

John Locke (1632-1704)

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Biography

John Locke was the first of the empiricist opponents of Descartes to achieve comparable authority among his European contemporaries. Together with Newton's physics, the philosophy of *An Essay concerning Human Understanding* gradually eclipsed Cartesianism, decisively redirecting European thought. Neoplatonic innatism was replaced with a modest, naturalistic conception of our cognitive capacities, making careful observation and systematic description the primary task of natural inquiry. Locke saw himself as carrying out just such a descriptive project with respect to the mind itself. Theorizing is the construction of hypotheses on the basis of analogies, not penetration to the essences of things by super-sensory means. In religion Locke took a similarly anti-dogmatic line, advocating toleration and minimal doctrinal requirements, notably in *Epistola de tolerantia* (A Letter concerning Toleration) and *The Reasonableness of Christianity*. Through his association with the Earl of Shaftesbury he became involved in government, and then in revolutionary politics against Charles II and James II. The latter involvement led to exile, and to *Two Treatises of Government*, a rejection of patriarchalism and an argument from first principles for constitutional government in the interests of the governed, and for the right of the misgoverned to rebel. Locke published his main works only after the 'Glorious Revolution' of 1688. He undertook important governmental duties for a time, and continued to write on many topics, including economics and biblical criticism, until his death. *The Essay*, *Epistola* and *Second Treatise* remain centrally canonical texts.

Locke held that all our ideas are either given in experience, or are complex ideas formed from simple ideas so given, but not that all our knowledge is based on experience. He accepted that geometry, for example, is an a priori science, but denied that the ideas which are the objects of geometrical reasoning are innate. 'Experience' includes 'reflection', that is reflexive awareness of our own mental operations, which Cartesians treated as a way of accessing innate ideas, but which Locke calls 'internal sense'. To have ideas before the mind is to be perceiving given or constructed sensory or quasi-sensory images – things as perceived by sense. In abstraction, however, we consider only aspects of what is presented: for example, a geometrical proof may consider only aspects of a drawn figure, allowing generalization to all figures similar in just those respects. Universal knowledge is thus perception of a relation between abstract ideas, but we also have immediate knowledge, in sensation, that particular external things are causing ideas in us. This awareness allows us to use the idea as a sign of its external cause: for example, the sensation of white signifies whatever feature of objects causes that sensation. Representation is thus fundamentally causal: causality bridges the gap between reality and ideas. Consequently we have sensitive knowledge of things only through their powers, knowledge of their existence without knowledge of their essence. Each way in which things act on the senses gives rise to a phenomenally simple idea signifying a quality, or power to affect us, in the object. Some simple ideas, those of the 'primary qualities', solidity, extension, figure, motion or rest, and number (the

list can vary) can be supposed to resemble their causes. Others, ideas of ‘secondary qualities’, colour, smell, taste and so forth, do not. We also form ideas of the powers of objects to interact.

Our idea of any sort of substantial thing is therefore complex, including ideas of all the qualities and powers by which we know and define that ‘substance’. Additionally, the idea includes the ‘general idea of substance’, or possessor of the qualities, a placemaker signifying the unknown underlying cause of their union. Locke distinguishes between the general substance, matter, and the ‘particular constitution’ of matter from which flow the observable properties by which we define each sort of substance – gold, horse, iron and so on. This ‘real constitution’ or ‘real essence’ is distinguishable only relatively to our definition or ‘nominal essence’ of the species. Locke extends this conceptualist view of classification to individuation in a famous, still influential argument that a person is individuated, not by an immaterial soul, but by unifying and continuous consciousness.

Because their real essences are unknown to us, we are capable only of probable belief about substances, not of ‘science’. In mathematics, however, real essences are known, since they are abstract ideas constructible without reference to reality. So too with ideas of ‘mixed modes’ and ‘relations’, including the ideas of social actions, roles and relationships which supply the subject-matter of a priori sciences concerned with law, natural, social and positive. The three legislators are God, public opinion and government. God’s authority derives from his status as creator, and natural or moral law is his benevolent will for us. Locke’s political theory concerns the authority of governments, which he takes to be, at bottom, the right of all individuals to uphold natural law transferred to a central agency for the sake of its power and impartiality. Economic change, he argues, renders this transfer imperative. In a state of nature, individuals own whatever they have worked for, if they can use it and enough is left for others. But with land-enclosure (which benefits everyone by increasing productivity) and the institution of money (which makes it both possible and morally justifiable to enjoy the product of enclosure) this primitive property-right is transcended, and there is need for an authority to ordain and uphold rules of justice for the benefit of all. Any government, therefore, has a specific trust to fulfil, and should be organized so as best to safeguard this role. A ruler who rules in his own interest forfeits all rights, as a criminal at war with his subjects. Then rebellion is justified self-defence.

1. Life and main works

John Locke was born at Wrington, Somerset in England on 28 August 1632. His father was a small property owner, lawyer and minor official, who served on the side of Parliament in the civil war under the more influential Alexander Popham. Through Popham, Locke became a pupil at Westminster School, then the leading school in England. From Westminster he was elected in May 1652 to a Studentship at Christ Church, Oxford, conditionally tenable for life.

During the next fifteen years at Oxford Locke took his degrees (B.A. 1656, M.A. 1658) and fulfilled various college offices, becoming Tutor in 1661. Between 1660 and 1662 he wrote three manuscripts on issues of Church and State, individual conscience and religious authority, two now published together and known as [Two Tracts on Government](#), and [An necesse sit dari in Ecclesia infallibilem Sacro Sanctae Scripturae interpretem? \(Is it necessary to have in the church](#)

[an infallible interpreter of holy scripture?](#)). Although his answer to the last question was predictably negative, in the [Tracts](#) he expressed a less-than-tolerant view of conscientious religious unorthodoxy, assigning to rulers the right to determine details of religious observance for the sake of public peace. While Censor of Moral Philosophy at Christ Church in 1664 he completed the Latin manuscript now known as [Essays \[or Questions\] on the Law of Nature](#), which presaged his mature views – both his general empiricism and his conception of moral obligation as an obligation to God to obey natural law. This work also rejects wayward and dogmatic appeals to conscience, in favour of reason based on experience.

The politics of religion, at the time a large part of politics, was not Locke's only extracurricular interest. His reading-notes ('commonplace books') of this time indicate an interest in Anglican theology, and by 1658 he was reading and taking lecture notes in medicine with the assiduity appropriate to a chosen career. This interest extended to chemistry and, in the 1660s, to the new mechanical philosophy as expounded, for example, by Robert [Boyle](#), whom Locke had met by 1660. Locke also read the main philosophical works of [Descartes](#), and some [Gassendi](#), but his record focuses on their versions of corpuscularianism, bypassing metaphysical and epistemological underpinnings (see [Descartes, R. §§11–12](#); [Gassendi, P. §§2, 4](#)). On the evidence, natural philosophy attracted Locke more at this time than metaphysics, although the coarse empiricism of [Essays on the Law of Nature](#) is close to that of [Gassendi](#). Yet Locke could hardly have remained ignorant of the battle among the new philosophers between 'gods' and 'giants' – between those, led by [Descartes](#), in the Platonic-Augustinian metaphysical tradition and those, headed by [Gassendi](#) and [Hobbes](#), who developed ancient empiricist and materialist theory.

In 1665 Locke's university life was interrupted by a diplomatic mission to Brandenburg as secretary to Sir Walter Vane. About this time he decided against entering the church, but took the one way of nevertheless keeping his Studentship (without obligation to reside in Oxford) by transferring formally to medicine. In 1666 came a momentous meeting with Lord Ashley (Anthony Ashley Cooper, who became Earl of Shaftesbury in 1672), whose London household Locke subsequently joined in 1667. Here his medical and political interests alike received a more practical edge than they had previously possessed. He began collaborating closely with the pre-eminent physician, Thomas Sydenham, and in 1668 successfully supervised an operation on Lord Ashley to drain an abscess on the liver. In the years following he continued to act as medical advisor within Ashley's circle, supervising the birth of Ashley's grandson, later the philosophical Third Earl of [Shaftesbury](#). A manuscript of this time in Locke's handwriting (but perhaps wholly or partly by Sydenham), '[De Arte Medica](#)', is strongly sceptical of the value of hypotheses, as opposed to experience, in medicine.

During this same period, presumably influenced by his patron, Locke wrote the manuscript [Essay concerning Toleration](#) (1667), departing from his earlier, nervously illiberal justification of constraint and advocating toleration of any religious persuasion not constituting a positive moral or political danger – provisos excluding, respectively, atheists and Roman Catholics. In 1667 Ashley became a member of the governing 'cabal' which followed Clarendon's period as Lord Chancellor, and in 1672 became Lord Chancellor himself. Under

Ashley, and for a while after Ashley's fall from office in 1673, Locke was involved in government. He began to work on economic questions, and for some years helped in the organization of the newly founded colony of Carolina. He was registrar to the commissioners of excise (perhaps a sinecure) from 1670 to 1675, secretary for presentations (in charge of ecclesiastical patronage) in 1672–3, and secretary and treasurer to the Council for Trade and Plantations (no sinecure) in 1673–4.

Nevertheless he found time for new intellectual interests. Not later than 1671 he put down for discussion by a group of friends what he later claimed (inaccurately, given [Essays on the Law of Nature](#)) to have been his first thoughts on the powers of the understanding. He found the topic sufficiently gripping for a more extensive treatment than such an occasion would have demanded in *'Intellectus humanus cum cognitionis certitudine, et assensus firmitate'* ([The human intellect, the certainty of knowledge and the confirmation of belief](#)), dated 1671, with a longer (and as strongly empiricist and imagist) redrafting in the same year entitled *'An Essay concerning the Understanding, Knowledge, Opinion and Assent'* – the manuscripts now known as Drafts A and B of [An Essay concerning Human Understanding](#).

In 1675 Locke moved to France, beginning at the same time to write his journal. He met physicians and philosophers, undertook a programme of reading in French philosophy and continued working on his *'Essay'*. On returning to England in 1678, after the fabricated 'Popish plot', he was again caught up in politics and in attempts to exclude Charles' brother James from the succession. Charles dissolved Parliament in 1681, and Shaftesbury led a group of Whigs planning insurrection. During this period Locke probably wrote the bulk of the [Two Treatises of Government](#); the first, at least, to support moves for James' exclusion, the second possibly later to advocate actual rebellion. He also wrote, with James Tyrrell, a long response (still unpublished, 1997) to Edward Stillingfleet's [Unreasonableness of Separation](#), defending the position of nonconformists against Stillingfleet's criticisms. In 1682 Shaftesbury went into exile, dying soon after. When the Rye House plot to assassinate Charles and James was uncovered in 1683, Locke himself prudently moved to Holland, where he contacted other, more overtly active exiles. His connections provoked expulsion from his Christ Church Studentship in 1684, and at the time of Monmouth's rebellion he went into hiding to escape arrest. His intellectual activities continued unabated, the [Essay](#) being largely written by 1686. In 1685–6 he wrote [Epistola de Tolerantia \(Letter concerning Toleration\)](#), perhaps in response to the revocation of the edict of Nantes. He made friends, and discussed theological questions, with the remonstrant Philippus van Limborch and Jean [Le Clerc](#), publishing various items in the latter's journal, *Bibliothèque universelle et historique*, including a review of [Newton](#)'s *Principia* (1686) and a ninety-two page abridgement of the [Essay](#) (1688).

In 1688 the 'Glorious Revolution' brought the deposition of James, and Locke returned to England the following year. He declined the post of ambassador to Brandenburg, accepted an undemanding post as commissioner of appeals (annual salary, £200) and set about publishing his writings. [Epistola de Tolerantia](#) was published pseudonymously in Holland in May 1689, and Popple's English translation followed within months. The [Two Treatises](#) were revised and published anonymously, and the [Essay](#) followed in December (with authorship acknowledged),

although both books were dated 1690. [A Second Letter concerning Toleration](#) (1690) and [A Third Letter for Toleration](#) (1692) were in response to attacks by an Anglican clergyman, Jonas Proast. [Some Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money](#), partly based on the manuscript of 1668, was published in 1691 (dated 1692) against Parliamentary measures of the time. In 1691, Locke accepted the invitation of an old friend, Damaris [Masham](#) and her husband to live with them, as far as his concerns permitted, at Oates in Essex. Country life seems to have ameliorated the asthma which dogged his last years. [Some Thoughts concerning Education](#) (1693, revised 1695), a significant work in the history of educational theory, was based on a number of letters of advice to his friend, Edward Clarke. In 1694 came the second edition of the [Essay](#), with important additions including a controversial chapter on identity. In 1695 he published a new work, once more anonymously, [The Reasonableness of Christianity](#). John Edwards' attacks on its liberal, minimalist interpretation of Christian faith were rebutted in two [Vindications](#) (1695b, 1697a) (see [Latitudinarianism](#)).

