichton's principal merits are due to unacknowledged plagiarisms from Unzer's *Physiology*.'⁴¹ Thus, in spite of his Scottish education and early training in Edinburgh,⁴² and the fact that Scottish Philosophy of Common Sense (Grave, 1960) was at the time also influential in Germany,⁴³ Crichton does not seem to have been much influenced by it.

J. A. Unzer

Born in Halle, Johann August Unzer (1727–99) graduated in medicine from the local university in 1748. Two years later, he left for Altona where he was to spend the rest of his life. At Halle, it is likely that he attended some of Hoffman's lectures who at 79 was still lecturing there. His main teacher, however, was Johann Juncker (1679–1759), a follower of G. E. Stahl (1660–1734) and author of a synopsis of Stahlian ideas on pathology (Juncker, 1736). From Juncker, Unzer learned about the metaphysics of vital actions.

Stahl's philosophy of medicine is complex and not easy to present without

providing some context, particularly in regard to the meaning of terms such as *anima*, motion, substance and essence, which must be understood in their early eighteenth-century meaning, otherwise what he said would make little sense to the present-day reader. Stahl opposed the application to the mind (soul) and to the higher mental functions (Rather, 1961) of the mechanical philosophy developed in Europe at the end of the seventeenth century (Boas, 1952). He believed that, due to the fact that soul and body were essentially different, the former could activate the latter only *indirectly*. Stahl proposed that such activation took place via 'motion' which he conceived of as a third essence, independent and different from the soul and the body. Human action could then be explained as a causal cascade: the soul activated motion and motion imparted activity upon the body (King, 1964).

This version of animism, acquired via Johann Juncker, Unzer was to build into his own views on the mind, and is a recurrent theme in his publications. Two years before his graduation he had already published three books (in German) of which his 'New Theory Regarding the Passions (Emotions)' (Unzer, 1746a) is of particular relevance to understanding Crichton's views. In this book Unzer sought to explain the emotions in terms of variations in the tension of the nerves. The other two books were 'Thoughts on the Influence of the Soul on its Body' (1746b), and 'Thoughts on Sleep and Dreams' (1746c). However, the work which summarized Unzer's mature thoughts was Erste Gründe einer Physiologie der eigentlichen thierischen Natur thierischer Körper (The Principles of a Physiology of the Animal Nature Proper to Animal Organism; 1771).

Based on Unzer's physiology, Crichton argued against Joseph Priestley's materialistic monism, i.e., the view that mental phenomena can be fully reduced to physiological mechanisms (Yolton, 1983). Priestley's physiological ideas came from David Hartley whose work he had edited (Allen, 1999). Further, Priestley believed that his monism was more in accordance with Biblical teaching than Cartesian dualism. Crichton was not the only one to oppose Priestley's materialism; another important opponent was Richard Price (Thomas, 1977).

Discussion and conclusions

Crichton's Classic Text which follows is a good example of the centripetal mode of doing the philosophy of psychiatry. A youthful work, it reflects his early conceptual interests as applied to the understanding of certain forms of madness. Although educated in Edinburgh, and then in continental universities, some of which were at the time (like Göttingen) influenced by the Scottish Philosophy of Common Sense, Crichton's style of formulating and resolving the problem is surprisingly Continental. It has been claimed that Crichton's work was influential on writers such as Pinel and Esquirol but the extent of such influence remains unclear.

The Classic Text has two recognizable sections: the first includes a general review of arguments in favour of a materialist view of the mind; the second is a sustained criticism of Priestley's reductionism as presented in his *Disquisitions Relating to Matter and Spirit* (1777). The arguments used by Crichton are animistic and vitalistic in tone and redolent of the Stahlian ideas that Unzer learned from Juncker at Göttingen.

By using an earlier version of the logic of double-dissociation, Crichton also argues in a less metaphysical way. As against Priestley's view that the integrity of the body is essential for the functioning of the mind, Crichton, on the one hand, quotes examples of elderly sages who continued producing major works in spite of the decrepit state of their bodies and, on the other, he refers to people who can be severely mentally impaired and yet their bodies are normal.

