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ENGLISH PHILOSOPHY IN THE SEVENTEENTH CENTURY

THE EMPIRICISM OF THOMAS HOBBS

One of the invited commentators on Descartes' *Meditations* was Thomas **Hobbes**, the foremost English philosopher among his contemporaries. This early encounter between Anglophone and continental philosophy was not cordial. Descartes thought Hobbes' objections trivial, and Hobbes is reported to have said 'that had Des Cartes kept himself wholly to Geometry he had been the best Geometer in the world, but his head did not lie for Philosophy'.

Hobbes was eight years Descartes' senior, born just as the Armada arrived off England in 1588. After education at Oxford he was employed as a tutor by the Cavendish family, and spent much time on the continent. It was in Paris, during the English Civil War, that he wrote his most famous work on political philosophy, *Leviathan*. Three years after the execution of King Charles he returned to England to live in the household of his former pupil, now the Earl of Devonshire. He published two volumes of natural philosophy, and in old age translated into English the whole of Homer, as in youth he had translated Thucydides. He died, aged 91, in 1679.

Hobbes stands squarely and bluntly in the tradition of British empiricism which looks back to Ockham and looks forward to Hume. 'There is no conception in a man's mind which hath not at first, totally or by parts, been begotten upon the organs of Sense.' There are two kinds of knowledge, knowledge of fact, and knowledge of consequence. Knowledge of fact is given by sense or memory: it is the knowledge required of a witness. Knowledge of consequence is the knowledge of what follows from what: it is the knowledge required of a philosopher. In our minds there is a constant succession or train of thoughts, which constitutes mental discourse; in the philosopher this train is governed by the search for causes. These causes will be expressed in language by conditional laws, of the form 'If A, then B'.

It is important, Hobbes believes, for the philosopher to grasp the nature of language. The purpose of speech is to transfer the train of our thoughts into a train of words; and it has four uses.

First, to register, what by cogitation, we find to be the cause of any thing, present or past; and what we find things present or past may produce, or effect: which in sum is acquiring of Arts. Secondly, to shew to others that knowledge which we have attained; which is, to Counsell and Teach one another. Thirdly, to make known to others our wills, and purposes, that we may have the mutuall help of one another. Fourthly, to please and delight our selves, and others, by playing with our words, for pleasure or ornament, innocently.

Hobbes is a staunch nominalist. Universal names like 'man' and 'tree' do not name any thing in the world or any idea in the mind, but name many individuals, 'there being nothing in the world Universall but Names; for the things named, are every one of them Individual and Singular'. Sentences consist of pairs of names joined together; and sentences are true when both members of the pairs are names of the same thing. One who seeks truth must therefore take great care what names he uses, and in particular must avoid the use of empty names or insignificant sounds. These, Hobbes observes, are coined in abundance by scholastic philosophers, who put names together in inconsistent pairs. He gives as an example 'incorporeall substance', which he says is as absurd as 'round quadrangle'.

The example was chosen as a provocative manifesto of materialism. All substances are necessarily bodies, and when philosophy seeks for the causes of changes in bodies the one universal cause which it discovers is motion. In saying this, Hobbes was very close to one half of Descartes' philosophy, his philosophy of matter. But in opposition to the other half of that philosophy, Hobbes denied the existence of mind in the sense in which Descartes understood it. Historians disagree whether Hobbes' materialism involved a denial of the existence of God, or simply implied that God was a body of some infinite and invisible kind. But whether or not Hobbes was an atheist, which seems unlikely, he certainly denied the existence of human Cartesian spirits.

While Descartes exaggerates the difference between humans and animals, Hobbes minimizes it, and explains human action as a particular form of animal behaviour. There are two kinds of motion in animals, he says, one called vital and one called voluntary. Vital motions include breathing, digestion, and the course of the blood. Voluntary motion is 'to go, to speak, to move any of our limbs, in such manner as is first fancied in our minds'. Sensation is caused by the direct or indirect pressure of an external object on a sense-organ 'which pressure, by the mediation of Nerves, and other strings and membranes of the body, continued inwards to the Brain, and Heart, causeth there a resistance, or counter-pressure, or endeavour of the heart, to deliver it self: which endeavour, because outward, seemeth to be

some matter without'. It is this seeming which constitutes colours, sounds, tastes, odours etc.; which in the originating objects are nothing but motion.

The activities thus described correspond to those which Aristotelians attributed to the vegetative and sensitive souls. What of the rational soul, with its faculties of intellect and will, which for Aristotelians made the difference between men and animals? In Hobbes, this is replaced by the imagination, which is a faculty common to all animals, and whose operation is again given a mechanical explanation, all thoughts of any kind being small motions in the head. If a particular imagining is caused by words or other signs, it is called 'understanding', and this too is common to men and beasts, 'for a dog by custom will understand the call or the rating of his Master; and so will many other Beasts'. The kind of understanding that is peculiar to humans is 'when imagining any thing whatsoever, we seek all the possible effects, that can by it be produced; that is to say, we imagine what we can do with it, when we have it. Of which I have not at any time seen any sign, but in men only.'

