Introduction

'Physiognomy, whether understood in its most extensive or confined signification, is the origin of all human decisions, efforts, actions, expectations, fears, and hopes', Johann Caspar Lavater wrote in *Essays on Physiognomy* (1789–93); 'from the cradle to the grave . . . from the worm we tread on to the most sublime of philosophers . . . physiognomy is the origin of all that we do and suffer'.[1] To modern readers, Lavater's claim for physiognomy as the most fundamental form of action seems hopelessly ambitious and perhaps more than faintly ridiculous. Yet it was due to his work that physiognomy was popular throughout the nineteenth century as a means of describing character through expression. Physiognomy was, to Lavater, the root of human actions, sensations, and beliefs because it described and explained the most natural responses of individuals to each other – acts of judgement – and placed them within a religious framework. Suppose, he said, we take the example of a man in the company of a stranger, the man will 'observe, estimate, compare, and judge him, according to appearances, although he might never have heard of the word or thing called physiognomy; [there is] not a man who does not judge of all things which pass through his hands, by their physiognomy; that is, of their internal worth by their external appearance'.[2] The idea was that physiognomy offered a spiritual guarantee that anyone could read the appearances of things in the world and then form a judgement on the basis of their essential though hidden value. If we conceive human nature primarily in terms of self, feelings, and identity, Lavater seems to imply, then our relations with others are such that we instinctively make quite profound judgements of what we see without considering the reasons for doing so. Thus, physiognomy defines and attempts to explain the scope of these instinctive responses, focussing not on why we make such judgements but on the fact that we do, and so places the

burden of judgement on the observation of actualities rather than the explanation of causes, with the latter naturally only explicable with reference to a divinity.

A contemporary definition from the fourth edition of *The Encyclopaedia Britannica* (1810) spells this out. Physiognomy, it says, 'is a word formed from the Greek for nature, and I know', and it means 'the knowledge of the internal properties of any corporeal existence from the external appearances. [Physiognomists] among physicians, denote such signs as, being taken from the countenance, serve to indicate the state, disposition, &c. both of the body and mind: and hence the art of reducing these signs to practice is termed physiognomy'.[3] The practice of physiognomy, as defined above, is concerned with natural knowledge; that is to say knowledge which is instinctive and, as such, distinct from that which is learnt or acquired, or, to put it in other words, the product of an involuntary as opposed to a voluntary response. So, the natural in this knowledge seems to imply the kind of knowledge which develops from an instinctive grasp of the correspondences between the external form and the internal properties of living forms and, in particular, human beings. This knowledge is complex but it is, nonetheless, accessible to everyone because it involves what actually exists in the organic world, and requires only that the process of reduction – the seeing of the external as a sign or index of the internal – be learned. On the basis of this definition, physiognomy seems to serve a social as well as a religious function as it posits an understanding of the inner meaning of human nature from the observations of actual appearances – facial expressions are used in this context to tell us about the kind of person we see before us by virtue of the fact that the expression of a specific kind of emotion stands for a standard type of character. That which we take to be peculiar and distinctive to an individual then becomes that which is common and ordinary to all individuals. Conceived in this light, the crux of physiognomic practice is a classificatory act which functions in a profoundly normative manner in so far as it takes a particular expression as the exemplification of a general kind and then uses this to describe the character of an individual.

The fit between particular and general is important because it indicates the strength of physiognomic practice and points also to its weakness. Lavater's goal was to construct a scheme of classification adequate to describing the variety of human nature. Although the

aim was to provide an economy of explanation for a large number of natural phenomena, the emphasis of Lavater's work was on the social relations of individuals which were, he claimed, explicable mainly through facial expression. In order to describe individual expressions in terms of general types, he translated the bewildering complexity of particular expressions into simple facial signs and so offered a normative scale of seeing – one which was based, however, on subjective measures. The interest in physiognomical teachings depended on such subjective measures, and Lavater was not alone in proposing explanations of the emotions from the correspondences between expression and emotion.

This book explores changing understandings of expression, primarily the expression of the emotions, and principally via the face, from the English publication of Lavater's *Essays on Physiognomy* (1789) to the publication of Francis Galton's *Hereditary Genius* (1892).[4] What is involved in expression is a complex issue, far removed from what physiognomy in the form developed by Lavater is prepared to acknowledge. The key question is whether we can take a snapshot of an individual based on their appearance or how they look. Physiognomic practice assumes the picture it draws of an individual is truthful because it is derived from what the external appearance of an individual tells us about their internal nature, even though the latter is conceptualised within strict codes. This attempt to describe the core of our nature, or what defines us as human beings, is an age-old pursuit which is at once interesting and perplexing, and continues to arouse an equal amount of ambitious claims and unbridled curiosity in our present age.[5] In its physiognomic form, this pursuit is ultimately doomed to fail as it offers false claims about human existence based on the idea that the character and behaviour of an individual, and his/her activity in society, are explicable through facial expression. Hence, the significance of physiognomy lies in its consequences rather than the reality it constructs. It is through the primitive perspective on human nature which it advances, I suggest, that we can see the tentative beginnings of a tradition of modern psychological thought. What emerges in the later nineteenth and early twentieth century as a psychological account of human character and behaviour – a science of the mind – is both the long-term outcome of physiognomical teachings and the reason for their dissolution. As John Stuart Mill declared in an essay on Alexander Bain's *Senses and*