Notes

- 1. In the First Meditation, Descartes famously made use of 'delusions' to test the nature of perceived reality: 'And how could I deny that these hands and this body are mine, were it not perhaps that I compare myself to certain persons, devoid of sense [original Latin text: nescio quibus insanis], whose cerebella are so troubled and clouded by the violent vapour of black bile [cerebella tam contumax vapor ex atrâ bile labefactat] that they constantly assure us that they think they are kings when they are really quite poor, or that they are clothed in purple when they are really without covering ...' (English text: Descartes, 1967: 145; Latin text: Descartes, 1996, 18–19).
- On the complex history of the concept of 'Understanding' or Verstehen see: Eisler, 1910; McCarthy, 1974.
- The 'anomaly' was defined in terms of ascertainable anatomical, physiological or chemical change (see Canguilhem, 1975).
- 4. With minor technical changes, this view still holds today: the observational link has been replaced by a 'statistical correlation', and its ascertainment is measured in terms of an arbitrarily defined statistical significance.
- 5. The view that this alliance seems now written in stone should not make the historian forget the fact that it is man-made and that if in the future society wished to manage the phenomena of madness differently (on grounds moral, economic, legal, aesthetic, etc.), it will see to it that the partnership is soon dissolved. Experts in *post-hoc* justifications will then have no difficulty in declaring the new arrangement superior.
- The helper represents society and carries with him or her the primary (social, moral, aesthetic) definitions of mental disorder. On the social and epistemological complexities of the act of diagnosis see: Chertok, 2000; Laín-Entralgo, 1982, 1983.
- 7. The act of insight can be said to round off or complete the process of diagnosis in the sense that it makes the sufferer an active participant in the process (on the concept of insight, see Marková, 2005).
- 8. On the concept of proxy, see Berrios & Marková, 2002.
- 9. For example, there is plenty of historical evidence to state that although the term melancholia has been in use for more than two millennia, the referent of the term has changed at various times to the point that so-called 'histories of melancholia from the

Greeks to the present' are just histories of the use of the word and not of some perduring disease (Berrios, 1988).

- 10. Such is the case of phrensy, delirium, acute confusional state, acute organic disorder, etc. (Berrios, 1981, 1999*a*)
- 11. For an analysis of the differences, see Berrios and Marková, 2002.
- 12. The case of the 'aural haematoma' is well known a very coherent and scientific disorder during the 19th century (Berrios, 1999b).
- 13. On the issue of incommensurability of the theoretical content of different epistemes, see Sankey, 1994.
- 14. This philosophical *locus communis* refers to Wittgenstein's claim (1963), at the end of the *Tractatus*: 'My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has used them as steps to climb up beyond them. (He must, so to speak, throw away the ladder after he has climbed up it.) He must transcend these propositions, and then he will see the world aright.' (6.54)
- 15. By 'invariant' it is meant here an object which is considered autonomous, stable and transhistorical, that is, a token of a 'natural kind' (Laporte, 2004). This ontological view of disease is favoured by current official psychiatry which conceives of mental disorder (be it schizophrenia, melancholia, Asperger's syndrome or Attention Deficit Hyperactivity Disorder) as a genetic condition expressed in a more or less fixed 'phenotype' that would be the same (with minor pathoplastic allowances) in all cultures and historical periods. So popular has this view become that in psychiatric parlance the term 'phenotype' is (rather stupidly) replacing those of 'clinical presentation', 'symptomatology', 'clinical profile', 'phenomenology', etc.
- 16. The histories of psychiatry and of art construct their objects of inquiry in similar ways. From early times, the history of art was confronted with the epistemological question of how to define its object (e.g., Bazin, 1986). The problem was not ontological, i.e., it was not due to the fact that the object of art is an elusive abstraction. The object of art, in fact, is ordinarily inscribed in tangible matter (stone, canvas, colour pigments, etc.). The issue was to decide: (1) what is object of art, and (2) whether its correlated pattern of material inscription can be used in the future to decide whether some other object is also an object of art. Nowadays, few experts will claim that such a decision can be taken on the basis of an analysis of a material substratum. In other words, the decision will continue to be taken in terms of social and aesthetic values unrelated to chemistry, physics, x-ray technology, etc. The same can be said of 'mental disorder', the object of inquiry of psychiatry. The issue is not whether or not mental disorder is inscribed in the brain. The issue is whether the decision that a particular behaviour constitutes mental disorder can be taken on the basis of an analysis of the brain alone. The answer is that it cannot.
- 17. For an overview and bibliography of the historiography of philosophy, see Walton, 1977.
- 18. For example, Thomas Stanley (1655), whose work went through various editions, concentrated mainly on Greek philosophy with a later volume on Chaldaic thought. Stanley identifies two types of history: 'one represents generall affairs of state; the other gives account of particular persons, whose lives have rendred them eminent ...' (Preface, p. 1).
- 19. Suffice it to mention major works by Brucker (1742–62), Tiedemann (1791–97) and Tennemann (1798–1819). There has recently been an interesting effort to show that Brucker's historiography was more refined and concept-aware than had been thought hitherto (Piaia, 2001).

