Charles Darwin

THE EXPRESSION OF THE EMOTIONS IN MAN AND ANIMALS

THIRD EDITION

With an Introduction, Afterword and Commentaries by
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ESSAY ON THE HISTORY OF THE ILLUSTRATIONS BY PHILLIP PRODGER

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INTRODUCTION TO THE THIRD EDITION

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In its wealth of fascinating observations about human and animal expressions this extraordinary book is unparalleled even today, more than one hundred years after it was written. Darwin illuminates not only our expressions, but those of cats, dogs, horses and many other animals. He noticed how we often purse our lips when we are concentrating on doing or remembering something; how in anger we tighten the muscle around our eyes and expose our canine teeth; and how we open our mouths when we listen intently. We want to touch with our faces those we love; we can bite affectionately – not only humans do this; so do dogs and cats. Pleasure is demonstrated in quite different ways in our domesticated animals, Darwin reminds us: cats purr and rub against us, while dogs lick us and wag their tails. In anger that tail acts quite differently in dogs, cats and horses. These are just a small sample of the fascinating observations Darwin describes in each chapter.

Darwin was more than just a close and careful observer, he was an explainer. For each and every expression, Darwin asks and answers the question of why a particular movement, rather than some other, occurs with a particular emotion. Why do we purse rather than press our lips when we concentrate? Why do we bite rather than lick when we feel affectionate? He tells us why just the inner corners of our brows, rather than the entire brow, are pulled up when we feel sorrow. He tells us why we blush with embarrassment instead of our skin becoming pale. For this emotion – embarrassment – Darwin provides more than an explanation for how it is expressed, he gives us a penetrating analysis

of the emotion itself. Can we become embarrassed when we are totally alone or is this a uniquely social emotion? Are all emotions social or can we feel anger, fear, sadness, and enjoyment when we are alone as well as when we are with others?

We find in this book Darwin's answers not only to these intriguing questions but to much grander ones as well. A fundamental question is whether we *learn* which expressions to make when we are angry, sad or happy, or whether such 'knowledge' is innate. Are expressions, like the words we speak, different in every language, or are they the same for all people, no matter who those people are, where they live, the culture they grow up in or the language they speak? What about the head nods and shakes we use to say 'yes' and 'no', and the shrug for 'I don't know'? Are they also universal, or are they body language, different in each dialect group? Darwin argues that our expressions of emotion are universal (that is, innate not learned) and the product of our evolution. Neither our expressions nor our emotions are unique to human beings; other animals have some of the same emotions, and some of the expressions shown by animals resemble our own.

The distinction between emotional expressions and gestures has been incorporated in current work on non-verbal communication. While gestures can refer to nearly anything – thoughts, plans, actions, wishes, fantasies, and so forth – the expressions pertain simply to the emotions. Expressions typically involve the face and the voice and, to a much lesser extent, body movement or posture. Darwin focused most on facial expressions, although he gave some attention to other expressions.* Gestures typically are shown in hand movements, although a few involve facial movement. Darwin recognized that gestures are not universal, but are socially learned conventions, varying as language does from one locale to another. But he noted a few exceptions: the

* Most research on expression since Darwin has also focused on the face, not the voice. Recently scientists have made progress in identifying the vocal expressions of emotion. See especially the work of the German psychologist Klaus Scherer.[1]

shrug, for example. While it does not occur in every culture, it is used in so many places that it is hard not to think it is the product of our evolution. Darwin offers an explanation for these nearly universal gestures.

For most of the century after Darwin wrote about expression, his views were rejected or simply ignored. The intellectual and scientific world was dominated by those who saw culture as determining every important aspect of our behaviour. As influential an anthropologist as Margaret Mead[2] claimed that facial expressions differ from culture to culture as much as language, customs, attitudes and values. We may all have the same facial muscles, but they combine to form different expressions of emotion in each culture. Cultural relativists, such as Mead, claimed that the same expression signifies different emotions in different cultures and some expressions, which might be unique to one culture, might never be shown in any other. So a smile could signify anger in one culture, joy in another, sadness in yet another, and there might be no smile in still another. Just as there are different words for happiness in each language, there would be a different expression for happiness. A few scientists went so far as to claim that the very idea of emotions was an invention of Western culture. Emotions are a fiction (they said) – an explanatory device used in some cultures to explain what they do; emotions have no biological or psychological reality.