This difference Hobbes attributes not to a difference in the human intellect, but in the human will, which includes a great variety of passions unshared by animals. The human will, no less than animal desire, is itself a consequence of mechanical forces. 'Beasts that have deliberation, must necessarily also have Will.' The will is, indeed, nothing but the desire which comes at the end of deliberation; and the freedom of the will is no greater in humans than in animals. 'Such a liberty as is free from necessity is not to be found in the will either of men or beasts. But if by liberty we understand the faculty or power, not of willing, but of doing what they will, then certainly that liberty is to be allowed to both, and both may equally have it'.

HOBBS' POLITICAL PHILOSOPHY

Hobbes' determinism allows him to extend the search for causal laws beyond natural philosophy (which seeks for the causes of the phenomena of natural bodies) into civil philosophy (which seeks for the causes of the phenomena of political bodies). It is this which is the subject matter of *Leviathan*, which is not only a masterpiece of political philosophy but also one of the greatest works of English prose.

The book sets out to describe the interplay of forces which cause the institution of the State or, in his term, the Commonwealth. It starts by describing what it is like for men to live outside a commonwealth, in a state of nature. Since men are roughly equal in their natural abilities, and are equally self-interested, there will be constant quarrelsome and unregulated competition for goods, power, and glory. This can be described as a natural state of war. In such conditions, Hobbes says, there will be no industry, agriculture, or commerce:

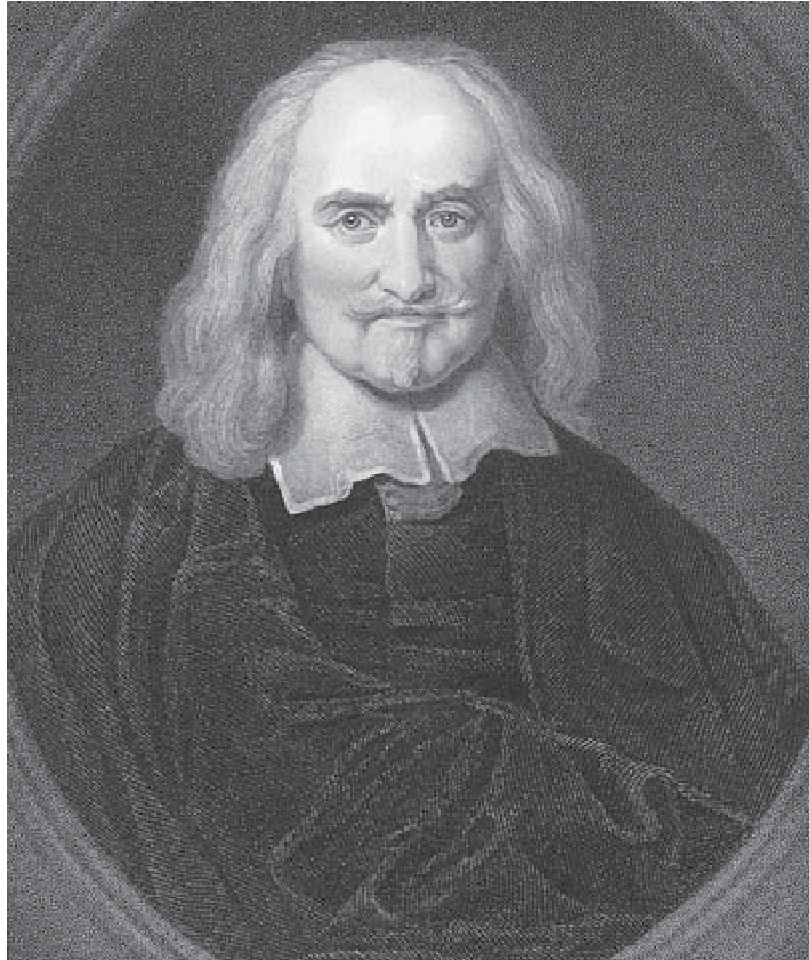


Figure 27 Portrait of Hobbes by Jan. B. Gaspars (1663).
(Private collection, Ken Welsh/Bridgeman Art Gallery)

no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and, which is worst of all, continual fear and danger of violent death; and the life of man, solitary, poor, nasty, brutish and short.

Whether or not there was ever, historically, such a state throughout the world, we can see instances of it, Hobbes says, in contemporary America, and we can see evidence of it in the precautions which men even in civilized countries take against their fellows.