- 20. For example, C. E. Heumann's Acta philosophorum (1715-28).
- 21. The term 'doxography' names a work that lists summaries of philosophical views without analysing quality or context. Described (and criticized) with grace by Passmore (1966), the doxographic approach became a *bête noir* for Rorty (1984).
- 22. This model is well illustrated by the linear and progressive histories of philosophy published during the 17th century (e.g., Stanley, 1655).
- 23. The social and cultural phenomenon of secularization can de described as the abandonment of religious, theological, divine, etc., explanatory hypotheses for the existence of the world. Interestingly enough it is not free from controversy. Some have argued, for example, that the concept is superficial and confused and assumes a false view of religion. By adapting to science and the new cultural practices, religion is in fact showing its vitality and significance (Hammond, 1985).
- 24. This refers to the concept of recurrent history re-developed by G. B. Vico during the 18th century (Trabant, 1994). The cyclical view of history has, however, a long tradition in the west (Trompf, 1979).
- 25. The Classic Text that follows is a good example of this.
- 26. For example, earlier in his life, Karl Jaspers resorted to a form of 'phenomenology' to analyse the problems of psychiatry. At the time, this philosophical movement was totally external to psychiatry (Berrios, 1992).
- 27. In this regard, the efforts by Hempel (1965) and Kendell (1975) are well known.
- 28. See, for example: Fulford, Thornton and Graham, 2006; Radden, 2004.
- 29. In philosophy, 'syncretism' refers to the mixing of fragments of doctrines and views without bothering about their contradicting each other (for a comparison of syncretism with 'analysis' and 'synthesis', see Renan, 1890). Comparing *philosophia eclectica* and *philosophia syncretica*, Brucker (1744, Vol. 4: 5) believed, was like comparing light and darkness (et lucem comparemus cum tenebris).
- 30. 'Pluralism' is an old philosophical term which has been rehashed of late to name complex states believed to be refractory to a unifying, unitary, homogeneous account, and which need to be resolved piecemeal by solutions taken from different philosophical systems (Spinner, 1974). Originally developed as a reaction against 19th-century monism, the pluralist movement included thinkers like Lotze, Wundt and Renouvier (Bœx-Borel, 1909).

In the field of psychiatry pluralism is just another name for the old 'multi-model' solutions of the 1960s (when the issues involved were written about with more grace and scholarship; see, for example, Siegler & Osmond, 1974). The problem with the pluralistic approach is that it makes premature assumptions as to the nature of psychiatry and reflects (rather than analyses) a superficial *Pax Romana* that has been achieved by those practising psychiatry from medical, psychodynamic, behavioural, social, etc., perspectives.

However, the whole point of doing the philosophy of psychiatry is to cut through these arrangements in order to find out whether thinking anew about the fundamental concepts of psychiatry may identify/create a deeper conceptual unity. It is not the job of philosophy tamely to justify the professional parcelling of psychiatric practice but to throw light on its foundations.

