

# Art, Science and Imagination

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THAT science exercises the reason, art the imagination—this is a doctrine, classically formulated by Plato in the tenth book of his *Republic*, which has survived fundamental changes in the meaning of ‘imagination’ and ‘reason’. It has been deployed both, in Plato’s manner, to extol science and depreciate the arts and, in Blake’s manner, to extol the arts and depreciate science:

I come in Self-annihilation & the grandeur of Inspiration . . .  
To cast off Bacon, Locke, & Newton from Albion’s covering,  
To take off his filthy garments & clothe him with Imagination.<sup>1</sup>

Fully to explore its ramifications is to be led into the very heart of epistemology, to embark at once on the philosophy of science, the history of ideas, and the principles of criticism.

More modestly, I shall essay, only, to make some of the issues a little clearer, not by an unavailing attempt to offer a formal definition of ‘reason’ and ‘imagination’—unavailing just because these are such Protean notions—but by examining in turn a set of appositions and oppositions. The effect, I fear, may be at once schematic, scholastic and dogmatic. But there are times when the maxim ‘Let us distinguish’ is fully justified; there are times, too, when the virtues of a rapid campaign can serve as a valid reason for not pausing to reduce every argumentative outpost.

### (1) *Imagination distinguished from Perception and Memory*

In everyday life we ask, and answer, such questions as ‘Is that a knock at the door, or am I only imagining it?’ or ‘Did I meet you somewhere before, or am I only imagining it?’ We distinguish imagining, that is, and expect others to distinguish it, both from perception and from remembering. (Note, incidentally, the derogatory tone of ‘Am I *only* imagining it?’) Not all theorists, it is true, would permit us to make such a distinction in precisely this language. Hobbes identified ‘memory’ and ‘imagination’—and both of them with ‘decaying sense’. For Addison, presuming as he did that in each case we are picturing, the pleasures of the imagination include not only the pleasure we take in recalling the happier moments of our lives but even the pleasure we derive from the immediate contemplation of a beautiful landscape.<sup>2</sup> But nomenclature apart, the familiar distinction breaks out again as they proceed, very clearly in Hobbes’s ‘compound imagination’ with its freedom to transpose ideas but scarcely less

<sup>1</sup> Milton, l. 43, ll. 2, 5–6 in *The Prophetic Writings*, D. J. Sloss and J. P. R. Wallis (eds), 2 vols, Oxford 1926, Vol. I, p. 424.

<sup>2</sup> For Hobbes, see his *Leviathan*, Pt. 1, Ch. 2. Addison’s ‘The Pleasures of the Imagination’ appeared as a series of essays in the *Spectator*, Nos 411–21, 21 June–3 July 1712.

clearly in Addison's 'Secondary Pleasures of the Imagination', secondary because they do not require that we have experienced what gives us pleasure. To put crudely what epistemologists have found it very difficult to put precisely, we think of ourselves as *perceiving* a present situation, as *remembering* what we have previously experienced, as *imagining*, if only with the aid of memory, what we logically could have experienced, but have never in fact experienced—at least in the precise form in which we now have it before our mind.

If imagination is thus commonsensically defined, what part does it play in science and in the arts? One historically important answer is uncompromising: 'None at all'. Perception, memory and the capacity to follow rules are, on this view, all that the artist and the scientist require. Take first the arts. On the naïver sort of imitation theory, the painter depicts on a wall or a canvas what he is now perceiving or remembers having perceived, making use of a set of rules he has learnt, as an apprentice, to apply. He is a mirror, a substitute eye. That is substantially the way Plato thinks of him in the *Republic*; and Leonardo advises the artist quite literally to take the mirror-image as his guide.<sup>3</sup>

As against Plato, however, Leonardo argues that by carefully studying and representing nature, the artist makes of himself a scientist.<sup>4</sup> Like many another after him, that is, he takes science to consist in the recording and summarizing of experience, in accordance with formalizable rules. But few, if any, serious philosophers of science or the arts would now adhere to so elementary an imitation theory, whether of science or of art. Even in the simplest cases—naturalistic fiction and representational painting—the painter and the novelist do not merely obey rules in a habitual manner, as we stop without thinking at a red light; they *use* them, they *apply* them with skill. No rule can be so particularized as to tell the painter that in order to paint the particular landscape he has before him he must place a blue spot on his canvas in precisely this or that position. Equally, no rule can tell either the scientist or the naturalistic novelist exactly what to record in exactly what detail. To record, he has to envisage his task as a whole, to go beyond both what he is experiencing or remembering and the rules he has learnt, to an imagined totality.

