

into the substance of the living body. So with growth and generation. So also with sensation: a thing seen is a definite, individual object, here and now brought into the range of sight; a thing heard is one definite concrete sound or concert of sounds here and now within the range of the hearing; and so with other sensations, and with appetite, and locomotion. But when a man *thinks*, he forms an *idea*, he grasps an *essence* in general or universal, and this is true even when he thinks of objects in the bodily world. A man can know, for instance, what a house is, or a hill, or a tree, or a horse; he can form *ideas* of these things, and thus know them in a manner that transcends all organic grasp. If a man looks at a house, he sees that particular house. But man's *idea of house* is not limited like the sense-perception (which is organic). Man, by reason of the *idea house*,—which his mind has formed by working upon the experiences brought to him by the senses,—can understand *what house means*. If someone speaks of a house, the man in question understands perfectly without having to see any particular house. His mind abstracts from (or neglects to consider) the things which make a house individual and concrete,—things like the style and size of the house, the materials of which it is built, its location, its time of building, etc.,—and holds only the things that make a house a house. The man understands *house in universal*. But the man cannot *see house in universal*; he must, to exercise the organic

operation of seeing, have within range of his eyes *the house in individual*; and he must see it in a certain place at the *time* of his seeing. Here we see that the organic operation is characterized and limited by individuality, space, time, circumstances in the concrete. But the operation of *thinking*, of forming and having the *idea*, and of *understanding* thereby, is not limited or characterized like the organic process. The operation of thinking, of intellectually knowing, is therefore not an organic operation; it is supra-organic; in other words, it is an operation of spiritual character. Therefore it proceeds from a spiritual first principle, which, like every first principle of acting or operating beings, is *substantial*. Hence the substantial first principle of the human operation of thinking (of intellectually knowing) is spiritual. But this substantial first principle is the human soul. Therefore, the human soul is a *spiritual substance*.

As with thinking, so with reasoning. To reason is to work a thing out by connected steps of study. One *reasons* in solving a problem in algebra, or in demonstrating a theorem in geometry. A student who has made a careful study of the preceding paragraph, has been *reasoning*. Now, obviously, there is no organ or bodily structure by means of which such an operation could be exercised. The finest faculties (i. e., powers for vital operation) that a man has, short of the intellectual faculties here in question, are the sentient faculties. But which of the sentient faculties is even

conceivably competent to study and compare and note relationships and draw conclusions? By what sentient faculty can you do a sum in mathematics. By what organ can you discover that two and two make four? You can see two bricks; you can hear two sounds; you can smell two odors; you can touch and feel two bodily objects; you can taste two flavors; you can imagine two dragons. But you cannot, by any sense or sense-organ, lay hold of *two*—that is, of *two* by itself; not two of this or that, but simply *two*. But the mind of man can understand what *two* means. A man, confronted with the exacting problem of adding two and two, does not pause and say, "Two *what?*" When little boys and girls first go to school the teacher trains them to make pure mathematical *concepts* (or *ideas*) by connecting the quantities with definite and sensible materials. The teacher says, "If John had two apples and Mary gave him two more apples, how many apples had John?" But in a very short time the minds of the smallest children are ready to dispense with the apples and with other material substances, and are able to deal with *quantity in the abstract*. And so the children add two and two, and three and five, and nine and seven, not being puzzled by the task of handling quantities *without any sensible thing that is quantified*. What organ could begin to do such a thing? The brain? You might as well say the eye or the ear. For no organ deals with objects in the abstract; no organ can deal with objects in universal.

The brain is the organ of the interior senses, of which we shall hear later in this treatise. The brain is the organ of imagination, for example, and sense-memory. Now imagination and sense-memory can deal with their object when it is no longer outwardly and physically present; but to do this they must project the object within themselves in an image that is *individual, concrete, circumstanced*. This is an example of the highest type of organic operation, and it is still a matter of concreteness and individuality and circumstance. But thinking and reasoning are not limited by concreteness, individuality, and circumstance. Hence thinking and reasoning are operations of a character superior to any organic operation. They are supra-organic; they are of spiritual character. Hence they come from a spiritual first principle. This is the soul. Therefore, *the soul is spiritual*. ✓

Man's mind or intellect holds such ideas as *being, unity, goodness, truth, ideals, virtue, honor, ambition, purpose, beauty, steadfastness, patriotism, etc.* Can any organ lay hold of such things? Can you see truth? Can you smell ideals? Can you imagine what ambition would look like, and draw a picture of it? These are *abstract* things; they are things *drawn out* from concrete and individual limitations or settings (*abstract* comes from the Latin *ab* "from" and *traho* "I draw"), and hence they are beyond the grasp of any organic bodily part. They are things which require a supra-organic power to apprehend them, a *spiritual*

power. But this power is resident in a spiritual substance; this substance is the soul. Therefore *the soul is spiritual*.

The soul can *reflect*. The term is from the Latin *re-* "back," and *flecto* "I bend." The soul can *bend back* upon itself. It exercises this function by its faculty of mind or intellect. The mind can know itself knowing; can think of its thinking; can make itself and its processes the object of its own study. No organic faculty can do as much. The eye cannot see itself seeing, nor can the ear hear itself hearing. The sense of taste cannot taste itself. No organ nor organic faculty can *reflect*. An organ or bodily part may *bend back* part of itself upon another part, as the hand can bend fingers back upon the palm. But no bodily part can bend *all* of itself upon *all* of itself. The mind can. The mind (or intellect) is therefore supra-organic; it is a spiritual faculty. And, in consequence, it resides in *a spiritual substance*. Hence *the soul is spiritual*.

Further: every nature, every operating essence, tends towards that which suits it, which is good for it, which answers its connatural needs. Now the human soul tends towards spiritual things: justice, science, virtue, endless happiness. The human soul exercises this tendency by *rational appetite* or *will*. But there must be a proportion and balance between the appetite and the object appetized. A purely bodily thing has no need or tendency or connatural "desire"

for that which is of supra-bodily character. Only a spiritual faculty can exercise a spiritual drive or tendency. We must conclude that the human will is a spiritual faculty, and, since this is so, the soul, or substantial principle which exercises will, is *a spiritual substance*.

Let us close the present study with one additional consideration. The physiologists tell us that the material organic body is continuously being worn out and renewed, and in the course of a long lifetime a man's entire body-structure must have been completely replaced eight or ten times over. Yet the man of eighty will recount tales of his boyhood, his youth, his maturity. There is something substantial about the old gentleman which has *not* worn out, and has *not* been renewed, but has *endured unchanged* through all the long years. It is not the body; it is not something organic. It is something supra-organic or spiritual. It is *the spiritual soul*, which constitutes the "self" and holds this self unchanged through all the bodily changes of a lifetime.

The soul of man is a spiritual substance. Therefore we must reject as entirely untenable,—and as a theory which not only does not explain human operations but contradicts them,—the doctrine of the *materialists* who maintain that there is no such thing as a spiritual reality, and teach that *matter* is the single cause of all vital phenomena whether in the vegetal, sentient, or human order. Notable materialists of

more recent times were: John Tyndall (1820-1893); Herbert Spencer (1820-1903); Auguste Comte (1798-1857); Maximilien Paul Littré (1801-1881); John Stuart Mill (1806-1873); Karl Moleschott (1822-1894); Ludwig Buechner (1824-1898).

4. *The human soul is an immortal substance.* The term *immortal* is derived from the Latin negative prefix *in* (which here changes its *n* to the next following letter for sake of euphony) and *mors* (stem *mort-*) "death." Thus *immortal* literally means *deathless* or *undying*. When we say that the soul is *immortal* we mean that the soul is *a substance which does not, and cannot, die.*

There are degrees of immortality. (i) Perfect, unconditional, and essential immortality belongs to God alone. God is Infinite Life; God is necessary Being. God cannot be non-existent, nor can He be non-living. The immortality of God is called *absolute immortality*. (ii) The next (less perfect) grade of immortality belongs to created substances which are so constituted as to preclude the possibility of dissolution or death. Such are *simple* substances *that are complete in point of substantiality*. These substances have no parts and hence cannot be shattered into parts; further, these substances do not depend upon matter (which has parts) and cannot fade from existence when the matter is shattered into its constituent parts. In a word, such substances cannot die either *per se* or *per acci-*

dens. And this is because they are *simple* and *spiritual* substances. Their immortality is called *natural immortality*. Of course, these spiritual substances are contingent and not necessary beings; they are creatures; they would not exist if the Creator did not call them into being. And, absolutely speaking, the power which made them could withdraw its sustaining influence and allow them to be *annihilated*. But, apart from the pure possibility of *annihilation* (which is *relatively* impossible, i. e., impossible because of, or *in relation to*, the infinite wisdom and goodness which would not create only utterly to destroy) these spiritual substances have no capacity for extinction, no possibility of dying. Such substances are angels and human souls. Therefore, when we say that the human soul is immortal, we mean that the soul is endowed with *natural* immortality. (iii) The lowest grade, so to speak, of immortality is that which is found in bodily things which, being bodily, could and would die, but which will not be allowed to die. The nature of such substances inclines them to dissolution, since they are made of parts, but by a divine gift *above* their nature, or *supernatural*, they are made immortal. Such were the bodies of our first parents. By their sin Adam and Eve lost the supernatural gift of bodily immortality, and they and all their descendants were doomed to die. The bodies of men, joined with their souls at resurrection, will thenceforth be dowered with this *supernatural* immortality.

We say that the human soul is *naturally immortal*. And we say so because the soul has not, either in itself *intrinsically*, or in other things *extrinsically*, anything that could make its death possible.

First of all, the human soul is *intrinsically immortal*. We have seen that the human soul is a spiritual substance which is the first principle of life in man. It is alive, and it is the source of human vital operations. Now, a spiritual living substance is complete *as a substance* and it is *simple*. These points are involved in the very essence of spiritual substance. But a simple substance cannot be dissolved into parts, for it has no parts. But death *per se* is the dissolution of a thing into its parts. Hence the soul cannot, *per se*, be corrupted, dissolved, or *die*. Nor does the human soul depend on that which has parts, namely, the organic body. We have seen that the soul has operations which are definitely and unquestionably supra-organic; and we have concluded perforce that the soul itself (since operation indicates essence) is supra-organic; it does not depend on organs for its existence or proper operations. But death *per accidens* is the passing of a substance from existence by reason of the dissolution of the material or organic body on which such a substance depends. The soul, however, does *not* depend on the body, and hence does not perish when the body is broken into its constituent parts. Hence the soul cannot die *per accidens*. Now, what cannot die *per se* or *per accidens* is *intrinsically im-*

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mortal. Therefore the soul is intrinsically immortal. But that which is intrinsically immortal is so either by *absolute* or by *natural* immortality. Absolute immortality belongs to God alone. Therefore the human soul has natural immortality; *the human soul is naturally immortal*.

In the second place, the human soul is *extrinsically immortal*. That is to say there is no cause outside the soul which *can* or *will* destroy it. A spiritual substance cannot be destroyed unless it is *annihilated*; that is, reduced to absolute nothingness. And annihilation can come only from the cause which can *create*. To create is to draw out of nothingness into actuality; to annihilate is to withdraw the sustaining creative power and allow the creature to disappear into nothingness once more. But only God can create, and therefore, only God can withdraw the sustaining creative power. Hence, on the face of it, annihilation is possible; God *can* annihilate. But when we consider the infinite wisdom of God, and His infinite goodness, we are forced to conclude that to annihilate a spiritual substance would involve a contradiction in the all-perfect Being, and hence such annihilation is impossible. In other words, if we look at God's *power* alone, we say that God *can* annihilate. But when we consider the other divine perfections (which are not really *other* in God, for all are identified in the Divine Essence, and are seen as distinct only by reason of our limited capacity which cannot adequately take them

as they are and view them in infinite identity) we say that God *cannot* annihilate. For, manifestly, it would not be wise,—and God is infinite Wisdom,—to create a substance capable of endless existence only to negative its capacity and utterly destroy it. Nor would it be kind or good,—and God is infinite Goodness,—to implant in a spiritual soul a “longing after immortality,” such as that to which all sane minds confess, and then render the desire futile by complete destruction of the soul. Therefore we say, in the language of the philosopher and theologian, “In His *absolute* power God can annihilate the soul; but by his *ordered* power (i. e., His power brought into alignment and *order* with the other divine perfections) He cannot annihilate it.”

The argument just concluded is strictly rational; there is not a shred or scrap of sentiment about it. We pause a moment, in passing, to notice this fact, lest we win the unwanted approval of those mistaken sentimentalists who,—incapable of measuring the full stature of a man and recognizing the glorious dignity of human freedom and responsibility,—try to argue themselves out of belief in hell by saying, “How could an all-good or all-wise God condemn a soul to endless torments?” This sort of thing,—this unworthy whine,—is not on a par with our argument which finds the wisdom and goodness of God insurmountable obstacles in the way of a possible annihilation of the human soul. To put the matter simply and be done with it, it

suffices to notice one immense difference in the two arguments: if annihilation of the soul were possible, it would come from the power of God, man being helpless under the process of utter extinction; God would have all to do with it, man would have nothing to do with it. But in the eternal condemnation and torments of hell, man has everything to do with it, and God, strictly speaking, has nothing to do with it. On the contrary, God wills all to be saved, and the eternal loss of a soul is its own doing, in spite of all that God does for it to induce it to choose eternal happiness.

Summing up the arguments for the immortality of the soul, we say: the human soul is *intrinsically* immortal because it cannot die either *per se* or *per accidens*; it is *extrinsically* immortal because there is no cause outside the soul capable of annihilating it. Therefore, the human soul will not die at all. Its immortality is *natural* immortality, for its spiritual nature makes it capable of endless existence and excludes a connatural tendency to dissolution or extinction. Therefore, *the human soul is naturally immortal.*

c) ORIGIN OF THE HUMAN SOUL

The human soul can come into existence in only one way, namely, as the immediate product of a cause which produces it in its entirety out of nothing. In a word, the human soul can come into existence only by being directly *created*. Now, God alone can create.

Therefore, the human soul can come into existence only by the direct or immediate creation of God.

The human soul cannot be derived from the *souls* of parents. For we have seen that the human soul is a simple spiritual substance. Hence the souls of parents cannot be divided *per se* or *per accidens* to give off parts, germs, or elements, to form the soul of offspring. The fallacious doctrine, long abandoned by philosophers generally, that the soul of a child is derived from the soul of its parents, is known as *Traducianism*, from the Latin *trans-ducere* "to lead or draw out or across"; the name is meant to indicate the theory that the soul of human offspring is "drawn out or across" from the souls of the father and mother.

The human soul cannot be derived from the *bodies* of parents. The statement is self-evident. For the spiritual substance called the soul can have no origin in a mere material substance. Generation, as a vital process, produces a result that is *of like nature* with the source or generator; all that could possibly be generated out of a body is bodily in nature.

Now, if the human soul cannot come into existence by being generated by parents, it must come into existence by being, in each man, directly created by God. There is no other way in which it might originate.

Each human soul is, therefore, directly and immediately created by Almighty God. Now, the question arises: *when* is the human soul created? The human

soul is a substantial form, and no substantial form is produced until the conditions requiring it are present. Hence the human soul is not first produced and held ready for its body. This would be "pre-existence of souls," a doctrine theologically reprobated, and philosophically unsound. The soul does not exist until it exists as the substantial form of a human body. Therefore, the moment of the soul's creation is the moment of its substantial uniting with its body. The language usually employed to express this truth is this: the human soul is *created* and *infused* into the body at one and the same instant. The moment of a soul's *creation* is the moment of its *infusion*, i. e., its substantial uniting with the body.

Now, when does that instant of creation and infusion occur? Is it the *moment of conception*, that is, the moment when the male and female elements join to compose the primal cell of the offspring? Many Scholastic psychologists think so; in fact, this view may be called traditional, since it has met general favor for five or six centuries. St. Thomas Aquinas and many of the older Scholastics believed that the new life which emerges at the moment of conception within the body of a human mother is, for a time, plant-life, and later, when the new organism is developed to sufficient complexity, the plant soul or substantial form is displaced by a sentient or animal soul, and this, in turn, at a later stage of development, is displaced by the human soul which is *then* immedi-

ately created and infused by a single act of divine power. Thus, according to this view, the moment of the soul's creation occurs some weeks after conception. The arguments offered for each of these two conflicting doctrines are interesting and not without weight, but none of them is absolutely conclusive. In the light of authority on the subject, and also in view of the relative merits of argument on either side, it appears that the more probable doctrine is that which asserts *the moment of conception* as the moment of the soul's creation and infusion. But the point we make here is that, *whenever* the soul is created and infused, its creation and infusion are *absolutely simultaneous*, and come of a single direct act of divine power. The soul does not *pre-exist* to its body. The first moment that finds a human soul without its body is the moment it leaves the body when a man dies.

SUMMARY OF THE ARTICLE

In this Article we have described and defined the human soul as the first principle of life in man. We have made a detailed study and proof of the *substantiality, simplicity, spirituality, and immortality* of the soul. We have seen that the soul can come into existence only by way of *creation*, direct and immediate in each instance. We have discussed the moment of the soul's creation, and have found that the soul does not pre-exist to its body, but is *created and infused* by a single divine act and therefore at a single *instant*,

which is, to follow the more probable opinion in the matter, *the moment of conception*.

ARTICLE 2. THE UNION OF SOUL AND BODY IN MAN

- a) Nature of the Union
- b) Results of the Union
- c) Place of the Soul

a) NATURE OF THE UNION

A *union* is either the process of conjoining two or more things into a single reality, or it is the product of such a process. We use the term union to indicate the *process of uniting* when we say, "The union of the colonies was effected by clear-sighted and heroic statesmen." We employ the term in its other sense as the *product or result of uniting* when we cry with Webster, "Liberty and Union, now and forever, one and inseparable," or when we sing, "The Union forever!"

There are two main types of union, to wit, *accidental union* and *substantial union*. *Accidental union* is manifested in the conjoining of realities in such wise that each keeps its own complete nature and operations, and so the elements (i. e., things united) do not fuse together, so to speak, to constitute a new essence. Such a union is observed in a heap of stones, for example, or in a team of horses hitched together to make the one pulling-force which draws the wagon, or in a mixture of water and sand. Such a union also

is the *moral* union, or conjoining of wills, which brings different men together to form one society. Such a union again exists between the motorist and the car he is driving, between the rower and the boat he is propelling, between the organist and the instrument he is playing.—A *substantial* union is manifested by the conjoining of elements in such wise that a new substantial essence emerges. Thus hydrogen and oxygen, for example, are united to form the new substance, water. Water does not exhibit the properties of either of the gases which combined to form it, and by properties, as we have learned (Cf. *Part I, Chap. I, Art. 1, a*), essences are recognized and distinguished one from another. The essence *water* is neither the essence *hydrogen* nor the essence *oxygen*, but a new essence which emerges from the uniting of hydrogen and oxygen. Therefore this union is *substantial*. Another example of substantial union is that of prime matter and substantial form to constitute an actual body. Here the elements do not *change*, as hydrogen and oxygen change in forming water; the elements are *incomplete* substances (not *complete* like the elements of water before their union) and they come together as *complements*; together they fill out a *single completeness* or new essence. The resultant body is not matter alone, it is a specific *kind* of matter; and this specific actuality does not come from its being material, else all bodies would be specifically or essentially the same, which is not the case. Nor is

the body form alone, for, unless it be spiritual, a form cannot exist by itself. The *body* is not prime matter alone, nor form alone, but a definite individual corporeal substance of a certain essential kind; it is a single substantial composite or compound of matter-and-form.

A substantial union is either simply *essential* or it is *personal*. A simply *essential* substantial union is illustrated in the examples just given; it is the union of substantial elements to form a new essence. But when the new essence is a *complete substance of the rational order*, the union is *personal*. A complete substance of the rational order means a complete substance endowed with the capacity for understanding and willing, even if this capacity be not usable because of immaturity or other obstacle which blocks,—temporarily or permanently,—the acquisition or use of a requisite fund of experience. Thus every man, even an infant, even an imbecile, is a complete substance of the rational order; he is a *person*; and the essential elements unite in him to form a *personal union*.

It is our contention that the union of soul and body in each human being is a personal union; further, we contend that the human soul is, in each human being, the substantial form of the human organism, or, more simply, the soul is the substantial form of the man.

Our doctrine is the common teaching of all the Scholastic philosophers, and it has been admirably proved by St. Thomas Aquinas, following and ampli-

ying the doctrine of Aristotle. There have been, however, notable philosophers who held the demonstrably mistaken view that the union of soul and body in a man is merely an *accidental* one. Plato taught that the soul of a man resides in his body and controls it, much as a rower, seated in a boat, plies the oars and directs the movement of his craft. René Descartes (1596–1650) defined man as a soul, and regarded the vegetal and sentient processes as mechanical. Vicomte de Bonald (1754–1840) held that man is an intellect served by organs,—*une intelligence servie par des organes*. We maintain that man is a composite of body and soul, a single if compound essence, and we hold that soul and body come together in a man, not as hydrogen and oxygen in water (for these gases change their proper nature in their fusion) but as incomplete substances which find their complement in union, and result in a substance which is not body and not soul but *man*,—not a mere organism and not a pure spirit but *a single human substance*. The two points we have to prove are these: the union of soul and body in man is a personal substantial union; the soul is the substantial form of the living human body.

1. *The union of body and soul in man is a personal substantial union.* We are to show that the soul and body of a man are so united as to form one *person*. Now, (a person is, first and foremost, what philosophers call a *supposit*. A supposit is a complete individ-

ual substance which is not part or parcel of another substance. A tree is a supposit, a horse is a supposit. A branch of a tree (while it is still part and parcel of the tree) is *not* a supposit, nor is the leg of a horse a supposit. The branch of the tree and the organic parts of the horse are indeed substantial, but they are not substances which stand, so to speak, on their own feet or exercise their own operations independently of any other substance. For the branch manifests the growth and life of the *tree*; the organic parts of the horse exercise the *horse's* operations. You may, indeed, sever the branch from the tree, and then it *is* a supposit, either as a new plant (if it be such a cutting as can, if planted, sustain life and exercise all the vegetal functions), or as a dying or dead limb of a tree. The leg of a horse, if severed from the organism, *is* a supposit (or, more correctly, it is a parcel of supposits) but it is not an organic or living supposit; it is a mass of dead matter which will presently be resolved into the physical and chemical substances which compose it.

There is an old and true saying that "Actions belong to the supposit." The growth of a branch is the growth of the *plant* to which the branch belongs; the movement of a horse's feet is the movement of *the horse* which uses the feet. If a burglar reaches through a window and takes our valuables, we do not enter suit against the burglar's arm and hand, but against the *man*. For the actions of the man's arm and

hand are the *man's* actions. "Actions belong to the supposit."

Now, (if the supposit be "of the rational order," that is to say, if the supposit have understanding and will, the supposit is called a *person*. And if we can show that the actions and operations observable in a man (who is a union of soul and body) are to be referred to one single individual substance, then this substance is not only the result or product of the substantial union of soul and body, but of the *personal* union of these elements. Now, as a matter of fact, all of a man's operations *are* referred to one single individual substance, to wit, the individual man. We know by reflecting upon our own operations that all of them are *ours*.) Each of us understands that his growth or his digestive function is *his*; each knows that *he* feels, *he* sees, *he* senses, *he* thinks, *he* reasons, *he* makes up his mind. No one thinks of saying that his eyes see and his mind thinks and his will chooses. He says, "I see, I think, I choose." And he says rightly, for, upon reflection, he is aware that, while he uses his eyes to see and his mind to think and his will to choose, it is truly *he*,—an undivided substantial actuality,—that uses these wondrous instruments. In a word, a man clearly grasps the truth of the fact that his experiences are *his own*. They are, in many cases, under his control. His eyes will infallibly see if he lets them look, but he may refuse to let them look. Distracting

thoughts may oppress his mind, but he can do much to banish them by steadfastly fixing his mind on other things. He may find it hard to make a choice, but difficulty is not impossibility. Many things a man cannot control; he cannot rearrange the circulation of the blood; he cannot, by taking thought add to his height one cubit, or take off as much from his girth. None the less, he knows that his growth is *his* growth; it affects *him*; it proceeds from sources immanently active that have their root and spring in his own life-principle. The individual character of our nature is apparent to each of us. It is especially manifest in matters of mind and will, and through these, it is manifest in merely bodily things. We are aware, with unshakable certitude, that our thoughts and opinions and volitions, our hopes and aspirations and ideals and ambitions, our aches and our pains, our health and fitness, our digestion and growth, all are *ours*; each of us recognizes these things as *his own*. And if there is any value in human knowledge, any certitude in human experience, this elemental certitude of the unity of our nature is a thing truly known and truly certain.

The interaction and interdependence of the operations of a man indicate the unity of his substantial nature. They show that man is a substantial composite, or, in other terms, that his soul and his body are substantially united, and form a *substantial union*. And, since man has understanding and will, this substantial

union is a supposit of the rational order: it is a *person*; and therefore the substantial union of its essential elements is a *personal substantial union*.

One need not go into details to prove the interaction and interdependence of the human operations. We shall discuss presently the precise nature of the mutual influence of body and soul; here we merely consider the fact without discerning its mode. It is a fact which proves beyond all dispute the substantial unity of a man. And the fact is obvious. How is it that a man may find his digestion upset by worry? Worry is mental; it belongs to the rational order or rational life of a man; digestion is vegetal. Yet it is a fact of commonest experience that worry *can* cause indigestion, and, conversely, indigestion can cause mental distress. Who has not felt a loss of appetite for food, or a loss of tendency for sleep, when some dread situation is persently to be faced? Who has not experienced some sentient or vegetal effect of a mental activity? Envision a healthy young student impatiently waiting the dinner-gong. He is ravenous, and plans to create a minor famine when he reaches the table. Before the welcome sound of the bell comes to him, he receives a telegram which announces the death of a dear relative. Gone instantly is his desire for food. And yet the information imparted by the sad message is something which only the *mind* can apprehend. Again, the sentient operations can intimately and instantly af-

fect the rational operations and the vegetal functions. A toothache can make study or mental concentration impossible, and it can upset the nutritive powers and operations. A devoted lover of good music may find the finest symphony unendurable, if he is nursing a collection of boils. A workman in a factory once saw a heavy iron wheel fall upon the foot of a fellow workman. Immediately he ran to the man's assistance. With a mighty effort, he lifted the wheel from the crushed foot. Later he found that he was unable to lift the great weight of the wheel, try as he would. Yet the incident is explicable, and it illustrates the interaction of body operations and soul operations in a man. He *saw* the accident (sentient operation); he *understood* its significance (rational operation); then, in response to his knowledge and the tendency to act on it, certain glands poured their secretion into his blood (vegetal operation) and immensely increased his muscular strength for a short period. It is manifest, and the proof of the point lies within the experience of everyone, that body and soul in man exercise a common joint operation: the *man* feels, the *man* understands and wills, the *man* is nourished and grows. And yet the man is a union of unlike elements, as one knows from their operations. Some of his operations are organic, some are altogether supra-organic and not to be exercised by any bodily part or power. We must conclude that the union of the essential elements

in a man is a substantial and personal union. In other words, the union of *body and soul* in a man is a *personal substantial union*.

2. *The human soul is the substantial form of the living body.* The human soul is, as we have many times seen, the human *life-principle*. It is that whereby a man is alive and can exercise all the operations of a man. When life is gone, when the life-principle departs at death, the corpse is not a man; it has *none* of the functions or operations proper to a man. Therefore we know that the life-principle is that actuality which is the formal principle of a man's being as a *man*, and it is united substantially with the man's body to form therewith one complete and specific essence. It is the *formal principle* of a man's being, for without it the organism is *not* a man. It is substantially united with the organism (as we have just proved) to constitute a single complete and specific essence. But to say this is to say that the soul is *the substantial form* of the human organism or living body. Thus simply and directly is our point established.