Locke continued to be engaged on economic questions, and in 1695 he joined a committee to advise the Chancellor of the Exchequer on monetary policy. His recommendations, supported by further papers, were accepted. In 1696 came an important government appointment to the Council for Trade and Plantations, and for four years he fulfilled fairly onerous duties on the Board of Trade for the considerable annual salary of £1,000. At the same time he engaged in an extended controversy with Edward Stillingfleet, who found the [Essay](#) theologically suspect. [A Letter to the Right Reverend Edward, Lord Bishop of Worcester](#) was followed by two further Letters in reply to Stillingfleet's Answers. Despite its controversial style, Locke's argument is often a cogent clarification of his position. The exchange prompted significant alterations to the fourth edition of the [Essay](#) (1700) and long passages were included as footnotes in the posthumously published fifth edition. In June 1700 Locke resigned from the Board of Trade, a sick man, and thereafter lived mostly at Oates. Pursuing a long-standing interest in biblical criticism, he set about the work which was posthumously published as [A Paraphrase and Notes on the Epistles of St. Paul](#), an important contribution to hermeneutics (see [Hermeneutics, biblical](#)). In 1702 he wrote the reductive [Discourse of Miracles](#), and in 1704 began a [Fourth Letter on Toleration](#). On October 28th 1704 he died as [Damaris Masham](#) read to him from the Book of Psalms. For the last years of his life he was generally respected as, with Newton, one of Britain's two intellectual giants, a reputation undiminished by death.

2. The structure of Locke's empiricism

Locke's mature philosophy is 'concept-empiricist', but not 'knowledge-empiricist': he held that all our concepts are drawn from experience, but not that all our knowledge is based on experience. Yet his early position, in [Essays on the Law of Nature](#) and the first part of [Draft A](#), was 'knowledge-empiricist' in just this sense – even the axioms of geometry gain assent 'only by the testimony and assurance of our senses' ([Draft A](#) I: 22–3). However, according to [Draft A](#), when we find that certain relations hold without exception, we assume that they hold universally and come to employ them as 'standards' of measurement embodied in the meaning of our terms. Locke sees this as implying a choice: an axiom can *either* be interpreted as an 'instructive', but

uncertain summary of experience, *or* as a quasi-definition, founded on experience but ‘[only verbal...and not instructive](#)’. But later in [Draft A](#) he discards the notion that geometrical axioms can be interpreted empirically, taking them only in a sense in which they can be known by ‘demonstration’ or ‘the bare shewing of things or proposing them to our senses or understandings’ ([Draft A I: 50](#)) – that is, by intuitions with perceived or imagined instances (for example, diagrams) as their objects. At the same time he recognizes that mathematical propositions are not plausibly regarded as merely verbal. The possibility of alternative interpretations of universal propositions, *either* as certain, but verbal, *or* as instructive, but uncertain, is now restricted to propositions about substances, such as ‘Man is rational’. Locke has shifted, in effect, from knowledge-empiricism towards a concept-empiricism which allows ‘instructive’ a priori knowledge (the last being the acknowledged ancestor of Kant’s synthetic a priori – see [Kant, I. §4](#)).

Locke’s intuitionism shapes his attack on the innatism characteristic of the Platonic-Augustinian-Cartesian tradition (see [Innate knowledge](#)). Starting with propositions, Locke rebuts the argument from alleged universal assent, or assent by all who have come to the use of reason. But ideas are what is before the mind in thought, and propositions are ideas in relation. Locke’s underlying thesis is that to take either knowledge or ideas to be innately ‘imprinted on the mind’ in a merely dispositional sense (and they are clearly not actual in all human beings from birth) would be contrary to any intelligible notion of being ‘[in the mind](#)’: ‘[Whatever idea was never perceived by the mind, was never in the mind](#)’ ([Essay I.iv.20](#)). Locke concedes dispositional knowledge and ideas, retained by the memory and capable of being revived, but he understands both intentionality and knowledge in terms of perception, and finds nonsensical the notion of perception which never has been conscious and actual. This strongly intuitionist model rules out dispositional innatism as an intelligible possibility. Rationalist intuitionism, from Locke’s point of view, is simply incoherent. And since the only dispositional ideas and knowledge are what is retained in the memory, what is before the mind as the object of intuition or demonstration must be experiential or sensory.

Locke also argues that there are no general maxims of logic or mathematics to which all assent when they come to the use of reason, since many rational but illiterate people never consider such abstract principles. He does not accept that reasoning merely consonant with logical principles is equivalent to assent to them, or, for example, that distinguishing two things is tacit employment of the idea of identity. Explicit abstract principles and ideas come late and with so much difficulty that people cannot agree on ideas of impossibility, identity, duty, substance, God and the like – just the ideas most supposed innately luminous. That rational people assent to certain propositions on first proposal is beside the point, since such people will only have understood the terms of the proposition in question by abstraction from experience. Then they will assent, not because the proposition is innate, but because it is evident. To describe the bare capacity to perceive such truths as the possession of innate principles and ideas will make all universal knowledge innate, however specific or derived. Turning to practical principles and the idea of God, Locke appeals to anthropology to rebut the claim that any of these are universally recognized. The main thrust of his argument, however, is conceptual.

Locke's empiricism has another central feature. Like [Gassendi](#) and [Hobbes](#), he expressly accords independent authority to the particular deliverances of the senses (see [Gassendi, P. §3](#)). [Descartes](#) had argued that sensation requires interpretation employing innate, purely intellectual ideas even in order for us to conceive of its objects as independent bodies. For [Descartes](#), moreover, natural sensory belief is defenceless in the face of sceptical argument – secure knowledge of the existence of bodies can only be achieved through a rational proof involving reflection on the role and mechanisms of sense (see [Descartes, R. §9](#)). This emphatic subordination of sense to reason Locke rejects just as firmly: the senses are 'the proper and sole judges' of the existence of bodies. He sees the senses as knowledge-delivering faculties in their own right, prior to any understanding of their mechanisms: 'the actual receiving of ideas from without... makes us know, that something doth exist at that time without us, which causes that idea in us, though perhaps we neither know nor consider how it does it' (Essay IX.xi.2). The sceptic's doubt about the external world is a mere pretence, not to be taken seriously: 'no body can, in earnest, be so sceptical, as to be uncertain of the existence of those things which he sees and feels'. Echoing [Lucretius](#), Locke sees the reason employed in sceptical argument itself as standing or falling with the senses: 'For we cannot act any thing, but by our faculties; nor talk of knowledge it self, but by the help of those faculties which are fitted to apprehend even what knowledge is' (Essay IX.xi.3). Locke does identify features of sense-experience which militate against scepticism: for example, sensory ideas depend on physical sense-organs, and are systematically and unavoidably consequent on our situation; the deliverances of different senses cohere; there is a 'manifest difference' between ideas of sense and ideas of memory and imagination (most dramatically with respect to pain), as there is between acting in the world and imagining ourselves acting; and so on (Essay IX.xi.4–8). Yet all these considerations are simply 'concurrent reasons' which further, but unnecessarily confirm 'the assurance we have from our senses themselves' – 'an assurance that deserves the name of knowledge' (Essay IX.xi.3).

Locke's explanation of the certainty and extent of 'sensitive knowledge of existence' hinges on his view that in sensation we are immediately aware, not only of sensations or 'ideas', but of their being caused by things outside us. We are thus able to think of the unknown cause through its effect in us: 'whilst I write this, I have, by the paper affecting my eyes, that idea produced in my mind, which, whatever object causes, I call white; by which I know, that that quality or accident (i.e. whose appearance before my eyes, always causes that idea) doth really exist, and hath a being without me' (Essay IX.xi.2). This claim ties in with another, that ideas of simple sensory qualities are always 'true', 'real' and 'adequate': 'their truth consists in nothing else, but in such appearances, as are produced in us, and must be suitable to those powers, [God] has placed in external objects, or else they could not be produced in us' (Essay II.xxxii.14). Simple ideas are 'distinguishing marks' which fulfil their function well enough whatever unknown difference lies behind the sensible distinction. But this function fits them for another, as terms in the natural language of thought. The idea of white signifies, that is *indicates*, its unknown cause, and also signifies, that is *stands for*, that feature of things in thought. So the limited causal knowledge that sensation supplies allows us to have contentful thought and knowledge of the external world. The idea of power extends such pretheoretical knowledge: our idea of the melting of wax, joined to the idea of active or passive power, can be employed as a sign of

whatever in the sun melts wax, or of whatever in wax causes its melting. Consequently Locke decides to treat ideas of powers as simple ideas, and knowledge of powers as observational. The senses do not give knowledge of the essence or nature of bodies, but they do give knowledge of their existence, and enable us to distinguish between them.

3. Ideas of sensation and reflection: their retention and abstraction

Locke's employment of the word 'idea' responds to a variety of antecedents. Like [Descartes](#), he uses it ambiguously both for representative states (acts, modifications) of mind and, more frequently, for the represented objects as they are represented or conceived of, the so-called 'immediate' objects of perception and thought. To have an idea before the mind is generally, for Locke, to be contemplating something under a certain conception rather than contemplating a psychological state. To 'perceive a relation between ideas' is to perceive a relation between things-as-conceived-of. But Locke's account also looks back to the Epicurean view of sensations as signs of their unknown causes in the motion of atoms or 'corpuscles' (see §2), a view which points away from the Cartesian and scholastic presumption of intrinsically representative elements in thought towards a purely causal understanding of representation, treating ideas as blank sensory effects in the mind. Locke never resolves the tension between these different conceptions of an idea, although each of them is necessary to his theory.

Locke strongly opposes the Augustinian-Cartesian view that knowledge and truth consist in the conformity of human conceptions with God's conceptions, the divine ideas or archetypes employed in creation and revealed to us in our active use of reason. For [Descartes](#), human reason is only accidentally involved with the senses, whereas for Locke there are no purely intellectual ideas. The task traditionally assigned to intellect – universal thought – Locke assigns to 'abstraction', taken to be the mind's in some sense separating out elements of raw experience and employing them as 'standards and representatives' of a class. What this means will be considered.

Although Locke sometimes writes that all words stand for ideas, ideas are the mental correlates of terms or names: that is, words that can stand in subject or predicate place. He adheres to the traditional view that 'particles', such as prepositions, conjunctions, the copula and the negative, signify, not ideas, but '[the connection that the mind gives to ideas, or propositions, one with another](#)' ([Essay III.vii.1](#)). They do not *name*, but *express* 'actions of the mind in discoursing': for example, 'but' expresses various mental operations together named 'discretive conjunction'. The mental actions or operations expressed by 'is' and 'is not' are either the 'perception of the agreement or disagreement of ideas', which is Locke's definition of (at least, general) knowledge, or the 'presumption' of such a relation, which is Locke's account of belief or judgment. As commonly in earlier logic, merely considering a proposition is not distinguished from knowing or judging it to be true.

The aim of Book II of the [Essay](#) is to establish that all our ideas derive from experience: that is, that the way we conceive of the world (including ourselves) is ultimately determined by the way we experience the world. 'Experience' includes not only 'sense', but reflection ('reflexion') – not reflection in today's sense but reflexive awareness of our own mental operations. Platonists,

Aristotelians and Cartesians all assigned the reflexive awareness of thinking to intellect rather than to sense. For [Descartes](#), the innateness of such ideas as *substance*, *thought* and even *God* consists in the potentiality of their becoming explicit through the mind's reflecting on itself, and [Leibniz](#) argues accordingly that, simply by admitting reflection as well as sense, Locke admits innate ideas (see [Leibniz, G.W. §8](#)). Locke, however, claims that reflection, 'though it be not sense, as having nothing to do with external objects, yet it is very like it, and might properly enough be call'd internal sense' ([Essay II.i.4](#)). Thereafter he treats sense and reflection as theoretically equivalent (although reflexive knowledge of one's own existence is 'intuitive' rather than 'sensitive' – [Essay IV.ix.3](#)). This move not only extends the empiricist principle to such non-sensory notions as *willing*, *perceiving*, *contemplation* or *hope*, but also contradicts the Cartesian model of thought as transparent to itself, propounding a gap between how thinking appears to the subject and what it really is in itself – the latter being unknown. Locke also insists that reflection is second-order awareness, presupposing sense-perception as the first mental operation. And though 'ideas in the intellect are coeval with sensation' ([Essay II.i.23](#)), it seems that the mind must 'retain and distinguish' ideas before it can be said to 'have ideas' dispositionally, stored in the memory for employment as signifiers in thought. Ideas of reflection in particular are achieved only 'in time' – and here 'reflection' acquires some of its modern affinity with 'contemplation'. Children, Locke's accounts of both reflection and particles imply, can discern or compound ideas without having the ideas of discerning or compounding, and few of those who employ particles to *express* various mental actions ever pay them enough attention to be able to *name* them. Locke does assert that in the reception of ideas 'the understanding is merely passive', but he also allows that attention, as well as repetition, helps 'much to the fixing any ideas in the memory' ([Essay II.x.3](#)).