If this be questioned, then we can add that both artists and scientists, except where law or tradition forbids them to do so, will experiment. The painter Francis Bacon has gone so far, indeed, as to *identify* imagination with experiment. 'Real imagination', he writes, 'is technical imagination. . . . It is in the search for the technique to trap the object at a given moment.'<sup>5</sup> Artistic and scientific experiment differ in function, as Bacon is well aware. The completed artistic experiment is a complete work of art; the completed scientific experiment is not a scientific theory. But both types of experiment are anticipations of experience, forms of imagining. That is all we need.

<sup>3</sup> Plato, *Republic*, Book X; *The Notebooks of Leonardo da Vinci*, E. MacCurdy (ed.), London 1938; reprinted 1954, Vol. II, p. 236.

<sup>4</sup> *Ibid.*, Vol. II, p. 213.

<sup>5</sup> In a 1952 statement, cited in H. B. Chipp, *Theories of Modern Art*, Berkeley 1968, p. 620.

## (2) *Imagination and Imaginary Objects*

Why then do we normally describe a poem or a painting but not a scientific experiment, however innovative, as 'a work of the imagination'? In his experiments, the reply might come, the scientist captures a *real* object, the artist an imaginary object. And imagination proper, as Sartre argues, is 'about nothing' or, in the words of Shakespeare's Theseus, 'gives to airy nothing a local habitation and a name'. 'Imaginary', however, is by no means a straightforward predicate; like 'real'—inevitably so, given their interrelation—its force varies with the context. Every painted landscape is imaginary, in the sense that we cannot go for a walk in it. But Constable paints real landscapes, Rembrandt paints real men; Bosch, at least in *The Fountain of Life*, paints imaginary men in an imaginary landscape. And, even so, Bosch's devils and strange beasts are imaginary in a sense in which his men are not. (We can sensibly ask of one of his birds: 'Is that a real or an imaginary bird?') So, in a different way, the dagger Macbeth has before his mind is imaginary as compared with the dagger with which he kills Duncan's servitors. Every director has somehow to make that difference clear. Hamlet is an imaginary figure. But we can still ask whether Hamlet is *really* mad and whether he only imagines he sees, or really sees, his father's ghost in his mother's closet.

Similar variations in the force of 'imaginary' naturally arise in any serious discussion of science. If, as historians claim, some of Galileo's most famous experiments were imaginary, this is not in the sense in which a cosmologist's thought-experiments are *inevitably* imaginary. Phlogiston is imaginary but when J. J. C. Smart tells us that fields of force are imaginary<sup>6</sup> he is not classing them with phlogiston. Nor are those who believe that electrons are imaginary.

These last examples will sufficiently illustrate that imaginary objects are not, in all applications of the predicate 'imaginary', the peculiar province of the arts. Even Ernst Mach allowed that imaginary, 'fictional' objects might have a heuristic value, although he outlawed them from a rigorously-formulated science. No doubt, as in the case of experiment, imaginary objects do not function in science precisely as they do in painting. Fields of force are very different in their function from the Elysian fields; the imaginary perfect figures, perfect landscapes, of Annibale Carracci or Poussin or Claude are not the artistic equivalents of the imaginary perfect vacuum or perfect competition. The scientist uses imaginary objects in order to facilitate calculations or explanations; neither calculation nor explanation is the artist's business. The fact remains that both scientist and artist imagine objects, situations, forms of acting, which they have never met with in experience.

## (3) *Imagining and Picturing*

This, the objection might still come, is not really so. Paradoxical as it sounds to say so, the scientist's imaginary objects are not imagined; they are *conceived*,

<sup>6</sup> J. J. C. Smart, *Philosophy and Scientific Realism*, London 1963, p. 34.

products of the understanding, not of the imagination. Addison certainly suggests as much. He does not deny that scientists *sometimes* imagine. Indeed, he includes amongst the pleasures of the imagination our pleasure in contemplating the scientist's pictures—'to see so many Worlds hanging one above another, and sliding around their Axles in such an amazing Pomp and Solemnity'.<sup>7</sup> But science goes beyond imagination, he argues, when, as it so often does, it goes beyond the picturable.