We may state the matter in somewhat different fashion. The substantial form of a body is the determining principle (itself an incomplete substance) which combines with matter in substantial union to constitute a body of determinate species or essence. Now, that which substantially constitutes the human body in its determinate essence as *human* is the life-

principle or soul. For when the soul departs (when a man dies) the body instantly loses its character as a human body; the human essence or species is corrupted or destroyed in that bodily being. Therefore the human soul is the substantial form of the living human body, that is, of the *man*.

Every bodily actuality is made of prime matter and substantial form. Further, every living body has its life-principle as its substantial form. For the life-principle is the thing which constitutes the living body in its complete specific nature. Since the life-principle is the substantial form in *every* living body, the *human* life-principle (or human soul) is the substantial form in the *human* living body.

There can be, of course, no question here of the substantial character of the form which makes the living body *human*. We have already proved that the human soul is a substance, incomplete in point of species, although complete in point of substantiality. For the rest, no *accidental* form could bring substantial determinateness to any essence, nor could the removal of an accidental form induce, of itself, a substantial change in the body which loses that form. Yet the human substance is essentially and substantially changed the instant a man dies; that is, the instant the soul departs. Therefore the human soul is not an *accidental* form. It remains that it must be *the substantial form* of the body which it actualizes in essence and nature.

We shall presently see that man has only one soul (for all he has three grades of life) and this one soul is the spiritual or *rational* soul. Man, therefore, is rightly defined as a *rational animal*. For man is an *animal* organism, and man has reason or is *rational*. This definition of man as a *rational animal* is called a *metaphysical* definition. For a definition expresses an essence; it names the elements or parts of that essence; and the *parts* here named are not *natural* or *physical* parts which can actually be separated one from another; the "parts" here mentioned (i. e., "rationality" and "animality") are realities which the mind understands to be present, but which do not suffer physical partition; the parts here named are *metaphysical*. If you wish to mention the physical and separable parts of a man, and to express or explain his essence thereby, you have a *physical* definition of man. Thus, the familiar definition given in the little catechism is the physical definition of man, viz., "man is a creature *composed of body and soul*. . . ."

b) RESULTS OF THE UNION

The results of the union of soul and body in man are manifold. Here we are to consider three important ones: (1) A man is constituted by this union as a single essence and nature with the operations of three kinds of living beings. In other words, a man, although he has vegetal, sentient, and rational operations, *has only one soul*. (2) Each man has his own

individual soul; he is not a mere sharer in a kind of universal humanity. (3) Soul and body exercise a mutual influence.

1. *A man has only one soul*. We have seen that the human soul is the substantial form of the living human body. But man has three grades of life: he is nourished, grows, propagates his kind, and in this he is like a plant. He has sensation, appetite, and locomotion, and in this he is like a brute animal. He has understanding and will, and these are his distinctive specific faculties. Has man then three souls, a vegetal soul, a sentient soul, and a rational soul? Or has he only one? The answer is that man has only one soul, and this one soul is the rational spiritual soul, which is in man the principle of his threefold life.

Plato (5th century B. C.) taught that man has a triple soul: an intellectual or rational soul, seated in the brain; a sentient soul situated in the heart, and a vegetal soul in the abdomen. Certain philosophers of the later Middle Ages,—like William of Ockham (1280–1348) and Peter Gassendi (1592–1655),—taught that a man has two souls, one *rational*, and the other *vegetal-sentient*. During the last two centuries some philosophers and scientists have advanced a two-soul theory which assigns to man one *vegetal* soul, and one that is *sentient-rational*. The three-soul doctrine is known as *tridynamism*; the two-soul theory is called *duodynamism*; and the doctrine which we here de-

fend, that man has but one soul, is known as *monodynamism*. These terms derive from the Greek word *dynamis* "power," and the numeral words *treis* or *tria* "three," *duo* "two," and *monos* "only, alone, single."

Sometimes the more modern type of duodynamism (which assigns to man a *vegetal* soul and one that is *sentient-rational*) is called *vitalism*. And *monodynamism* is frequently called *animism*. *Vitalism* comes from the Latin *vita* "life" or *vitalis* "pertaining to life" and literally means the doctrine which defends the existence of a *vital* principle over and above the mechanical and physico-chemical forces which are observed in bodies. *Animism* comes from the Latin *anima* "soul," and literally means the doctrine that there is a soul in man, that is, a rational spiritual soul and no other. But the terms *vitalism* and *animism* are to be used with great caution for they are capable of varying and even entirely unrelated interpretations. Thus in our day *vitalism* is often used as synonymous with *animism*, and yet the terms were originally used to indicate opposed doctrines, viz., a plural-soul theory and a single-soul theory. Again, the term *animism* is used to designate a doctrine far removed from the domain of psychology; it indicates a debased form of religion which amounts to ancestor worship.

Now, the human soul is united with the body as its substantial form. We cannot admit a plurality of substantial forms in a single bodily substance. But to

admit the existence of a plurality of souls in the human organism is to admit a plurality of substantial forms in the one bodily substance. Man, if he had three souls or two, would be an aggregate of substances, and not a single substance. But the testimony of consciousness is altogether imperative and incapable in its urgency against such a possibility. Man is inevitably aware of the fact that the *self* is a single self; that it is the same substantial being which feels and reasons, which grows and wills. Therefore there is a single unifying and determining principle which is the basic and ultimate determinant of the human essence and nature. There is, in a word, only one soul or substantial form in a man, and not a plurality of souls. And, manifestly, the soul which makes a man a *man* and distinguishes him substantially from all other bodily substances is the rational soul. The vegetal soul would not differentiate man from plants; the sentient soul would not differentiate him from brute animals. The rational soul, which we have proved to be simple and spiritual and immortal, is the ultimate *human* determining principle. Man has one soul. It is the *rational* soul.

St. Thomas Aquinas, in his book *Summa Contra Gentiles*,—a summary of doctrine written to controvert mistaken pagan philosophy and theology,—says that when once a thing is constituted in its complete essence and nature, it takes on no new form except in an *accidental* way (for if it were to receive a new

substantial form, this would replace the one already there, and the essence would no longer be the complete essence it was, but a new essence). And a thing received or "taken on" accidentally is something outside the established essence which receives it. If, then, the vegetal life-principle is the substantial form of a body, that body *is* and *remains* a plant, and to conceive of a superadded sentient soul or rational soul or both, would leave the body still a plant and nothing but a plant. However, one cannot conceive of a super-added soul which leaves the original soul still in occupation. One cannot conceive of a soul in an accidental capacity; for a soul as such is a substantial form, and it gives substantial determinateness and essential character to that with which it is conjoined. We must, therefore, reject as impossible the plurality-of-souls theory.

We have already noticed the interaction and interdependence (rightly understood) of the three sorts of operations and operating powers observable in a man. There would be no conceivable explanation of this harmonious interaction, and this simultaneous accord of the human functions, if there were three souls, or two, in the same human body. Why should not the several souls act in utter independence of one another? Why should their several types of operation come into activity at the same instant and cease at the same moment? Why should a man not die as a rational being and live on as a sentient being? And,

losing sentiency, why should a man at the same time lose his vegetal powers? Why should he not endure for a time as a plant? And why should not the plant life and the animal life die out of a man and leave him an inorganic body with a rational soul,—if such a thing were conceivable? For three souls are three substantial principles or forms; and three substantial forms are, by their very nature, three *independent* forms. The unified character of man's operations excludes absolutely the possibility of a plurality of souls simultaneously actualizing the same human body. Man has but *one* soul. We have seen that this must be the *rational*, or specifically *human*, soul.

Now, how can the rational soul be the first principle of vegetal and sentient functions in man? How can a spirit be the principle of bodily operation? The difficulty is more apparent than real. For a higher power can possess all the perfection of a lower power, even of an essentially different kind of lower power, and can exercise the operations of the lower power *virtually*. The rational soul is, indeed, *formally* rational; that is, in itself *as such* it is a rational soul and not a vegetal or a sentient soul. Yet, actualizing an organism fitted structurally for vegetal and animal operations, the rational soul has the *virtue* or power of vitalizing the organism according to its connatural capacity for life-power and life-operations. The human soul is thus said to be *formally* rational, and *virtually* vegetal and sentient. Consider an analogy or

two. The King of England appeared recently at naval maneuvers off Spithead as the Lord High Admiral of the British Navy. Being formally, so to speak, the king, he is virtually the lesser officer whose role he chooses to play. Again: the grown man has all the strength of the boy, and something *more*. The man can lift all the weights which the boy can lift, and more too. Once more: Professor Jones, who lectures on metaphysics at the university, may come home and play nursery games with his babies. The babies cannot, one surmises, lecture on metaphysics at the university. The lower power requisite for nursery games does not include the higher power required for lecturing on metaphysics. But the power for lecturing on metaphysics may well include, and indeed should include, the power to appreciate the charm of simple and innocent entertainment; certainly it *can* include the lower power, as the admirable professor amply demonstrates. And so *can* the higher vital principle exercise, in an organism, the lower operations for which that organism is connaturally fitted. The analogies we have employed are admittedly very crude and very defective, yet they may serve to stir a thought for all that.

Reasoning sheerly from the impossibility of three substantial forms simultaneously actualizing a single organism; considering the impossibility of a substantial form existing in an organism as a mere accidental form; noticing the wondrous harmony and unity in

the human functions of the three vital orders; weighing the fact that a superior substantial form may virtually exercise the operations of inferior forms; we are forced to the conclusion that there is in man *one only soul* and that this is the *rational* soul, which we have already proved to be a simple, spiritual, immortal substance. This one substantial soul is, in each man, the substantial first principle of *all* his vital activity.

2. *Each man has his own individual soul.* Not only have there been mistaken philosophers who would dower a man with more souls than he could possibly possess; there have also been philosophers who would not let a man have his own soul, but gave only one to the whole human race, and let each man participate in its service, as a million men walk in the light of one common sun, each employing its service to his own ends. Such was the doctrine of Averroes (d. 1198), an Arabian philosopher who lived in Spain, and whose Arabic name was Ibn-Roschd. But the generality of philosophers has always agreed with the generality of humankind that every man has his own individual soul and is not a mere sharer in a kind of universal human life.

The question is not without its interest and intrigue. It is easy enough to see that each *man* is individual. In these days of thumb-printing and microscopic identification, we are all familiar with the truth

that no two human beings are perfectly alike even in minute bodily particulars. But the soul is a spirit, and a spirit cannot be "individuated" by size or sex or nationality; nor can it be photographed or required to record some sort of spiritual thumb-print. Matter as marked by quantity (or simply "quantified matter") is *the principle of individuation*; it is that whereby one individual is known as an individual, as differentiated from other individuals of the same specific nature as itself. But the form, that is, the substantial form, is *the principle of specification*; it is that whereby a being is actualized in its proper essence or species. Now, Tom and John and Mary and Helen are manifestly different individual persons. But they are not different in point of their species as *human beings*. And it is the soul which makes each of these persons a *human being*. But the body is part and parcel of a man; it is an essential element; it contributes something, when present in its quantified actualness, to the composite which we call a *man*. The prime matter of the body, quantified under the actualness which comes with the actualizing form, is that which *marks* the individual man as *this* man and not *that*, as John and not Helen, as Mary and not Tom. For all the *individual* determinants are, in final analysis, material. An old Latin couplet lists the "individuating marks" of a bodily reality, and we make a free translation of it in the following bit of doggerel:

Form, shape, place, time,
Tribe, country, name;
In no two cases
Are *all* the same.

In other words, no bodily reality (and man is the bodily reality here under consideration) can be exactly identified with another such reality on the score of *form* (accidental form, such as structural form or morphological type); *shape* (individual variety of structural form; also *condition* due to age, health, etc.); *place* of existence and *time* of existence; *ancestry*; *native land*; *name*. No two human beings can be the same on *all* these scores. And, in consequence, we distinguish one individual from another. And all these points of individuation have reference to the material or bodily being of the individuated men. Now, when it comes to a spirit, we cannot apply our individuating test; for a spirit has nothing material about it. How is Tom's soul to be distinguished from Mary's soul? You may say that the question is idle so far as living human beings are concerned, for these always are bodily, and the soul is substantially united with the body to constitute each individual person, and shares, so to speak, the individuation which is recognized in the bodily element of the human composite. But the philosopher is not concerned with that alone which is recognizable in the present state of human living beings. He wishes to know whether, as a fact, he can prove that "his soul is his own."

Now, the human soul is the substantial form of the human body. But one and the same substantial form cannot be found in a plurality of individuals. If it could, then the individuals would be no true individuals at all; they would be contradictions unto themselves. If John and Mary and Tom and Helen are *individuals* (as no one doubts) and yet have one common substantial form, it follows that John and Mary and Tom and Helen are one undivided substance, and are *not* individuals after all. Each individual is what it is; it has its own *being*; and the principle of its being (as of all its fundamental actualness) is its substantial form. But the being of Tom is Tom's being, not Mary's. Tom is born and grows, and is sick or well, and lives and dies, independently of Mary and Mary's growth and health and life and death. Yet it could not be so, were their life-principle, soul, or substantial form one and the same form. It follows necessarily that each human individual has *his own one soul* and is not constituted and actualized by a general or common human substantial form.

Again we may call upon the testimony of consciousness. Each human being is aware, inevitably and necessarily aware, that he thinks his own thoughts, makes up his own mind, does his own reasoning. These functions are not bodily; they are the operations of the spiritual soul which is the life-principle and the substantial form of a man. But if there were only one human soul for all of us, or if there were only one

human soul for any group of individuals, this independence of spiritual experience would be utterly impossible. There are, therefore, as many souls as there are human beings.

Each man has his own soul. But how is the soul of one man marked, so to speak, as distinct from other souls? Let us employ an analogy. Conceive of pure whiteness (not the varying shades of grayish white that pass by the name) in a bank of snow, a sheet of paper, and a mass of chalk. The whiteness is absolutely pure, and in all three substances it appears the same identical color. How do we distinguish the whiteness of the snow from that of the other substances? Precisely in this, that the whiteness of the snow is the whiteness *of the snow*, and not the whiteness of the paper or of the chalk. Similarly, the whiteness of the paper is *its own*, and is not to be referred to the snow or the chalk. And so with the whiteness of the chalk; it belongs to the chalk, not to the other substances. Although the whiteness is exactly the same grade or degree, and the same essential kind of thing, its individual applications, so to speak, are *distinct*, because of the distinction of the several bodies to which the whiteness is ascribed. Now apply the analogy. Each human soul is, as a fact, the soul of one individual man, and *it bears a real relationship* to the body of that man, the body which it informs and actualizes as a human organism. And this relationship (although a thing extrinsic to the soul itself) is indi-

vidual in each soul, inasmuch as it refers each soul to its own individual body and no other. In such a relationship we find the "mark" which distinguishes soul from soul. It is theological doctrine,—and not psychological opinion, although psychology finds the view wholly acceptable,—that in the life beyond the grave, before the resurrection of the body, human souls are distinguished one from another by the *extrinsic but real relationship* which refers each soul to the one individual body which it once actualized and in-formed.

3. *Soul and body exercise a mutual influence.* We have spoken more than once of the harmonious interplay of vegetal, sentient, and rational operations in a man. It is necessary to raise the point for further consideration. We have to dispose of some faculty notions on the subject, and to determine the character of the efficacy of soul and body in their interaction or mutual influence.

Plato and Descartes denied the influence of body upon soul; and the only influence of soul upon body which they recognized was conceived of as local movement, such as a rower might give to his boat. The doctrine is logical enough in view of the premise which both Plato and Descartes assumed, viz., that the union of soul and body is not substantial but accidental. This premise, however, is, as we have proved,

a false premise. And the conclusion here drawn from it is, as we shall see, likewise false.

Nicole Malebranche (1638–1715) believed that it is impious and false to assume the existence of any activity except divine activity. He denied all activity in creatures, and hence denied the proper activity of man, and the influence of soul upon body and body upon soul. Malebranche explained the vital operations in this way: God produces an effect,—in the vegetal order, let us say. But this effect, since it takes place in a balanced organism which is of God's own making, disposes the sentient and rational parts of man to exhibit a function. It does not produce the operation in the sentient or rational part, it only disposes these for the operation and sets up for such operation *an occasion*, which God takes and so produces the operation. This doctrine is called *occasionalism*; it is a fantastic hypothesis wholly unacceptable. First of all, it makes nonsense of the substantial union of body and soul, and turns these two elements of a man into a pair of machines arranged in a kind of accidental accord, so that when God uses one as the instrument of action, the other is disposed for a similar and harmonious use. Secondly, the doctrine limits the infinite power of God, and makes it impossible for Him to create anything that shall have power to act or operate as a secondary cause (since, indeed, God is the only Primary Cause). Thirdly, the doc-

trine is apt to lead one to a belief in *pantheism* (the theory that everything is part and parcel with the Deity), for if only God can act, the various active things about us may easily be conceived as mere parts or manifestations of God. Fourthly, the doctrine of Malebranche destroys human liberty, and takes from man all responsibility; for if man is not truly active, and not the cause of his actions, how shall he be held responsible for them? Lastly, the doctrine is wholly gratuitous, and has not the shadow of a reasonable argument to offer in its own support.

Gottfried Wilhelm Leibnitz (1646-1716) conceived of body and soul in man as two clocks existing side by side and perfectly synchronized. God is the divine "clockmaker" who has set up these wondrous timepieces, and, by His eternally established plan for a harmonious universe, He keeps the clocks ticking and marking time in perfect accord. If one might conceive of any *influence* of one clock on the other, it would amount to this: that the movement or change of one clock is *sufficient reason* for a corresponding movement in the other, and the second movement actually concurs with the first by the force of the great law of the Creator which keeps the world in harmonious and unconflicting activity. This great law is called by Leibnitz *the law of preestablished harmony*. It is manifested everywhere throughout the universe, in general as in detailed activities and operations; and so it is manifested in the relationship of

soul and body and accounts for their so-called mutual influence. Manifestly, this doctrine falls under much the same condemnation as that which occasionalism deserves. The theory of Leibnitz would destroy the substantial union of body and soul, and set up in its stead an accidental disposition for agreement or cooperation between the essential elements of the living man. Further, this theory would entirely destroy human liberty and responsibility (and hence would destroy morality) by making all actions and operations the product of an inexorable preestablished law. Incidentally, the theory would make God the author of all actions, even those that are evil. And, since God, through the law of preestablished harmony, would be the only active power in the universe, this theory inclines the mind towards pantheism, the most horrible and degraded of all false doctrines. Finally, the theory is gratuitous, and instead of explaining the mutual influence of soul and body, it explains it away and denies it.

A doctrine similar in many respects to that of Leibnitz is the theory of Friedrich Paulsen (1846-1908) who taught that the sentient and the intellectual operations in man proceed, without any real connection, *in parallel series*. Instead of presenting the semblance of two clocks, the soul and body are rather two rails of a locomotive-track over which the only existing energy (a universal will-force, or world-soul) moves to manifest what we call the active life of a man.

Paulsen's doctrine, in general, is called *pan-psychism* (from the Greek *pan* "all," and *psyche* "soul"; for everything is but the manifestation of a universal will-force or world-soul). In special application to man and his operations, this doctrine is called *psycho-physical parallelism* (from the Greek *psyche* "soul" and *physis* "nature") to indicate that the universal soul and man's bodily nature are kept in parallel and harmonious activity. We need not pause upon this strange doctrine for a longer space than is needed to point out that it involves the self-contradictory hypothesis of pantheism, destroys all human individuality, denies the substantial union of body and soul, and contradicts reason and factual experience. Another exponent of the theory of psycho-physical parallelism was Gustav Fechner (1801-1887), the pioneer *par excellence* in formulating the "new psychology" of specialized observation, and application of psychological principles in human relationships and in the departments of human activity, such as commerce, medicine, education, vocational guidance, etc. With Fechner psychology began to emerge from the laboratory and to take up its work in school and hospital, in office and on the street corner. Other names associated with the theory here considered are Wilhelm Wundt (1832-1920) and Friedrich Jodl (1849-1914).

There is a theory called *Behaviorism*, fathered and

fostered by our contemporaries, Drs. Watson and Dorsey, which destroys the interaction of the vital operations and the substantial union of soul and body by ruling out of account all the data of consciousness. Behaviorism holds that all man's actions are no more than the response to stimuli, and a man is no more truly active on his own account than a warping board that twists under the influence of the hot sun, or than a lump of coal that disintegrates and sends off smoke when thrown into the fire. Of course, if we deny consciousness and its proffered evidence, we can prove nothing in any field, least of all can we attach value to the conscious experience which manifests the mutual relation and influence of body and soul in a man. Behaviorism is self-contradictory. It tells us that there is no such thing as consciousness or mind, and asks us to be conscious of that fact and to bear it in mind. Behaviorism is, to judge it on its own principles, but a warped reaction to some unknown stimulus. A behaviorist does not know "how he got that way," nor has he any means of knowing what his way is, since he is wholly unconscious.

There is another doctrine, favored by some of the followers of John Locke (1632-1704) and the mathematician Leonhard Euler (1707-1783), which exaggerates the influence of the body upon the soul, and makes this *direct*. Yet the body, being material, cannot *directly* influence that which it cannot meet in

quantitative contact, and, of course, the soul is without quantity and cannot receive a purely quantitative impression in a direct manner.

The true doctrine on the mutual influence of body and soul in man may be summed up as follows: (i) The soul influences the body *formally* and gives it its being and its capacity for vital operation. This is certain because the soul is the substantial form of the body; it is "the first act of the physical organic body." (ii) The body acts *materially* with the soul, or influences the soul *materially*, inasmuch as it concurs with the soul, or suffers the soul-action, in establishing human nature. (iii) Once substantially united, soul and body exercise a mutual influence. The soul is the root-principle of all the vital operations in man, vegetal, sentient, rational. And we have seen how these exercise a mutual influence. A vegetal disorder, for instance, can impede rational activity; a mental derangement can have an effect upon the organism; and it is a commonplace that when a man's bodily condition is what it should be, when he is "in the pink of condition," he can do his best mental or rational work. Conversely,—as any nurse or doctor can testify,—the freedom of the mind from worry or distress is a tremendous aid in restoring proper bodily functions, and in helping the body to react properly to the treatment which aims to restore its integrity and power. (iv) The influence of soul upon body is physical and direct; it is what philosophers call a *phys-*

ical per se influence. The influence of body upon soul is physical, but not direct or *per se*. For the body has, in itself, no power of direct influence except in the quantitative relation; the body *per se* is not active but passive. It is the soul that is the seat of vital activity in bodily man. Hence, while there is unquestionably an influence working from body to soul, the body, to exercise such influence, must first be alive, must first be vitalized *by the soul*. In the last analysis, it is the soul which is the root-source of bodily activity, even of such as turns its influence back upon the soul. As Fr. Lortie remarks,—in his *Elementa Philosophiae Christianae*,—"it would be truer to say that the soul acts *on itself through the mediation of the body*" than to say that the body acts on the soul.

c) PLACE OF THE SOUL

We are here to determine the locus or "seat" of the soul in man. The soul is said to be *located* in the body. Therefore it is an interesting and important question which asks *where* precisely the soul is situated, and *what is the nature* of its placing or location. We shall find that the soul is *everywhere* in the living body, and is not to be assigned to head or heart or trunk or member, to the exclusion of other parts of the body. The soul is in the body and is not limited to one organ in the body. Further the *whole* soul is in *every part* of the living body; every part that shares the life of the body has the life-principle of the body.

And since the life-principle in man is indivisible and uncomposed, it cannot be partly in one place and partly in another; wherever it is, it is in its entirety. There is no contradiction here, as we shall presently see. First, however, we must determine how a thing can be *in a place*, and how one thing can be *in another thing*.

A thing that is in a *place* in such wise that its bodily dimensions correspond with the bodily dimensions of the spot where it exists, is said to be *circumscribed* (from Latin *circum* "around," and *scribere* "to write") by these dimensions. One might use in illustration the child's familiar action of placing a round object, such as a coin, upon a sheet of paper, and drawing a line about it with a pencil. The circle on the paper indicates the outline of the coin's dimensions, and also the outline of that area of paper on which the coin rests; these two outlines or dimensions are coincident; the coin is *located* on a spot that is "written around" or circumscribed by the common dimensions of the coin and the area of paper on which it rests. To be thus *in a place* is to be located *circumscriptively*. Manifestly, only a body can be in a place in this manner, for only a body has the external material dimensions that can be "circumscribed." We know, therefore, at once, that the soul is not in the body *circumscriptively*, for the soul is not a body but a spirit.

A reality can be in a place, or in another thing, in

other ways. It can be there *operatively* if it exercises its power in a literally located (i. e., circumscriptively located) body. Thus the life-principle in any living body is located, is in the *place*, which is occupied by the living body itself. The life, and the life-principle, of the tree is where the tree is. You cannot measure the location of the life-principle or the life of the tree with ruler or tape-line. But you can measure the *tree* so, and where the tree is, there is its life and life-principle, not indeed circumscriptively but *operatively*: the life and life-principle *operate* in the *located tree*. Similarly, the substantial form of any body is where that body is. Wherever the block of marble is it is marble; its "marble-ness" is, so to speak, "located." This sort of location or place is called *informative*, for the substantial form *in-forms* the matter and makes it the specific kind of matter that it is: marble, in our example, and not wax, nor lead, nor mud, nor any other substance except marble. Accidental forms also *in-form* a body and are "located" where that body is. Thus the hardness or the roughness of the marble block is located where the block is located. Forms are located *informatively*; they are *informatively* in the place occupied by the body which they *in-form*. Created *forms* which are made to *in-form* bodily reality are also said to be "located" *definitively* in the body or bodies which they *in-form*; that is to say, they are definitely and definitively in such bodies and exercise their effect there and *no*

where else at the same time. Thus the substantial form of this marble block is here in the block, not in another block or in another substance; and the hardness or roughness of the block is not the hardness or roughness of something else.

We assert that the human soul is in the human body informatively, operatively and definitively. Further the whole soul is in every living part of the living body.

Plato taught that the rational soul is in the brain; the old Greek Stoics (4th and 3rd centuries B. C.) thought that the soul is in the heart; Descartes believed it to be located in the pineal gland (a tiny gland in the brain). These opinions arose, of course, out of the fundamental mistake of making the union of soul and body an accidental union and not a substantial one, as we have proved it to be in fact. We notice the following points of true doctrine:

1. *The entire soul is in the body taken as a whole.* The whole body is alive; and it is alive by reason of its life-principle. Therefore where the life-principle is not found, life is not found. But life is found in the whole organism. To state the same doctrine in different terms: the soul is the substantial form of the body and gives it being and character as an organic human body. But the whole body has the being and character of an organic human body. Therefore the whole soul is in the whole body. The entire body lives by reason of its one life-principle or substantial form

which is, to speak metaphorically, "coextensive" with the body which it in-forms.