In a state of nature there are no laws in the true sense. But there are 'laws of nature' in the form of principles of rational self-interest, recipes for maximizing the chances of survival. Such laws urge men in their natural state to seek peace,

and to give up some of their unfettered liberty in return for equal concessions by others. These laws lead them to give up all their rights, except that of self-defence, to a central power which is able to enforce the laws of nature by punishment. This central power may be an individual, or an assembly; whether single or plural, it is the supreme sovereign, a single will representing the wills of every member of the community.

The sovereign is instituted by a covenant of every man with every man, each one yielding up their rights on condition that every other does likewise. 'This done, the multitude so united in one person, is called a Commonwealth. This is the generation of that great Leviathan, or rather, to speak more reverently, of that mortal god, to which we owe under the immortal God our peace and defence.'

The covenant and the sovereign come into existence simultaneously. The sovereign is himself not a party to the covenant, and therefore cannot be in breach of it. That covenants should be observed is a law of nature; but 'covenants without the sword are but breath', and it is the function of the sovereign to enforce, not only the original covenant which constitutes the State, but individual covenants which his subjects make with each other.

Commonwealths can come into existence not only by free covenant, but also by warfare. In each case it is fear which is the basis of the subjects' subjection to the sovereign, and in each case the sovereign enjoys equal and inalienable rights. Every subject is the author of every action of the sovereign 'and consequently he that complaineth of injury from his Sovereign complaineth of that of which he is the author'.

The sovereign is the source of law and property rights, and is the supreme governor of the Church. It is the sovereign, and not any presbytery or Bishop, which has the right to interpret Scripture and determine correct doctrine. The insolent interpretations of fanatical sectaries have been the cause of civil war in England; but the greatest usurpation of sovereignty in the name of religion is to be found in Rome. 'If a man will consider the originall of this great Ecclesiastical Dominion, he will easily perceive, that the Papacy is no other, than the Ghost of the deceased Roman Empire, sitting crowned upon the grave thereof.'

Under a sovereign so powerful, what liberty is left to the subject? In general, liberty is no more than the silence of the law: the subject has liberty to do whatever the sovereign has not troubled to make a law against. But no one, says Hobbes, with doubtful consistency, is obliged at the sovereign's command to kill himself, or incriminate himself, or even to go into battle. Moreover, if the sovereign fails to fulfil his principal function, that of protecting his subjects, then their obligation to him lapses. It was presumably this axiom that Hobbes had in mind when, having written *Leviathan* as a royalist exile in Paris, he made his peace with Cromwell in 1652.

Hobbes had never been a supporter of the divine right of kings, nor did he believe in a totalitarian state. The state exists for the sake of the citizens, not the

other way round; and the rights of the sovereign derive not from God but from the rights of those individuals who renounce them to become his subjects. It was not during the civil war, nor during the commonwealth, but in the reign of Charles II, after the restoration of the Stuart monarchy, that the theory of divine right became an issue for philosophers. The debate started with the publication in 1680 of Sir Robert Filmer's *Patriarcha*, which claimed that the King's authority derived by patriarchal descent from the royal authority of Adam, and should thus be free of restraint by Parliament. This presented an easy target for the most influential political philosopher of the seventeenth century, John Locke.

THE POLITICAL THEORY OF JOHN LOCKE

Locke had been born in 1632. After education at Westminster School he took his MA at Christ Church, Oxford, in 1658. He qualified in medicine and became physician to Lord Shaftesbury, a member of the inner cabinet of King Charles II. Charles had returned from exile in 1660 on a wave of popular reaction against the tyranny and austerity of Cromwellian rule. As his reign progressed, however, royalty became less popular, especially as the heir to the throne, the King's brother James, was a sturdy Catholic. Shaftesbury led the Whig party, which sought to exclude James from the succession; he had to flee the country after being implicated in a plot against the royal brothers in 1683. Locke accompanied him to Holland, and spent the years of his exile composing his greatest philosophical work, the *Essay Concerning Human Understanding*, which was published in several editions in the later years of his life.

In 1688 the 'Glorious Revolution' drove out James II and replaced him with William of Orange, placing the English monarchy on a new legal basis, with a Bill of Rights and a much enhanced role for Parliament. Locke followed William to England and became the theorist of the new constitution. In 1690 he published *Two Treatises of Civil Government*, which became classics of liberal thought. He worked at the Board of Trade in the 1690s, and died in 1704.

In the first of his *Treatises* Locke makes short work of Filmer's case for the divine right of kings. Filmer's fundamental error is to deny that human beings are naturally free and equal to each other. In the second *Treatise* Locke gives his own account of the state of nature, which contrasts interestingly with that of Hobbes.