Addison presumes, as we saw, that to imagine is to form a 'mental picture'. This, the traditional view, has been severely attacked, in somewhat different ways, by Ryle, Sartre and Wittgenstein. (Kant, indeed, had already talked scornfully of 'a representation such as painters . . . profess to carry in their heads, and which they treat as being an incommunicable shadowy image of their creations'.)<sup>8</sup> For our present purposes, however, it does not matter whether we accept or reject Ryle's robust pronouncement that 'there are no such objects as mental pictures'<sup>9</sup> or even the more modest doctrine that although some people do, others do not, form mental pictures when they imagine. Our interest lies in the attempted identification of the imaginable with the picturable, the visualizable; sketching, describing in visual terms, drawing graphs, modelling, seeming to see, imaging, would all of them count as picturing. Leonardo can tell the painter how to paint a dragon, with the head of a setter, the eyes of a cat, the ears of a porcupine, the eyebrows of a lion, the temples of an old cock and the neck of a water-tortoise.<sup>10</sup> But not even his genius could picture  $\sqrt{-1}$  or infinite space. This, it might be said, is the fundamental difference between imaginable imaginary objects and merely conceivable imaginary objects.

It is obvious enough, however, that to restrict imagining to visualizing, to picturing, would be greatly to restrict it, with the consequence, amongst other things, that we should be forbidden to say that we can imagine a smell, a taste, a tune, a sensation. And if we did so restrict imagining, then certainly the poet, we should also have to grant, often goes beyond the limits of the imagination. For by the nature of the case we cannot visualize Blake's

Invisible worm  
That flies in the night

or what happens in Marvell's

Annihilating all that's made,  
To a green thought in a green shade.

Even if, indeed, we extend the notion of the imaginable to include not only whatever can be visualized, but whatever can be sensorially experienced—and

<sup>7</sup> *Spectator*, 420, 2 July 1712.

<sup>8</sup> Kant, *Critique of Pure Reason*, A571, B599, trans. N. K. Smith, London 1950, p. 487.

<sup>9</sup> Gilbert Ryle, *The Concept of Mind*, London 1949, p. 254.

<sup>10</sup> *Notebooks*, Vol. II, p. 247.

we could imagine Blake's worm brushing against us—the poet will not suffer himself to be confined within these bounds. If it is impossible sensorially to imagine infinite space, it is no less impossible sensorially to imagine 'infinite riches in a little room'. To attempt sensorially to imagine Macbeth murdering sleep is to be plunged either into banality or preposterousness.

On the other side, although we might be prepared to grant that imaginary numbers and perfect vacua are conceivable rather than imaginable, this is certainly not true of *all* the imaginary objects the scientific imagination has created; often enough, they are envisaged in a startlingly concrete fashion. Jacques Monod has described the way in which a scientist can come to 'feel with' a protein molecule.<sup>11</sup> Even if such molecules were imaginary that would not make impossible this kind of kinaesthetic sympathy. To draw a boundary between the conceivable and the imaginable, then, would not be at the same time to draw a boundary between the imaginary objects of science and the imaginary objects of art.

#### (4) *Imagination and Imagery*

The fact remains that although science freely admits 'invisible worms' it does not recognize 'green thoughts'; in a scientific text nobody 'murders sleep'. At this point, then, we might hope to draw a sharp distinction between the scientific and the poetic imagination; science does not admit expressions like 'green thoughts' and 'sleep-murderers' which are not the names of even *conceivable* entities. It abjures whatever is not literal. That is why Hobbes forbade the use of figures of speech to the scientist—although he allowed their sparse use, if only as an adornment, to the historian and thought they were essential to poetry.

It must be granted to him that in poetry imagery appears at its most striking. Not that it is omnipresent. Marvell's image-less

The grave's a fine and private place  
But none, I think, do there embrace

is no less poetic, to say the least, than his

At my back I always hear  
Time's winged chariot hurrying near.

To hope, as Goethe did, for a 'Poesie ohne Tropen' is not to aspire after the self-contradictory. But to strike out all poetry which makes use of imagery would be to adopt a policy of decimation.

Does this affect poetry's claim to be taken seriously? 'Metaphors', says Hobbes, 'openly profess deceit.'<sup>12</sup> If this is so, then those who love the truth are inevitably committed to taking the philosopher's side in what Plato was already calling 'the ancient quarrel between poetry and philosophy'. But let us look

<sup>11</sup> Jacques Monod, *Chance and Necessity*, Fontana edn, Glasgow 1974, p. 146.

<sup>12</sup> Hobbes, *Leviathan*, Pt. I, Ch. 8.

more closely at Hobbes's phrase, 'openly profess deceit'. A man can, of course, openly profess that he has deceived us in the past or is deceiving somebody else at present. But he cannot, without falling into paradox, at once tell us something and tell us that he is deceiving us in telling us that. Who, indeed, was ever deceived by a metaphor, except in circumstances when he could equally have been deceived by a literal statement? ('I shall come on the wings of an eagle' is no more and no less capable of deceiving than 'I shall come on the next bus'.) Metaphors, one might say, are too open to be deceptive.

