

Memory and Imagination

INTRODUCTION

CONCERNING memory and imagination, the tradition of western thought seems to be involved in less dispute than it is on other aspects of human and animal life. There are, as we shall see, points of difficulty and debatable theories. But these arise only within the framework of certain fundamental insights which are widely, if not universally, shared. Here at least we can begin without having to deal with verbal ambiguities. Unlike many of the words which are the traditional bearers of the great ideas, "memory" and "imagination" have a constant core of meaning in almost everyone's discourse.

It is understood that memory and imagination depend upon sense perception or upon previous experience. Except for illusions of memory, we do not remember objects we have never perceived or events in our own life, such as emotions or desires, that we have not experienced. The imagination is not limited in the same way by prior experience, for we can imagine things we have never perceived and may never be able to.

Yet even when imagination outruns perception, it draws upon experience for the materials it uses in its constructions. It is possible to imagine a golden mountain or a purple cow, though no such object has ever presented itself to perception. But, as Hume suggests, the possibility of combining a familiar color and a familiar shape depends upon the availability of the separate images to be combined.

"When we think of a golden mountain," Hume writes, "we only join two consistent ideas, *gold* and *mountain*, with which we were formerly acquainted . . . All this creative power of the mind amounts to no more than the faculty of compounding, transposing, augment-

ing, or diminishing the materials afforded us by the senses and experience." A congenitally color-blind man who lived entirely in a world of grays would not be able to imagine a golden mountain or a purple cow, though he might be able to imagine things as unreal as these.

Because of their dependence on sense perception, memory and imagination are usually regarded as belonging to the same general faculty as the external senses. Not all writers, however, conceive of a generic power of sense, which they then divide into the exterior senses such as sight, hearing, and touch, and the interior senses such as memory and imagination. Some, like Hobbes, treat imagination as "nothing but decaying sense," and use the word "memory" to "express the decay, and signify that the sense is fading, old, and past."

The image, whether it is a memory-image or fancy-free, *re-produces* or *re-presents* sensory material. It may be less vivid, less sharp in outline, and less definite in detail than the sensation or perception from which it is derived. But in one important respect the image does not differ from the original sense impression. That is the respect in which ideas or concepts do differ from sense impressions—at least according to those who hold that ideas or concepts have a certain universality and abstractness which is not found in sensations and sensory images. Those who, like Berkeley and Hume, call sensations or images "ideas" deny the existence of abstract ideas or universal notions precisely because they, too, agree that sense impressions or sensory images are always particular in their content and meaning.

THE FUNDAMENTAL controversy about what an idea is and the verbal confusion occasioned

by the ambiguity of the word (which appears in the chapter on IDEA) do not seem to affect the understanding of the nature of images or their role in the activities of memory and imagination. As William James points out, in discussing the "blended" or "generic" image which is somehow associated with abstract or universal meaning, "a blurred thing is just as particular as a sharp thing, and the generic character of either sharp image or blurred image depends on its being felt *with its representative function*." He speaks of this function as "the mysterious *plus*, the understood meaning," but he denies the possibility of universal or abstract *images*, whatever may be the truth about ideas which are not images at all. Certainly those who deny the presence of anything abstract or universal in the understanding do so on the ground that the content of the mind is basically sensory, whether the mind is perceiving or remembering, imagining or thinking.

The controversy about the nature of the mind does not seem to affect the conception of memory or imagination. As neither is confused with sense perception, so neither is confused with rational thought. This remains the case whether the theory of mind looks upon the intellect as a faculty separate from the sensitive faculty (including memory and imagination), or conceives the understanding as a single faculty which is active in judgment and reasoning as well as in perceiving, remembering, and imagining.

Russell makes an important observation of the special contribution made by imagination and memory to human knowledge. "The essence of memory," he writes, "is not constituted by the image, but by having immediately before the mind an object which is recognized as past." Without such memory images, "we should not know that there ever was a past at all, nor should we be able to understand the word 'past,' any more than a man born blind can understand the word 'light.' Thus there must be intuitive judgements of memory," judgments that Russell calls self-evident, "and it is upon them, ultimately, that all our knowledge of the past depends."