Nearly all those who opposed Darwin's view of emotional expression (the 'nurture-not-nature' advocates) argued from the examples or reports of an outside observer in a strange culture. It is easy to be misled in such a situation, to become the victim of preconceptions. In the Afterword I explain more about the problems encountered when a scientist works in a foreign culture, and of my experience working in Papua New Guinea.

Although much of the time Darwin, too, relied upon anecdotal examples, he did attempt to obtain more systematic evidence on the question of universality. He wrote to people, primarily British colonialists, who had travelled or lived in different cultures, asking if they had seen a particular expression when someone felt a particular emotion. In Britain he showed photographs of

expressions to people to find out if they agreed about the emotion shown in each expression. Darwin included some of those pictures in his book, allowing readers to participate in the experiment. We can see whether the message we get from each expression fits with the results Darwin got from his informants. In this same spirit I have included in the Afterword a few of the pictures I took of an isolated, stone-age people in Papua New Guinea thirty years ago. Readers can judge for themselves whether or not they can understand the expressions of a people from a culture enormously different from their own.

It is only in the last thirty years that systematic research using quantitative methods has tested Darwin's ideas about universality. I was one of the first to do such research, and I expected I would prove Darwin wrong. My findings caused me and many other social and behavioral scientists to change their mind. While most now accept the evidence for universality, there are still a few vocal critics who argue that emotional expressions are culture-specific, like language, or don't exist at all. In the Afterword I describe the history of this argument, the reasons why it became so impassioned, and the evidence, showing that the issues Darwin raised are alive and relevant today.

Darwin asked a question about emotional expression that few other scientists asked in his own time or since. Most scientists studying emotion and expression address the 'what', 'how' or 'when' question. *What* expressions are shown for each emotion? *How* are they produced? *When* do they occur? Darwin also deals with these, but he was one of the first, and for a long time the only scientist, to ask the 'why' question: *Why* do expressions occur in a particular form?

There is still argument about the validity of the three principles Darwin proposed to answer the *Why* question; that is, why particular expressions are made for particular emotions. He called the first principle 'serviceable habits', by which he meant that some expressions originated in movements useful to our progenitors, similar to what ethologists today call 'intention movements'. His second principle of 'antithesis' claimed that some expressions were selected because they look different from expressions of

opposite emotions. We shrug our shoulders when we feel helpless because it is the opposite of the movements of the arms, shoulders and hands made when we are asserting ourselves aggressively. No one knows if Darwin was right, but it is an ingenious explanation, and better than any other offered for why we shrug when we feel helpless.

His third principle, 'the direct action of the nervous system', was vague, but little was then known about brain activity relevant to emotion. In a letter to a reviewer who had criticized him for not being clear about this principle, Darwin acknowledged the criticism 'was perfectly just' (see commentary, p. 87). Chapter III, about this principle, it is full of fascinating observations about emotion, expression and human nature. For example, Darwin notes how limits on our conscious attention can distract us from feeling pain; how some facial muscles are less subject to our control and betray our true feelings despite our efforts to conceal them; and he provides an amazingly lucid and accurate description of the stages of grief.

Darwin focused his attention on the 'why' question because of its relevance to a much larger issue central to his evolutionary theory: the continuity of species. His purpose was to show, through the study of expression, that humans are not a separate divinely created species. In 1806, one of the leading authorities on expression of the time, Sir Charles Bell, had written an influential book arguing precisely the opposite.* Janet Browne,[4] an English historian and the most recent biographer of Darwin, wrote that Bell '. . . had insisted there were muscles in the human face without analog in the animal kingdom, designed by the Creator for the display of specifically human emotions'. Darwin's book would prove that neither our expressions nor our facial musculature are unique; they are as much the product of our evolution as internal physiology.[5] 'The same principles he

* Bell wrote, '. . . the most remarkable muscle in the human face is the corrugator supercilii which knits the eyebrows with an enigmatic effect which *unaccountably, but irresistibly conveys the idea of mind*' (p. 139). In his copy of Bell's book, Darwin underlined that line and wrote the note, 'monkey here? . . . I have seen well developed in monkeys . . . I suspect he never dissected monkey.'[1]

expounded to explain the origin of human expression – why we make one expression and not another on our face for a given emotion – explain facial expressions, vocalizations, and body movements in other animals. If he convinces us that the same principles explain all primate expressions, we would have to accept the continuity of species, a cornerstone of his evolutionary explanation of the origin of our species. American historian Sandra Herbert put it this way: 'If he could show that man and at least some other animals possessed a similar system of emotional expression, he could substantiate his claim that there existed a gradation among mental phenomena between man and animal.'[6]