Hobbes's linguistic puritanism leads him to ridiculous lengths. He will not permit the scientifically-minded to use such phrases as 'the way leads there' or 'the Proverb says'. For only people, he objects, can 'lead' or 'say'. Such absurdities are inevitable, as soon as we try to draw a hard and fast distinction between the literal and the metaphorical. To do so, furthermore, would be as fatal to science as it is to the arts. It is not out of mere perversity, or a false poeticism, that the molecular biologist speaks of a 'genetic code' or, in a twice-removed metaphor, the 'scrambling' of a 'genetic text', or allows to certain enzymes the capacity to 'translate'. ('Genetic code' it will be apparent, is a complex metaphor, with considerable implications, of the sort Max Black describes in his article on 'Metaphor'; a paraphrase would not make clear its force.<sup>13</sup>

Once more, however, we should wish to distinguish between the poetic and the scientific *use* of metaphor. The poet, often enough, uses metaphor as a way of expressing his own or someone else's feelings. 'In my opinion', Coleridge once wrote, 'every phrase, every metaphor, every personification, should have its justifying cause in some *passion* either of the poet's mind, or of the Characters described by the poet.'<sup>14</sup> Even an optimist, if there are now any such, could not sensibly object to Hamlet's 'Life is but a weeded garden' on the ground that life can be more accurately compared to a carefully-tended bed of perennials. The metaphor, even if this be true, is a proper one in Hamlet's mouth. But if a botanist were to describe central Australia as being like an unweeded garden, he could not excuse his inaccuracy by telling us that the desert made him feel melancholy.

Then, too, the scientist hopes that his metaphors will rapidly become dead metaphors. That will be a sign of their success. The poet, in contrast, hopes that they will remain perpetually alive. But such differences, important though they are, do not entail that the scientist is wholly committed to the literal, the poet to the figurative.

##### (5) *Imagination and Sympathy*

Let us look again, however, at the poet's use of metaphor to reveal feeling and consider how it is described by Burke in his *Inquiry into the Origin of our Ideas of*

<sup>13</sup> Max Black, 'Metaphor' in *Metaphors and Models*, Ithaca 1962, p. 46.

<sup>14</sup> Letter to Sotheby (13 July 1802) in S. T. Coleridge, *Collected Letters*, E. L. Griggs (ed.), Oxford 1956, Vol. II, p. 812.

*the Sublime and the Beautiful*. The business of poetry, he says, 'is to effect rather by sympathy than imitation; to display rather the effect of things on the mind of the speaker, or of others, than to present a clear idea of the things themselves.'<sup>15</sup> Poetic imagination, on this view, is in essence the power to sympathize.

Monod, so we saw, tells us that at a certain stage in his inquiry he finds himself 'feeling with' the molecules he is studying. But molecules are not people. And, as he adds, his molecular sympathy is in no way represented in his final theory. The physical sciences do not either call upon or seek to arouse the sympathetic imagination; literature certainly does so. (Whether this is true of all the other arts will depend on whether or not we accept the expressionist hypothesis.)

But as soon as we move beyond the physical sciences to science in that wider sense in which it translates the German *Wissenschaft*, this distinction disappears. The historian, the anthropologist, have as much need as the poet of sympathetic imagination, their work embodies and arouses it. Indeed, the widespread tendency in our time for readers to prefer such forms of 'science' to fiction arises in part out of the fact that their sympathetic imagination is more deeply engaged by anthropology, or history, or certain types of psychiatry and sociology, than it is by the novel and the poem. So sympathetic imagination is not incompatible with the exercise of the scientific spirit—even if, in virtue of their procedure and subject-matter, there is no room for it, except at a preliminary stage, in the *physical sciences*.

#### (6) *Imagination and Make-Believe*

There is a second reason, however, why men of considerable intelligence sometimes mistrust literature; they think of it as a form of make-believe. Sometimes they conclude from this identification that it is unworthy of the attention of a serious man—in his *Philosophy of Art* Hegel finds it necessary to excuse himself for taking art seriously—and sometimes they go further still: make-believe, they say, is deception, lying. 'If imagination were confused with make-believe', Collingwood indeed suggests, 'a theory identifying art with imagination would seem to imply that the artist is a kind of liar; a skilful, ingenious, pleasant, or even salutary liar, perhaps, but still a liar.'<sup>16</sup> But it implies nothing of the sort. A liar sets out to make us believe something; a child riding a broomstick is not trying to make us believe that it is a horse. By the very act of stepping on to a stage—as distinct from a platform—an actor distinguishes himself from a confidence-man. An artist who prettifies a landscape is not deceiving us, as a real-estate agent is deceiving us when he doctors a photograph of the tropical island he hopes we shall be foolish enough to purchase. Very occasionally, indeed, an artist *does* set out to deceive us, as with those *trompe l'oeils* in a Roman church which sometimes, at least, are a way of pretending that the church is

<sup>15</sup> Edmund Burke, *A Philosophical Enquiry into the Origins of our Ideas of the Sublime and Beautiful*, edited with an introduction by J. J. Boulton, London 1958, p. 172.