The 'retention' of ideas in the memory, therefore, is a necessary condition of discursive thought, and its description significantly echoes Hobbes' account of memory as 'decaying sense'. What decay are – 'it may seem probable' – images in the brain, and hostility to the separation of intellect from imagination pervades the [Essay](#). [Descartes'](#) famous argument for such a separation – that we can accurately reason about a chiliagon although we cannot form a distinct image of it – is directly rebutted: the reasoning is made possible by our precise idea of the number of the sides (itself dependent on the technique of counting), not by a clear and distinct idea of the shape. 'Clear' ideas are, by definition, such as we receive 'in a well-ordered sensation or perception'. Locke's treatment of abstraction accords with such express sensationism. 'Abstract ideas' are particulars, universal only in 'the capacity, they are put into...of signifying or representing many particular things' ([Essay III.iii.11](#)). Locke means that in abstract thought the mind relates to, and employs, sensory images in a certain way, not that it manufactures sense-transcendent objects of intellect. Abstract ideas are what we have *distinctly* before the mind in general thought, but distinctness may be achieved by 'partial consideration', not absolute separation: 'Many ideas require others as necessary to their existence or conception, which are yet very distinct ideas. Motion can neither be, nor be conceived without space' ([Essay II.xiii.11–13](#)). The very abstract ideas of *being* and *unity* are ideas of anything whatsoever considered as existing, or as one. Geometry gave Locke his paradigm of 'perception of the relation between ideas'. But where Cartesians saw the role of geometrical diagrams to be the stimulation of intellectual ideas, for Locke, as for [Hobbes](#), the object of reasoning and source of 'evidence' is

the diagram itself, whether actual or imagined. ([Kant](#)'s 'intuition' owes something to Locke.) Given these structural features of his theory, it seems undeniable, as some have denied, that Locke's ideas are essentially sensory (or reflexive) images (see [Hobbes, T. §4](#); [Kant, I. §5](#)).

4. Five sorts of idea

Book II of the [Essay](#) presents an alternative to [Aristotle](#)'s doctrine of categories, the traditional typology of entities capable of being named or predicated (see [Aristotle §7](#)). That Locke's classification is of *ideas* rather than of *things* stresses that the categories are purely conceptual. He identifies five broad types: simple ideas, ideas of simple modes, ideas of mixed modes, ideas of substances and ideas of relations. Simple ideas come first in the Lockean order of knowledge, as substances come first in the Aristotelian order of being. Simple ideas are necessarily given in experience, whereas complex ideas can be constructed by 'enlarging' ('repeating') or 'compounding' simple ideas. Ideas of relations result from 'comparing' ideas. 'Abstracting' is more a matter of focusing on an idea or, better, an aspect of an idea, whether given or constructed, than of creating a new one (see §3). Locke sometimes acknowledges that the overarching compositional model is problematic in its application, but it is put into doubt even by his formal introduction of the notion of a simple idea. The ideas of the sensible qualities of a body, Locke claims, though produced by the same body, in some cases by the same sense, are evidently distinct from one another, each being '[nothing but one uniform appearance, or conception in the mind](#)' ([Essay II.ii.1](#)). Yet to ascribe the conceptual distinctions between, for example, a thing's shape, its motion and its colour to a primitive articulation of *appearance* is to beg a crucial question.

Under the topic of simple ideas Locke expounds his famous distinction between primary and secondary qualities ([Essay II.viii](#)). Since the cause of a simple idea may be quite different in character from the idea itself, we should distinguish the idea in the mind from the corresponding quality (that is, the power to cause the idea) in bodies. Certain qualities, however, are necessary to our conception of bodies as such. These are the primary qualities, 'solidity, extension, figure, motion, or rest, and number', just those which figured in corpuscularian speculations. Locke's proposal (displaying the tension, described in §3 of this entry, between two conceptions of representation) is that in the perception of a primary quality the represented cause, the basis of the power in the object, is qualitatively *like* the idea caused: '[A circle and square are the same, whether in idea or existence](#)' ([Essay II.viii.18](#)). Only this will allow that the action of external bodies on the senses is '[by impulse, the only way which we can conceive bodies operate in](#)' ([Essay II.viii.12](#)) – an appeal to the seventeenth-century commonplace that mechanical explanations are peculiarly intelligible. But then ideas of '[colours, sounds, tastes, etc.](#)', Locke's 'secondary qualities', must also be mechanically stimulated. Hence secondary qualities '[are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities, i.e. by the bulk, figure, texture, and motion of their insensible parts](#)' ([Essay II.viii.10](#)). Ontologically they are in the same boat as the power of fire to cause pain or, indeed, its power to melt wax.

The idea of power itself Locke attributes to experience of regular patterns of change, giving rise first to expectations that '[like changes will for the future be made in the same things, by like](#)

[agents, and by the like ways](#)', and then to the thought that in one thing exists the possibility of being changed and in another [‘the possibility of making that change’](#) ([Essay II.xxi.1](#)). So we form the idea of power, active and passive: the power of fire to melt wax and the power of wax to be melted are aspects of fire and wax known and identified only through their joint effect. The idea of power is thus a place-marker for attributes which could in principle be known more directly.

The ideas or experiences of pleasure and pain are important simple ideas, since they are responsible for our ideas of good and evil, and are [‘the hinges on which our passions turn’](#) ([Essay II.xx.3](#)). (This hedonistic theory of motivation and value is examined in §9 of this entry.)

‘Simple modes’ constitute another problematic category. Locke starts with modes of extension, the subject-matter of geometry, with which he compares modes of duration. Here his thesis is that we acquire ideas of particular modes of extension (that is, determinate lengths and figures) or duration (that is, periods) in experience, and can then repeat (or divide) them so as to construct ideas of possible lengths, figures or periods not previously experienced. Roughly, ‘modification’ here is compounding like with like. The same model supplies Locke’s account of ideas of numbers, achieved by the repetition or addition of units, aided and ordered by the linguistic technique of counting. Yet he also recognizes qualitative simple modes, effectively conceding that ideas of different ‘shades of the same [experienced] colour’ are constructible. Even with quantitative ‘modes’, where the ‘repetition’ model has some plausibility, it is problematic what is a simple idea. The idea of determinate *extension* is a plausible candidate, with its determinates as ‘modes’, but the repetition model presupposes simple units. Locke impatiently responds that the smallest sensible point [‘may perhaps be the fittest to be consider’d by us as a simple idea of that kind’](#) ([Essay \(5th edn\) II.xv.5n.](#)), but he was evidently more concerned to argue that ideas of novel determinate figures are *somehow* constructible from what has been given, and so to subvert a Platonic-Cartesian argument for innateness, than to insist on the adequacy of a rigid compositional model.

Another target in Locke’s account of simple modes is [Descartes](#)’ conceptual identification of space and matter in the thesis that the essence of matter is extension. For Locke, both the essence of matter and the nature of space are unknown. He argues that our idea of a vacuum is not contradictory, since our ordinary idea of body includes solidity as well as extension, but he declines to choose between relational and realist theories of space. Yet comparison of the [Essay](#) with earlier notes and drafts indicates that, having first held a Hobbesian relational view, Locke came gradually to favour a realism close to that of [Newton](#) (see [Descartes, R. §§8, 11](#); [Newton, I. §4](#)).

Ideas of mixed modes arise with the combination of unlike simple ideas, as in the idea of a rainbow. But Locke’s paradigms are ideas of human actions and institutions, the materials of demonstrative moral and political theory. Like ideas of geometrical figures, ideas of mixed modes can properly be formed without regard to what exists. Ethical thought is none the worse for being about a virtue or motive or political constitution which is nowhere actually instantiated. Ideas of substances are different, for they concern the real rather than the ideal: [‘When we speak of justice, or gratitude...our thoughts terminate in the abstract ideas of those virtues, and look](#)

not further; as they do, when we speak of a horse, or iron, whose specific ideas we consider not, as barely in the mind, but as in things themselves, which afford the original patterns of those ideas' (Essay III.v.12). Moreover, whereas ideas of substances are formed on the presumption that the complex idea represents a really or naturally united thing, the unity of mixed modes is essentially conceptual. Indeed, 'Though...it be the mind that makes the collection, tis the name which is, as it were the knot, that ties them fast together'. Different languages slice up the field of human life and action in different ways, determined by the practices and priorities of the communities that speak them. This thesis can be extended to natural modes such as freezing, since even here it is the term tied to a striking appearance, not a natural boundary, which slices out the particular process from the general process of nature. That, Locke plausibly assumes, is not how it is with horses.

The chief thought behind Locke's somewhat confusing account of ideas of substances is that our idea of a thing or stuff is a compound of ideas of its qualities, but the thing itself is not a compound of qualities (Essay II.xxiii). The substance–accident structure is a feature of our ideas and language, not a structure in reality. It is a feature which marks our ignorance of the underlying nature of things, since we always conceive and talk of a substance as a *thing* possessing certain qualities, that is, as a 'substratum, in which [the qualities] do subsist, and from which they do result, which therefore we call substance'. The mistake of dogmatic philosophers is to think that they can form *simple* conceptions of substances matching their unitary natures. Aristotelians are so misled by language that, just because, 'for quick despatch', we employ one name, 'gold' or 'swan', they think it a 'simple term' corresponding to a 'simple apprehension'. Cartesians take the simple essences of matter and spirit to be extension and thought. Yet so far are we from catching the nature of any thing in our *complex* idea of it that, if it is asked what the subject is of the qualities by which we define it (the colour and weight of gold, for example), the best answer we can give is 'the solid extended parts', that is, the mechanistic 'corpuscularian' hypothesis as advanced by Boyle. If it is asked in turn 'what it is, that solidity and extension inhere in,' we can only say, 'we know not what'. Our idea of the substance is of 'nothing, but the supposed, but unknown support of those qualities, we find existing, which we imagine cannot subsist, sine re substante, without something to support them'. Such an idea is 'obscure and relative'. Ideas of specific substances are 'nothing but several combinations of simple ideas, co-existing in such, though unknown, cause of their union as makes the whole subsist of itself' (Essay II.xxiii.6). Locke's point is that no theory, not even the corpuscular hypothesis, gives an account of the ultimate nature of things.

Finally come ideas of relations – father, son-in-law, enemy, young, blacker, lawful and so on (Essay II.xxv–xxviii). Like ideas of modes, ideas of relations can properly be constructed without regard to reality, in particular if they are conventional relations. Adequate ideas even of natural relations, Locke claims, are possible without adequate ideas of the things related: we can grasp the essence of fatherhood without knowing the essence of man or even the mechanisms of reproduction. His point is that the biological details are irrelevant to the rights and duties of a father – a question rationally determined in his own attack on patriarchalism in Two Treatises. From this point of view, relations are theoretically close to modes. Yet Locke does allow certain relations to have peculiar ontological significance. Causal, spatial and temporal relations are

universal relations which pertain to all finite beings. Identity and diversity are so too: a thing is diverse from anything existing in a different place at the same time, 'how like and indistinguishable soever it may be in all other respects', and the continuity of individual substances is spatio-temporal. The last important type of relations to be picked out for special discussion is that of moral relations, or the relations of actions to some law 'whereby good or evil is drawn on us, from the will and power of the law-maker' (Essay II.viii.5).