THIS AND RELATED issues are considered in the chapter on MIND. Except for one point, perhaps, such issues can be ignored here. Sensation is attributed to both animals and men—to all organisms which give evidence of having sense organs or some sort of sensitive apparatus. Whether all animals, even those which have the most rudimentary sensorium, also have memory and imagination may be disputed; but no one doubts that the higher animals, with central nervous systems and brain structures resembling those of men, can remember and imagine as well as perceive.

All agree, furthermore, that memory and imagination require bodily organs, though the assignment of these two functions to the brain as their organic seat is more uniformly a tenet of modern than of ancient physiology, and can be more clearly expounded as the result of modern researches in neurology. But the question whether the memory or imagination of men and other animals differs more than their bodies do, elicits opposite answers from those who affirm that man alone has reason and those who deny that man has powers of knowing or thinking not possessed by other animals to some degree.

Nevertheless, if man alone is considered, the nature of memory and imagination is clear. The object remembered or imagined need not be physically present to the senses like the object perceived. The object imagined need not be located in the past like the object remembered; nor, for that matter, need it have any definite location in time and space. It need have no actual existence. It may be a mere possibility, unlike the object which cannot be known without being known to exist. As the object of memory is an event which no longer exists, so the object of imagination may be something which has never existed and never will.

Thus memory and imagination greatly enlarge the world of human experience, as novelists such as Henry James, James Joyce, and Virginia Woolf vividly illustrate. Memory is both form and subject matter of Proust's *Remembrance of Things Past*. "It is a labour in vain to attempt to recapture" the past, he writes. "All the efforts of our intellect must

prove futile. The past is hidden somewhere outside the realm, beyond the reach of intellect, in some material object . . . of which we have no inkling. And it depends on chance whether or not we come upon this object before we ourselves must die." This chance comes for Proust's narrator in the form of a sensory association. After tasting the "petites madeleines," the little cakes he used to eat as a child, his memories are lifted out of his unconscious as though he were drugged. "When from a long-distant past nothing subsists," Proust writes, "after the people are dead, after the things are broken and scattered, taste and smell alone, more fragile but more enduring, more unsubstantial, more persistent, more faithful, remain poised a long time, like souls, remembering, waiting, hoping, amid the ruins of all the rest; and bear unflinchingly, in the tiny and almost impalpable drop of their essence, the vast structure of recollection."

Regardless of Proust's difficulty of recapturing the past, even he would agree that without memory and imagination, man would live in a confined and narrow present, lacking past and future, restricted to what happens to be actual out of the almost infinite possibilities of being. Without memory and imagination, man could be neither a poet nor a historian; and unless he had an angelic sort of intellect which in no way depended on sense-experience, he would be impeded in all the work of science, if memory and imagination did not extend the reach of his senses.

In religious mysticism, imagination makes the effort to transcend sense-experience. It tries "in vain," writes Huizinga, "to express the ineffable by giving it shape and figure." For example, "The mystic imagination found a very impressive concept in adding to the image of the desert, that is to say, extension of surface—that of the abyss, or extension of depth. The sensation of giddiness is added to the feeling of infinite space." Huizinga comments on "the hopeless attempt to dispense with images and to attain 'the state of void, that is mere absence of images,' which only God can give."

THE PSYCHOLOGICAL analysis of memory usually divides it into a number of separate acts

or phases. Recollection presupposes the retention of the material to be recalled. The ingenious experiments of Hermann Ebbinghaus that William James reports—using the memorization of nonsense syllables to isolate the factors influencing memory—seem to show that retention is affected by the strength of the original associations. But retention is also affected by the interval between the time of learning and the time of revival. The amount of forgetting seems to be a function of two separate factors: the force with which the material to be recalled is originally committed to memory, and the lapse of time.

That retention is not the same as recall may be seen from Ebbinghaus' experimental discovery of the fact that forgetting is never complete. Material which lies below the threshold of recall is nevertheless retained, and manifests its presence by its effect on attempts to relearn the material which *appears* to have been forgotten.

Nothing can be utterly forgotten if, as Augustine suggests, what seems to be forgotten remains in the memory. He considers the effort men make to remember a forgotten name. How can we remember a name, he asks, "unless we bring it out from the memory? For even if we recognize it because someone else prompts us, it is still by our own memory that we do so, because we do not accept it as a fresh piece of knowledge but agree that it is the right name, since we can now remember it. If the name were completely obliterated from our minds," Augustine argues, "we could not remember it even if we were prompted. For we do not entirely forget what we remember that we have forgotten. If we had completely forgotten it, we should not even be able to look for what was lost."