The continuity of species is today taken for granted by biologists and nearly all social scientists – but not the general public. A recent public opinion poll in the United States posed this question:

> After I read off three statements, please tell me which one comes closest to describing your views about the origin and development of man:
> * God created man pretty much in his present form at one time within the last 10,000 years. [*46 percent endorsed this view*]
> * Man has developed over millions of years from less advanced forms of life. God had no part in the process. [*9 percent endorsed this view*]
> * Man has developed over millions of years from less advanced forms of life, but God guided this process, including man's creation. [*40 percent endorsed this view*]
>
> [*5 percent were not certain which view to endorse*][7]

More than one hundred years after Darwin, nearly half those questioned reject evolution totally, which is accepted as the sole explanation of our origin by only nine percent of the people polled. In his time, not only did the general populace believe in Creation, so did nearly all scientists. Darwin was keenly aware that his *Origin of Species*, published thirteen years before *Expression* in 1859, was a direct challenge to prevailing views. It caused great controversy, was rejected by orthodox theologians, accepted enthusiastically by many general readers and to Darwin's disappointment, attacked by many in the scientific community.[8]

The last grand issue *Expression* addressed was whether human beings descended from common progenitors (monogenist), or

whether the groups in different geographical locales might have descended from different animal progenitors (polygenist). Racists who considered Africans inferior to Europeans had proposed that they were descended from different ancestors, one less developed than the other. Darwin argued for a single ancestor; that we are one species that came from common progenitors. If expressions were indeed universal, if they could be explained by the same principles for all people, that would add further evidence of common descent. While Darwin regarded his evidence of universality as support for his evolutionary explanation of the origin of our species, a creationist could argue otherwise. If we are all descended from Adam, we would indeed all have the same expressions of emotion. The relevance of expressions to the argument against the creationists rests not on their universality but on showing that these expressions are not unique to man, that the principles which explain why expressions are made apply to species other than humans.

Darwin wrote *Expression* in a very short time, starting two days after he corrected the page proofs of *Descent of Man* (published in 1871) and completing it in four months, before he compiled the sixth and last edition of *Origin of Species*. But he began developing his ideas about expression many years before *Origin* was first published. 'My first child was born on December 27th, 1839, and I at once commenced to make notes on the first dawn of the various expressions which he exhibited, for I felt convinced, even at this early period, that the most complex and fine shades of expression must all have had gradual and natural origin.'[9]

Darwin may have not been entirely candid in describing how he developed his three principles for explaining expressions. American psychologist Howard Gruber wrote that Darwin '... described himself as having conformed to the accepted canons of inductive science, withholding larger judgments until justified by a fullness of observation: [Darwin wrote] "I arrived, however, at these three Principles only at the close of my observations." (*Expression*, Chapter 1, p. 33.) Actually, they all occur in the M and N notebooks, written in 1838–39. [Darwin defended]

his unpopular views by suggesting that he had been driven to them by a mass of unassailable evidence, rather than the less acceptable reality that much of his evidence had been indeed patiently assembled, but only after his views were quite well developed.'[10] Herbert gives a similar account: '... the accepted scientific posture in the 1830s was not that of the theorist. Thus the theoretical Darwin of the late 1830s was forced to mask his own interest under the guise of being a more ordinary practitioner of science than he indeed was.'[11]

Before Darwin, facial expression had been chiefly the concern of physiognomists, who maintained that character or personality was revealed by the static appearance of the face, the size and shape of the features, and their proportions.[12]* Darwin made extensive use of the writings of three physicians of his century, who were concerned with the anatomy of expression, and focused on emotion, although these men did not rule out the possibility of reading personality from physiognomy.

Duchenne de Boulogne, a French neurologist, published his pioneering research in 1862,[15] ten years before *Expression*. In it, he reported which muscles act to form some of the facial expressions. Darwin reprinted in *Expression* some of Duchenne's photographs, which he also showed to people, asking for their interpretation of them. The French anatomist Gratiolet's lectures on expression were published in 1865, and Bell's analysis of the musculature involved in expression had been published in 1806. Although, as I explained earlier, Darwin differed from Bell on the origin of facial expressions, he made use of Bell's descriptions of expression and praised many of his observations.