- 31. For a recent example of this form of analysis, see Berrios & Marková, 2006.
- 32. See: Blanc, 1998; Galimberti, 1999; Lanteri-Laura 1991, 1963; Laudan, 1983; Palmer 1952; Reznek, 1991; Rigoli, 2001; Sass, 1992; Sauri, 1996; Spiegelberg, 1972; Taylor, 1979, etc.
- 33. For example, this was the thinking of Henry Wilde when in 1898 he endowed the 'Wilde

Readership in Mental Philosophy' at Oxford with the provision that the incumbent should treat the 'subject in a non-experimental way'. The fact that the earlier incumbents were either psychiatrists or theoretical psychologists (Stout, McDougall, Brown, Farrell) did conceal the ideological bias built into these terms of reference. It became patent after the appointment to the (now) Wilde chair of professional philosophers (Evans, McGinn, Davies, Campbell, and Davies again) (Oldfield, 1950).

- 34. For a criticism of this naïve view, see Bennett and Hacker, 2003.
- 35. Philosophizing on madness does of course start much earlier and can be found in, *inter alia*, Erasmus, Hobbes, Descartes, Spinoza, Locke, Hartley and Priestley. The specific issue about Crichton is that he was a physician who, while writing a book on mental derangement, decided to draw from it some philosophical implications. Chiarugi, Reil, Heinroth, Pinel, Esquirol, Royer-Collard, etc., did likewise.
- 36. He wrote a confidential report on the mental state of George III, but this was never published.
- 37. Here Pinel seems to be making a difference between the classical concept of passion which at the time was already on its way out and the new concept of 'emotions', a term which Brown was going to introduce for such non-cognitive phenomena in 1820 (Dixon, 2003).
- 38. Here Pinel was quoting himself from a publication of 1798; see Gauchet and Swain, 1980: 347.
- 39. For information on Laycock see: James, 1996; Leff, 1991.
- 40. On Tuke, see: Ireland, 1895; Renvoize, 1991.
- 41. Note appearing in page 5 of D. H. Tuke's copy of Crichton's book; deposited in the library of the Royal College of Psychiatrists, London, UK.
- 42. Upon graduating in 1784, Crichton became a member of the Royal Physical Society. Founded in 1771 and chartered in 1788, this Society was dedicated to the natural and physical sciences; its membership included amateur naturalists some of whom were also moral philosophers. In that company, it is most unlikely that Crichton would not have heard of Reid or Stewart. The latter had started teaching moral philosophy in Edinburgh in 1778 when he was asked to stand in for Adam Ferguson who formed part of the British Delegation that visited the USA, following the British defeat at Saratoga.
- 43. In his important book on the influence of Scottish Common Sense philosophy in Germany, Kuehn (1987) states that Göttingen University (where Crichton spent some time studying) was one of its main German receptors, listing Feders and Meiners as examples of followers of the Scottish ideas. Indeed, one of the books that Crichton (1798: xxviii) mentions as having influenced him greatly is Feder's 'excellent work on the human will'. Johann Georg Heinrich Feder (1740–1821) was a Bavarian thinker who, following the Scottish Ideas, opposed Kant's philosophy (Ziegenfuss, 1949). The book Crichton refers to is the *Grundlehren* (Feder, 1785). Christoph Meiners (1747–1810) was the other follower of Scottish philosophy at Göttingen University. Also opposed to Kant, he published an important book on psychology based on associationism (Meiners, 1786) which is not mentioned by Crichton.

References

Allen, R. C. (1999) *David Hartley on Human Nature* (New York: State University of New York Press).