5. Substances, mixed modes and the improvement of language

On Locke's account of communication ([Essay III.i-ii](#)), names should, by common convention or special agreement, excite in the hearer's mind just the same ideas as they are associated with in the speaker's mind. Collaborative progress in the sciences depends on 'clear and distinct' or 'determined and determinate' ideas – that is, on consistent and agreed association of ideas and words ([Essay II.xxix](#); compare 'Epistle to the Reader'). Locke's discussion of language is shaped by his belief that these conditions of the transference of knowledge were in his time commonly unsatisfied, especially in two domains. First, there was no agreed classification of 'substances' (living things and chemicals) based on careful observation and experiment. Second, the ideas associated with the names of mixed modes often varied both in the usage of different people and in that of the same person at different times. Two mistakes in particular disguise these shortcomings of language. The first is the assumption that a common set of words ensures a common language in the full sense, with a shared set of meanings. So people may argue about 'honour' and 'courage' without realizing that they mean different things, or nothing at all, by the words. The second mistaken assumption is that words have meaning by standing for things directly, as if the meaning of 'salt', 'gold' or 'fish' were fixed demonstratively, by what is named. The first assumption chiefly corrupts our thought about mixed modes, the second relates 'more particularly, to substances, and their names' ([Essay III.ii.5](#)). Locke's radical and influential views about the latter will be considered first.

The 'idea of substance in general' employed in ideas of specific substances is the idea of something unknown underlying the attributes known by experience (see §4 of this entry). Many have objected, following [Leibniz](#), that here Locke confusedly postulates ignorance of the subject of attributes which is not ignorance of attributes of the subject. Yet he holds that our ignorance of 'the substance of body' and 'the substance of spirit' is an ignorance of the *natures* of these things – ignorance manifested in our inability to understand the internal cohesion or (he adds in later writings) mutual attraction of bodies, or to explain what thinks in us, and how it does so. His approval of the corpuscularian hypothesis and [Newton](#)'s mechanics is qualified – the best available physical theory leaves too much unexplained to be the whole truth ([Newton](#) did not disagree). The idea of substance is a place-marker for essences which are unknown, but knowable, if possibly not by human beings (see [Newton, I](#)).

One feature of Locke's theory which has made difficulties for the present interpretation is the distinction he makes between substance and 'real essence'. The real essence of a thing, Locke says, may be taken for 'the very being of a thing, whereby it is what it is', the 'real internal, but generally in substances, unknown constitution of things, whereon their discoverable qualities depend' ([Essay III.iii.15](#)). Nevertheless, 'essence, in the ordinary use of the word, relates to

sorts' ([Essay III.vi.4](#)). Species and genera, or sorts of things, Locke asserts, are creatures of the understanding, with membership determined by abstract ideas made on the basis of experienced resemblances, not by the presence in each of a specific form, or by a common derivation from a divine archetype. Ultimately it is a matter of arbitrary definition which observable resemblances we count as necessary for membership of this or that named sort. It is not just that specific real essences are unknown, since (Locke argues) even if we did know the real constitution of things as well as clock-makers know the works of clocks, it would still be up to us where to draw the boundaries between species, and what to include in our abstract ideas or 'nominal essences'. The real essence of a species can therefore only be 'that real constitution... which is the foundation of all those properties, that are combined in, and are constantly found to co-exist with, the nominal essence' of the species ([Essay III.vi.6](#)). Here, the model is that of a universal matter determinately modified as a variety of particles interacting mechanically so as to constitute the material things of ordinary experience. Since at the fundamental level these observable quasi-machines differ from one another merely quantitatively, and can do so by indefinite degrees, there are no absolute boundaries among them. There are only the discernible resemblances and differences consequent on their underlying mechanical differences – 'the wheels, or springs... within'. Even more certainly our actual classification is not based on knowledge of any such boundaries. Talk of the real essence of a species, and the distinction between its 'properties' and its 'accidents' ('properties' flowing from the essence), are therefore, contrary to Aristotelian assumptions, *de dicto* and relative to the nominal essence defining the name of that species (see [Aristotle §8](#); [De re/de dicto](#); [Essentialism](#)).

This conception of a real essence assigns it a role closely related to that of substance. What, after all, is the 'unknown cause of the union' of any of the 'combinations of simple ideas' by which 'we represent particular sorts of substances to ourselves', if not the real essence underlying the nominal essence in question? Yet Locke sometimes distinguishes both the notion and knowledge of real essence from the notion and knowledge of substance. That is not, however, because the 'substance' is an irremediably unknown subject underlying even essence, but because it is the common stuff of a variety of species of things, 'as a tree and a pebble, being in the same sense body, and agreeing in the common nature of body, differ only in a bare modification of that common matter' ([Essay II.xiii.18](#)). The unknown modification is the specific 'real essence', and the equally unknown general nature of matter is the 'substance'. Locke also envisages deeper differences of kind between substances: 'God, spirits and body' are all 'substances' only because we think of each of them indeterminately as *something*, not because of a shared nature. But by the same token we distinguish spirit and body only because we cannot understand how matter could think, not because we can grasp their separate essences, as [Descartes](#) had supposed (see [Descartes, R. §8](#)). Indeed, since we are equally unable to understand how spirit and body might interact, or how spirits could occupy places, the issue between materialist and immaterialist accounts of minds is for Locke undecidable, and at best a matter for speculation.

Locke's corpuscularian conception of a world of machines, resembling and differing from one another by continuous degrees, is consonant with his independent epistemological conviction that names have meaning only through association with 'ideas', rather than directly with 'things as really they are'. Together they motivate his programme for improving natural classification

which advocates, not the allegedly impossible Aristotelian ideal of identifying the natural hierarchy of genera and species, but general agreement on a practically useful way of gathering and ordering the things in the world, taking into account such dependable concomitances of qualities and powers as appear to careful observation and experiment. Locke saw the future of biology and chemistry – and even of mechanics – in descriptive ‘natural history’, justifiable as a useful, orderly record of dependable means to ends but falling short of systematic ‘science’. Despite its apparent pessimism, his view has survived in biological taxonomy as a continuous tradition of scepticism as to the reality of our taxonomical divisions. In semantic theory, Locke’s broad conception of how the names of substances have meaning has only recently been eclipsed by a quasi-Aristotelian view (see [Kripke, S.A.](#); [Putnam, H.](#)).

Locke saw equal need for a programme of agreeing definitions in ethics, where his target is less the notion that moral and political terms name independent realities, than the assumption that the very existence of a word in a language ensures that it has a fixed, common meaning. ‘[Common use](#)’, Locke concedes, ‘[regulates the meaning of words pretty well for common conversation](#)’ ([Essay III.ix.8](#)) – for the ‘civil’ rather than ‘philosophical’ use of words. But where precision is required, as in the establishment or interpretation of a law or moral rule, reliance on ordinary usage leaves us vulnerable to the trickery of rhetoricians who prove bad qualities good by shifting the meaning of terms; or to the subtleties of interpreters, whether of civil or revealed law, who render unintelligible what started off plain. The remedy is to give the names of virtues and vices, and of social actions, roles and relations the fixed and unequivocal definitions necessary for a clear and unwavering view of right and wrong, ‘the conformity or disagreement of our actions to some law’.

6. Knowledge and belief

Like Platonists and Cartesians, Locke drew a strong distinction between knowledge and belief (also called opinion, judgment, or assent), but the ground and placing of this division between two forms of propositional ‘affirmation’ differed from theirs fundamentally. As the distinction is expounded in Book IV of the [Essay](#), universal knowledge or ‘science’ does not have special objects, whether a transcendent intelligible world in the mind of God or innate intellectual ideas. Its difference from general belief lies in the way in which ideas are related in the mind. In universal knowledge, the ‘connection and agreement, or disagreement and repugnancy’ of ideas is ‘perceived’, whereas in belief it is ‘presumed’ on the basis of ‘something extraneous to the thing I believe’. To follow a proof gives knowledge of the conclusion, whereas to accept the conclusion on the authority of a mathematician constitutes only belief. Similarly in the case of ‘sensitive knowledge’ of particular existence, what we ourselves perceive we know to be so, but what we infer, or accept on testimony, we merely believe.

Knowledge, as well as assent, is subject to ‘degrees’: there are degrees, not only of probability, but of ‘evidence’. The first degree of knowledge is intuitive knowledge, in which the mind ‘perceives the truth, as the eye doth light, only by being directed toward it’. Intuition ‘leaves no room for hesitation, doubt, or examination’. The second degree is demonstrative knowledge, where the truth is perceived by the aid of one or a chain of ‘intermediate ideas’. Doubt or mistake is possible at any point in the sequence with respect to connections not currently in view.

Hence, 'Men embrace often falsehoods for demonstration'. Locke's chief model for 'intermediate ideas' is geometrical: for example, the lines employed in the intermediate steps of the Euclidean proof which allow us to see that the angles of a triangle are equal to the angle on a straight line. Although his conception of intuition can seem Cartesian, the profound difference is that, for Locke, ideas which are objects of intuition are essentially a product of sense (including reflection) and imagination. As [Draft B](#) puts it, the angles and figures I contemplate may be '[drawn upon paper, carved in marble, or only fancied in my understanding](#)' ([Drafts vol. 1: 152](#)). Consequently Locke often talks as if we can *literally* perceive a necessary relation between ideas. Another difference from [Descartes](#), as also from [Hobbes](#), is that he rejects the pretensions of proposed analytical methods to uncover self-evident principles from which the phenomena can be deduced.

The third degree of knowledge is sensitive knowledge of the existence or 'co-existence' of qualities in external things. Locke's first introduction of this category seems tentative, even an afterthought, as if it is called knowledge only by courtesy. In order to fit his main definition of knowledge it has to be interpreted as the perception of the agreement of ideas of sensible qualities with the idea of existence, an analysis Locke unsurprisingly declines to develop. Yet 'sensitive knowledge of existence' does straightforwardly satisfy his other definition of knowledge: what is known in sensitive knowledge (that is, that something external is causing an idea of sense) is known directly, 'perceived' and not inferred (see §2 of this entry). Locke was writing in a context in which, despite [Gassendi](#)'s Epicurean claim that sensory knowledge is the most evident of all, it was widely assumed that knowledge in the full sense comprises only knowledge of necessary first principles, demonstrated 'science', and perhaps reflexive knowledge. Locke wanted both to concede to orthodoxy that the evidence and certainty of our sensory knowledge is not as high as that of intuition and demonstration, and to insist that, nevertheless, 'sensitive knowledge of existence' does give a degree of immediate certainty and 'deserves the name of knowledge'.

Knowledge is also categorized in terms of four propositional relations (forms of 'agreement') between ideas, namely 'identity (or diversity)', 'relation', 'necessary connection or coexistence' and 'existence' ([Essay IV.i](#)). By 'identity' Locke intends tautologies such as 'Gold is gold' and 'Red is not blue'. Intuitive knowledge of such identities is achieved simply by discerning ideas. The category also includes such truths as 'Gold is a metal' or 'Gold is malleable', when the property predicated is included in the thinker's definition of gold. Thus 'identity' covers all and only 'trifling' or 'verbal' propositions (see §2 of this entry).

The categories, 'relation', 'necessary connection or coexistence', and 'existence', on the other hand, together include all 'instructive' propositions. The category, 'relation', in part a response to Locke's earlier difficulty over the informativeness of mathematics (see §2 of this entry), also marks his rejection of analytical methods in science. As well as geometrical axioms and theorems, 'relation' presumably includes more exciting Lockean principles: as that, if anything changes, something must have a power to make it change; that, if anything exists, something must have existed from eternity; and that a maker has rights over his artefact. Categorical propositions about natural things, however, fall either under 'existence' or under 'necessary

connection or coexistence'. Our own existence is known intuitively, God's existence demonstratively (Locke employs an idiosyncratic hybrid of the cosmological and teleological proofs), and, as discussed, the existence of bodies by sense. The category 'necessary connection or coexistence' owes its disjunctive name to a rather complicated relation between particular and universal propositions. Particular *coexistences* are perceived by sense, for example, when we simply observe that yellowness, heaviness and the metallic qualities coexist in a particular subject together with malleability (that is, that this gold is malleable), without perceiving *necessary connections* between them. Locke assumes, however, with most mechanists, that necessary connections do hold between universally coexistent properties even if we cannot perceive or grasp them. Since he contends that no natural science based on the essences of substances has been achieved, he offers only very limited examples of perceived necessary connections, as 'whatever is solid is impenetrable' and 'a body struck by another will move'. (According to the short, posthumously published [Elements of Natural Philosophy](#), the laws of inertia are evidently necessary, but the law of gravity is based only on experience.) In the absence of knowledge, beliefs in universal coexistences (for example, that all gold dissolves in aqua regia), when we *presume* unperceived connections, may be inductively based on sensitive knowledge of particular coexistences. That is descriptive natural 'history', not 'science'. In general, if the idea of a particular quality is deducible from the idea of a substance, that is only because the predication of that quality is an identity: that is, universal propositions about substances, if certain, are 'trifling' and, if 'instructive', are uncertain (see §2 of this entry). In contrast, instructive a priori sciences are possible just because their objects are constructed by us: our ideas of simple or mixed modes, formed without essential reference to actuality, themselves constitute the subject-matter of mathematics and ethics. In other words, these demonstrative sciences are possible, as natural science is not, just because they deal, hypothetically, with abstractions.