<sup>16</sup> R. G. Collingwood, *The Principles of Art*, Oxford 1938, p. 286.



richer than it is. Or an author may pretend that a novel is a genuine biography. But even if such deception is a form of make-believe, it is far from following that make-believe is *always* deception. Once this is recognized, we are ready to find make-believe in science, too. 'Let us imagine' is a familiar scientific exhortation.

The scientist, however, subjects his make-believing to rigorous tests; the writer does not appear to do so. And this does leave him open, on the face of it, to the second objection: not that he sets out to deceive us, but that he creates uncriticized dreams on our behalf, as Freud substantially suggests. Art on this showing can be no more than what Collingwood calls 'entertainment' as distinct from 'true' art. Graham Greene's distinction between his serious novels and his 'entertainments' would have no force. And it would be impossible to avoid the philosopher Bacon's conclusion that poetry is but 'a dream of learning' in contrast with the 'clear air of Philosophy and the Sciences'.<sup>17</sup> In the language of contemporary psychology, art would be a species of 'autistic' thinking—'dominated by subjective trends, the material being uncorrected in its essential features by objective standards'.<sup>18</sup>

#### (7) *Fancy and Imagination*

Bacon, Coleridge would reply, is confusing the fancy with the imagination. And indeed, it is the central object of the Romantic theory of the imagination to demonstrate the *seriousness* of art. The fancy, as Coleridge describes it, is the precise equivalent of the imagination, as that had classically been conceived: a 'mode of memory emancipated from the order of time and space'.<sup>19</sup> What Coleridge sets out to do, we might say, is to emancipate imagination from memory, to make of it something entirely creative—'to cast off', in Blake's words, 'the rotten rags of Memory by Inspiration'.<sup>20</sup> This is one aspect of the general tendency of Romanticism to turn man into superman, to cut him loose from his dependence on the world. (J. L. Lowes' *The Road to Xanadu* created the stir it did partly because it was directed against this myth.)

Coleridge, however, is not arbitrarily assigning a totally new meaning to the imagination. For all that Hobbes had in the *Leviathan* defined the imagination as 'decaying sense' and identified it with memory, his *Answer to the Preface to Gondibert* grants to it extraordinary creative powers; it is responsible, indeed, for 'whatever distinguishes the civility of Europe from the barbarity of the American savages'—including its buildings, its technology.<sup>21</sup>

<sup>17</sup> *The Advancement of Learning*, Book III, in *Works*, J. Spedding, R. L. Ellis, and D. D. Heath (eds), London 1875, Vol. IV, p. 336.

<sup>18</sup> From the definition of 'autism' in Warren's *Dictionary of Psychology* (1934). For a lively account of psychological work on images and imagination see Peter McKellar, *Imagination and Thinking*, London 1957.

<sup>19</sup> *Biographia Literaria*, Ch. XIII.

<sup>20</sup> *Milton*, f. 43, l. 4 in *The Prophetic Writings*, D. J. Sloss and J. P. R. Wallis (eds), 2 vols, Oxford 1926, Vol. I, p. 424.

<sup>21</sup> Thomas Hobbes, *Answer to the Preface to Gondibert* in *English Works*, Sir William Molesworth (ed.), Vol. IV, p. 450.

More momentarily still, in Hume's epistemology imagination, at first merely a faint idea, finally emerges as creating not only civilization but the everyday world itself. There is an immense gap, so the argument runs, between what we have before our mind when we perceive—a momentary sensation—and what we ordinarily believe ourselves to be perceiving, causally-linked three dimensional objects. This gap the imagination fills, operating in a manner which is regular but largely unconscious. Here we are well on our way to the Kantian imagination—'a blind but indispensable function of the soul, without which we should have no knowledge whatsoever, but of which we are scarcely ever conscious'.<sup>22</sup>

The distinction from which we first set out is now, on the face of it, threatened; 'psychologists have hitherto failed to realize', Kant tells us, 'that imagination is a necessary ingredient of perception itself.'<sup>23</sup> This was a conclusion very welcome to artists for a number of reasons—as a stick to beat science with, as a testimony to the creative power of imagination. But it does not have the effect, even as Kant employs it, that it is improper to draw any distinction between experience and imagination—as Kant himself does in the Preface to the second edition of his *Critique of Pure Reason*.<sup>24</sup> Experience is not just one sort of dream or illusion—the old distinctions persist *within* the new theory, if in a somewhat different fashion.