Before there are any states to make statutes, Locke maintains, men are aware of a natural law, which teaches that all men are equal and independent, and that no one ought to harm another in his life, health, liberty, or possession. These men, with no earthly superior above them, are in a state of liberty, but not a state of licence. Besides being bound by natural law, humans possess natural rights, in particular the right to life, self-defence, and freedom. They have also duties; in particular, the duty not to give away their rights.

A significant natural right is the right to property. God does not assign particular properties to particular individuals, but the existence of a system of private property is part of God's plan for the world. In the state of nature, people acquire property by 'mixing their labour' with natural goods, whether by drawing water, collecting fruit, or tilling the soil. Locke believed that there was a natural right not just to acquire, but also to inherit, private property.

Locke is obviously much less pessimistic about the state of nature than Hobbes was. His view resembles more the optimism of Pope's later *Essay on Man*.

Nor think, in Nature's State they blindly trod;
The state of Nature was the reign of God:
Self-love and social at her birth began,
Union the bond of all things, and of Man.
Pride then was not; nor Arts, that Pride to aid;
Man walk'd with beast, joint tenant of the shade;
The same his table, and the same his bed;
No murder cloath'd him, and no murder fed.
In the same temple, the resounding wood,
All vocal beings hym'd their equal God.

In the state of nature, however, men have only a precarious hold on any property more substantial than the shade they share with the beasts. Everyone can learn the teachings of nature, and transgressors of nature's law deserve punishment. But in the state of nature everyone has to be the judge in his own case, and there may be no one with sufficient power to punish violators. It is this which leads to the institution of the state. 'The great and chief end of men uniting into commonwealths, and putting themselves under government, is the preservation of their property; to which in the state of nature there are many things wanting.'

The state is created by a social contract, with men handing over to a government their rights to see that the natural law is put into practice. They hand over to a legislature the right to make laws for the common good, and to an executive the right to enforce these laws. (Locke is aware of good reasons for separating these two branches of government.) The decision on the particular form of legislature and executive is to be made by a majority of the citizens (or at least of the property-owners).

Locke's social contract differs from Hobbes' in several ways. Locke's governors, unlike Hobbes' sovereign, are themselves parties to the initial contract. The community entrusts to the chosen type of government the protection of its rights; and if the government breaches the trust placed in it, the people can remove or alter it. If a government acts arbitrarily, or if one branch of government usurps the role of another, then the government is dissolved, and rebellion is justified. Here Locke obviously has in mind the autocratic rule of the Stuart kings and the Glorious Revolution of 1688.

Locke believed, implausibly, that social contracts of the kind he describes were historical events. But he held that the maintenance of any government, however set up, depended on the continuing consent of the citizens in each generation. Such consent, he admits, is rarely explicit; but tacit consent is given by anyone who enjoys the benefits of society, whether by accepting an inheritance, or merely by travelling on the highway. Taxation, in particular, must rest on consent: 'The supreme power cannot take from any man any part of his property without his own consent.'

Locke's political ideas were not original, but their influence was great, and continued long after people ceased to believe in the theories of the state of nature and natural law that underpinned them. Anyone who knows the Declaration of Independence and the American Constitution will find a number of Locke's ideas, and indeed phrases, very familiar.

LOCKE ON IDEAS AND QUALITIES

Locke's influence was by no means restricted to the political sphere. His *Essay Concerning Human Understanding* is often regarded as the foundation charter of a particularly British school of philosophy. Historians of philosophy often contrast British and continental philosophy in the seventeenth and eighteenth centuries: the continentals were rationalists, trusting to the speculations of reason, and the British were empiricists, basing knowledge on the experience of the senses. Descartes and Locke are often put forward as the founding fathers of these two opposing schools. In fact, in spite of the differences between them, the two philosophers share a lot of presuppositions, as we can see if we examine the famous controversy over the possibility of innate ideas, which was supposed to be the touchstone of the conflict between rationalism and empiricism.

Locke is forever talking about 'ideas'. His 'ideas' are very similar to Descartes' 'thoughts'; and indeed Descartes himself sometimes talks of thoughts as ideas. In each case there is an appeal to immediate consciousness: ideas and thoughts are what we meet when we look within ourselves. In each case it is often difficult to tell whether by 'idea' is meant the object of thought (what is being thought about) or the activity of thinking (what thinking itself consists in or amounts to). Locke says that an idea is 'whatever it is which the mind can be employed about in thinking'. There is a damaging ambiguity in the phrase 'what the mind is employed about', which can mean either what the mind is thinking of (the object) or what the mind is engaged in (the activity).

The distinction between empiricism and rationalism is not wholly without foundation, and the answers which Locke gives to philosophical questions from time to time conflict with those given by Descartes. But though the answers differ, Locke's questions are Descartes' questions. Are animals machines? Does

the soul always think? Can there be space without matter? Are there innate ideas?