The degrees of assent are '[Belief, Conjecture, Guess, Doubt, Wavering, Distrust, Disbelief, etc.](#)' ([Essay IV.xvi](#)). Probability is '[the measure whereby \[the\] several degrees \[of assent\] are, or ought to be regulated](#)'. When assent is unreasonable, it constitutes 'error'. Reasonable assent is regulated according to the proposition's conformity with the thinker's own experience or the testimony of others. The proposition may concern 'matters of fact' falling within human experience, or else unobservables lying 'beyond the discovery of our senses'. Locke identifies four broad degrees of probability with respect to 'matters of fact': (1) when the general consent of others concurs with the subject's constant experience; (2) when experience and testimony suggest that something is so for the most part; (3) when unsuspected witnesses report what experience allows might as well be so as not; and (4) when 'the reports of history and witnesses clash with the ordinary course of nature, or with one another' – a situation in which there are no 'precise rules' for assessing probability. Finally, with respect to unobservables, 'a wary reasoning from analogy' with what falls within our experience 'is the only [natural] help we have' and the only ground of probability (see [Descartes, R. §4](#)). Although Locke, in striking contrast to [Descartes](#), brings probability into the centre of epistemology, 'belief' is always treated as a practical surrogate for 'knowledge', and he takes induction itself to be grounded on the assumption of underlying, unknown necessary connections: '[For what our own and other men's constant observation has found always to be after the same manner, that we with reason](#)

conclude to be the effects of steady and regular causes, though they come not within the reach of our knowledge' (Essay IV.xvi.6).

Another deliberate and radical difference from [Descartes](#) relates to the role of will in cognition. For Locke, knowledge is like sense perception: we may choose where and how hard to look, but we cannot then choose what we see. Belief is similar: 'Assent is no more in our power than knowledge.... And what upon full examination I find the most probable, I cannot deny my assent to' (Essay IV.xx.16). Yet we are morally responsible for both error and ignorance in so far as it results from our not employing our faculties as we should. In a number of chapters of the [Essay](#), Locke examines the causes of error, finding them, with many writers of his time, in the same appetites, interests, passions, wayward imaginings and associations of ideas as may motivate voluntary actions. Linguistic confusion, and its deliberate exploitation (see §5 of this entry), sometimes plays a role, and sometimes, like [Malebranche](#) and others, Locke has direct recourse to physiology, explicitly merging his explanations of error with explanations of madness. In contrast to Hobbes, he places the merely habitual 'association of ideas' in the pathology of 'extravagant' thought and action: 'all which seems to be but trains of motion in the animal spirits, which...continue on in the same steps...which by often treading are worn into a smooth path, and the motion in it becomes easy and as it were natural' (Essay II.xxxiii.16). But culpable error arises, on Locke's official view, when we 'hinder both knowledge and assent, by stopping our enquiry, and not employing our faculties in the search of any truth' (Essay IV.xx.16). It is the failure to use our power to pause for 'full examination' which leaves a space for beliefs motivated by interests and passions. But this two-stage model – the first stage voluntary, the second involuntary – proves too difficult to maintain, and sometimes passions and interests are taken to act on the will *between* enquiry and judgment, by distorting our 'measures of probability' themselves. Locke's approach is more common-sensical than that of [Descartes](#), but the psychology of motivated error is a hard nut which he also failed to crack.

7. Faith, reason and toleration

Locke's views on belief, probability and error owed much to traditional philosophy of religious belief, and to the great debate of his century about the relationship between faith and reason. He was strongly influenced by writers in the Anglican 'probabilist' tradition, who argued for toleration within the Church with respect to all but an essential core of Christian dogma. William [Chillingworth](#) had rejected as absurd the traditional conception of a moral requirement to have 'faith' in the sense of a conviction equal to that of knowledge but beyond what is rationally justified. To recognize a proposition as probable to a certain degree is to believe it just to that degree. Revelation therefore cannot be a basis for belief distinct from probability, but is something the significance of which has to be rationally assessed, capable at best of increasing the probability of certain propositions. Similarly for Locke, when revelation grounds belief that would otherwise be improbable, that is just one natural reason outweighing another: 'it still belongs to reason to judge of the truth of its being a revelation, and of the signification of the words, wherein it is delivered' (Essay IV.xviii.8). For if 'reason must not examine their truth by something extrinsical to the perswasions themselves; inspirations and delusions, truth and falshood will have the same measure' (Essay IV.xix.14).

Accordingly, like [Chillingworth](#), [More](#) and others, Locke combined a purportedly reasonable acceptance of the Bible as revelation with a critical approach to its interpretation, taking into account that it was written by men in particular circumstances. An alleged revelation which conflicts with what is naturally evident loses its claim to be revelation. Certain revealed truths (such as the Resurrection) lie ‘beyond the discovery of our natural faculties, and above reason’, but Locke had little time for mysteries: [‘to this crying up of faith, in opposition to reason, we may, I think, in good measure, ascribe those absurdities that fill almost all the religions which possess and divide mankind’](#) ([Essay IV.xviii.7, 11](#)). Locke took the existence of God and the content of moral law to be demonstrable by reason, and, according to [The Reasonableness of Christianity](#) and its [Vindications](#), the only essentially revealed truth of the New Testament is that Christ is the Messiah, promising forgiveness of sins to those who sincerely repent and do their imperfect best to keep the law of nature. The Bible also makes that law plain to those without the leisure or capacity to reason it out – a difficult enough task for anyone, as Locke ruefully acknowledges. The meaning of scripture is thus for Locke primarily moral, and the ‘truth, simplicity, and reasonableness’ of Christ’s teaching is itself a main reason for accepting it as revelation. Saving faith involves works, not acceptance of ‘every sentence’ of the New Testament under this or that preferred interpretation.

Much the same goes for immediate revelation. Even the genuinely inspired would need proofs that they really were inspired, and the errors of commonplace ‘enthusiasm’ are ascribed, as by [More](#), to physiology, ‘the conceits of a warmed or overweening brain’. The advocate of immediate personal revelation over reason [‘does much what the same, as if he would persuade a man to put out his eyes the better to receive the remote light of an invisible star by a telescope’](#) ([Essay IV.xix.4](#)). Divine illumination necessarily depends on, and is not separable from, the natural light – ‘reason must be our last judge and guide in everything’. Locke echoes [Chillingworth](#)’s basic principle: the lover of truth, unbiased by interest or passion, will not entertain ‘any proposition with greater assurance than the proofs it is built upon will warrant’. The implication of this standard, in the actual circumstances of life, is toleration: [‘For where is the man, that has incontestable evidence of the truth of all that he holds, or of the falshood of all he condemns; or can say, that he has examined, to the bottom, all his own, or other men’s opinions?’](#) ([Essay IV.xvi.4](#)).

Locke’s [Letter on Toleration](#), the mature fruit of considerably more unpublished writing directly on the issue, links his epistemology with his political thinking. Belief is not something that can be commanded or submitted to the authority of the government, whose concern is not with saving souls but the preservation of property. Necessarily each individual must judge as they see fit, and the truth needs no help, having its own efficacy. But the right to toleration is nevertheless viewed in the context of the right and duty to seek salvation and true doctrine without harm to others, harm which is at least threatened by all who deny the authority either of moral law or of the established government. Atheists therefore forfeit the right in principle, and Roman Catholics as a matter of political fact. (See [Latitudinarianism](#); [Socinianism](#).)

8. Personal identity

The main aim of the chapter of the [Essay](#) entitled ('Of Identity and Diversity' (II.xxvii) is to explain how immortality is compatible with materialism. In order to maintain an agnostic neutrality on the question of the immateriality of the soul, Locke had, first, to rebut the Cartesian claim that self-awareness supplies a clear and distinct idea of a simple, continuously existing substance; and, second, to show that the metaphysical issue is irrelevant to 'the great ends of morality and religion' ([Essay IV.iii.6](#)). He argues that, although the moral agent is indeed the continuously existing, rational, self-aware subject of consciousness, the 'person', the identity of this subject over time is determined by the continuity of unitary consciousness itself, not the continuity of an immaterial soul. Locke can therefore accept the Resurrection and Last Judgment as tenets of his 'reasonable' Christianity, without commitment to dualism, on the supposition that the consciousness of the resurrected person is continuous, through memory, with that of the person who died. This conclusion avoids an objection to his concept of demonstrative ethics as a science of modes, that morality relates to 'man', a substance, not a mode. His response is that morality concerns, not 'man' as a biological species, but 'man' as rational, the 'moral man', indeed all rational beings. 'Person', as he puts it, is a 'forensic term'.

Locke's argument starts from the claim that questions of identity over time are always questions as to the continuous existence in space of something of a certain kind, and that difficulties may be avoided by 'having precise notions of the things to which it is attributed'. The identity of non-substances is parasitic on that of substances: '[All other things being but modes or relations ultimately terminated in substances, their identity will be determined 'by the same way'](#)' ([Essay II.xxvii.2](#)). Locke holds that events and processes ('actions') are not strictly identical from moment to moment, each part of what we consider one process being distinct from every other part. Substances, however, genuinely continue to exist from moment to moment. The identity of 'simple substances' – material atoms and the presumed simple 'intelligences' – is straightforward. Each excludes others of the same kind out of its place by its very existence – a principle definitive of identity. But difficulties arise with compound substances. Strictly, a body composed of many atoms is the same just as long as the same atoms compose it – yet 'an oak, growing from a plant to a great tree, and then lopped, is still the same oak'. Locke's explanation is that '[in these two cases of a mass of matter, and a living body, identity is not applied to the same thing](#)' ([Essay II.xxvii.3](#)). Although he does not clearly distinguish the two views, he seems to hold individuation, rather than the identity-relation, to be kind-relative. A plant or animal is not just 'a cohesion of particles anyhow united', but such an organization of parts as enables the continuation of its characteristic life, for example, as an oak. In fact the *species* of the living thing is irrelevant to Locke's theory (fortunately, given his view that the definition of 'oak' will differ from speaker to speaker). The essential claim is that life is a principle of unity and continuity distinct from simple cohesion, thus allowing a living thing and the mass of matter that momentarily composes it so to differ in kind as to be capable of occupying the same place at the same time.

Locke defines *person* as '[a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing at different times and places](#)' ([Essay II.xxvii.9](#)). His thesis is that, just as life constitutes a distinct individuating principle of unity and continuity, so does reflexive consciousness. He argues for the logical independence of the continuity of

consciousness from both the continuity of substance (whether supposed material or immaterial, simple or complex) and the continuity of animal life by a series of imagined cases: for example, for someone now to possess Socrates' soul would not make him the same person as Socrates, unless he remembered Socrates' actions as his own; whereas if souls are the seat of consciousness, and the soul of a prince could migrate to the body of a cobbler, [‘everyone sees he would be the same person with the prince, accountable only for the prince’s actions. But who would say it was the same man?’](#) (Essay II.xxvii.15). Locke viewed such cases, not necessarily as real possibilities, but as compatible with our partial understanding of things, our *ideas*: [‘for such as is the idea belonging to that name \[namely ‘person’, ‘man’ or ‘substance’\], such must be the identity’](#). Yet in the crucial case of the Resurrection, we are left wondering how continuous existence through time – not to speak of space – is achieved simply by a fit between present consciousness and past experience and actions. Indeed, as [Berkeley](#) and [Reid](#) argued, memory-links seem both too little and too much for the continuity of a substantial thing. Yet, despite these and other difficulties for Locke's theory, it set the agenda for subsequent discussion and versions of it still have adherents (see [Personal identity](#)).