- Appleby, J. H. (2004) Crichton, Sir Alexander (1763–1856). In Oxford Dictionary of National Biography (Oxford: Oxford University Press).
- Bambach, C. R. (1995) *Heidegger, Dilthey, and the Crisis of Historicism* (Ithaca: Cornell University Press).
- Bazin, G. (1986) Histoire de l'histoire de l'art (Paris: Michel).
- Bennett, M. R. and Hacker, P. M. S. (2003) *Philosophical Foundations of Neuroscience* (Oxford: Blackwell).
- Berrios, G. E. (1981) Delirium and confusion in the 19th century. *British Journal of Psychiatry* 139, 439–49.
- Berrios, G. E. (1984) Descriptive psychopathology: Conceptual and historical aspects. *Psychological Medicine*, 14, 303–13.
- Berrios, G. E. (1988) Melancholia and depression during the 19th century. A conceptual history. *British Journal of Psychiatry*, 153, 298–304.
- Berrios, G. E. (1992) Phenomenology, psychopathology and Jaspers: a conceptual history. *History of Psychiatry*, 3, 303–27.
- Berrios, G. E. (1994) Historiography of mental symptoms and diseases. *History of Psychiatry*, 5, 175–90.
- Berrios, G. E. (1996) History of Mental Symptoms. The History of Descriptive Psychopathology since the 19th Century (Cambridge: Cambridge University Press).
- Berrios, G. E. (1999a) Delirium. History of Psychiatry, 10, 525-42.
- Berrios, G. E. (1999b) Haematoma auris. History of Psychiatry, 10, 371-83.
- Berrios, G. E. (2007, in press) The history of psychiatric treatments. In P. Tyrer and K. Silk (eds), *The Cambridge Handbook of Effective Treatments in Psychiatry*, Vol. 1 (Cambridge: Cambridge University Press).
- Berrios, G. E. and Marková, I. S. (2002) Biological psychiatry: conceptual issues. In H. D'Haenen, J. A. den Boer and P. Willner (eds), *Biological Psychiatry* (New York: John Willey), 3–24.
- Berrios, G. E. and Marková, I. S. (2006) Symptoms historical perspective and effect on diagnosis. In M. Blumenfield and J. J. Strain (eds), *Psychosomatic Medicine* (Philadelphia: Lippincott Williams & Wilkins), 27–38.
- Blanc, C. J. (1998) Psychiatrie et pensée philosophique (Paris: L'Harmattan).
- Bloor, D. (1991) *Knowledge and Social Imagery*. 2nd edn (Chicago: The University of Chicago Press).
- Blumenbach, J. F. (1792) An Essay on Generation, translated by A. Crichton (London: T. Cadell); originally published in German: Über den Bildungstrieb und das Zeugungsgeschäfte.
- Boas, M. (1952) The establishment of the mechanical philosophy. Osiris, 10, 412-541.
- Bœx-Borel, J. H. (1909) Le Pluralisme, essai sur la discontinuité et l'hétérogénéité des phénomènes (Paris: Alcan).
- Braun, L. (1973) Histoire de l'histoire de la philosophie (Paris: Ophrys).
- Brucker, J. (1742-67) Historia Critica Philosophiae. 6 vols (Bern: Christoph Breitkopf).
- Canguilhem, G. (1975) *Le Normal et le pathologique*. 3rd edn (Paris: Presses Universitaires de France).
- Chertok, L. (2000) La Relation médecin-patient (Paris: Les Empêcheurs de penser en rond).
- Collins, R. (1998) *The Sociology of Philosophies* (Cambridge: The Belknap Press of Harvard University Press).
- Crichton, A. (1798) An Inquiry into the Nature and Origin of Mental Derangement. 2 vols (London: Cadell, Junior & Davies).
- D'Amico, R. (1989) Historicism and Knowledge (London: Routledge).