2. *The entire soul is in every part of the living body.* The soul has no parts, and hence cannot be partly here and partly there. It cannot be conceived as a kind of internal shadow-man which maintains a "shape" inside a human being like the outer shape of the body: having arms inside the arms and head inside the head, and so on. Wherever the soul is, it must *all* be there. It is simple and indivisible. Therefore the entire soul is in every part of the living body. The student will probably recall the sneering Dr. Wilson of Canon Sheehan's *Luke Delmege*. When this present question was discussed at a dinner-table, and the conclusion we have reached was enunciated, the Doctor pulled a hair from his head and held it in the candle-flame, saying, "My fluttering soul, farewell!" Of course, the Doctor merely aired his ignorance, if not his inability to understand the terms of the discussion in which he had borne a scornful part. Any member of the body which is severed from the unity of the organism ceases to be in-formed by the substantial form of that organism. Therefore, although it is literally true that the soul is in hands and feet as well as in head or heart, the soul is not cut or divided when hand or foot is severed. The severed member is withdrawn from the in-forming action of the soul; it is substantially changed; it is really no longer a hand or foot at all. Of course,

Dr. Wilson's foolish gesture was born of his failure to understand the "location" which we have called *informative, definitive, and operative*; the Doctor could grasp nothing but *circumscription* as the meaning of *location*, and circumscription affects bodily beings only.

3. *The soul does not exercise all the operations of which it is the root-principle in each and every member of the body.* The soul is, indeed, present in its essence in each and every part of the living body. But the operations of the organism (which is material, and composed of parts) are diversified, and the vegetal and sentient operations require their several distinct organs. One does not hear with the toes or see with the ears or taste with the eyes or digest food with the nose. The one soul is the root-principle of all vital activities, but it exercises its power through different and differently located parts of the organism. We may say, indeed, in a sort of poetical way, that the soul is chiefly in the head and the heart. But this statement is not *literally* true. It is justified only in view of the fact that the chief organ of sentient life is the brain, and the chief organ of vegetal life is the heart.

SUMMARY OF THE ARTICLE

In this Article we have learned the meaning of *union*, and have defined *substantial union* and *accidental union*. We have seen that substantial union is

simply substantial or it is *personal*. We have proved that the union of soul and body in man is a *personal substantial union*, and that the human soul is *the substantial form of the living body*. We have studied the results of this union, and have seen that, because of it, man is necessarily a *one-souled* creature, and the single soul is *the rational soul* which is, in each individual man, *his own individual soul*, and which is the root-source in him of all his vital operations, vegetal, sentient, and rational. As a further result of the substantial union of soul and body in a man, we have noticed *the mutual influence* exercised by body and soul, and we have determined the nature and the mode of this influence. We have discussed the question of the location or seat of the soul in the human organism, and have learned that the one soul of man (which is the rational spiritual soul and the substantial form of man) is *wholly in the whole body* and *wholly in each part of the living body* (by a totality of essence), but that *it does not exercise all the operations of which it is first-principle in every part of the organism* (it is not everywhere in the body by a totality of power or operation). We have discerned the manner of the soul's location in the body as *non-circumscriptive* (for the soul is a spirit and not a body with dimensions), *informative, definitive, and operative*.

CHAPTER II
HUMAN SENTIENCY

This Chapter discusses the sentient powers or faculties of man and the operations which proceed from these faculties as from proximate principles. While our chief concern in major psychology is the rational life of man with its faculties of intellect and will, we recognize the fact that man's soul and body form one substantial compound and that the rational life of man in this earthly existence is, so to speak, rooted in sense and sentiency. We must therefore make a study of the human sentient faculties and operations before we take up those of the rational order. The present Chapter is divided into four Articles:

- Article 1. Nature and Kinds of Faculties
- Article 2. Sensation
- Article 3. Appetition
- Article 4. Locomotion

ARTICLE I. NATURE AND KINDS OF FACULTIES

- a) Nature of Faculties
- b) Subject of Faculties
- c) Classification of Faculties

a) NATURE OF FACULTIES

There is a Latin word *facultas* ("ability" or "power") which derives from the verb *facere* "to make, to do." The English word *faculty* has its ancestry in these Latin words. A *faculty* is a capacity or power for making or doing. It is also a capacity or power for receiving, but not for receiving in a life-

less and passive way like that in which moulding-clay receives the shape impressed upon it. A faculty, inasmuch as it is a capacity for receiving, is a capacity for actively receiving; perhaps we had better say it is a capacity for vitally reacting to what it receives. For a faculty, strictly understood, is a *vital* capacity or power; it belongs always to a *living* substance.

✓ A *faculty* may be defined as *the immediate and proximate principle of vital operation*. A man, for example, sees. Seeing is a vital operation. Now, the principle of that operation is *that from which the operation proceeds*. And in the operation of seeing we distinguish three principles. The *man* sees, and the man is therefore a principle of the operation of seeing. The man has a *nature* which equips him for seeing, and this nature is therefore a principle of the operation. Finally, by reason of his nature, properly complete in all integral equipment, the man has a power, capacity, or faculty for seeing, and this faculty is a principle of the operation. In a word, the three principles of the man's operation of seeing are: the man, his nature, his seeing-faculty. Now, the man is called the *principium quod* (the principle *which*) of the seeing; he is *that which* or *the one who* exercises the operation. But the man is not the immediate and proximate principle of the seeing; he does not exercise the operation of seeing by the very fact of his being a man; for he would still be a man if he were blind. Hence, while the man is a principle of his see-

ing, he is a remote principle of the operation, not the immediate and proximate principle which gives rise to the operation directly, nothing else intervening. Man's nature is the *principium quo* (the principle by which or whereby) of the operation of seeing; but it is not the immediate and proximate principle; it is still remote. For were the man in question blind, he would still have human nature, granted a human nature lacking in one of its connatural functions and, in so far, an imperfect nature. Hence, the man's nature is the *principium quo remotum* (the remote principle whereby) of the operation of seeing. Finally, the faculty or power of sight is a principle of the operation of seeing. It is the *principium quo* (the principle whereby) of seeing, and it is the principle which immediately operates in the function of seeing, no other principle intervening. Hence the faculty of sight or of vision is the *principium quo proximum* (the immediate or proximate principle whereby) of the seeing-operation. A man can be a man and not be able to see; he can have human nature and not be able to see; but he cannot have the faculty of sight and not be able to see. The faculty of sight or of vision is the immediate and proximate principle of the operation of seeing. And so it is with all the faculties of man. Each is the immediate and proximate principle of a special vital operation.

We have seen that, in every living body, the soul or life-principle is the substantial constituting form.

It is this ^{SOUL} form which is the root-source of all vital activity in the living body. Therefore, the soul of a man is the root-source or radical principle of all human activities, vegetal, sentient and rational. Now, there have been psychologists who declared that the soul itself is the only human faculty; that our distinction of vegetal, sentient, and rational faculties in man is a distinction based on appearances merely and lacks reality. These psychologists maintain that there is no real distinction between the soul and its faculties. This view is wholly inadmissible. The soul and its faculties are really distinct. The soul *has* faculties; it is not correct to say that the soul *is* its faculties. The soul is a substance, and faculties are not substances, but are to be classed with accidents. Further, if the soul and its faculties were one, the faculties would be one, each would be identified with every other. And surely there is a real distinction between an organic faculty like the power to see or to hear and an inorganic faculty like the power to reason. We conclude, perforce, that between the soul and the sentient faculties there is a real distinction. And it is no less clear that there is a real distinction between the soul and its proper or rational faculties. The soul is not its understanding; the soul understands by reason of its understanding. The soul is that which wills; it is not its willing. Therefore, the soul is not to be identified with its faculties; between soul and faculties there is not merely an apparent but a real distinction.

Faculties, therefore, are powers or capacities, really distinct from the substance which exercises them, for the immediate discharge of vital operations.

b) THE SUBJECT OF FACULTIES

The *subject* of a faculty is that in which the faculty immediately resides. It is that which operates by means of the faculty. Man is, of course, the subject of all human faculties. But, looking into the question a bit more closely, we find that some faculties are inherent in the soul alone, while others are inherent in the composite of soul-and-body. The body alone is not the subject of any faculty; for the body alone is lifeless and incapable of vital operation. The body is alive by reason of its substantial union with the soul. And there are human operations which require, for their performing, the vivified body, that is, the living union of body-and-soul. Such are the vegetal and sentient operations. The soul alone could not exercise these operations. The soul is a spirit, and hence cannot *of itself* grow, or digest a dinner, or go for a walk. The soul is, indeed, the radical first principle of growth and digestion and movement in a living body, but it requires the body for the exercise of these operations. Hence the *subject* of the vegetal and sentient faculties is *the composite of body-and-soul*.

There are other operations which the soul can exercise of itself, without the body. These are the rational operations of understanding and willing, which

are exercised by a spiritual being and *of themselves* require no bodily function to supply them occasion for action or to subserve their exercise. However, since man is, in this earthly existence, one single substantial compound of soul-and-body, the soul has no way of getting at the objects of rational activity except through the mediation of sentient experience. The soul must come at purely intelligible objects by somehow working them out from the data of sense. Hence all our knowledge, even the most abstract, *begins* with the cognitive action of the senses. It does not *end* there indeed. The soul, by exercising its faculty of intellect or understanding, rises from the concrete and individual data supplied by sentient experience to abstract and universal concepts and to the function of abstract reasoning. As for willing, this soul-function follows upon the operation of intellect and presupposes it. So we say that the soul,—even though *in this earthly life* it requires the organic body and its operations before it can lay hold of the objects of the intellect and will,—is itself the subject of these two rational faculties.

Summing up, we find that in man *the soul alone* is the subject of the faculties called intellect and will. The *soul-and-body*, the human organism, the single human compound substance, is the subject of the faculties of the vegetal and sentient orders.

From the foregoing it follows that when the soul leaves the body at a man's death, it retains its own

proper faculties of intellect and will, and can, without the body, exercise the rational or spiritual operations of understanding and willing.

c) CLASSIFICATION OF FACULTIES

1. An *active* faculty lays hold of an object and transforms it. Thus the faculty of nutrition is an active faculty; it takes food and transforms it into the living substance of the organism. A *passive* faculty receives an impression from its object and reacts to it. Thus sight or hearing receives the impression of visible or audible objects, and, by reacting to the impression, lays hold of the objects cognitively or knowingly. The passive faculties do not work upon their objects to transform or change them, but to grasp them cognitively *as they are*, leaving the objects in their otherness, and possessing them *in knowledge*. The term "passive" is not to mislead us here; the passive faculties are not purely and supinely passive; they are not active in the sense described above, but they are re-active; they are rightly called *operative*.

2. An *organic* faculty operates by means of the body or a special part (i. e., an organ) of the body. All vegetal and sentient faculties are organic. An *inorganic* faculty has no organ, no special bodily part designed to serve its operation. Hence an inorganic faculty is not a bodily faculty but a spiritual faculty. Intellect and will are the inorganic faculties of man; their subject is the spiritual soul.

3. A *vegetal* faculty is an organic capacity for taking nourishment, growing, or reproducing. A *sentient* faculty is an organic capacity for knowing objects which fall under the range of senses (external or internal), for appetizing what is so known, or for moving from place to place. A *rational* faculty is a faculty for understanding or willing.

4. A *cognitive* faculty is a faculty for knowing. An *appetitive* faculty is a faculty for tending to act upon knowledge. The senses are *sentient cognitive faculties*; the intellect is *the rational cognitive faculty*. The faculty for acting upon what is known by the senses and in a sentient manner is called *sentient appetency*. The will is *the rational appetency*.—The faculty of a living body to move about is called *the locomotive faculty*.

Human faculties may be classified as follows:

Vegetal	{	nutritive faculty augmentative or growing faculty reproductive or generative faculty
Sentient	{	cognitive faculties (i. e., <i>the senses</i>) appetitive faculty locomotive faculty
Rational	{	cognitive faculty (i. e., <i>the intellect</i>) appetitive faculty (i. e., <i>the will</i>)

We have already studied the vegetal faculties and operations, even as these belong to man, in *Minor Psychology*. (Cf. *Part First, Chap. II, Art. 2*). We

are, therefore, here concerned with the sentient and rational human faculties and operations. We may notice in passing that the term *faculty* is very often restricted to the sentient and rational orders, and that the term *power* is more usually employed to indicate the faculties of the vegetal order. Thus, to follow this fashion of speech, we should talk of vegetal *powers*, of sentient *faculties*, and of rational *faculties*.

SUMMARY OF THE ARTICLE

In this brief Article we have learned the meaning of *faculty* in its psychological implication. We have defined the term and have discussed faculties in general. We have noticed that a real distinction lies between the life-principle or soul and the faculties of the living creature animated by that soul. We have discerned the proper *subject* of human faculties, assigning the rational faculties to the soul alone, and the vegetal and sentient faculties to the compound human substance of soul-and-body. We have classified faculties and have set out the schema or schedule of human faculties.

ARTICLE 2. SENSATION

- a) Nature of Sensation
- b) The Sentient System
- c) The Senses and Their Objects
- d) The Sensing Process

a) NATURE OF SENSATION

Sensation is a word of manifold meaning. In what may be called its operative meaning, *sensation* is the

activity of a sense as it lays hold of a suitable object. In another phase of meaning, *sensation* is the result or fruit of the activity of a sense. Thus the activity of the sense of sight, exercised in apprehending a visible object, is *sensation*. And the fruit of the activity, the finished product of seeing, is a *sensation*. To put the matter in another way, sensation, as an activity or operation, is more precisely called *sensing*; the object sensed, as now apprehended or known, is a *sensation*. A third meaning of the term *sensation*,—a meaning which, in some manner, includes the other two,—is this: sensation is the capacity or power of a living body to exercise the sense and to experience in itself the result of this activity.

Contrast *sensation* and *perception*. When I sense an object,—say, for example, a warm radiator,—I gather various points of knowledge, I experience several phases of the thing sensed. I sense warmth, smoothness, hardness,—all by the sense of touch or feeling. Each of these is a *percept*. The sum of the percepts is my *sensation* (that is, the fruit or product of the sensing) of the warm radiator, acquired by the sense of touch. I *sense* the object by *perceiving* that it is warm, and hard, and smooth. Thus a *sensation* is sometimes the sum of several *percepts*. Sometimes, however, the sensation is simple and not compound, and then the sensation and the percept are one and the same. Indeed, sensation and perception are only two aspects of one reality. In so far as my senses

make me aware of objects, I experience *sensation*; in so far as the objects present phases for my sensing-activity or grasp, I *perceive* them and experience *perception*. I perceive, for example, that the morning cup of coffee is liquid, and hot, and aromatic, and of definite flavor and color. Sight, touch, and taste are the senses employed to gather these percepts which come together to make up my sense-knowledge or sensation of coffee.

Sensation as an operation (that is, as *sensing*) is the activity of a sense. Now a sense is an organic cognitive faculty; a sense is a bodily knowing-power. While we speak of bodily *appetition* (tendency to follow and act upon sense-knowledge) and *locomotion* (movement to carry out the drive of appetition) as *sentient*, we do not call these powers *senses*; we call them *sentient* because they belong to that order or grade of life which is, first and fundamentally, a *sensing* order, and because appetition and locomotion presuppose the activity of sense. A sense, we repeat, is an organic cognitive faculty. Each sense is exercised by means of the body or by a special bodily part or member, and this is called a *sensory*, a *sense-organ*, or simply *an organ*.

That which sense lays hold of through its organic action is *the object* of sense. Sense-objects are known as *sensile objects*, *sensiles*, or *sensibles*. An object knowable by one sense alone (as color, for example,

is knowable by sight) is called *the proper object* of that sense. An object that is knowable by two or more senses (as bodily movement, for instance, is knowable by sight and also by touch) is called *the common object* of the senses concerned. Proper and common objects come together to constitute *the object per se* of the senses which perceive them. A sensile that is not directly perceivable by any sense (that is, not perceivable *per se* or in itself), but is sensed by its known association with that which is directly sensed, is called the accidental object or, more commonly, *the object per accidens* of the sense that indirectly perceives it. Let us illustrate this matter. I can tell whether a wheel is in motion by looking at it, by touching it, and even by listening to find whether it makes the humming sound usually made by whirling objects. Now, bodily movement is the common object of sight and touch, but it is not the object *per se* of hearing at all; one cannot hear movement itself. But I know by experience that a whirling wheel usually makes a humming sound, and through the sense of hearing I grasp this sound as the *proper* and *per se* object of that sense. And through this *per se* object I (indirectly or accidentally) perceive what experience has taught me to associate with it, namely, the *movement* of the wheel. And thus I say that bodily movement is, in this instance, the object of hearing: I *hear* the wheel move,—not indeed *per se* but *per*

accidens. Similarly, I *see* that the ground is wet after a shower. Now, I cannot see wetness; it is not the proper object of sight, nor is it the common object of sight and another sense. But I know by experience that wet ground has a certain appearance; this appearance is visible, and, accidentally to this visible object, I perceive the wetness—I *see* that the ground is wet. I perceive the wetness *per se* by the sense of touch, and can know that the ground is wet by touching it with my hands or walking barefoot upon it. But I also perceive the wetness *per accidens* by the sense of sight, and I see that the ground is wet.

We may sum up this important doctrine on sense-objects in the following simple schema:

Sense-objects	{	<i>per se</i> {	<i>proper</i> to one sense alone
			<i>common</i> to two or more senses
		<i>per accidens</i>	

Sometimes the *object per accidens* is not, in itself, a sense object at all; it may be an object knowable only to the intellect, but manifested or accompanied by sensible characteristics, and through these the sense is said to perceive the object itself. Thus we *see* that a man is alive. Life is not visible, nor is it the object of any sense. We do not hear life or smell or taste it; we do not know it by sight or by touch; we cannot have a concrete image of it in the interior sense called imagination. But we *understand* what

life is. Our intellect, rightly interpreting the findings of the senses, has discerned properties and attributes in living bodies which enable it to formulate the concept, the understanding grasp, of what *life itself* really is. And since the essence of reality called *life* is regularly manifested in organisms by sensible signs, the senses which lay hold of these signs are said to perceive life, not indeed *per se*, but *per accidens*. We know that a man is alive because we see him move, we hear his voice, we feel the vibrant grasp of his hand. These things are sensible *per se*, and by and through them (i. e., *per accidens*) we sense the life which they manifest.

b) THE SENTIENT SYSTEM

The chain or connected group of organs which make up the equipment of a living body for a certain type of activity is a *system*. The sentient system is part of a larger system called *the nervous system*, through which both vegetal and sentient operations are exercised. The vegetal operations of man (nutrition, growth, and the formation of the reproductive cells) are discharged by nerves and muscles which constitute *the sympathetic system*. The sentient system is properly called *the cerebro-spinal system*. It is apparent that the sympathetic system and the cerebro-spinal system together constitute the human nervous system. The cerebro-spinal system has three main parts or branches, to wit, an *inner*, an *outer*, and a

connecting part. The inner part is the *cerebro-spinal axis*, and consists of the brain and the spinal cord. The outer part consists of the *external sense-organs*. The connecting link between inner and outer parts is made of the *cerebro-spinal nerves*.

1. The *cerebro-spinal axis* consists of brain and spinal cord. The brain has three main parts. The larger part (called the large brain) fills most of the skull from the forehead back; it is called the *cerebrum*. It is a soft mass of matter, made of an outer coating of gray cellular substance and an inner body of white nerve-fibers. The cerebrum is, so to speak, *folded* into its place, and has, in consequence, deep furrows and wrinkled folds; the furrows are called *fissures* and the folds are *convolutions*. The chief fissure runs through the center from front to back and lies just under the "part" of hair that is "parted in the middle." This is called the *medial fissure* or the *median fissure*, and it divides the cerebrum into halves which are called respectively the *right hemisphere* and the *left hemisphere*. Each hemisphere has a front, a middle, and a rear section, marked off by fissures, and these are called respectively the *frontal lobe*, the *parietal lobe*, and the *occipital lobe*. The cerebrum consists of millions of *neurons* or nerve-cells which intercommunicate in a marvellous manner and have, in general, a connection with the fibers or chains of neurons called *nerves*. The nerves reach on through

the outer brain and down the spinal cord whence they branch out through the body to the sense-organs, the muscles, the blood-vessels, and the glands.

Below the cerebrum or large brain, and at the back of the head, lies the second main part of the brain: it is called the *cerebellum* or the little brain. Like the cerebrum, it is divided into two hemispheres.

Under the cerebellum, and connected with it (and through it, with the cerebrum) lies the third main brain-part, which is the widened upper end of the spinal cord: it is called the *medulla oblongata* or oblong marrow.

The cerebrum seems to be the seat of sense-memory and imagination. The cerebellum appears to have much to do with controlling and coördinating bodily movements (*locomotion*) and may be the seat of sense-appetency (*appetition*). The medulla oblongata is the seat of the nerves of the face, and of the nerves which control the activity of heart and lungs; it seems also to be the center of the vegetal operations in man.

The spinal cord (which spreads and flattens at the top to form the medulla oblongata) narrows at the base of the medulla and enters the hollow center of the backbone, or spinal column, extending downward to the lower sections of the backbone, thinning as it goes. The spinal cord consists of the various nerves (i. e., nerve-fibers) which are welded into larger units called *tracts*. The backbone or spinal column,

which is the bony case of the spinal cord, is made up of little sections, set with comparative looseness one on the other; the sections are called *vertebrae*. Nerves branch out from the spinal cord through the space between each pair of *vertebrae*, and terminate in organs, muscles, blood-vessels, and glands. The cerebro-spinal nerves constitute the connecting link between the outer organism and the cerebro-spinal axis; we shall speak of them in a moment. It is interesting here to notice that the spinal cord is made of an outer shell or coating of white nerve-fibers uniting into tracts, and an inner core of gray cellular matter, while the cerebrum and cerebellum are gray outside and white inside. The medulla oblongata has a structure like that of the spinal cord, and indeed it is the widened upper portion of the cord itself.

2. *The cerebro-spinal nerves* which connect the organs, muscles, blood-vessels, and glands, with the central axis, reach from the spinal cord through the spaces between the *vertebrae* and extend through the organism. Some nerves carry impressions inward from organ to brain; these are *sensory nerves* (called also *afferent nerves*). Other nerves carry an impulse (which is a response to the stimulus carried in by the sensory nerves) outward to organs, muscles, vessels, and glands; these are *efferent nerves* or *motor nerves*. *Efferent* is the better name for these nerves; it means "carrying outward"; and *motor nerves* are specifically

those efferent nerves which carry impulse to the muscles of the organism so that some movement results. Sometimes the sense-stimulus is carried by the sensory nerves all the way to the brain, and the response comes from the brain along the track of the efferent nerves. But often the sensory nerves do not carry their stimulus the whole distance to the brain; their "message" or stimulus jumps across to the motor-process, and the reaction or response goes to muscle and organ by a shortened route. When this occurs we have what is called a *reflex*. A reflex is an involuntary response to sense-stimulus. Coughing, sneezing, winking the eyelids many times a minute as we all do,—these are *reflexes*. A cough that is forced is not, of course, a reflex; nor is a deliberate blinking of the eyes. A stimulus that goes all the way to the brain arouses consciousness which, in man, is an awareness of the stimulus which gives him some choice in deciding what to do about it. But in reflexes the will has no play. We may be conscious of the reflex after it has occurred, and indeed so immediately afterwards that our awareness of it is almost concomitant with it. But in reflexes the stimulus and response are over and done before any choice or decision can be exercised. The time-interval between a stimulus and its response is usually very brief, and it varies for the various senses and for different conditions and circumstances which affect the organism. This time-interval is known as *reaction-time* or *psy-*

chological time. Some success has been achieved by psychologists in measuring it experimentally. The interplay of sensory nerves and efferent nerves is wondrously complex. Some appreciation of it may be gained from the consideration of the nerve-connections possible within the brain itself. On this point, Professor H. C. Warren (in *Human Psychology*, ed. 1920, pp. 41, 42) says, "We may liken the brain to a telephone exchange, in which any one of thousands of subscribers may be joined up with any other. The analogy is not quite correct, since sensory neurons are never joined with other sensory neurons in complete circuit. If we suppose our telephone wires divided into two groups, those which receive messages but do not respond, and those which make calls but never receive messages, the analogy will hold."

3. *The sense organs or sensories* are those external bodily parts which are structurally adapted for various sentient functions, and which receive impressions from their respective objects and so take on the stimulus which is then conveyed to the central axis (or through a reflex circuit) by the sensory nerves, and knowledge (i. e., sentient knowledge) results or may result. We shall gain a fuller knowledge of the sensories and their operation from the study of the various senses and their respective objects which is now to follow.

c) THE SENSES AND THEIR OBJECTS

(There are in man five *external senses*) and four *internal senses*. The external senses are: (*sight, hearing, smell, taste, touch*). The sense of *touch* (which is what one ordinarily means by *bodily feeling*) includes what some physiologists call the *resistance-sense*, the *temperature-sense*, the *sense of pleasure*, the *sense of pain*, and the *muscular sense*). The internal senses are: *the imagination, the sentient memory, the central sense, and instinct*. The imagination is sometimes called *the fancy*. Instinct is often called by the old name of *the estimative sense* or *the estimative power*, or simply *the estimative*.

1. (*Sight or vision* is the sense by which bodily objects are perceived inasmuch as they have *colored surface or surfaces*. We judge many things on the basis of what we see,—distance, for example, and motion. But the *proper object* of the sense of sight is *colored surface*. Things wholly colorless cannot be seen, nor can they be judged as to size, distance, or motion. It is because a bodily object is *colored* (i. e., has colored surface) that we are able to see it, and to perceive its size, shape, movement or rest, nearness or remoteness.) We see size, shape, etc., as *per se* objects of sight, but not as the *proper object* of this sense; these objects are *common* to sight and to another sense, mostly touch. But the common objects

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of two or more senses are perceived respectively by these senses only in and through the respective *proper* objects of the senses in question. Thus, we repeat, the objects which sight has in common with another sense or other senses, are perceived by sight (and perceived *per se*) only inasmuch as such objects exist in a bodily reality which is *colored*, or, to be precise, which has colored surface.

The organ of sight is the eye. The eyeball is somewhat like a camera. The pupil is the widening and contracting "shutter" over the lens, and, at the back of the eye, in place of film or plate, is *the retina*. The space between lens and film (pupil and retina) is not empty, but is filled with a clear jelly-like mass called *the vitreous humor*. The retina is no lifeless film, but is capable of receiving endless successive impressions in a vital manner; it is connected with the optic nerve (or seeing nerve), the terminations of which constitute what are called *the rods and cones* of the retina. A *visible* object (i. e., an object presenting colored surface under due conditions) falling within the range of vision, casts its image on the retina, whence by the rods and cones (i. e., the optic nerve) it is carried to the brain, and the response is the active *seeing* and the *knowing of the object as a thing seen*.

The medium through which colored surfaces are carried, so to speak, to impress their images upon the organ of sight, is *ether in waves* or in wavy motion. The length of the waves and their frequency vary

for the various colors. (Modern psychologists speak sometimes of "colorless" sensations of sight, in which blinding white, gray, and black affect the visual or seeing sense).

2. (*Hearing or audition* is the sense by which bodily objects are perceived inasmuch as they have *sound*, that is *noise*, or *tone* with *intensity* and *pitch*. The proper object of hearing is *sound*, and it is carried to the sense through the medium of air-vibrations.) The organ of hearing is the ear, particularly the membrane of the inner ear, in which the terminations of the acoustic nerve (or hearing nerve) are located. Bodily objects which come together or strike on one another in such wise as to set up suitable air-vibrations are the originators of sound; the vibrations vary in rapidity and volume for the different sounds. These vibrations pass through the air and are caught by the outer ear and directed into the channel which guides them to the membrane of the inner ear where they stimulate the terminals of the acoustic nerve, and hearing results.

3. (*Smell or olfaction* is the sense by which bodily objects are perceived inasmuch as they have odor. *Odor* is the proper object of this sense.) The organ of smell is the nose, especially the membrane which lines the upper nostrils and which contains the terminations of the olfactory nerve (i. e., the smelling nerve).