No one today pays much attention to Gratiolet, Bell, or even Duchenne; almost everyone now studying the facial expressions

* Such ideas are still found today in recent popular books.[13] I believe they persist because they contain a grain of truth. We do derive some correct impression about personality from facial expressions, but not from the static features. Seeing repeated expressions of sadness or elation or anger, we can, for example, infer that someone is melancholic, euphoric or hostile. We derive incorrect information as well; for example, the lips narrow in anger, so people with thin lips are often thought to be unfriendly, cruel or hostile.[14]

of emotion acknowledges that the field began with Darwin's *Expression*. But there is a puzzle to explain. *Expression* was not always so recognized; in fact until very recently the book had been studiously ignored. Yet it was a bestseller when it was published in England in 1872. Nine thousand copies were sold in the first four months. By the turn of the century it had also been published in the United States, the Netherlands, France, Germany, Italy and Russia. In Darwin's day every educated person knew of his work and revolutionary theory. By the time *Expression* was published, '... hardly a qualified biologist was left who had not become an evolutionist'.[16] Today scientist and layman alike know who Darwin is, but not his book on expression. Many biologists do not even know that Darwin wrote such a book; in psychology, sociology, and anthropology there were few references to *Expression* for a hundred years after it was published.

The puzzle is how a bestselling book, by a world-famous author, became virtually forgotten for ninety years. Why was it lost? How was it rediscovered? How could this happen to such an illustrious author, writing on an intriguing topic with such an enticing title – *The Expression of the Emotions in Man and Animals*? I think there are five factors that can explain this puzzle.*

Expression was criticized by many scientists because, in their view, Darwin was guilty of the sin of anthropomorphism – ascribing to animals what we humans feel and think. He did not simply describe the expressions shown by other animals, he wrote about their emotions. For example, he said that monkeys experienced pleasure, grief, vexation, jealousy, and so on. The American zoologist Michael Ghiselin believes that Darwin wrote about animals having emotions as a stylistic device, in part to make his points more readily understood.[17] But it was more than that; Darwin was convinced and tried to convince his readers that emotions and their expressions were not unique to humans.

* Phillip Prodger, the English art historian who has written appendices on Darwin's use of illustrations which appear at the end of the book, suggests a sixth factor. He thinks the book may have lost popularity because the illustrations were dated. He may be right, but I think readers today will find these illustrations interesting precisely because they are not modern.

Some students of animal behavior in this century were, until very recently, loath to describe what animals did in terms of emotions. It wasn't scientific. Instead they described only the animal's behavior, remaining silent on whether it represented or expressed an emotion. This is part of the same thinking that produced the behaviorist movement in psychology, which held that true scientists did not make inferences about things they did not directly observe. Thinking, planning and feeling were all banned from scientific study. Ghiselin described a scientist who thought that Darwin should not have written that a cat was 'in an affectionate mind' when rubbing against someone's leg; Darwin should have said the cat was engaging in 'cutaneous stimulation'.[18] Such behaviorism is now in steep decline. Thinking is once again a legitimate topic for scientific inquiry, and research on emotion is now one of the most active areas of psychological research.

There is disagreement today among those who study animal behavior about whether expressions should be considered signs of emotion, related to internal physiological changes. Some maintain that it is more useful to consider the expressions as simply communicative signals, and many studies have done that, describing only what animals do. (In the Afterword I explain why this is a false dichotomy. We don't have to choose whether an expression is part of an emotion or a communicative signal. In reality, it is both.) Other scientists have concluded that the evidence of signaling shows Darwin was correct to consider them signs of emotion. The American primatologist Suzanne Chevalier-Skolnikoff wrote: 'Through the examination of behavioral sequences and the interpretation of how the behavior functions, primatologists are fairly confident that the interpretation of the emotional nature of facial behavior in nonhuman primates is correct.'[19]

Those who maintain that animals have emotions do not agree about exactly how many different emotions they show; for that matter, those studying humans do not agree on the subject either. Most agree that humans manifest at least five distinct emotions: anger, fear, sadness, disgust and enjoyment; the argument is about how many more there might be. Many who study animal behavior

describe fear in species ranging from rats to monkeys; play (enjoyment?) and aggression (anger?) are also commonly described in many animals. Just how many more some animals might experience, and how the experience, expression and physiology of an emotion, such as fear, might differ from one species to another, has yet to be clarified.

