

Modern Mind: An Intellectual History of the 20th Century – Peter Watson (Quotations)

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.. :author: Emin Reşah .. :date: Sat May 16 14:42:31 EEST 2015 .. :dp: 13088

The necessarily open nature of science (notwithstanding the secret work carried out in the Cold War and in some commercial laboratories) ensures that there can only ever be a democracy of intellect in this, perhaps the most important of human activities. (p. 16)

To succeed, to progress, the world must be open, endlessly modifiable, unprejudiced. Science thus has a moral authority as well as an intellectual authority. This is not always accepted. (p. 16)

Technology addresses specific issues and provides the individual with greater control and/or freedom in some particular aspect of life (the mobile phone, the portable computer, the contraceptive pill). Not everyone will find ‘the gadget’ a suitably philosophical response to the great dilemmas of alienation, or ennui. I contend that it is. (p. 16)

Without tradition, originality cannot exist: for it is only against a tradition that it becomes perceivable.’ (p. 17)

[W]hat Walter Pater in the nineteenth century called ‘the wounds of experience’; that in order to know what is new, you need to know what has gone before. (p. 17)

The fragmentation of the arts and humanities in the twentieth century has often revealed itself as an obsession with novelty for its own sake, rather than originality that expands on what we already know and accept. (p. 17)

[I]n Max Planck’s family in Germany at the turn of the century the humanities were regarded as a superior form of knowledge (and the Plancks were not atypical). Is that true any longer? The arts and humanities have always reflected the society they are part of, but over the last one hundred years, they have spoken with less and less confidence.⁹ (p. 18)

Very self-confident as a young man, he once quipped that ‘the good impression of my tailor matters to me as much as that of my professor.’ (p. 23)

The Viennese aristocracy had intermarried so many times that they were in fact one huge family, who addressed each other as Du, and by nicknames, and spent their time at each others’ parties. (p. 24)

Always sensitive to the slightest hint of anti-Semitism, to the end of his life Freud refused to accept royalties from any of his works translated into Hebrew or Yiddish. (p. 25)

Freud rightly considered *The Interpretation of Dreams* to be his most significant achievement. It is in this book that the four fundamental building blocks of Freud’s theory about human nature first come together: the unconscious, repression, infantile sexuality (leading to the Oedipus complex), and the tripartite division of the mind into ego, the sense of self; superego, broadly speaking, the conscience; and id, the primal biological expression of the unconscious. (p. 25)

When Breuer saw her, he found that if he allowed her to talk at great length about her symptoms, they would disappear. (p. 26)

[T]he German title of the book, *Die Traumdeutung*, didn’t exactly help. ‘*Traumdeutung*’ was the word used at the time to describe the popular practice of fairground fortune-tellers.¹⁹ (p. 28)

Evans also found that large town houses were not confined to royalty only but were inhabited by other citizens as well. For many scholars, this extension of property, art, and wealth in general marked the Minoan culture as the birth of Western civilisation, the ‘mother culture’ from which the classical world of Greece and Rome had evolved. (p. 33)

This enabled Mendel to make the profound observation that for many characteristics, the heritable quality existed in only two forms, the dominant and recessive strains, with no intermediate form. The universality of the 3:1 ratio across a number of characteristics confirmed this.* (p. 37)

[S]cience was Planck’s calling; he never doubted it or looked elsewhere, and by the turn of the century he was near the top of his profession, a member of the

Prussian Academy and a full professor at the University of Berlin, where he was known as a prolific generator of ideas that didn't always work out. (p. 38)

This was crucial because it implied that the universe was a one-way process; the Second Law of Thermodynamics is, in effect, a mathematical expression of time. In turn this meant that the Newton/Maxwellian notion of atoms as hard, solid billiard balls had to be wrong, for the implication of that system was that the 'balls' could run either way – under that system time was reversible; no allowance was made for entropy. (p. 41)

[L]ampblack, for instance, absorbs 98 percent of all radiation. (p. 41)

7 October 1900. On that day he sent a postcard to his colleague Heinrich Rubens on which he had sketched an equation to explain the behaviour of radiation in a black body. The essence of Planck's idea, mathematical only to begin with, was that electromagnetic radiation was not continuous, as people thought, but could only be emitted in packets of a definite size. (p. 42)

Whatever the truth of that, by 1900 they had evolved into informal clubs, well furnished and spacious, where the purchase of a small cup of coffee carried with it the right to remain there for the rest of the day and to have delivered, every half-hour, a glass of water on a silver tray. (p. 49)