Freud considers forgetting from another point of view. He describes the psychoanalytic method at its inception as a "talking cure" involving efforts in reminiscence. The things which we have put out of mind, he claims, are "hindered from becoming conscious, and forced to remain in the unconscious by some sort of force." He calls this "repression." Freud observed that it occurred when "a wish had been aroused, which was in sharp oppo-

sition to the other desires of the individual, and was not capable of being reconciled with the ethical, aesthetic, and personal pretensions of the patient's personality . . . The end of this inner struggle was the repression of the idea which presented itself to consciousness as the bearer of this irreconcilable wish. This was repressed from consciousness and forgotten."

On this view things which have been put out of mind because we find them unpleasant to contemplate, things which are repressed in order to avoid conflict, are not forgotten when they cannot be consciously remembered. Nor are they below the threshold of recall in the sense that our retention of them has been so weakened by time that no effort at recollection can revive them. On the contrary, they may be capable of quite vivid revival when the emotional obstacles to recollection are removed. Freud applies his theory of the "obliviscence of the disagreeable" to such everyday occurrences as the forgetting of familiar names as well as to the repression of memories connected with the emotional traumas of early life.

Recollection is distinct not only from retention, but also from recognition. The illusion known as *déjà vu* consists in the experience of intense familiarity with a place or scene that, so far as one can recall, has never been witnessed before. In contrast, normal recognition depends upon previous acquaintance with the object being cognized again, *i.e.*, *recognized*. The fact, noted by many observers, that recognition may or may not be accompanied by recollection of the previous circumstances, indicates the separation of recall and recognition as acts of memory. Whereas recollection is remembering through the recall of images, recognition consists in remembering at the very moment of perceiving. Both, however, depend upon what seems to be memory's fundamental act—retention.

WITH REGARD TO retention, there are two problems which have been the subject of inquiry throughout the whole tradition. The first concerns what is usually called "the association of ideas." From Aristotle through Hobbes and Hume to James and Freud, there have

been various formulations of the laws of association and various interpretations of what such laws signify about the mind. Ebbinghaus, for example, used nonsense syllables in order to measure the effect upon retention of the associations formed by repetition of a series of sounds. All meaning had been removed in order to avoid the influence upon recollection of associations resulting from meaningful connections of the sort which exists among ordinary words. The repetition of nonsense syllables in pairs or series illustrates association by contiguity or succession. According to most writers, the elements of experience become associated through other modes of relation also, such as their similarity or contrast with one another in any significant respect.

It is not the association itself which is remembered. Rather it is through the association of one part of experience with another that memory seems to work, one particular tending to recall others with which it has been associated in one or more ways. Recollection seems to occur through activating connections which have been formed and retained. The modern differentiation of controlled and free association indicates two ways in which this can happen—either by a purposeful pursuit of the past or by the apparently chance recall of one thing by another. The ancients make a parallel distinction between reminiscence and reverie. The former is a process in which recollection resembles reasoning in proceeding step by step through a series of related terms; the latter is more like daydreaming or spontaneous fantasy.

The second problem can be stated, perhaps, as the mystery of retention itself. In describing the capacity of the memory to hold the innumerable things which are not now in mind but can be recalled, the ancients speak of memory as "the storehouse of images." Every variety of thing which can be perceived can be "stored in the vast capacity of memory," says Augustine. "I may say to myself 'If only this or that would happen!' or 'God forbid that this or that should be!' No sooner do I say this than the images of all the things of which I speak spring forward from the same great treasure-house of the memory. And, in fact,

I could not even mention them at all if the images were lacking . . . the things themselves do not penetrate into the memory. It is simply that the memory captures their images with astonishing speed and stores them away in its wonderful system of compartments, ready to produce them again in just as wonderful a way when we remember them."

The marvel of memory deepens into a mystery when we ask what the metaphor of the storehouse literally means. Where actually are the images when they are not actually in mind? If an image is by its nature an act of consciousness, whereby we apprehend objects not immediately present to our senses, how do images exist outside of consciousness during intervals when they do not function in remembering, imagining, or other acts of knowing? Their return to consciousness seems to imply that they have been retained, but where and how is the problem not solved by the metaphor of things stored away in a capacious barn.