This last question can have several meanings, and once we break the question down, we find that there is no great gulf fixed between the positions of Locke and Descartes.

First, the question may mean ‘Do infants in the womb think thoughts?’ Both Descartes and Locke believed that unborn infants had simple thoughts or ideas, such as pains, and sensations of warmth. Neither Descartes nor Locke believed that infants had complicated thoughts of a philosophical kind.

Secondly, the question may be taken to concern not the activity of thinking, but simply the capacity for thought. Is there an inborn, general, capacity for understanding which is specific to human beings? Both Descartes and Locke believe that there is.

Thirdly, the question may concern not the general faculty of understanding, but assent to certain particular propositions, e.g. ‘One and two are equal to three’ or ‘It is impossible for the same thing to be, and not to be’. Descartes and Locke agree that our assent to such self-evident truths does not depend on experience. Locke insists, however, that a process of learning must precede the grasp of these propositions. And Descartes agrees that not all innate ideas are principles assented to as soon as understood: some of them become clear and distinct only after laborious meditation.

Fourthly, we may ask whether there are any principles, whether theoretical or practical, which command universal assent. The answer, Locke thought, was no; and even if it were yes, this would not be sufficient to prove innateness, since the explanation might be a common process of learning. But Descartes can agree that universal consent does not entail innateness, and can retort that innateness does not entail universal consent either. Some people, perhaps most people, may be prevented by prejudice from assenting to innate principles.

The arguments of Locke and Descartes in fact pass each other by. Locke insists that innate concepts without experience are insufficient to account for the phenomena of human knowledge; Descartes argues that experience without an innate element is insufficient to account for what we know. It is possible for both views to be correct.

Locke claimed that the arguments of his rationalist opponents would lead one ‘to suppose all our ideas of colours, sounds, taste, figure etc. innate, than which there cannot be anything more opposite to reason and experience’. Descartes would not have regarded this conclusion as at all absurd – and that for a reason which Locke would himself wholeheartedly accept, namely that our ideas of qualities such as colours, sounds, and taste are entirely subjective.

Locke divided the qualities to be found in bodies into two categories. The first group are the *primary qualities*: these are such things as solidity, extension, figure, motion, rest, bulk, number, texture, and size; these qualities, he says, are

in bodies 'whether we perceive them or no'. Qualities in the second group are called '*secondary qualities*', they are such things as colours, sounds, tastes, which, according to Locke, 'are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities'. All qualities, primary or secondary, produce ideas in our minds; the difference, according to Locke, is that the qualities in objects which produce the primary qualities are really like the ideas they produce, whereas the ideas which are produced in us by secondary qualities do not resemble in any way the qualities which produce them.

There are many precursors of Locke's distinction. The Aristotelian tradition distinguished between those qualities like shape which were perceived by more than one sense ('common sensibles') and those like taste which were perceived by only a single sense ('proper sensibles'). Locke's distinction had been more fully anticipated by Galileo and Descartes. Descartes had argued that a physiological account of perception need involve only primary qualities as explanatory factors: what goes on in our bodies when we see or hear or taste is nothing more than motions of shaped matter. Even if this had turned out to be true, it would not have entailed that secondary qualities were merely subjective and did not really belong to the objects in the world which appear to possess them. But Locke offers a more sustained argument for this conclusion than any of his predecessors had done.

Locke's first claim is that only primary qualities are inseparable from their subjects: there cannot be a body without a shape or a size, as there can be a body without a smell or a taste. For instance, if you take a grain of wheat and divide it over and over again, it may lose its secondary qualities but every part retains solidity, extension, shape, and mobility. What are we to make of this argument? It may be true that a body must have some shape or other, but any particular shape can surely be lost, as a piece of wax may cease to be cubical and become spherical. What Locke says of the secondary qualities might be said also of some of the primary qualities. Motion is a primary quality, but a body may be motionless. It is only if we think of motion and rest as a pair of possible values on a single axis of 'mobility' that we can say that here we have a quality which is inseparable from bodies. But in the same sense we can think of heat and cold as values on a single scale of temperature, and say that a body must have some temperature or other. After all, in 1665 the physicist Robert Hooke had already established a thermometer scale.

Locke says that secondary qualities are nothing but a power to produce sensations in us. Let us grant that this is true, or at least a good approximation to truth. It does not mean that secondary qualities are merely subjective, that is to say that they are not genuine properties of the objects that appear to possess them. To take a parallel case, to be poisonous is simply to have a power to produce a certain effect in an animal; but it is an objective matter, a matter of ascertainable fact, whether something is poisonous or not. We may agree with Locke that secondary qualities are defined by their relationship to human perceivers; but a

property can be relational while being perfectly objective. 'Being higher than Mont Blanc' is a relational property; but it is a straightforward question of fact whether or not Kanchenjunga is higher than Mont Blanc.