The poet's imagination, as Coleridge conceives it, differs from this world-creating imagination only in degree, not in kind; it, too, does not simply record, but unifies, organizes. But on what principles? The creative power of the imagination, as Hobbes had envisaged it, depends on its being guided by 'philosophy', by our knowledge of causes and effects. For Hume and for Kant alike, it is bound up with the recognition of causal relationships. That restriction Coleridge would certainly not be prepared to accept; such an imagination would not be godlike.

Coleridge falls back, rather, on an analogy which had already fascinated both Kant and Goethe: the work of art is like a plant. In his *Italian Journey* Goethe describes his search for what he calls the 'primal plant'. Once the nature of this plant is clear, he says, 'it will be possible to go on for ever inventing plants, knowing that their existence is logical'.<sup>25</sup> Nature itself will then envy him. For such invented plants 'are not the shadowy phantoms of a vain imagination, but possess an inner necessity and truth'. And 'the same law', he adds, 'will be applicable to all other living organisms'. Furthermore, he tells us later, the master-pieces of man 'were brought forth in obedience to the same laws as the master-pieces of Nature'. 'Before them', he sums up, 'all that is arbitrary and

<sup>22</sup> Immanuel Kant, *Critique of Pure Reason*, A78, trans. Kemp Smith. For a more accurate account of Hume on the imagination see my *Hume's Intentions*, 2nd edn, London and New York 1968, *passim*.

<sup>23</sup> *Critique of Pure Reason*, footnote to A120, trans. Kemp Smith, p. 144.

<sup>24</sup> *Ibid.*, B xli, Kemp Smith, p. 36n.

<sup>25</sup> J. W. Goethe, *Italienische Reise*, letter of 17 May 1787. My translation is modified from the translation by W. H. Auden and Elizabeth Mayer, Harmondsworth 1970, pp. 310-11.

imaginary collapses; *there is Necessity, there is God.*<sup>26</sup> The art-plant analogy has exhibited an extraordinary vitality; with its origins, of course, in Aristotle, and made central in Kant's *Critique of Judgment*, it is still invoked by such of our contemporaries as Klee and Kandinsky.<sup>27</sup> It proposes to remove arbitrariness from the work of art, by ascribing to it a necessity other than causal necessity but equally as 'law-bound'. (To what, I suppose, would be Goethe's horror, the contemporary Yugoslavian artist Milojević has used a *computer* to construct invented plants.)

Such 'inner necessity', it might be replied, still fails to distinguish the work of art from the illusions of a paranoid. Coleridge was very conscious of this objection. 'If the check of the senses and the reason were withdrawn', he once wrote, 'the first [Fancy] would become delirium and the last [Imagination] mania.'<sup>28</sup> Judgement and what he calls 'good sense' are essential ingredients in literary composition. But his successors in the Romantic tradition would not be limited by 'good sense'. How can 'good sense' have relevance to an arbitrarily-created world? They were far more likely to lay it down, like the painters Adolph Gottlieb and Mark Rothko, that 'the world of the imagination is fancy-free and violently opposed to commonsense'.<sup>29</sup> (Not free *from* fancy but as free *as* fancy.)

Thus interpreted, the scientific imagination and the artistic imagination would certainly be opposed; the scientific imagination is not 'fancy-free'. The scientist is quite uninterested in the sort of hypothesis he dismisses as 'fantastic'. Scientists, like artists, create possible worlds—but only as a way of understanding the actual. Some artists would be prepared to say that this was *their* objective too. The actual can be illuminated without being imitated. But many others would insist that the work of art is, though not arbitrary, totally autonomous, that it has its own necessity, its own truth. But what now is truth? That question I cannot pause to answer.

#### (8) *Imagination and Symbolizing*

But it begins to haunt us. It arises again within what came in nineteenth-century critical writing to be the most influential concept of the artistic imagination—that it is the power of constructing symbols, symbols in a very special, narrow, sense of that word. 'True symbolism', Goethe wrote, 'is where the particular represents the universal, not as a dream or a shadow, but as a living momentary revelation of the Inscrutable'.<sup>30</sup> In short, it is the imagining of what, in the classical sense, is unimaginable. Most of the ways in which we would normally speak of the artist as symbolizing—merely by virtue of the

<sup>26</sup> Letter of 5 September 1787, p. 385.

<sup>27</sup> By Kandinsky in his *Rückblicke*, Berlin 1913; by Klee in his lecture 'On Modern Art', London 1948.