9. Ethics, motivation and free will

With Locke's conviction that a demonstrative ethics is possible went a belief that what stood in its way was the deplorable slipperiness, openly encouraged by the practice of rhetoric, of a moral language in which terms are not consistently tied to ideas (see §5 of this entry). Both were consonant with his apparently early conviction that Natural Law theory, as pursued by such as [Hooker](#) and [Grotius](#), is capable of development into a full account of our duties to God and our fellows – even though he had first seen Natural Law as empirically based (see §3 of this entry). But Natural Law theory also gave him what could not be supplied by the conception of a quasi-geometrical system of rights and duties flowing from the definitions of mixed modes and relations: the conception of an unconditional obligation to act in accordance with moral principle against what we might otherwise desire (see [Natural Law](#)).

In the [Essay](#) the argument starts, as might be expected, with the question of how our basic concepts of value are derived from experience. Locke has no doubt about what it is in experience that makes anything matter to us. Like other empiricists of his time, he is both a psychological and an ethical hedonist. Pleasure and pain supply not only our sole motives but also our ideas of good and evil: [‘That we call good which is apt to cause or increase pleasure, or diminish pain in us; or else to procure, or preserve us the possession of any other good, or absence of any evil’](#) (Essay II.xx.1). The passions are ‘modes’ of pleasure and pain arising from, or involving, value-judgments: thus hope is ‘that pleasure in the mind, which every one finds in himself, upon the thought of a probable future enjoyment of a thing, which is apt to delight him’; fear is [‘an uneasiness of the mind, upon the thought of a future evil likely to befall us’](#) (Essay II.xx.9–10). Desire is the [‘uneasiness a man finds in himself upon the absence of any thing, whose present enjoyment carries the idea of delight with it’](#) (Essay II.xx.6). This theory of motivation faces certain problems. First, how do we get from judgments of good and evil, of what conduces to pleasure and pain, to judgments of right and wrong, of what we morally ought or ought not to do? Second, having got there, if the passions, as modes of pleasure and pain, constitute our only

motives, what passion could motivate us to do what is right? Third, in what, if anything, does choice and free will – moral agency – consist?

Locke's answer to the first question, already given in [Essays on the Law of Nature](#), is that the concept of obligation comes with the relational concept of law: '*Morally good and evil* then, is only the conformity or disagreement of our voluntary actions to some law, whereby good or evil is drawn on us, from the will and power of the lawmaker; which good and evil, pleasure or pain, ...is that we call *reward* and *punishment*' ([Essay II.xxviii.5](#)). Locke makes it clear that the notion of obligation presupposes the right, as well as the power of the lawgiver to legislate and punish – in [Essays](#) Locke's 'power' is explicitly *potestas*, authority, rather than *potentia*, mere force. There are, he says in the [Essay](#), three kinds of law: divine law, the measure of sin and moral duty; civil law, the measure of crimes and innocence; and the law of opinion or reputation, the measure of virtue and vice. God legislates by *ius creationis*, the maker's right over what is made, and divine law is binding on all rational creatures capable of pleasure and pain. God's law accords with his wisdom and benevolence, so that we can know it by reflecting on what a wise and benevolent Deity would require of us. Unsurprisingly, Locke's ethics is heavily utilitarian.

The relationship between divine law and civil law, and the standing of the civil magistrate under divine law, is the subject-matter of Locke's political theory as expounded in [Two Treatises](#). The notion of a 'law of reputation', sometimes called 'the philosophical law', has a more complex role in his thought. It is Locke's explanation of popular secular morality, but it also represents his view of the possibility of non-theistic philosophical systems of ethics. Roughly, the thought is that ordinary morality, sanctioned by public approval and disapproval, exists as a means to the preservation of society, itself a condition of the happiness of individuals. As arrangements differ between societies, so do their moral concepts and what counts as virtue and vice in each, although naturally there will be overlap given their shared aim of self-preservation. Since the divine law too is concerned with the good of human beings, and with self-preservation as a duty, the law of reputation will tend to coincide with divine law. In the aborted fragment of the [Essay](#), 'Of Ethick in General', Locke suggests that philosophers may have some inkling of the divine law, but they confuse it with the law of reputation. Consequently their systems reduce either (like that of [Hobbes](#)) to an advocacy of what tends to the preservation of society, or (like that of [Aristotle](#)) to the elaboration of a set of definitions of the behaviour of which a particular society approves or disapproves ([King \[1829\] 1864: 308–13](#)). Locke does not deny the social importance of the law of reputation, however, and in [Some Thoughts concerning Education](#) he assigns a necessary role in a child's moral education to public esteem and shame. His complaint is that an explanation of moral obligation in terms of the value of certain actions to society, and the value of society to the individual, cannot explain how we may be morally obliged to do something contrary to our own felt interest – our interest, at least, in this world. Self-interest may commonly prescribe adherence to social rules, but it may not always do so. As Locke says in the [Essays on the Law of Nature](#) ([1664] 1954: 204) '[a great number of virtues, and the best of them, consist only in this: that we do good to others at our own loss](#)'.

Locke's position is, then, that in order to explain both moral obligation and moral motivation (conflated in the usual seventeenth-century notion of obligation), we need to see morality as a

system of laws prescribed by a supremely rational, just and benevolent creator to whom we owe the duty of obedience as creatures, and whose power to reward and punish in the next life is capable of motivating anyone who duly considers it (see [Voluntarism](#)). Like any theistic explanation of morality's binding force, this proposal is incoherent, and in its case the incoherence lies in the combination of the view that obligation is created by law with the claim that we have a natural obligation to obey the law of our creator. Locke, however, was more exercised by the problem of why consideration of the afterlife so often fails to move theists to do their duty. Indeed, he accorded the problem wider scope, since he followed [Pascal](#) in the thought that the bare possibility of there being an afterlife, given the infinite good at stake, ought in reason to motivate the Christian life (see [Pascal, B. §6](#)). Locke's explanation of the human capacity to know the better and choose the worse involved a refinement of his theory of motivation which echoes his theory of error. In the first edition of the [Essay](#), in the long chapter 'Of Power', he held that ['the choice of the will is everywhere determined by the greater apparent good'](#) ([Essay II.xxi.70](#)). By the second, he believed that mere consideration of future benefit will not move us to action unless it gives rise to 'an *uneasiness* in the want of it' – that is, to desire. Only a present passion – and, it seems, a kind of pain – can move to present action. It may require some reflection on the situation, over and above the simple recognition of probable or possible consequences for good or ill, to bring desire up to scratch, and to 'suit the relish of our minds to the true intrinsic good or ill, that is in things'. Someone who sees the good but does not pursue it has not reflected enough: ['Morality, established upon its true foundations, cannot but determine the choice of any one that will but consider'](#) ([Essay II.xxi.70](#)).

Locke's increased emphasis on the role of deliberation in his hedonistic theory of moral motivation complicates his much revised account of liberty. He adopted a self-determinist view of free will – a free action is not one that is causally undetermined, but one determined by the agent's 'own desire guided by his own judgement'. He defines 'liberty' as ['the power to act or not to act according as the mind directs'](#) ([Essay II.xxi.71](#)). But another power became increasingly important to him, the power ['to stand still, open the eyes, look about, and take a view of the consequence of what we are going to do, as much as the weight of the matter requires'](#) ([Essay II.xxi.67](#)), and it is in this power, he often suggests, that the liberty of rational agents really consists. The tension is unresolved, for Locke never retracts the rhetorical question to which he himself seems to have given an answer: ['For how can we think anyone freer than to have the power to do what he will?'](#) ([Essay II.xxi.21](#)) (see [Free will](#)).

10. Political theory

Locke's mature political theory is set out in ['An Essay concerning the True Original, Extent, and End of Civil Government'](#), the second of [Two Treatises of Government](#), the first being a point-by-point rebuttal of [Robert Filmer](#)'s biblically based patriarchalism (see [Filmer, R.](#)). Locke's primary contention is that the right to govern comes with a duty to govern in the interest of the governed. Failure by the government to recognize or observe this duty creates the right to rebel. Like the Natural Law theories of Hooker, Grotius and Pufendorf on which he draws, Locke's argument moves from first principles, in effect a fragment of his proposed demonstrative ethics; but much of its richness derives from links with his practical political concerns and interests. It

presents attitudes and actions attributable to Charles II and James II as a betrayal of trust, hostile to those features of the British constitution most adapted to the essential purposes of government; but he also states principles relating to property, money, social conventions, taxation, punishment, family relations, inheritance, the rights of the poor, enclosure of land, the practice and justification of colonial settlement, and more.

Filmer had argued that both political authority and property rights exist only by divine institution – by God's giving Adam dominion over the creatures, by the subjection of Eve, and by Adam's natural paternal rights over his children. Monarchs are deemed natural inheritors of Adam's rights. A part of Locke's strategy, pursued in both Treatises, against this doctrine was to drive wedges between the possession and inheritance of property and the possession and conveyance of authority, and between paternal (or, as Locke prefers, parental) authority and political authority. For example, the right of children to inherit their parents' property stems from their natural right (not just that of the eldest child) to sustenance by their parents, a right which cannot be supposed to embrace either patriarchal authority or political power. The analogy of power and property in Filmer's argument, however, was not only in relation to inheritance, for it entailed that individual ownership is simply a grant of use by the king, making taxation – its partial withdrawal – his personal right. Locke was therefore concerned to give property a quite different role in his explanation of political society.

For Locke, government is a human invention, to which personal property is prior. In a state of nature, he argues in the Second Treatise, human beings have an obligation, in accordance with divine or natural moral law, 'to preserve the rest of mankind', their equals as creatures and servants of God, by a rational extension of their duty to preserve themselves. More specifically, ['no one ought to harm another in his life, health, liberty or possessions'](#) ([Two Treatises II.6](#)). Yet, before government, 'everyone has a right to punish the transgressors of that law to such a degree, as may hinder its violation'. The 'state of nature' is not, for Locke, a merely ideal abstraction, but a historical situation in which members of simple societies have lived and still live, unless in time of war, and in which independent national governments always necessarily exist. For international relations are not governed by positive law prescribed and sanctioned by constituted authority. In this situation the victim of aggression – or indeed any onlooker, for the violation is of the natural law which maintains the welfare of all – has the right to destroy the aggressor until offered peace, reparation and security for the future. Within civil society itself this 'right of war' or self-defence exists whenever the law cannot be effectively exercised, whether in the immediate circumstances of threatened harm, or when the administration of the law is manifestly corrupt, and itself employed to commit violence and injury.

'Liberty' in the state of nature is freedom from any constraint but the moral law of nature. Under government, it is freedom from the 'arbitrary will of another man', and from any human rule but the 'standing rule...common to everyone of that society' ([Two Treatises II.22](#)). (Locke sees slavery as continuation of war – it is just if the war is just, when it is in lieu of capital punishment, the justly enslaved, like criminals, being 'outside civil society'. Yet this hardly stands as an endorsement of contemporary colonial slavery – indeed Locke denies that the

children of aggressors can be justly enslaved, or even disinherited.) 'Possessions' arise in a state of nature with the act of appropriation which is a necessary condition of the use of any of the comestibles naturally available to all: 'this law of reason makes the deer, that Indian's who hath killed it' (Two Treatises II.30). Such appropriation is an extension of the principle that 'every man has a property in his own person', and therefore in 'the labour of his body'. Consequently whatever someone has 'mixed his labour with' is his, provided that it is for use, and 'there is enough, and as good left in common for others' (Two Treatises II.27). This principle applies also to the enclosure of land for agriculture, which vastly increases its productivity. With land, as in all else, 'labour makes the far greatest part of the value of things, we enjoy in this world' (Two Treatises II.42). Nevertheless, before the conventional use of money, no one would have either motive or right to produce more than they could use, give to others or exchange before it spoils. To take something from the common store and let it spoil is against natural law. Money, however, is an artifice which modifies the whole nature of property-rights, since it can be stored indefinitely without spoiling. Money makes it worthwhile to exploit land fully, and supplies a just means of keeping the product. So far from wronging others, enclosure and improvement greatly increase 'the common stock of mankind', making 'a day labourer in England' better off than a king among the (Native) Americans (Two Treatises II.41). Significant disparity of wealth becomes both possible and morally justified, on the assumption that none will suffer absolutely (in a Board of Trade paper Locke simply assumed that everyone should have 'meat, drink, clothing and firing...out of the stock of the kingdom, whether they work or no' – Bourne 1876 vol. II: 382). But the effect is greatly to complicate the administration of the law of nature, and to render its application uncertain, as well as to encourage its breach through greed.