The physical storehouse does not require any fundamental transformation in the being of the things it holds between periods when they are actually in use. The memory does. This problem of the nature and causes of retention James seems to think can be solved only in terms of the retentive power of nervous tissue—what he calls "physiological retentiveness"—though in the view of others the problem becomes no easier (and may even be more complicated) when it is transferred from mind to matter. On either view, there seems to be no question that changes in the brain are somehow causally connected with the activity of memory and imagination, especially retention and recall. Aquinas, for example, observes that the imagination and memory may be "hindered by a lesion of the corporeal organ . . . or by lethargy," an observation many times extended by more recent investigations of the brain pathology underlying amnesia and aphasia.

JAMES'S TREATMENT of retention as somehow based on pathways traced in the brain, with recall the result of a retracing of these paths, tends to emphasize the affinity between mem-

ory and habit. His theory, discussed in the chapter on HABIT, that the plasticity of matter, certainly living matter, underlies learning or habit formation, while the inertia or retentiveness of matter, especially the neural matter of the brain, explains memory or the persistence of habits during periods of disuse, seems almost to identify habit and memory. Ice skating after many years of absence from the sport is as much remembering how to ice-skate as reciting a poem committed to memory in youth is the exercise of an old habit.

Not all conceptions of habit and memory permit this fusion of the two—or even their affinity as related aspects of the same phenomenon. Aquinas, for example, restricts memory to an act of knowledge. The performance popularly called "reciting from memory" would not be for him an act of memory, though it might involve memory if the recitation were accompanied by knowledge of the time or place and occasion when the poem was first learned. Such knowledge would be a memory, but the recitation itself would not be, any more than ice skating is. These performances represent the exercise of habits of skill or art.

In view of this, Aquinas raises the question whether the act of knowledge, of the sort involved in reconsidering a geometric proof learned at some earlier moment and now recalled to mind, is an act of memory. The knowledge of the proof which is retained by the intellect during periods when it is not actually exercised, he would call an intellectual habit or habit of knowledge. But should the recollection of this retained knowledge, or the activation of this intellectual habit, also be called an act of memory? Aquinas answers No, on the ground that no reference to the past need be involved in reworking a geometric problem solved at some earlier time. But if the individual also happens to recall *when* he first solved the problem, that is another matter. Even so, Aquinas claims that "if in the notion of memory we include its object as something past, then the memory is not in the intellectual, but only in the sensitive part." The intellect is said to remember only in the sense of recalling a truth retained by habit, and "not in the sense

that it understands the past as something here and now."

Memory is considered in still another way in relation to speculative truths about scientific or philosophical matters. The question is one of the origin of such knowledge. In the usual conception of memory as knowledge of past particulars, one traditional view, found in Aristotle, holds that "out of sense-perception comes to be what we call memory, and out of frequently repeated memories of the same thing develops experience"—the generalized experience which gives rise to induction and the apprehension of the universal. But in the tradition of the great books we also find a more radical and, perhaps, less familiar conception of memory as the chief source of knowledge.

This is Plato's doctrine of reminiscence, in which all learning is a kind of remembering of knowledge already present in the soul. All teaching takes the form of helping the learner to recollect things he may not be aware he knows, by reminding him through a process of questioning which awakens the knowledge already latent in him.

In the *Meno*, Meno asks Socrates, "What do you mean by saying that we do not learn, and that what we call learning is only a process of recollection?" Socrates undertakes to show Meno what he means by taking a slave boy who appears not to know the solution of a certain geometric problem and merely by questioning him, without ever giving him a single answer, getting the slave boy to find the right solution for himself. Meno assures Socrates that the slave boy had never been taught geometry. Since the boy was not told the answer, he must have always known it, and needed only some reminding to remember what he knew. Socrates suggests the explanation that the boy's soul always possessed this knowledge, bringing it from another life.

Before he undertook the demonstration with the slave boy, Socrates had proposed this hypothesis. "The soul, being immortal, and having been born again many times, and having seen all things that exist . . . has knowledge of them all; and it is no wonder that it should be able to call to remembrance all that it ever

knew about virtue, and about everything; for as all nature is akin, and the soul has learned all things, there is no difficulty in her eliciting, or as men say learning, out of a single recollection all the rest, if a man is strenuous and does not faint; for all enquiry and all learning is but recollection."