Intellect (1855), 'The sceptre of psychology has decidedly returned to this island and the scientific study of mind, which for two generations, in many other respects distinguished for intellectual activity, had, while brilliantly cultivated elsewhere, been neglected by our countrymen, is now nowhere prosecuted with so much vigour and success as in Great Britain.'[6] Placed in the context of theories of expression presented by Charles Bell, Alexander Bain, Charles Darwin, and Francis Galton, Lavater's physiognomical teachings assume an important role not only in laying the groundwork for the development of theories of expression derived from physiology, but also in representing the tensions and contradictions of nineteenth-century scientific thought. The marked renewal of interest in physiognomy in the nineteenth century is prompted by the ease which with Lavater's teachings could, with a little help, be learnt from everyday life and then applied to make sense of that life; and, as I shall demonstrate, the fact that Lavater proclaimed this to be a scientific mode of analysis served only to increase its popular appeal.

Physiognomy has a long and chequered history, from the classical tradition of Aristotle, to Giovanni Battista della Porta and Charles Le Brun in the sixteenth and seventeenth centuries, and Lavater, Bell, and Darwin in the nineteenth century.[7] Throughout this time, it seems to have aroused such conflicting emotions that it has been both lauded as a source of knowledge about nature and man, and disparaged as a mystical and highly deterministic practice. However, it is the emergence of physiognomy in the nineteenth century which has received the most critical attention. John Graham's studies of the 1960s serve as invaluable reference works for scholars interested in physiognomy, as they consider the development of Lavater's ideas and trace the importance of physiognomic practice in England in the nineteenth century.[8] Graeme Tytler's later work in the 1980s is also significant as it was probably the first study to draw a clear parallel between physiognomy and literature; the revival of interest in physiognomy after Lavater is the result of 'various cultural forces' which have, Tytler claims, a clear literary bent.[9] Yet, in general, studies of physiognomy have tended to emphasise the use of physiognomy as a hermeneutic praxis over its theoretical foundations, and usually in isolation from contemporary debates on man, mind, and nature.[10] These studies are not unimportant (nor indeed uninteresting) but they only give part of the picture necessary for

understanding physiognomy as the impetus for the development of theories of expression.

The nineteenth century was a period in which man's place in nature was the subject of intense and often heated debate, specifically amongst the scientific community.[11] Adrian Desmond's intelligent and insightful study of the debates about the development of the organic world (before Darwin) presents an incredibly detailed picture of the issues, arguments, and figures which enter the arena at various stages of the discussions. It is necessary to have 'an unashamedly political perspective', Desmond argues, to 'examine the reasons why the radicals exploited the doctrines of nature's self-development and how these ideas served their democratic ends'.[12] The richness and density of debate was such that an understanding of the laws in nature did not preclude a belief in the actions of a higher law-maker, though admittedly this was a truly contentious issue. New ideas about the development of life on earth and new explanations of its natural phenomena offered compelling models of the history, structure, and function of the organic world – based for instance on the geology of Charles Lyell, the comparative anatomy of Georges Cuvier, the physiology of W. B. Carpenter and Alexander Bain, or the evolutionary theory of Charles Darwin and Alfred Russel Wallace – and demonstrated that it was no longer necessary to place man at the centre of explanations of change and transformation.[13] But this was also a period which inherited and went on to explain physiognomical teachings which seemed to affirm the purpose and design of a natural order of things. 'The encoding of human types through physiognomy, in art as in life', Mary Cowling claims, 'was a means of bringing order into an ever-increasing, even bewildering variety of human types and social classes: a localized variation of what was being performed on a global scale by anthropologists'.[14] Cowling's study presents physiognomy as a form of hermeneutics which was used frequently in artistic and literary contexts as an important means of characterising subjects. Cowling argues that the popularity of physiognomy derived from its capacity to employ typological forms of classification, and as a result it became an important resource for, and was often appropriated by, mid-nineteenth-century genre painters like William Powell Frith, William Maw Egley, and George Elgar Hicks. Persuasive though Cowling's work is about the use of physiognomy to underwrite literary and artistic practice, the extent to which physiognomy fitted into the

wider debates of the time about the organic world is assumed rather than explained. What did the natural order look like? Were there laws in nature? How did these affect (human) action and expression? It is precisely these questions which I shall undertake to explore, with the intention of evaluating physiognomy in the light of new scientific debates about man, mind, and nature. It is not insignificant that physiognomy became popular during the nineteenth century at a time when fundamental questions were being asked of natural phenomena, but, unlike Cowling, I argue that there is a direct relationship between physiognomy and new debates about the structure and function of the world; in my opinion, physiognomy both responds to and reacts against different conceptions of change in the organic world.