All this, on top of the standing need for both impartiality and sufficient force to punish malefactors, necessitates government. The chief role of such government is to determine rules to order and preserve property. Common defence is another imperative. Government with such legislative and executive powers comes into existence when people, by consent, resign their 'executive power of the law of nature... to the public' (Two Treatises II.89). Each individual member gives consent, but is thereafter bound to move with the majority. To the objection that no such agreement has ever taken place, Locke argues that, although 'government is everywhere antecedent to records', cases abound of new or primitive societies with elected leaders. In the first instance, this may be 'some one good and excellent man' or effective general, or indeed the father of a familial group, but experience of unrestrained monarchy encourages legislatures of 'collective bodies of men', with none above the law. In any case, consent is normally tacit, and given in the active enjoyment of the benefit of the law, whether by possession of land or 'barely travelling freely on the highway'. Such tacit consent obliges obedience to the law, although the obligation lasts only as long as the enjoyment, leaving the individual free to give up the benefit and 'incorporate himself into any other commonwealth'. Express consent, however, binds the individual to obey and assist a particular government until its dissolution (or breach of trust).

A subject's ultimate obligation is to the supreme power, which is the legislative, itself bound by the law of nature in its choice of means, 'established and promulgated laws', for the preservation of its subjects and their property. Given this role, a government has no right to tax its subjects

without their consent 'either by themselves, or their representatives chosen for them'. In order to minimize the risk of the legislative acting in its own, rather than in the public interest, it is best that it be an assembly which meets from time to time, separate from the continuously acting executive. A third, 'federative' power of war, peace and alliances is less easily directed by antecedent laws than the executive power, but falls naturally into the same hands, since both depend on public force. Locke allows some qualification of the absolute separation of powers, and subordination of the executive to the legislative, in recognition of the 'prerogative' power of the English king to dissolve and convene Parliament as circumstances require, and to employ discretion in the execution of the laws (Locke notes without express approval the power to veto legislation). Yet Locke sees prerogative as justified only as falling under 'the power of doing public good without a rule' in the face of unforeseen circumstances, and as dangerously capable of abuse. Its continuous employment contrary to the public good, for example by refusing to convene the legislative or by tampering with the rules for its election, makes the king himself a rebel and destroyer of the government, at war with his own subjects, returning them to a state of nature with a right to set up a new government.

11. Influence

Perhaps no modern philosopher has had a wider influence than Locke. His immediate achievement was, with Newton, to bring to an end the dominance within Europe of Cartesian science and philosophy, unseating the broadly Neoplatonic notion that mind and world share a common, divinely imposed structure, in favour of a modest, naturalistic conception of human capacities. Careful observation and systematic description are more valuable than the construction of hypotheses purportedly achieved by super-experiential means. Locke's own 'historical' treatment of the mind as a familiar, describable but deeply mysterious part of nature had considerable influence on European thought. His theory of classification influenced later taxonomy, and his brilliantly original theory of personal identity is still a standard text for philosophical discussion. His philosophy was one of the chief influences on Kant, but can still suggest an alternative to Neo-Kantian conceptualism. If his ethical theory appears to be the last throes of early modern natural law theory rather than a new beginning, within that structure he enunciated a classic justification of responsible, tolerant and broadly democratic political society which has remained a major resource for political theorists ever since.

List of works

Locke, J. (1823) *The Works of John Locke*, London: T. Tegg et al., 11th edn, 10 vols; repr. Aalen: Scientia, 1963.

(Still, in 1997, the most complete edition of Locke's works, together with some of the more philosophically interesting correspondence.)

Locke, J. (1975–) *The Clarendon Edition of the Works of John Locke*, general eds P.H. Nidditch (to 1983), J.W. Yolton (1983–92), M.A. Stewart (1992–), Oxford: Oxford University Press.

(A critical edition, planned to include all the published works and significant manuscript material, the bulk of which is in the Bodleian Library, Oxford. Volumes are available or in active preparation in 1997 as indicated under individual titles below.)

Locke, J. (c. 1660–2a) *Two Tracts on Government*, ed. P. Abrams, Cambridge: Cambridge University Press, 1967.

(Useful introduction and notes. The ‘tracts’, the first in English, the second in Latin, debate ‘Whether the Civil Magistrate may lawfully impose and determine the use of indifferent things in reference to Religious Worship?’ Contrary to his later stance, Locke argues in these early manuscripts for the right of the magistrate to regulate religious observance for the sake of public peace.)

Locke, J. (c. 1660–2b) ‘An necesse sit dari in Ecclesia infallibilem Sacro Sanctae Scripturae interpretem?’ (Is it necessary to have in the Church an infallible interpreter of Holy Scripture?), ed. J.C. Biddle in ‘John Locke’s Essay on Infallibility: Introduction, Text, and Translation’, *Journal of Church and State* 19 (1977): 301–327.

(A critique of the notion of infallibility.)

Locke, J. (1664) *Essays on the Law of Nature*, ed. and trans. W. von Leyden, Oxford: Oxford University Press, 1954; ed. and trans. R. Horwitz, J. Strauss Clay and D. Clay as *Questions concerning the Law of Nature*, Ithaca, NY: Cornell University Press, 1990.

(An early manuscript in Latin in scholastic form which, despite later change in Locke’s conception of moral knowledge, throws light on his mature moral theory as well as the development of his thought. Von Leyden’s edition includes related manuscript material.)

Locke, J. (1667) *An Essay concerning Toleration*, in *John Locke: Writings on Politics, Law and Religious Toleration 1667–1683*, ed. J.R. Milton and P. Milton, Clarendon Edition, Oxford: Oxford University Press, forthcoming.

(This manuscript signals Locke’s change of mind to a more liberal view of religious toleration.)

Locke, J. (?) (c. 1668) ‘De Arte Medica’, in H.R.F. Bourne *The Life of John Locke*, 2 vols, London: Henry S. King, 1876, vol.1, 222–227; repr. in K. Dewhurst Dr Thomas Sydenham (1624–1689): *His Life and Original Writings*, London: Wellcome Historical Medical Library, 1966.

(A manuscript in Locke’s handwriting, but possibly by Sydenham, expounding a strongly empirical method in medicine.)

Locke, J. (1671) *Drafts for the Essay concerning Human Understanding, and Other Philosophical Writings*, vol. 1, ed. P.H. Nidditch and G.A.J. Rogers, Clarendon Edition, Oxford: Oxford University Press, 1990–.

(Volume I contains Drafts A and B (1671); the forthcoming volumes II and III contain Draft C (1685) and associated manuscript material. Together they cast considerable light on the

development and significance of Locke's general philosophy, including projected, but unfinished chapters of the Essay.)

Locke, J. and Tyrrell, J. (1681–3) *Locke on Separation*, ed. J. Marshall, Clarendon Edition, Oxford: Oxford University Press, forthcoming.

(A jointly written, hitherto unpublished response to Edward Stillingfleet's *The Mischief of Separation* (1680) and *The Unreasonableness of Separation* (1681) in which Locke and Tyrrell defend toleration of religious nonconformity.)

Locke, J. (1686) 'Newton, Is. *Philosophiae naturalis principia mathematica...*' (Mathematical principles of natural philosophy), *Bibliothèque universelle et historique*.

(Review, by an admiring layman, of Newton's *Principia*.)

Locke, J. (1688) 'Abrégé d'un ouvrage intitulé *Essai philosophique touchant l'entendement*', *Bibliothèque universelle et historique*; separately published as *Extrait d'un livre anglois... intitulé Essai philosophique concernant l'entendement...*, Amsterdam, 1688; trans. as 'An Extract of a Book, Entitled, *A Philosophical Essay upon Human Understanding*', in *The young-students-library, containing extracts and abridgements...*, London, 1692; in *Drafts for the Essay concerning Human Understanding, and Other Philosophical Writings*, vol. 3, ed. P.H. Nidditch and G.A.J. Rogers, Clarendon Edition, Oxford: Oxford University Press, 3 vols, 1990–.

(Locke's effective abstract of *An Essay concerning Human Understanding*.)

Locke, J. (1689) *Epistola de Tolerantia*, Gouda; ed. R. Klibansky *Epistola de Tolerantia: A Letter on Toleration*, trans., intro. and notes J.W. Gough, Oxford: Oxford University Press, 1968; trans W. Popple as *A Letter concerning Toleration*, London, 1689, 2nd edn, 1690, ed. J. Tully, Indianapolis, IN: Hackett Publishing Company, 1983.

(Locke's classic argument for religious toleration. Popple's vigorous translation is the one through which the work has chiefly been known to English-speakers.)

Locke, J. (1689/90a) *An Essay concerning Human Understanding*, ed. P.H. Nidditch, Clarendon Edition, Oxford: Oxford University Press, 1975.

(Originally published in December 1689 but carrying the date 1690. Locke's chief and greatest work, arguing comprehensively that what we can think and know is limited by the way we experience the world, attacking dogmatic pretensions to grasp the essences of things, and affirming that 'reason must be our last judge and guide in everything', including morals and religion.)

Locke, J. (1689/90b) *Two Treatises of Government*, ed. P. Laslett, Cambridge: Cambridge University Press, 1960, 2nd edn, 1967; ed. I. Harris, with associated manuscript material, Clarendon Edition, Oxford: Oxford University Press, forthcoming.

(In the First Treatise 'the False Principles and Foundation of Sir Robert Filmer and His Followers are Detected and Overthrown' – that is, the patriarchal theory of monarchy. The Second Treatise, 'an Essay concerning the True Original, Extent, and End of Civil-Government',

is a major classic of political theory, arguing that government is morally, and should be constitutionally, answerable to the governed. Laslett's influential introduction stimulated continuing debate as to the immediate context and purposes of Two Treatises, and its relation to the rest of Locke's thought.)

Locke, J. (1690) A Second Letter concerning Toleration, London; repr. in *The Works of John Locke*, vol. 6, London, 11th edn, 1823.

(Locke defends religious toleration, and his argument of *Epistola de Tolerantia*, in response to Jonas Proast's *The Argument of the Letter concerning Toleration, Briefly Consider'd and Answer'd*.)

Locke, J. (1691/2) *Some Considerations of the Consequences of the Lowering of Interest, and raising the Value of Money*, in *Locke on Money*, ed. P.H. Kelly, Clarendon Edition, Oxford: Oxford University Press, 1991.

(Advice on the coinage which became Government policy.)

Locke, J. (1692) A Third Letter for Toleration, to the Author of the Third Letter concerning Toleration, London; repr. in *The Works of John Locke*, vol. 6, London, 11th edn, 1823.

(Continues the argument of *Epistola de Tolerantia* and A Second Letter concerning Toleration, against Jonas Proast).

Locke, J. (1693) *Some Thoughts concerning Education*, London; 3rd enlarged edn, London, 1695; ed. J.W. Yolton and J.S. Yolton, Clarendon Edition, Oxford: Oxford University Press, 1989.

(Consciously modest in scope, but an important and interesting work in the history of educational theory.)

Locke, J. (1695a) *The Reasonableness of Christianity*, London; 2nd edn, 1696; ed. J. Higgins-Biddle, Clarendon Edition, Oxford: Oxford University Press, 1998.

(Locke's latitudinarian credo, cutting articles of faith to a minimum and emphasising the moral dimension of Christianity.)

Locke, J. (1695b) A Vindication of the Reasonableness of Christianity, etc. from Mr Edwards's *Reflections*, London; repr. in *The Works of John Locke*, vol. 7, London, 11th edn, 1823.

(The first of Locke's responses to John Edwards' attack on *The Reasonableness in Some Thoughts concerning the Several Causes and Occasions of Atheism, Especially in the Present Age*, 1695.)

Locke, J. (1697a) A Second Vindication of the Reasonableness of Christianity,..., London; in *The Works of John Locke*, vol. 7, London, 11th edn, 1823.

(A reply to John Edwards' response to A Vindication of the Reasonableness of Christianity.)

Locke, J. (1697b) A Letter to the Right Reverend Edward, Lord Bishop of Worcester, Concerning some Passages relating to Mr. Locke's Essay of humane Understanding: In a late Discourse of his Lordship's, in Vindication of the Trinity, London; in *The Works of John Locke*, vol. 4, London, 11th edn, 1823; repr. in *The Locke–Stillingfleet Debate*, ed. M.A. Stewart, Clarendon Edition, Oxford: Oxford University Press, forthcoming.