Minute particles of odorous substance are breathed in through the nostrils with the air, and when these come in contact with the nasal membrane, they stimulate the terminals of the olfactory nerve, and the operation of smelling results.

4. (*Taste or gustation is the sense by which bodily objects are perceived inasmuch as they have flavor or savor. The proper object of taste is savor in a sapid substance which comes, while in solution in the saliva, into contact with the terminations of the gustatory or tasting nerve on the tongue and palate.*) The terminals of the gustatory nerve are called "taste buds." When these are stimulated in the manner indicated, the operation of tasting results.

5. (*Touch or feeling is the sense by which bodily objects are perceived inasmuch as they are hot or cold, hard or soft, rough or smooth, pleasurable or painful, taut or relaxed, wet or dry or "sticky," etc. Touch is a most complex sense; its proper object must be discerned in its definition just given.*) The organ of touch is, first and foremost, the dermis or underskin, particularly the papillae or buds of the dermis, for these are the terminations of the tactual nerve or touching nerve. Such papillae seem to exist also within the organic tissues or flesh throughout the body; or it may be more accurate to say that the tactual nerve sends its fibers nearly everywhere throughout the

body-mass as it reaches on to the dermis, and wherever these fibers are stimulated, throughout their length at any point, the sense of feeling is exercised. The dermis-papillae are most numerous in the finger tips. Contact with tangible objects stimulates the tactual nerve and gives rise to tactual sensation, that is, to the operation of touching or feeling. The sense of pleasure is regularly a result of high and pleasing stimulation of a well-conditioned tactual nervous structure; the sense of pain is regularly the excessive stimulation of the tactual nerve, or the stimulation which an ill-conditioned nervous structure is not fitted to receive. The muscular sense is the sense of touch inasmuch as it perceives movements within the body or of the body, especially movements of the joints and the loosening and tautening of skin and body-structure which often accompanies such movements.

6. *The imagination or fancy is the inner sense which is fitted to perceive, preserve, and reproduce in concrete image, the findings of the outer senses; it can also rearrange, reconstruct, exaggerate, minimize, cartoon, and commingle the images once formed upon external sensation. The organ of the imagination is in the brain; probably this organ is located in the outer part of the cerebrum, but its exact location in the brain-structure is not known. All inner senses have their respective organs in the brain, but the particular part of the brain to which each internal sense*

should be organically ascribed is a matter of dispute among scientists. The student will please notice that the imagination is, first and foremost, a sense which retains and reproduces the images that come in from outer sensation. Only in its secondary function is it the faculty of poet and dreamer, which we ordinarily indicate by the name *imagination* or *fancy*. Nor can this faculty evoke any image except that which has somehow come from actually experienced sensation. Wild and extravagant as imagination may sometimes be, its most startling pictures are still the product of things once actually sensed. For while imagination can rearrange, reconstruct, exaggerate, minimize, expand, reduce, commingle, cartoon, and transform the sense-images and parts of sense-images once actually experienced in fact, it remains ever true that the *elements* of the imagination-images *have actually been experienced*. In a word, the imagination is not a *creating* faculty. In its first and fundamental service it is a *reproducing* faculty which faithfully records, retains, and, upon due stimulus, evokes, the images of things sensed. In its secondary service, the imagination may be called a *rearranging* faculty.

7. *The sentient memory or sense-memory* is the inner sense by which sensations once experienced, and now reproduced in imagination, are recognized as *once had*, as of the *actual past*. Sense-memory does not call up the past, nor does it reproduce images once

experienced; we have just seen that the sentient evoking and reproducing faculty is imagination. It is the proper function of sense-memory to *recognize* the past as reproduced in imagination. Imagination is stirred to the reproducing of images by experience (i. e., by sensation) identical or similar to that of the past, and by countless chains of relation and circumstance which constitute the marvellously complex "association" of recorded sensations. Imagination and sentient-memory work together; indeed, without imagination, sense-memory cannot function at all, and, without sentient memory, the service of imagination would be largely futile and illusory. But, despite their close connection and their interdependence, the imagination and the sentient memory are two distinct faculties, each with its own proper operation.

8. *The central sense* is the internal sense which perceives, distinguishes, unites, and divides the findings of the other senses. It is a kind of "central telephone operator." For the several senses are not reflective; they do not perceive their own operation, but directly lay hold of trans-subjective objects. But sentient knowledge supposes a consciousness back of perception, and this is furnished by the central sense. To illustrate this point. The eye does not see that it sees, nor is the ear aware of its own operation of hearing. Yet when we see a thing we are *sentiently* aware, not only of the object seen, but of the fact that we see it.

When we hear a concourse of sweet sounds, we are aware, not only of the sounds, but of our experience, our hearing, of the sounds. It is the central sense which operates to provide this awareness. Another name for the central sense is simply *sense-consciousness*. Still another name is the *common sense*, that is, the sense which is the common background, basis, and correlating power required by all the other senses.

9. *The instinct or estimative power* is the internal sense which apprehends externally sensed objects as *useful or harmful, desirable or undesirable*. This sense makes the cat avoid the dog, and the mouse avoid the cat; it stirs the bird to arrange and build its nest and to care for its young. In man many actions are "instinctive," but, since man has intellect, instinct is not developed in him, nor is it needed, in such degree as it is found in merely sentient creatures. The action of throwing out one's arm to break a fall, or of bracing oneself against a sudden strong wind, may be called instinctive, although some psychologists regard these actions as reflexes. A human parent, however timid, will often be found brave in the face of a serious danger which threatens his children, and this in an unreasoning *instinctive* manner.

d) THE SENSING PROCESS

We have discussed the physiological part of sen-

sation; here we study the sensing process in its psychological aspect.

All sensing begins with the external senses. When an object falls within range and notice of a sense equipped to perceive it, it is said to be *impressed* upon the sense through the instrumentality of the sense-organ. Reacting to this impression the sentient organism is aware not only of the impression (indeed, not directly of the impression at all) but of the object, the trans-subjective reality, the external sensible being there actually present. To study the mode or manner of the sensing-process, it will be well to consider the progressive steps of the activity as these are exemplified in the operation of one definite sense. We choose the noblest of the external senses, which is that of *sight*.

Let us suppose that we ^{see} are a horse grazing in a grassy field. Under due conditions of light and distance, the normal vision cannot fail to see this object as soon as it falls under notice. If our view falls upon the grazing horse, we infallibly *see* it. And the process of our seeing is as follows. An *image* of the horse is impressed upon the retina of the eye. This is just such an image as would fall upon the film or plate of a camera set for making a picture of the horse. The image itself is the product of the object, light, the physical constitution and the chemical composition of the eye. It is a photo-chemical image. When such an image is impressed upon a camera-plate the picture

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is "taken," the photographic process is done. But when such an image is impressed upon the retina of the eye, the seeing-process is just ready to begin. Here at once we notice the vast difference between "taking a picture" and exercising the sentient operation of seeing.

The impressed image,—considered now, not in its photo-chemical character but in its completed reality as a physical thing—stirs or excites the optic nerve and is taken into the organ of sight; it is now the *intra-organic object* of the operation of seeing. By the very fact of its being intra-organic, the object is *sensed*; it is *seen*. By and through the intra-organic object, the extra-organic object (the grazing horse itself) is seen. Thus what we see is, first and foremost, the intra-organic object, and this is the *medium* by which we see the extra-organic object which is the trans-subjective reality that comes to our sentient knowledge by the seeing-operation. Still, we are not aware of the intra-organic object as such; by its unobserved *mediation* (i. e., its office and service as a medium) we directly sense the extra-organic object, the trans-subjective object. Because the mediation of the intra-organic object is not sentiently observed, we say that this is a *wholly objective* mediation.

The intra-organic object is an *impressed species*. Here *species* means *image* or *likeness*. The intra-organic object is a likeness or image of the trans-subjective object, impressed upon the sense and

received within the sense-organ. The intra-organic object is also called an *intentional* image to indicate that this species or likeness is formed according to the *intent*, that is, the *connatural tendency*, of the knowing-power, the faculty, which forms it. The word *intentional* has, in this instance, nothing to do with the ordinary meaning of *intention* or *purpose*, except in so far as the term may suggest the intention and purpose of the Creator in framing our senses and their organs.

Summing up our findings thus far made, we understand that external sensation begins with an *impression* made by an external trans-subjective object upon a sensory or sense-organ. The sensory takes in the impression by reacting to it, and the impression thus taken in is now the *impressed species* or the *intentional image* of the object. The impressed species is the object taken into the organ (as intra-organic object). And the reaction of the sensing-power or sense-faculty to the intra-organic object is the *operation of sensing* whereby the trans-subjective reality (the extra-organic object) is sentiently *known*. We know the objects of the external senses through the entirely objective mediation of the intra-organic object.

The extra-organic object of the external senses is said to be *trans-subjective*. The term means that the extra-organic object is something which is really *there* in the world of knowable realities, and that the knowledge of it in the sentient subject is not

something "made up," not a figment of the knowing-power itself. Some philosophers use the term "objective" to express the factual quality in the extra-organic object of sensation, but this term is not so accurate as *trans-subjective*. For the sensible object has its *physical* existence as a thing that does not depend upon the sentient knowledge of any creature; it exists whether it is sentiently known or not. Yet it is such a thing as may come across or over (Latin, *trans*) to the subjective world and take on a new existence,—a *cognitional* existence, a knowledge-existence,—in the sentient *subject*. The trans-subjective world is the world of knowable realities which do not depend upon the knowing-creature for *existence in fact* but only for *existence in knowledge*; not for *being* but for *being known*. The grazing horse exists in fact, whether seen or unseen by any creature; its physical existence in no wise depends upon, or is affected by, its being sentiently known. But for the horse to have cognitional existence,—existence in the knowledge of one who sees it or otherwise sentiently knows it,—it must be actually sensed; such existence actually does depend upon the operation of sensing. Therefore, the horse in its physical existence is, as an object of sense-knowledge, a reality that is non-subjective; it is independent of the knowing-subject. Yet it is a *knowable* object: it can, so to speak, come over or across (*trans*) the chasm which separates the non-subjective from the subjective realm, and take on a new (cogni-

tional) existence in the knowledge of the creature that sentiently knows it. Thus it is accurately said to be *trans-subjective*.

All objects of sense must be trans-subjective. Now, there are three points upon which trans-subjectivity stands. These are called *matter*, *form*, and *presence*. An object is trans-subjective in *matter*, or in content, when it is knowable as the precise reality that it is in fact; that is, when the knowledge of it in the knower is knowledge of *that thing, that reality*, and not some figment of the knower's own making. Every direct object of knowledge (of intellect as well as of sense) must be trans-subjective *in matter*. Secondly, an object of knowledge is said to be trans-subjective in *form*, or in mode or manner, when its cognitional existence corresponds in mode to its physical or real existence among knowables. When I see the horse grazing, I see an individual, concrete object, and the sense of sight gives me knowledge of it in a species or image that is also individual and concrete; the physical existence of the object is marked by individuality and concreteness, and so also is its cognitional existence: therefore, the object so known is trans-subjective *in form*. We shall presently see that the objects of intellect, while trans-subjective *in matter*, are not trans-subjective *in form*, for the intellect knows things in the abstract and in universal, whereas the things known have existence in individuality and concreteness. Thirdly, an object of knowl-

edge is said to be trans-subjective in *presence* when it is actually *there* for the grasp of the knowing-power, and is not merely evoked in image. Intellect and the inner senses of imagination and sentient memory can evoke or view their objects when these are no longer present; but the external senses cannot do so. We may think of a horse, or imagine a horse, or sentiently recognize the recalled image of a horse once seen, even when the horse is not present to the actual here-and-now grasp of the eye or other external sense-organ. But the external senses require an object that is trans-subjective in *presence* as well as in *matter* and in *form*. The external sense-object must be trans-subjective on all three points. For the inner senses of imagination and memory, the object must be trans-subjective in *matter* and in *form*. For intellect, the object of direct knowledge must be trans-subjective in *matter*.

The process of external sensing may be summed up thus: trans-subjective object (in matter, form, and presence) falls within range of activity of some suitable sense-organ under due conditions for its operation. The object is then *impressed* upon the sense-organ, becomes intra-organic, and is so *impressed upon the sense itself*, and is *sensed* or *sentiently known*. The species or image which comes through the organ to become intra-organic and thus to arouse sense-knowledge is an *impressed species*; and the reaction of sense to the impression of this species is the

knowing-grasp of the actual physical object there present. Now, in internal sensation (notably that of imagination and sentient memory) the object must be trans-subjective but need not be so in point of *presence*; we can image an object or recognize an image of past experience, when the reality imaged or recognized is now no longer present to us in physical, external, trans-subjective fact. But the object, to be known at all, must somehow be set before the knowing power. Imagination calls up or evokes its image, and, so to speak, projects it upon a screen for its own contemplation or for the recognizing-activity of memory. This projected image is said to be *expressed* by the knowing-power, and is called the *expressed species*. The external senses have no expressed species; but terminate their knowing-operation by grasping the object actually *present* in its physical existence. The inner senses know their object (or can know it) in its absence, but only by evoking or projecting its species or image; thus the inner senses terminate their operation by laying hold of an *expressed species*,—a species expressed within the knowing-power itself, but not a figment of that power, at least in its essential elements.

The species (impressed and expressed) which we have been discussing are *sensible* or *sensile* species. Presently we shall study the operation of the intellect, and we shall then find that there are species of a higher order, namely, *intelligible* species, both *impressed* and

expressed. We shall learn that the idea or concept of the mind is an expressed intelligible species.

We shall complete our study of the sensing-process by determining where sensation takes place. The center of sentient life (in man and the higher animals) is the cerebro-spinal axis. Impressions from sense-objects are carried from sense-organs to this center, and sensing or sensation results. Now, just *where* does sensation take place—in the brain (or somewhere in the central axis) or in the sense-organ? When I touch a hot object with a finger-tip, is the sensation of heat experienced in the brain or in the finger-tip? We answer that sensation takes place in the organ. The sense-organs are marvellously well constructed for their purpose of sensing, and nature would surely have acted to no purpose in arranging such amazingly balanced and complex parts of the body if the organ were merely to serve as a kind of "push button" for signalling the brain to go into action and do the sensing. The brain (central axis) is required, of course; it is the central station and the "exchange." But it is a fact that the actual sensing,—as most scientists now admit,—is done by and in the organs fitted for such operation. External sensation, therefore, takes place, first and foremost, not in the brain, but in the organs of the body. We may borrow an analogy,—admittedly every imperfect,—from the electric light. The lamp on my study-table shows its brightness *here*. A

power-plant is, of course, required, and if it did not send electrical impulses along the lengthy wires which connect my house with the dynamo, I should not have the light. But the fact that the electrical power required to make light must come from the dynamo does not alter the further fact that the actual illumination exists *here* in a specially constructed bulb suited to receive the electrical impulses in a way that will produce illumination. Somewhat similarly, the fact that the brain and cerebro-spinal axis are necessary for sensation does not alter the other fact that external sensing is done in the organ fitted for such special operation, and not in the "central plant" itself. The manifest weakness of this analogy lies in its suggestion that all the activity considered comes from within,—from the "dynamo." In sensing, there is another essential element in the process, namely, the trans-subjective object which is of a nature suitable to give a true impulse and impression to and through the organ of sense.

SUMMARY OF THE ARTICLE

In this Article we have defined *sensation* and have studied its nature. We have contrasted *sensation* and *perception* as two phases of one reality. We have defined the *object* of sense, and have distinguished object *per se* and *per accidens*, and have listed the *per se* objects as *common* and *proper*. We have made a detailed study of the physiological structure and function

of the sensing-system, (cerebro-spinal axis, cerebro-spinal nerves, external sense-organs). We have studied the senses severally, describing their action, their organs, and their respective proper objects. We have made a psychological study of the sensing-process, and have discovered that the object of sense must be *trans-subjective*. We have described and defined the *species* (impressed and expressed) involved in external and internal sensation. Finally, we have discussed the *locus* of external sense-experience.

ARTICLE 3. APPETITION

- a) Nature of Appetition b) The Appetencies or Passions

a) NATURE OF APPETITION

Appetition, appetency, or simply appetite is the organic faculty of tending towards what the senses present as desirable, and of tending away from what the senses present as undesirable. It is the organic or sentient faculty for going after what is sensed as good.

This brief description is adequate, for it is obvious that one tends to go after good not only when the tendency is towards a positively desirable reality but also when the tendency is away from an undesirable one; for it is good to avoid evil.

Every creature, lifeless and living, tends towards what suits it. This tendency is called natural appetency or appetite. But we speak here of sentient beings and specifically of man, and of that tendency which is the

result of sense-knowledge. This sort of appetency is called *sentient* appetency or appetite; its exercise is the act of *appetizing*; the faculty or power for its exercise is *appetition*.

b) THE APPETENCIES OR PASSIONS

We make a distinction between *concupiscible* appetency and *irascible* appetency. It is more usual to speak of these appetencies or appetites as the *concupiscible* and the *irascible passions*. There is no dishonorable note in our present use of the term *passion*. Literally, a *passion* is "an undergoing, an experiencing," for the term *passion* comes from the Latin participle *passus* which means "having suffered, having undergone." The word *patient* as a noun, meaning one who undergoes treatment, and the fine noun *patience* which (with its adjective *patient*) indicates the noble virtue that quietly and bravely supports trials and sufferings, comes from the present participle of the same verb. A sentient being undergoes something, suffers something (not in the sense of pain) when it experiences the tendency called appetency. Hence the several expressions of the sentient faculty of appetition are rightly called *passions*.

We classify the passions as *concupiscible* and *irascible*. The term *concupiscible* comes from a Latin verb (*concupiscere*) which means to have a strong *desire*. The word *irascible* is from the Latin *irasci*, "to be irritated or angry," and applies to the passions inas-

much as their tendency meets *difficulty* (which naturally arouses irritation) in attaining the object of desire. The concupiscible passions tend simply to lay hold of what the senses present as desirable, as "good to have," and to ward off or keep away from what the senses present as "good to avoid." The irascible passions are appetites aroused by a qualified object, an object with the note of *difficulty* attached to it; they tend to lay hold of what the senses present as desirable but difficult (or even impossible) to attain, and to keep away from what the senses present as undesirable but difficult (or impossible) to avoid. We might handily classify the concupiscible and irascible passions respectively as the passions of *desire* and the passions of *difficulty*. Before listing the several passions we must pause for an important remark.

The tendency of every creature is towards *good*. The tendency called appetency or sentient appetite is, therefore, always good in itself, and is always a striving towards what is good in itself. In man,—whose nature has been corrupted by the Fall,—the passions may lead to abuse and great evil. But this fact is due to the derangement of man's nature by original sin, and the consequent breaking away of the natural tendencies from the control of reason under which they were meant to function. They are like wild horses which a perverse will may allow to run away and to cause wreck and ruin. But the horses were not always

wild, and the driver not always weak and perverse. Even now, the driver can take light and strength from God's grace and so can control the restive steeds which carry him through the whole course of sentient life. The tendency of man's sentient appetites, and of his rational appetite (which we call *will*) is towards *good*, but man's perversity and precipitateness of judgment may, and sometimes does, result in an *inordinate use* of sentient good or a *perverse choice* of objects in which the will seeks good. In other words, a man's tendency towards good may actually result in the attainment of evil because of blindness and perversity in judgment. Thus sin is a possibility, and a lamentable fact. The sinner (one who uses the objects of sentient tendency inordinately and is perverse in rational judgment) may be likened to a motorist who really does desire to go home, but who is so eager to be on the move and so blindly impatient of pausing to inquire out the way, that he drives off furiously in an utterly wrong direction.

The concupiscible passions, or passions of simple desire, are the following:

1. *Love and hatred or detestation.* Love is the inclination towards good, apprehended simply as such. No note of time is in it, or of possibility, impossibility, difficulty, likelihood, or condition. In other words, love is the simple tendency towards good to embrace

and possess it, without consideration as to whether the good is to be attained here and now, or later, or whether it is possible to attain, or likely to be attained, or attainable with difficulty, or attainable on fulfillment of some condition. Hatred or detestation is the simple opposite of love: it is the tending away from what is apprehended as evil.

2. *Desire and abhorrence.* Desire is the tendency towards good apprehended as a future possibility. Abhorrence (sometimes called *aversion*) is the shrinking back from an evil apprehended, not as present, but as to come.

3. *Joy and sadness.* Joy is the tendency to rest complacent in the present possession of good. When this complacency is experienced on one's own account, it is called *enjoyment* or *delectation*; when it is pleasure in the success of another person who has achieved good, it is called *delight* or *rejoicing*. Sadness is the tendency to disquiet under the weight of a present evil. Sensed inwardly, it is *sadness* or *sorrow*; sensed outwardly, it is *pain*. For oneself, it is *sadness* or *sorrow*; for another, it is *grief* or *commiseration*.

The irascible passions, or passions involving difficulty, are the following:

1. *Hope and despair.* Hope is the tendency towards a good apprehended as difficult, but not impossible to achieve. Despair is the falling back, the "giving up," in face of a good apprehended as unachievable or an

evil apprehended as unavoidable. Hope which is almost ready to die and become despair is called *desperation*. Desperation is hope in the violence of its death-struggle.

2. *Courage and fear.* Courage or *daring* is the tendency to face and war down evils which block the attainment of desired good. Fear or *timidity* is the tendency to shrink back in agitation when the obstructing evil is apprehended as very difficult to overcome or even well nigh insuperable.

3. *Anger (ire, wrath, rage, indignation).* Anger is the strong tendency to violent action in order to fight off an evil or to punish him who inflicts it.

We have seen that all the passions are, in themselves, tendencies towards good. And since the simple tendency to good is love, all the passions are somehow expressions or variants of love. Hatred is, so to speak, the "under side" of love, or it may be called "the other leg" on which love stands. For there cannot be love of one thing without hatred of its contradictory, just as there cannot be a step towards the north without a step away from the south. Love and hatred go thus together. And all the other passions are easily expressed in terms of love and hatred. Desire is the love of good to come; abhorrence is the hatred of future evil. Joy is the love of possessed good; sadness is the hatred of a present burden of evil. Hope is the love of a good difficult to attain; despair is the hatred of

may be said to "issue orders"; locomotion tends to "execute the orders."

Every sentient organism has the faculty of locomotion *in some degree*, and the higher (or more complex) animal organisms all possess it completely.

b) NATURE AND ORGAN OF LOCOMOTION

The movement exercised by the locomotive power or faculty is, properly speaking, *spontaneous* movement. That is to say, it is local movement *consequent upon knowledge*. Living bodies, even sentient living bodies, manifest other types of movement. Thus there is the *automatic* movement of heart and lungs, which requires no sensed stimulus from without, no sensed prod to action. There is *reflex* movement which is the muscular reaction to a stimulus imparted exteriorly to the nerves; *reflexes*, as such movements are called, may take place with or without the knowledge of the sentient being which experiences them, but when they are recognized or known, the knowledge is never their cause. In *spontaneous* movement, however, we have movement consequent upon appetency, which, in turn, is awakened by knowledge of an object as good to be attained. The knowledge which stirs the organism to appetite and local movement is, in men and brutes collectively, *sense-knowledge*. In man, the knowledge which arouses appetency and movement may be also a purely intellectual knowledge. Nor does human knowledge necessarily lead to local move-

ment to achieve what is sentiently known as desirable or good to have. Man has absolute control of the larger bodily movements as long as he is physically and mentally sound, as long as reason is not dethroned by insane fear or anger or other passion. A man can stand to his duty, come what may. He cannot directly control the beating of an excited heart, or chattering teeth, or trembling hands, or quaking knees. But as long as he has the use of reason and ordinary bodily strength for normal action, he can face danger or even move into it, despite the fact that all sentient or bodily appetite is pulling him the other way. In such a case, man's intellectual knowledge and recognition of duty or proper conduct is the knowledge that stirs appetency, and the appetency that prevails is called *the free-will*. Thus man is not the slave of bodily appetites, nor is he constrained to that local movement for which bodily appetites express a tendency or drive. A famous example of all this is found in the sentinels of Herculaneum and Pompeii who stood at the post of duty,—although every sentient impulse must have urged them to run to safety,—while molten lava surged down upon them and burned out their lives. The glorious Christian martyrs, soldiers fighting in battle, and even a tired laborer carrying on the prosaic routine of his work, are further examples of the superior control exercised by rational appetency (the will) over sentient appetency as a source and cause of local movement.

The organ of the faculty of locomotion is the muscle-and-bone structure of the organism. For while local movement in an organism is *consequent upon knowledge*, the movement itself is not a *knowing-activity*, as sensation is essentially, and appetite is virtually. Sensation is knowing; appetite is, in some manner, an appreciation of the thing known, for it is the tendency to act upon knowledge. But movement, *in itself*, involves no knowledge. It is *executed* by the sentient organism by means of muscular activity which sets the framework or bone-structure of the organism in motion. Hence we say that the organ of locomotion is the muscle-and-bone structure of the body. We call locomotion a sentient faculty because it belongs to the sentient order of life-activities; it is not sentiency itself, but it is associated with, and consequent upon sentiency or sense-knowledge.

SUMMARY OF THE ARTICLE

In this very brief Article we have defined *locomotion*, the third operation of the sentient order. We have discussed the nature of this faculty, and have seen that it is consequent, in its exercise, upon knowledge, and for this reason we have declared it to be a faculty for *spontaneous* local movement. We have discussed the organ used by the locomotive faculty, and have discerned the reason for naming locomotion a *sentient* faculty.

CHAPTER III

THE INTELLECT

The present Chapter discusses the existence, nature, operation, and object of the human *mind, intellect, or understanding*. It explains the origin and the expression of *ideas or concepts* which are the elements of all intellectual activity. The Chapter is divided into the following Articles:

- Article 1. Nature and Actuality of the Intellect
- Article 2. Operation and Object of the Intellect
- Article 3. Origin and Expression of Ideas

ARTICLE I. NATURE AND ACTUALITY OF THE INTELLECT

- a) Meaning of *Intellect*
- b) Existence of Intellect

a) MEANING OF INTELLECT

The word intellect is from the Latin *intus* "within; inwardly," and *legere* "to read." The name indicates a faculty or power for getting at the inner meaning of things. Intellect is a faculty for delving beneath appearances and laying hold of *essences*. It is a knowing-power or *cognitive faculty* which pierces through the accidentals presented to knowledge by the senses, and grasps the essential reality which is clothed, so to speak, in these accidental trappings.

Intellect may be defined as *the supra-organic faculty which knows things in an essential and non-material way*. To explain this definition:

1. *Intellect is a faculty*. That is to say, it is a capacity or power for vital activity. Further, it is a *knowing* or *cognitive* faculty, a power for knowing.