Universalism, on the other hand, 'posits eternal, extramental truth, whose validity defies testing....' (p. 49)

An individualist discovers truth, whereas a universalist undergoes it. (p. 49)

Schnitzler's interest in what Freud called the 'underestimated and much maligned erotic' was so similar to his own that Freud referred to Schnitzler as his *doppelgänger* (double) and deliberately avoided him. (p. 51)

For Hofmannsthal, the problem is that while art may offer fulfilment for the person who creates beauty, it doesn't necessarily do so for the mass of society who are unable to create: (p. 52)

What he hoped for was a ‘genius ... marked with the stigma of the usurper,’ ‘a true German and absolute man,’ ‘a prophet,’ ‘poet,’ ‘teacher,’ ‘seducer,’ an ‘erotic dreamer.’ (p. 55)

His science led him to conclude, after twenty years of search and lecturing, that there does indeed exist ‘an eternal, creating, and sustaining principle,’ to which he gave the term ‘understanding.’ At the same time, his view that philosophy moved in cycles led him to doubt the progressivism of science. (p. 56)

What most concerned Husserl was the link between consciousness and logic. Put simply, the basic question for him was this: did logic exist objectively, ‘out there’ in the world, or was it in some fundamental sense dependent on the mind? (p. 56)

Husserl made big claims for himself; in the Brentano halfway house tradition, he believed he had worked out ‘a theoretical science independent of all psychology and factual science.’ Few in the Anglophone world would agree, or even understand how you could have a theoretical science independent of factual science. (p. 58)

According to Weininger, all the major achievements in history arose because of the masculine principle – all art, literature, and systems of law, for example. The feminine principle, on the other hand, accounted for the negative elements, and all these negative elements converge, Weininger says, in the Jewish race. (p. 60)

Nietzsche’s main idea (not that he was particularly systematic) was that all of history was a metaphysical struggle between two groups, those who express the ‘will to power,’ the vital life force necessary for the creation of values, on which civilisation is based, and those who do not, primarily the masses produced by democracy. (p. 70)

Morality, on the other hand, ‘is the creation of the underclass.’ It springs from resentment and nourishes the virtues of the herd animal. (p. 71)

The acceptance of Nietzsche’s views was hardly helped by the fact that many of them were written when he was already ill with the early stages of syphilis. (p. 71)

Sumner believed that Darwin's new way of looking at mankind had provided the ultimate explanation – and rationalisation – for the world as it was. It explained laissez-faire economics, the free, unfettered competition popular among businessmen. Others believed that it explained the prevailing imperial structure of the world in which the 'fit' white races were placed 'naturally' above the 'degenerate' races of other colours. (p. 72)

It was Spencer, and not Darwin, who actually coined the phrase 'survival of the fittest,' and Spencer quickly saw how Darwinism might be applied to human societies. His (p. 73)

Lapouge regarded democracy as a disaster and believed that the brachycephalic types were taking over the world. He thought the proportion of dolichocephalic individuals was declining in Europe, due to emigration to the United States, and suggested that alcohol be provided free of charge in the hope that the worst types might kill each other off in their excesses. He wasn't joking. (p. 75)

Everywhere he looked, there was decline. The impressionist painters were the result, he said, of a degenerate physiology, nystagmus, a trembling of the eyeball, causing them to paint in the fuzzy, indistinct way that they did. (p. 76)

Orthodox Jews condemned him as an heretic (because he plainly wasn't the Messiah), but at his death, ten years and six congresses later, the Jewish Colonial Trust, the joint stock company he had helped initiate and which would be the backbone of any new state, had 135,000 shareholders, more than any other enterprise then existing. His funeral was attended by 10,000 Jews from all over Europe. A Jewish homeland had not yet been achieved, but the idea was no longer a heresy. (p. 80)

For Weber, capitalism, whatever it has become, was originally sparked by religious fervour, and without that fervour the organisation of labour that made capitalism so different from what had gone before would not have been possible. (p. 84)

Strauss therefore changed his mind, and Elektro turned out to be even more intense, violent, and concentrated than Salomé. 'These two operas stand alone in my life's work,' said Strauss later; 'in them I went to the utmost limits of

harmony, psychological polyphony (Clytemnestra's dream) and the capacity of today's ears to take in what they hear.' (p. 96)