- Descartes (1967) *The Philosophical Works of Descartes*, translated by E. S. Haldane and G. R. T. Ross, Vol. 1 (Cambridge: Cambridge University Press).
- Descartes (1996) Œuvres de Descartes, edited by Charles Adams and Paul Tannery, Vol. VII (Paris: Vrin).
- Diogenes Laertius (1972) *Lives of Eminent Philosophers*, translated by R. D. Hicks. 2 vols (Cambridge: Harvard University Press).
- Dixon, T. (2003) From Passions to Emotions (Cambridge: Cambridge University Press).
- Eisler, R. (1910) Verstehen. In R. Eisler (ed.), Wörterbuch der philosophischen Begriffe. Vol 3 (Berlin: Mittler & Sohn), 1672-3.
- Engel-Janosi, F. (1944) *The Growth of German Historicism* (Baltimore: The Johns Hopkins Press).
- Feder, J. G. H. (1785) Grundlehren zur Kenntnis des menschlichen Willens und der natürlichen Gesetze des Rechtverhaltens. 2 vols (Gottingen: J. C. Dieterich).
- Förstl, H. and Rattay-Förstl, B. (1992) Karl Philipp Moritz and the Journal of Empirical Psychology: an introductory note and a series of psychiatric case reports. *History of Psychiatry*, 3, 95–115.
- Fulford, K., Thornton, T. and Graham, G. (2006) Oxford Companion of Philosophy and Psychiatry (Oxford: Oxford University Press).
- Galimberti, U. (1999) Psiquiatria e fenomenologia (Roma: Feltrinelli).
- Gauchet, M. and Swain, G. (1980) La Pratique de l'esprit humain (Paris: Gallimard).
- Geldsetzer, L. (1989) Philosophiegeschichte. In J. Ritter and K. Gründer (eds), *Historisches Wörterbuch der Philosophie*. Vol. 7 (Darmstadt: Wissenschaftliche Buchgesellschaft), 911–22.
- Ghaemi, S. N. (2003) *The Concepts of Psychiatry* (Baltimore: The Johns Hopkins University Press).
- Gieryn, T. F. (1999) Cultural Boundaries of Science (Chicago: The University of Chicago Press).
- Glock, H. J. (2005) Wittgenstein and history. In A. Pichler and S. Säätelä (eds), Wittgenstein: The Philosopher and his Works (Working Papers from the Wittgenstein Archives at the University of Bergen, No. 17), 236–62.
- Golinski, J. (1998) Making Natural Knowledge. Constructivism and the History of Science (Cambridge: Cambridge University Press).
- Grave, S. A. (1960) The Scottish Philosophy of Common Sense (Oxford: Clarendon Press).
- Hammond, P. E. (ed.) (1985) The Sacred in a Secular Age: Towards a Revision in the Scientific Study of Religion (Berkeley: University of California Press).
- Hempel, C. (1965) Fundamentals of taxonomy. In C. Hempel, *Aspects of Scientific Explanation* (New York: Free Press), 137–54.
- Heumann, C. A. (1715–28) Acta philosophorum, das ist: Gründliche Nachrichten aus der Historia Philosophica: nebst beygefügten Urtheilen von denen dahin gehörigen alten und neuen Büchern (Halle: Renger).
- Ireland, W. W. (1895) Daniel Hack Tuke MRCS, MD, LLD. Journal of Mental Science, 41, 377-86.
- James, F. E. (1996) The life and work of Thomas Laycock 1812–1876. PhD thesis, University of London.
- Juncker, J. (1736) Conspectus Pathologiae: Ad Dogmata Stahliana Praecipve Adornatae Et Semeiologiae Potissimvm Hippocratico-Galenicae. In Forma Tabvlarvm Repraesentatvs (Halle: Halae-Magdebvrgicae Impensis Orphanotrophei).
- Kendell, R. E. (1975) The Role of Diagnosis in Psychiatry (Oxford: Blackwell).