2. *The intellect is a supra-organic faculty*. In other words, it is a *supra-sentient* or *spiritual* faculty. It is a faculty of man, but it belongs to man's spiritual soul. It is not a bodily faculty like the senses; it has no organ to use as the instrument of its operation. The brain is not the organ of the intellect. The brain is the organ of the interior senses (central sense, sentient memory, imagination, instinct) and it is also the central seat of the exterior senses (sight, hearing, smell, taste, touch). Thus sensation,—that is, the action and the fruit of sense-operation,—is focussed, so to speak, in the brain. From the findings of the sense, thus focussed, the intellect works out its *ideas*. Once it has ideas, the intellect goes on to perform its operations of *judging* and *reasoning*. Thus we find the beginnings of intellectual activity in the action of the intellect upon sense-findings, and we say, "There is nothing in the mind or intellect that has not some ground and beginning in the findings of the senses." And since the findings of the senses are centralized or focussed in the brain, the intellect may be said to be-

gin its work there. So we come to speak of thoughts as "brain children"; and we say that a man "uses his head" in thinking, and that a person of keen intellect is "brainless." But we must take care not to be misled by these loose expressions into the erroneous opinion that the brain is the organ of the mind or intellect. For the intellectual operations are simply beyond the capacity of any bodily organ. *The intellect has no organ*. It is *supra-organic*. For man, by his *intellect* (*mind, understanding*), knows things which have no materiality about them, things such as spirit, soul, God, angel; things such as honesty, goodness, unity, truth, beauty, virtue, heroism, honor, etc. Now, a faculty which is essentially dependent upon an organ, upon a specially constructed bodily part suited for one specific kind of vital action, has no capacity for apprehending such things as those enumerated. An organ or bodily part can grasp only bodily things. But the intellect grasps things which are entirely non-bodily, and it grasps even bodily things in a non-bodily way, as, for example, it understands solidity or size in general. Therefore the intellect is not essentially dependent upon an organ or bodily part; it is non-organic; *it has no organ*. It is quite true that in this present life in which soul-and-body constitute man as a living bodily creature, man is dependent upon the senses and their organs to give him the grounds and beginning of all the knowledge that it is possible for him here to possess. In this sense, and in this sense

only, the intellect,—which is a soul-faculty, as we shall see in a moment,—may be said to depend upon the senses and their organs. But this is a dependence that is extrinsic to the intellect itself. *In itself* the intellect requires no organ for its function; in itself and for itself the intellect possesses no organ. The intellect, we repeat, is non-organic. Presently we shall discuss the operation of the intellect, and we shall see (as indeed we have already seen) that the intellect is not only *non-organic*, but *supra-organic*: for its action is of a higher and more wondrous character than organic action. One further point: the intellect, being non-organic, is in no sense a body-faculty, for the faculties proper to the living body as such are necessarily organic faculties. But there are no human faculties except faculties of the living body, and faculties proper to the soul. The intellect is therefore a faculty proper to the soul. Now, the soul is spiritual, and is served by faculties proper to its own essential character. Hence we rightly say that the human intellect is a *spiritual faculty*. The intellect is not a spiritual substance, of course, for faculties are powers resident in substance; they are not substances themselves, nor are they, in any creature, identified with the substance which possesses them; in themselves they are accidents, not substances. Hence when we call the soul a *spiritual faculty* we mean that it is a power or capacity possessed and exercised by the spiritual substance called the soul,

3. *The intellect is a faculty for knowing things in a non-material way.* All knowledge, even that of the senses, is rooted and based in "non-materiality." There is a vast difference between the mutual contact of bodily things,—such, for instance, as that of wax and a signet,—and the contact of a sense with its object. Contact between two bodily things involves the physical impinging of one on the other, a striking together, a union and joining, at least momentarily, at the point of contact. But a sense lays hold of its object while leaving it where it is, in its objective otherness. To bring wax and signet together is to produce a third thing (a *tertium quid*) which is not merely wax nor merely seal, but figured wax. To *see* an object, however, is not to produce a *tertium quid*. One sees the object as the object; the seeing-faculty is not configured to the object physically as wax is configured to the shape of the seal; there is no resultant figured vision. Even the sense of touch, in its perception of resistance as it apprehends a solid body, is not shaped or figured; the bodily member which comes in contact with the solid is shaped and figured (as the finger-tip would be if pressed firmly on the signet), but the faculty or *sense* of touch is not figured. The *organ* of touch is indeed physically impressed but the *sense* of touch is in no wise "shaped" and configured to the physical impression. The sense of touch *perceives* the object, *knows* it, is *aware* of it. In a word, the senses, even that of touch, know their

objects in a trans-subjective manner; the senses leave objects "in their objective otherness" and do not join them physically to themselves. The union of bodies in contact is composite joining; the union of sense with its object is objective knowing. Thus the senses are not subject to the limitations which mark non-sentient bodies in physical contact; in so far the senses are removed from the limitations of "materiality"; and this is what we mean by saying that all knowledge, even that of the senses, is rooted in "non-materiality." Now, if the senses be essentially non-material in their operation,—which is the apprehending of material things with all the limitations that attach to concreteness and individuality,—it is at once apparent that the intellect is, by a far greater reason, non-material, for the intellect is capable of laying hold of things which are not material and of grasping material things in an abstract and universal way far superior to the mode of operation which characterizes the senses. This point receives clarification in the paragraph which immediately follows.

4. *The intellect is a faculty for knowing things in an essential way.* By the senses I know the sensibles that fall within their range here and now, as concrete and individual objects. If I look at a tree, for example, I see *this* one tree, or if I look at a copse or stretch of forest, I see *these* trees. But by my intellect I know what *tree* means,—not just *this* tree or *these* trees,

but *tree* in general, *tree as such*; I know what *a* tree means,—*any* tree, *every possible* tree. That is to say, I know the *essence* of tree; I know what makes a tree a tree. Thus we discover that the non-materiality of intellectual knowledge is of a much higher and more striking kind than that of sense-knowledge. Notice that the intellectual knowledge is not only higher *in degree* than that of the senses; it is a specifically different and superior *kind* of knowledge. This is a most important point to ponder and comprehend; nearly all the errors that have confused philosophers in their studies of the mind and its functions and the value of knowledge, have come from a failure to grasp clearly the essential difference between *sensation* (sense-knowledge) and *intellection* (intellectual knowledge).

The intellect is called by a variety of names according to its various uses. It is *one* faculty but has a plurality of names for a plurality of functions. Somewhat similarly, one has a single pair of feet, which perform various actions,—walking, running, skipping, dancing, kicking, etc. We here briefly examine the implications of the names most commonly used for the various functions of intellect.

1. *The mind.* This is the Latin *mens*, the Greek *nous*. In our use of the term, it is perfectly synonymous with *intellect*. Many modern writers use the term *mind* in a wide sense, applying it to all conscious life. Such writers speak of the mind of animals; we

do not. We keep the word within the strict and ancient limits which make it one in meaning with *intellect*.

2. *Intelligence*. This is intellect inasmuch as it recognizes self-evident truths and makes immediate inferences. Here again casual usage extends the term, and we hear people speak of "intelligent" animals,—dogs, horses, cats, parrots. But non-human animals are never intelligent. They may be very alert and wondrously responsive in sentient activity, but they cannot be intelligent because they cannot be intellectual. As we have proved in another place, brutes have sentience but they lack intelligence.

3. *Reason*. This is intellect inasmuch as it works out and recognizes truths that are not self-evident. By *intelligence* I know that a totality is greater than any of its parts; but I must use *reason* to "figure out" the knowledge that the sum of the angles of any triangle is equal to 180° . The relation of "part" to "whole" is a self-evident relation; one needs but to know what the terms mean to understand that the whole is greater than its part, and that this cannot be otherwise. But the truth about the sum of the angles of a triangle is not self-evident, as any harassed young pupil in elementary geometry will testify; it has to be worked out, studied out, by successive and connected steps of *reasoning*. Intelligence understands "right off"; reason understands by studious effort, linking truth to truth to reach its conclusion.

4. *Understanding*. This is another simple synonym

for *intellect* or *mind*. Often, in casual speech, the term is used to indicate, not the faculty of intellect, but the objective grasp of meaning achieved or achievable by the intellect. Thus a person may say, "Let me explain the matter; let me give you a clearer understanding of it." But we use the term here as a synonym for *intellect*.

5. *Consciousness* (that is, *intellectual* consciousness). This is the mind or intellect inasmuch as it is aware of itself, of its states, of its operations. There is a *sentient* consciousness which animals (brutes and men) possess; it is the awareness of sense-activity and of sense-objects proper to sentient life; we call it *the common sense* or *the central sense*, and list it as one of the four interior senses. When a man (or a brute animal) sees an object, he is sentiently aware that he sees. This awareness is not from vision, for the eye does not see itself seeing; it is from *sentient consciousness*.—The consciousness of which we speak in the present study is an awareness of *meaning*, and indeed of *essential* meaning. A boy and his dog may see a pictured triangle or a line of written words; both are sentiently conscious of what falls under the grasp of vision. But only the boy, and not his dog, knows that the picture is *a triangle* (or *can* know it); only the boy, and not the dog, can know the meaning of the written words; the boy can know these things and *be aware* that he knows them. The awareness of intellectual knowledge is intellectual consciousness. And

intellectual consciousness extends, in a manner, to include even the objects of sentient consciousness, but in a superior way. The boy and his dog may both enjoy a run across fields; both have sentient consciousness of enjoyable experience; but the boy alone, and not the dog, can have also a reflective mental (i. e., intellectual) consciousness of the enjoyment as such.—Intellect, inasmuch as it is *an awareness that one understands an object or situation*, whether this be in itself a sentient or a purely intellectual reality, is called *intellectual consciousness*. Thus a man may be conscious of a duty, of a meaning in words, signs, events; of appreciation of beauty, heroism, etc., and, in these instances, his consciousness is intellectual; it is an activity of his *intellect*; it is his intellect in a special function.

6. *Conscience*. This is intellect inasmuch as it *reasons out the moral implications of a situation* and renders judgment upon them. Conscience is the intellectual consciousness or reasoned awareness of right or wrong in a situation here and now to be judged. Conscience is no sentiment, no "still small voice" within the heart, no "little spark of celestial fire," no "sense of fitness in things," no "sense of values." All these phrases suggest something *sentient*, and, indeed, *blindly* sentient. But conscience is not a sense. It is the same cold reason with which we work out a problem in mathematics,—only, to be entitled to the name *conscience*, it must be engaged upon issues

of right and wrong, good and bad, and not upon mathematical quantities. The judgment of conscience is always a *reasoned* judgment. When a person has passed the stage of infancy he comes to understand (not reflexly at first, but directly) that there is an order in things, an order that must be conserved and not upset. The child begins to realize, for instance, that parents must be obeyed, quite apart from the question of punishment for disobedience. So the child comes to understand that there is something bad in a lie, or in a theft, quite apart from the possibility of being found out. Education or instruction helps the child to come readily to the realization of good to be done and evil to be avoided, but the realization is, after all, a *reasoned* realization, and, in a normal person, would be ultimately reached even in the absence of any instruction bearing directly upon the point. In every situation where obvious moral issues are involved even a child of seven will make a reasoned judgment about the course of duty, whether he actually follows that course or its opposite. What is true of the child is more manifestly true of the adult. Now, the judgment of reason that something *here and now to be decided upon is good and to be done* (or at least *permitted*) or *evil and to be avoided*, is called *conscience*. As a faculty, therefore, conscience is one with reason, and reason is one with intellect. *Conscience* is intellect in a special function or service.

7. *Memory* (that is, *intellectual memory*). This is

the intellect inasmuch as it retains and recalls and *recognizes as of the past* the things it has once understood, the past states and operations of mind and will, and the sentient experiences of the past. By intellectual memory a person recalls what has once been learned,—not, indeed, everything that has been once learned, nor perfectly in every instance of recollection, for the intellect is a limited faculty and may grasp a thing imperfectly or ineptly and later forget it. By this memory a person also remembers the past states, conditions, opinions, convictions, of the intellect itself, and the acts and decisions of the will. Further, intellectual memory recalls and recognizes *understandingly* the sentient experiences of the past, or many of them. Man has a sentient memory, as we have seen, and it is operative to *recognize* sense-images recalled to imagination. In man, intellectual memory and sentient memory concur, with greater or lesser perfection, and intellect (as *memory*) regularly reads meanings into past sentient experiences re-depicted in imagination and recognized by sense-memory.—Intellect is a faculty capable of education and training, and it is strikingly so as *memory*. The best means of acquiring a “good memory” is to be found in careful attention, close study, orderly procedure, the enlisting of sentiently-grasped circumstances as an aid to understanding and remembrance. Nearly all the methods of “memory training” have as their fundamental prescription the forming of

vivid images in imagination of objects to be remembered, together with a piercingly close attention of sense and mind to these objects when first experienced. Thus imagination can be of great service to intellectual memory; it forms clear points of “association” which stir the intellectual memory to recall the past; conversely, a clear intellect is a splendid aid to sentient memory, and to imagination which holds its images.—But the point we make here is this: intellectual memory is the *intellect* in a special function.

b) EXISTENCE OF INTELLECT

We have learned what is meant by *intellect*. Now the question arises, does man actually possess this faculty which we have defined and described?

We must recognize the actual existence of the special supra-organic faculty called *intellect* if man has knowledge which is essentially beyond the grasp of the senses. Now, as a fact, man *has* such knowledge. Therefore, the faculty necessary for such knowledge,—that is, the intellect,—actually exists.

Many a psychologist is content to befool his view of human knowing, and to suppose, without adequate analysis of the facts in the case, that all our cognition is a matter of nerves and muscles and organs. In criticism of this unscientific position and postulate, it will be sufficient to indicate, in the briefest manner, some points of truth, already discussed in our study, about the nature of intellectual knowledge. We need

only to show that man has, as a fact, knowledge that is essentially outside the reach of the senses.

A sense is a power for grasping (i. e., for apprehending or knowing) individual and material objects. By the sense of sight, I know those colored objects which here and now lie within range of my vision, under due conditions of light, size, vividness, and distance. Suppose I look upon a grassy hill. I see this hill, but not the thousands of other hills which lie beyond the very narrow limits of my present angle of vision. But I *know* those other hills, although I do not now see them, and may never have seen them or be destined to see them in time to come. I know *what they are*. For I know what *hill* is; I know what the term means, I know what the actuality must be in its essence. I do not know how many hills there are (although I expect momentarily to have some newspaper statistician report the number for me), nor how high they are, nor how steep or rugged. But I know them as *hills*, for I know what *hill as such* is. In a word, I have a knowledge of *hill* which leaves out of account the individual marks and material conditions of this or that or these particular hills; this knowledge of *hill* is at once abstract and universal. It is *abstract* because it abstracts from, prescind from, neglects to consider as of fundamental import, the marks and material circumstances which make each hill recognizable as *this* hill, and focusses upon that which

makes each hill *a* hill. And this knowledge is *universal* because that which it represents is one thing (*unum*)—for what makes a hill a hill is precisely the same in each and every case, no matter how hills differ individually in height, ruggedness, location, etc.,—and this one thing stands in the mind as representatively related (*versus*) to the realities in nature which we know as individual hills (*alia*). From the terms *unum-versus-alia* (one thing considered as “over against” others; one mental grasp as representatively apprehending things other than itself) comes the term *universal*. The common, casual meaning of *universal*, as all-inclusive, having no exceptions, is justified also in our present use of the term. For intellectual knowledge of a reality embraces *every such reality*; intellectual knowledge of *hill*, for example, includes each and every hill,—actual and possible,—without exception. Now, knowledge that is abstract and universal is manifestly knowledge that is essentially beyond the grasp of any sense or group of senses. My senses do not, and cannot, show me *hill*, but only *this* hill or *these* hills. The very marks and characteristics which make a hill the object of sensation are set aside by the mind, and left out of account, in the intellectual realization of *what a hill as such is*. Sense deals with the concrete, the individual, the accidentally circumstanced; but I am aware of knowledge within me that rises above these limits and takes hold on reality in a

manner that is abstract, universal, essential. I am inescapably aware of *intellectual* knowledge within me, and that means but one thing: I have an *intellect*.

The senses know only bodily things,—and these, as we have seen, in a concrete and individual way through the grasp of accidentals. Yet I have knowledge of things that are not bodily. I know what is meant by *spirit*, even if I am a rank Materialist and deny that such things as spirits exist. I know what is meant by *unity, goodness, truth, beauty, perfection, religion, devotion, virtue, vice, diligence, love, poetry, artistic "values," plans, careers, ambitions*, and hundreds of other realities which have no weight, measure, color, shape, or size. And, in addition to these things, I have, as we have noted, an abstract understanding of bodily things like *hill*. Further, I have an abstract and universal grasp of qualities which, while they characterize and limit bodies, have no independent existence, normally speaking, apart from bodies; yet I *understand* them apart from bodies; I know what they are *in themselves*: and thus I know, for example, what *whiteness* is, and *roundness*, and *height*, and *solidity*, and *movement*. It is manifest that no organ of sense can lay hold of any of these things; yet I certainly *know* them. I am driven to conclude that I have a supra-sensuous, a supra-organic faculty for knowing things. In other words, I possess an *intellect*.

Again: the senses do not and cannot know themselves or their operations. They are not reflective. The

eye does not see itself seeing, nor does the ear hear itself hearing. Sense-consciousness (the central or common sense) does indeed give one an awareness of the senses and their operations, but no sense senses *itself*. But the mind or intellect, being a spiritual faculty, is reflective; it has a *reflex* action by which it knows itself knowing, and can make itself and its states and operations the object of its own observation and study. Now, I am aware that I possess such reflex knowledge. Presently we shall take up the study of the "Operation of the Intellect," and we shall find nothing odd or unnatural in the thought of such a study; we shall quite calmly begin to study our study, to know our knowing. Manifestly no sense or group of senses is capable of such reflex action; their bodily limitation stands in the way of it; to conceive of reflective organic action would be to conceive something as absurd as the girl in Andersen's Fairy Tales who had the amazing ability "to walk under herself." Yet, as an indubitable fact, I have reflex knowledge. It follows that I have the supra-organic faculty for it. I possess an *intellect*. The intellect exists.

SUMMARY OF THE ARTICLE

This Article has taught us the meaning of *intellect*, the spiritual or supra-organic faculty by which man knows things, bodily and non-bodily, in an abstract and universal and essential manner. We have

learned the implications of the definition of intellect, and have contrasted intellectual knowledge and sentient knowledge. We have noticed the various names by which intellect is known in its various functions or services: *mind, intelligence, reason, understanding, consciousness, conscience, memory*. We have proved that man actually possesses an intellect.

ARTICLE 2. THE OPERATION AND OBJECT OF THE INTELLECT

a) Operation of the Intellect b) Object of the Intellect

a) OPERATION OF THE INTELLECT

The first and basic operation of the human intellect is the activity called *simple apprehending* or simple knowing, and this consists in *the forming of concepts or ideas*. When we say "forming" we do not mean that the intellect "makes up" its elements of knowledge. On the contrary. We mean that the intellect is *operative* to take in *in its own way* (hence the word "forming") the understandable realities which constitute its object. In a somewhat similar way the senses may be said to "form" their knowledge,—not by creating it or projecting it ready-made out of themselves, but by *taking it in* in a manner consistent with their own nature, structure, and function. Thus sight may be said to "form" the sense-knowledge of visible objects by laying hold of the intra-organic visual image whereby it actually sees realities in the outer

trans-subjective world. It sees objects that are *there*; it brings them into itself as *seen objects*. But, manifestly, it does not transfer them, with body and bulk, into the organ of vision or into the sense of sight. It leaves them where they are and as they are ("in their objective otherness") and takes them in by image or similitude or *species*, in a manner consonant and consistent with its nature as a seeing-faculty. Thus also intellect takes in knowables in essential image or species suited to the nature and operation of a suprasentient knowing-power. Intellect knows in a manner indicated by the *intent of nature*; that is, it knows as the Creator has designed it for knowing; and for this reason we say that the intellect knows by forming *intentional images* or *intentional species* of things. In other words the intellect takes in reality *in its own way* and in so far "forms" reality within itself. Every receiver takes things in according to its own capacity and character: hence the Latin axiom, *Quidquid accipitur ad modum accipientis accipitur*, that is, "Whatever is taken in is received according to the capacity and character of the receiver." Now, the point we make is that while intellect takes in reality according to its own capacity and character (and in so far "forms" reality within itself), *it does actually take in reality* and does not produce knowledge out of itself as a figment divorced from reality.

The intellect "forms" or takes in reality. Now the full and complete activity of intellectually *knowing* is

not the simple *taking in*, but the *having* and possessing of knowledge fully formed. Therefore, we discern at once two clearly distinct phases of intellectual activity; and we have a special name for the intellect in either phase of this activity. We say that the intellect, inasmuch as it actively performs the operations necessary to make objects *intelligible* or *understandable* and to bring these in that it may possessively lay hold upon them, is *the active intellect* or *the agent intellect* or, in the Latin term by which this faculty is usually called, the *intellectus agens*. And the intellect, inasmuch as it receives, holds, and employs the knowledge which its activity brings to it, is *the passive intellect* or the *intellectus possibilis*. The term "passive" is not to be understood here as meaning lifeless passivity; it indicates a vital reaction on the part of the intellect to the impressed elements of supra-sensuous knowledge; it suggests the serene yet active possession of reality in fully formed intellectual concepts or ideas. The *intellectus agens* is the intellect inasmuch as it *gets* and *impresses* the elements of supra-sensuous knowledge; the *intellectus possibilis* is the intellect inasmuch as it *has* and *can now use* acquired supra-sensuous knowledge.

In discussing the operation of the intellect we have first to consider the forming of ideas or concepts by the action of the *intellectus agens* and the possessive re-action of the *intellectus possibilis*. This forming and having of ideas is called the activity of *simple*

intellectus agens
intellectus possibilis
 1. se +
 fundamenti
 part. 2. intellectus
 simple apprehending

apprehending; it is the first and fundamental operation of the intellect. The second operation is that in which the intellect inspects and compares ideas, notices identities and differences and relations, and judges or pronounces on the agreement or disagreement of the ideas: this operation is called *judging*. The third and last operation of the intellect is the working out of judgments which are not at once apparent upon the comparison of ideas; this operation is called *reasoning*. Thus there are three intellectual operations, to wit, *simple apprehending*, *judging*, *reasoning*. We study each operation very briefly.

1. *Simple Apprehending*—The senses perceive their respective objects as material, concrete, individual things; and, indeed, it is thus that these objects exist in nature. The sense-findings are retained and held "re-present" in the inner sense called imagination. Recall here that imagination is not the fancy of poet or story-teller; it is an interior sense which, as its first and basic function, faithfully records, represents, retains, and evokes the findings of the exterior senses.

The sense-findings, re-present in imagination with all their concrete individuality and material circumstance, are subjected to the action of the *intellectus agens* and so are rendered intelligible or understandable. This result is due to the fact that the *intellectus agens*, like a great X-ray, illumines the imaged sense-findings and strips away, or renders invisible, their

individuating marks and material conditions, and lays bare *the understandable essence as such*. This understandable essence is called *the intelligible species*. To illustrate all this: Suppose you have never seen or heard of the reality called triangle. Now you see several pictures of triangle drawn on a blackboard. No two of the pictures are alike in color or location or size; no two are of the same type of triangle (isosceles, scalene; right triangle, equilateral, etc.). Your sight lays hold of the pictures as sensible objects; you know them sentiently. The finding of sight is reflected, so to speak, inwardly to the imagination and reproduced there; the pictures are present on the blackboard, and re-present in the imagination. Now the *intellectus agens* turns its view and its light upon the images present in imagination, and sees that the pictures, despite the differences of size, color, position and type, are all pictures of *one and the same kind of thing*. To put the point differently: the *intellectus agens* illumines the concrete and individual pictures re-present in imagination, and in its light concreteness and individuality fall away, and the *essence* which each picture represents lies revealed as this one kind of thing. The essence *triangle* (that which *triangle itself* means, regardless of size, type, color, position) is now an abstracted essence, an understandable essence, *an intelligible species*. This species is called an *abstracted* essence because the *intellectus agens*, in its operation of illumining or contemplating the images

in imagination, neglects to consider the non-essential points in which each image differs from the others and focusses upon the essential point in which all the images are the same: and this operation is called *abstracting* (or *abstraction*). The term *abstraction* is from the Latin *ab* "away; from" and *traho* "I draw," and means that the intellect *draws away* the essence from the individual marks and material conditions in which that essence is, in nature, clothed and expressed. (The intellect (i. e., the *intellectus agens*) draws away or draws out the essence and renders it capable of being grasped *by itself*, or *as such*, or *formally*. In a word, the *intellectus agens*, by abstracting an essence from non-essentials, renders that essence understandable or intelligible,—turns it into *an intelligible species*.)

The intellect, therefore, by its *power of abstraction*, renders sense-objects intelligible. (This done, the same *intellectus agens* which exercised the operation of abstracting, takes up, so to speak, the intelligible species or abstracted essence and *impresses* this upon the intellect as understanding (i. e., the *intellectus possibilis*). The abstracted essence or intelligible species is now the *impressed species*. The *intellectus possibilis* reacts to the impression, laying hold of the impressed species *understandingly, possessively, knowingly*. This reactive, possessive grasp of the *intellectus possibilis* is said to *express* the understood essence, and the intelligible species is now *the expressed*

species. The expressed intelligible species is an essence grasped, an essence understood, an essence intellectually known: it is called an *idea* or *concept*. Ideas are the fundamental elements of intellectual knowledge, of judging, and of reasoning.)

Review the process of *intellection*,—that is, of intellectual understanding,—and notice how *sensation*,—or sentient knowing,—contrasts with it. (a) The exterior senses know their respective objects by taking in a sentient image or *sensible impressed species* of these objects. This species is an intra-organic image, and by its wholly objective mediation, the sense reacts to know the actual sensible object there trans-subjectively present. (Stirred, so to speak, into action by the impressed species, the exterior sense reacts to perceive the concrete, individual object which is there present in nature to be perceived. Thus the exterior senses do not *express* a species, but round out their knowing-action by perceiving the actual object concretely present. (b) The interior senses of imagination and memory ^{can summon up} and represent (evoke) their object when it is no longer actually present exteriorly; in other words, they *express* their objects in sensible species.) Hence these interior senses do *express* a species. Even when the exterior object is present to the outer senses, imagination expresses it (“re-presents” it) in an expressed species. (c) The intellect always *expresses* a species; it rounds out its knowing-act by laying hold of an ab-

stracted essence, and essences do not exist in an abstracted condition in nature outside the mind. The intellect knows essences *as such*, and *expresses* them so within itself. And the mark of the intelligible expressed species is always *universality and abstractness*. When, for example, the intellect has (through the service of abstraction on the part of the *intellectus agens*) laid hold of, and expressed within itself, the essence *triangle*, it has now and henceforth forever the knowledge of *triangle as such*,—of a triangle, *any* triangle, *every* triangle thinkable. Thus in one single expressed species it holds the essence of innumerable possible realities (triangles) which may vary widely in non-essentials as individual things. This is saying that the single expressed species (or idea) of *triangle* is a *universal* idea, that is, an idea which represents *one* essence capable of actualization in a *plurality* of individuals,—*unum-versus-alia*, “one thing as contrasted with other things”; one mental grasp as contrasted with the many things that may have the essence grasped; *universal*. Thus we say that the mind clothes reality with *universality*, not in the sense that the mind “makes up” a fictitious mask for reality, but in the sense that the mind can and does take in reality by laying hold of essences as abstracted from individuality and concreteness. Things in nature cannot exist except in an individual and concrete way, but the mind can and does express within itself that which exists, but in the mind’s own way which dispenses with

the individuality and concreteness of the object as existible. Thus we justify our statement that the mark of understanding, of the intelligible species expressed in intellect, is always *universality and abstractness*.

The expressed intelligible species has many names that we must notice and understand. These are the following:

(a) The *idea*. This term is derived from the Greek *eidos*, "an image." And we have seen that the expressed species is indeed an image; not a picture, which is a concrete and individual image, but an imaged *essence* expressed within the intellect. An *idea* is the grasp of the essence of a thing; it is the essence of a thing held in expressed species in the intellect.