<sup>28</sup> S. T. Coleridge, *Table Talk*, 23 June 1834. Compare the chapter on 'Good sense' in I. A. Richards, *Coleridge on Imagination*, London 1934.

<sup>29</sup> Cited in H. B. Chipp, *Theories of Modern Art*, Berkeley 1968, p. 545.

<sup>30</sup> *Maxims and Reflections*, Maxim 1112. On symbolism in general see the extraordinarily wide-ranging discussion in Raymond Firth, *Symbols Public and Private*, London 1973.

fact that he uses words or visual representations (as a scientist must also do)—will not then count as 'true symbolism'. Neither does the use of symbols in order to convey what might be conveyed by other means—as when, let us say, Jesus is depicted by Giovanni da Modena as crucified upon an apple-tree. The essential feature of 'true symbolism' is that it is 'a revelation of the Inscrutable'.

The most striking exemplification of 'true symbolism', so it is often supposed, is music. This is an art about which we have so far said nothing, as we have also said nothing about architecture; classical theories of the imagination, grounded upon, if gradually cutting themselves loose from, the concept of the representable, found it hard to make much of either art. But in the nineteenth century music comes to the fore as the art to which, in Pater's notorious phrase, every art aspires, a position which painting occupied in the eighteenth century and poetry in the seventeenth century. (In the more formalistic art-theory of our own century, architecture occupies a similarly central position.) For Schopenhauer 'The composer reveals the inner nature of the world, and expresses the deepest wisdom in a language his reason does not understand'.<sup>31</sup> That this was true of *all* art, many of his successors attempted to maintain. And they saw such a revelation as the work of the imagination.

This concept of the imagination was rapidly to become commonplace. Let me take as an illustration the entry under 'Imagination' in the co-operative *Dictionnaire des Sciences Philosophiques*, first published in Paris in 1847. The author dismisses the classical theory of the imagination, as expounded by Descartes and Malebranche—and, he might have added, Hobbes, Locke and Spinoza. For it bears no relation to the 'true' imagination, which carries the poet into 'a world superior to reality'. 'To imagine in the highest and true sense of the word', he continues, 'is to realize the ideal, to make intelligible truth descend into the forms of the tangible world, to represent the invisible by the visible, the infinite by the finite. Every true work of the imagination is a symbol'. And he goes on to give examples, not only, as we should expect, Goethe's *Faust* but—and here he comically conforms to the stereotype of the Frenchman—Byron's *Don Juan* which, he tells us, symbolizes 'the eternal history of mankind'. It is in and through the functioning of his imagination, we also learn, that man is superior to the beasts; reason is thus relegated to an accidental characteristic. Perhaps we shall recall Carlyle's *Sartor Resartus*: 'Not our Logical, Mensurative Faculty, but our Imaginative one is King over us'.<sup>32</sup> Or, even more strikingly, Wordsworth's *Prelude*:

Imagination which, in truth,  
Is but another name for absolute power  
And clearest insight, amplitude of mind,  
And Reason in her most exalted mood.<sup>33</sup>

<sup>31</sup> Arthur Schopenhauer, *The World as Will and Idea*, trans. R. B. Haldane and J. Kemp, London 1948, Vol. 1, p. 336.

<sup>32</sup> Thomas Carlyle, *Sartor Resartus*, Bk. III, Ch. III, p. 153.

<sup>33</sup> William Wordsworth, *Prelude*, Book Fourteenth.

How far we have now come from Plato, or Hobbes, or Addison!

By anticipation, Descartes had already passed judgement on this view, from the standpoint of a scientist and a metaphysician. Descartes was well aware that a symbol could stand for something general and unpicturable, as the triangle we draw on a sheet of paper may stand for any triangle whatsoever, for figures whose sides have no width. But the triangle of the geometer, if unpicturable, is by no means inscrutable; geometry investigates its properties. As for metaphysical ideas, these, Descartes always argued, could not be presented in *any way* through an image. Writing to the Cambridge Platonist Henry More, Descartes complains that More's 'corporal angels' or his 'shadow of the divine essence' are typical of 'what happens when we have invented or imagined something and afterwards take pleasure in our fictions, as you do'.<sup>34</sup> To 'entertain such thoughts', he adds, 'is to close the road to truth against oneself.' Quite the opposite, the Wordsworthian reply would come, Descartes is limiting 'truth' to the truth of Reason in her *less* exalted moods, her narrower operations, her obscurer insights. Here is a genuine clash. Science simply cannot accept such a depreciation of its rational procedures, any more than philosophy can accept Arnold's description of it—reversing Plato's charges against poetry—as 'shadows and dreams and false shows of knowledge'.<sup>35</sup> Nor can it accept the pre-scientific conception of nature as a system of signs, with which the symbolic theory of the poetic imagination is so often associated—'everything that can be contemplated', writes André Breton, 'speaks a meaningful language which can be understood when human emotion acts as the interpreter'.<sup>36</sup> It had to fight too hard and too long for the right to scrutinize nature as a set of processes indifferent to human aspirations. I do not mean that the scientist is hostile to symbolization as such; it would be ridiculous to object to the symbolizing of Sydney by its opera house, of justice by a sword and a pair of scales or, as in Arthur Boyd's paintings, of lust by a ram. (Such symbols, it is worth observing, by no means shine their meaning forth. Without instruction from iconographic experts we should have no idea that the pheasants in a Cranach painting represent wisdom.) His hostility, only, is to the conception of the 'Inscrutable', to the way in which the work of art is put forward, in what is essentially a *philosophical* claim, as a representative of 'higher truth' or in defence of a mythological conception of the world.<sup>37</sup>

