

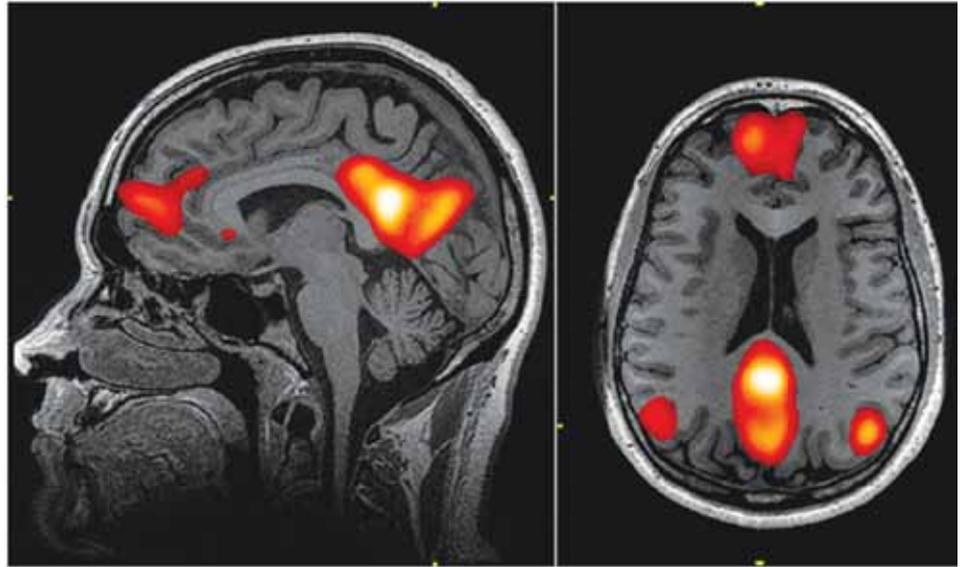
Anything Dennett can do, Scruton does meta

Two thinkers offer contrasting but complementary ways of thinking about human nature

ADAM ZEMAN

Years ago, I fell in love with the body, and especially with the brain: once acquainted with them, who could fail to marvel at the elegance of their parts, the complexity of their workings, their miraculous processes of growth? Yet after months in medical school absorbed by anatomy, biochemistry, pathology I began to feel that something, or possibly someone, was missing: our first lecture by a psychiatrist, who spoke of the feelings and thoughts of whole people, gave me an extraordinary sense of homecoming. John Martin, academic cardiologist and poet, once captured this tension precisely: “I take apart their insides, discover the insides of their insides, until I know the atoms of the molecules that make the cells stick. But where is man desiring beauty?” The question of where we should turn in understanding ourselves, whether to the personal or the sub-personal, lies at the heart of two sharply contrasting but closely related new books by two distinguished philosophers from either side of the Atlantic.

Roger Scruton’s *On Human Nature* (Princeton, £18.95) expands on a series of lectures given at Princeton. It gives a brief, poetic account of a way of thinking about ourselves that many of us, especially with a background in the humanities, will find congenial. Scruton of course accepts that we are organisms, “human animals”, but believes that this truth, and the mechanistic and evolutionary inquiries that it inspires, fail to do justice to a more fundamental one: that we are “persons”, free, accountable, self-conscious,



rational. He indicates that we could share this essence with beings that are not of this world—or, even, a little provocatively, “of the flesh”. As persons, we require a different “order of explanation” to that offered by biology: the study of our kind is the business of the humanities which offer interpretation, as opposed to the explanations offered by science.

Scruton eloquently evokes one of our key intuitions about ourselves, that we look out on the world from the vanishing centre of a private universe: “we are objects caught in the current of causality... but each human subject addresses us from the transcendental horizon of the ‘I.’” This human self, nonetheless, Scruton believes, is fundamentally social, and much of his book is devoted to his understanding of morality and the “negotiated terms” on which we live with one another. He discusses but dislikes the dominant current theories of “consequentialism” and “contractarianism” which find the basis of moral obligation either in a calculation of the likely effects of our actions or in level-headed agreements to

coordinate our differing goals. He points out that most of our moral decisions involve the pressures created by our embodiment—he is particularly interested in sex—and by “ties that we never chose”. At the close of this short work he argues that we can only do justice to some of our moral emotions by invoking a concept of the sacred: we yearn for redemption, reaching out in moments of liminal experience—“falling in love, recovering from illness, becoming a parent”—towards “the soul of the world”.