No less than Strauss's women, Pablo Picasso's *Les Femmes d'Alger* was an attack on all previous ideas of art, self-consciously shocking, crude but compelling. (p. 106)

In Paris, both Robert Delaunay and František Kupka, a Czech cartoonist who had dropped out of the Vienna art school, made pictures without objects. (p. 112)

Kandinsky did not paint his first picture until he was thirty (p. 114)

Delicate, with a high forehead, he spoke very slowly, with long breaths between utterances. This was slightly off-putting, and at the Lycée Condorcet, his high school in Paris, he came across as so reserved that his fellow students felt 'he had no soul,' a telling irony in view of his later theories. (p. 116)

Bergson's own central insight was that time is real. Hardly original or provocative, but the excitement lay in the details. What drew people's attention was his claim that the future does not in any sense exist. (p. 117)

By definition, he said, time, as we normally understand it, involves memory; physics-time, on the other hand, consists of 'one long strip of nearly identical segments,' where segments of the past perish almost instantaneously. (p. 117)

His final point, the one people found most difficult to accept, was that since memory is necessary for time, then time itself must to some extent be psychological. (This is what the Holy Office most objected to, since it was an interference in God's domain.) From this it followed for Bergson that the evolution of the universe, insofar as it can be known, is itself a psychological process also. (p. 117)

For the rationalists, Bergson's philosophy was a sign of degeneration, an atavistic congeries of opinions in which the rigours of science were replaced by quasi-mystical ramblings. Paradoxically, he came under fire from the church on the grounds that he paid too much attention to science. (p. 119)

Elan vital, the ‘life force,’ turned into a widely used cliché, but ‘life’ meant not only life but intuition, instinct, the very opposite of reason. As a result, religious and metaphysical mysteries, which science had seemingly killed off, reappeared in ‘respectable’ guise. William James, who had himself written a book on religion, thought that Bergson had ‘killed intellectualism definitively and without hope of recovery. (p. 119)

Bergson died in 1941 of pneumonia contracted from having stood for hours in line with other Jews, forced to register with the authorities, then under Nazi military occupation. (p. 120)

Third, there was the philosophy of Immanuel Kant (1724—1804), who argued that there were limits to reason, that human observations of the world were ‘never neutral, never free of priorly imposed conceptual judgements’, and because of that one could never know that God exists. And finally there were the theories of Henri Bergson. As we have seen, he actually supported spiritual notions, but these were very different from the traditional teachings of the church and closely interwoven with science and reason. (p. 121)

It didn’t work out like that. The new – modern, Japanese, and Western science-oriented – curriculum proved so strange and so difficult for the Chinese that most students stuck to the easier, more familiar Confucianism, despite the evidence everywhere that it wasn’t working or didn’t meet China’s needs. (p. 126)

[T]here was one college in Beirut and in Turkey – still a major power until World War I – the University of Istanbul was founded in 1871 as the Dar-al-funoun (House of Learning), only to be soon closed and not reopened until 1900. (p. 128)

Until the twentieth century, however, America’s institutions of higher learning were really colleges – devoted to teaching – rather than universities proper, concerned with the advancement of knowledge. Only Johns Hopkins in Baltimore (founded in 1876) and Clark (1888) came into this category, and both were soon forced to add undergraduate schools. (p. 129)

The preeminence of German universities in the late nineteenth century dated back to the Battle of Jena in 1806, after which Napoleon finally reached Berlin. His arrival there forced the inflexible Prussians to change. Intellectually, Johann

Fichte, Christian Wolff, and Immanuel Kant were the significant figures, freeing German scholarship from its stultifying reliance on theology. (p. 130)

Chicago was first, building seven dormitories by 1900 ‘in spite of the prejudice against them at the time in the [mid-] West on the ground that they were medieval, British and autocratic.’ Yale and Princeton soon adopted a similar approach. Harvard reorganised after the English housing model in the 1920s. (p. 131)

What James added to Peirce’s ideas was the notion that philosophy should be accessible to everyone; it was a fact of life, he thought, that everyone liked to have what they called a philosophy, a way of seeing and understanding the world, and his lectures (eight of them) were intended to help. (p. 132)

In the opposite camp were those philosophers who started from the world as it was, with all its untidiness, inequalities, and injustices. James was firmly in the latter camp. (p. 132)