(b) The *simple apprehension*. The intellect in forming an idea or expressing a species *apprehends* an essence, knows it intellectually. And the intellect makes no affirmation or denial about the essence so apprehended; it grasps it *simply*. Hence the action of the intellect in forming the idea is called *simple apprehending*, and the idea itself, which is the fruit of this simple apprehending, is called the *simple apprehension*. A simple apprehension is merely the unqualified grasp of an essence.—To avoid confusion, the student is warned that the word in *-ion* (that is, *apprehension*) is often used loosely as synonymous with the word in *-ing* (that is, *apprehending*), and the process or operation of forming the idea is called

simple apprehension. It will be wiser, however, for the student to employ the *-ion* word as a synonym for *idea* or *expressed intelligible species*, and to keep the *-ing* word to designate the action or operation of intellect in forming the idea.

(c) The *concept*. The intellect is, so to speak, impregnated by the impressed intelligible species and *conceives* the essence within itself as an expressed intelligible species or idea.

(d) The *expressed species* or *species expressa*. The intellect is said to express within itself the essence which it understands or apprehends. We have already given a detailed explanation of this term.

(e) The *mental term* or the *intellectual term*. This name for the idea is justified in two ways: first, the idea is the finished product, the *terminus* or *term*, of the intellectual operation called simple apprehending; secondly, the idea is, so to speak, a *mental word* or *term* applied by the intellect to an understood essence. Sometimes the idea is called a *mental word*. It is as though the intellect, receiving the impressed species, reacts to *know* and *call an essence by a name or word* in the action of expressing the species.

2. *Judging*—The second operation of the intellect is that in which the mind, comparing two ideas, notices points of identity or difference, and *pronounces* that they agree or disagree. This act of pronouncing on the agreement or disagreement of two ideas is

called *judging*, and the pronouncement itself is the *judgment*.

Simple apprehending begets the idea; judging begets the judgment. In forming the idea, the intellect grasps an essence, grasps it *simply* as presented and expresses it simply within itself, making no pronouncement about its relation to any other idea. In judging, the intellect takes ideas already formed, compares one with another, notices agreement or disagreement, and *pronounces* its findings. Ideas are the elements of knowledge, but judgments are the fundamental processes of thought. In the *judgment*, and not, strictly speaking, in the *idea*, is discerned *truth* or *falsity*.

Suppose the mind is equipped with the ideas *circle* and *roundness*. When these ideas are brought into comparison, it is at once apparent to the intellect that they agree, for the idea of *circle* involves the idea of *roundness*, the one essence includes or presupposes the other. Therefore the intellect pronounces *judgment*, "A circle is round." This is an *immediate* judgment, a *self-evident* judgment; it is a judgment which is inevitable once the two ideas concerned in it are clearly formed and brought into comparison.

When the intellect pronounces judgment, it affirms or denies that one idea agrees with another, and its pronouncement is called a *predication*. For one of the two ideas pronounced upon is that *of* or *about* which the other is affirmed or denied; one is

the *subject-idea* of which the other is *predicated*.

Suppose that the mind possesses the ideas *man* and *animal*. Analyzing the idea *man*, the intellect sees that it is a *compound idea*, that it is made up of six component ideas, namely, being (or thing), substance, body, living, sentient, rational. Analyzing the idea *animal*, the intellect sees that this also is a compound idea made up of the same components as the idea *man* with the exception of the last; for *animal* means an essence that is a thing or being, a substance, a body, a living body, a sentient body. Inasmuch as the ideas *man* and *animal* are in agreement (for the idea *man* is seen to contain all the component ideas of the idea *animal*), the intellect renders judgment, "Man is an animal." Inasmuch, however, as the idea *animal* does not measure up to the full comprehension of the idea *man* (for *animal* lacks the sixth component idea or "note" of the idea *man*, viz., rational being), the intellect renders judgment, "Man is not a non-rational animal," and, "Man is a rational animal."

The "materials" of judgment,—to employ the term figuratively,—are *two ideas noted and compared by the intellect*. The *form* or essential constituting factor of the judgment is the *pronouncement of the intellect* upon the agreement or disagreement of the two ideas.

3. *Reasoning*—Often the intellect is unable to render judgment by making a simple comparison of

ideas. For the two ideas compared may not be clear and distinct; the intellect may not know them in their implications, and so there is not sufficient evidence *in the ideas as known* to warrant judgment. In this case the intellect must reach judgment by a round-about process. It calls upon a *third idea* which is known in relation to the original two, and through this as a medium it reaches the evidence required for judgment. Suppose that the intellect has the ideas "A" and "B," but is unable to pronounce judgment on their agreement or disagreement. Suppose further that the intellect has a third idea "C," and that it knows this idea in relation to the other two, and is therefore able to pronounce two judgments which express this relation, thus: "A" is "C"; and "B" is "C." From these two judgments the intellect concludes that "A" is "B." Thus through a median or *middle idea* (a "common third" idea) which it employs in two preliminary judgments or *premises*, the intellect is enabled to reach the judgment originally sought (indeed, the intellect inevitably knows this judgment from the premises), and sets this forth as a *conclusion* or consequent.

The intellect, as we have seen, reaches the conclusion "A" is "B" in this way:

"A" is "C"
 "B" is "C"
 Therefore "A" is "B"

But if the relation of "C" to the other ideas were known to be the following:

"A" is "C"
 "B" is not "C"

the intellect would necessarily *draw the conclusion*, that is, would pronounce the judgment sought from the start: Therefore, "A" is not "B."

Now, this process of reaching a judgment which is not evident upon the comparison of two ideas, by employing a third or *middle idea* in two premise-judgments and so reaching a conclusion, is called *mediate inference* or simply *reasoning*.

Reasoning is called *mediate inference* because it uses a medium. The intellect in making *self-evident* judgments exercises *immediate inference* because no medium is required or used. Reasoning is always *mediate inference*.

There are two *methods* of reasoning, and the choice of method is dictated by the nature of the case investigated by the mind. Sometimes the mind or intellect reaches judgment (i. e., a conclusion, a *mediate inference*) by working from individual instances or singular data to a general conclusion. The intellect in this case works on the principle or guiding truth that, "What is true or false of the individual members of a class, is true or false of the class as a whole." Take an illustration:

Lead, zinc, iron, gold, etc., are heavier than water;
Now, lead, zinc, iron, gold, etc., are all the known
metals;

Therefore, all the known metals are heavier than
water.

Here we see that the knowledge of individual data enables the mind to reach a universal conclusion. The mind is, so to speak, *led in* from single instances to a conclusion about the whole class which is instanced in the individual data. The Latin for "led in" is *inductus*, and this method of reasoning is called *induction*. Induction is the method of reasoning employed by all the laboratory sciences. For this reason it has been called "the scientific method." But the opinion that this method is the only method, or that it stands opposed to the alternative method of reasoning which we shall discuss in a moment, is merely silly. The two methods are complementary, and the whole effort of induction is to establish a general or universal judgment *from which* other judgments may safely be *deduced*.

The second method of reasoning is called *deduction*, a name which comes from the Latin *de-ductus* or "led from," "drawn from." Deduction works on the principle or guiding truth that, "What is true or false of a whole class is true or false of the members of the class." An example of deduction is the following:

All the known metals are heavier than water;
Zinc is a known metal;
Therefore, zinc is heavier than water.

A useful illustration of *induction* and *deduction* may be found in the plan of a textbook, say a Latin grammar. If the grammarian proposes general rules to be applied in individual instances, his method is *deductive*. He will say: "All nouns of the second declension ending in *-um* are neuter." Thus he proposes a general law or truth, from which the student *deduces* conclusions about particular data, in this fashion:

All second declension nouns in *-um* are neuter;
Donum is a second declension noun in *-um*;
Therefore, *donum* is neuter.

But if the grammarian "leads on" or "leads in" the student to the formation of general rules by repeated instances, his method is *inductive*. He will not first formulate and set out a general rule, but will indicate the gender of each of a list of nouns in *-um* until the student is led to associate the ending with the gender and to reach the conclusion that *all* nouns in *-um* are neuter. The grammarian may set out some such list as this: *donum, bellum, collum, signum, vinum, ferrum, folium, oppidum, damnum, auxilium, aurum*, and indicate each as a neuter noun. The observant student cannot fail to notice the identity of endings and to associate this with the identity of

gender in each case. He is *led on* ("induced") to make the general rule for himself: Nouns of the second declension in *-um* are neuter nouns. Notice here that the whole drive of induction is to set up a universal or general truth. And for what purpose? Surely that henceforth individual instances or data may be identified by application of that general truth; in a word, that conclusions may be *deduced* from it. Thus we see that induction and deduction are not opposed methods, but complementary methods. We see also that *deduction* is the major method, for *induction* is subordinated to it, and seeks to build up means for it. Hence to scoff at *deduction* (or *the deductive method*) and to cry up *induction* (or *the inductive method*) as the only valuable method of reasoning, is to be guilty of absurdity. It is true that for the incomplete sciences which depend upon detailed investigation of individual data, *induction* is the only method available, and it is a splendid and valid method of reasoning. But the point we make here is that induction leads to the knowledge of general or universal truths which are henceforth to be applied as the source of *deduction*. The point is that the methods are not opposed, but complementary. The general or universal truths which are the starting-points or founts of deduction are learned, in human science and philosophy, partly by induction, and partly by the simple act of intelligence recognizing self-evident truths.

b) OBJECT OF THE INTELLECT

The object of a knowing-faculty is, as we have many times noticed, the reality which the faculty is fitted to recognize and know. The object of a sense is that which the sense is framed to perceive. The object of the intellect is that which the intellect is made to *understand*, or *know* in a manner consistent with its own nature as a cognitive faculty.

The object of a sense is called a sensile object; the object of the intellect is called an understandable or an intelligible object.

In its widest scope, the object of a knowing-faculty is called its *adequate* object. The adequate object of the intellect is *everything understandable*. Now, the adequate object of a faculty may be viewed in two ways: as ready to hand, and as blocked off by intervening forces or by the weakness of the faculty itself. Thus the adequate object of sight is *everything visible*. But many things are visible which sight cannot, as a fact, behold. The moons of Jupiter are visible, but one cannot see them with the naked eye. The bacteria in a glass of water are visible, but one cannot see them without a microscope. Now, that part of the adequate object which is, so to speak, ready to hand; that which the unaided faculty can, as a fact, lay hold of, is called *the proportionate object* of the faculty. The other part of the adequate object, which may, through special aid, be brought into the reach of

the faculty, is called *the extended object* of the faculty in question.

Even in dealing with its *proportionate* object, a faculty may sometimes be forced to work through something else as a medium. Thus to see the *size* of a body (and size is *per se* visible) the body must have *color*. One cannot compute the size or volume of a stream of natural gas by the sense of sight. Thus, though size is visible *per se*, it is not visible *per se primo*, "of itself and primarily." Only colored surface is visible *per se primo*. Now, the object which is achievable *per se primo* by a knowing-faculty, is the *proper object* of that faculty. This object is often spoken of by philosophers and psychologists as the primary object, the immediate object, the direct object. The object which is not *per se primo*, but *per se secundarie* ("of itself but secondarily") achievable by a faculty, is called the mediate, secondary, indirect object.

Here we ask: What is the adequate object of the intellect? What is the proper object? What is the indirect object?

1. *The adequate object of the intellect* is everything that has the character of *being*, of *entity*, of *thing-ness*. We cannot think of anything except as a *thing*. Even when we know that what we think of has no *real* entity (such as *blindness, darkness, vacuity*,—for these are not realities but the *absence* of realities) we must clothe the object with a kind of

entity or being and consider it *as though it were* a reality. Otherwise we could not think of it at all. Things that have or can have real being, independently of our knowing them, are *real entities*; things (like *darkness; square circle*) which have no entity but that which our mind confers on them by considering them *as though they were* real, are *rational entities* or *logical beings*. Now, all being, all entity, all thing-ness, rational or real, comes together to make up *the adequate object* of intellect. In a word, the adequate object of the intellect is everything understandable, everything knowable, everything intelligible, everything thinkable (and this includes, of course, everything *imaginable*).

When a being or entity is grasped by the intellect in such a way that the intellect truly knows it, the intellect possesses *truth* about it. Now, the whole purpose and effort of intellect in dealing with entity or being is to grasp *truth*. The adequate object of intellect is, therefore, accurately expressed as "the truth about everything intelligible." More simply the adequate object of the intellect is *truth* or *the true*.

2. *The proper object of the intellect* in the present human status of a substantially united soul-and-body, is *the essence of material things*. This is the object which, in this earthly life, intellect seeks *per se primo* to know; this is the object about which intellect *per se primo* seeks *truth*. Man has immediate contact with the bodily world by his senses. The senses are the *only*

immediate contacts with reality which a man possesses. The intellect cannot come at its object unless the senses function first and present their findings inwardly in the species or images of imagination. Now, the senses furnish only concrete and individual instances of knowledge about material things. The intellect, using the findings of sense re-present in imagination, arises, by its power of abstraction, to the knowledge of the *essences* of sense-objects (i. e., material things), and knows these essences, not primarily in individual, but *in universal*. This activity of intellect we have studied and amply illustrated in our discussion of the operation of the intellect, and, in special, in the discussion of *simple apprehending*. The intellect, then, has as its proper object (in the present state of man, in man's earthly existence) *the essences of material things conceived in universal*.

We see how the intellect rises from sense data to the purely intelligible. In this life, the service of the senses is naturally indispensable. Sense must function *first* or intellect remains inoperative. In all its ideas, the intellect takes some beginning from sensation, from the grasp of material things. Therefore, we repeat, the *per se primo* or *proper* object of intellect is, in this life, the essence of material things, the essential *truth* about material things.

The intellect *could* come directly at supra-sensile truth were it not limited, as it is in man's earthly state, to a beginning in sensed reality. We have seen

that the intellect is a spiritual faculty, a supra-organic faculty, and therefore *in itself* it bears no limitation which requires it to begin with material essences. Hence we are justified in concluding that the soul, separated from its body by death, can directly lay hold of supra-sensile reality. But *in this life*, the proper object of intellect is *the essences of material things grasped in universal*.

3. *The secondary or indirect object of intellect* is that which it attains through its proper object. From the understanding of the essences of material things, the intellect arises to the knowledge of supra-sensile things, such as *spirit, soul, God*; such as *unity, goodness, truth, beauty*. Further, in the intellectual grasp of individual reality, even material reality, the intellect operates indirectly. To illustrate this last point: The eye lights upon a tree. The tree is *sensed* as an individual thing. But the intellect (which heretofore has not known *tree*) arises by abstraction to the knowledge of what a tree is. The intellect *per se primo* grasps the essence tree *in universal*, as *tree as such*. Only by a kind of reflection, or turning back upon its first operation, is the intellect aware of *this tree as an individual reality of a certain essential kind*. Thus the secondary or indirect object of the intellect may be expressed as the *essence of supra-sensile realities in universal and in individual*, and also the essence of material reality *in individual*.

4. *An important item in the indirect object of the*

intellect is the soul and its faculties. The soul, by the faculty of intellect, knows itself, its faculties, its operations. By reflex advertence to its acts, the soul is made aware of the distinction between itself, its operations, and the faculties or capacities from which these operations proceed. The soul thus becomes reflexly conscious or intellectually conscious of itself, its operations, and its faculties of knowing and willing. We have seen that intellect, in this reflex service, is called intellectual *consciousness*.

SUMMARY OF THE ARTICLE

In this Article we have learned the three operations of the intellect, viz., *simple apprehending, judging, reasoning*. We have studied the processes of these operations. We have determined the adequate, the proper, and the indirect object of intellect. We may now sum up the activity called *intellection* by reviewing the following points:

1. Intellection (i. e., the operation of intellect in simple apprehending) presupposes sensation, both exterior and interior, by which sensible objects are perceived and their images or sensible species are received in imagination for keeping and reproducing.
2. The *intellectus agens* illumines the imagination-images, abstracting or drawing out the essence from the individuating marks and material conditions that

clothe it as an individual reality. This drawing out of the essence is, of course, *making understandable* what is in itself *sensible*. That which is capable of being sensed, and so taken in *in image* or *in species* by a sense, is now capable of being taken in *in species* or *in image* or *in representation* by the intellect. In a word, the *intellectus agens*, by the operation of abstraction, renders a sensible species *intelligible*.

3. The *intellectus possibilis* receives the intelligible species produced by the *intellectus agens*.

4. The *intellectus possibilis* reacts to the impressed species, possesses it, unites it to itself as a *form*, understands it and expresses it within itself as the expressed species or idea. The *idea* is the representation (species) of the essence of an object in the *intellectus possibilis*. The idea is also called a *concept*.

5. Turning upon its concepts by *reflection*, and so analyzing, comparing, uniting them, the intellect notices their constitution and their relations, and is thus enabled to form new concepts, even concepts of supra-sensible reality.

6. Intellection (the operation of intellect in simple apprehending) may be defined as a vital operation by which the intellect, impressed by an intelligible object, receives and expresses in itself the *form* or *understood essence* of the object as a thing known.

ARTICLE 3. THE ORIGIN AND EXPRESSION OF IDEAS

a) Origin of Ideas b) Expression of Ideas

a) ORIGIN OF IDEAS

The term *idea*, comes, as we have seen, from the Greek *eidōs* which means an image. The idea is the image or representation (or, more accurately, the presence) of the essence of a thing, expressed in the intellect. The idea is an image but it is not a picture; for a picture is ever an individual and concrete representation, while an idea is a universal and abstract representation. An idea is the simple intellectual grasp (through species or representation) of an essence *as such*.

That we possess ideas is manifest from the fact that we constantly use them. We have knowledge that is abstract and universal, and we think and speak in universal terms. Take up a textbook in geometry, and you find chapters on "Angles" and "Circles," not on *this* angle or *these* circles, but on angle and circle in universal, or *as such*. Listen to a young sportsman who tells you he likes football. He doesn't speak of this game or that as the object of his liking, but of the game as such. Now, in the world of concrete and individual things, there are no pictured angles or circles, there are no football games *in general*, or *as such*, or *in universal*. Yet we understand these things in universal. We actually have ideas. This being so, the question arises, whence come these ideas?

We have already answered the question. Ideas come from the activity of the intellect, following sensation. Ideas are due to the abstractive power of the intellect, working out understandable essences (intelligible species) from the findings of the senses and expressing these (as concepts or ideas) within itself. Here is the true origin of ideas. Why, then, raise the question of the origin of ideas, since we already know the answer and have explained that answer in full detail? We raise the question to review and criticize certain fallacious doctrines on the point which have led minds astray. We may reduce these false doctrines to three classes, namely, *innatism*, *traditionalism*, *sensism*. We notice each of these briefly:

1. *Innatism* teaches that our ideas are born in us. The term *innatism* is from the Latin *in-natus* "born in." Many varieties of this doctrine have, at various times, been put forward by philosophers to account for the *universal* character of human ideas or concepts. Plato (5 and 4 century B. C.) believed that the soul had a former existence in which it beheld essences *as such*. In that state, the intellect directly knew subsistent, real essences; it knew, not beauty as exemplified in beautiful things, but beauty itself; not triangle as abstracted from concrete representations, but triangularity as a subsistent reality; and so on. When the soul was joined with a body (and this was a penalty for some offense; the soul was put into a body-prison)

all its knowledge was forgotten. Now, through the experience of the senses, the soul takes a kind of reminder or prod to remembrance, and imperfectly recalls what it formerly knew perfectly. Thus *ideas are formed*. Thus "to know is to remember."—Descartes (1596-1650) taught that the soul (i. e., the soul-faculty of intellect) is equipped at birth with certain ideas such as those of *being, truth, thought*, and that it makes up other ideas with the coöperation of sensation.—Leibnitz (1646-1716) identifies the soul and its faculties and teaches that the intellect (and hence the soul) cannot exist without ideas, and hence has been equipped with them from the start. He holds that ideas are inborn in a sort of confused heap, and they are separated out and made clear and distinct by the activity of the intellect following sensation.—Immanuel Kant (1724-1804) makes all valuable and scientific knowledge the product of the mind's own operation working through set, inborn channels, from the basic inborn ideas of *God, self, and the world*.—Rosmini (1797-1855) makes the idea of *being* innate or inborn. The Ontologists,—chiefly Malebranche (1638-1715) and Gioberti (1801-1852),—declare that the idea of *God* is inborn, and serves as a mental illumination in which it becomes possible to form the ideas of other things.

Innatism is generally rejected by all schools as an inept doctrine. We reject it as plainly fallacious. It is impossible to procure any evidence for it, since no

one remembers the time of his own conception and birth, and new-born babies are unable to testify. On the other hand, the newly born give no manifestation of possessing ideas. Further, the doctrine of innatism is needless; it is not required to explain the origin of ideas. The origin of ideas is scientifically accounted for in the activity of intellect following sensation, and this explanation holds even for ideas of supra-sensile things.

Innatism is opposed to the testimony of consciousness. For we distinguish a threefold moment in human knowledge: a moment of *potentiality*, when we have not yet formed a certain idea but *can* do so; a second moment when we *actually* acquire the knowledge (i. e., form the idea); a third moment, or rather state, in which we *keep* the knowledge. In other words, we are all conscious of the fact that there was a time when we did not know certain things,—such, for example, as some data of American History. Then there was a time when we learned them. Thereafter we retained them and know them still. Now, if we admit innatism to be true, this threefold moment, or these three stages in the process of knowing, could not be distinguished.

All varieties of *innatism* either presuppose something fantastic, or they are out of gear with consciousness and experience. Further, *innatism* ever tends to lead men into skepticism, which bankrupts all certitude and science, and to *pantheism*, a debased doc-

trine which, in some manner, identifies God with the material universe. Judged thus by its logical fruit, *innatism* is to be rejected as a false and pernicious doctrine.

The intellect, to begin with, has no ideas. It is a *tabula rasa*, or clean washed slate ready to receive the writing of concepts, but having no such writing before sense-experience has been brought under the action of the *intellectus agens*. We repeat: the true origin of ideas is found in the abstractive power of the intellect working out understandable essences from the findings of sense, and expressing these essences in *intelligible species* within itself.

2. *Traditionalism*. De Bonald (1754-1840) says that the intellect can acquire no truth, no knowledge, no ideas, unless instructed, and instruction comes through speech. Now, speech was given to our first parents by a revelation of God, and with speech were revealed the expressible truths that were to be conveyed to the human race down through the generations. Hence all knowledge of intellect comes from a primitive revelation and is handed on by *tradition*, by speech, to mankind through the ages. The origin of ideas is *tradition*. Hence the name *traditionalism*.

Traditionalism is a fantastic doctrine manifestly out of alignment with consciousness and experience. Speech is the outer expression of knowledge. Knowledge (ideas) can be possessed without being ex-

pressed. Further, speech is an *arbitrary* sign of ideas, not a *natural* sign. There is no natural connection between a spoken term and the idea expressed by that term; if there were, there could be but one language in the world. Again: speech is meaningless unless the mind of the person addressed is already equipped with ideas. Speech does not of itself beget ideas; it presupposes ideas.

No teaching, divine or human, is needed for the first production of ideas. The Creator has equipped the soul with intellect, and this native power forms ideas after it has come into contact with reality through sensation. Hence, while God undoubtedly made a revelation to the first human beings, and while man in the perfection of innocent nature was undoubtedly able to express ideas in adequate speech, we must assert that neither revelation nor speech is necessary to account for the origin of ideas.

Traditionalism conflicts with common experience. What one of us but has often felt the inadequacy of speech to express the ideas of the mind? We have the ideas; we lack speech. Now, if speech were the origin of ideas, it would be impossible for us to have an idea without the adequate speech to express it, for our idea would be the fruit, the result, of our having its expression.

3. *Sensism*. The term *sensism* is taken here as a kind of blanket-expression for doctrines that are

more accurately described as *materialism*, *sensism*, *empiricism*, and *positivism*. But all these doctrines are related; all are *sensistic*. For our present purpose the term *sensism* is sufficiently exact to express them all.

(*Sensism* teaches that sensation, without intellection, is the adequate source or origin of what we call ideas. In other words, we have no ideas, but only sensations. Ideas are elaborated sensations, or collections of sensations.)

We have already seen that ideas represent essences in universal, and that sensations are perceptions of non-essentials in concrete and individual existence. It is manifestly absurd to identify things which are thus not only different but flatly opposed. Consider the idea: it represents an essence; and an essence is something changeless, necessary, independent of place and time. To know an essence is to know something changelessly the same, necessarily the same, everywhere and always the same. When, for example I know what *man* is, when I grasp the essence *man*, I know what *man* means; I know what a being *must be* if it is to have the essence *man*; I know what such a being *must be* necessarily, changelessly, everywhere, always. Such is essence, and the mental grasp of essence which is an idea. Contrast with this the sensible object and the sense-apprehension of such an object, which is a sensation. Sense lays hold of objects that happen to be there within range of the sense-activity;

these objects are apprehended as singular, concrete realities, at this time and in this place, realities non-essential and subject to change and contingency. Hence it is manifest that sensations and ideas are in no wise to be identified.

For the rest, we have already gone to great lengths to prove that man has a faculty which is supra-organic, and which apprehends reality that lies beyond the grasp of any sense. In other words, man has an intellect which forms ideas and knows essences. This faculty, which is, by definition, of a character different from sense, and superior to sense, is manifestly not identified with sense.

The service of sense in the forming of ideas is not to be dispensed with or minimized. The intellect forms ideas, but the intellect must work with sense-data to form its ideas. We declare that the true origin of ideas is to be found in the activity of intellect working out understandable essences *from the findings of the senses*. Thus intellectual knowledge *begins* with the senses. The fault and fallacy of *sensism* is that it makes intellectual knowledge *end* with the senses.

b) EXPRESSION OF IDEAS

We have learned that an idea is an essence *expressed* (in intelligible species) in the intellect. But it is of the *outer* expression of ideas that we now speak. The inward expression in intellect is *the form-*

ing of ideas; the outer expression which we now discuss is *the conveying of ideas* by sensible signs to other minds.

Man is a social being. He has a natural need of life with his fellows. And out of this natural need arises the further need of communicating with others. For such communication, some system of signs,—and sensible or sensile signs,—is required. Now, a system of signs for the communication of ideas is *language* or *speech*.

In a wide sense, speech is any system of sensible signs for the outward expression of *ideas*, and of the other intellectual entities which have ideas as their basic material element, viz., *judgments reasonings*. In a word, speech, in its widest scope, is any sensible system for communicating human knowledge. Speech may be a system of gestures, sounds, letters, pictures. In a stricter sense, speech is a system of spoken or written symbols or signs by which human knowledge is outwardly expressed and communicated.

The element of speech which expresses *an idea* is called *a term*. A term is a word or group of words which manifests an idea. Notice carefully that a term expresses *an idea*. There are signs which manifest feelings, emotions, or conditions of body or mind,—such as a sigh, a sob, paleness, a worried expression,—but these are not *terms*. A term is a word, or group of words, which manifests an idea. The term also manifests *the object* of the idea, the *reality* which has

the essence that the idea represents in the mind of the speaker.

Not every *word* is a term. The words, *of, by, after, happily, too, and, if*, are not terms. For a term must completely express an idea. The following words are terms: *God, man, earth, spirit, opinion*. The following groups of words are terms,—that is, each group is a *single term*: *the love of God; the President of these free and independent States; the great, wide, wonderful, beautiful world*. It is evident that each group-term contains words which, if taken alone, would be terms, but they would not then have the same exact implication that they have in the group. *Love* is a term; but the term *love* taken singly does not express the full idea *love of God*. The adjective-phrase *of God*, specifies *love*, limits it to a definite *kind* of love.