- Kendler, K. (2005) Toward a philosophical structure for psychiatry. *American Journal of Psychiatry*, 162, 433–40.
- King, L. (1964) Stahl and Hoffman: a study in 18th century animism. *Journal of the History of Medicine*, 19, 118–30.
- Kuehn, M. (1987) Scottish Common Sense in Germany 1768–1800 (Kingston: McGill-Queen's University Press).
- Kusch, M. (1995) Psychologism. A Case Study in the Sociology of Philosophical Knowledge (London: Routledge).
- Laín-Entralgo, P. (1982) El Diagnóstico médico (Barcelona: Salvat).
- Laín-Entralgo, P. (1983) La Relación médico-enfermo (Madrid: Alianza Editorial).
- Lanteri-Laura, G. (1963) La Psychiatrie phénoménologique (Paris: Presses Universitaires de France).
- Lanteri-Laura, G. (1991) Psychiatrie et connaissance (Paris: Sciences en Situation).
- Laporte, J. (2004) Natural Kinds and Conceptual Change (Cambridge: Cambridge University Press).
- Laudan, L. (ed.) (1983) Mind and Medicine (Berkeley: University of California Press).
- Leff, A. (1991) Thomas Laycock and the cerebral reflex: a function arising from and pointing to the unity of nature. *History of Psychiatry*, 2, 385–407.
- Marková, I. S. (2005) Insight in Psychiatry (Cambridge: Cambridge University Press).
- Markus, R. A. (1970) Saeculum: History and Society in the Theology of St. Augustine (Cambridge: Cambridge University Press).
- McCarthy, T. (1974) The operation called *Verstehen*: towards a redefinition of the problem. In K. F. Schaffner and R. S. Cohen (eds), *Boston Studies in the Philosophy of Science. Vol XX. Proceedings of the 1972 Philosophy of Science Association* (The Netherlands: Reidel), 167–93.
- Meiners, C. (1786) Grundriss der Seelenlehre (Lemgo, Germany: Meyer).
- Micale, M. S. and Porter, R. (eds) (1994) *Discovering the History of Psychiatry* (Oxford: Oxford University Press).
- Morris, W. (1972) Toward a New Historicism (Princeton: Princeton University Press).
- Oldfield, R. C. (1950) Psychology in Oxford 1898–1949. Bulletin of the British Psychological Society, (July-Oct.), 1–14.
- Palmer, H. (1952) The Philosophy of Psychiatry (New York: Philosophical Library).
- Passmore, J. (1966) Philosophy, historiography of. In P. Edwards (ed), *The Encyclopaedia of Philosophy*. Vol. 6 (London: Collier MacMillan), 226–30.
- Piaia, G. (2001) Brucker versus Rorty? On the 'Models of the Historiography of Philosophy'. British Journal for the History of Philosophy, 9, 69–81.
- Pinel, Ph. (1801) Traité médico-philosophique sur l'alienation mentale, ou la manie (Paris: Richard, Caille et Ravier).
- Priestley, J. (1777) Disquisitions Relating to Matter and Spirit: To which is Added, the History of the Philosophical Doctrine Concerning the Origin of the Soul, and the Nature of Matter; with its Influence on Christianity, Especially with Respect to the Doctrine of the Pre-existence of Christ (London: J. Johnson).
- Radden, J. (ed.) (2004) The Philosophy of Psychiatry (Oxford: Oxford University Press).
- Rather, L. G. (1961) G. E. Stahl's psychological physiology. *Bulletin of the History of Medicine*, 35, 37–49.
- Renan, E. (1890) L'Avenir de la science. Pensées de 1848 (Paris: Calmann Lévy).
- Renvoize, E. (1991) The Association of Medical Officers of Asylums and Hospitals for the Insane, The Medico-Psychological Association, and their Presidents. In G. E. Berrios