Metaphysics, which James regarded as primitive, was too attached to the big words – ‘God,’ ‘Matter,’ ‘the Absolute.’ But these, he said, were only worth dwelling on insofar as they had what he called ‘practical cash value.’ What difference did they make to the conduct of life? Whatever it is that makes a practical difference to the way we lead our lives, James was prepared to call ‘truth.’ (p. 134)

[I]f you take away consciousness, is it practical to hang on to ‘soul’? Can a soul be said to exist without consciousness? No, he said. Therefore, why bother to concern oneself with (p. 134)

[B]efore the victory over a heavy rate of child mortality, when families were much larger and many children died, there was not – there could not be – the same investment in children, in time, in education, in emotion, as there was later. (p. 135)

Hofstadter wisely points out that Christianity in many parts of the United States is entirely practical in nature. He takes as his text a quote of theologian Reinhold Niebuhr, that a strain in American theology ‘tends to define religion in terms of adjustment to divine reality for the sake of gaining power rather than in terms of revelation which subjects the recipient to the criticism of that

which is revealed.’ And he also emphasises how many theological movements use ‘spiritual technology’ to achieve their ends: ‘One ... writer tells us that ... “the body is ... a receiving set for the catching of messages from the Broadcasting Station of God” and that “the greatest of Engineers ... is your silent partner.” (p. 140)

The telegraph operator is attacked and tied up, the robbery takes place, and the bandits escape. At intervals, however, the operator is shown struggling free and summoning law enforcement. Later in the film the two narratives come together as the posse chase after the bandits. We take such ‘parallel editing’ – intercutting between related narratives – for granted now. At the time, however, people were fascinated as to whether film could throw light on the stream of consciousness, Bergson’s notions of time, or Husserl’s phenomenology. (p. 153)

It was also responsible for Adolph Zukor and Marcus Loew leaving their fur business and buying small theatres exclusively dedicated to showing movies. Because they generally charged a nickel for entry, they became known as ‘nick-elodeons.’ (p. 153)

There was no such thing as a makeup assistant, and actors wore their own clothes (though by 1909 there had been some experimentation with lighting techniques). A director might make two or three pictures a week, usually on location in New York. In 1909, for example, Griffith made 142 pictures. (p. 155)

This was the first of Rutherford’s many important experiments: what he and Soddy had discovered was the spontaneous decomposition of the radioactive elements, a modern form of alchemy. (p. 160)

J. J. Thomson’s notion that it was a miniature plum pudding, with electrons dotted about like raisins – would no longer do. Gradually he became convinced that another model entirely was far more likely. He made an analogy with the heavens: the nucleus of the atom was orbited by electrons just as planets went round the stars. (p. 162)

In fact, the family legend was exaggerated. Research into Einstein’s early life shows that at school he always came top, or next to top, in both mathematics and Latin. But he did find enjoyment in his own company and developed a particular fascination with his building blocks. When he was five, his father gave him a compass. This so excited him, he said, that he ‘trembled and grew cold.’ (p. 164)

Albert, for instance, was only three or four when he was given the responsibility of running errands, alone in the busy streets of Munich.¹⁷ (p. 164)

More important, the fact that he was out of the mainstream of science may have helped his originality, which flourished unexpectedly in 1905. (p. 165)

He once wrote that ‘the search for knowledge, unbearable pity for suffering and a longing for love’ were the three passions that had governed his life. ‘I have found it worth living,’ he concluded, ‘and would gladly live it again if the chance were offered me.’ (p. 173)

‘I like mathematics,’ he wrote, ‘because it is not human & has nothing particular to do with this planet or with the whole accidental universe – because, like Spinoza’s God, it won’t love us in return.’ He called Leibniz and Spinoza his ‘ancestors.’ (p. 174)

I used to stand on the footbridge at Kennington, near Oxford, watching the trains go by, and determining that tomorrow I would place myself under one of them. But when the morrow came I always found myself hoping that perhaps “Principia Mathematica” would be finished some day.’ (p. 178)

There are two ways of knowing the world, Russell said: acquaintance (spoons) and description (the class of spoons), a sort of secondhand knowledge. From this, it follows that a description about a description is of a higher order than the description it is about. On this analysis, the paradox simply disappears. (p. 178)

The press agreed to meet 50 percent of the loss, but said they could publish the book only if the Royal Society put up the other £300. In the event, the Royal Society agreed to only £200, and so Russell and Whitehead between them provided the balance. ‘We thus earned minus £50 each by ten years’ work,’ Russell commented. ‘This beats “Paradise Lost.”’ (p. 179)