Among those who grant that animals have emotions, there is still uncertainty about whether animals can feel those emotions. Are animals – other than humans – actually aware of what they feel? Can they think about or anticipate the emotions they are likely to feel? Are words required for such an awareness and consideration of emotional feelings?[20]

This is not just an abstract or academic question. It has direct implications for one of the most heated moral debates in today's world. Darwin's argument for the continuity of species, and in particular his claim that animals have emotions, have provided fuel for the animal rights movement. If we grant that animals feel terror about impending pain, and distress and sadness when separated from their offspring or mates, if they not only feel these emotions but are aware of these feelings, it may become difficult to justify experiments on animals, caging them in zoos, using at least some of the present slaughter methods, and for some to decide whether or not animals should be eaten.

The second reason why *Expression* did not have the influence it deserved was Darwin's reliance on anecdotal rather than systematic data. While one can argue about the justification for Darwin's anthropomorphism, there is no disputing the fallibility of anecdotal information. It is dubious at best, good for illustrating, but not for rigorously testing an observation. The amount of behavior observed is too small, reported without much information about the full context in which it occurred, and without checks for the possible bias of the person who is making the observation.

Darwin was aware of the problems inherent in anecdotal data, and did place more confidence in a report which described the full circumstances in which behavior occurred. But he was limited primarily to information provided by others, since he was

confined to his home by illness for most of the last forty-two years of his life, when he wrote all of his major books. He received information from many people with whom he corresponded, commissioned some photographs and obtained others, which he studied. (Janet Browne wrote to me: 'I think he would have used this "collecting" technique even if he was fit and well. This was his favored research method.') While he often dealt with faulty data, his unique strength was his use of so many different kinds of data to test his theory. He gathered observations from others about people in different cultures, infants, children, the insane, the blind, and a variety of animals. No one writing about emotional expression today has used such diverse sources.

A third possible reason why the book has been neglected is that Darwin explained the origin of some expressions by relying on an idea common in his day but now known to be false – that characteristics acquired in a person's lifetime can be inherited. The best known proponent of the theory of the inheritance of acquired characteristics was the French scientist Jean Baptiste de Lamarck, who was the first to use the word 'biology'. Lamarck maintained that evolutionary change occurred as a result of an animal's attempt to improve its situation. In his book *Zoological Philosophy* (1809) he described two 'laws' to explain how this happened. Organs, he said, are improved with repeated use, and deteriorate with disuse, and those improvements or deteriorations are incorporated into the hereditary material and passed on to the next generation. This came to be known as the inheritance of acquired characteristics, or use-inheritance.

Darwin scholars have argued about the extent to which Darwin accepted the inheritance of acquired characteristics,[21] but there is no doubt that he did rely upon it to explain the origin of many expressions. For example, he wrote: '. . . from what we know of inheritance, there is nothing improbable in the transmission of a habit to the offspring at an earlier age than that at which it was first acquired by the parents.' (p. 45). And again: 'Such habitual movements are often, or generally inherited.' (p. 54). Darwin did not understand how inheritance works. The American historian Carl Degler wrote: 'Like the great majority of natural scientists

of the late nineteenth century, Darwin was ignorant of the principles of Mendelian genetics, even though Gregor Mendel's path-breaking work had been published soon after the appearance of *The Origin of Species*. (Darwin's own copy of Mendel's paper on the basic principles of genetics was found in his library after his death with its pages still uncut.)* The scientific disproof of use-inheritance first appeared in the work of the German embryologist and committed Darwinian, August Weisman. Seven years after Darwin's death, Weisman showed that 'changes in an animal's body or behavior in its lifetime . . . [did not appear] in its offspring.'[23]

The fourth reason why *Expression* was ignored was that Darwin did not explain the origin of emotional expressions in terms of their communicative value. Today the focus is on what and how expressions communicate. Because Darwin did not deal with communication, his ideas seemed irrelevant to current thought, and many missed the wealth of information he provides that is actually directly relevant to communication. He could easily have described how expressions develop and are preserved because, over the course of evolution, one member of a species has been able to derive information about another from the expression observed, and perhaps also for inter-species communication. But Darwin did not do this. He avoided any discussion of how expressions communicate information until the very end of his book. In the last chapter he wrote one paragraph acknowledging that expressions have communicative value, but did not mention that this was relevant to their evolution.