Though he differs from Plato in his conception of the soul and the origin of the knowledge which it innately possesses, Augustine seems to hold a similar view. As he examines his own memory, it appears to contain much that has not been implanted there by sense experience. Certain things, referred to by words he understands, he says, "have not reached me through any of my bodily senses. I could not see them at all except in my mind, and it is not their images that I store in my memory but the facts themselves. But they must themselves tell me, if they can, by what means they entered my mind. For I can run through all the organs of sense, which are the body's gateways to the mind, but I cannot find any by which these facts could have entered." If the seeds of learning are in the soul at its creation, memory can draw from these "seminal reasons" the full fruit of knowledge.

THE DOCTRINE OF reminiscence changes the meaning of both learning and memory at the same time. When learning consists in remembering knowledge not acquired in this life, then the activity of memory cannot be, as it is usually conceived, a recollection of knowledge previously acquired in this life by learning. In order to understand a doctrine in which familiar meanings are so profoundly altered, it is perhaps necessary to understand the problem it tries to solve.

That problem exists only for those who make an absolute distinction between particular sensory images and universal ideas or abstract concepts. Those who, like Hobbes, Berkeley, or Hume, deny universals or abstractions as any part of the mind's content, see no special problem in the origin of that part of the mind's content which is not received as sense impressions. The original impressions are somehow externally caused, and all the rest of the mind's content—its images and mem-

ories and all constructions of the sort Locke calls "complex ideas"—then arise by natural derivation from the original sense impressions.

But those who, on the contrary, maintain that ideas or concepts are *not* images of any sort, cannot avoid the problem of how the mind comes by its ideas. One solution of this problem attributes existence to ideas as intelligible objects, and attributes to the mind the power to apprehend them by direct intuition, just as the senses directly apprehend sensible objects. But if ideas, whether or not they exist outside the mind, cannot be apprehended intuitively, then what is the origin of the ideas whereby the mind understands intelligible objects?

To this question, the doctrine of reminiscence is one answer. Another answer is the doctrine of abstraction, as formulated by Aristotle and Aquinas. Locke and James also seem to recognize a distinction in kind between abstractions and other mental content, but they do not appear to find any need for a special power to perform the act of abstracting general ideas or universal concepts from the sensory particulars of perception and imagination. Aquinas, however, thinks that a special faculty called "the active intellect" must be postulated to account for the mind's possession of the ideas or concepts whereby it actually understands what it cannot perceive or imagine.

THESE THEORIES are considered in the chapters on IDEA and MIND. But just as the doctrine of reminiscence is relevant here for its bearing on the discussion of memory, so the doctrine of abstraction which posits an active intellect is relevant to the discussion of imagination.

"Imagination," writes Aristotle, "is different from either perceiving or discursive thinking, though it is not found apart from sensation or judgment without it. That this activity is not the same kind of thinking as judgment is obvious. For imagining lies within our own power whenever we wish (*e.g.*, we can call up a picture, as in the practice of mnemonics by the use of mental images), but in forming opinions we are not free; we cannot escape the alternatives of falsehood or truth."

The point is not that images cannot be

false. They frequently are, as (according to Aristotle) sensations never are. But the falsity of our imaginations involves a judgment that things really are as we imagine them to be. If imagination is not accompanied by judgment, the question of truth or falsity does not arise, for in pure imagination we are not concerned with the way things actually exist, but with the possible, *i.e.*, the imaginary rather than the real. "Everyone knows the difference," says James, "between imagining a thing and believing in its existence."

Conceiving imagination as an activity depending upon the prior activity of the senses, Aristotle holds that imagination is "incapable of existing apart from sensation." In this he does not differ from other psychologists. But he also holds that rational thought, which for him is quite distinct from imagination, cannot exist apart from imagination. "To the thinking soul images serve as if they were the contents of perception . . . That is why the soul never thinks without an image."

Aristotle is here saying more than that a special faculty of mind or intellect abstracts the universal form—or what Aquinas calls "the intelligible species"—from the sensory matter of the image, or what Aquinas calls "the phantasm." Aristotle is, in addition, insisting that the act of understanding is always accompanied by imaginative activity. The kind of thinking which depends upon the abstraction of ideas from imagery also depends upon the presence of images when the thinking takes place. "The faculty of thinking," says Aristotle, "thinks the forms in the images"; or, as Aquinas expresses it, "for the intellect to understand actually, not only when it acquires new knowledge, but also when it uses knowledge already acquired, there is need for the act of imagination . . . It must of necessity turn to the phantasms in order to perceive the universal nature existing in the individual." The cooperation of the imagination with the intellect is shown, furthermore, by the fact that "when the act of imagination is hindered by a lesion of the corporeal organ . . . we see that a man is hindered from understanding actually even those things of which he had a previous knowledge."