‘I used to know of only six people who had read the later parts of the book,’ Russell wrote in the 1950s. ‘Three of these were Poles, subsequently (I believe) liquidated by Hitler. The other three were Texans, subsequently successfully assimilated.’ (p. 179)

‘[S]avage trinity’ of diseases that disfigured the developed world: tuberculosis, alcoholism, and syphilis, all of which proved intractable to treatment for many years. (p. 182)

Victorian medical ethics that prevented doctors from telling one fiancée anything about the other’s infections unless the sufferer allowed it. On top of it all, no one knew whether syphilis was hereditary or congenital. (p. 183)

Difficult as it was to study, because it was so small, the spirochaete was clearly the syphilis microbe, and it was labelled *Treponema* (it resembled a twisted thread) *pallidum* (a reference to its pale colour). (p. 184)

As a result of syphilis, as we have seen, the fear and guilt surrounding illicit sex was much greater at the beginning of the century than it is now, and helped account for the climate in which Freudianism could grow and thrive. (p. 187)

The chronic fear of syphilis in those who didn’t have it, and the chronic guilt in those who did, created in the turn-of-the-century Western world a psychological landscape ready to spawn what came to be called depth psychology. (p. 187)

The self-sufficiency of science, the self-absorption of scientists, the sheer difficulty of so much science, made it inaccessible in a way that the arts weren’t. (p. 188)

(The railroads were a sensitive area at the time. Some southern states had ‘Jim Crow’ carriages: as the trains crossed the state line, arriving from the North, blacks were forced to move from interracial carriages to the blacks-only variety.) (p. 189)

Following the American Civil War, the Reconstruction movement had taken hold in the South, intent on turning back the clock, rebuilding the former Confederate states with de facto, if not de jure, segregation. (p. 191)

Even as late as the turn of the century, several states were still trying to disenfranchise blacks, and even in the North many whites treated blacks as an inferior people. Far from advancing since the Civil War, the fortunes of blacks had actually regressed. (p. 191)

Booker T. Washington. He took the view that the best form of race relations was accommodation with the whites, accepting that change would come eventually, and that any other approach risked a white backlash. Washington therefore spread the notion that blacks ‘should be a labour force, not a political force,’ and it was on this basis that his Tuskegee Institute was founded, in Alabama, near Montgomery, its aim being to train blacks in the industrial skills mainly needed on southern farms. (p. 191)

Du Bois became convinced that Booker T. Washington’s approach actually did more harm than good. (p. 193)

Frenchman Charles Richet, who in his book *Sélection humaine* (1912) openly argued for all newborn infants with hereditary defects to be killed. After infancy Richet thought castration was the best policy but, giving way to horrified public opinion, he advocated instead the prevention of marriage between people suffering from a whole range of ‘defects’ – tuberculosis, rickets, epilepsy, syphilis (he obviously hadn’t heard of Salvarsan), ‘individuals who were too short or too weak,’ criminals, and ‘people who were unable to read, write or count.’ (p. 197)

Leonard Darwin, Charles Darwin’s son and from 1911 to 1928 president of the British Eugenics Education Society, didn’t go quite this far, but he advocated that ‘superior’ people should be encouraged to breed more and ‘inferior’ people encouraged to reproduce less. In America, eugenics remained a strong social movement until the 1920s, the Indiana sterilisation laws not being repealed until 1931. In Britain the Eugenics Education Society remained in business until the 1920s. (p. 198)

Despite Boas’s contribution, the Dillingham Commission Report – eighteen volumes of it – concluded that immigrants from Mediterranean regions were ‘biologically inferior’ to other immigrants. (p. 203)

He dismissed the idea that because some languages did not have numerals above ten, as was true of certain native American tribes, this did not mean that members of those tribes could not count above ten in English once they had been taught to speak it. (p. 205)

The very strangeness of the Incas, the brilliance of their art and buildings, the fantastic achievement of their road network, stretching over 19,000 miles and

superior in some ways to the European roads of the same period, showed the flaws in the glib certainties of race biology. (p. 212)

The phrase used by nineteenth-century scientists was 'land bridges,' convenient devices that were believed to stretch across the waters to link, for example, Africa to South America, or Europe to North America. But if these land bridges had never existed, where had they gone to? (p. 214)

In 1650, James Ussher, archbishop of Armagh in Ireland, using the genealogies given in the Bible, had calculated that the earth was created at 9:00 A.M. on 26 October 4004 B.C. (p. 216)