In making this objection, the scientist, the scientifically-minded philosopher will by no means lack artistic allies. Some artists, it is true, are attracted by the

<sup>34</sup> Descartes to More, August 1649, Adam and Tannery, Vol. V, pp. 401-5. I have used the translation by Anthony Kenny in Descartes, *Philosophical Letters*, Oxford 1970, pp. 258-9.

<sup>35</sup> 'The Study of Poetry' in *Essays in Criticism*, Second Series, London 1895, p. 3.

<sup>36</sup> André Breton, 'Matta' (1944) in *Surrealism and Painting*, trans. S. W. Taylor, London 1972, p. 86.

<sup>37</sup> See, for one example of this critical attitude, F. D. Martin: 'The Persistent Presence of Abstract Painting', *Journal of Aesthetics and Art Criticism*, Fall, 1969, Vol. 28, No. 1, pp. 23-31.

metaphysics of symbolism; it exalts, they believe, their position in the scheme of things. Critics welcome it, because it allows them at least to *appear* to say something about music and abstract art—no easy task. It permits them, too, to inflate third-rate novelists into artists worthy of serious critical consideration. As Harry Levin sardonically remarks: 'every fishing trip turns out to be another quest for the Holy Grail'.<sup>38</sup> But others profoundly mistrust it; its effect, they feel, is to destroy the immediate, sensuous quality of the work of art. They might well be alarmed by André Breton's description of painting as a 'lamentable expedient',<sup>39</sup> by Melville's loss of faith in fiction, or perhaps even more, by Hegel's pronouncement that 'art is, and remains for us, on the side of its highest destiny, a thing of the past'.<sup>40</sup> Its 'highest destiny', as Hegel sees it, is to become 'free in its own nature—not dependent for its realization on external sensuous matter' and in the process 'to transcend itself', passing 'from the poetry of imagination into the prose of thought'.<sup>41</sup> This is not at all a surprising conclusion, given the emphasis of 'true symbolism'. The work of art, like the geometrical figure the geometer sketches on a piece of paper, can be screwed up, thrown away, once we have passed beyond it to what it incorporates. (Some contemporary painters, indeed, make use of sentences in their paintings, as if in despair of doing what they want to do in a purely pictorial form.) But it is a poor spirit that cannot look at Turner, or listen to Vivaldi, or read *Don Juan* without thinking of higher things. 'True symbolism' is, I believe, a philosophical sham. In the sense that it requires, *nothing* is inscrutable. And if this is so—whether it is so, only philosophy can determine—there is no form of imagination which is not shared by art and science. The real difference is in the kind of control which they exert over their imagining. That is why the theory of the imagination leads us into fundamental questions in the philosophy of science and the philosophy of art—into the question, in both cases, what counts as a control and how the use of those particular controls can be justified.

Let me make a final explanatory comment. I have been talking about the imagination, not about imaginativeness. These are very different: in exercising any form of the imagination, one can be either imaginative or unimaginative. Even the most conventional work of art is an exercise of the imagination, and so is the most trivial hypothesis in science. But the trivial is not imaginative. To be imaginative, whether in science or the arts, is to imagine in ways that are not merely conventional, routine or—I regret to say—academic.

<sup>38</sup> Harry Levin, *Contexts of Criticism*, Cambridge, Mass. 1957, p. 207.

<sup>39</sup> André Breton, *Le surréalisme et la peinture*, Paris 1928, trans. S. W. Taylor, p. 129.

<sup>40</sup> Hegel, *The Philosophy of Art*, trans. Bernard Bosanquet, London 1905, repr. in J. G. Gray (ed.), *On Art, Religion, Philosophy*, New York 1970, p. 34.

<sup>41</sup> *Ibid.*, p. 126.