Locke claims that what produces in us the ideas of secondary qualities is nothing but the primary qualities of the object which has the power. The sensation of heat, for instance, is caused by the corpuscles of some other body causing an increase or diminution of the motion of the minute parts of our bodies. But even if primary qualities alone figure in the corpuscularian explanation, why should one conclude that the sensation of heat is nothing but 'a sort and degree of motion in the minute particles of our nerves'? Locke here seems to be appealing to the archaic principle that like causes like. But what reason is there to accept this principle? Surely a substance can cause illness without itself being sick.

Locke claims that secondary qualities do not exist unperceived. But this con-sorts ill with his view that secondary qualities are powers. They are powers which are exercised when they cause sensations in a perceiver. But powers can exist when they are not being exercised – most of us have the ability to recite *Three Blind Mice*, but we very rarely exercise it. So there is no reason why we should not say that the secondary qualities are powers which continue to exist, but are not exercised save when the qualities are perceived. The candy is always sweet, but it only actually tastes sweet when someone is tasting it. Aristotle was clearer here than Locke: a piece of candy's tasting sweet to me is one and the same thing as my tasting the sweetness of the candy, but the sense-quality and the sense-faculty are two different powers, each of which continues to exist in the absence of the other. Locke claimed that objects had no colours in the dark; but this is a conclusion from, not an argument for, his thesis.

Locke denies that whiteness and coldness are really in objects, because he says the ideas of such secondary qualities do not resemble the qualities in the bodies themselves. This argument trades on the ambiguity, remarked above, in Locke's notion of idea. If an idea of X is a case of perceiving X, then there is no more reason to expect perceiving a colour to resemble that colour than there is to expect eating a potato to resemble a potato. But if, on the other hand, an idea of X is an image of X, then we must reply that when I see a delphinium, what I see is not an image of blueness, but blueness itself. Locke can only deny this by assuming what he is setting out to prove.

Finally, Locke argues from an analogy between feeling and sensation. If I put my hand in the fire, the fire causes both heat and pain; the pain is not in the object, why should we think that the heat is? Once again, the analogy is being drawn in the wrong way. The fire is painful as well as hot. In saying it is painful no one is claiming that it feels pain; equally, in saying it is hot, no one is claiming that it feels heat. If Locke's argument worked, it could be turned against himself. When I cut myself, I feel the slash of the knife as well as the pain: is motion then a secondary quality?

Locke is basically correct in thinking that secondary qualities are powers to produce sensations in human beings, and he has familiar arguments to show that the sensations produced by the same object will vary with circumstances (luke-warm water will appear hot to a cold hand, and cold to a hot hand; colours look very different under a microscope). But from the fact that the secondary qualities are anthropocentric and relative it does not follow that they are subjective or in any way fictional. In a striking image suggested by the Irish chemist Robert Boyle, the secondary qualities are keys which fit particular locks, the locks being the different human senses. Once we grasp this, we can accept, in spite of Locke, that grass really is green, and snow really is cold.

SUBSTANCES AND PERSONS

In the Aristotelian tradition, qualities, like other accidents, belonged to *substances*. In Descartes, too, the notion of substance is of prime importance. Locke says that the notion of substance arises from our observation that certain ideas constantly go together. No one has any clear idea of substance, but ‘only a supposition of he knows not what support of such qualities, which are capable of producing simple ideas in us’.

The ideas of particular kinds of substance such as *horse* or *gold* are not simple ideas, but complex ideas. Locke calls them *sortal* ideas: collections of simple co-occurrent ideas plus this general confused idea of a something, we know not what, in addition to its observable qualities. Particular substances are concrete individuals which belong to these different sorts or species. They fall into the two general categories of material and spiritual: material substances, which are characterized by the primary qualities, and spiritual substances, which are characterized by the possession of intellect and will and the power to cause motion.

Substances such as humans and trees have essences: to be a man, or to be an oak, is to have the essence of man or the essence of oak. But there are, for Locke, two kinds of essence. There is the nominal essence, the right to bear a particular name. Nominal essences are the largely arbitrary creation of human language. But things also have real essences, the work of nature, not of man; these are commonly quite unknown to us, at least in advance of experimental inquiry.

Locke’s notion of substance is impenetrably obscure. He seems to maintain that substance itself is indescribable because it is propertyless: but can one seriously argue that substance has no properties because it is what *has* the properties? On his own account of the origin of ideas, it is very difficult to account for the emergence of the confused general idea of substance. Substance seems to have been postulated because of the need of a subject for items to belong to, or for items to inhere in. But what, in Locke’s system, does the inhering? Shall we say ‘qualities’? But qualities, in Locke’s system, are hidden behind the veil which ideas

place between them and the perceiver. Shall we then say 'ideas'? But ideas already have something to inhere in, namely the mind of the perceiver. The trail is laid for Berkeley's later destructive criticism of the whole notion of material substance.