Augustine, on the contrary, refers to things which "are recognized by us in our minds, without images." When we consider numbers, for example, "it is not their images" that we store in memory, "but the facts themselves." The question of imageless thought—of thinking abstractly without the use of images—seems to be peculiarly insistent in sciences like mathematics, metaphysics, and theology, in which the conceivable may not be imaginable. The objects peculiar to these sciences seem to require the scientist to do without imagery, or, as Aquinas says, "to rise above his imagination."

This may be true even in physics. Atoms, according to Lucretius, are conceivable, but they are no more imaginable than they are perceptible. If we need images to think of them, we must use imagery in a metaphoric way, picturing the atom as the smallest particle imaginable—only more so! To the objection that there must be imageless thought if we can think of incorporeal beings, of which there can be no images or phantasms, Aquinas replies that we do so "by comparison with sensible bodies of which there are phantasms."

ARISTOTLE'S THEORY that the operations of thinking are always dependent on (though not reducible to) acts of imagination, does not imply that imagination is always accompanied by abstract or rational thought. Normally, human thinking and knowing is a work which combines both sense and intellect, both reason and imagination, but sometimes even in man imagination may be active without judgment or reasoning. Brute animals, according to Aristotle, are largely guided by their imaginations "because of the non-existence in them of mind." But when imagination takes the place of thought in men, it is "because of the temporary eclipse of their minds by passion or disease or sleep."

Dreaming seems to be the striking case of imagination divorced from reason's judgment or control. It has long been suspected that animals also dream, but the question whether they can distinguish their dreams from their waking perceptions may prove forever unanswerable. Philosophers and psychologists have,

however, asked themselves whether there is any way of being certain of the difference between waking thought and the phantasmagoria of dreams.

Descartes, for example, asks, "How do we know that the thoughts that come in dreams are more false than those that we have when we are awake, seeing that often enough the former are not less lively and vivid than the latter?" It seems to him that "there are no certain indications by which we may clearly distinguish wakefulness from sleep." Even as he writes these words, he can almost persuade himself that he is dreaming. Yet he does find one probable sign whereby to tell dreaming from waking. "Our memory," he observes, "can never connect our dreams with one another, or with the whole course of our lives, as it unites events which happen to us while we are awake."

Aquinas finds other evidences of the difference. When a man is fully asleep, he does not dream at all, for his imagination is inactive as well as his senses and his mind. But as sleep passes gradually into waking, his faculties begin to act again, not merely the imagination, but the reason also, so that "a man may judge that what he sees is a dream, discerning, as it were, between things and their images. Nevertheless, the common sense remains partly suspended, and therefore, although it discriminates some images from reality, yet it is always deceived in some particular. Even while a man is asleep, his sense and imagination may be to some extent free, and similarly the judgment of his intellect may be unfettered, though not entirely. Consequently, if a man syllogizes while asleep, when he wakes up he invariably recognizes a flaw in some respect."

APART FROM QUESTIONS of truth and falsity, or reality and illusion, the nature and causes of dreaming are perennial themes in the tradition of western thought. As different suppositions are made concerning the cause of dreams, so different interpretations are given of their content.

When it is supposed that the dream is inspired by the gods or is a divine visitation, it becomes a medium of divination or

prophecy—a way of foretelling the future, or of knowing what the gods intend in general, or for the guidance of some particular man. In the great books of ancient poetry and history, and in the Old Testament as well, dreams, like oracles, are interpreted as supernatural portents, and figure as one of the major sources of prophecy. Aristotle discounts both the fulfillment of dreams and their nonfulfillment, “for coincidences do not occur according to any universal or general law.” Regarding prophetic dreams as mere coincidences, he does not find it surprising that “many dreams have no fulfillment.” From the fact that “certain of the lower animals also dream,” he thinks “it may be concluded that dreams are not sent by God, nor are they designed for the purpose of revealing the future.”