There is no doubt that the emergence of physiognomy in the nineteenth century as a popular phenomenon was due in large part to the moral framework it provided for everyday life with all its 'decisions, efforts, actions, expectations, fears, and hopes'. Despite, or more probably because of its claims to moral authority, physiognomy seems to have aroused considerable attention amongst the philosophical and scientific communities of the time, raising a number of issues about the meaning of expression. What is the purpose of expressions? What is the relationship between expressions and emotions? Is an understanding of expressions innate or learned? Does an explanation of the expression of the emotions tell us anything about human nature, character, and behaviour? These are the sort of questions a number of leading thinkers (such as Bain, Darwin, and Galton) asked as they attempted to discredit a physiognomic account of expression and put in its place a scientific understanding of expression based on physiological ideas of its function.[15] Physiognomy toed an orthodox religious line, disseminating a theological world view in which the appearance of things was ultimately taken as a sign that the creator was active in the world; theories of expression based on physiology, on the other hand, presented a more heterodox view of the organic world in so far as they stressed the integration of mind into body. The latter reflects the growing importance of materialism, emerging first in this study in the work of David Hartley followed by Charles Bell; if accepted – and it was not always a straightforward acceptance, as the examples of Hartley and Bell show (compared to Bain and Spencer, for instance) – theories of matter worked against the idea

that we can infer an inner meaning from the appearances of things in the world, and proposed instead an understanding of expression conceived in terms of physiological function, in particular at a neural or muscular level.

That said, the distinction between orthodox and heterodox views of the world requires clarification if it is to be used in the context of nineteenth-century scientific thought. Historical writing on nineteenth-century science has changed radically over the past thirty years. Whiggish accounts of scientific discovery and progress have been replaced by a contextualising approach which considers the network of institutions and affiliations, theories and practices within which any claims for science (or indeed any epistemological claims) should be discussed. Thomas Kuhn's account of the development of normal science – or work which uses existing theories to predict certain factual outcomes – as the result of a series of intellectual revolutions has strongly influenced this change of direction in the history of science.[16] He claimed that our image of science as *the* paradigm of rationality embedded in specific institutions is seriously distorted; instead of viewing the scientist wielding his scientific method on a path towards truth, he proposed a characterisation of science which takes account of the social realities and cultural pressures within which scientific practice is embedded.[17] It is against this background that recent work in the history of science has helped us appreciate the fluid and often loose definitions of science and scientific communities.[18] 'Early Victorian science was volatile and underdetermined', Alison Winter has argued, 'people could not agree about what one could safely claim about natural law, nor was it obvious when, where, and to whom such claims could be made'.[19] It is into this context of an open and heterogeneous scientific community that physiognomy should be placed: admittedly, it is a discipline with an unusual constituency, but it does involve a loose definition of science which reflects the wider debates about the status of science and the claims made for it.

Physiognomy was presented as a science of mind designed to reveal the moral order: it was, Lavater believed, an orthodox science and yet it was rejected by sceptics on the grounds that it was a profoundly unorthodox version of a science of mind.[20] The point is that the orthodoxy of physiognomy within a religious framework was not sufficient to guarantee the orthodoxy of physiognomy within a scientific one. Yet the physiognomic practice of the nineteenth

century was founded on a double-edged appeal, towards religion on the one hand and science on the other. Placed alongside the scientific projects of, say, geology, physiology, and biology, it is impossible to make physiognomy stand up in equivalent terms, but if we place it alongside the projects of phrenology and mesmerism, for instance, physiognomy starts to look more plausible as a form of what has been variously termed 'pseudo'-science, 'alternative' science, or even 'quackery'.[21] The problem is that characterisations of phrenology, mesmerism, and physiognomy as 'pseudo' or 'alternative' forms of scientific inquiry presuppose that we can identify claims about the organic world as falling on one side or other of a boundary line which demarcates what is science from what is not, and in this way define the realm of science proper. However, as Winter implies, the notion of a boundary line between science and non-science has the effect of smoothing over the diversity of opinion in the scientific communities of the nineteenth century and positing in its stead a rather singular and monolithic view of science – a view which scholarship on the period has now affirmed was not evident. 'If proper science could be defined differently in different contexts', Winter concludes, 'then scientific claims could have radically different status and even, perhaps, different meanings depending on where they were read or heard and by whom'.[22] The question we should ask of physiognomy, then, is not whether it counts as proper science but what kind of claims it makes about its practice as scientific. In other words, because it defines itself as a science of mind, albeit a popular and subjectively grounded science, physiognomy raises important questions about the cultural and epistemological status of science.