The oldest substances on earth, to date, are some zircon crystals from Australia dated in 1983 to 4.2 billion years old; the current best estimate of the age of the earth is 4.5 billion years. (p. 216)

In some geology departments in modern universities, the twenty-sixth of October is still celebrated - ironically - as the earth's birthday. (p. 218)

Le Sacre is not mere folk lore: it is a powerful legend about the sacrifice of virgins in ancient Russia. In the main scene the Chosen Virgin must dance herself to death, propelled by a terrible but irresistible rhythm. It was this that gave the ballet a primitive, archetypal quality. Like Debussy's *Après-midi*, it related back to the passions aroused by primitivism – blood history, sexuality, and the unconscious. (p. 227)

Bohr's quiet, agreeable, reflective personality – when speaking he often paused for minutes on end while he sought the correct word – was an important factor in this process. (p. 234)

Proust once described his multivolume work in an interview as 'a series of novels of the unconscious'. But not in a Freudian sense (there is no evidence that Proust ever read Freud, whose works were not translated into French until the novelist was near the end of his life). Proust 'realised' one idea to wonderful heights. (p. 238)

Proust did not find it easy to publish his book. It was turned down by a number of publishers, including the writer André Gide at *Nouvelle Revue Française*, who thought Proust a snob and a literary amateur. (p. 240)

Jung thought that the libido was not, as Freud insisted, solely a sexual instinct but more a matter of ‘psychic energy’ as a whole, a reconceptualisation that, among other things, vitiated the entire idea of childhood sexuality, not to mention the Oedipal relationship. Second, and perhaps even more important, Jung argued that he had discovered the existence of the unconscious for himself, entirely independently of Freud. (p. 241)

The principle is simple: the patient is shown a list of words and asked to respond to each one with the first word that comes into his/her head. The rationale is that in this way conscious control over the unconscious urges is weakened. (p. 242)

For Jung, however, sex was not fundamental – instead, it was itself a transformation from religion. Sex, for Jung, was one aspect of the religious impulse but not the only one. (p. 243)

Jung said, by three pieces of ‘evidence.’ First, he pointed to the ‘extraordinary unanimity’ of narratives and themes in the mythologies of different cultures. He also argued that ‘in protracted analyses, any particular symbol might recur with disconcerting persistency but as analysis proceeded the symbol came to resemble the universal symbols seen in myths and legends.’ Finally he claimed that the stories told in the delusions of mentally ill patients often resembled those in mythology. (p. 244)

Freud, while troubled by this personal rift, which also had anti-Semitic overtones, was more concerned that Jung’s version of psychoanalysis was threatening its status as a science. Jung’s concept of the collective unconscious, for example, clearly implied the inheritance of acquired characteristics, which had been discredited by Darwinism for some years. As Ronald Clark commented: ‘In short, for the Freudian theory, which is hard enough to test but has some degree of support, Jung [had] substituted an untestable system which flies in the face of current genetics.’ (p. 245)

He notes that the toll on human life even at the beginning of the war was so horrific that the height requirement for the British army was swiftly reduced from five feet eight in August 1914 to five feet five on 11 October. By November,

after thirty thousand casualties in October, men had to be only five feet three to get in. (p. 250)

Lack of imagination was only one cause of the disaster. It may be too much to lay the blame on social Darwinist thinking, but the British General Staff did hold the view that the new conscripts were a low form of life (mainly from the Midlands), too simple and too animal to obey any but the most obvious instructions. (p. 252)

That is one reason why the attack was carried out in daylight and in a straight line, the staff feeling the men would be confused if they had to attack at night, or by zigzagging from cover to cover. (p. 252)

Those who weren't killed by gun- or shell-fire died either from cold or literally drowned in the mud. British losses numbered 370,000. Throughout the war, some 7,000 officers and men were killed or wounded every day: this was called 'wastage.' (p. 252)

By the end of the war, half the British army was aged less than nineteen. No wonder people talked about a 'lost generation.' (p. 252)

Before 1914, blood transfusion was virtually unknown. By the end of hostilities, it was almost routine. (p. 253)

William Harvey had discovered the circulation of the blood in 1616, but it was not until 1907 that a doctor in Prague, Jan Jansky, showed that all human blood could be divided into four groups, O, A, B, and AB, distributed among European populations in fairly stable proportions. (p. 254)