An idea expressed in speech is *a term*, oral or written or even gesticular. A judgment expressed in terms is *a proposition*. A piece of reasoning expressed in propositions is *argumentation*, and, when it is set forth in strict order, it is *a syllogism*.

It is interesting to speculate on the origin of speech. It is certain that man could have invented it. It is, however, likely that God gave it to our first parents, for He created them in full and mature nature, and they had need of speech from the beginning. Yet human nature in the state of innocence was equipped with such a luminous intellect that adequate speech might have been invented by our first parents with

great rapidity. At all events, the Creator has equipped man with bodily members naturally suited for the expression of articulate sounds, and man's intellect, as well as his normal sentient tendencies, prompts him to use with signification what is so readily uttered. Man has, as a fact, invented many varieties of speech, as the multiplicity of existent languages attests. Even if the first language were divinely communicated to our first parents, it has long been lost, and many languages now in use among men have little or no possible derived relationship with that primordial system of speech.

SUMMARY OF THE ARTICLE

In this Article we have studied the idea in its *origin* and in its *outward expression*. We have reviewed the truth already mastered in an earlier Article, that an idea finds its origin in the activity of the intellect working out understandable essences from sense-findings. In the present study we have considered fallacious doctrines on the origin of ideas, viz., *Innatism*, *Traditionalism*, *Sensism*. We have briefly set forth the tenets of each of these doctrines, and have shown that all three are inadmissible. In our discussion of the expression of ideas we have found that an idea is outwardly expressed by a *term*, which is an element of *speech*. We have defined *speech* and have offered some remarks about its character and its origin.

CHAPTER IV

THE WILL

This Chapter discusses the nature and existence of the rational appetency or human will, indicates the mutual influence exercised by intellect and will, and proves that the will is endowed with freedom of choice. These points are studied in the following Articles:

- Article 1. The Nature and Operation of the Will
- Article 2. The Interaction of Intellect and Will
- Article 3. The Freedom of the Will

ARTICLE I. THE NATURE AND OPERATION OF THE WILL

- a) Meaning of *Will*
- b) Existence of the Will
- c) Acts of the Will

a) MEANING OF *WILL*

St. Thomas Aquinas calls the will a *rational appetency*. Now, an appetency or appetite is a tendency to follow and possess and enjoy what is *good*. All things have a connatural tendency towards what is good for their perfection or being, and this is *natural* appetency. Sentient beings (i. e., animal organisms) have a tendency to follow and achieve what sense-knowledge presents to them as desirable or good, and this is *sentient* appetition or sentient appetite. Hu-

man beings, who are not only sentient but rational, have, in addition to sentient appetite, a tendency to follow, love, desire, and enjoy what the intellect apprehends as good; this is the *intellectual* or *rational* appetency which we call *the will*.

The will may therefore be described as a spiritual or supra-organic faculty for tending to possess and enjoy what the intellect knows as good or desirable. As the intellect tends to possess *truth* about understandable reality, so the will tends to possess understood *good*. The intellect seeks *the true*; the will seeks *the good*. Now, the intellect is never "filled up" in this life; a man never understands so perfectly that he cannot understand further, cannot learn anything else. Nothing but infinite truth, boundless truth, will bring to the intellect its full perfection and fulfill the quest for which it was made. Nor is the will ever, in this life, in perfect, and perfectly understood, possession of good. Only infinite good can fill up the desires of will, and leave nothing further that can possibly be desired. In boundless or infinite good the will finds its perfection, the thing it was made to achieve; perfect quiescence, perfect love and enjoyment, unchanging and unending, must come to the will with the attainment of that object. Intellect is not only made for the true or *verum*; it is made for the Infinite Truth or *Summum Verum*. Will is not made for good alone, or *bonum*; it is made for Infinite Good or *Summum Bonum*. The attainment of the *Summum Verum* and

the *Summum Bonum* is what intellect and will are for. This is the purpose of their being. This gives them meaning. In a word, man's finest faculties, the intellect and the will, are made for the purpose of bringing man to the contemplation and enjoyment of the Infinite God. Thus do man's highest faculties indicate the meaning and purpose of human existence.

When we say that the will is an appetite for understood *good*, we do not mean that it always appetizes what really is good in itself. We know, for example, that sin can be a fact; and sin is a wilful choice of moral *evil*. We take the term *good* in its essential meaning as something desirable, something appetizable, something apprehended as good-to-have, whether this is something pleasing and excellent in itself, or something that offers itself as a means to achieving this excellence. Thus health, for example, is a good thing in itself. Now, medicine, or a painful surgical operation, may be far from desirable or pleasing on its own account; but medicine, however bitter, or an operation, however fraught with pain and danger, becomes good and desirable and appetizable in view of the fact that it may serve as the means for attaining health. In so far as it *lacks* attractiveness, bitter medicine or a painful operation is undesirable, not-good, *evil*; but it is clothed, so to speak, with goodness (it wears the *species boni* or aspect of good) inasmuch as it is a *means* to good. Evil is never chosen, never appetized, on its own account; there is no appetitive

tendency towards evil *as such*; when evil is appetized, it is appetized *sub specie boni*, under the aspect of good.

When moral evil (i. e., sin) is actually appetized, when it is chosen by the will, this evil is clothed by a perverse and blameful judgment of intellect in the garments of good; it is chosen *sub specie boni*. Notice that the wilful judgment is perverse and blameful; it is not a mere mistake. Sin is the wilful and perverse quest of good in an object in which good cannot be found. As we once said, a man seeking diamonds may perversely insist upon digging for them in a heap of filth. He will not find diamonds there. If he were not wilfully and culpably determined to dig there, he would know that no diamonds could be found in that place. Nay, in spite of his perverseness and precipitateness, he *does* know, in some measure, that no diamonds can be found there. *But it is diamonds that he is after*. So with rational appetency (will) and moral evil. It is not evil as such that the moral culprit desires or appetizes; it is *good*. But the sinner perversely and blamefully (not merely *mistakenly*) looks for good in the wrong place. *But it is good that he is after*. He seeks good, and real good, and lasting good, even though long experience has taught him that he can attain only a fleeting satisfaction, an apparent good, in the object of his evil choice, just as the digger for diamonds may turn up a bright bit of glass or a paste-jewel that has been cast into the heap of refuse.

Yet the quest of will is not for fleeting or apparent good; it is for real good, unfading good, ceaseless satisfaction. Thus we discern that evil is never chosen for its own sake, but *sub specie boni*, under the aspect of good.

Will is the supra-organic or spiritual faculty by which a man tends to lay hold of and enjoy what the understanding or intellect presents to knowledge as good. Now, the intellect has, as part of its indirect object, the essence of individual material things. Hence, such things may fall under the appetency of the will. Therefore, although the will is spiritual, it can appetite (in its own way, *rationaly*) the material things which awaken sentient appetency in a man. The will can "go along" with bodily appetites, can approve them and further them, can, *through intellect*, be aroused by them to "back them up." Thus a hungry man not only experiences the sentient appetite for food, but he *wills* to eat his dinner. Yet the will is not subjected to the sway of sentient appetency. To appetite supra-sensuous good and achieve it, the will may go flatly against all bodily appetites. Thus, for example, a man may fast (for a supra-sensuous *motive*, an intellectually appetized *good*) even when he is very hungry and food is set before him.

b) EXISTENCE OF THE WILL

The existence of will is manifested to every normal person by inevitable and indubitable testimony,—the

testimony of consciousness. That we have desires, longings, appetites for things that are beyond the reach of sense, is a matter of universal human experience. That all sentient objects, taken together or singly, are inadequate to fill out the measure of human desires, ambitions, hopes, is proof positive that man has a supra-organic faculty for appetizing supra-sentient objects, that is, for tending to lay hold of and enjoy what *the intellect* knows as good.

To deny will is to deny intellect, and to reduce all human knowledge to the plane of sensation. For wherever knowledge exists, there exists a tendency to follow and act upon it. Knowledge is often, and inevitably, a knowledge of what is desirable to have or to avoid. Now, the tendency which is consequent upon knowledge *must lie in the same plane* with the knowledge. Sense-knowledge arouses sentient appetency. Intellectual knowledge arouses intellectual (or rational) appetency. It is manifest, therefore, that where there is intellectual knowledge, there will be intellectual or rational appetency, not indeed in all cases,—for intellect can know objects which stir no appetency,—but in many. In other words, where intellect exists, will must exist. But the intellect exists, as we have amply proved. Therefore, the will exists.

C) ACTS OF THE WILL

(The acts of the will, following upon intellectual knowledge, may be grouped into two classes, namely,

those that the will begins and finishes, and those that the will orders done by faculties other than itself. We call the acts of the first class *elicited acts* of the will; we call those of the second class *commanded acts*, or *acts commanded by the will*.)

The elicited acts of the will are six:

1. *Wish*. This is the simple fixing of the will upon an object as desired. It is the simple love of an object, the simple desire or tendency for it, whether, in fact, this tendency is objectively realizable or not. Examples of the *wish*: *I wish it were cooler; I wish John would come; I'd like to go with you; I wish I were more diligent*. Notice that the wish as such (not its realization) is an act that is *elicited* by the will, drawn out, so to speak, of the will as a finished thing.

2. *Intention*. This is the purposive tendency of the will towards an end to be achieved, and conceived as achievable, whether in fact that end is actually achieved or not. Examples: *I intend to vote for Roosevelt; I will not receive him if he calls; I firmly purpose to amend my life*. Notice that it is the intention as such (not its realization) that is an elicited will-act.

3. *Enjoyment or fruition*. This is the quiet pleasure of will in a good achieved. It is the satisfaction of will in an intention carried out. Examples of fruition may be found in the student who has just passed an examination; in a candidate who has just learned that he has been elected; in a good father or mother who,

at certain times in the course of dutiful life, realizes with the approval of will the joy of burdens nobly borne; in a decent man who tastes, as we say, the happiness of upright living. The glow, the satisfaction, that comes with achieved purpose is fruition; and fruition as such is an activity elicited by the will.

4. *Consent.* (This is the agreement of the will to employ the means which intellect presents as requisite for realizing an intention.) A man who makes a contract *intends* to achieve some end, some good, thereby, and he *consents* to the terms of the contract in order to achieve that end.

5. *Election.* This is the selection or choice, made by the will, of the precise actual means to be employed in carrying out an intention.) If I *intend* to amend my life, I must *consent* to means of amendment, and I must *choose* (or *elect*) certain precise means. Consent may be general; election is more special and precise.

6. *Use.* This is the actual employment of the means consented to, and elected, for the attainment of an end or good.)

It will be noticed that the *first three* of the elicited acts here listed are concerned with an end to be achieved, a good to be possessed. The *last three* are concerned with *the means* requisite for the attainment of the end or the good.

(The acts which originate in the will as *commands* to be carried out by other faculties (we call them

simply *commanded acts*) are almost numberless.) (Yet we can classify them under three heads):

1. *Internal acts.* These are acts commanded by the will and executed by the intellect or the interior senses.) Such acts are, for example: a deliberate effort to reason out a problem; mental prayer; a conscious effort to imagine or envision a scene; a stirring of oneself to contrition; steeling oneself to meet a disagreeable situation.

2. *External acts.* These are acts commanded by the will and executed by the external bodily powers.) Such acts are, for example: deliberate walking; striking an enemy in the face; speaking; singing; dancing; deliberately looking at an object; listening to what is said to one.

3. *Mixed acts.* These are acts commanded by the will and executed by internal and external powers working concurrently.) Examples of such acts are: action of eyes and mind in reading and understanding a lesson; action of hearing and comprehending an order; imagining and verbally describing a scene; thinking, imagining, remembering, as we move the hand in writing a letter to an old friend.

SUMMARY OF THE ARTICLE

In this Article we have learned that the will is a *rational appetency* which is to be defined as a supra-organic faculty for tending to possess and enjoy what the intellect apprehends as good. We have used the

term *good* in our definition as *good in general*, namely, that which is appetizable. We have learned that the object of will is *the good*, and have seen that, in last analysis, the object of will is the *Summum Bonum* or the supreme and infinite Good. We have explained how *moral evil* is chosen under the aspect of good by a perverse and blameworthy will. We have made a short proof of the existence of the will in man. Finally, we have listed the *elicited* and the *commanded* acts which proceed from the will.

ARTICLE 2. THE INTERACTION OF INTELLECT AND WILL

a) The Distinction of Intellect and Will b) Mutual influence of Intellect and Will.

a) THE DISTINCTION OF INTELLECT AND WILL
Between the intellect and the will there is a real distinction. Both are faculties of the soul, but they are faculties for essentially different services, and so are said to be *really* distinct. They are two faculties, not two phases of one.

We have seen that the faculty of intellect serves man in a variety of ways, as understanding, memory, consciousness, conscience, intelligence, reason. Yet the intellect is one faculty. For the services it renders are all in the realm of *supra-organic knowing*. There is indeed a distinction between intelligence and reason,

but it is not based on an essential divergence of these powers, and hence we do not assert that intelligence (which recognizes truth as self-evident) is a distinct faculty from reason (which recognizes truth by study or by accepting reliable authority). Intelligence and reason are but two functions of one intellect.

Between the intellect and will, however, there is an essential real distinction. For faculties are *specified*,—determined as essentially of this or that kind or character,—by their operations and by their objects. Two faculties that differ on these essential points are in no wise to be identified. Now, we have seen that the operation of intellect is a *knowing*-operation, and the operation of will is an *appetizing*-operation. On this score, intellect and will are seen to be two distinct faculties. Further, the object of the intellect is *the true*, while the object of will is *the good*. And truth and goodness are not achievable by a single creatural faculty, but by different faculties. The question has nothing to do with the metaphysical identification of *the true* and *the good*, but with the fact that, in the faculties which seek truth and goodness, the quest demands a real distinction of effort and approach. Hence we are justified in saying that the faculty which has truth for its object is a faculty really distinct from that which has goodness for its object.

The intellect and the will are two faculties, not two functions of one faculty. Yet, as we shall see in a

by operation
✓

moment, there is a close interaction and mutual influence between the human intellect and the human will.

b) MUTUAL INFLUENCE OF INTELLECT AND WILL

The will is an appetency which is aroused by intellectual knowledge. Hence it is obvious that the operation of the will *follows upon* the operation of the intellect. The will is an appetizing-faculty, a choosing-faculty, a faculty that strives for a goal. But the will is not a *knowing*-faculty. The will cannot, of itself, know its object. The intellect must illumine the object, show it as good, present it as desirable, before the will can tend towards it. This truth is sometimes set forth in a somewhat figurative manner as follows: The will is blind, or, rather, it is in the dark. It needs light before it can act. As a man who reads, mends watches, or does any work requiring precise action, cannot work in the dark, but requires light for his work, so the will cannot choose or tend towards an object in the dark. The will requires light to show the field of choice, to indicate the object towards which it may tend. Now, in the case of the workman, the light does not perform his work for him; it is a *necessary condition* for the work. So the activity of intellect in making the object known as good is the necessary condition for will-activity. To this extent, therefore, the will *depends* on the intellect, that the intellect furnishes a necessary condition for the operation of

the will. The intellect does not perform the will-act, but it renders will-action possible, nay, it *invites* will-action.

A great deal of argument was once expended on the question of which faculty has the "last word" in a will-act, the intellect or the will. The question is an intriguing one. For the will tends to achieve what the intellect presents as good. Now, may not the intellect present a *series* of objects, each better than the preceding, so that at each instant when the will is about to exercise its appetency the intellect presents a superior good which invites the will to tend in a new direction? Or again, in a will-act, is not the will determined by what the intellect *finally* sets before it as the good to be attained? And in this do we not discern a control exercised over will by the intellect? On the other hand, however, there are arguments quite as interesting for the superior control exercised by the will. Granted that when the intellect has made its ultimate judgment about the good to be attained the will tends necessarily to that good, it is the will which allows this judgment to be ultimate. For, in many things, the judgment of intellect is the result of a period of mental attention and even of reasoning; the will could have turned the attention of the intellect to other matters, thus not permitting ultimate judgment and will-action on the precise matter in question. Similarly, I must see what I look at in daylight, but I need not look. So the intellect must see

the good and present it to the will for achieving, but the will can refuse, so to speak, to "let the intellect look." Is not the will then the master; has not the will the last word about its action? We may compare the intellect to the brilliant spot-light which shows a motorist his way; but the will is like the motorist's hand which turns the spotlight here or there. If the motorist must follow the light, he is also free to determine where the light shall fall to be followed. When he finally moves off on one road, rejecting all other paths, he follows indeed where the light shows the way; but, until he was actually "on the way," the light might have been shifted to one of the paths now rejected, and *that* would have been the chosen way.

We shall find a sufficiently definite solution for the problem just indicated in the points which now follow:

1. *The intellect moves the will* by presenting to it a good to be achieved. There is an ancient axiom, "Nothing is willed that is not first known." The intellect knows an object as good, and then this object can attract the will. Thus the intellect *moves* the will, and is a *cause* of the will-act. Since, however, the intellect is a faculty really distinct from will, it is extrinsic to will, and, as a cause of the will-act, it must be an *extrinsic* cause. Now, there are two kinds of extrinsic cause, namely, *efficient* cause and *final* cause. An *efficient* cause is that which by its own action produces the effect. Thus a sculptor

is the efficient cause of the statue which he carves; thus a runner is the efficient cause of his rapid movement. A *final* cause is an end-in-view which invites the efficient cause to go to work; it is a goal to be achieved, a good to be attained. Thus the efficient cause of a statue,—the sculptor,—is led to the work and kept at it by the force of what we call his reason, motive, or purpose, in making the statue; without some reason or purpose, he *would* not and, as a rational being, *could* not, stir hand or mallet or chisel to begin the work or carry it on. It may be that he makes the statue for his own pleasure, for his enjoyment or pastime; it is more likely that he makes it to attain fame or to sell it for a price or to honor the person whose image he carves. Whatever his reason, purpose, or motive, it is *the final cause* of his carving the statue. The runner is moved to efficient action (i. e., to the running) by some reason or purpose. He may run for exercise, or as a special act of training for a race, or to win a prize, or to find out how quickly he can "do the hundred"—some reason or other, some motive, he must have, and this is *the final cause* of the running. A final cause is always a reason for the efficient cause to act, a purpose or end for the efficient cause to achieve; in creatures, the final cause is a *motive* (that which *moves* the efficient cause to action), but for the Infinite First Efficient Cause the end or final cause is a reason or purpose *but not a motive* since the First Cause cannot

be moved to action but chooses, with perfect and absolute freedom, the end to be attained.—Now, the intellect (in man) acts upon the will after the manner of a final cause. The intellect, so to speak, proposes the end to be achieved, the good to be attained, by the will. It “sets” the goal for the will, and so shares the attractive power, the drawing power, which the goal exercises upon the will. Hence we say that the intellect moves the will *after the manner of a final cause*.

2. *The will moves the intellect after the manner of an efficient cause.* That is, the will *efficiently* moves the intellect. The will does not, and cannot, make the intellect know objects otherwise than it does know them; just as I cannot look at a rose and make myself see a violet instead. But the will can make the intellect turn its attention to this object or that, just as I can look at one thing or turn to look at another. The will is not the efficient cause of the intellect’s *knowing*, but it is the efficient cause of the intellect’s deliberate *attending* to this, that, or the other object. The will can apply the intellect, can withdraw it from an object that engages its attention, can fix it upon another object. Thus we are justified in saying that the will moves the intellect, and exercises over intellect the force or power of *an efficient cause*.

3. In many of its operations the intellect is not moved, nor needs to be moved, by the will, but is

determined necessarily by its object. This may be the case, for example, in an act of simple apprehending or in the pronouncement of a self-evident judgment (an immediate inference). Similarly, I see what falls under my eyes in daylight, even if I do not dwell upon or study the object seen.

It is the more common doctrine among Scholastic philosophers that the intellect, considered simply in its essence, is a faculty superior to will. For, taken simply, it is more perfect *to know* than to experience an appetitive tendency. But, in reference to some special acts, the will is superior to the intellect. The will is superior inasmuch as it can move man to noble and virtuous life, and the attainment of his last end. For it is better to please God (by will, by willed acts) than merely to know God (by act of intellect). Yet in the life to come when our intellect is elevated and fortified by the Light of Glory, we shall *see* God, that is, we shall *have intellectual Vision* of God, and in this consists the essence of eternal happiness. We say therefore: The intellect is a faculty essentially superior to will, more noble than will; but *in some of its acts in this life* the will manifests itself as superior to intellect.

SUMMARY OF THE ARTICLE

In this Article we have learned that intellect and will are two distinct faculties of the human soul, not two aspects or phases or activities of one faculty.

We have studied the mutual influence or interaction of intellect and will. We have found that, while the will always requires anterior action on the part of intellect, intellect does not always require the activity of will for its function. Further we have learned that the intellect acts as a *final cause* in moving the will, and the will acts as an *efficient cause* in moving the intellect. We have added a word about the relative perfection or nobility of intellect and will.

ARTICLE 3. THE FREEDOM OF THE WILL

a) Meaning of *Freedom* b) Kinds of Freedom c) Human Freedom

a) THE MEANING OF FREEDOM

Taken in widest meaning, *freedom* or *liberty* is a kind of undeterminedness, an immunity from necessitation or obligation. Obligation is that which determines a thing, requires it to be as it is and not otherwise. A thing so obligated or necessitated *depends* upon the obligating force. Hence the further a thing is removed from such dependency, the greater its degree of freedom. Therefore, the infinite God, who has no dependency on anything else whatever, has absolute and perfect freedom. Creatures, however, are dependent upon the causes which produce and conserve them and make and keep them what they are essentially; they depend also, in some sense,

upon the forces which affect them accidentally and determine their accidental character at any given moment. Hence creatures, from highest to lowest, are excluded from absolute and perfect and universal freedom. Some *measure* of freedom they may possess,—and *do* possess if they are sentient creatures or rational creatures,—but their finiteness is a determination and a mark of dependency which precludes the possibility of boundless and perfect freedom,

Human freedom is the liberty of the human will. It is freedom of *choice*. In many things, man is not free. He is not free to disregard the law of gravitation; he is not free to see with his ears and hear with his eyes; he is not free to change the process of natural bodily or mental activity; he is not free to be everywhere at once. Nor is he free from moral obligations. But, as we shall see, he *is* free to act or refrain from acting; he *is* free to choose this and reject that object. And this is the freedom we mean when we speak of the *freedom of the will*.

b) KINDS OF FREEDOM

1. *Freedom of independence*. This is immunity from the obligation of law which exacts obedience of subjects. Only God enjoys such liberty, for only God is subject to no regulation or law. Man is not, and cannot be, independent of law, even though he

is *physically* free to violate it. Man's obligation arising from law (divine, natural, human) is a *moral* obligation. Man is not morally independent.

2. *Freedom from force* (or freedom from *coaction*) is immunity from unwelcome bodily compulsion. A person in normal circumstances enjoys this freedom. A person who is pushed forward in a crowd, although he wishes to stand still or go the other way, suffers *coaction*, and has not, at the moment, freedom from force. So with the prisoner dragged protestingly to jail; so with the youthful culprit held captive while he is being caned. A bird in a cage or a prisoner in a cell has a limited freedom from force, for each can move about freely but within a very restricted space. A man in a strait-jacket has no such freedom at all.

3. *Freedom of choice* is immunity from any interior natural compulsion to act in this way or that. *(It is the freedom of a faculty or acting-power which has the control of its acts. Of course, the faculty will be so constituted by nature that it must exercise its normal function when it operates, and in this it is not free; but it has freedom of choice when it is free to act or not to act in a given situation, and is free to fix upon this object or that when it does act. The freedom of choice is well described by its very name, for it is the freedom of a choosing-faculty; it is a power to take a course of action or refuse to take it; to take this course or that.)* This is the type of free-

dom or liberty which we ascribe to the human will. Sometimes it is called *freedom from necessitation* in acting.—Freedom of choice is manifested in three ways and psychologists have devised a special name for each mode of its exercise. Thus we have: (a) *Freedom of contradiction*, which is the power to choose between *contradictories*. Now, contradictories are two judgments, statements, or courses of action which perfectly exclude each other and exhaust the possibilities. Between contradictories there is no middle ground; they are always two in number, as is manifest from their definition, and, in the sphere in which they exist, one of them is necessarily verified, the other necessarily impossible. Thus "white" and "not-white" are contradictories. In the sphere of color, there is no conceivable thing which is neither the one nor the other. A thing cannot be *both*, but it must be *one* of them. Thus we rightly say that contradictories are exactly opposed and so *exclude each other* (both cannot be verified simultaneously), and they exhaust the possibilities (one or other must be verified; there is no conceivable alternative in the sphere in which they belong). Now, *freedom of contradiction* (a special variety or special manifestation of *freedom of choice*) is the power to choose between contradictories. Examples: to act or not to act; to love or not to love; to speak or not to speak. (b) *Freedom of contrariety* is the power to choose between *contraries*. Contraries are two judgments,

statements, or courses of action that are opposite and so *exclude each other*, but do not exhaust the possibilities. Between contraries there is a middle ground. Thus "white" and "black" are contraries; they cannot be simultaneously verified,—a thing cannot be at once wholly white and wholly black,—but the whole range of colors lies between them; many things may have color and be neither white nor black. *Freedom of contrariety* is, we repeat, the power to choose between contraries. Examples: to love or hate; to do good or do evil. (c) (*Freedom of specification* is the power to choose between merely different courses of action. It is the power to *specify*, to indicate exactly, what is to be done. Examples: to read or to walk; to visit friends or to play golf. Of course, one *specifies* when one chooses between contradictories or between contraries; one "picks out" what precisely is to be done. But the freedom of specification (which thus overlaps the other varieties of freedom of choice) is technically limited to those choices which do not fall under the classification of contradictories or contraries.—The *essence of freedom of choice* lies in the freedom of *contradiction* and that of *specification*. Freedom of *contrariety*, does not belong to this essence for the ability to choose between *good* and *evil* (in the *moral sense*) is an *imperfection* of liberty, involving as it does the possibility of ultimate defeat in the quest for which the will was made. A further note: Freedom of

choice is the power to choose *means to an end*, and if an all-perfect end be achieved, so that no rational desire can longer exist,—since all desire is *perfectly satisfied* in the end achieved,—then freedom of choice necessarily ceases to have a meaning. The will has, in such a perfect object, found *fulfillment*. It is now in possession of a crowned and perfect freedom; it is not *enslaved* by good, but filled up and *perfected* by what it was made for, and further *choice* became an absurdity.

4. Freedom is further divided into a number of varieties which indicate the power to *exercise rights* in various departments of life and human action. Thus we have *civil* liberty, *religious* liberty, *personal* liberty, *domestic* liberty, *industrial* liberty, and so on.

c) HUMAN FREEDOM

By human freedom we mean the freedom of the human will. And we assert that the human will is free, by freedom of choice, to elect the means which carry it on to the achievement of good. The *good* we speak of is good *in general*, or *universal* good. Every creature, and specifically every appetite, tends to the attainment of *good*, and in this general tendency there can be no question of *choice*. Man is not free to choose to seek evil instead of good (we use the terms *good* and *evil* still in their universal meaning), for, as we have already seen, *evil* is not, and cannot, be chosen for its own sake, but only under

the aspect of good. But in the objects,—that is, *particular* objects, *individual* objects,—in which a man seeks good (and which are therefore appetized as *means* to that general good towards which his nature inevitably bends him) there is room for election or choice. And therefore human freedom consists in this: a man is free, by the will's freedom of choice, to choose, in individual instances, *to act or not to act*, to act *thus* or *otherwise*. Man has, in every act (thought, word, deed) that he deliberately exercises, the power of self-control, the power of self-determination, the power which makes him the true author of his acts,—which are therefore *imputed* to him, and for which he is therefore *responsible*. And this is what we mean by *human freedom* or *freedom of the will*.