In the Aristotelian tradition there was no such thing as propertyless substance, a something which could be identified as a particular individual without reference to any sortal. Fido is an individual substance only so long as he remains a dog, only so long as the sortal 'dog' can be truly applied to him. All identity is relative identity, in the sense that we cannot sensibly ask whether A is the same individual as B without asking whether A is the same individual F as B, where 'F' holds a place for some sortal. (A may be the same book as B, but a different edition; or the same edition, but a different copy.) Locke's confused doctrine of substance led him into insoluble difficulties about identity and individuation; but it also stimulated some of his most interesting philosophical writing, in his discussion of the problem of personal identity.

Philosophical problems about identity arise in many different contexts. Some are religious contexts. Can any of us survive the death of our body? If an immortal soul outlives death, is it still a human being? Can a single soul inhabit two different bodies in succession? Can two souls or spirits inhabit the same body at the same time? Other contexts are scientific or medical. When a single human body, at different periods, exhibits different cognitive capacities and contrasting patterns of behaviour, it is natural to talk of split or dual personality. But can a single body really be two different persons at two different times? If the link is cut between the left and right hemispheres of a single brain, the capacities and behaviour of the two halves of a single body may become dissociated. Is this a case of two persons in a single body at one and the same time? Problems like this call for reflection on the concepts of body, soul, mind, person, and on the criteria for identification and re-identification which go with each concept.

It was, however, the religious problems which provided the backdrop for Locke's discussion. Christians believed that the dead would rise again on the last day: what was the link between a body now dead and turned to clay and a future body gloriously risen? Between death and resurrection, so Catholics believed, individual disembodied souls rejoiced in heaven or suffered in hell or purgatory. Christian Aristotelians strove to reconcile this with their philosophical belief that matter is the principle of individuation. But since disembodied souls are immaterial, what makes the disembodied soul of Peter distinct from the disembodied soul of Paul?

Locke saw clearly that the problems of personal identity could only be resolved if one accepted that identity was relative: that A can be the same F as B without being the same G as B. A colt, he says, growing up to a horse, sometimes fat, sometimes lean, is all the while the same horse, though not the same mass of matter. 'In these two cases of a Mass of Matter, and a living Body, *Identity* is not applied to the same thing.'

The identity of plants and animals consists in continuous life in accordance with the characteristic metabolism of the organism. But in what, Locke asks, does the identity of the same *Man* consist? (By 'man', of course, he means 'human being' including either sex.) A similar answer must be given: a man is 'one fitly organized Body taken in any one instant, and from thence continued under one Organization of Life in several successively fleeting Particles of Matter united to it'. This is the only definition which will enable us to accept that an embryo and an aged lunatic can be the same man, without having to accept that Socrates, Pilate, and Ceasar Borgia are the same men. If we say that having the same soul is enough to make the same man, we cannot exclude the possibility of the transmigration of souls and reincarnation. We have to insist that man is an animal of a certain kind, indeed an animal of a certain shape.

But Locke makes a distinction between the concept *man* and the concept *person*. A person is a being capable of thought, reason, and self-consciousness; and the identity of a person is the identity of self-consciousness. 'As far as this consciousness can be extended backwards to any past Action or Thought, so far reached the Identity of that *Person*; it is the same *self* now it was then; and 'tis by the same *self* with this present one that now reflects on it, that that Action was done.'

Here Locke's principle is that where there is the same self-consciousness, there there is consciousness of the same self. But the passage contains a fatal ambiguity. What is it for my present consciousness to extend backwards?

If my present consciousness extends backwards for so long as this consciousness has a continuous history, the question remains to be answered: what makes *this* consciousness the individual consciousness it is? Locke has debarred himself from answering that *this* consciousness is the consciousness of *this* human being, since he has made his distinction between *man* and *person*.

If, on the other hand, my present consciousness extends backwards only as far as I remember, then my past is no longer my past if I forget it, and I can disown the actions I no longer recall. Locke sometimes seems prepared to accept this; I am not the same person, but only the same man, who did the actions I have forgotten, and I should not be punished for them, since punishment should be directed at persons, not men. However, he seems unwilling to contemplate the further consequence that if I erroneously think I remember being King Herod ordering the massacre of the innocents then I can justly be punished for their murder.