Binet was very practical, and he did not invest his tests with any mystical powers. In fact, he went so far as to say that it didn't matter what the tests were, so long as there were a lot of them and they were as different from one another as could be. (p. 255)

Accordingly, in 1912 the German psychologist W. Stern suggested that mental age should be divided by chronological age, a calculation that produced the intelligence quotient. (p. 256)

An 'idiot' was someone who could not master full speech, so had difficulty following instructions, and was judged to have a mental age of not more than three. An 'imbecile,' meanwhile, was someone who could not master written language and was considered to have a mental age somewhere between three and seven. Goddard's first innovation was to coin a new term – 'moron,' from the Greek, meaning foolish – to denote the feeble-minded individuals who were just below normal intelligence. Between 1912 and the outbreak of war Goddard carried out a number of experiments in which he concluded, alarmingly – or absurdly – that between 50 and 80 percent of ordinary Americans had mental ages (p. 256)

On the other hand, for Goddard, morons could never be leaders or even really think for themselves; they were workers, drones who had to be told what to do. (p. 257)

[I]mmigrants then arriving at Ellis Island, he managed to show to his own satisfaction (and again, alarm) that as many as four-fifths of Hungarians, Italians, and Russians were 'moronic.' (p. 257)

The first was that the average mental age of recruits was thirteen. This sounds pretty surprising to us at this end of the century: a nation could scarcely hope to survive in the modern world if its average mental age really was thirteen. (p. 259)

There had been cases of men breaking down in earlier wars, but their numbers had been far fewer than those with physical injuries. What seemed to be crucially different this time was the character of hostilities – static trench warfare with heavy bombardment, and vast conscript armies which contained large numbers of men unsuited for war. Psychiatrists quickly realised that in the huge civilian armies of World War I there were many men who would not normally have become soldiers, who were unfit for the strain, and that their 'civilian' neuroses would express themselves under the terror of bombardment. (p. 261)

An analysis of 1,043,653 British casualties revealed that neuroses accounted for 34 percent. (p. 261)

To quote Francis Hope, 'In a not altogether rhetorical sense, all poetry written since 1918 is war poetry.' (p. 263)

Wittgenstein enlisted on 7 August, the day after the Austrian declaration of war on Russia, and was assigned to an artillery regiment serving at Kraków on the eastern front. He later suggested that he went to war in a romantic mood, saying that he felt the experience of facing death would, in some indefinable manner, improve him (Rupert Brooke said much the same). On the first sight of the opposing forces, he confided in a letter, ‘Now I have the chance to be a decent human being, for I am standing eye to eye with death.’ (p. 272)

Nicknamed ‘Witter-Gitter,’ he was generally considered dull, with a laboured Germanic sense of humour. (p. 274)

[H]e was an autodidact and didn’t care what people thought of him. (p. 275)

Early on in the war he conceived what he called the picture theory of language – and it was this that was refined during the Austrian army’s chaotic retreat under Russian attack. (p. 275)

He proved brave, asking to be assigned to the most dangerous place, the observation post on the front line, which guaranteed he would be a target. (p. 275)

He completed the book during a period of leave in 1918 after his uncle Paul had bumped into him at a railway station where Wittgenstein was contemplating suicide. The uncle persuaded his nephew to go with him to Hallein, where he lived. (p. 276)

The argument of the book is that language corresponds to the world, as a picture or model corresponds to the world that it attempts to depict. (p. 277)

Frege, whose own work had inspired the *Tractatus*, died without ever understanding it. (p. 277)

His major innovation was to realise that language has limitations, that there are certain things it cannot do and that these have logical and therefore philosophical consequences. (p. 277)

The same is true of philosophical generalisations that we make about the world as a whole. They are meaningless if they cannot be broken down into elementary sentences ‘which really are pictures.’ (p. 278)

Dadaists questioned whether, in the light of scientific and political developments, art – in the broadest sense – was possible. They doubted whether reality could be represented, arguing that it was too elusive, according to science, and therefore dubious both morally and socially. If Dada valued anything, it was the freedom to experiment. (p. 280)

It was Richard Hülsenbeck who transported ‘the Dada virus’ to Berlin. He published his Dada manifesto in April 1918, and a Dada club was established. Early members included Raoul Hausmann, George Grosz, John Heartfield, and Hannah Hoch, who replaced collage with photomontage to attack the Prussian society that they all loathed. (p. 282)