In the tug of war between personal and sub-personal accounts of man, Scruton pulls, with body and soul, for Team Personal. As the title of Daniel C. Dennett’s new book, *From Bacteria to Bach and Back: The Evolution of Minds* (Allen Lane, £25), suggests, he, in contrast, sees his fundamental philosophical task as understanding how our sub-personal parts add up to the personal whole. He would probably view Scruton’s poetic account of our nature as grist to his mill: it’s interesting, if a little strange, the way things seem to Roger—let’s see if we ▶

Critique

Areas, in red, of the brain’s “default mode network” (DMN), involved in recollecting the past and imagining the future

can work out how they can possibly have ended up seeming like that! Scruton is distrustful of “genealogical” theories of man: for Dennett they are crucial.

This large, engaging, digressive book is a grand reprise of Dennett’s output, though he does not rest on his laurels: they still put out plenty of buds. If you have not encountered his work, you surely should: like him or loathe him, very few contemporary thinkers have supplied us with so many “thinking tools”. He sets himself three main challenges here: to make sense of the idea of Design without a Designer that is so central to understanding evolution; to flesh out the concept of competence without comprehension, the key to much animal—and indeed human—thought and behaviour; to understand human consciousness as a natural, unmysterious, outcome of i) evolutionary design, ii) uncomprehending competence and, iii) a little something extra, shortly to be revealed. The overarching task is to enable us to understand ourselves, the intellectuals of creation, as the products of gradual, natural, processes, issuing out of dust yet eschewing the hand of God.

One of Darwin’s 19th-century critics, Robert MacKenzie Beverley, nicely captured the first of Dennett’s ideas, though with the intention of deriding it, writing sarcastically: “in order to make a perfect and beautiful machine, it is not requisite to know how to make it”. Beverley was indignant at this “strange inversion of reasoning”, which assumed “Absolute Ignorance fully qualified to take the place of Absolute Wisdom in all the achievements of creative skill”. But Darwin’s theory, envisaging a process by which natural selection from a pool of possibilities, themselves created by random mutations, gives rise over time to adaptation in organisms and the appearance of design, explained precisely how this strange inversion of reasoning could be justified. As a result of natural selection, the biosphere came, in Dennett’s words, to be “utterly saturated with design, with purpose, with reasons” long before there were minds to entertain any of these: indeed, the effect of Dennett’s broad line of explanation for the way things are is to replace an ancient “mind-first” with a modern “mind-last” vision of creation.

But once there was life, and especially living things that moved, nervous systems, and with them minds, became useful, to enable “swift control”. One of Den-



nett’s most appealing sets of thinking tools is his series of distinctions between different “kinds of mind”. Darwinian creatures rely on instinct: the bee conveying information about the distance, direction and quality of a food source to its companions by way of its waggle dance is in this category of animals born “gifted but not learners”, a prime example of “competence without comprehension”. Skinnerian creatures, named after the behaviourist psychologist B.F. Skinner who studied learning in rats, are designed to try things out: without much premeditation they produce a variety of behaviours, some of which life rewards while others it punishes—they learn accordingly. Popperian creatures, honouring Karl Popper, the philosopher of science, let “their hypotheses die in their stead”: they model the world in their heads and can test out possible solutions ahead of time. But only we are Gregorian creatures, named after the psychologist of vision, Richard Gregory, users of “thinking tools” from the humble, old-fashioned word to the ubiquitous iPhone.