According to Locke I am at one and the same time a man, a spirit, and a person, that is to say, a human animal, an immaterial substance, and a centre of self-consciousness. These three entities are all distinguishable, and in theory may be combined in a variety of ways. We can imagine a single spirit in two different bodies (if, for instance, the soul of the wicked emperor Heliogabalus passed into one of his hogs). We can imagine a single person united to two spirits: if, for instance, the present mayor of Queensborough shared the same consciousness with Socrates. Or we can imagine a single spirit united to two persons (such was

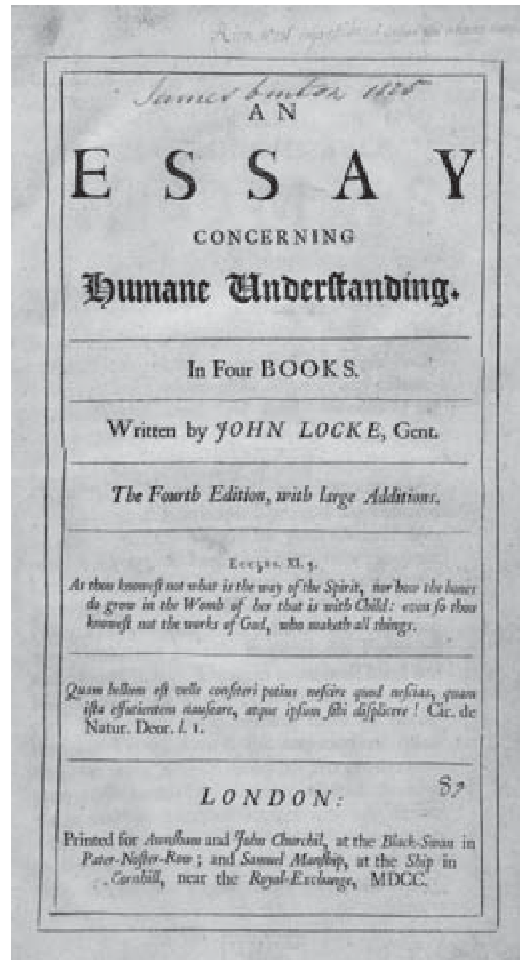


Figure 28 Title page of Locke's *Essay on Human Understanding*.
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the belief of a Christian Platonist friend of Locke's who thought his soul had once been the soul of Socrates). Locke goes on to explore more complicated combinations, which we need not consider, such as one case to illustrate one person, one soul and two men, and another case to illustrate two persons, one soul, and one man.

What are we to make of Locke's trinity, of spirit, person and man? There are difficulties, by no means peculiar to Locke's system, of making sense of immaterial substance, and few of Locke's present-day admirers employ the notion. But the identification of personality with self-consciousness remains popular in some

quarters. The main difficulty with it, pointed out in the eighteenth century by Bishop Joseph Butler, arises in connection with the concept of memory.

If Smith claims to remember doing something, or being somewhere, we can, from a common-sense point of view, check whether this memory is accurate by seeing whether Smith in fact did the deed, or was present on the appropriate occasion; and we do so by investigating the whereabouts and activities of Smith's body. But Locke's distinction between person and human being means that this investigation will tell us nothing about the person Smith, but only about the man Smith. Nor can Smith himself, from within, distinguish between genuine memories and present images of past events which offer themselves, delusively, as memories. The way in which Locke conceives of consciousness makes it difficult to draw the distinction between veracious and deceptive memories at all. The distinction can only be made if we are willing to join together what Locke has put asunder, and recognize that persons are human beings.

Locke was not as influential as a theoretical philosopher as he was as a political philosopher; but his influence was none the less extensive, the more so because his name was often linked with that of his compatriot and younger contemporary, Sir Isaac **Newton**. In 1687 Newton published his *Philosophiæ naturalis principia mathematica*, which caused a revolution in science of much more enduring importance than the Glorious Revolution of the following year.

Among many scientific achievements, Newton's greatest was the establishment of a universal law of gravitation, showing that bodies are attracted to each other by a force in direct proportion to their masses and in inverse proportion to the distance between them. This enabled him to bring under a single law not only the motion of falling bodies on earth, but also the motion of the moon around the earth and the planets round the sun. In showing that terrestrial and celestial bodies obey the same laws, he dealt the final death blow to the Aristotelian physics. But he also refuted the mechanistic system of Descartes, because the force of gravity was something above and beyond the mere motion of extended matter. Descartes himself, indeed, had considered the notion of attraction between bodies, but had rejected it as resembling Aristotelian final causes, and involving the attribution of consciousness to inert masses.

Newton's physics, therefore, was quite different from the competing systems it replaced; and for the next two centuries physics simply *was* Newtonian physics. The separation of physics from the philosophy of nature, set in train by Galileo, was now complete. The work of Newton and his successors is the province not of the historian of philosophy, but of the historian of science.