Unique to Paris Dada was automatic writing, a psychoanalytic technique where the writer allowed himself to become ‘a recording machine,’ listening for the ‘unconscious murmur.’ André Breton thought that a deeper level of reality could be realised through automatic writing, ‘that analogical sequences of thought’ were released in this way, and he published a short essay in 1924 about the deeper meaning of our conscious thoughts. (p. 284)

As commissar for education, an authority on music and theatre, Lunacharsky had Lenin’s ear, and for a time several grandiose plans were considered – for example, a proposal to erect at well-known landmarks in Moscow a series of statues, monuments of great international revolutionaries of the past. Loosely interpreted, many of the ‘revolutionaries’ were French: Georges-Jacques Danton, Jean-Paul Marat, Voltaire, Zola, Cézanne. (p. 286)

A new political category was needed: he put Prussianism and Socialism together to come up with National Socialism. This would lead men to exchange the ‘practical freedom’ of America and England for an ‘inner freedom,’ ‘which comes through discharging obligations to the organic whole.’ (p. 296)

What Joyce, Eliot, Lewis, and the others were criticising, among other things, was the society – and not only the war society – which capitalism had brought about, a society where value was placed on possessions, where life had become a race to acquire things, as opposed to knowledge, understanding, or virtue. (p. 319)

Under capitalism, he wrote, culture became more private, less was shared, and this trend went against the common life of men – individuality inevitably promoted inequality. (p. 320)

He got up at five every morning to write before going into the bank, a routine so exhausting that in the autumn of 1921 he took a prolonged leave. Pound's poem *Hugh Selwyn Mauberly*, published the year before, had a not dissimilar theme to *The Waste Land*. (p. 323)

Even stranger, the poem comes with notes and references, like an academic paper. These notes, however, repay inspection. (p. 325)

Eliot, incidentally, did not share the vaguely Freudian view of most people at the time (and since) that art was an expression of the personality. On the contrary, for him it was 'an escape from personality.' (p. 327)

Ulysses was also in part a response to the war – the last line reads: 'Trieste-Zurich-Paris, 1914–1921.' (p. 331)

For it is Joyce's point that the age of heroes is over.* He loathed the 'heroic abstractions' for which so many soldiers were sacrificed, 'the big words which make us so unhappy.' The odyssey of his characters is not to negotiate the fearsome mythical world of the Greeks – instead, he gives us Bloom's entire day in Dublin on 16 June 1904. (p. 333)

'If *Ulysses* isn't fit to read', said Joyce to his cousin, responding to criticism, 'life isn't fit to live.' (p. 334)

'Whether these be sins or virtues old Nobodaddy will tell us at doomsday (p. 334)

Sodome et Gomorrhe II was published in May 1922, the very month Proust and Joyce met. Three more volumes – *La Prisonnière*, *Albertine disparue*, and *Le temps retrouvé* — all came out after Proust died in 1922. (p. 342)

Proust, who was himself homosexual, had suffered a double tragedy during the war years when his driver and typist, Alfred Agostinelli, with whom he had fallen in love, left him for a woman and went to live in the south of France. (p. 343)

At the time of his death, Proust's reputation was high. Now, however, some critics argue that his achievement no longer merits the enormous effort. For others, *A la recherche du temps perdu* is still one of the outstanding achievements of modern literature, 'the greatest exploration of a self by anyone, including Freud.' (p. 344)

Gide weaves these elements into a complex plot, which includes one character, Edouard, who is writing a novel called *The Counterfeiters*, and in which, in essence, everyone is a counterfeiter of sorts. (p. 345)

The Counterfeiters is perhaps the most realistic diagnosis of our times. The novel offers no prescription; it infers that none is really available. If our predicament is ultimately tragic, why don't more people commit suicide? That too is a mystery. (p. 346)

Despite evidence that the longer immigrants were in the United States, the better they performed on IQ tests, Brigham's aim was to show that the southern and eastern peoples of Europe, and Negroes, were of inferior intelligence. (p. 354)

At one point, when Bryan insisted on testifying as an expert in biblical science, he proved unwilling or unable to answer questions about the age of the earth or of well-known archaeological sites. He defended himself by saying, 'I do not think about things I do not think about.' Darrow replied drily, 'Do you think about things you do think about?' (p. 356)

Richard Hofstadter argues that particularly in the American South and Midwest, people used the Christianity/evolution struggle as a cipher for revolting against modernity.