The will is a tendency, an appetite, a striving towards an end, a goal,—towards *good*. The will is *free* in any individual situation to choose this or that object as *good*, whether, in fact, the good be real or only apparent. The character of an object as good is manifested to the will by the intellect; and the will has control of the intellect inasmuch as it can allow the intellect to focus upon an object, or can remove its attention to something else. Now, the intellect is a limited faculty; in the present life it is also hampered by its extrinsic dependence upon the senses; and its clear view and ready judgment is more or less effectively balked by impulses and precipitateness

and acquired habits. For this reason the intellect may present what is good under an aspect which makes it undesirable, and in so far evil; and, on the other hand, the intellect may present what is really undesirable under desirable aspects, and thus judge as good what is actually evil. Consider the man who sins by intemperance. He knows by sad experience that if he indulges his taste for liquor, he will go too far; and he knows that the consequences will be most unpleasant: he will suffer physical distress, perhaps for days, and he will make himself the object of anger and contempt; his conscience will afflict him with the knowledge that he has lowered himself below the status of a man and has given bad example. Despite all this, he chooses to drink liquor. Now, the free-will of a confirmed toper is not a ready will; as we have said; habit and bodily appetites influence the judgment which precedes the act of will. But so long as he is sane, the man has control of his acts; he can will and will effectively even if not easily; he remains master of his conduct, and is responsible for his deliberate acts. The point, however, that here immediately concerns us is indicated by a question: how can the man choose what is so manifestly a source of unpleasantness and distress as *good*? For this reason: the intellect can focus upon the desirable features of the object (i. e., the suggested activity or piece of conduct), leaving the undesirable features out of consideration. In another place in this Chap-

ter, we compared the intellect to a spot-light and the will to the hand that guides it and controls the direction of its beams. In the example of the intemperate man, the intellect is allowed by the guiding will to focus its light upon the *immediate* pleasure to be had in drinking; the consequences and ugly circumstances of the act are allowed to remain in darkness. Thus we see that the object, despite all evil that comes of it, is seen under the aspect of the desirable, the satisfying, the appetizable. In a word, the object is chosen as *good*.—We may profitably consider a further example. Consider the man who declares that he would like to lead a virtuous life, yet continues to lead a bad life. How is this possible? Not only is virtue good in itself, but the man *knows* it and declares that he *wishes to possess it*. The problem is not difficult of solution. The judgments of the intellect are of two kinds: *speculative* and *practical*. A *speculative* judgment pronounces on the truth or falsity of a fact or situation; it recognizes a state of affairs. [A *practical* judgment is one that enunciates something to be done or avoided. Now, the will follows the *practical* judgment of the intellect, for the will is a *doing*-power, a *choosing*-power. The mere recognition of virtue as good and desirable is not yet a practical judgment; it is speculative; it is the pronouncement of intellect upon the status of a thing; it is the recognition of a state of affairs. Only when the intellect presents virtue as not only good

and desirable in a detached way, but as good and desirable here and now to go after and acquire, only then is the judgment a practical one that can win the assent of the will, causing it to elicit the activity of *intention*.) But even the practical judgment is not necessarily operative in leading the will to action; only when this judgment is the *final* judgment, the last word about what is *right now* to be done, does the will necessarily follow. Nor does the will cede its freedom by reason of this necessity; remember, it is the will which allows the intellect to fix finally on the thing to be done. The ultimate practical judgment of intellect must be followed by will-action; but the will exercises the decision which makes the judgment *ultimate*.) Recall our analogy of spot-light and guiding hand. The object upon which the spot-light is permitted to rest must be shown in its clear light, but the hand exercises the power which permits the light to come to rest or moves it on. Now, in the case of the man who says he wishes to be virtuous but remains vicious, we have speculative judgments of intellect which recognize virtue as fine and noble, but not the practical judgments which lead to virtuous conduct. The speculative judgment, "This is something that I should do" is not transformed into the practical judgment, "This is what I'm going to do." But, you may say, the problem remains. If the intellect actually presents virtue as desirable, it presents it as good,—at least speculatively,—and how

can the will go counter to even such a judgment in its actual choice. Because the intellect of the man in question presents virtue, in a practical judgment, as undesirable, in spite of what the speculative judgment reveals. In a word, the practical judgment of the man of bad habit shows virtue to be difficult of achievement, accompanied by sacrifices that discommodate, not immediately attainable by simple effort, rewarded ultimately by a far-off heaven. On the other hand, the pleasures that contravene virtue are ready to hand, exact no effort, meet the tendency of acquired habits, give satisfaction,—however fleeting,—here and now and not hereafter. Focussing upon the *present*, on that which is immediately attainable as an agreeable experience, on that which meets the inordinate tendencies which have long been allowed to have their way, on that which lies in the spot-light as desirable (however many opposite features and appeals may be in the ring of darkness outside that small focus), the intellect actually judges (by ultimate practical judgment) that the present sinful pleasure is good and its opposite virtue is *evil*.

The intellect is said to be *capable of objectively indifferent judgments*. In other words, the intellect may fix upon an object, however good, and find it evil; it may fix upon any object, however evil, and find it good. Thus no matter how good or how evil an object of intellect may be in itself, it is "indifferent" in so far as it may be judged either good or bad by a particular

judgment of intellect. Note, however, that the intellect, which is a faculty for truth, is not merely deceived in finding evil in a good object or good in an evil object. Its judgment in these cases (apart from the relatively infrequent case of a mistaken mind which is called *an erroneous conscience*) is not mistaken, but *perverse*, and hence *blameworthy*. The intellect is *perverse* by reason of perversity in the will which controls its effort, study, attention, focussing. And perversity of the will is due to an abuse of freedom of choice, and is often induced by previously acquired habit of acting, especially such habits as inordinately strengthen the sentient appetites or passions and so make their appeal to the will almost the equivalent of an imperious command.—But to revert to the statement that the intellect is capable of objectively indifferent judgments,—a statement that needs further illustration. Honesty is desirable, is good, but it is something that requires care and effort, and its reward is not an immediate intense enjoyment. Dishonesty is evil, undesirable, but it may offer promise of independence from poverty, release from trying labor, enjoyment of comfort and ease. Hence the intellect, which is capable of viewing honesty indifferently, may focus upon the desirable and really good features of it (the will holding the light of intellect steadily upon these), and the resultant practical judgment, "I will be honest" is followed by honest conduct, or the resistance of a temptation to dishonesty. On the other hand, the intel-

lect may be focussed (under control of will) on the desirable features of dishonesty, and the practical judgment follows which declares it an object to be embraced; and there results an act of theft or a continued policy of cheating. Now, even the man who is daily defrauding his employers, is not in love with dishonesty as such; he must suffer many an hour of remorse, many a keen realization of the evil of his ways. Such the speculative judgments of his intellect. But as long as he continues his evil practice, he is judging *practically* that the way of thievery is *good*, despite its accompanying evil of remorse and conviction of an unworthy life. Even if the culprit pleads inability to extricate himself from the toils of evil; even if he says, "I'm so deep in this thing now, and am caught in so many complex compulsions that force me to continue, that I'm really unable to avoid dishonesty, however much I long to be free of it;" even then, we say, he still chooses the evil he deplores as *good*. For, despite the circumstances which make him long to be free from evil, he chooses the dishonesty as something *more easily endured* than the disgrace and discomfort that would follow its discontinuance. He chooses the dishonesty,—however much he bewails it,—as the lesser of evils, and hence, relatively, as *good*. What is said of dishonesty may be said of any evil that the will may choose: of impurity, of infidelity, of evil speech, of laxity in religious practice. In some cases the actual *effort* required to amend is regarded as too great a

burden (i. e., an evil) to be undertaken even to achieve the admittedly (by speculative judgment) good end. And so, for example, purity is judged (practically) as evil, and impurity as good; laxity in religion is judged as good, and fervor as evil. Thus, saint and sinner alike in every *human act* (that is, in every fully deliberate act), manifest the truth that the human will chooses *only good*.

Of the very important truth *that the human will is free* we have now to offer some proofs, and to show wherein the opposed doctrine is fallacious. We shall consider: 1. *The Existence of Freedom of the Will*, and 2. *The Error of Determinism*.

1. *The Existence of Freedom of the Will*—Our will has freedom of choice. The first, the direct, and the most evident proof of this fact is found in *consciousness*. Man is aware that he is not the victim of a nature that forces his actions in all things; he is aware that he is not the helpless prey of circumstances; he is aware that he is not compelled to yield to the attractions of any object, however powerful these may be. In a word, man is aware that he is master of his human conduct. Let us make no mistake; we do not assert that man has control over *every* activity, even every conscious activity, or that he exercises what control he has by continuous volitions or will-acts. What we do assert is that man is master of his *human acts*, that is, of such acts as he deliberately and advertently per-

forms, and which he knows as the fruit of his own decisions. A good deal of man's ordinary daily life runs along on the wheels of habit and takes a course determined by the man's character and the attractions of the various objects and situations that he encounters. But the even current of a man's life (colored by his *character* and by the *motives* found in the attractiveness or repulsiveness of particular objects and situations) is willed *in its cause*, for the man is its cause; and now and again, during a day or week or month, the man must advert more or less directly to the sort of life he regularly leads, and, so adverting, must give practical approval to it, must *will* it in short. Only occasionally, perhaps, in a person's ordinary day, is there demand for a special, clearly realized, and deliberate choice or volition. Such clearly realized will-acts are most evident in the judgments of conscience on the *moral* qualities of a situation to be faced and decided. It is particularly in conscience-judgments that a man is reflectively aware that his decision, his volition, his will-act, is the essential factor which makes his "doing" or "avoiding" *his own activity*, of which he is cause, author, and responsible determinant.—Man is *conscious* of the control he wields over his own acts. And he experiences this consciousness *before, during, and after* his deliberate volitions. Before he acts, he may, and frequently does, take counsel with himself or seek advice of others. He weighs reasons pro and con; he considers advantages or disadvan-

tages to follow. During the action, he is aware that he is doing what he might have left undone, doing one thing while he might have chosen to omit it or to have done something else, even something opposite. After acting, man is conscious of self-approval or remorse; he is glad or sorry that he has acted as he did. Conscientiousness, is therefore, an evident proof of the existence of free-will. And of what value is conscientiousness? It is of basic value in human certitude. Simple conscientiousness of manifest facts is the foundation of all recognition of truth; it makes science possible. Denial of the value of conscientiousness is the denial of value in human knowledge; it leads directly to the darkness, silence, and self-contradiction of universal skepticism.

Everyone is conscious of self-direction and control in many acts. Nor is the experience merely an individual one. The collective activity of mankind is a further manifestation of the fact. Men gather into communities, set up governments, pass laws, take and ask advice, exhort and command, take a person's word or bond, regard their activities as worthy of praise or blame. Now, all these things manifest *the common conscientiousness of mankind* in the matter of human freedom. Why have laws, if men are necessitated and hence obliged to act as they do? We do not pass laws for dogs or horses, for trees or running brooks, but for *men*; and we pass laws for men because we know that men are free and may abuse freedom, and hence must be urged to live in a manner consonant with

peace and progress and civic security. The urgency of law is made manifest to men by *sanctions*, that is, by the penalties attached to its violation. Obviously, the very existence of laws is proof unquestionable that man is free, and is required, under punishment threatened, to use his freedom reasonably, and not to abuse it by disrupting the peace or safety of the community. Why should men seek advice, if they are necessitated and hence not free to follow it? Why should our very schools be equipped with "advisers" and vocational guides, and psychologists, if their suggestions and prescriptions are meaningless in the face of fatalistic necessity controlling man's every act? How is it that we take a man's promise to pay a debt, if the man be not free to pay his debts? We are forced to admit that the consciousness of individual men, and of mankind as a whole, is inevitably a declaration of the truth of human freedom, that is, of the freedom of choice which belongs to the will of a man.

A second proof of the freedom of will is found in very nature of the will itself. The will, as we have many times noticed, is an appetite, a tendency towards something. Now, a tendency is not necessitated except by that which meets its drive perfectly and at all points. It is manifest that no creatural good, no earthly "value," meets perfectly the appetite of will. The longest life will end, the keenest enjoyment must fade, the greatest riches must be left behind. Our desires reach beyond all limited goods, all particular

"values." The "longing after immortality" which the poet ascribes to man's spirit, is only one phase of man's longing after infinity, after boundless good ceaselessly to be possessed. Since there is nothing on earth that is unbounded, since death puts a termination to anything that might appear to be of limitless value, it follows that nothing on earth can fully and perfectly satisfy the appetite we call *the will*. Hence, nothing on earth can *necessitate* the will. But if the will is not necessitated, nor can be, the will is free. That is, it is free as an appetency, free to choose, free to go after and possess what is manifested to it as satisfying. In a word, it has freedom of choice.

A third proof of the freedom of the will is found in the nature of the intellect, the guiding light which the will controls and follows. The intellect apprehends what is good in general, in universal. And, in its practical judgments, it attracts the will to *particular* goods. And indeed in the different objects that fall under its light, the intellect can see good in various, and in opposite, features. Intellect is capable of objectively indifferently judgments because it can find any object good and desirable, or evil and undesirable, as it views different aspects and circumstances. But the concept of *good* is one concept. If, therefore, the one reality called *good* in general, can be presented in a plurality and a variety of particular manifestations, it follows that there is room and need for *election* or *choosing* on the part of the faculty which tends to lay hold of

good. In a word, it follows that the will is not necessitated but is called upon to choose. The will, therefore, has freedom of choice.

A fourth and final proof of the freedom of the will is found in the absurdities which follow upon its denial. "By their fruits ye shall know them," is a reliable test of doctrines. Therefore if the doctrine which denies freedom of the will is found to lead logically to impossibilities and absurdities, it is not a true doctrine; consequently, its contradictory doctrine is true, viz., that the will is free. Now, denial of free-will does, in fact, lead to impossibilities and absurdities. We have seen some of these in the discussion of our argument from consciousness, to wit, that denial of human freedom makes nonsense of human laws, educative methods, business practices, etc. Further, we must declare that this denial is entirely destructive of morality. For it takes away responsibility. And if a man have no free-will, and no choice in his conduct, no control of his acts, it follows that there is no such thing as right and wrong, no such thing as merit and demerit. Saint and sinner, the good man and the rōué, the solid citizen and the gangster, are equally blameless in the face of fated necessity. Prisons then are torture chambers, but, of course, men are fated to build prisons and confine prisoners. Good conduct and evil conduct are equally valueless, but men are forced by blind necessity to praise the one and condemn the other. No sense or reason is to be found, therefore,

in the common conduct of mankind; we are all blind fools together. Morality comes to naught, and with morality all social sense and social security perish. Here is the fruit of the denial of human free-will. But we cannot, without denying all value to human knowledge, accept this fruit as the true food of minds. We find it absurd; we find it impossible to accept. Therefore, we find the denial of free-will impossible. We are driven to conclude that human free-will is a fact.

2. *The Error of Determinism*—Those who deny the freedom of the will are called *determinists*, and their doctrine is *determinism*. Alternative synonyms for these terms are *necessarians* and *necessarianism*. We who assert the freedom of the will are called *indeterminists* or *libertarians*. Notable names among determinists of one type or another are: Kant (1724-1804); Hume (1711-1776); Spinoza (1632-1677); Hobbes (1588-1679); Locke (1632-1704); Mill (1806-1873); Bain (1818-1903); Spencer (1820-1903); Sidgwick (1838-1900); Lewes (1817-1878).

Determinists declare that we always act of necessity in response to the strongest motive. We answer, if this means that we act in response to what the will allows the intellect to dwell upon and present as *the ultimate practical judgment*, the statement simply means, "the ultimate practical judgment is the ulti-

mate practical judgment," or, "the motive which prevails is the motive which prevails." We have no quarrel with this sort of elementary da-da-ism. But if the statement means that man is controlled by the most alluring, most pleasurable object, we answer that it is not so. Surely no adult has lived many years of life without sometimes refusing the most pleasurable and attractive offerings of sense or intellect, turning the mind by resolute will to the contemplation of other things. The familiar instance of St. Francis and the leper is a striking example of this sort of will-act. Let us quote the words of that great Christian philosopher, lately gone to his great reward, Mr. G. K. Chesterton: "Francis Bernardone saw his fear coming up the road towards him; the fear that comes from within and not without; though it stood white and horrible in the sunlight. For once in the long rush of his life his soul must have stood still. Then he sprang from his horse, knowing nothing between stillness and swiftness, and rushed on to the leper and threw his arms round him." Heroism, strong resistance to temptation, steady adherence to the day's duty and long routine,—here are examples of will-acts, —specially exercised in themselves or in cause,—which effectively give the lie to the doctrine that man always acts under the compulsion of the most pleasurable object.

Determinists declare that free-will acts would be *causeless* acts. The statement is wholly false. The will

is the cause of its acts, and the motive which invites this cause to go into action is some particular *good* grasped by the intellect and presented to the will which allows the intellect to "hold steady" on that object and judge it finally as the thing to be willed. Shakespeare put into the mouth of Julius Caesar the proper answer to the objection based on "causeless actions": "The cause is in my will; I will not come. That is enough to satisfy the Senate."

Determinists shift the argument, admit that there is a cause for will-acts, and then claim that all causation is necessitated; hence, the will, while it is the cause of its acts, is not the *free* cause. We appeal to consciousness and the common sense of mankind to refute this assertion. We are clearly aware that we are the authors and the causes of our will-acts, and that we may consider before acting what we are to do, and then follow a course that is, indeed, finally chosen, but which might have been rejected in favor of another course, even its opposite.

Determinists say that we judge of the activities of other men as the outcome of their character and their circumstances. While it is true that character (which is that "bundle of habits" which a man has acquired through the years) (and circumstances have an influence, and even a great influence, on a person's choice, we deny that we regard this influence as a necessitating one.) Knowing the character of a man, and the circumstances in which he is placed, we may judge with

a greater or lesser *probability* what he will do. But, even so, we do not think or assert that he *must* act according to our judgment. We have noticed that the will is subject to influences; our point is that it is not subject to necessitation. Astonishing conduct on the part of those we "know inside out"; unexpected nobility in one of abandoned life; surprising generosity in a miserly person,—these are experiences that most of us have encountered sometime in our lives. In actions that are not fully deliberate, a man is guided by character and the immediate circumstances; but we are not discussing indeliberate action. In many deliberate acts, man is guided by character and circumstances; that is to say, he is influenced by these forces; but we are not speaking of influences, but of necessitation. A man of virtue may be counted upon to resist evil temptations, while a man of bad life may be counted on to give in to them; but in each fully deliberate consent to, or rejection of temptation a man, no matter what his strength or weakness, *freely* makes his choice. A free-will act is not necessarily an *easy* act; and even the weakest man in the face of the strongest temptation can take his stand and offer effective resistance. (We make no account of grace here, for, while it is necessary, it is furnished always in sufficient measure.)

Determinists say that the statistics of the sociologist and criminologist prove that there is a constant ratio between social conditions and human conduct. The

answer to this assertion is that it is not so. Statistics are valuable, but their value is not so inclusive as some sociologists would like to believe. They cannot touch the inner life of the individual man; they can only generalize about men in a group. They reach conclusions about a purely mythical figure,—handy for some purposes of social science,—called "the average man." Using statistics, we can make some general conclusions about a society or group, and these may be right in the main, but they do not preclude notable and numerous exceptions. The cities of the plain had pretty generally gone bad, yet some were virtuous in the midst of almost universal defilement. Even if statistics had the value which certain determinists would like to give them, they could show no more than the existence of certain strong influences and occasions for the sort of conduct they indicate. We all admit the power of "environment"; we all acknowledge the inducements held out by a community to bring its members into conformity with its preferred type. But none of these inducements, occasions, or influences, exercises a *necessitating* force upon the free-will. Out of the vilest communities men of rare nobility have often emerged, as out of the most favorable and uplifting "environments" have sometimes come the basest of mankind.

Determinists have sometimes taken a theological turn, and have urged that a man's will cannot be free because God knows what he is going to do at every

moment of his life. The answer to this apparent difficulty lies in the fact that God's knowledge does not necessitate man. I know what I am doing at this moment, but my knowledge of my activity is not the necessitating cause of it. I am *freely* doing what I am at because I choose to do it. A somewhat lame analogy may help the puzzled person who finds God's knowledge an obstacle to free-will. Suppose I stand on a high hill looking down upon a road which swings in a mighty curve about its base. I see two motor-cars on the road, one on either side of the hill, moving towards each other. Neither motorist yet sees the other; neither knows that he is about to pass another car. From my point of eminence I can see, and can thus *know*, that the cars will pass. But my knowledge has no effect on motors or motorists; it is in no sense *the cause* of their passing. The analogy, inadequate as it is, turns the mind to the point that should be stressed in this question of divine foreknowledge and human free-will. If it be urged that God's knowledge is not the detached knowledge of a human observer; that He is the first mover without which nothing and no one moves, we answer that God moves every being in accordance with its nature, and man's nature, being intellectual, is necessarily *free* with the freedom of choice. It would be ascribing imperfection to God to assert that He could not make a creature endowed with such freedom; and, of course, He could not do

so, were His perfect knowledge an obstacle to freely chosen action.

SUMMARY OF THE ARTICLE

In this Article we have learned the meaning of freedom or liberty. We have listed varieties of freedom: freedom of *independence*, freedom from *force*, freedom of *choice*; we have distinguished in freedom of choice the varieties called freedom of *contradiction*, freedom of *contrariety* (which, while found in the human will in this life, is an imperfection consequent upon human limitations), and freedom of *specification*. We have also listed the varieties called *civil*, *religious*, *personal*, *domestic*, and *industrial* liberty or freedom. We have explained at length the meaning of *human freedom* (or the *freedom of the will*) and have proved that man possesses this freedom. We have rounded out our study of the will by considering the fallacious objections brought by *determinists* against the fact of free-will in man.

APPENDIX

ON SLEEP AND DREAMS

Sleep is a more or less perfect suspension of the activities of sentient life. Aristotle called it a *binding up of the common sense* (that is, of sentient consciousness). Since, in man's earthly life, intellect is extrinsically dependent upon sentiency, the *binding up* of sentient consciousness involves the suspension of normal rational consciousness. Further: the sentient consciousness is that "awareness" which renders serviceable all activities of the interior and exterior senses, and these activities are a constant drain upon its resources. Therefore it is to be expected that a period, more or less protracted, should sometimes be allotted by nature to the restoration of force and vigor in this much-worked faculty. In addition to the fatigue which affects the central or common sense (consciousness) there is that of the sense-organs, nerves, and muscles, which is experienced in the sentient portion of the central axis. Now, the brain is the organ of the central sense and the focus, so to speak, of nervous and muscular activity. It is quite natural therefore that the brain should relax for rest and recuperation; and that this occurs in sleep is manifested by the fact that the head grows heavy and tends to fall forward when a person is sleepy.

Sometimes the senses other than sense-consciousness are active when a person sleeps, as the internal sense of imagination, and that of memory, are when we dream, and as outer senses are when we talk or walk or toss about in our sleep. Here again we have evidence that it is, first and foremost, the sense-consciousness or common sense which is affected by

sleep. Sleep may rightly be said to consist essentially in the suspension of sense-consciousness.

Sleep is *natural* when it results from the fatigue of the sentient powers, nervous and muscular. It is *artificial* when the organ of sense-consciousness (the brain) is rendered inoperative by the action of drugs (ether, chloroform, alcohol, etc.) or is dulled by uniform sense-impressions continuously repeated, or is brought under the influence of suggestion and command as in the case of hypnosis.

Dreams are representations of imagination, and even of intellect, which occur (together with the pertinent stirring of appetencies) in sleep. Imagination may be said to take over the function of the outer senses, and, sense-consciousness being almost entirely suspended, to supply to the intellect impressions which are taken for reality. As St. Thomas points out, the intellect in its present state of extrinsic dependency on the senses, takes impressions which come through the imagination as *real* unless it has the "check up" of normal operative sentiency (i. e., wakeful consciousness) to prevent error. And, in sleep, imagination may be active, as may sentient memory which regularly works with imagination, and may produce images under the purely automatic course of a haphazard line of associations. From all this we understand how dreams may appear so very real, and, even though they present absurdities and impossibilities to the mind, how these are not fully recognized until the dream is recalled (if it be recalled) during wakefulness. Outer influences doubtless stir the imagination and contribute to the "associations" which guide its automatic progress during dreams. The external senses may be unconsciously operative, at least partially; a single sense-impression which makes its way to the imagination, in the absence of the crowding complexity of normal perceptions, is likely to be received in a wholly disproportionate and exaggerated manner: thus a slight snapping sound may enter our dream-experience as a great explosion; thus the pressure of an unaccustomed amount of bed-clothing may induce the dream-

impression that one is caught under the weight of a falling building. Again, the matter of fact manner in which the dreamer accepts absurdities, such as the presence of monsters, or the long dead, or the activities of unheard of monsters, or the conducting of rational conversations with a dog or cat, are explained in the fact that the normal activity of intellect is thwarted by the absence of normality in sentient impressions; physiologically, we explain the matter, with Warren, thus: ". . . in sleep many of the centers are cut off from one another, and we are often unable to associate the given experience with our built-up store of memories." Dreams often proceed in a fairly logical manner, but more often they are tissues of amazingly unlike, and apparently disconnected, phantasms. I may dream that I am standing before a vast throng addressing them on some burning issue; immediately I may find myself in a small boat far at sea; then, without any recognized transition, I am impatiently wondering whether the train will be on time. I converse casually with persons never encountered, and with friends long years in their graves. I may meet with historical personages who lived centuries ago and go with them to a showing of the latest motion-picture. Wild and fantastic as these dream-experiences are, it will be interesting for most of us to compare them with the idle excursions of fancy during listless wakeful moments, or even with the astoundingly angular and disconnected course followed by the casual chat of a few talkative friends.

Dreams are singularly volatile, and unless they are remembered and attentively "gone over" soon after the dreamer wakes, they fade from his remembrance very rapidly. Some dreams, especially those of a fearsome character, may leave a lasting memory, but most do not. We are probably entirely justified in saying that everyone dreams, and the person who declares that he does not dream is merely one who does not remember his dreams. On the other hand, it seems certain that the more or less common notion that a sleeper "dreams all the time" is entirely false.

Sigmund Freud (1856-). Jewish-Austrian psychiatrist,

makes dreams a most important element in his psychology of the subconscious. He teaches that when we are awake and in our normal state, we tend to remove from our attention, and our consciousness, thoughts that would be painful or distressing. But, he maintains, these thoughts are only "shoved under the surface"; they continue to be a part of our *subconscious* life. During sleep, the subconsciousness rises to the level which consciousness holds in wakeful hours; it *asserts itself* in dreams; it releases the inhibitions which it caused and held when consciousness was in command. Thus dreams are often expressions of "repressed desires," and of the wishes or "complexes" that could not be realized in wakeful life. Freud's studies of dreams are interesting and not without value. Unfortunately, he spoils what might have been at least a quasi-scientific investigation by reducing almost all complexes to some form of instinctive sexuality. His studies are therefore morbid, and become not so much the objective investigation of the minds of men as the portrayal of an ugly prepossession in the mind of Freud. The Freudian system of "analyzing" minds,—especially through the medium of studying and interpreting their dreams and reveries,—is known as *psychoanalysis*.

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