Though nineteenth-century discussions of science and scientific method involved some reference to the logical process of scientific discovery, there were some basic epistemological questions about reality which could not be easily dealt with. These included questions on the relationship between observer and observed, the value of scientific knowledge in relation to more intuitive forms of knowledge, and the role of science in society. It is widely thought that William Whewell's pronouncement in his *Philosophy of the Inductive Sciences* (1840) on the need for a name to describe 'a cultivator of science in general' brought the very word 'scientist' into common usage as a term of description.[23] In fact, Whewell had used the term a few years earlier to describe a heated discussion which

had occurred at the newly founded British Association for the Advancement of Science in Cambridge in 1833:

> Philosophers was felt to be too wide and too lofty a term, and was very properly forbidden them by Mr. Coleridge, both in his capacity of philologer and metaphysician; savans was rather assuming, besides being French instead of English; some ingenious gentleman proposed that, by analogy with artist, they might form scientist, and added that there could be no scruple in making free with this termination when we have such words as sciolist, economist, and atheist – but this was not generally palatable.[24]

The sense of this pronouncement is relatively clear – that is to say, there is an activity associated with science which is, fundamentally, a human activity – but it is less obvious here whether the activity of science was, in Whewell's opinion, designed to reflect and reveal the omnipotence of the Creator.[25] An admirable apologist for science, Whewell seemed to appreciate that the task of defining science and the activity of scientists was a cultural and philosophical problem which required considerable thought about the process and end of science. 'It is no easy matter, if it be possible', he wrote, 'to analyse the process of thought by which laws of nature have thus been discovered'.[26] The use of 'process' rather than 'method' is significant here because it suggests the suppleness (or some may say looseness) of Whewell's understanding of science: it represents an attempt to construct a theory of science which drew on both personal experience and rational thought. Such a conception of science was heavily dependent on induction as the mediating link between experience and thought or, as he put it, 'observation of Things without, and in an inward effort of Thought; or, in other words, Sense and Reason'. 'The impressions of sense', he went on, 'unconnected by some rational and speculative principle, can only end in a practical acquaintance with individual objects . . . [whereas] the operations of the rational faculties . . . if allowed to go on without a constant reference to external things, can lead only to empty abstraction and barren ingenuity'.[27] The assumption is that sense and reason can co-exist provided there is a place for personal experience in our understanding of science.

Claims about the status of scientific knowledge originate, according to Whewell, from an individual's highly subjective view of the world and become a theoretical construct when the philosopher or scientist recognises the 'Fundamental Idea' which explains observed

phenomena. Truth as such, inductive truth, is not discovered but intuited over a period of time as a result of a prolonged and active engagement between the conceptual framework of the individual and the objects of the external world. 'There are scientific truths which can be seen by intuition', Whewell explained, 'but this intuition is progressive'.[28] In other words, science makes use of Fundamental Ideas to describe the objects of the external world, but because scientfic investigation is an essentially human activity, and truth is a metaphysical form which defies absolute definition, there will always be a residue of truth in the Idea:

> The Idea is disclosed but not fully revealed, imparted but not transfused, by the use we make of it in science. When we have taken from the foundation so much as serves our purpose, there still remains behind a deep well of truth, which we have not exhausted, and which we may easily believe to be inexhaustible.[29]

The whole pattern of Whewell's process of induction – which resembles what is now called the hypothetico-deductive character of developed sciences such as physics or biology – depended upon the emergence of Fundamental Ideas which divulged rather than fully grasped truth, and so presented science as a system of successive generalisations of observed particulars.

The key question asked by Whewell seems to be the following: how do we evaluate claims to knowledge which are at once subjective and theoretical? What is interesting in his reply is the role he accords to intuition in the process of scientific thought, particularly as intuition has an ambiguous philosophical history. Intuition is often taken to mean something like the capacity to arrive at decisions or conclusions without the benefit of conscious, rational thought processes. In its philosophical sense, it has been used to denote the alleged power of the mind to perceive or grasp certain self-evident truths, but its status as a mental process has paled into insignificance next to the analytical rigours of formal logic. A robust rejection of the place of intuition in scientific theorising can be found in the arguments of Lewis Wolpert who claims that science must be considered an 'unnatural' mode of thought. Wolpert's thesis is predicated on a simple binary opposition between what is natural (common sense) and what is unnatural (science). To accept the unnaturalness of science is, according to Wolpert, the first and necessary step towards correcting many of the misunderstandings about science and the status of scientific knowledge: 'doing science