Instead, Aristotle proposes natural causes for the origin of dreams. Slight stimulations of the sense organs awaken the dream process and determine its content. “Dreamers fancy that they are affected by thunder and lightning, when in fact there are only faint ringings in their ears . . . or that they are walking through fire and feeling intense heat, when there is only a slight warmth affecting certain parts of the body.” Lucretius similarly explains dreams by natural causes, but attributes their content to events which have dominated the thought of waking life.

In dreams, Lucretius writes, “we find,
Each one of us, whatever our desires
Seize and hang onto in our waking hours.
The lawyers plead in court or draw up briefs,
The generals wage wars, the mariners
Fight with their ancient enemy the wind.

This is true even of animals:

Some day, in fact, you’ll see a thoroughbred,
Asleep in a stall, break out in a sudden sweat,
His breath come faster and faster, and his sides
Heave as he seems to pass the winning post
Or break as the starting-gate flies open. Hounds
Twitch in their sleep, or try their best to run,
Give tongue, and sniff the air, as if they caught
Scent of their quarry.

IN THE TRADITION of the great books, modern writers like their ancient forebears appeal thus to sensation and memory as the natural causes of the origin and content of dreams. But, ex-

cept for daydreams or waking fantasy, they do not observe that dreaming may be even more profoundly a product of desire. If Freud’s extraordinary insight on this point is supported by all the evidences he assembles in his great work, *The Interpretation of Dreams*, then the lateness of this discovery may be thought even more extraordinary than the theory itself.

The theory is not simply that the content of dreams is determined by desires. When Oedipus tells Jocasta of his fear that in taking her to wife he has unwittingly married his mother, she tells him to fear not, for “many men ere now have so fared in dreams also.” If that is so, then such dreams do not call for the interpretation which Freud gives. If there are men who suffer from what Freud calls “the Oedipus complex,” involving repressed incestuous desires, then the expression of those desires in dreaming will not take the form of imagining them to be actually fulfilled.

On the contrary, Freud’s theory of dream symbolism holds that “the dream as remembered is not the real thing at all, but a distorted substitute.” Beneath what he calls “the manifest dream-content”—the actual moving images which occupy the dreaming consciousness—lie “the latent dream-thoughts” which are distorted in the actual dream. This distortion “is due to the activities of censorship, directed against the unacceptable unconscious wish-impulses . . . invariably of an objectionable nature, offensive from the ethical, aesthetic, or social point of view, things about which we do not dare to think at all, or think of only with abhorrence.” The repressed desires or wishes, the loves or fears, which the dreamer refuses to acknowledge consciously must, therefore, appear in dreams in a disguised form. The imagery of dreams seems to Freud to be a kind of language in which the repressed materials of thought and feeling employ a special symbolism to express what the moral censor will not permit us to express in the ordinary language of our conscious thought or social conversation.

As ordinary language contains symbols conventionally agreed upon, so Freud finds that the recurrence again and again of certain images in the dreams of neurotic patients, and of normal persons as well, gives them the charac-

ter of conventional symbols. "The number of things which are represented symbolically in dreams is," according to Freud, "not great." They are, he says, "the human body as a whole, parents, children, brothers and sisters, birth, death, nakedness—and one thing more. The only typical, that is to say, regularly occurring, representation of the human form as a whole is that of a *house* . . . When the walls are quite smooth, the house means a man; when there are ledges and balconies which can be caught hold of, a woman. Parents appear in dreams as *emperor* and *empress*, *king* and *queen*, or other exalted personages . . . Children and brothers are less tenderly treated, being symbolized by little *animals* or *vermin*. Birth is almost invariably represented by some reference to *water* . . . For dying we have setting out upon a *journey* or *travelling* by train. *Clothes* and *uniforms* stand for nakedness." The one thing more, which Freud mentions in

his enumeration, comprises the sexual organs and acts. In contrast to all the others, these, he says, "are represented by a remarkably rich symbolism . . . An overwhelming majority of symbols in dreams are sexual symbols."

Freud points out why it would be a mistake to treat dream symbols like the words of an ordinary language. "Their object is not to tell anyone anything; they are not a means of communication; on the contrary, it is important to them not to be understood." Wrestling their secret from such symbols is a remarkable achievement. Aristotle's remark, which Freud quotes, that "the most skilful interpreter of dreams is he who has the faculty of observing resemblances," seems to be borne out in the Freudian method of discovering the latent content of the dream symbolism. But Freud's therapeutic use of what can thus be discovered makes the psychoanalytic method a thing totally unanticipated by any of his predecessors.