It is the “cumulative cultural wildfire” which these tools make possible that most clearly distinguishes us from other animals: indeed, in Dennett’s view they make our minds “in some respects as different from other minds as living things are from non-living things”. Herein lies the “little something extra” I promised earlier, a something Dennett describes using the concept of “memes”. Memes are to our cultural behaviour as genes are to

our heredity. They are “ways of behaving”, transmitted by cultural learning. The “meme” meme has been controversial since the term was coined by Richard Dawkins in 1976, but it seeks to capture some important truths about our human nature, including these: we are “cultural creatures”, shaped by the language, habits and ideas we imbibe from others; much of this happens without our deliberate choice; “ways of behaving” themselves evolve, often without much role for conscious thought; some memes, like language, have obvious utility; others, like some of the many viruses lying dormant amongst our genes, just seem to have hitched a ride. One strength of this line of thought is that, by pointing to forms of cultural transmission that do not rely too heavily on what they are seeking to explain, it begins to make sense of how we can have moved from one “order” of creation to another: for Dennett agrees with Scruton that, whatever path has brought us here, we self-reflective, reason-giving, morally and legally accountable beings are, on earth, one of a kind. (Among the many ways of describing our specialness, I especially like Douglas Hofstadter’s wonderful maxim, quoted by Dennett: “Anything you can do, I can do meta.”)

Dennett has one final crest to conquer, and no mean one—consciousness. His exposition of his theory is particularly clear here. This does not, unfortunately, mean that the problem has been solved. Here is the theory. Your consciousness of the world and of your own being is akin to the “user-illusion” that you enjoy when you switch on your laptop. Rather than seeing the teeming activity in the innards of your machine, you are treated to an accessible iconic summary which tells you what you need to know and offers convenient “affordances”, like the “sleep” function. This is an appealing idea: after all, we know that we are sensitive to only a very small fraction of the energies that surround us—the face the world shows to us seems to be just one of many that we might experience. But why do you have a user-illusion? Because, in Dennett’s view—and here is another “strange inversion”—you have been enabled, by language, to describe what things are like, and your nervous system makes this possible: the qualities of experience, in other words, are not prior to the actions you take on the basis of the discriminations you are making—they are their outcome.

Sir Roger Scruton: “On Human Nature” is a brief, poetic account of how to think about ourselves

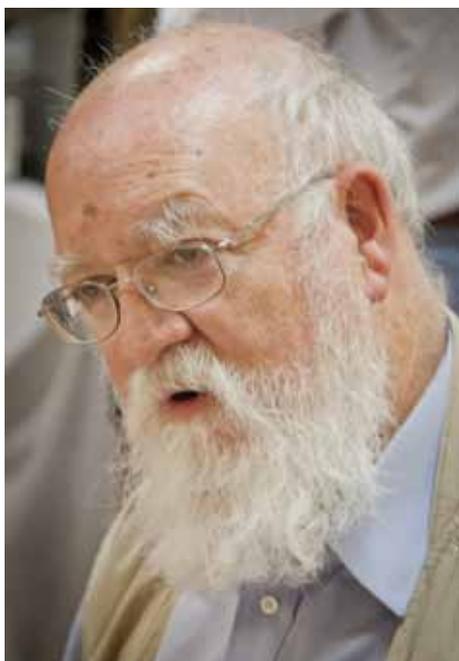
Critique

Nor are those qualities real in the way you may take them to be, for there is “no real seeming”. Moreover, this user-illusion is an unusual one, as there is no screen and—once we have moved into the sub-personal world—no user. If you feel, to borrow a Dennettian turn of phrase, that “your pocket’s just been picked”, well, I know the feeling too.

Whatever the difficulties of his theory of consciousness, Dennett’s book is astonishingly rich and will introduce you to most of the key ideas in the terrain he strides energetically across—the intersection of evolutionary theory, cognitive science and consciousness studies. Is his route, then, the sub-personal route to the mind, the Royal Road? Or should we, after all, trust to first-person experience, and the deeply private intuitions favoured by Roger Scruton? I favour trusting both, with due discretion. Science is permanently provisional, always hunting for stronger evidence and more comprehensive theory, but it is surely giving us a riveting series of insights into our human nature. First-hand experience is where we all start, and indispensable, but notably prone to error. There is no end in sight to the task of integrating first and third person accounts. Come to think of it, since leaving that medical school it is what I have done each time I see a patient.