Why did Darwin so conspicuously avoid dealing with the communicative value of these expressions? He must have considered this and decided not to take that course. We can only speculate

* When I visited Darwin's home I noted that after page 90 the pages were uncut in Darwin's copy of Karl Marx's *Das Kapital*, personally inscribed by Marx to Darwin. It is amusing to note that Marx did not think much of Darwin's writing style. Marx wrote in a letter: 'Darwin's book is very important and it suits me well that it supports the class struggle in history from the point of view of natural science. One has, of course, to put up with the crude English method of discourse.'[22]

that Darwin might have thought that if he dealt with communication he would weaken his challenge to the creationists. Remember that Sir Charles Bell had said expressions had been given to man by his Creator to communicate intimate feelings. Darwin may well have thought he could more effectively assault Bell by not dealing with communication at all. The American historian Richard Burkhardt Jr. wrote: '. . . in constructing his argument against the idea that special structures in man had been designed by the Creator for the purpose of non-verbal communication, Darwin appears to have overreacted . . .'[24]

The last reason why *Expression* has so long been ignored is probably the most important of all, and most central to its continuing importance, and neglect. This was Darwin's evidence that expressions are innate, that these signs of our emotions are the product of our evolution and are therefore part of our biology. This was completely incompatible with the reigning dogmas. Watson, the founder of behaviorism, rejected the notion that inheritance played any part in explaining our social behavior. He claimed that we need only consider what is learned to understand man. Learning, he said, is the only proper focus for psychology. The popularity of Watson's view may reflect the fact that it was harmonious with the democratic *Zeitgeist* – the hope that all men could be equal if their environments were equally benevolent. Equal opportunity would create men and women who were the same in all respects. Ghiselin wrote: 'Although it is easy to sympathize with such democratic zeal, its concealment of the truth has not been without its deleterious effects . . . Rejecting inheritance for metaphysical reasons served only to hinder the progress of psychology. And it is sobering to observe that democratic societies are every bit as prone to the kind of dogmatism that caused the Soviet Union to reject Mendelian inheritance and to embrace Lysenkoism because the latter, like the Watsonian notion, fitted in better with the prevailing creed.'*[25]

* Trofim Denisovich Lysenko (1898–1976) was a Ukrainian biologist and plant physiologist who rose to power in the Stalin era. He declared that the Mendelian theory of genetics, widely accepted outside the Soviet Union, was erroneous, and scientists who did not agree with him were discredited. In its place Lysenko

Anthropology had its own parallel to behaviorism: an insistence that culture completely determines social life, with amazing accounts of how even the most basic elements of how we mate, procreate, and bring up our children are totally constructed by culture and differ from one place to another. Relativism not universality was, and to a large extent still is, central to much of anthropology.[16] A number of anthropologists claimed there was no innate contribution to expression, no constants across cultures in any aspect of human facial expression.

Today most scientists reject such absolute relativism: nature and nurture both play a role in all human behavior. Emotions are both the product of our evolution, particularly their physiology and expression, and of what we have learned, especially our attempts to manage our emotions, our attitudes about our emotions and our representations of them verbally. There are still some who disagree – cultural relativists or social constructionists – but they no longer dominate scientific thinking. The intellectual climate has changed; it is now much more hospitable to Darwin's *Expression*.

Many, nearly simultaneous, factors combined to effect this change. It came about partly as a result of strong evidence, published in the late 1960s and early 1970s, that expressions do show universality. There was also an increasing disillusionment with the narrow confines of behaviorism and the emergence of cognitive science in psychology, which re-established the legitimacy of studying thoughts and ideas. If it was respectable to study scientifically phenomena which cannot be directly observed, it was not much of a further step for the study of emotions to become once again respectable. The rapid growth of behavioral genetics, and findings from studies of temperament, helped to

proposed that changes brought about in one generation could be inherited by the next generation. This use-inheritance, neo-Lamarckian theory was thought to be congenial to the Soviet dream that the society could completely construct the person, without genetic constraints. It was not until the end of the Khrushchev era in 1964 that the USSR rejoined the rest of the world in subscribing to Mendelian genetics, which does not agree that learned behavior can be passed on genetically.

bring nature back as a partner in the enterprise. The burst of knowledge about the brain, and the discoveries, one after another, of the embodiment of so many psychological characteristics was another factor. The Human Genome Project, and the continual unfolding of how many individual differences have a genetic basis, have changed the intellectual and scientific climate. Nurture is not being thrown out, but it is no longer the only determinant of human behavior.

In the past five years there has been a renaissance of interest in Darwin. Three biographies have been published, dozens of books for the layman about evolutionary theory have appeared, and the new field of evolutionary psychology, which embraces Darwinian thinking, has emerged. It is time to read *Expression* and benefit from its many insights to further understand the emotions in man and animals. It is time to learn from Darwin about the most intimate and private part of our lives – our emotions and their public display, our expressions.