(Stimulated by the theological objections of Edward Stillingfleet, Bishop of Worcester, Locke explains in particular, in this Letter and two further Replies (1697/1699), his theories of substance, real and nominal essence, and personal identity, and his agnostic attitude towards the issue between dualism and materialism. M.A. Stewart's edition will contain Stillingfleet's contributions to the debate.)

Locke, J. (1697c) Mr Locke's Reply to the... Bishop of Worcester's Answer to his Letter..., London; in *The Works of John Locke*, vol. 4, London, 11th edn, 1823; repr. in *The Locke–Stillingfleet Debate*, ed. M.A. Stewart, Clarendon Edition, Oxford: Oxford University press, forthcoming.

(Continues the argument of A Letter to the...Bishop of Worcester.)

Locke, J. (c. 1699) The Elements of Natural Philosophy, in *The Works of John Locke*, vol. 3, London, 11th edn, 1823.

(An introductory survey of natural philosophy as Locke saw it, written for the son of his hosts, the Mashams.)

Locke, J. (1699) Mr. Locke's Reply to the...Bishop of Worcester's Answer to his Second Letter..., in *The Works of John Locke*, vol. 4, London, 11th edn, 1823; in *The Locke–Stillingfleet Debate*, ed. M.A. Stewart, Clarendon Edition, Oxford: Oxford University press, forthcoming.

(Continues the argument of A Letter to the...Bishop of Worcester, and Mr Locke's Reply....)

Locke, J. (1700–4) A Paraphrase and Notes on the Epistles of St Paul, London, 6 vols, 1705–7; ed. A.W. Wainwright, Clarendon Edition, Oxford: Oxford University Press, 2 vols, 1987.

(Locke's chief contribution to biblical hermeneutics, now published with associated manuscript material.)

Locke, J. (1702) A Discourse of Miracles, in *The Works of John Locke*, vol. 9, London, 11th edn, 1823.

(Defines miracles as divinely purposive and contrary to common experience, but not as contrary to the unknown laws of nature).

Locke, J. (1704) Fourth Letter on Toleration, in *The Works of John Locke*, vol. 6, London, 11th edn, 1823.

(Locke's last, unfinished shot, following those of 1690 and 1692, in defence of the position taken in *Epistola de Tolerantia* against Jonas Proast.)

Locke, J. (1976–) *The Correspondence of John Locke*, ed. E.S. de Beer, Clarendon Edition, Oxford: Oxford University Press, 8 vols, plus forthcoming index.

(Around 3,650 letters from and to Locke in the period 1652–1704 supply important evidence of his life and times. A number of exchanges, for example, those with Molyneux and Limborch, are philosophically important.)

Locke, J. (1991) *Locke on Money*, ed. P.H. Kelly, Clarendon Edition, Oxford: Oxford University Press, 2 vols.

(Contains all Locke's writings on economics (1668–95), with a long introduction explaining their significance.)

References and further reading

Aaron, R. (1937) *John Locke*, Oxford: Oxford University Press, 3rd edn, 1971.

(For long one of the two standard commentaries on the *Essay*, differing from Gibson (1917) in several important respects, some, but not all, improvements.)

Alexander, P. (1985) *Ideas, Qualities and Corpuscles: Locke and Boyle on the External World*, Cambridge: Cambridge University Press.

(An extended consideration of the version of corpuscularianism favoured by Locke, and of its bearing on his epistemology and metaphysics.)

Ashcraft, R. (1986) *Revolutionary Politics and Locke's Two Treatises of Government*, Princeton, NJ: Princeton University Press.

(Makes strong, controversial claims about Locke's active engagement in revolutionary politics during the writing of the *Two Treatises*.)

Ashcraft, R. (1987) *Locke's Two Treatises of Government*, London: Unwin & Hyman, 1987.

(An important analysis of the arguments of *Two Treatises*.)

Ashcraft, R. (1991) *John Locke: Critical Assessments*, London: Routledge, 4 vols.

(A large selective collection of some of the more significant articles written on Locke's thought, a volume each on political theory, general philosophy, education and economics.)

Attig, J.C. (1985) *The Works of John Locke: a comprehensive bibliography from the seventeenth century to the present*, Westport, CT and London: Greenwood.

(A list of editions and translations, including abridgements and selections, of Locke's writings, together with other works, antecedent and precedent, constituting the immediate controversial context. Secondary works are cited in relation to publication details.)

Ayers, M. (1991) *Locke*, London: Routledge, 2 vols; repr. in 1 vol. as *Locke: Epistemology and Ontology*, London: Routledge, 1993.

(The most comprehensive commentary on the Essay, interpreting and assessing Locke's arguments in their intellectual context, but also offering detailed argument with respect to their continuing philosophical significance.)

Bourne, H.R. Fox (1876) *The Life of John Locke*, London: Henry S. King, 2 vols.

(An important biography, but now largely outdated. Bourne made use of available documents, but lacked direct access to the manuscripts now in the Lovelace Collection in the Bodleian Library.)

Chappell, V. (1994) *The Cambridge Companion to Locke*, Cambridge: Cambridge University Press.

(A well-organized and useful collection of specially written articles covering Locke's main philosophical concerns, with a good selective bibliography.)

Christophersen, H.O. (1930) *A Bibliographical Introduction to the Study of John Locke*, Oslo: Jacob Dybwad; repr. New York: Burt Franklin, 1968.

(A pioneering, incomplete bibliography.)

Colman, J. (1983) *John Locke's Moral Philosophy*, Edinburgh: Edinburgh University Press.

(A pioneering analysis of Locke's ethical theory which is careful, judicious and comprehensive in its analysis of Locke's arguments about ethics, but Colman's view of their relation to Locke's theology is open to question.)

Cranston, M. (1957) *John Locke: A Biography*, London: Longmans; repr. Oxford: Oxford University Press, 1985.

(Based rather narrowly on Locke's then-recently rediscovered correspondence and journals, this is a readable account of his life, but is inaccurate on many details and unhelpful on his intellectual development.)

Dunn, J. (1969) *The Political Thought of John Locke: An Historical Account of the Argument of The Two Treatises of Government*, Cambridge: Cambridge University Press.

(A classic study, placing Locke's political theory in its historical and intellectual context and revealing some of the coherence of his thought that had escaped earlier commentators.)

Edwards, J. (1695) *Some Thoughts concerning the Several Causes and Occasions of Atheism, Especially in the Present Age*, London.

(Contains an attack on Locke's Reasonableness which, together with further attacks in Socinianism unmask'd (1696), The Socinian Creed (1697), and A brief vindication of the fundamental articles of the Christian faith...from Mr. Lock's reflections upon them (1697), stimulated Locke's own Vindication (1695b), and Second Vindication (1697c).)

Gibson, J. (1917) *Locke's Theory of Knowledge and its Historical Relations*, Cambridge: Cambridge University Press.

(An intelligent, still useful commentary, despite important mistakes.)

Hall, R. and Woolhouse, R.S. (1983) 80 years of Locke Scholarship: a bibliographical guide, Edinburgh: Edinburgh University Press.

(A useful bibliography covering 1900–80.)

Harris, I. (1994) *The Mind of John Locke*, Cambridge: Cambridge University Press.

(Making wide use of unpublished manuscripts, this is a complex but rewarding attempt to integrate a wide range of Locke's concerns, and to show how they informed the writing of *Two Treatises*.)

Horton, J. and Mendus, S. (1991) *John Locke: A Letter Concerning Toleration in Focus*, London: Routledge.

(A useful collection of papers on this work.)

King, P., Lord (1829) *The life and letters of John Locke*, London; new edn, 1964.

(King had access to the manuscripts Locke left to his cousin, an earlier Peter King – Lord Chancellor and first Baron King – most of which are now in the Lovelace collection in the Bodleian Library, Oxford. This 'biography' is an ill-organized selection from these journals, papers and letters, but for many years was a valuable source of information otherwise inaccessible, and records some materials since lost.)

Leibniz, G.W. (c. 1704) *New Essays on Human Understanding*, 1765; trans. and ed. P. Remnant and J. Bennett, Cambridge: Cambridge University Press, 1981.

(Translation of Leibniz's *Nouveaux essais*, a great, if somewhat unsympathetic point-by-point commentary on Locke's *Essay* from a rationalist point of view.)

Locke Newsletter (1970–), ed. R. Hall, Department of Philosophy, University of York.

(An unpretentious annual newsletter, with articles, notes, reviews and, very usefully, ongoing bibliography. Both articles and reviews have been of uneven quality, but it gives an overview of Locke studies.)

Long, P. (1959) *A Summary Catalogue of the Lovelace collection of the papers of John Locke in the Bodleian Library*, Oxford: Bodleian Library.

(An essential tool for Locke scholars.)

Lowe, E.J. (1995) *Locke on Human Understanding*, London: Routledge.

(A clear philosophical introduction to the *Essay* for students, making sensible use of recent scholarship in interpreting Locke's arguments.)

Mackie, J.L. (1976) *Problems from Locke*, Oxford: Oxford University Press.

(A selective philosophical commentary which, although lacking the historical dimension which would often clarify the arguments discussed, has been influential in rekindling interest in Locke's general philosophy.)

Marshall, J. (1994) *John Locke: Resistance, Religion and Responsibility*, Cambridge: Cambridge University Press.

(A contextual account of the development of Locke's political, religious, social and moral ideas, making wide use of unpublished writings. Perhaps the best study to date of Locke's religious views and their place in his thought.)

Milton, J.R. (1994) 'Locke's Life and Times', in V. Chappell (ed.) *The Cambridge Companion to Locke*, Cambridge: Cambridge University Press, 1994.

(A useful summary intellectual biography, with an account of other available biographical sources.)

Parry, G. (1978) *John Locke*, London: Allen & Unwin.

(A judicious introduction to Locke's political philosophy.)

Proast, J. (1690) *The Argument of the Letter concerning Toleration, Briefly Consider'd and Answer'd*, Oxford; repr. New York: Garland, 1984.

(The work which, with its sequel, *A Third Letter concerning Toleration*, stimulated, respectively, Locke's *Second Letter concerning Toleration* (1690), and *Third Letter for Toleration* (1692).)

Rogers, G.A.J. (1994) *Locke's Philosophy: Content and Context*, Oxford: Oxford University Press.

(A lively collection of papers by leading Locke scholars on subjects including Locke's life in Oxford, substance, perception, freedom of will, meaning, atomism, aboriginal rights, sin and Locke's influence abroad.)

Stillingfleet, E. (1680) *The Mischief of Separation*, London.

(Stillingfleet's argument against toleration of nonconformity in this and his subsequent *The Unreasonableness of Separation* (1681) stimulated Locke and Tyrrell to compose a point-by-point rebuttal (1681–3).)

Stillingfleet, E. (1697) *A Discourse in Vindication of the Doctrine of the Trinity: with an Answer to the Late Socinian Objections against it from Scripture, Antiquity and Reason*, London.

(Stillingfleet accused Locke of sympathy with Socinianism, in this work and in two sequential *Answers*, stimulating Locke's *Letter to the...Bishop of Worcester* (1697), and two *Replies*, (1697/1699).)

Tully, J. (1980) *A Discourse of Property: John Locke and his Adversaries*, Cambridge: Cambridge University Press.

(An illuminating study of ideas about ownership, in particular about the relation between making and owning, and their role in Locke's thought.)

Tully, J. (1993) *An Approach to Political philosophy: Locke in Contexts*, Cambridge: Cambridge University Press.

(A selection of papers on Locke and his context by a leading commentator on Locke's political philosophy.)

Wolterstorff, N. (1996) *John Locke and the ethics of belief*, Cambridge: Cambridge University Press.

(A vigorous argument as to the philosophical and cultural significance of Locke's principle that reason should be our guide in everything, and in religion in particular.)

Woolhouse, R.S. (1983) *Locke*, Brighton: Harvester Press.

(A useful short introduction to Locke's general philosophy.)

Yolton J.S. and Yolton J.W. (1985) *John Locke: a reference guide*, Boston, MA: G.K. Hall.

(A useful bibliography.)

Yolton, J.W. (1956) *John Locke and the Way of Ideas*, Oxford: Oxford University Press.

(This short but informative book, locating Locke's thought in its English context, was a landmark for historical study of his general philosophy.)

Yolton, J.W. (1970) *Locke and the Compass of the Human Understanding*, London: Cambridge University Press.

(An important contribution to the interpretation of Locke's philosophy of science and moral theory.)