Indeed, far from “reducing” experience to something quite unlike it—the firing of billions of neurons—contemporary neuroscience can be seen as a vindication of experience. It is probably no great surprise that what you see and hear, your actions, your overt emotions are mirrored by changes in brain activity. It is perhaps more remarkable, certainly beyond the state of the art when I entered neurology, that subtle variations of our experience also have their neural correlates. The eerie sensation of déjà vu, for example, that sense of strong but erroneous familiarity that most of us have experienced from time to time, Walter Scott’s “sense of pre-existence”, can be traced to anomalous activation of brain regions that typically allow us to recognise the pleasingly familiar world; the shiver down the spine you may experience listening to your favourite symphony or song resonates with intense activity in brain structures linked by their response to significant reward, as shown by the pioneering Canadian musician-scientist

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Robert Zatorre. The implication is that while such experiences may be fleeting and elusive for the subject, at the neural level they are—huge! As Dennett has written in the past, neural events that come to consciousness must have achieved a high degree of “cerebral celebrity”: whatever delights or torments our awareness blows a gale in the brain.

The intellectual traffic runs both ways. Mental events have neural correlates—old hat, perhaps. But the study of the brain is beginning to provide intriguing hints about the structure of the mind. The startling recent discovery of the “default mode network”, not too familiar yet, I venture, to most readers of *Standpoint*, gives a topical example. The DMN is a set of brain regions particularly active when we rest—when we lie, for example in a brain scanner with the instruction that we do nothing in particular. These regions turn out to be involved in recollecting the past, anticipating the future and contemplating moral dilemmas—probably not too far from the thoughts that occupied your mind when you last daydreamt: but how fascinating that these functions are closely linked with one another in the brain, taking turns, it seems, with regions whose interests are focused on the external world, our experience of inner and outer interweaving in a previously unsuspected neural dance.

We are gaining insights, also, into aspects of the mind that may be uniquely human. Dennett, surely rightly, highlights “displaced reference” as a key inno-

vation of language, its “power to refer to things not present in the environment of the communicators, out of sight, in the past, imaginary or hypothetical”. But while language is uniquely helpful when I want to tell you what I think, it is only one of many ways of achieving this kind of reference. When I imagine the house in which I spent my childhood, many leagues hence, I also represent a thing not present, and for most of us such “visualisation” plays a large part in our mental lives. With colleagues in Edinburgh I recently described a group of people who lead “lives without imagery”. It seems that two per cent of the population may fall into this category—not least *Standpoint*’s own Dominic Lawson. Such “aphantasia” had a distinctive neural signature in the first such case we studied: in the several thousand who have since volunteered intriguing associations are coming to light, including, in many, an impoverishment of memory for the personal past, an impaired ability to recognise familiar faces, and—here’s the fun and the puzzle—abundant potential for the highest achievements in both the sciences and the arts: Craig Venter, the first person to decode the human genome, and Oliver Sacks, the great chronicler of neurological disorders, have both described their lack of imagery.

Aphantasia, like synaesthesia, the “merging of the senses” that allows some of us to taste Tuesday or to see it emblazoned in crimson, illustrates the great—and often unsuspected—variety of human experience. Discovering that these differences between us correspond to differences between our brains helps to validate our introspection. The hundred thousand million neurons of the human brain, each connecting to thousands of other cells, those connections shaped by our lifetime’s experience, provide the biological background to Roger Scruton’s remark that we are “unique, irreplaceable, not admitting of substitutes”. The neuroscientist can wholeheartedly agree. Our uniqueness is a property at once unmysterious and miraculous—much like the privacy, the “inwardness” of our experience: we contain multitudes, bounded by the narrow confines of the skull, unavoidably committed to a single point of view. We are strangely insensitive to the astounding complexity within the human frame. It gives us a powerful reason to respect and to reach out to one another, to transcend our tribalism. ■

Daniel Dennett: Few have supplied us with as many “thinking tools”