- and H. Freeman (eds), 150 Years of British Psychiatry 1841-1991 (London: Gaskell), 50-2.
- Reznek, L. (1991) The Philosophical Defence of Psychiatry (London: Routledge).
- Riesterer, B. P. (1969) Karl Löwith's View of History: A Critical Appraisal of Historicism (The Hague: Martinus Nijhoff).
- Rigolo, J. (2001) Lire le délire (Paris: Fayard).
- Rorty, R. (1984) The historiography of philosophy: four genres. In R. Rorty, J. B. Schneewind and Q. Skinner (eds), *Philosophy in History* (Cambridge: Cambridge University Press), 49–75.
- Sankey, H. (1994) The Incommensurability Thesis (Sydney: Averbury Press).
- Sass, L. A. (1982) Madness and Modernity (New York: Basic Books).
- Sauri, J. J. (1996) El naturalismo psiquiátrico (Buenos Aires: Lohlé).
- Schneider, U. J. (1992) A bibliography of nineteenth-century histories of philosophy in German, English, and French (1810–1899). Storia della Storiografia, No. 21, 141–68.
- Siegler, M. and Osmond, H. (1974) Models of Madness, Models of Medicine (London: MacMillan).
- Spiegelberg, H. (1972) *Phenomenology in Psychology and Psychiatry* (Evanston: Northwestern University Press).
- Spinner, H. F. (1974) Pluralismus als Erkenntnismodell (Frankfurt am Main: Suhrkamp).
- Stanley, T. (1655) The History of Philosophy, Containing Those on Whom the Attribute of Wise was Conferred, First Volume (London: Moseley and Dring).
- Taylor, F. K. (1979) *The Concepts of Illness, Disease and Morbus* (Cambridge: Cambridge University Press).
- Tennemann, W. G. (1798–1819) Geschichte der Philosophie. 11 vols (Leipzig: Johann Ambrosius Barth).
- Thomas, D. O. (1977) The Honest Mind: The Thought and Work of Richard Price (Oxford: Clarendon Press).
- Tiedemann, D. (1791-97) Geist der spekulativen Philosophie. 6 vols (Marburg: Neue Akademische Buchhandlung).
- Trabant, J. (1994) Neue Wissenschaft von alten Zeichen: Vicos Sematologie (Frankfurt am Main: Suhrkamp).
- Trompf, G. W. (1979) The Idea of Historical Recurrence in Western Thought. From Antiquity to the Reformation (Berkeley: University of California Press).
- Unzer, J. A. (1746a) Neue Lehre von den Gemüthsbewegungen (Halle: Hemmerde).
- Unzer, J. A. (1746b) Gedancken vom Einfluß der Seele in ihren Körper (Halle: Hemmerde).
- Unzer, J. A. (1746c) Gedancken vom Schlafe und denen Träumen (Halle: Hemmerde).
- Unzer, J. A. (1771) Erste Gründe einer Physiologie der eigentlichen thierischen Natur thierischer Körper (Leipzig: Weidmann).
- Unzer, J. A. (1851) The Principles of Physiology. And a Dissertation on the Functions of the Nervous System by George Prochaska. Translated and edited by Thomas Laycock (London: Sydenham Society).
- Walton, C. (1977) Bibliography of the historiography and philosophy of the history of philosophy. *International Studies in Philosophy*, 9, 135–66
- Weiner, D. B. (1990) Mind and body in the clinic: Phillip Pinel, Alexander Crichton, Dominique Esquirol, and the birth of the clinic. In G. Rousseau (ed.), *The Languages of the Psyche* (Berkeley: University of California Press), 331–402.
- Wittgenstein, L. (1963) Tractatus Logico-Philosophicus. A New Translation by D. F. Pears and B. F. McGuinness (London: Routledge & Kegan Paul).

- Wittgenstein, L. (1979) *Notebooks 1914–1916*. English translation by G. E. M. Anscombe and E. D. Klemke (Oxford: Basil Blackwell).
- Wright, J. K. (2003) History and historicism. In T. M. Porter and D. Ross (eds), *The Cambridge History of Science. Vol 7: The Modern Social Sciences* (Cambridge: Cambridge University Press), 113–30.
- Yolton, J. W. (1983) *Thinking Matter: Materialism in Eighteenth Century Britain* (Minneapolis: University of Minnesota Press).
- Ziegenfuss, W. (1949) *Philosophen-Lexikon. Handwörterbuch der Philosophie nach Personen.* Vol. 1 (Berlin: Walter de Gruyter).

Classic Text No. 68

'Mind in general'1

by Sir Alexander Crichton

[Author's summary omitted]

The attempt to define the nature of the mind, or soul, is as vain and presumptuous an undertaking as it is to try to find out, by thought alone, the nature of the Almighty: or whether he existed before time, or had himself a beginning. We have no means of throwing any light on such subjects as these, inasmuch as we have neither any direct facts which explain them, nor have we even the most distant analogies to justify and direct speculation. Whether we elevate our thoughts to the heavens and consider the various constellations which enlighten the firmament, in the hope of discovering its wonderful fabric, or depress them to the globe which we inhabit, and analyze the many objects it presents to our senses; whether we take a grand and comprehensive view of the whole frame, and structure of the world, or examine with a curious and inquisitive eye, the minuter parts of which it is composed, we shall find on every hand certain boundaries, beyond which it is impossible to penetrate either with success or safety.

The limits of human reason are clearly marked, and may be easily discerned by every inquirer, with whatever ardor his researches be conducted, provided his judgment be not fascinated by the passion of pride, or not encumbered with the strange and irremovable prejudice, that the powers and perfection of man have no limits.

The conclusions, indeed, which are drawn concerning the more hidden secrets of nature, by some great luminaries of the present age, are done with so much apparent ease and quickness, as to shew that they have not run any